

# Sage Winds

Volume 2, Issue 1

August 2009

Serving National Weather Service Spotters and  
Cooperative Observers

**Inside this  
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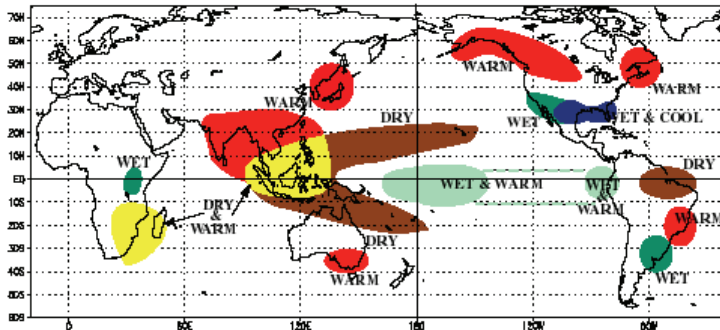
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## El Niño Watch Upgraded to an El Niño Advisory

El Niño conditions continue to strengthen in the Eastern Pacific prompting NOAA scientists to upgrade the El Niño Watch to an Advisory. El Niño is the periodic warming of the central and eastern tropical Pacific Ocean and typically occurs every 2-5 years lasting around 12 months. The current El Niño is expected to last through at least winter 2009-10. The most recent El Niño occurred in 2006.

Positive impacts of El Niño to the United States include a suppression of the Atlantic hurricane activity, beneficial winter precipitation to the arid Southwest, less wintery weather across the North, and a reduced risk of Florida wildfires. Negative impacts include damaging winter storms in California and increased storminess across the southern United States.

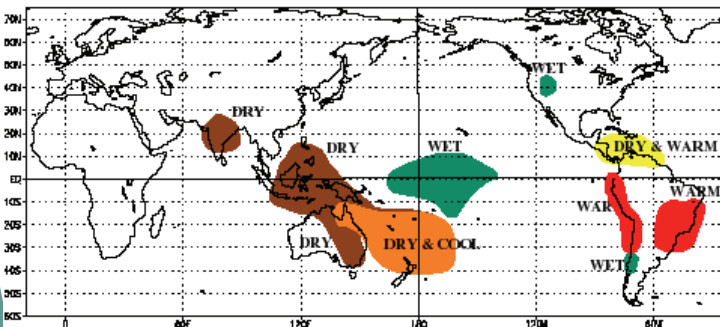
### WARM EPISODE RELATIONSHIPS DECEMBER - FEBRUARY



Left: How El Niño affects global weather patterns

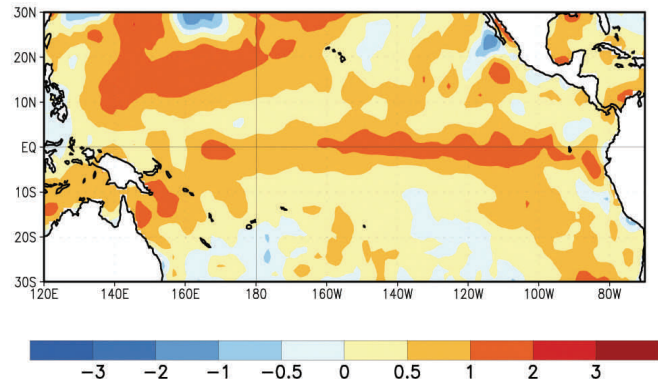
Below: Sea Surface Temperature Anomalies in degrees Celsius across the Pacific Ocean as of July 1, 2009

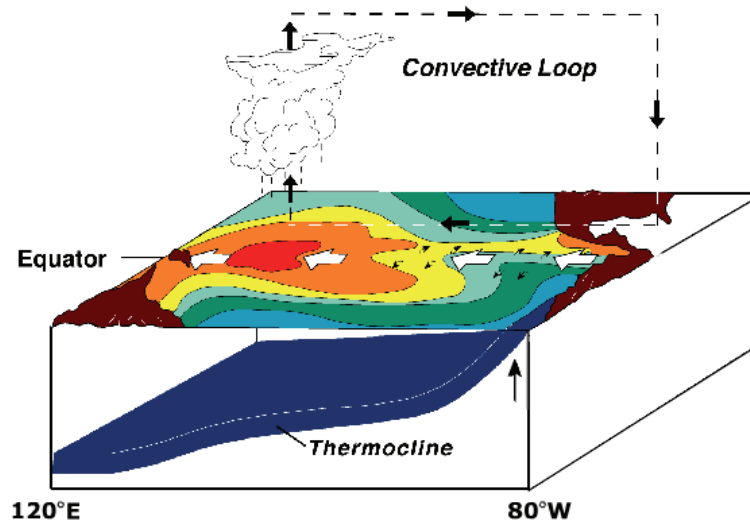
### WARM EPISODE RELATIONSHIPS JUNE - AUGUST



SST Anomalies (°C)

01 JUL 2009

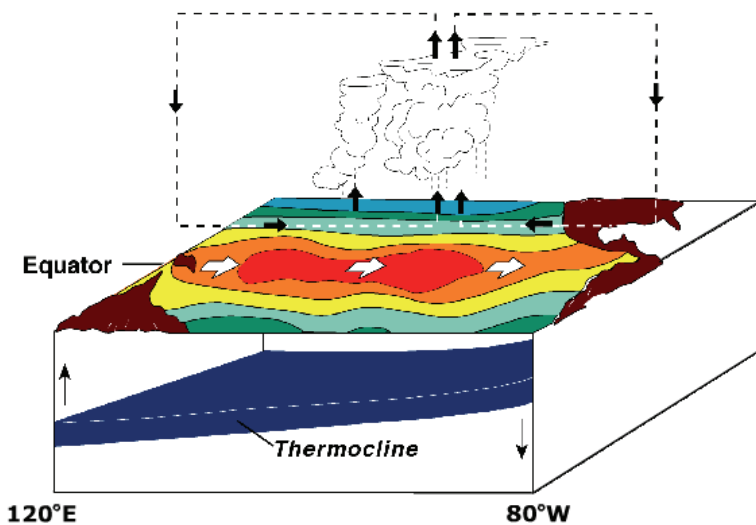




**ENSO (El Niño Southern Oscillation) neutral conditions**

- ◆ The thermocline is the layer where the greatest temperature change takes place. Think of it as a boundary between the warmer mixed-up water near the surface and the cold and calm water deeper in the ocean.

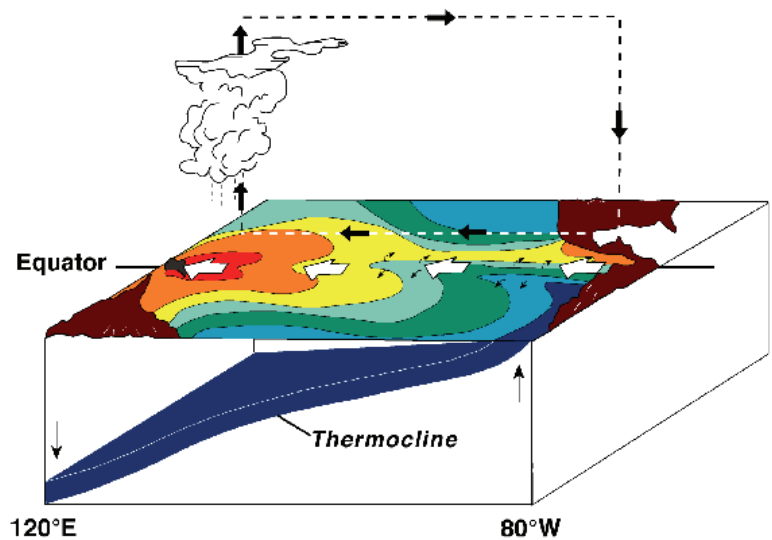
**El Niño Conditions**



- ◆ Trade Winds become weak and sometimes reverse
- ◆ Low level circulation reverses bringing an increase of warm water into the Central and Eastern Tropical Pacific
- ◆ Thermocline tilt weakens
- ◆ Convection shifted toward Central Pacific, with descending stable air bringing drought to the Western Pacific
- ◆ Lessened tropical cyclone activity in the Atlantic

**La Niña Conditions**

- ◆ Trade winds strengthen
- ◆ This pushes the warmer water toward the Western Pacific with cold water upwelling in the Eastern Pacific
- ◆ Thermocline become sharply tilted
- ◆ Increased tropical cyclone activity in the Atlantic
- ◆ Convection becomes stronger over the Western Pacific



## CoCoRaHS Corner

Because Every Drop Counts!

### What is CoCoRaHS?

The Community Collaborative Rain, Hail, and Snow (CoCoRaHS) network is a non-profit organization of volunteers who take daily rain, snow, and hail measurements in their own backyards. These measurements are entered online daily at [www.cocorahs.org](http://www.cocorahs.org), where they may be accessed by meteorologists, hydrologists, water resource managers, emergency managers, farmers/ranchers, and more!



### History of CoCoRaHS...

CoCoRaHS was started by the Colorado Climate Center (Colorado State University) in 1998, after localized flash flooding devastated portions of Fort Collins. Over the past decade, CoCoRaHS has quickly expanded to all but three U.S. States. Currently, Oregon and Idaho have 592 and 104 registered CoCoRaHS observers, respectively.

### Who can participate?

Anyone with internet access and an enthusiasm for weather! CoCoRaHS volunteers span all walks of life. Some of our local observers include: retirees, teachers, government employees, ranchers, SkyWarn spotters, and parent-child observing partnerships. A 4-inch rain gauge is also required (which may be purchased through the CoCoRaHS website), along with a willingness to take consistent observations.

### To Learn More...

Go to the CoCoRaHS website ([www.cocorahs.org](http://www.cocorahs.org)) and click on "About Us" under the *Main Menu*. This site has more information on the origins of CoCoRaHS, sponsors of the program, and details about the programs mission.

### To Sign Up...

Click on "Join CoCoRaHS" under the *Main Menu* of the CoCoRaHS website. This site will give you step-by-step instructions on becoming an official observer!

# [www.cocorahs.org](http://www.cocorahs.org)

\*\*All information is kept strictly confidential. You will show up on a map with a station ID, but no personal information will be displayed.\*\*

## Weather Links!

**National Hurricane Center:** <http://www.nhc.noaa.gov/>

**Storm Prediction Center:** <http://www.spc.noaa.gov/>

**Hydrometeorological Prediction Center:** <http://www.hpc.ncep.noaa.gov/>

**National Centers for Environmental Prediction:** <http://www.ncep.noaa.gov/>

**Climate Prediction Center:** <http://www.cpc.noaa.gov/>

**Western Region Climate Center:** <http://www.wrcc.dri.edu/>

**National Climatic Data Center:** <http://lwf.ncdc.noaa.gov/oa/ncdc.html>

**Reservoir "Teacup" Diagrams:** <http://www.usbr.gov/pn/hydromet/select.html>

**The latest national precipitation estimates:** <http://water.weather.gov/>

# Significant Weather Stories

**Typhoon Morakot** hit eastern Asia hard dumping nearly 100 inches of rain over parts of Taiwan. Many landslides and mudslides were reported in China and Taiwan with the death toll in the triple digits. See this link for details and amazing pictures: [http://www.boston.com/bigpicture/2009/08/typhoon\\_morakot.html](http://www.boston.com/bigpicture/2009/08/typhoon_morakot.html)

**The first named Atlantic tropical storms of the season...**Tropical Storms Claudette and Ana were down-graded to tropical depressions as they made landfall. Hurricane Bill continues to gain strength in the warm waters of the Atlantic and is expected to become a major hurricane. See this link for the latest forecasts: <http://www.nhc.noaa.gov/>

**The Outlook for the Atlantic Hurricane Season has been lowered:**

[http://www.noaaneews.noaa.gov/stories2009/20090806\\_hurricaneupdate.html](http://www.noaaneews.noaa.gov/stories2009/20090806_hurricaneupdate.html)



**August 2009 is the third wettest August in Boise in its 144th year of records!** The cold and wet storm that came through the area August 5-8 brought significant rainfall to the area totaling 1.75 inches at the Boise weather office! We would need 0.06 inch more to tie the number two spot, but would be hard-pressed to reach the all time record of 2.37 inches set back in August of 1968.

**US Corn and Soybean Crops Stunted By Unusual Weather:**

[http://www.bloomberg.com/apps/news?pid=20601087&sid=adT7YA\\_Dle4g](http://www.bloomberg.com/apps/news?pid=20601087&sid=adT7YA_Dle4g)

**Have you ever been curious what it would be like to study the global weather from the perspective of the moon?:**

[http://www.usatoday.com/travel/destinations/2009-08-15-alaska-state-museum\\_N.htm](http://www.usatoday.com/travel/destinations/2009-08-15-alaska-state-museum_N.htm)



## Ask a Forecaster!!

Have you had a burning weather question you always wanted answered? Send your question to [Dawn.Fishler@weather.gov](mailto:Dawn.Fishler@weather.gov) and your question and answer could be published in an upcoming edition of Sage Winds!

Please specify if you would like your name (first only) released with your question or if you would prefer to remain anonymous.

## National Weather Service, Boise

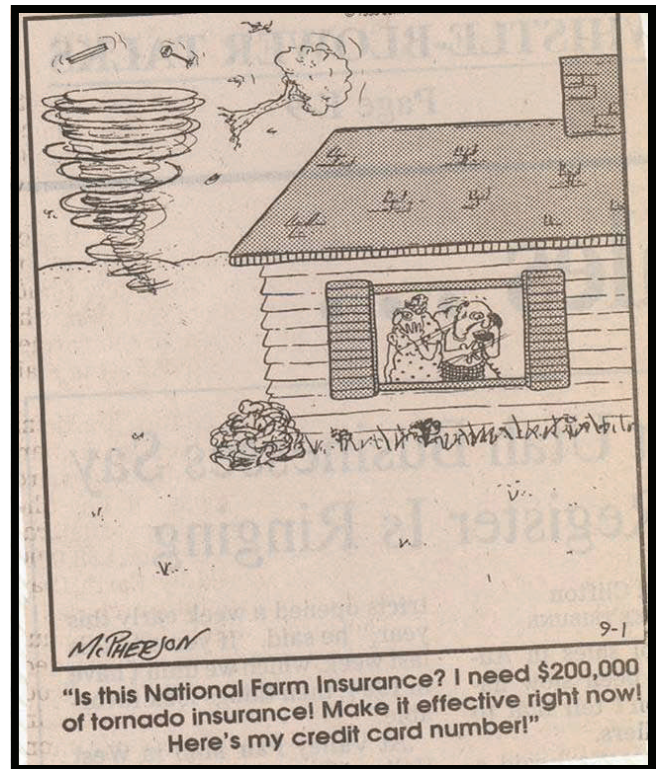


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Working Together to Save Lives!

[Weather.gov/  
Boise](http://Weather.gov/Boise)



Weather Humor Corner

## Newsorthy Headlines:

- **July 29, 2009:** Seattle reaches its all time hottest temperature on record with a high of 103 degrees at the airport! The previous record was 100 degrees set back on July 20, 1994. Vancouver, WA also set an all time record of 106 degrees on July 28, breaking the previous record of 105 set back on June 30, 1942. This record didn't stand long with a new all time record high of 108 degrees set the following day, July 29.
- With such great warmth in the Northwest, comes well below normal temperatures in the Northeast and Midwest. Many locations have had July temperature averages 3 to 6 degrees below normal. See graphic below.
- **Only 0.01 inches of precipitation caused havoc in a Chilean desert city:**

[http://www.usatoday.com/weather/storms/2009-07-21-chile-drizzle\\_N.htm](http://www.usatoday.com/weather/storms/2009-07-21-chile-drizzle_N.htm)

- 13 inches of rain fell in 12 hours flooding drought-stricken Bangladesh (and over 11 of those inches occurred in 6 hours)!:

<http://www.journalpioneer.com/index.cfm?pid=1632&cpcat=world&stry=286292832>

