



Under the Big Sky e-Letter Sept 21, 2010

Frost and Freeze Warnings: A weather spotter recently emailed a question on why we don't issue Frost or Freeze Warnings. It has to do with the variability in terrain around these parts. Our valley locations always see the frost well before higher terrain. If we were flatter (I know, those folks in the Northern Rockies think we are in the flatlands out here, but they are wrong!), the distribution of frost and freezes would be equally distributed across our area. With our terrain, it may actually be over a few weeks time before every location within a county sees the frost or freeze.

But, for those who are concerned and are watching the weather closely, here are a few suggestions:

1. Listen to your area forecast on the local radio stations. If the temperature is 40 or less, and you live in a low elevation area (ie. you live along the valley of the Missouri River, not the bluffs), expect that frost is possible. Cold air sinks at night, and river valleys and bottoms are notorious for freezing well before most of our area towns do.
2. The NWS forecasts every 2.5 by 2.5 kilometers. So, you can go to our website, and click on your location, and get a forecast specifically for that point. We have tools built in that account for terrain (big impact on temperatures, precipitation type, and winds even). You can access those forecasts at: <http://www.wrh.noaa.gov/ggw/>

And lastly, some people prefer tabular forecasts to text ones. Check out the forecasts (still 2.5x2.5 Km) at:

<http://www.wrh.noaa.gov/forecast/wxtables/?wfo=ggw>

Ice on roads: The photo of the month is a reminder that winter is almost upon us, especially after the snowy surprise we had last Friday. Glendive wins for the most snow accumulation at about 1.5 inches, thanks to spotter Alan Clapp for the photo! We lose more people in Montana to winter driving accidents than any other weather event combined. Driving slower would drastically help reduce those statistics, but staying home during a major storm would be the best solution. Dan Robinson, a weather enthusiast from West Virginia, started looking into icy roads a few years ago, and developed a great web resource at: <http://icyroadsafety.com> I highly recommend taking a few minutes and going through the website to prepare yourself for this winter.

What dangers are there with icy roads? Can you name at least 5 of the 11 hazards he has? <http://icyroadsafety.com/dangerzones.shtml>



Do you know what to do when your car is sliding? How about your family members, especially those new teenage drivers in the household? He also has some great tips to remember when driving in winter with roads that may have ice on them: <http://icyroadsafety.com/tips.shtml>

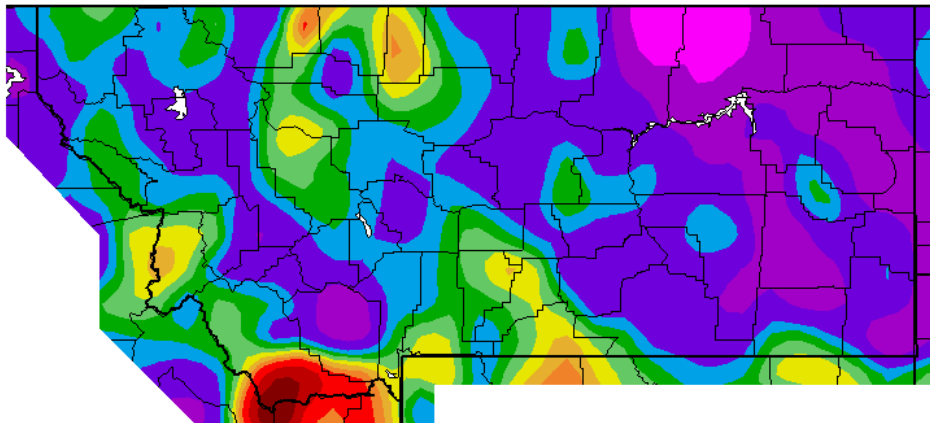
Area Climate information:

With all the calls we've taken from farmers recently about how green it is, and their inability to get out into the fields, I thought I would do some checking of data. Glasgow is currently the 6th wettest year on record (and we still have just over 3 months to go!) It's the third wettest period from Jan 1-Sept 19. I thought I would also compare a few other locations around the area as well, here are some preliminary stats on how they rank this year:

Location	2010 Ranking	Total this Year
Port of Morgan	1	16.05"
Port of Raymond	7	17.70"
Glasgow	6	15.70"
Sidney	14	16.86"
Wibaux 2E	15	17.20"
Culbertson	16	17.05"
Fort Peck	11	14.56"
Glendive	20	17.01"

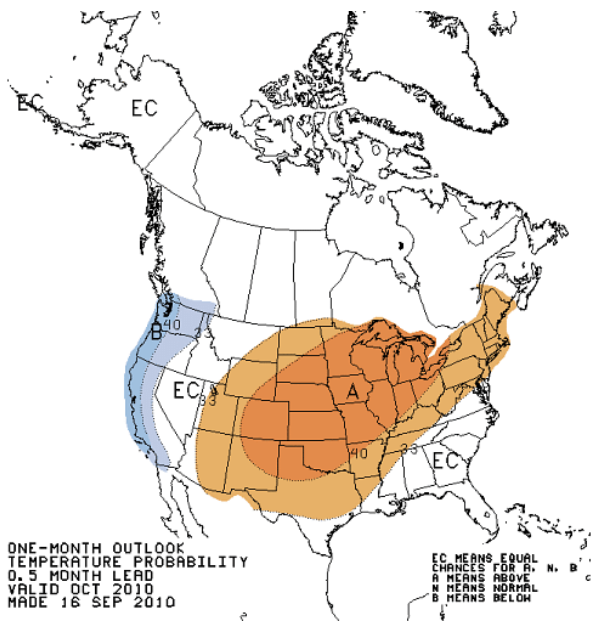
Below is a graphic showing the last six months of precipitation departure from normal:

Percent of Average Precipitation (%)
3/19/2010 – 9/18/2010

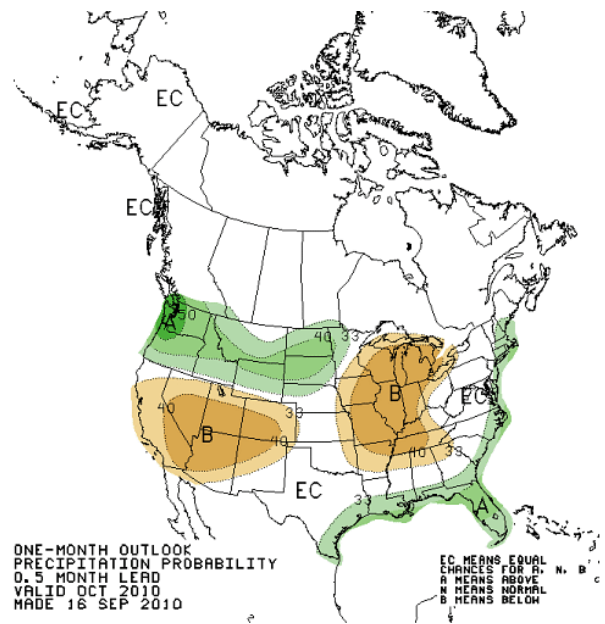


25 50 70 80 90 100 110 120 130 150 175
Generated 9/19/2010 at WRCC using provisional data.
NOAA Regional Climate Centers

Climate Outlook: La Nina continues to strengthen in the equatorial Pacific. The winter weather outlook (Dec/Jan/Feb) remains colder than normal with equal chances of above/below normal precipitation. Below is the October outlook, which may be the last time for quite some time when we see above normal in eastern MT. Notice the above normal precipitation for much of Montana in October as well.



Temperature Outlook for October



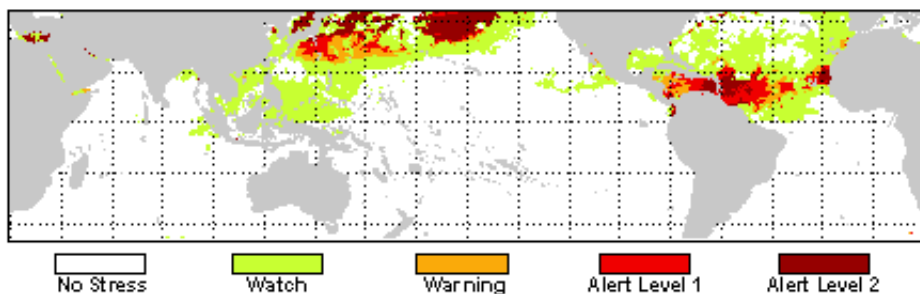
Precipitation Outlook for October

NOAA News:

Coral Reefs and Temperatures: One of the largest coral reefs in the world is the Great Barrier Reef near Australia. New research has found that warmer water temperatures increase the rise of coral disease, and that it can occur not just in summer, but with warmer winters as well. NOAA has a program that issues alerts for Coral Bleaching problem areas:

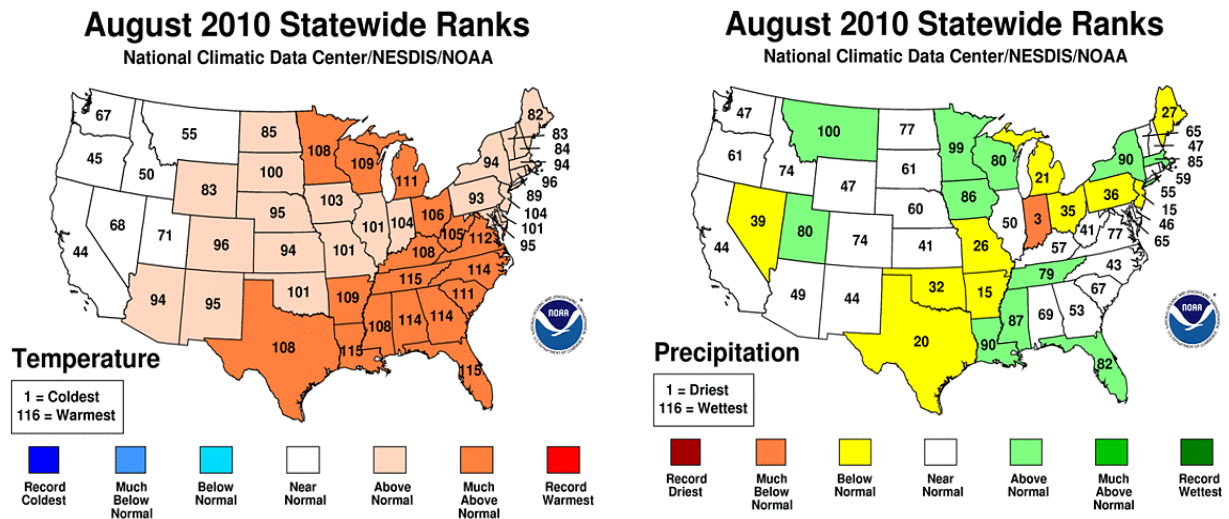
http://www.noaanews.noaa.gov/stories2010/20100916_coraldisease.html

NOAA CRW Satellite Coral Bleaching Alert Area 20 Sep 2010



4th Warmest Summer on Record for US: While Montana was pretty much near normal in August for temperatures, the precipitation was the 16th wettest on record across the state. The southeast US saw very warm temperatures while precipitation varied greatly across the US, with some states below normal right next to above normal states.

http://www.noaanews.noaa.gov/stories2010/20100908_augtemps.html



2010 Tied with 1998 as Warmest Global Temperature on Record/Arctic Sea Ice continues 14 year decline:

http://www.noaanews.noaa.gov/stories2010/20100915_globalstats.html Some of the highlights from the article above include:

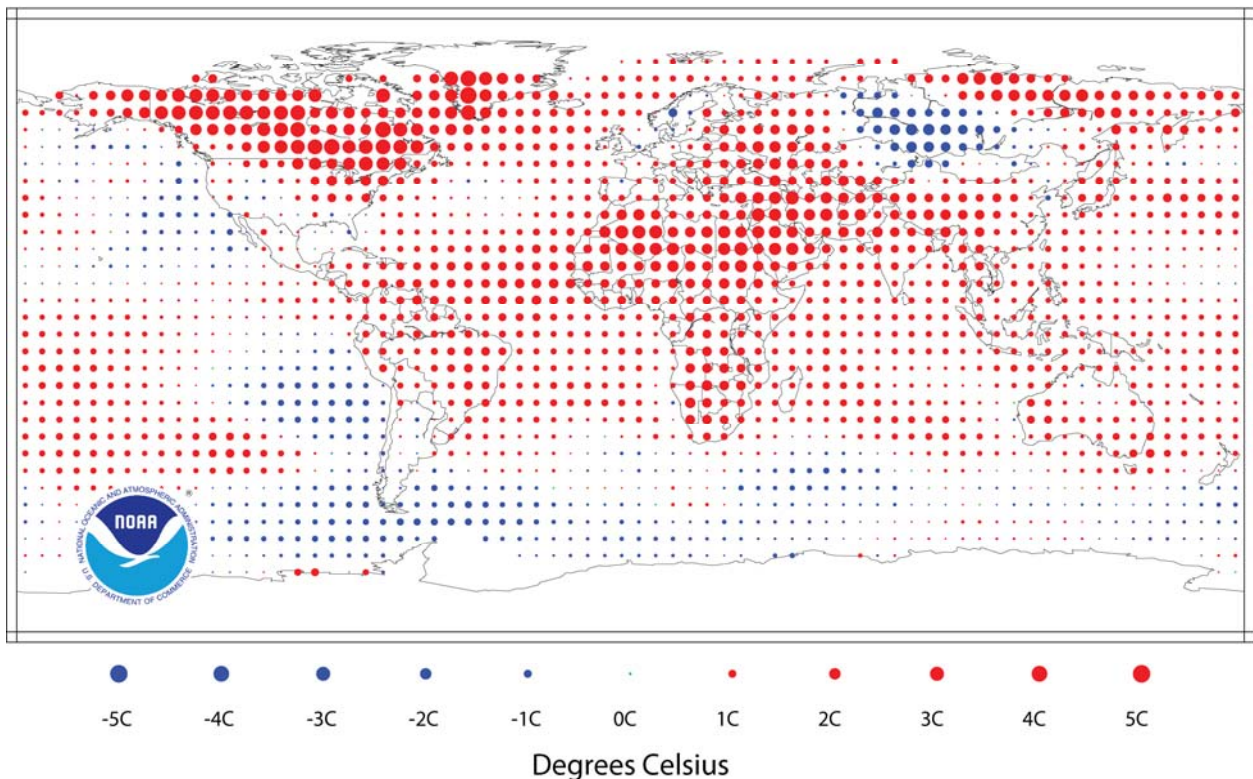
- For January–August 2010, the global combined land and ocean surface temperature of 58.5 F (14.7 C) tied with 1998 as the warmest January–August period on record. This value is 1.21 F (0.67 C) above the 20th century average.
- The combined global land and ocean surface temperature for August 2010 was the third warmest on record at 61.2 F (16.2 C), which is 1.08 F (0.60 C) above the 20th century average of 60.1 F (15.6 C). August 1998 is the warmest August on record and 2009 is the second warmest.
- Arctic sea ice covered an average of 2.3 million square miles (6.0 million square kilometers) during August. This is 22 percent below the 1979–2000 average extent and the second lowest August extent since records began in 1979. The record low August was set in 2007. This was the 14th consecutive August (1997–2010) with below-average Arctic sea ice extent.

- Antarctic sea ice extent in August was 4.1 percent above the 1979–2000 average, resulting in the largest August sea ice extent on record. The previous record was set in August 2000.
- According to the German Meteorological Service, Deutscher Wetterdienst, Germany had its wettest August since 1901.
- According to Australia’s Bureau of Meteorology, the continent received an average of 26.6 mm (1.0 inch) of precipitation during August 2010 — this is 42 percent above the 1961–1990 average. Regionally, Victoria had its wettest August since 1981, the Northern Territory had its wettest August since 1975 and Queensland had its wettest August since 1998.

Temperature Anomalies Jan-Aug 2010

(with respect to a 1971-2000 base period)

National Climatic Data Center/NESDIS/NOAA



Weather in the News:

Hurricane Igor passes over Bermuda: This tourist location was hit over the weekend with a Category 1 Hurricane.

<http://www.msnbc.msn.com/id/39255502/ns/weather/>

8 Costliest Hurricanes of the 2000's: I'm sure you all can name the #1 costliest Hurricane without batting an eye, but how about #2, #3 etc? Take a look at the list, and see where they rank:

<http://www.environmentalsciencedegrees.net/blog/2010/8-costliest-hurricanes-of-the-2000s/>

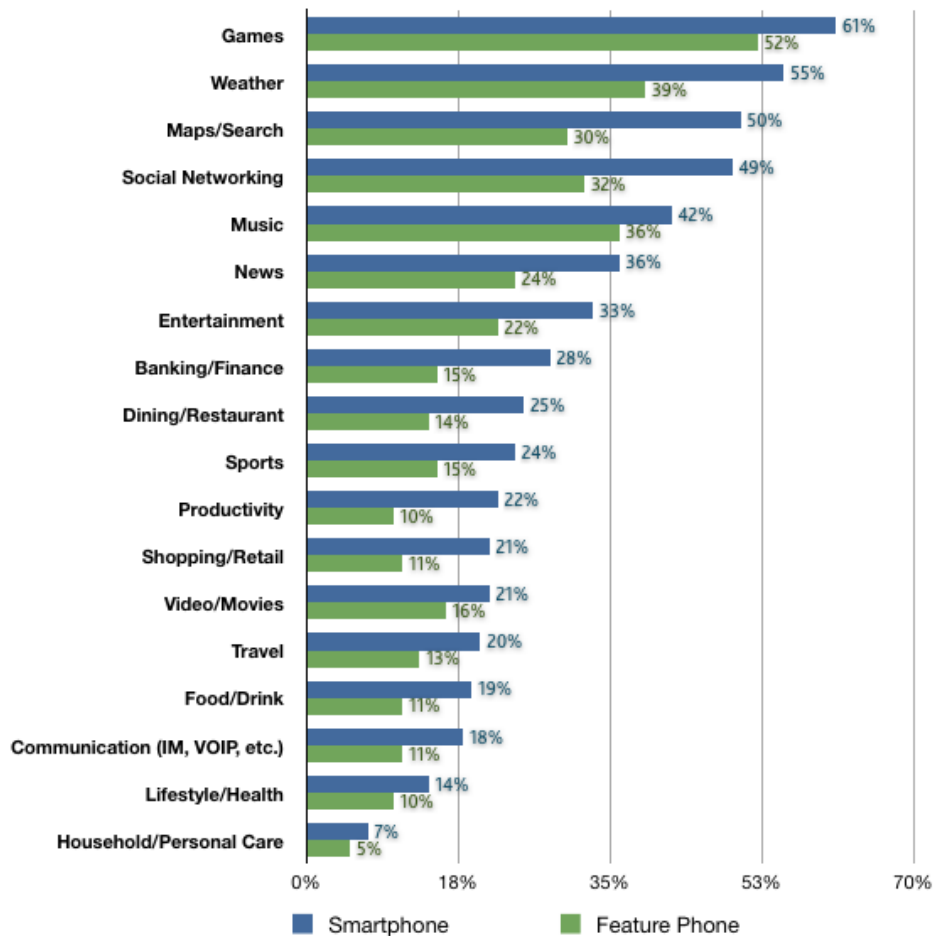
India Floods leave a half million homeless:

<http://www.reuters.com/article/idUSTRE68J2KP20100920>

Do you have a smart phone? If so, do you have a weather app for your phone? According to The Nielsen Company, weathers apps are the second most popular type of app (next to games!). I'm still looking for the perfect weather app though, I have four of them I use to get the information I want! (I know, I know, I'm a weather geek!)

Most Popular Categories of Apps

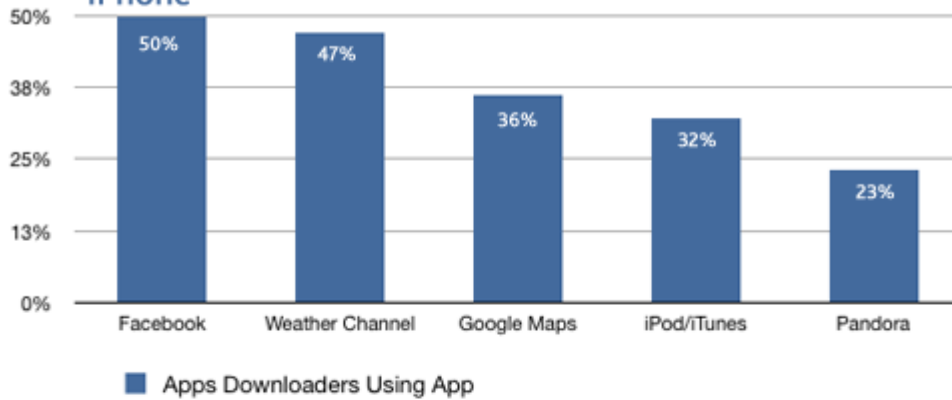
(Among those who report having downloaded an app in the last 30 days)



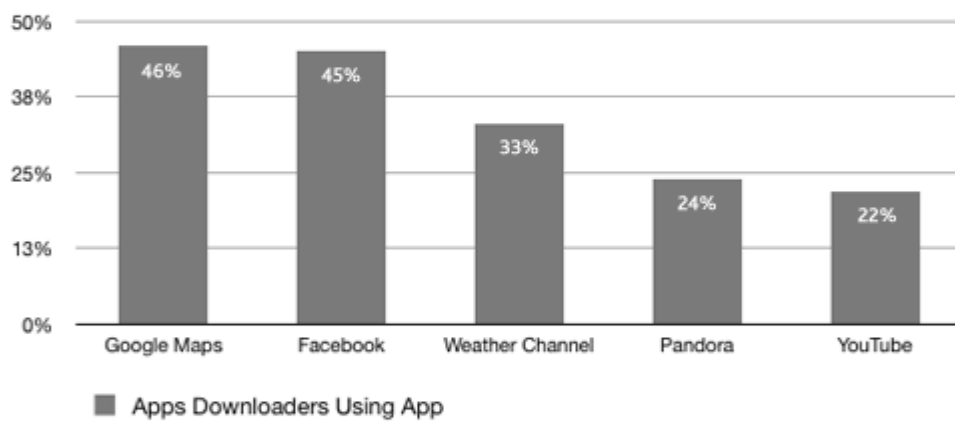
August 2010
Source: The Nielsen Company

Most Popular Apps by Operating System/Device

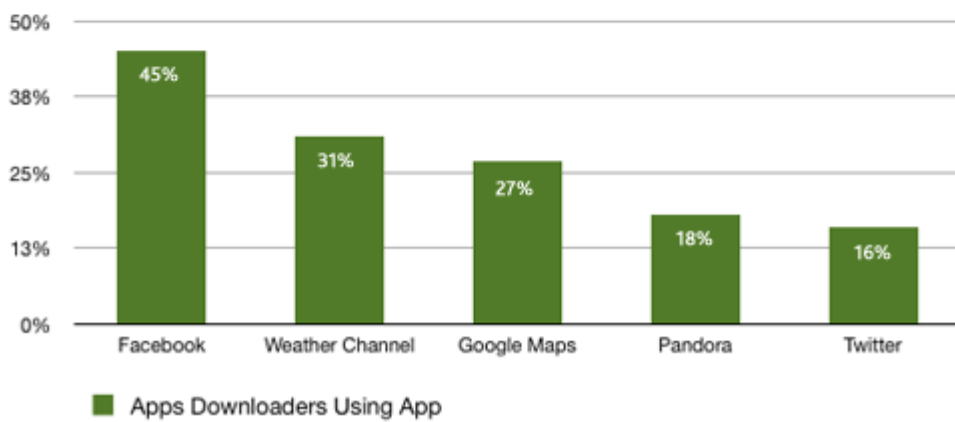
iPhone



Android



Blackberry

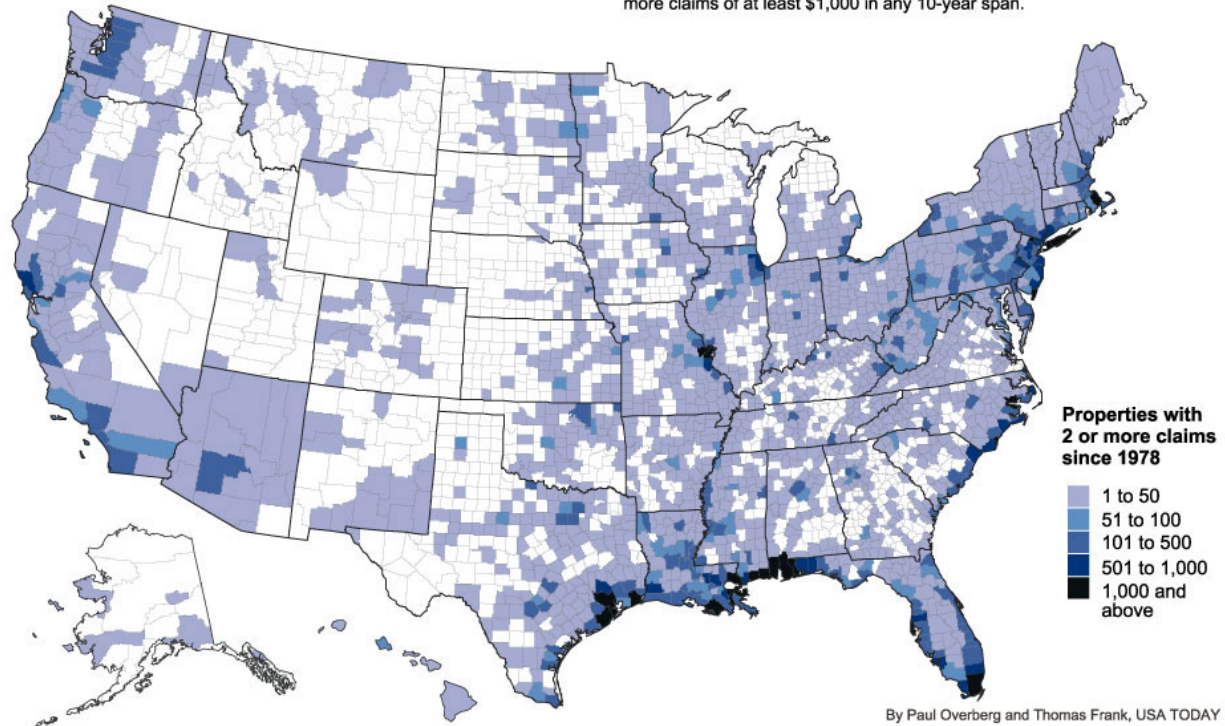


Flood Prone locations in US: USA Today recently printed a map of the locations that have had the most National Flood Insurance Program claims throughout the U.S. In northeastern Montana, you see that both Phillips and Valley County make the list. <http://www.usatoday.com/news/nation/flood-insurance-map.htm>

Frequent flooding drains insurance fund

Repeatedly flooded properties have cost a federal insurance program \$11 billion in claims since 1978 and are a huge drain on the taxpayer-supported

insurance fund. This map shows counties with the most "repetitive-loss properties," a FEMA term for a home or commercial building with two or more claims of at least \$1,000 in any 10-year span.



NYC has two tornadoes! As I was working an evening shift last week, I noticed that NYC had tornado warnings out. Considering the population, that only one fatality occurred was incredible. Macroburst winds associated with the storms were estimated to have been at 125 mph!
http://www.usatoday.com/weather/storms/2010-09-17-new-york-city-storm_N.htm