

What is Happening to Our Weather?

Nolan Doesken
State Climatologist
Colorado Climate Center
Atmospheric Science Department

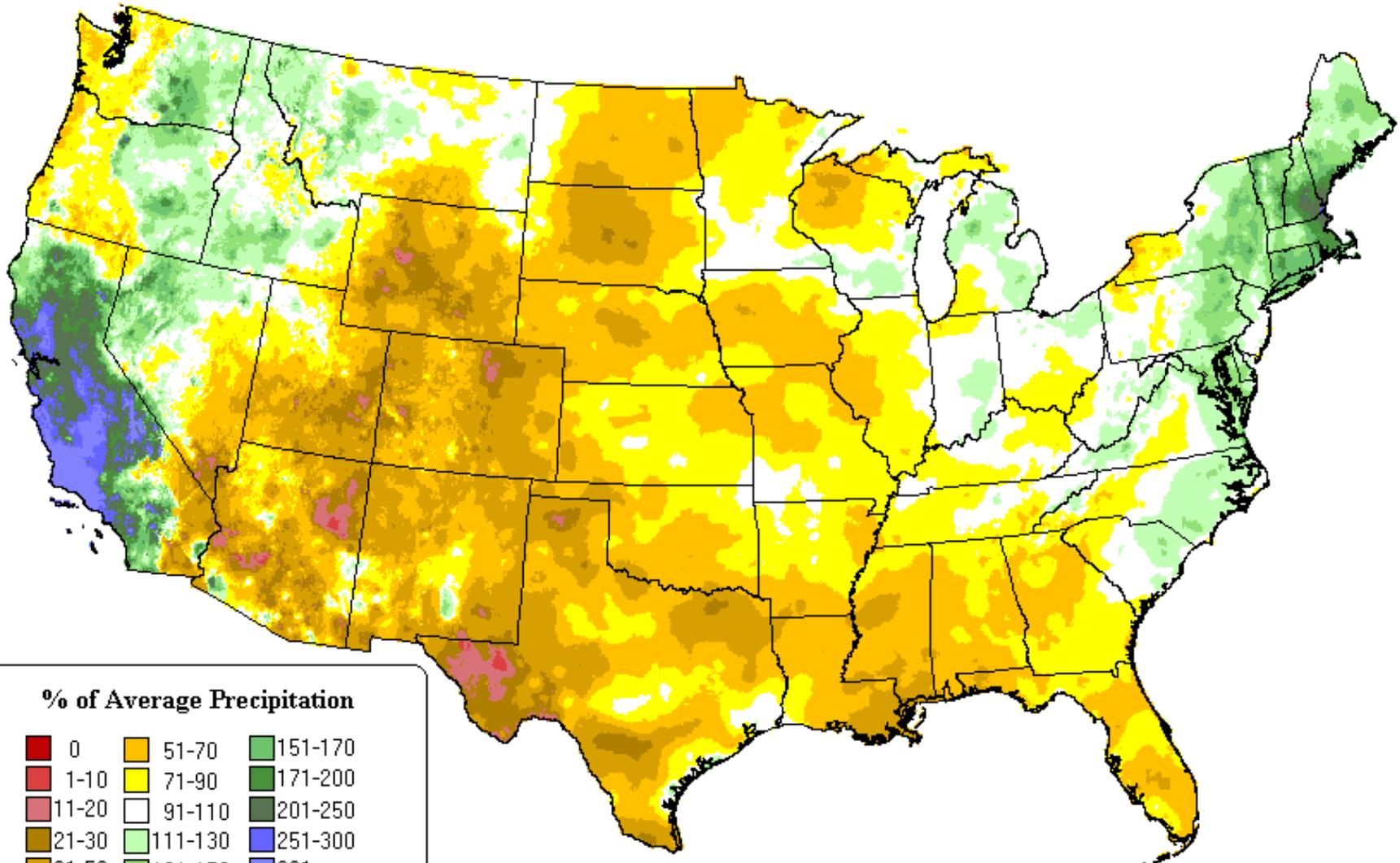
Presented 2007 Arkansas River Basin
Water Forum, April 13-14, 2007,
Rocky Ford, Colorado

What has happened since our last gathering?



April-June 2006 Drought

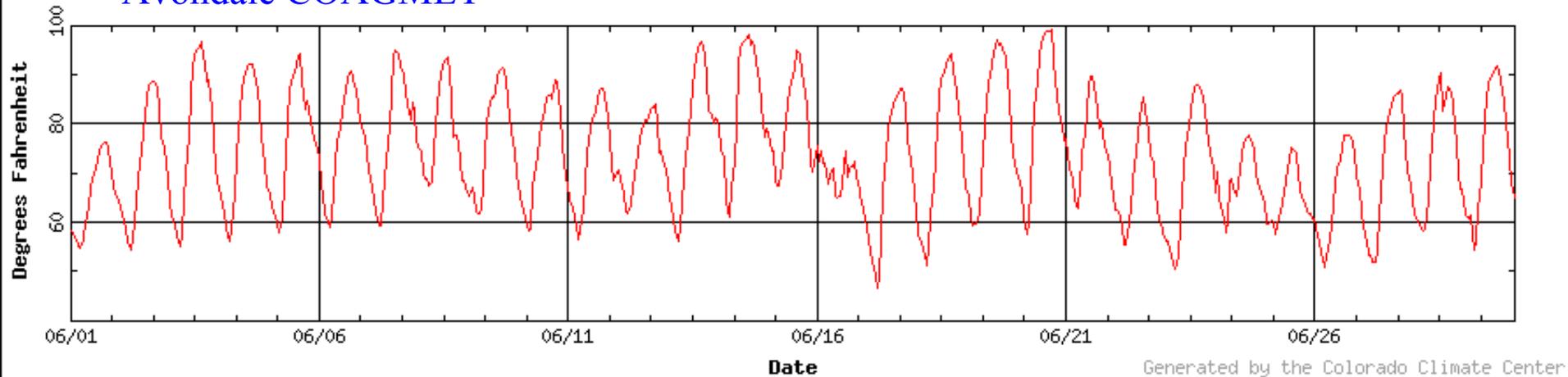
3-month Percent of Average Precipitation: Jun 2006
Provisional Data



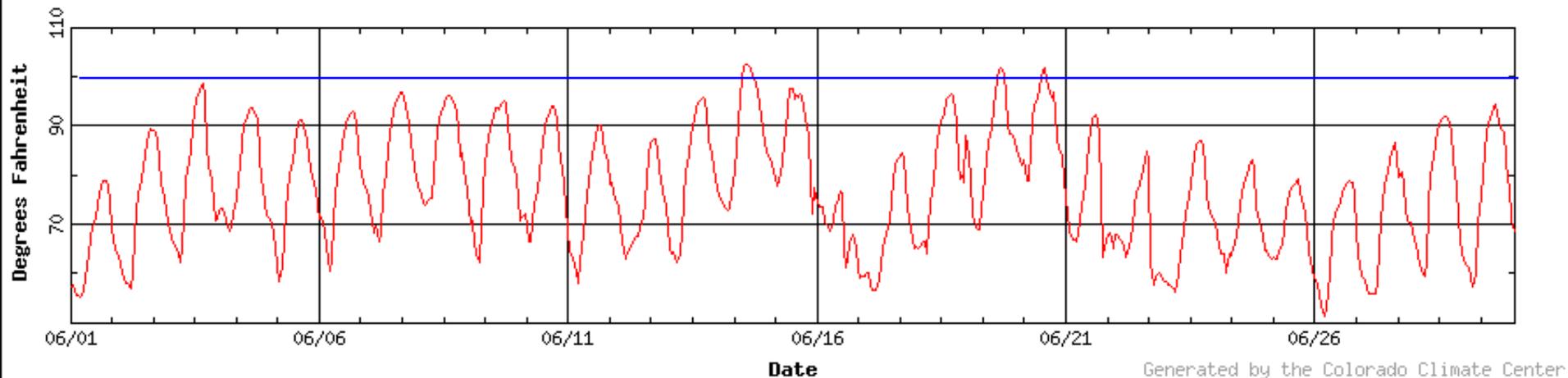
Copyright (c) 2006, Spatial Climate Analysis Service, Oregon State University
<http://www.ocs.oregonstate.edu/prism> - Map created Jul 20 2006

June 2006 – Hot!

Avondale COAGMET Temperature for AVN01 (06-01-2006 - 06-30-2006)

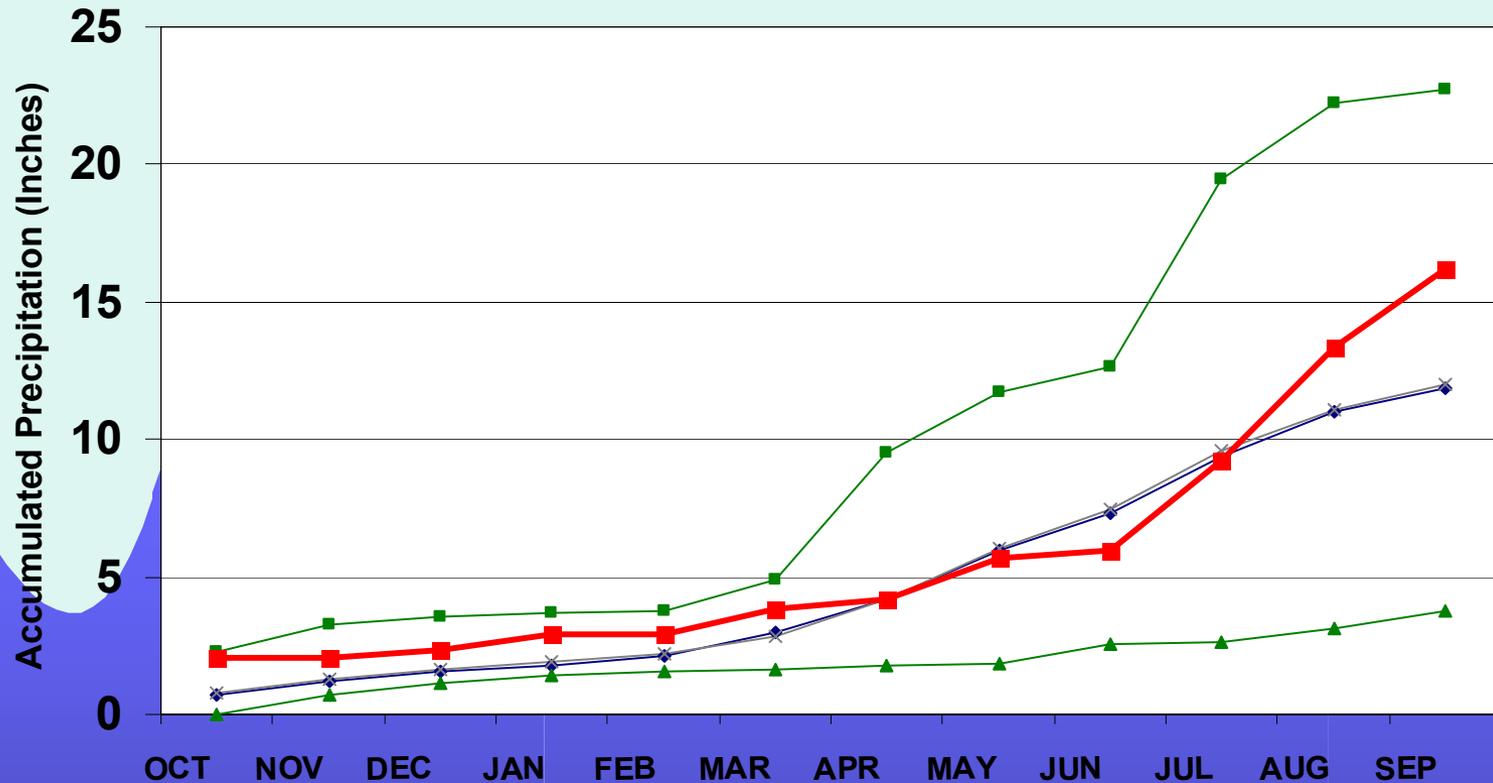
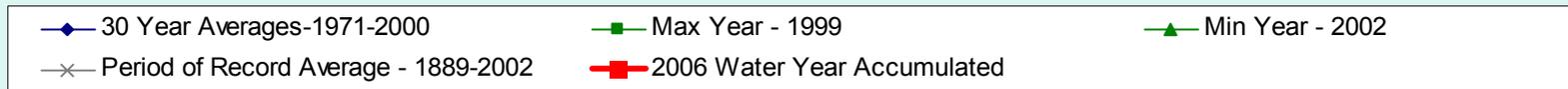


Lamar COAGMET Temperature for LAM01 (06-01-2006 - 06-30-2006)



July – Heavy Rains – it actually turned Green!

Rocky Ford 2006 Water Year



**Fall – Cool and Wet
(still a little green)**



November – Nice Weather!

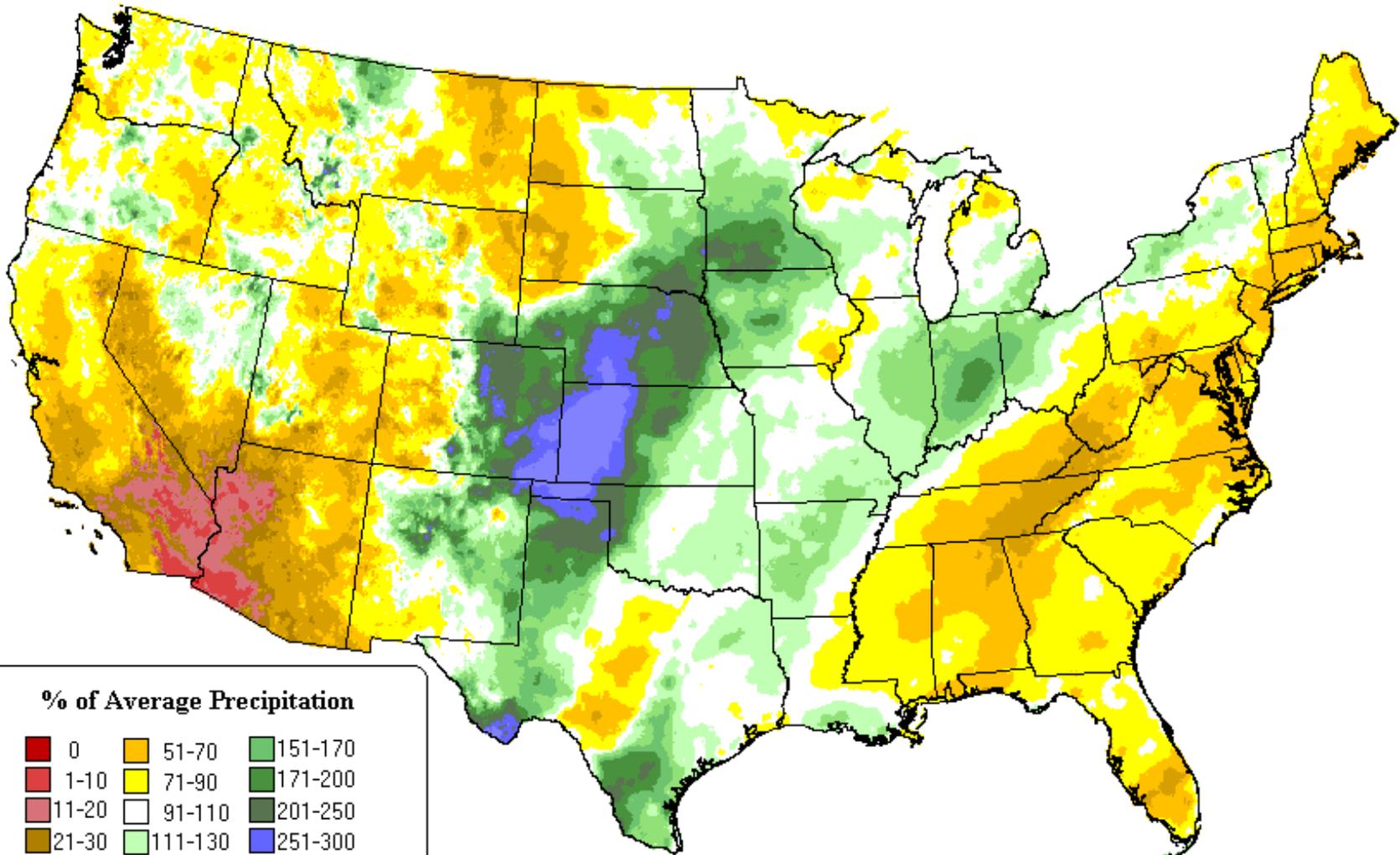


December 2006 – Big Snow!

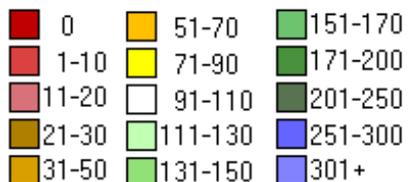


Winter Precipitation (Dec-Feb)

3-month Percent of Average Precipitation: Feb 2007
Provisional Data

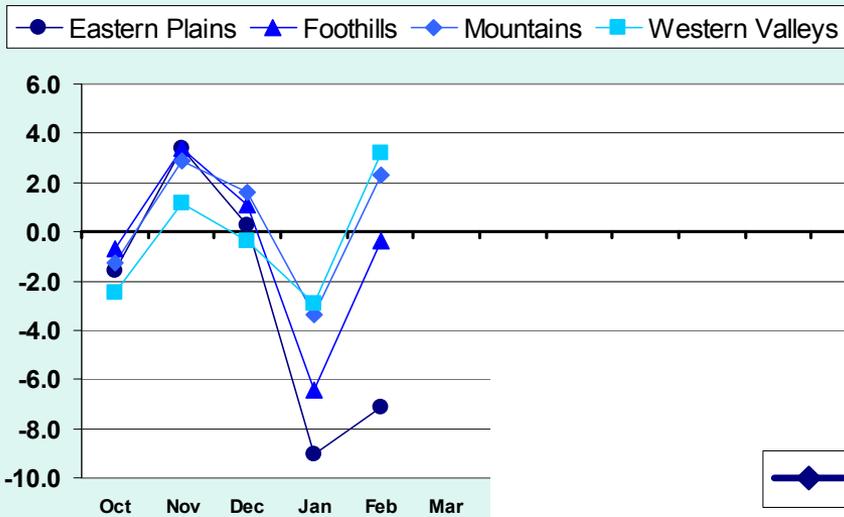


% of Average Precipitation



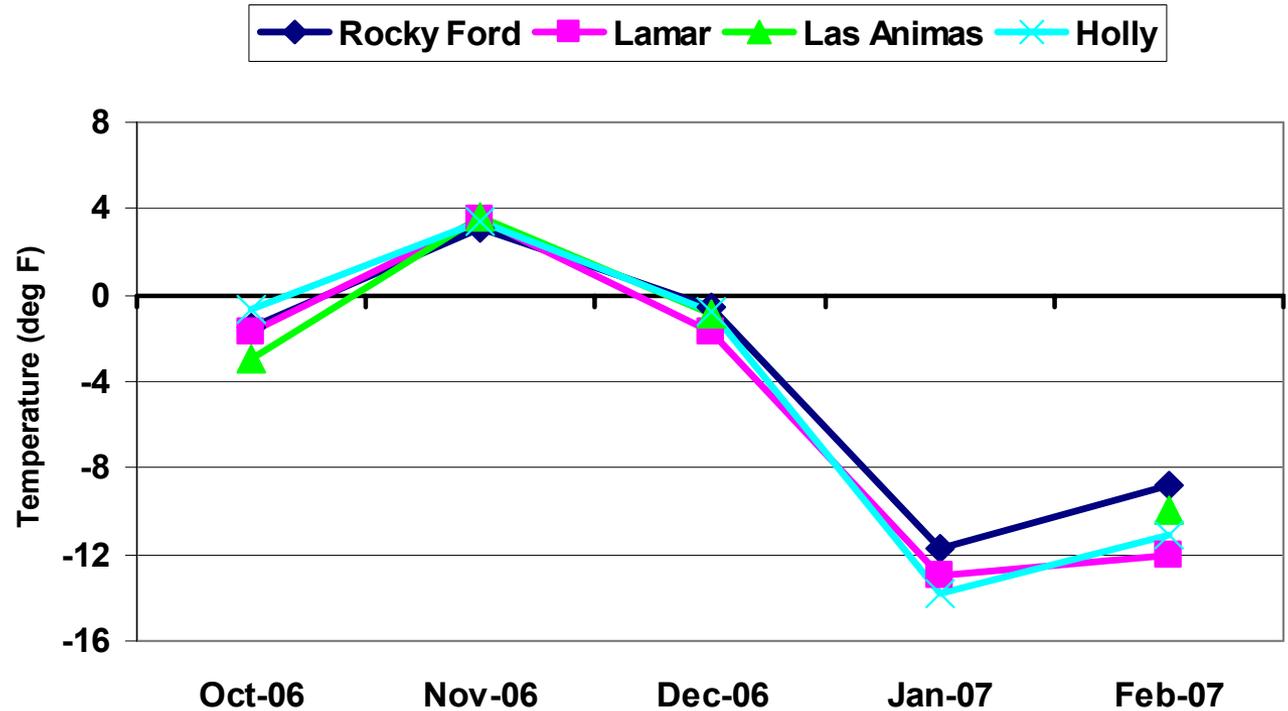
Jan-Feb 2007

Water Year 2007 Temperature Departures



So-so in the mountains,
so cold in the Valley

Temperature Departures from Average



SE Colorado Snowpack – The snow that wouldn't leave....

Wyoming

As of January 7, 2007

Colorado

Nebraska

— Denver

Kansas

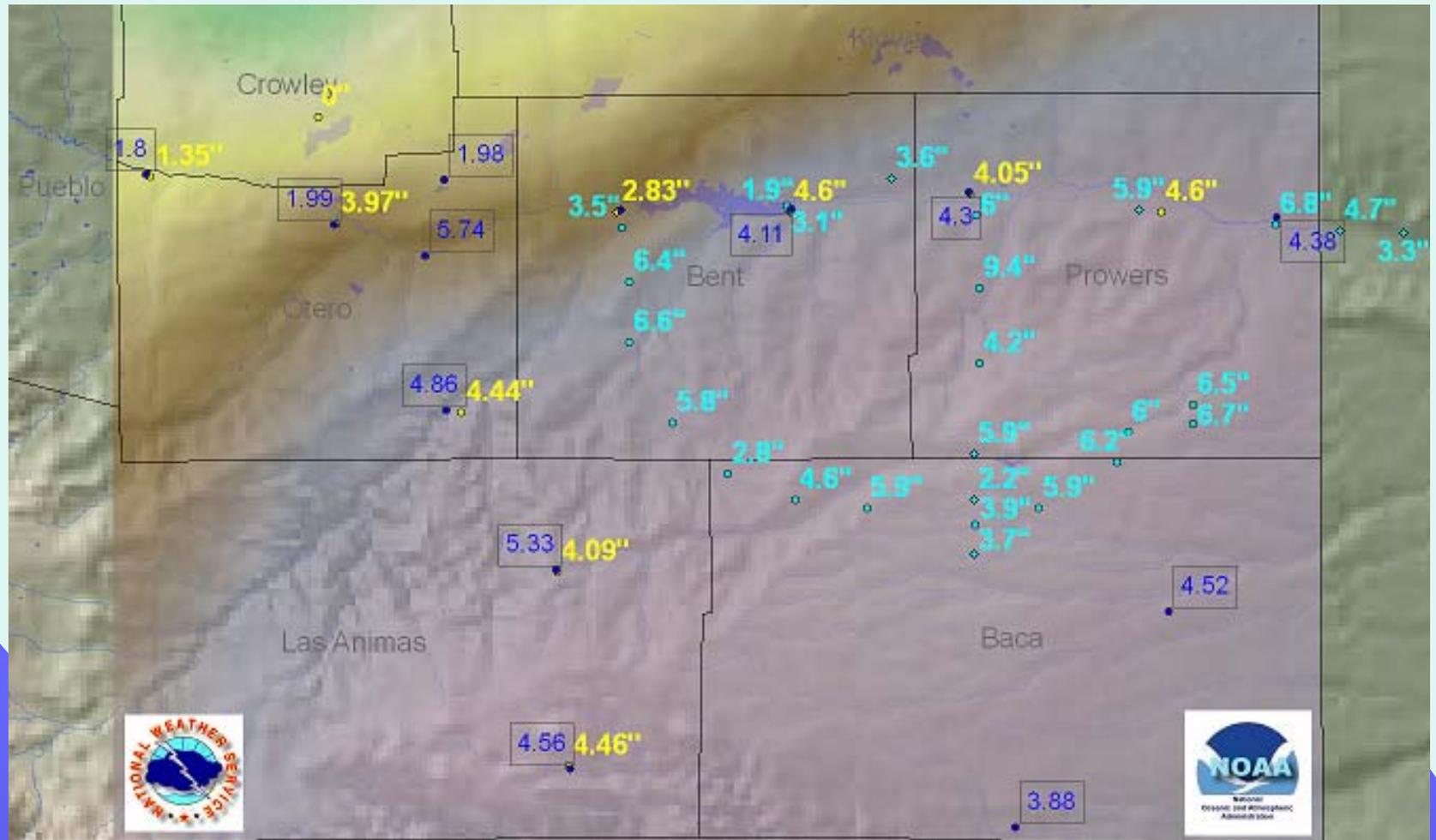
Arkansas River



Colorado Snowcover

As of February 15, 2007

Water in the Snowpack during early February and the Total Precipitation for the months of December and January

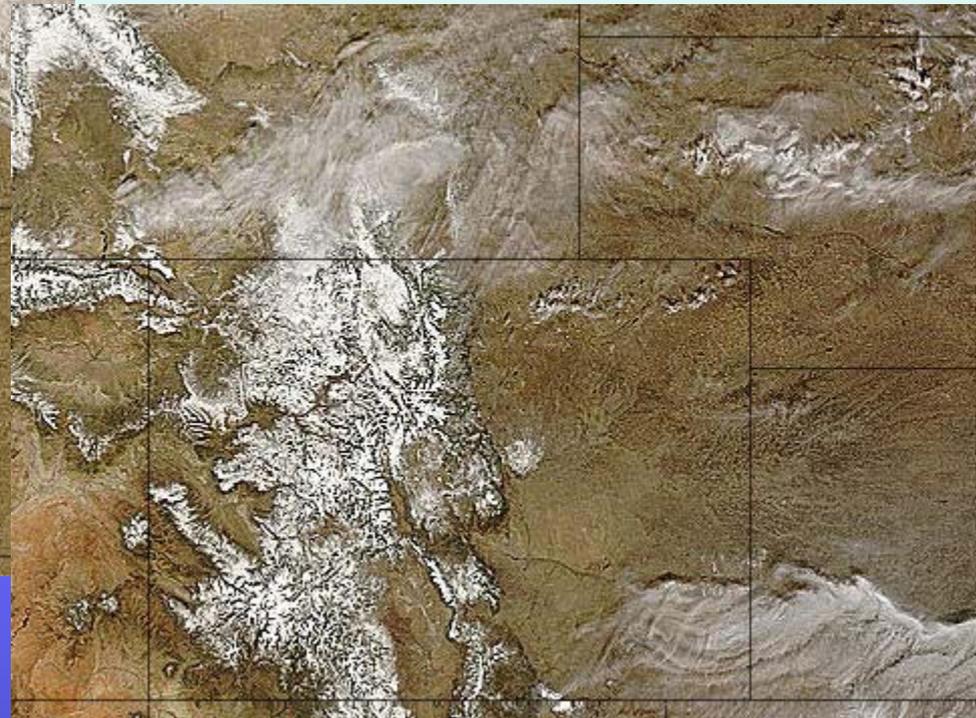
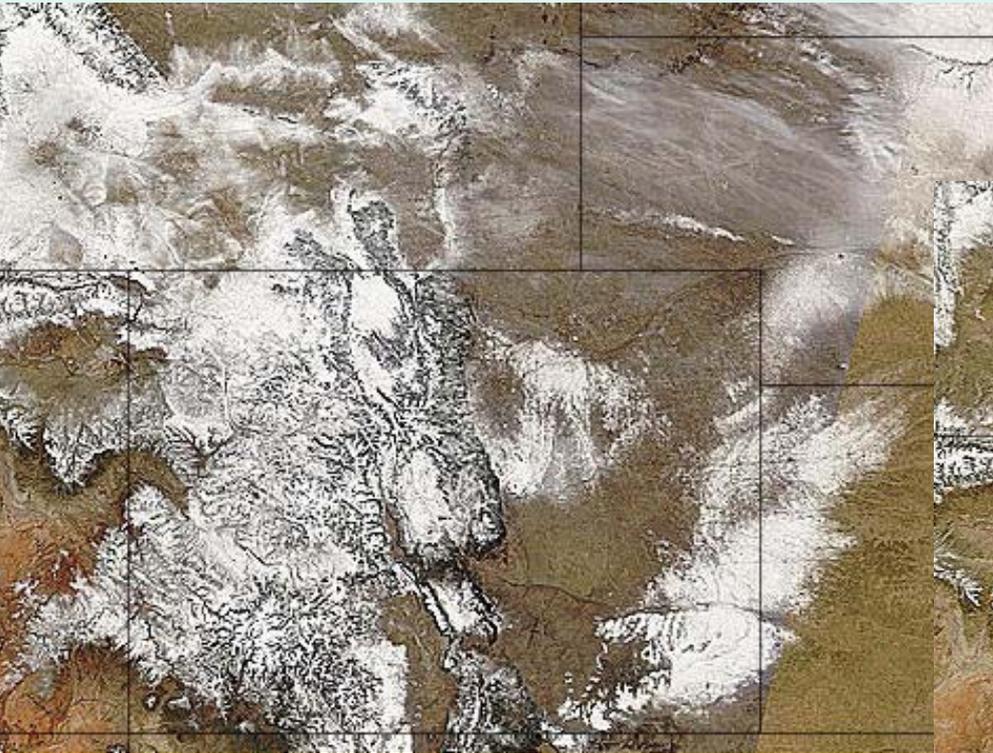


Yellow - water equivalent measured by coring/melting as reported by Cooperative Observers
 Light Blue - water equivalent measured by coring/weighing as reported by NWS employees
 Boxed - total precipitation for December and January as reported by Cooperative Observers

http://www.crh.noaa.gov/crnews/display_story.php?wfo=pub&storyid=5870&source=0

The March Melt

March 4, 2007



March 13, 2007



A Very Bad Day – Holly Tornado

March 28, 2007

Horace Tribune

Enhanced Fujita Scale (MPH) Greeley County

EF0 = 65-85

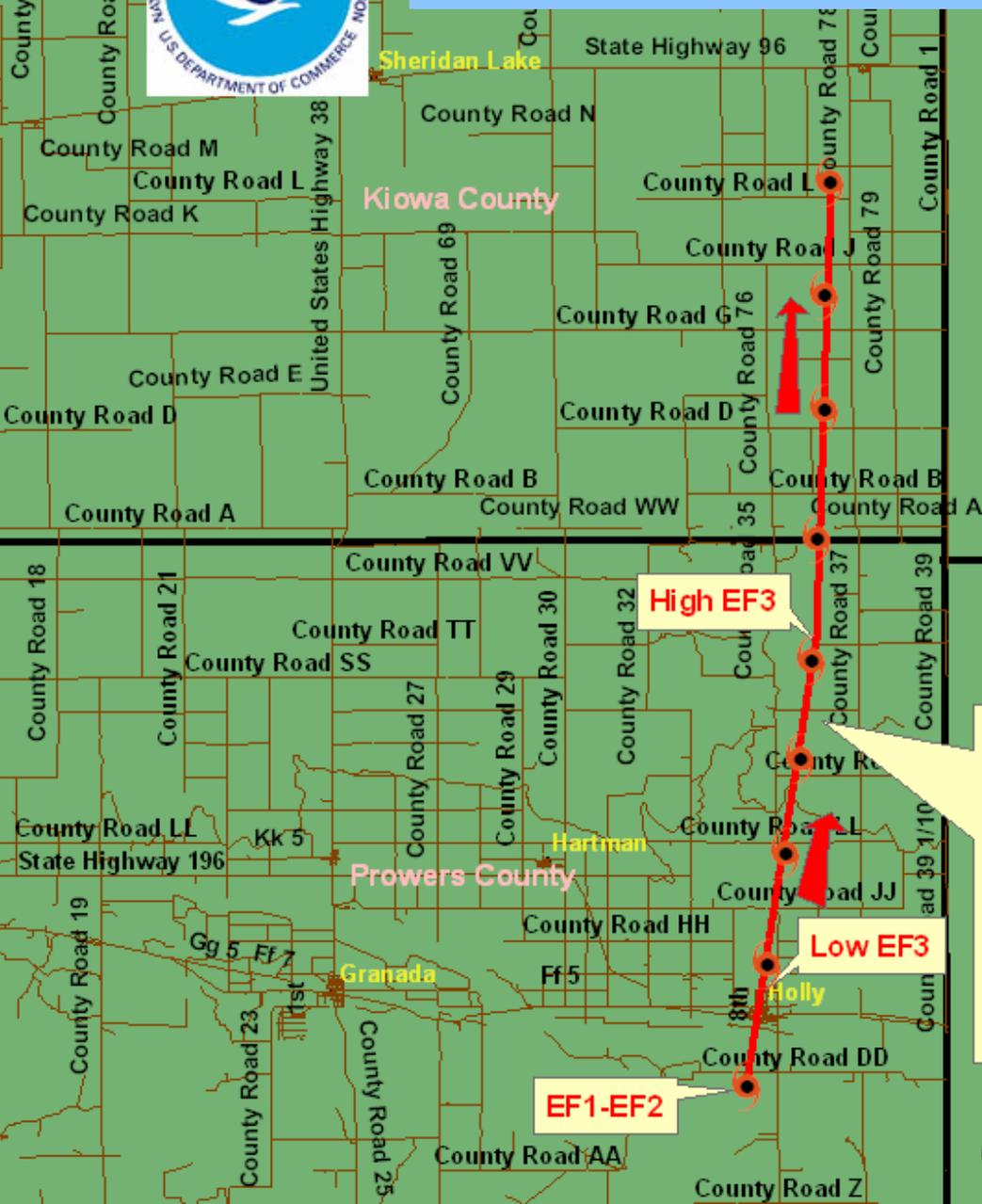
EF1 = 86-110

EF2 = 111-135

EF3 = 136-165

EF4 = 166-200

EF5 = >200



High EF3

Low EF3

EF1-EF2

The Holly Tornado was on the ground for an estimated 25-30 minutes covering an estimated distance of 28 miles. In Holly, the tornado reached a peak Enhanced Fujita Scale rating on the low end of the EF3 range. Over the lifetime of the storm, the tornado reached a peak intensity on the high end of the EF3 range about 12 miles north of Holly.

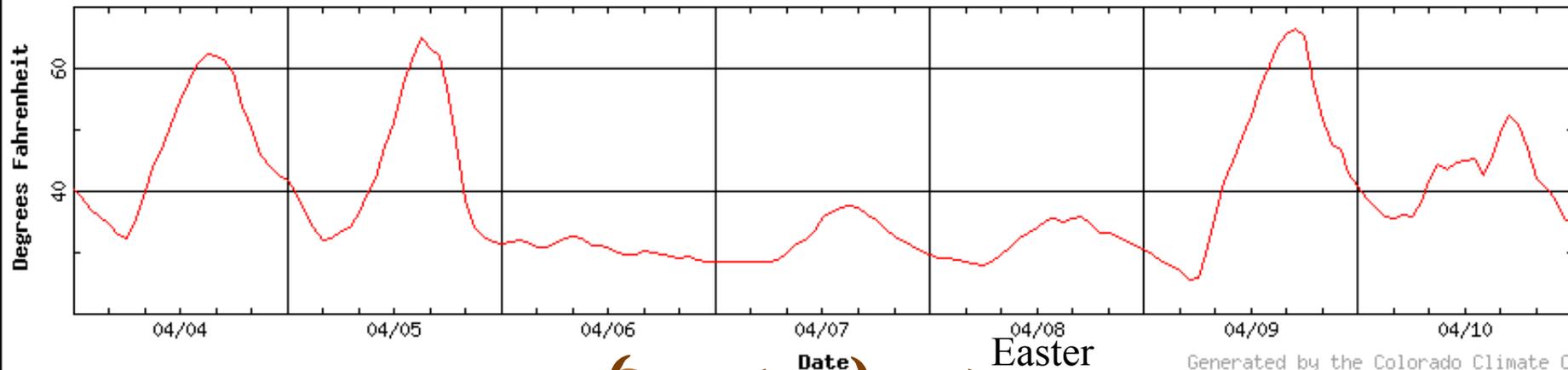


A Cold Easter



Rocky Ford COAGMET

Temperature for RFD01 (04-04-2007 - 04-11-2007)

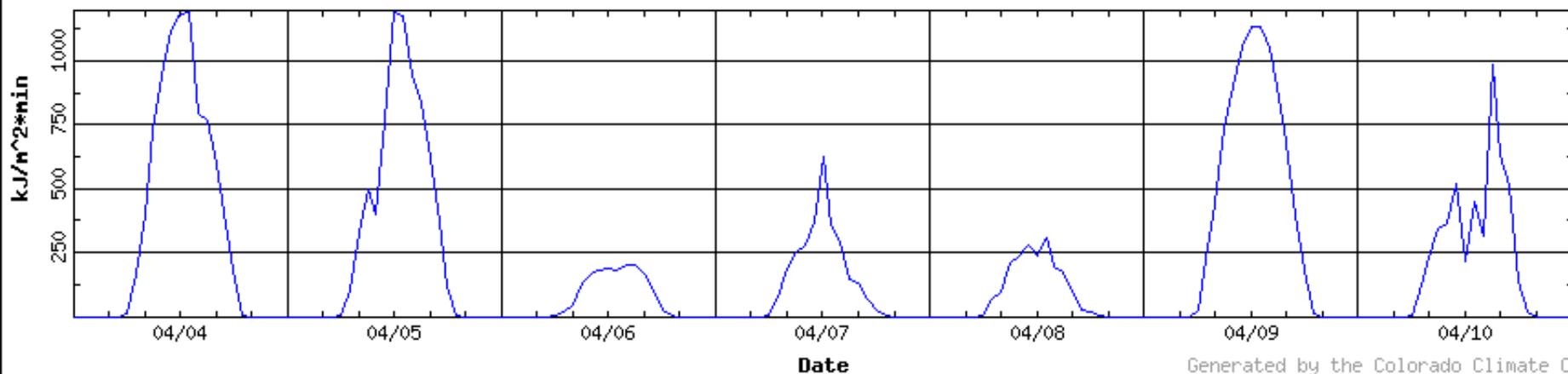


Generated by the Colorado Climate Center



Rocky Ford COAGMET

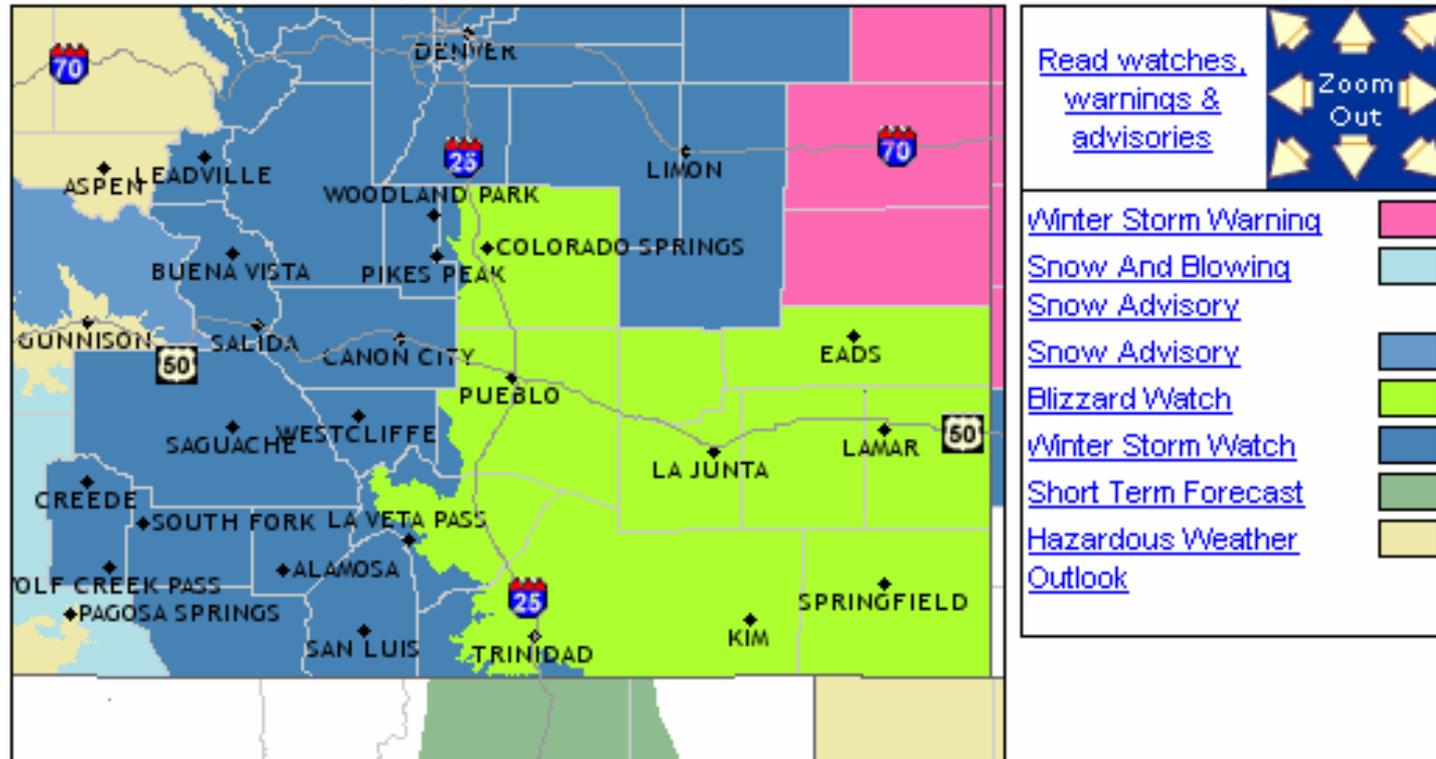
Solar Radiation for RFD01 (04-04-2007 - 04-11-2007)



Generated by the Colorado Climate Center

Today! A great day in Rocky Ford

Click on the map below for the latest forecast.

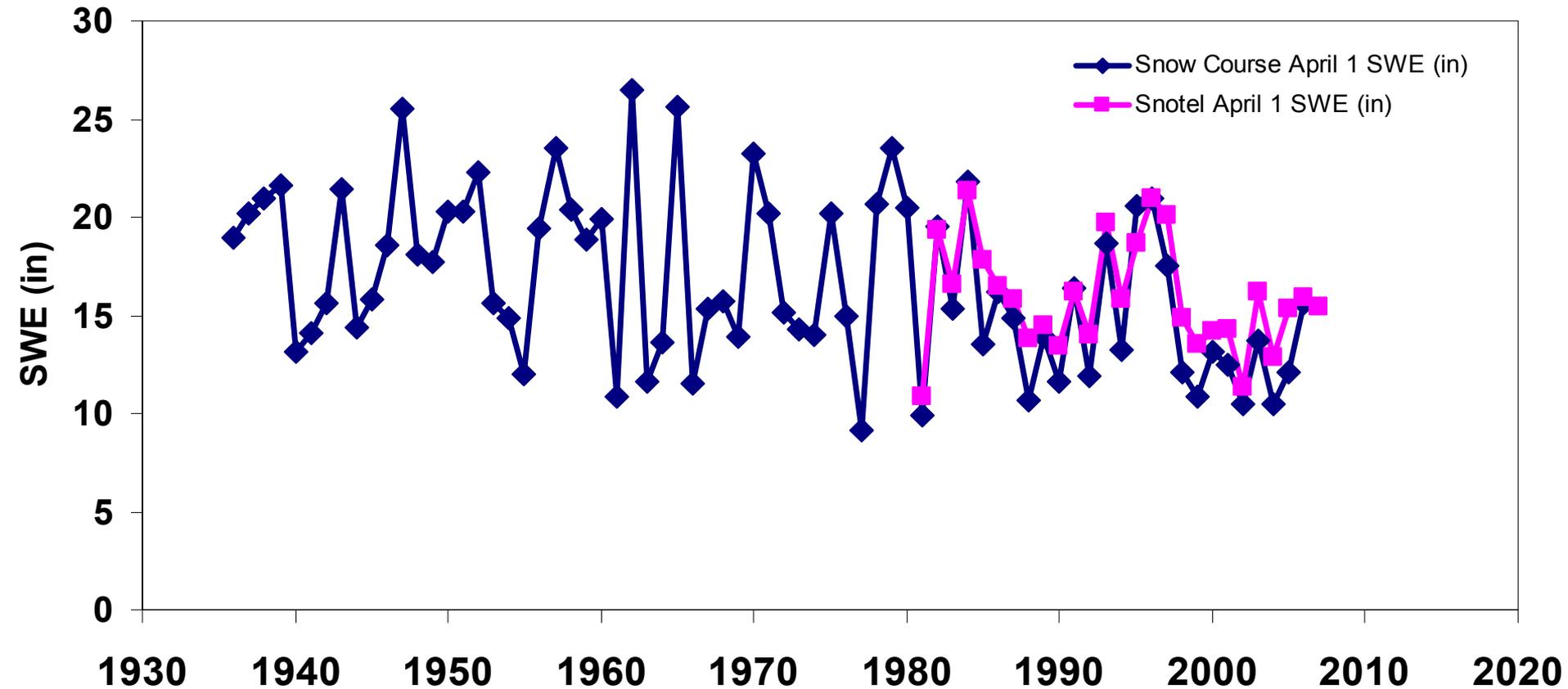


Last map update: Wed, Apr. 11, 2007 at 5:01:35 pm MDT

Independence Pass

April 1 Snow Course and Snotel

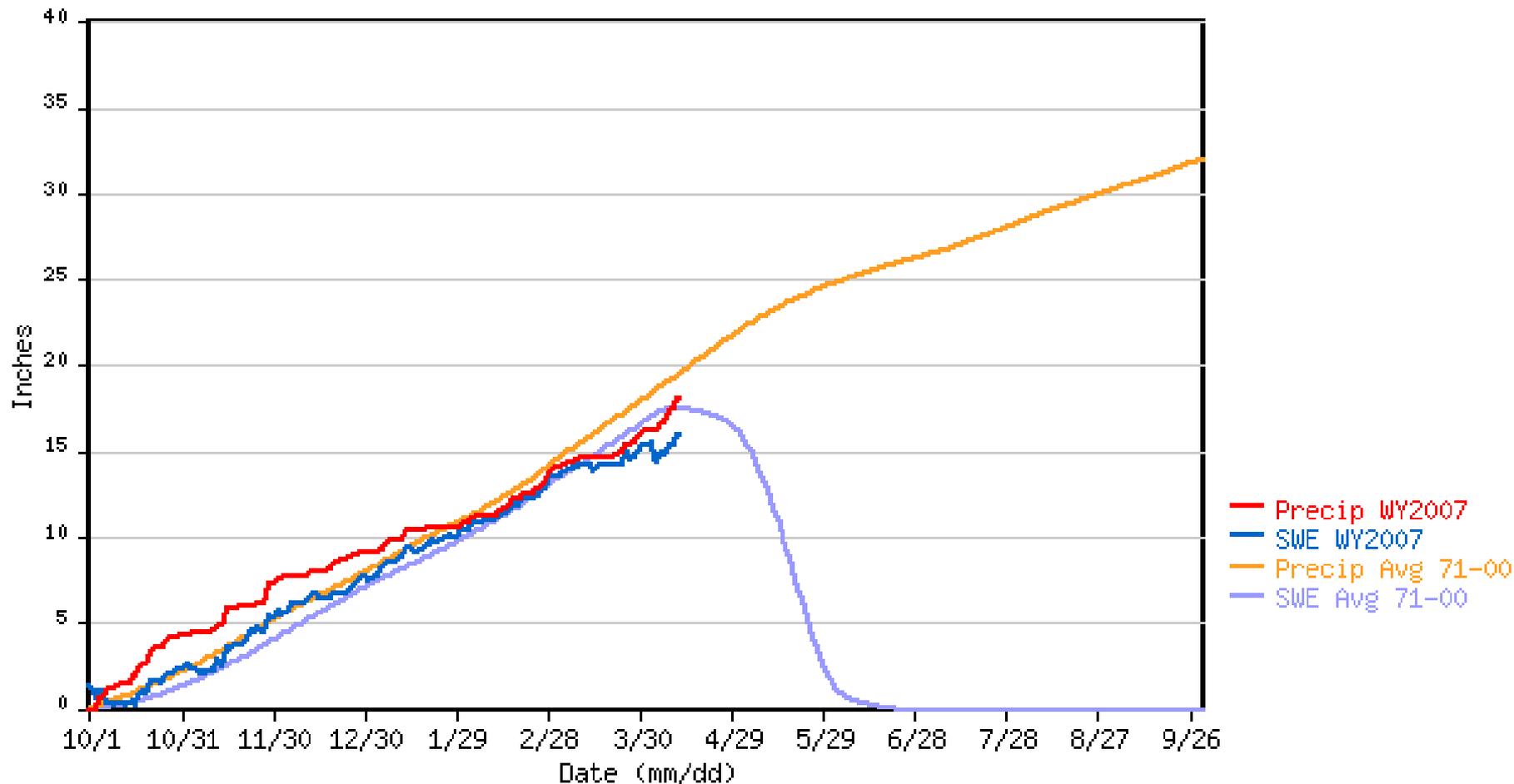
Independence Pass, CO (Elevation 10,600') April 1 SWE



Independence Pass Water Year 2007

INDEPENDENCE PASS SNOTEL for Water Year 2007

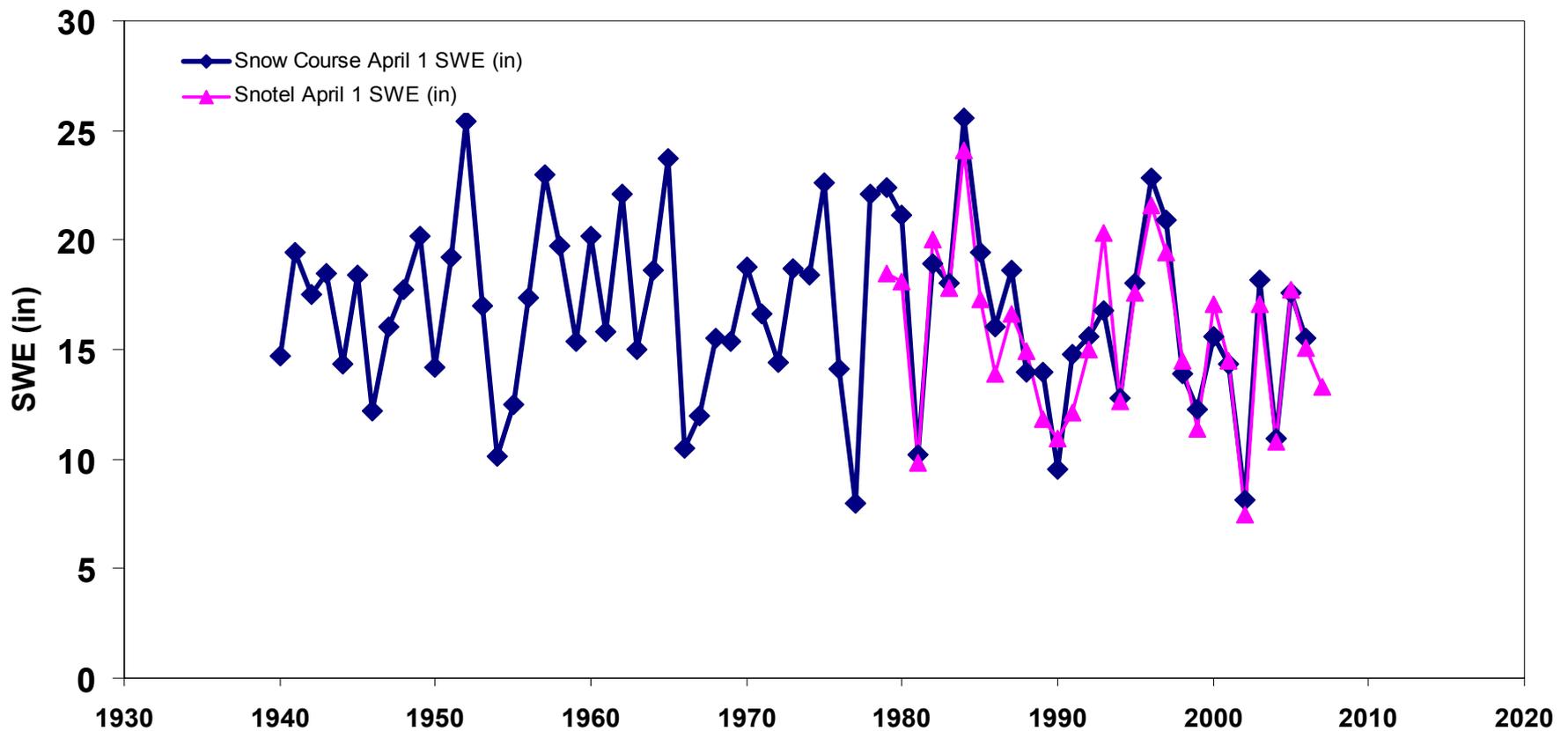
*** Provisional Data, Subject to Change ***



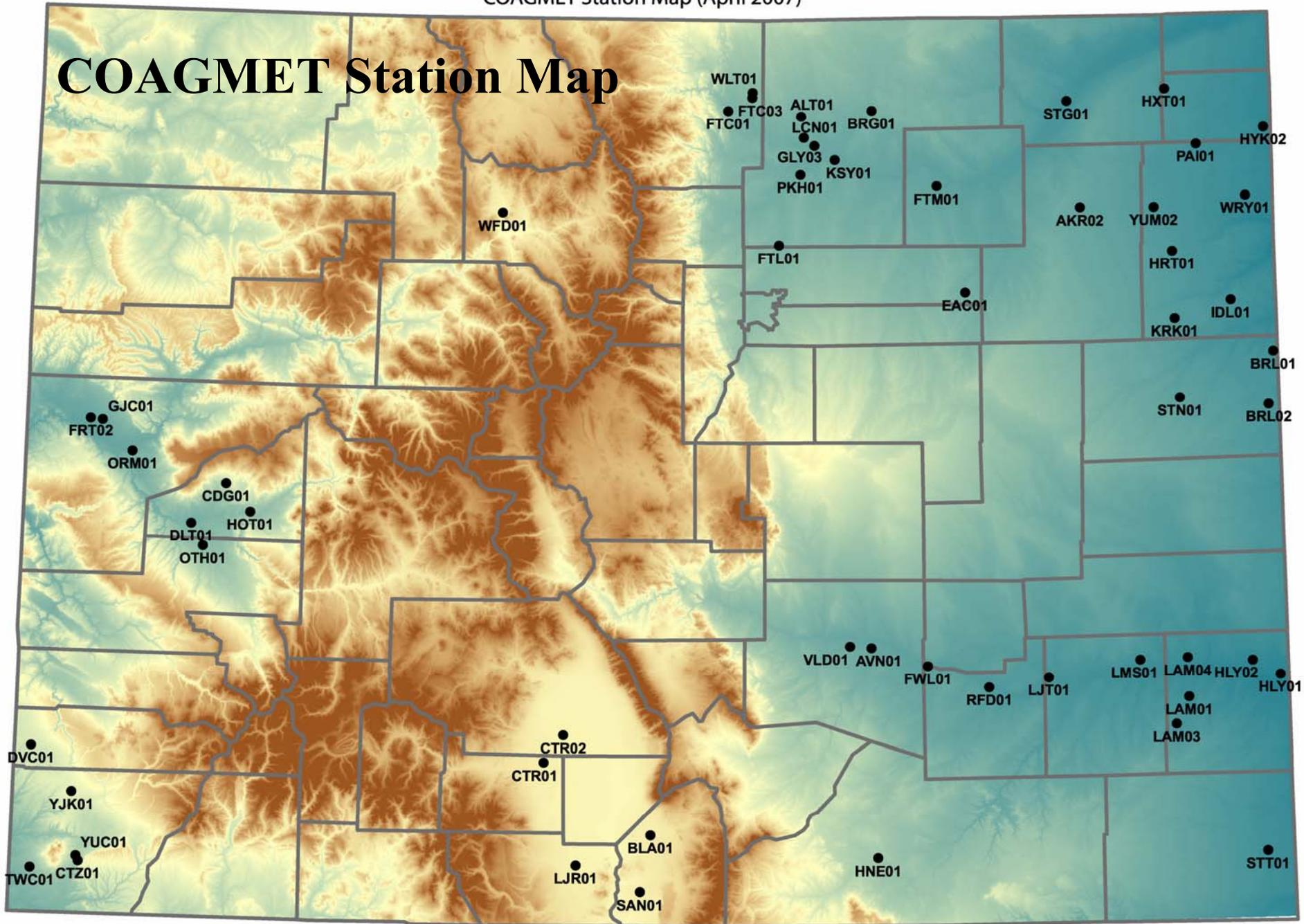
Porphyry Creek

April 1 Snow Course and Snotel

Porphyry Creek, CO (Elevation 10,760') April 1 SWE (in)



COAGMET Station Map



Colorado Agricultural METeorological Network

Rocky Ford



CoCoRAHS – We Never Stop Begging!

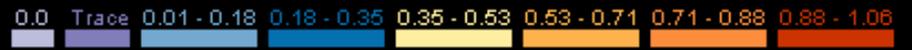


CoCoRaHS

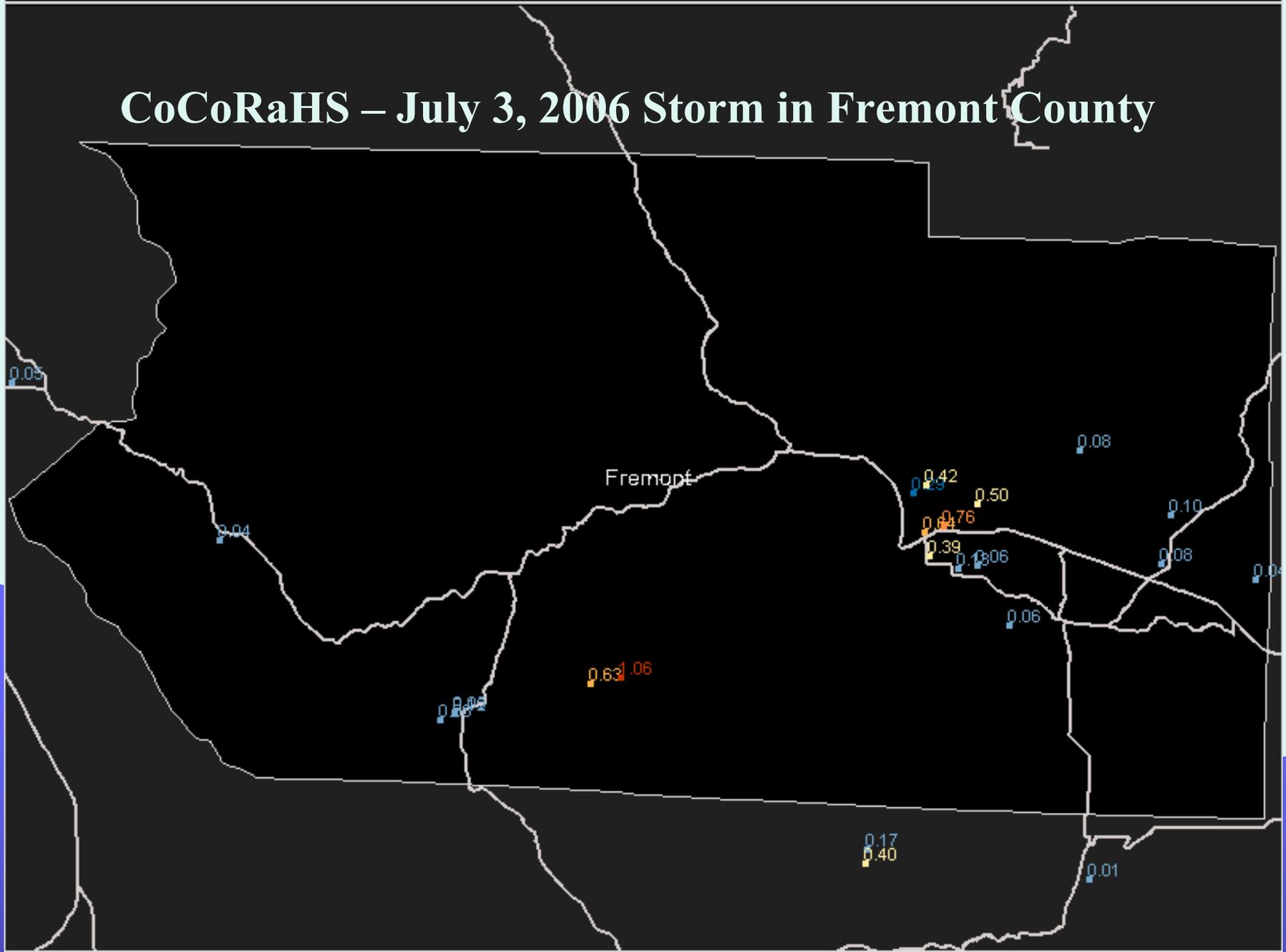
Community Collaborative Rain, Hail & Snow Network

Daily Precipitation (inches x.xx), for the 24 hour period ending ~7:00 am

Fremont County, Colorado 7/3/2006

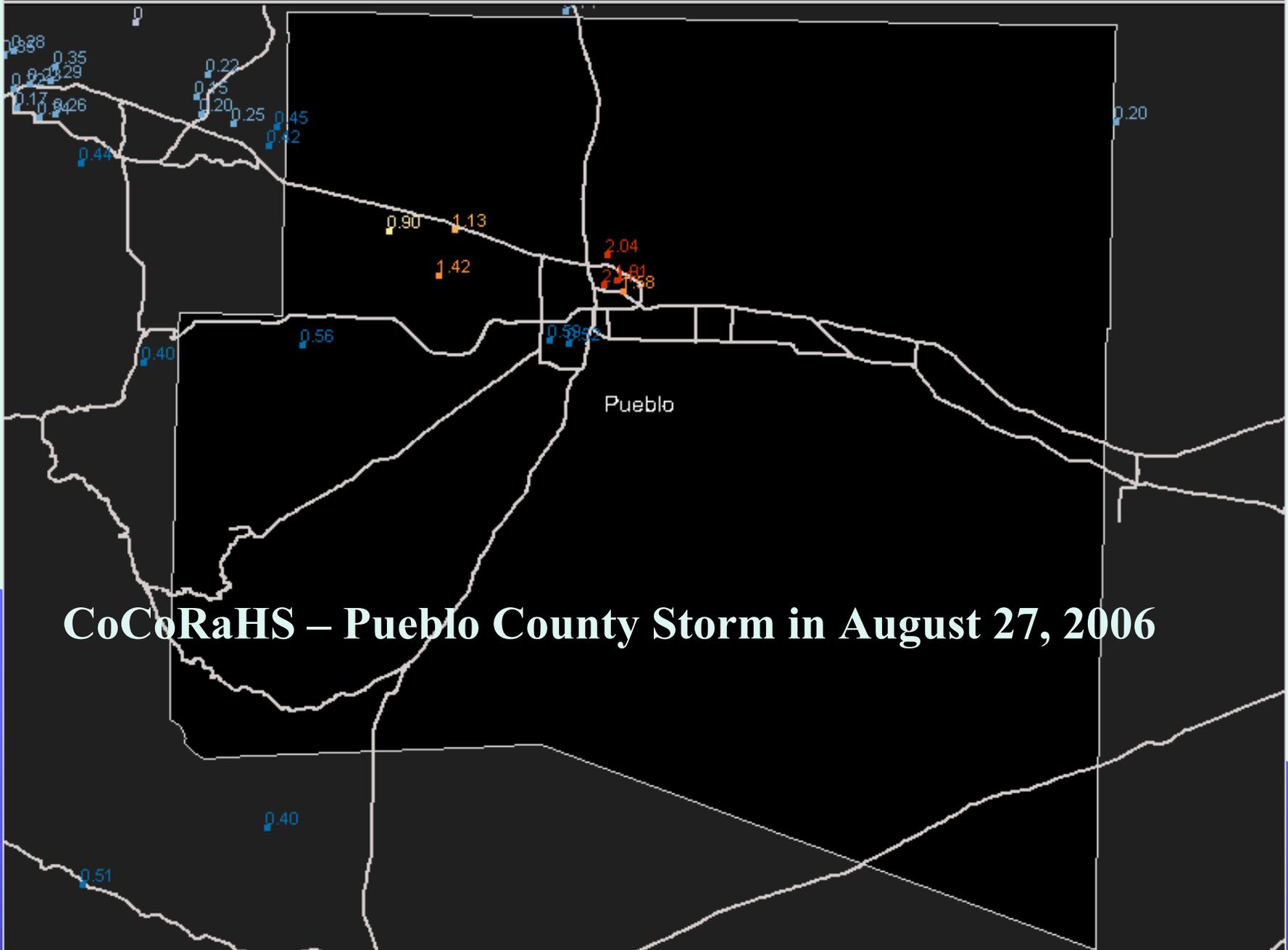
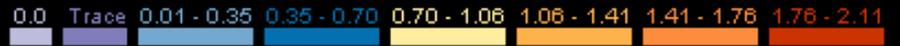


CoCoRaHS – July 3, 2006 Storm in Fremont County



Daily Precipitation (inches x.xx), for the 24 hour period ending ~7:00 am

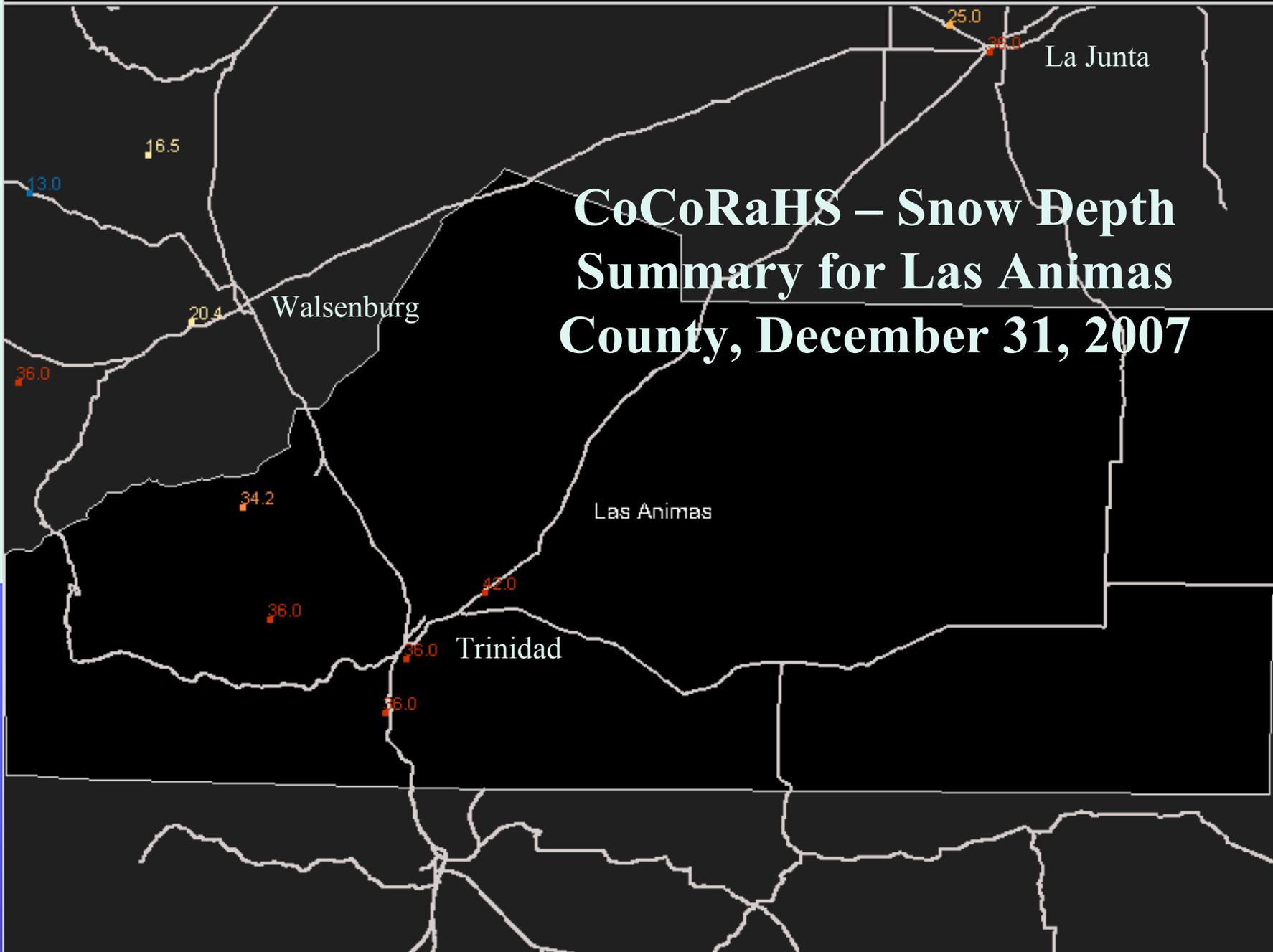
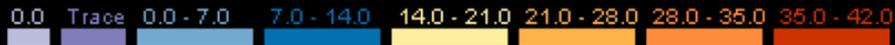
Pueblo County, Colorado 8/27/2006



CoCoRaHS – Pueblo County Storm in August 27, 2006

Total Snow Depth (inches x.x)

Las Animas County, Colorado 12/31/2006



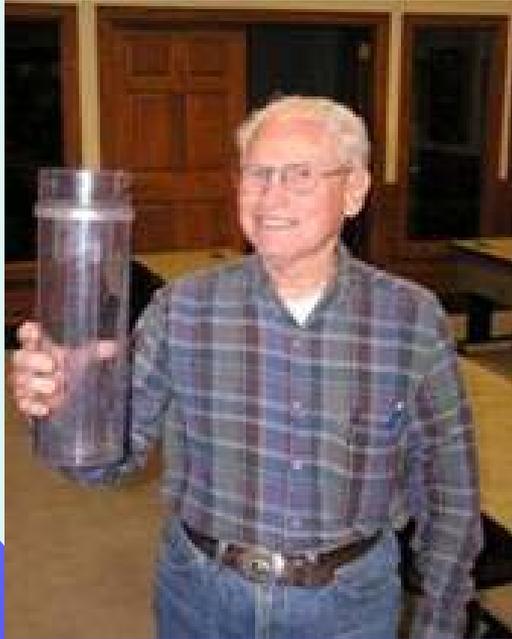
CoCoRaHS – Snow Depth Summary for Las Animas County, December 31, 2007

We are delighted with what we've accomplished and what we're learning, but we could sure use a few more volunteers!



Join CoCoRaHS!

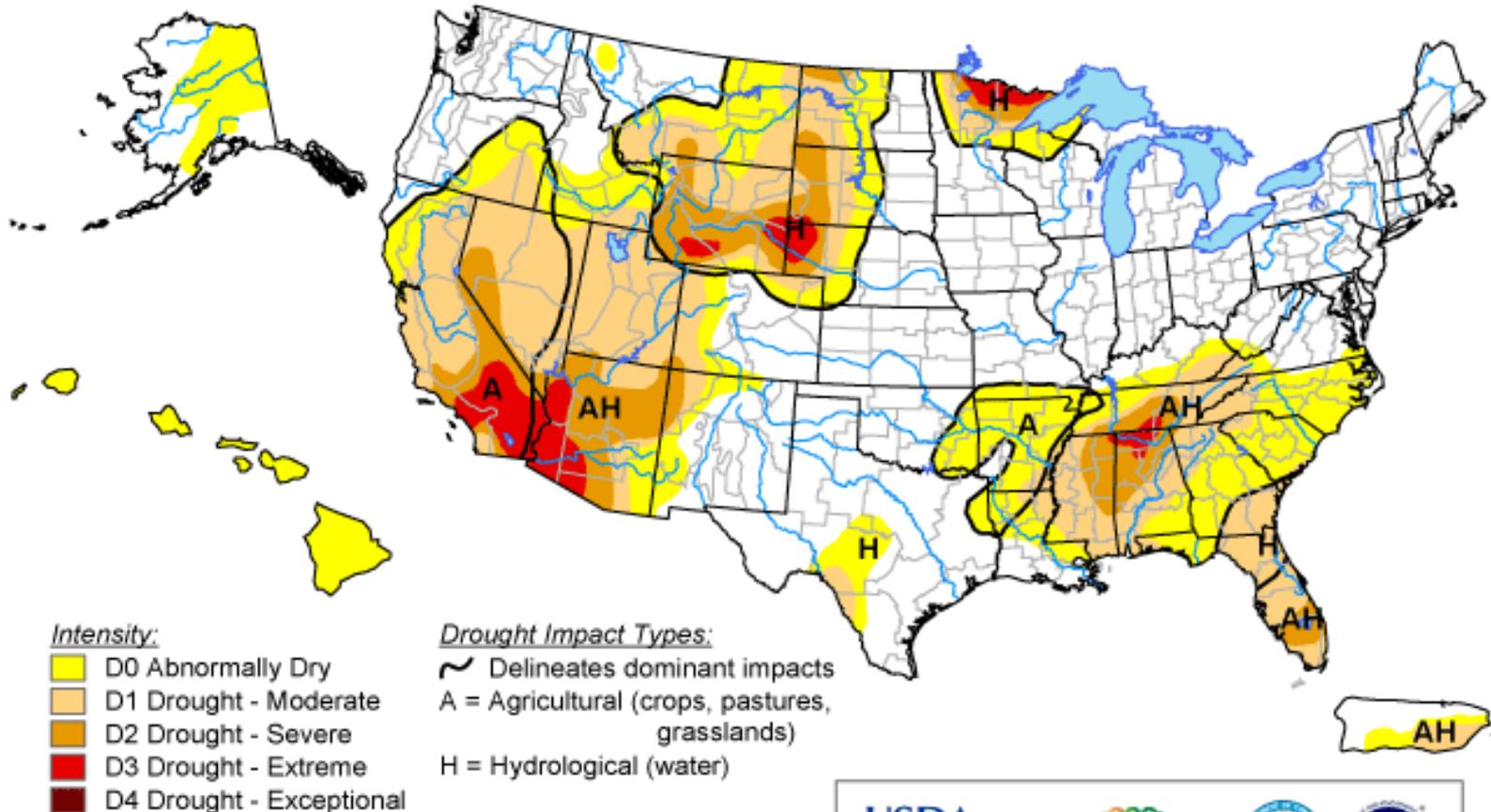
<http://www.cocorahs.org>



So, What Comes Next?

U.S. Drought Monitor

April 10, 2007
Valid 8 a.m. EDT



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

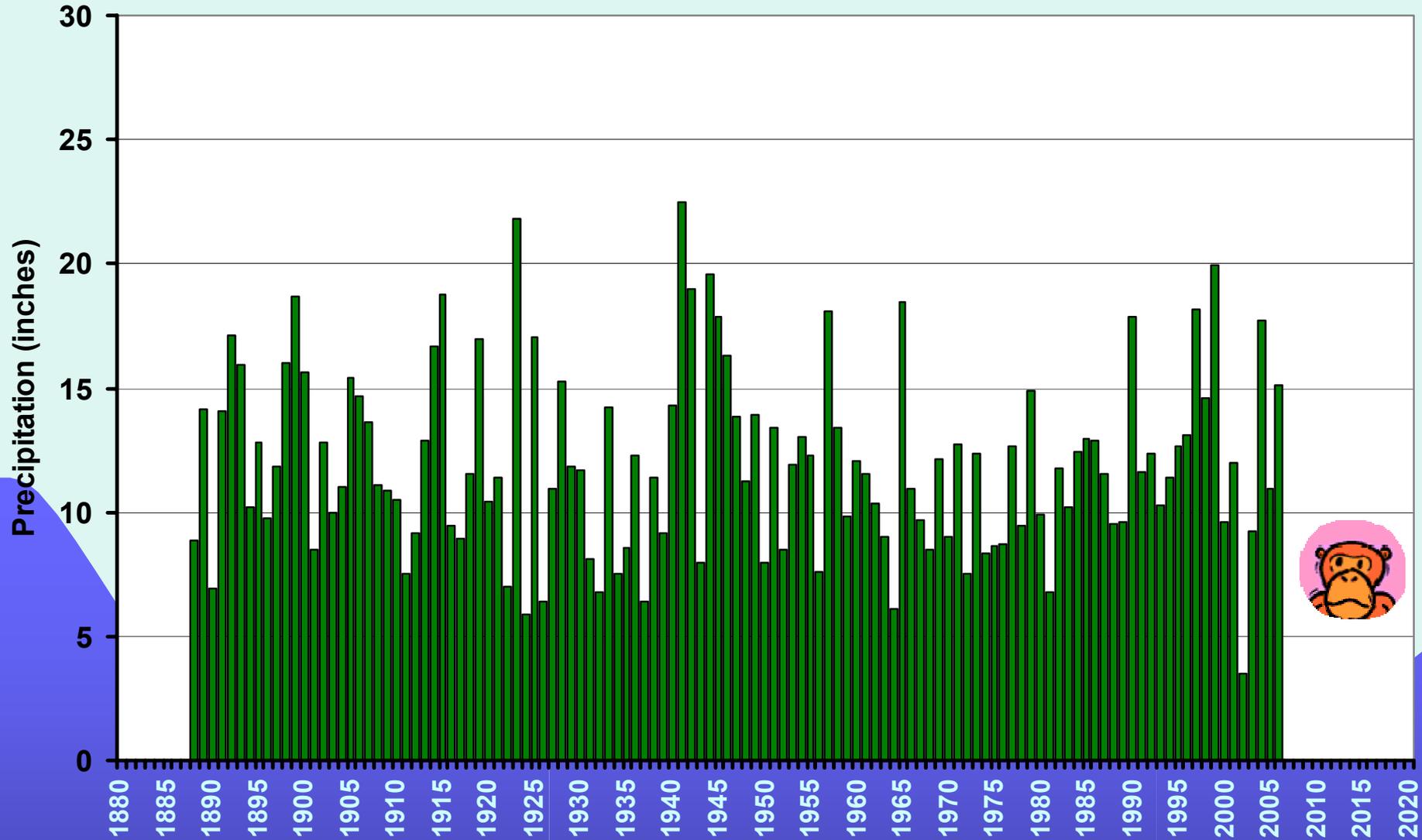
<http://drought.unl.edu/dm>



Released Thursday, April 12, 2007
Author: Thomas Heddinghaus, CPC/NOAA

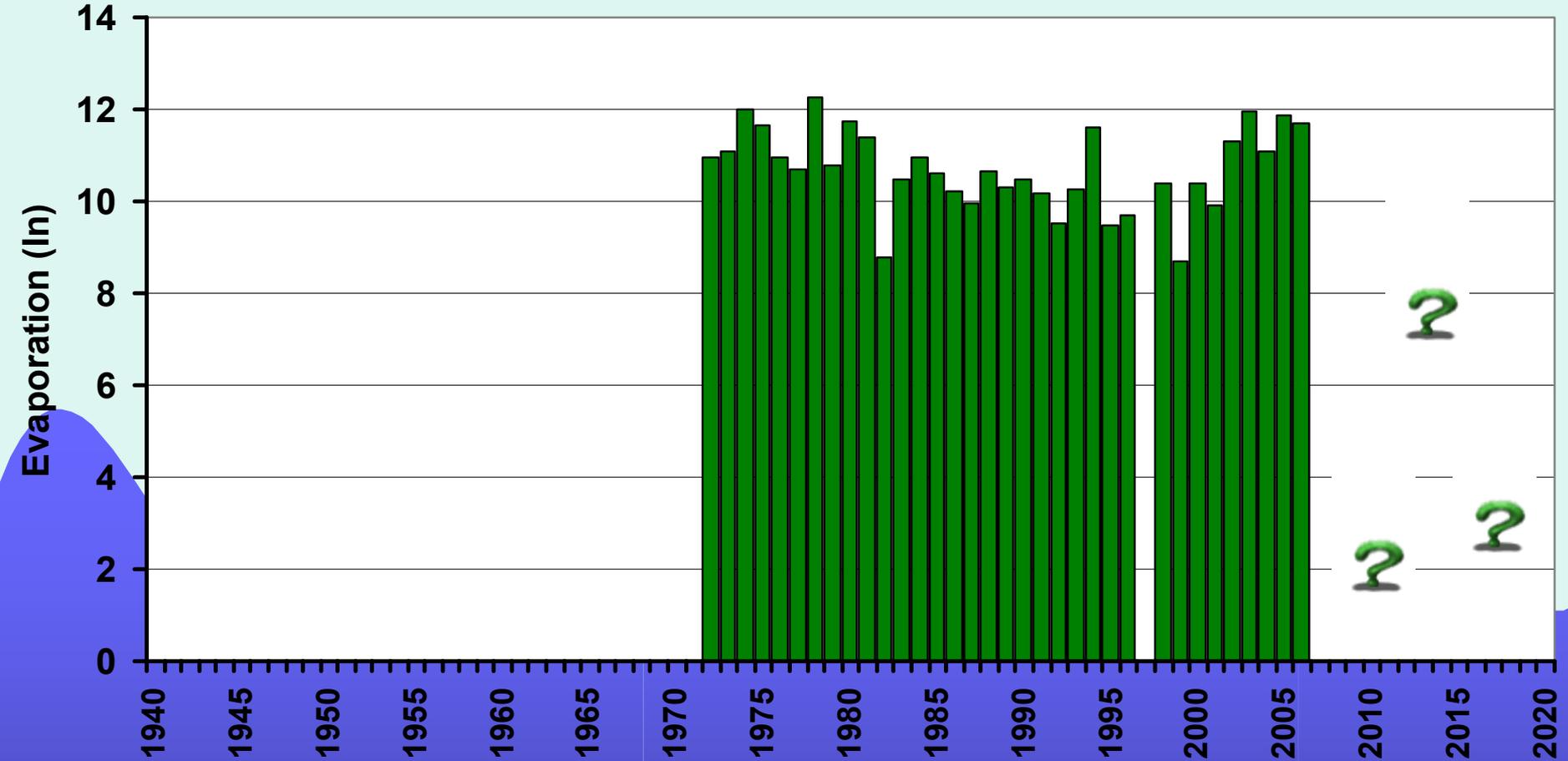
Rocky Ford Precipitation

Rocky Ford Annual Precipitation

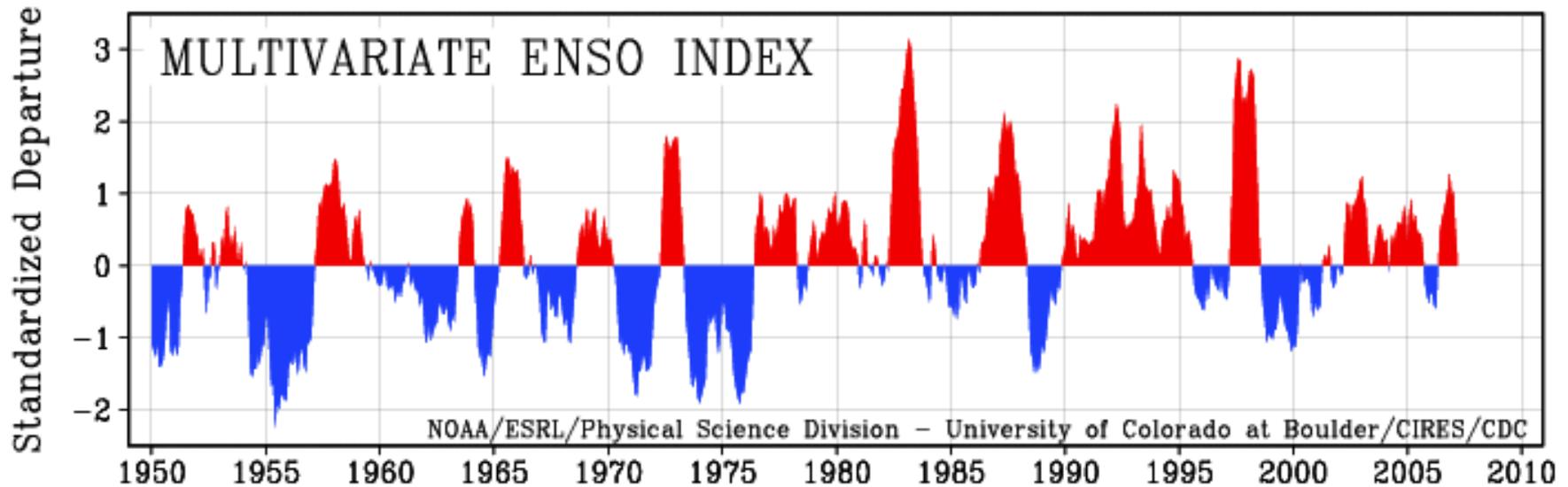
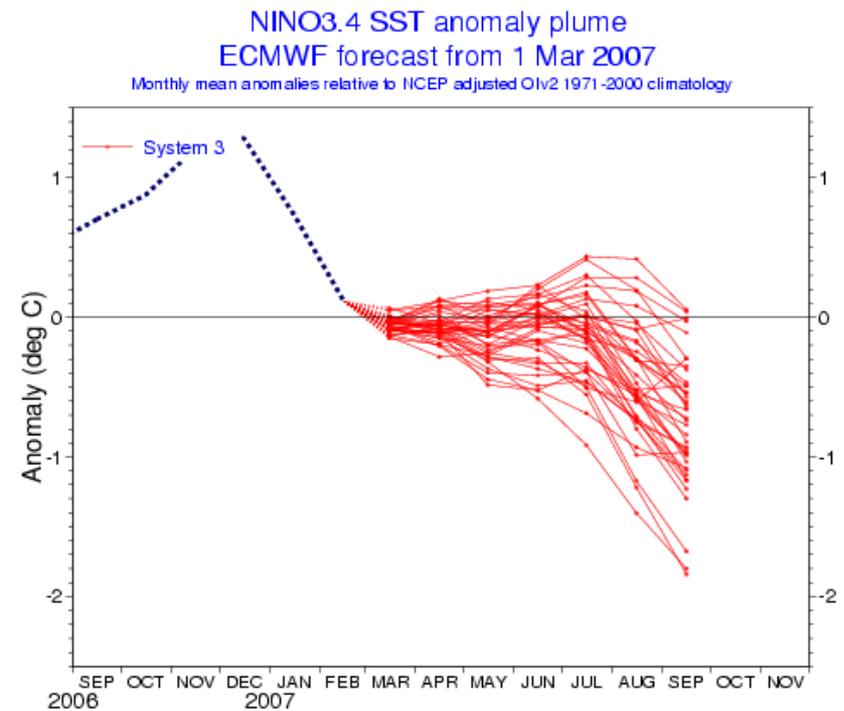


Pueblo Evaporation

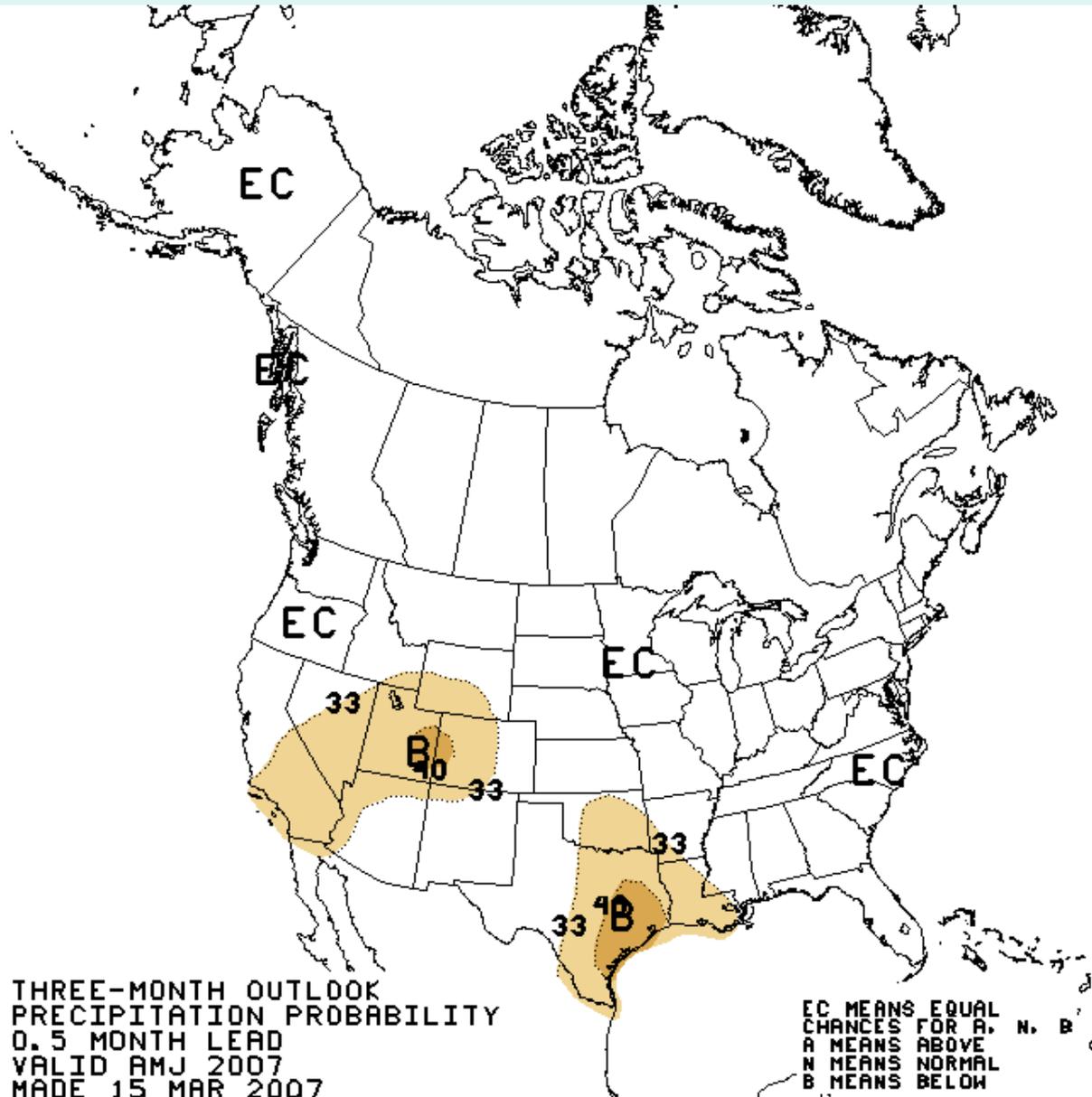
Pueblo WSO
May through Sept Pan Evaporation



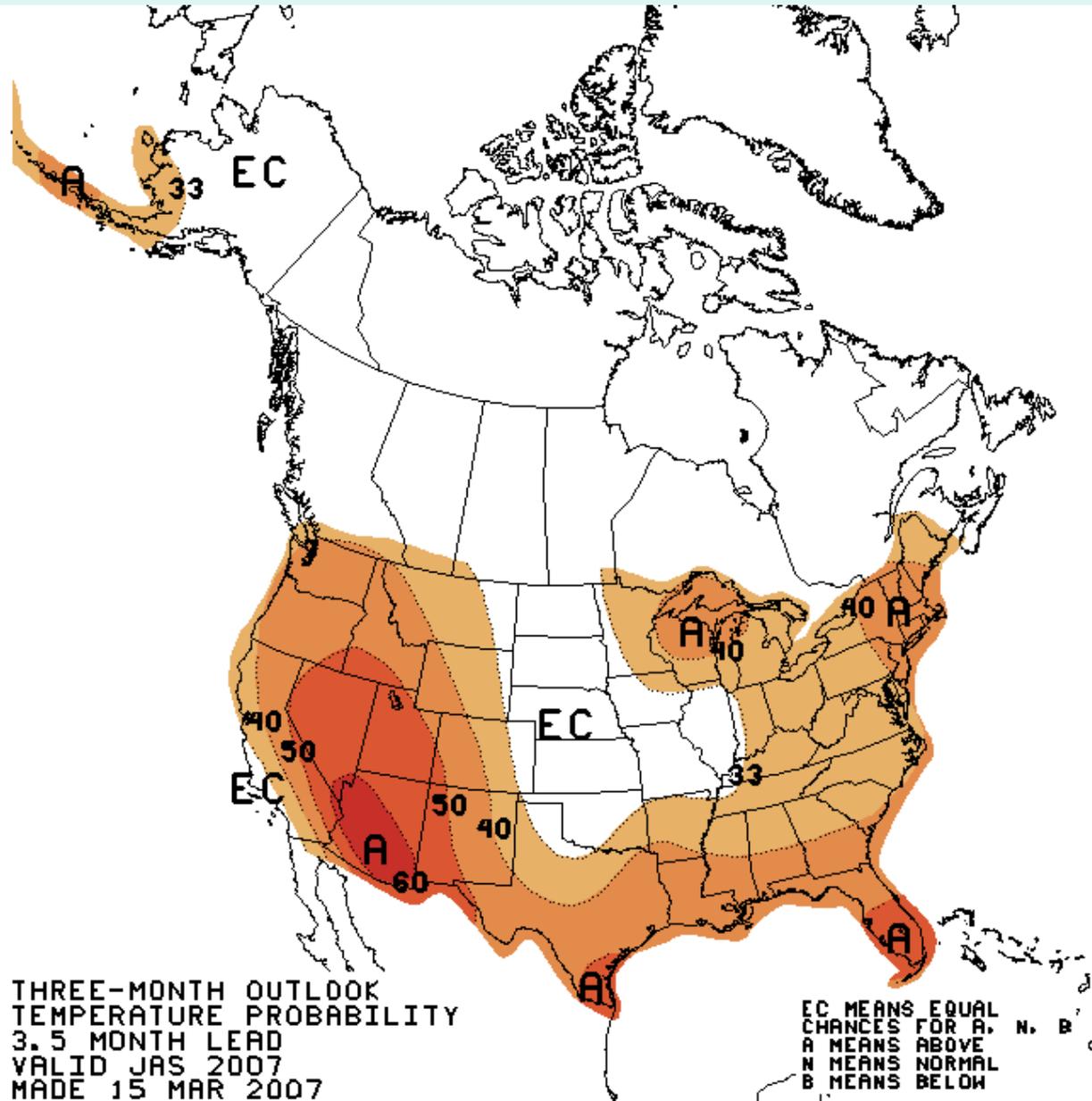
El Nino Status and Projections



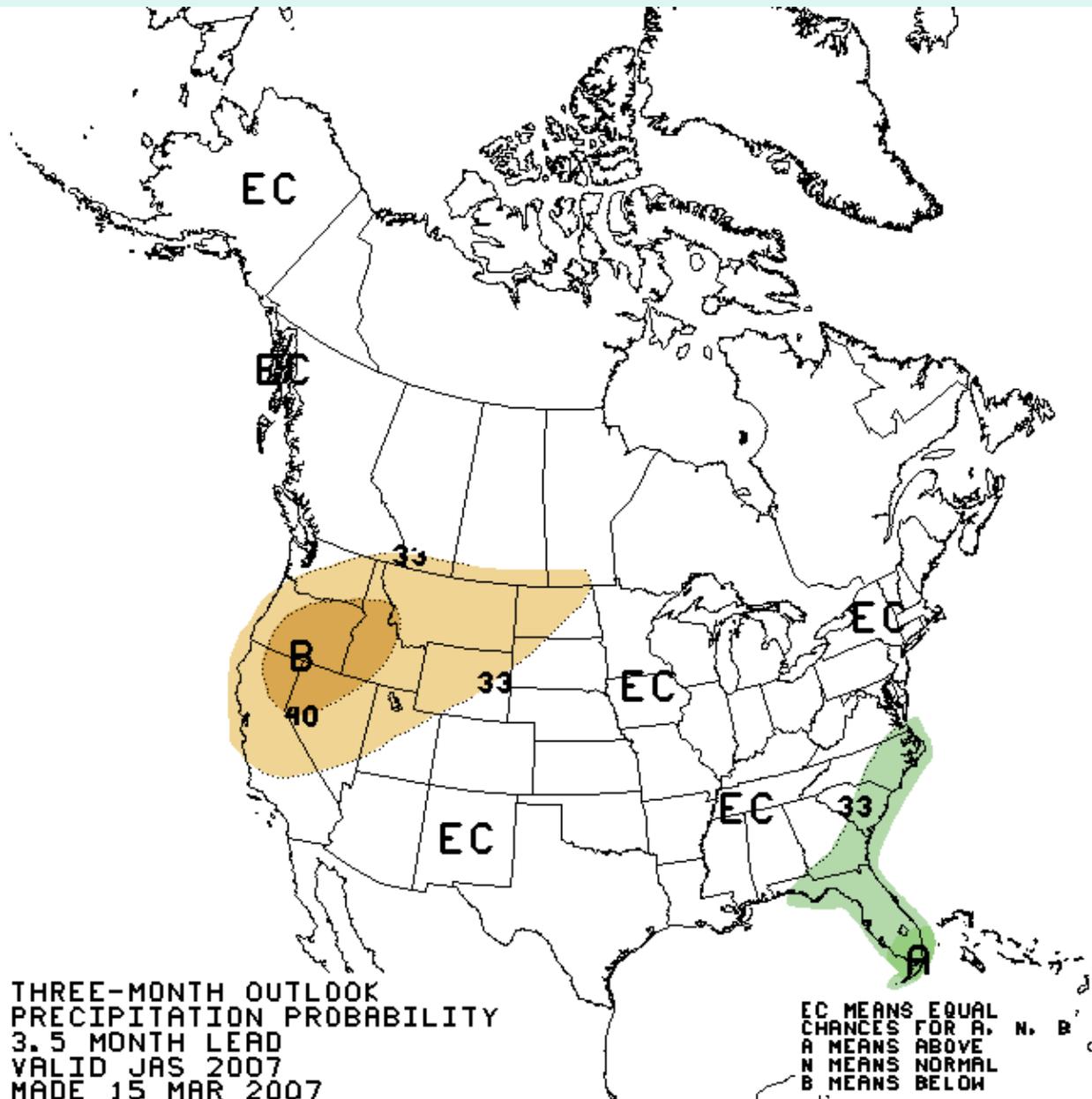
Apr-Jun Precipitation



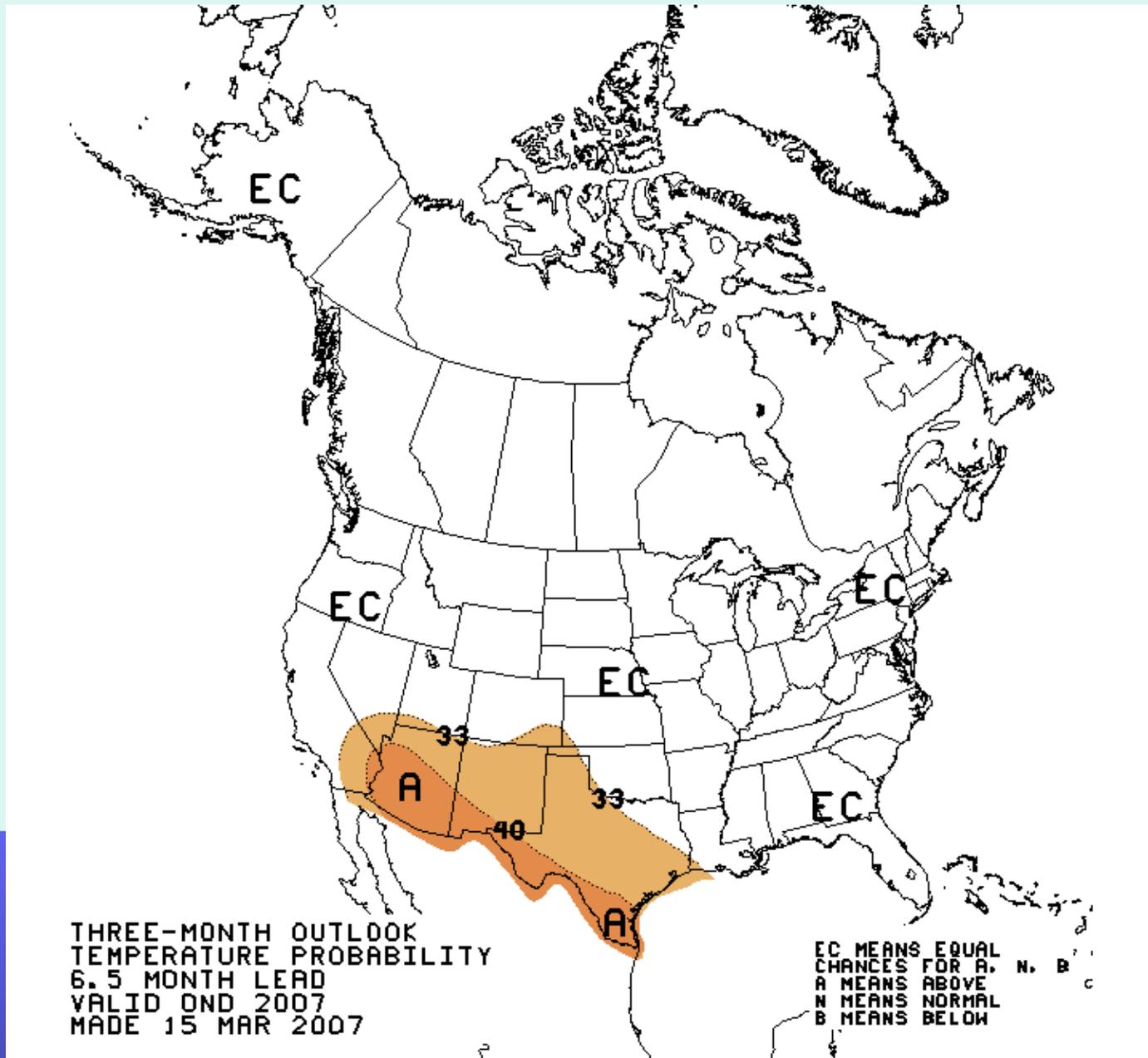
Jul-Sep Temperature



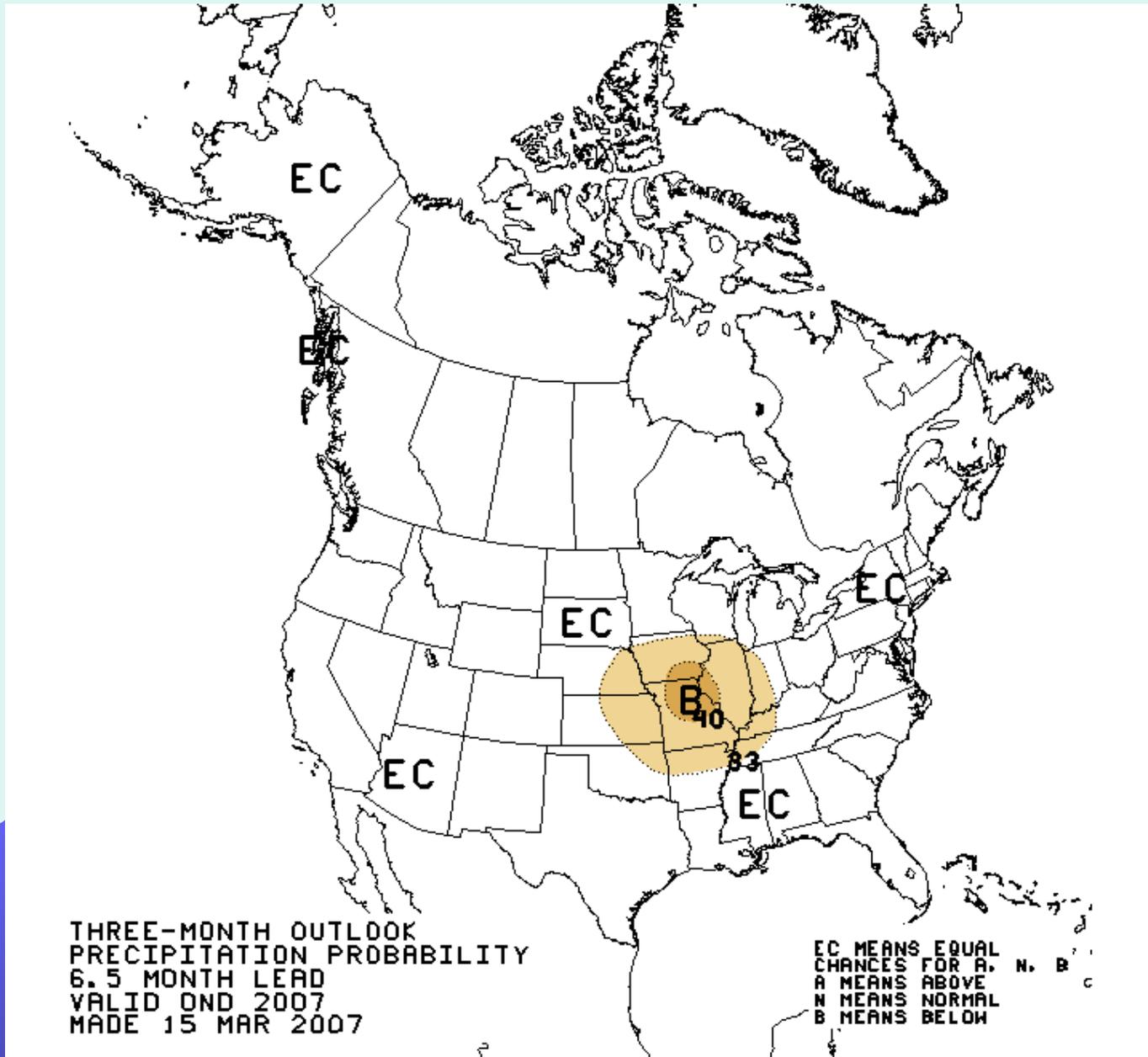
Jul-Sep Precipitation



Oct-Dec Temperatures



Oct-Dec Precipitation



For More Information, Visit the CoCoRaHS Web Site



<http://www.cocorahs.org>



Support for this project provided by NOAA
Environmental Literacy Program and
many local charter sponsors.

Colorado Climate Center

Data and Power Point Presentations available for downloading

<http://ccc.atmos.colostate.edu>

- **click on “Drought”**
- **then click on “Presentations”**

