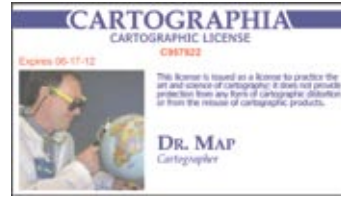


Ask Dr. Map!



Dear Dr. Map,

Q: How can I find out solar times, such as sunrise and sunset, for any location I want?

A: Dr. Map recommends the NOAA Solar calculator, on the web at www.esri.noaa.gov/gmd/grad/solcalc. Through a GoogleMaps-like interface, you can find any place on Earth, then solve for solar noon, sunrise, or sunset times. For example, I set the city parameter to Washington, D.C. and the date to June 9th, 2010, and got the sunrise of 04:43 and apparent sunset of 19:32, for a length of day of 14 hours and 49 minutes at 38.88° north. On the solstice (June 21st), the day length is only five minutes longer and the sunrise is at the same time, so we're close to the "longest day." Note that the equation of time is rather tricky; you need to know your time zone, position, and daylight saving time status.

Q: How has the recession changed the population distribution in the U.S.?

A: The recession, which formally started in December 2007, has so far cost the U.S. economy some eight million jobs. Many of these, and the numerous home foreclosures, have forced people to move location, and these moves are starting to show up on maps. New Census data released in March show a rapid shift in migration in the worst months of the recession, from July 2008 to July 2009, away from the Sunbelt states. Many people have decided to stay put or to move back to where they came from.

An interactive on-line map by the Wall Street journal allows you to explore the trends over time, and to see the migration data for any particular U.S. city. [See: <http://online.wsj.com/article/SB1000142405274870421170>

4575140132450524648.html#articleTabs%3Dinteractive]. Big losers have been New York and Los Angeles, while some modest population gains have taken place in Texas, Atlanta, and elsewhere.

The continued housing foreclosure situation, mapped nicely by RealtyTrac at <http://www.foreclosurepulse.com/blogs/mainblog/archive/2009/08/12/os-the-foreclosure-dam-starting-to-break.aspx> shows the number of foreclosures in July 2009 as a proportion of all housing units, ranging from a low of about 1 in 63,290 to a high of 1 in 38.

The worst spots? California, Nevada, Arizona, and the Pacific Northwest coast. Other bad patches are Southern Michigan, Florida, and cities from Colorado to Maine. Dr.

Equation of Time (minutes):	Solar Declination (degrees):	Apparent Sunrise:	Solar Noon:	Apparent Sunset:	Current Az/El (degrees):
0.74	22.96	04:43	12:07:23	19:32	126.13 66.29
Show on map:		Sunrise <input type="checkbox"/>		Sunset <input type="checkbox"/>	Current <input type="checkbox"/>

Map wishes there were better news to share, but meanwhile, at least we can map the misery!

A few minor bright spots are the top ten places where house values are rising: McAllen, TX; Rochester, NY; Birmingham, AL; Syracuse, NY; Buffalo, NY; New Orleans, LA; Scranton, PA; Grand Rapids, MI; Baton Rouge, LA; and El Paso, TX. In most of those places, your housing dollar will still go quite a long way.

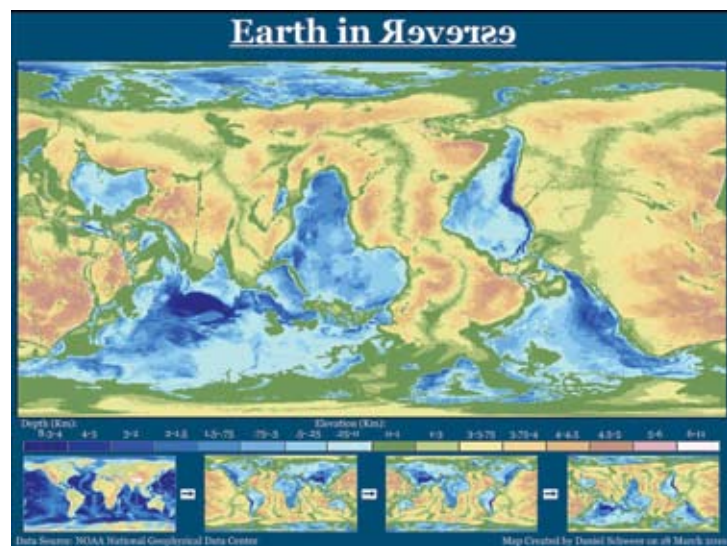


tor Bayou." This is a pattern of French-origin "long lots" that follow the Mississippi River and a tributary which, when shown together, make up a pattern resembling the jaws of an alligator.



Other top ten entries included a map showing the spatial distribution of missed love connections posted in the "I-Spy" section of a free newspaper from Burlington, Vermont; the U.S. map shown as a celestial star map; and many others.

Dr. Map enjoyed the "Earth in Reverse," a world map showing terrain colors upside down and backwards. The Bizarre Map Challenge competition was supported by the National GeoTech Center and San Diego State University. Credit for the idea and the execution go to Ming-Hsiang Tsou, a faculty member at SDSU. Dr. Map approves of bizarre maps, and laments that there are too few of them to lighten up one's cartographic day.



Dr. Map has a PhD and a cartographic license. Send questions to Dr. Map at askdrmap@cox.net or visit him on the web at <http://www.drmap.info>