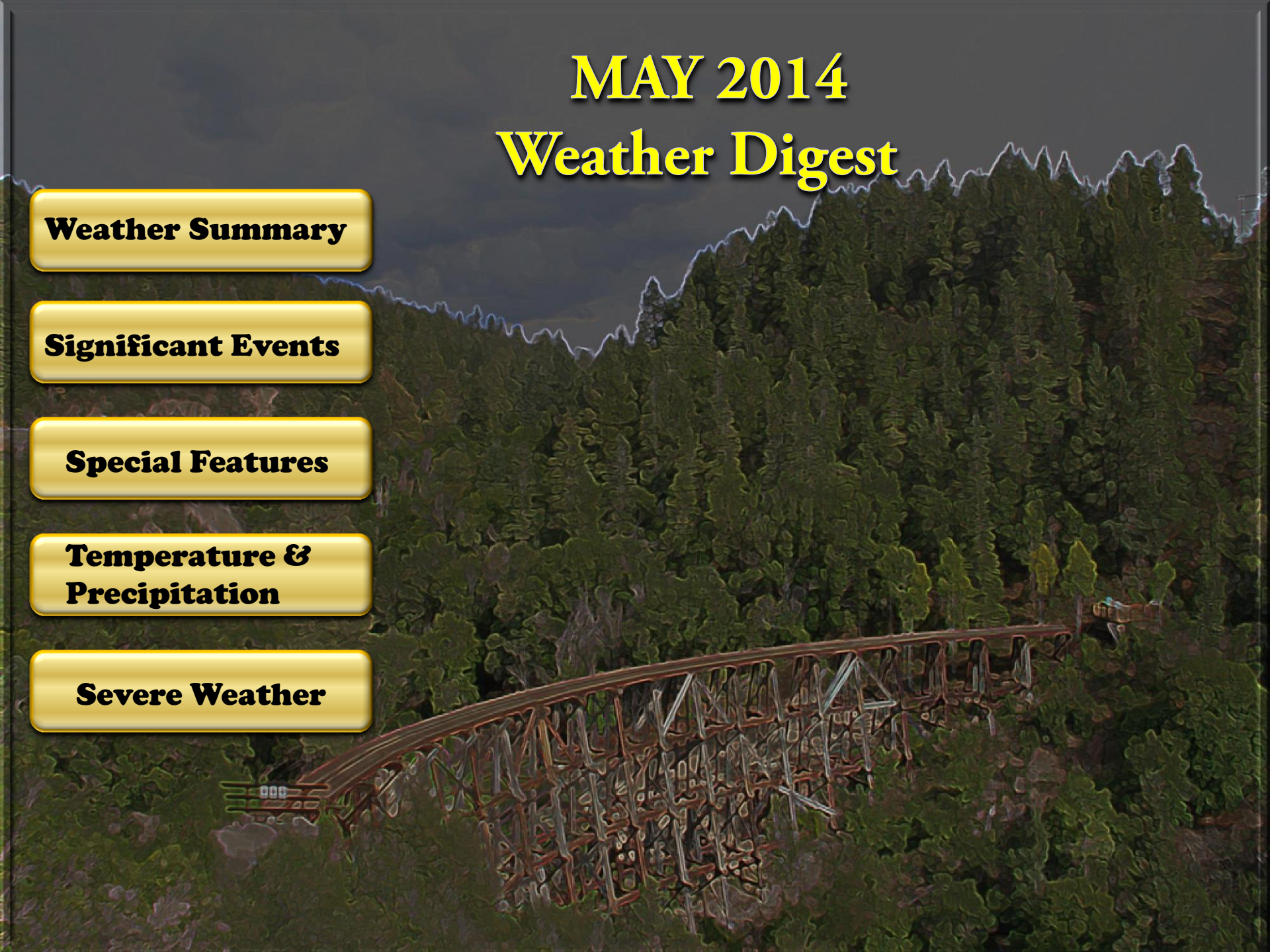
MAY 2014
Weather Digest



MAY 2014 Weather Summary

May 2014 began with a cool streak of temperatures and ended with a very warm streak. However, the month as a whole was on the cool side, with average temperatures ranging from 2 to 5 degrees below normal. Precipitation was hit or miss for May, as usual. Much of the area east of the I-10/I-25 corridor received decent rainfall while most of the areas to the west of this corridor received very little rainfall. However, only the Sierra County Lakes region and Tularosa Basin received above average rainfall for the month.

The month began with several bouts of wind and blowing dust. A strong upper low moved across the area on the 6th and 7th. Winds were especially strong on the 7th, with wind gusts in the 50s to 60s mph common. Another upper low and strong surface cold front plowed through the Borderland on the 11th, creating strong winds and blowing dust. Wind gusts again in the 40s-50s mph were common. These winds set up very dangerous fire conditions, and on the 11th the Signal Fire, eventually growing to over 5000 acres before being contained. With the passage of a front, a pronounced cool stretch occurred from the 12th to the 14th, culminating with record coolness on the 13th. Many sites approached record low maximum temperatures, with El Paso tying a daily low maximum temperature of 67 degrees.

MAY 2014 Weather Summary-continued

On May 22nd and 23rd, a batch of strong thunderstorms developed as an upper low moved to southern Arizona and low level east flow brought in moisture from the east. The environment west of El Paso set up for high based thunderstorms and strong outflows with this pattern, and strong outflow from a nearby shower caused blowing dust and low visibilities to rapidly develop along I-10 west of Lordsburg. Unfortunately, this led to a serious multiple vehicle accident and 7 fatalities.

Moisture moved back into the area on May 29th and 30th. Two sources were at work to bring this moisture into the Borderland. At mid and higher levels, moisture from Tropical Storm Amanda streamed in from the south, while at lower levels moisture from the Gulf of Mexico moved in from the southeast. Rainfall was generally on the light side although a few areas in the Sacramento Mountains received over one-half inch of rainfal l for the two days. Winds from microbursts were once again a big threat, with even relatively small cells producing wind gusts of 50 mph or greater. No damage reports were received from the public however.

On May 31 more records were set as El Paso saw its first 100 degree day with a record high of 102.

May 2014 Significant Events

Signal Fire Fully Contained

Incident: Signal Fire Wildfire

SILVER CITY, NM; May 23, 2014 – Forest officials announce the 5,484-acre
Under the new fire area order #06-342, the following recreational sites are
These roads and trails remain closed:

· Forest Road 154 (Signal Peak Road) at intersection of FR 4255G

· Forest Road 149 (Meadow Creek Road) at T16S, R13W, southeast corner Sec 4, approximately two miles from NM Hwy 15

· Forest Road 855A (Lockney Rd.)

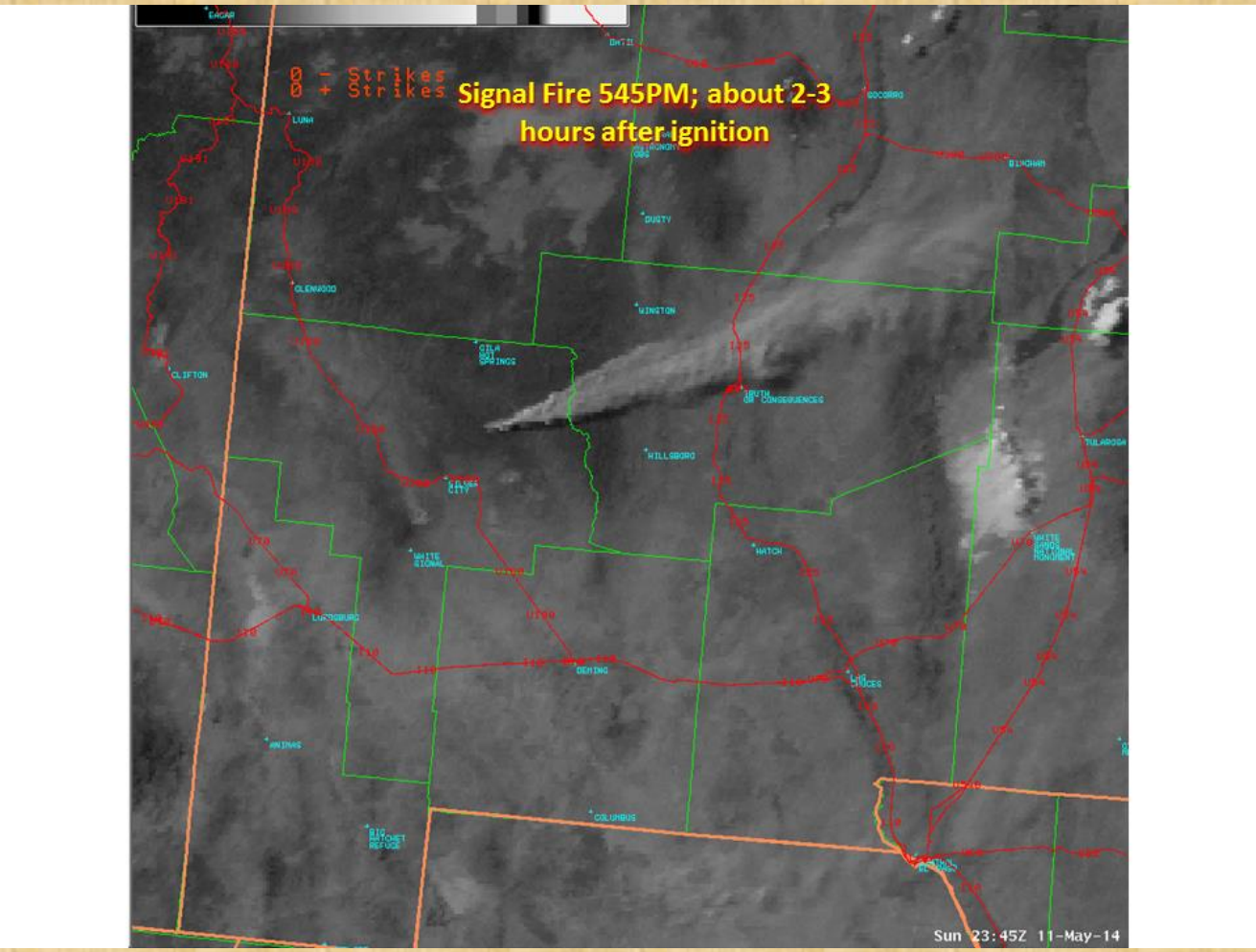
· Signal Peak Trail #742 from Black Peak to Signal Peak

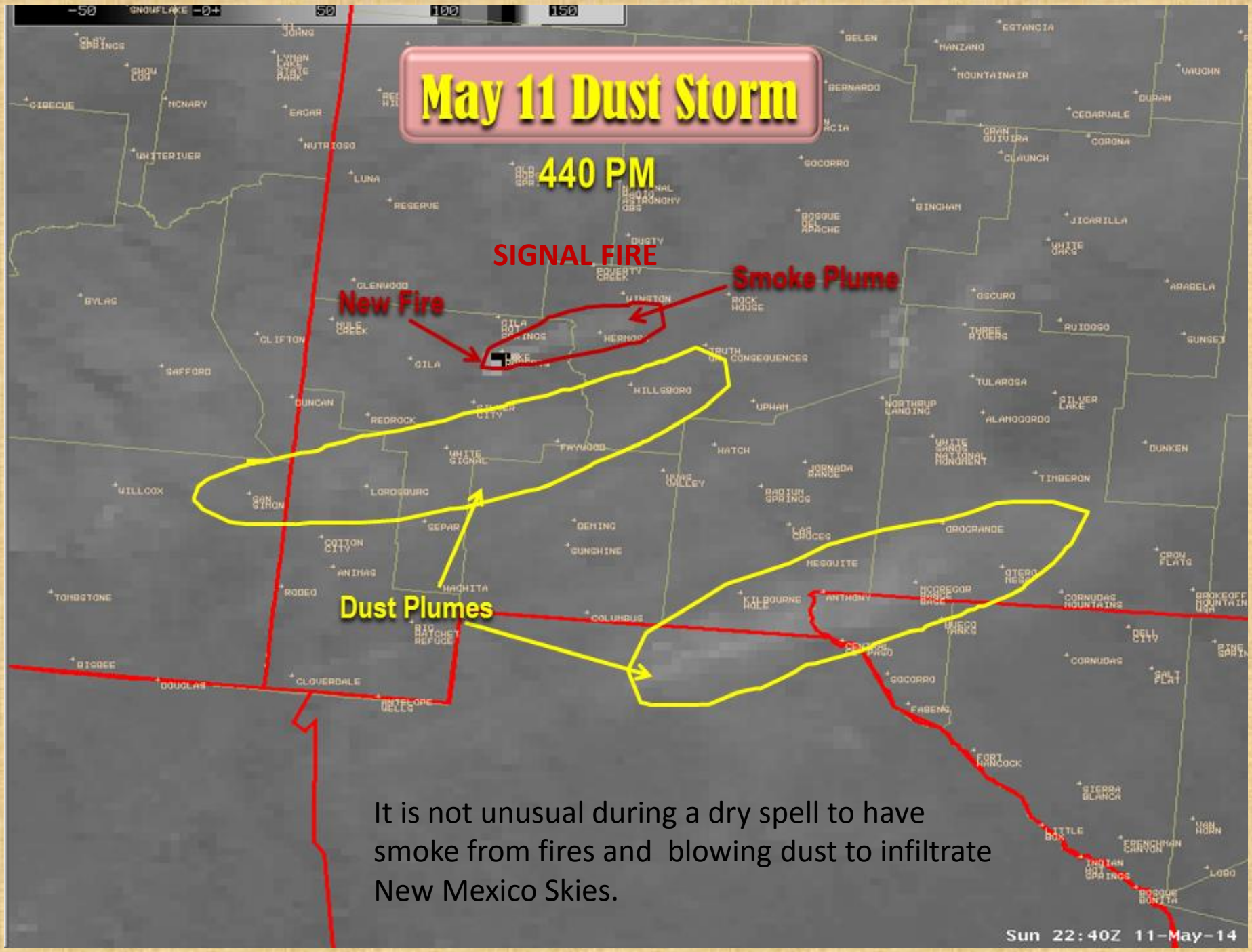
· Continental Divide National Scenic Trail (CDNST) #74 from Black Peak to the junction of FR 89

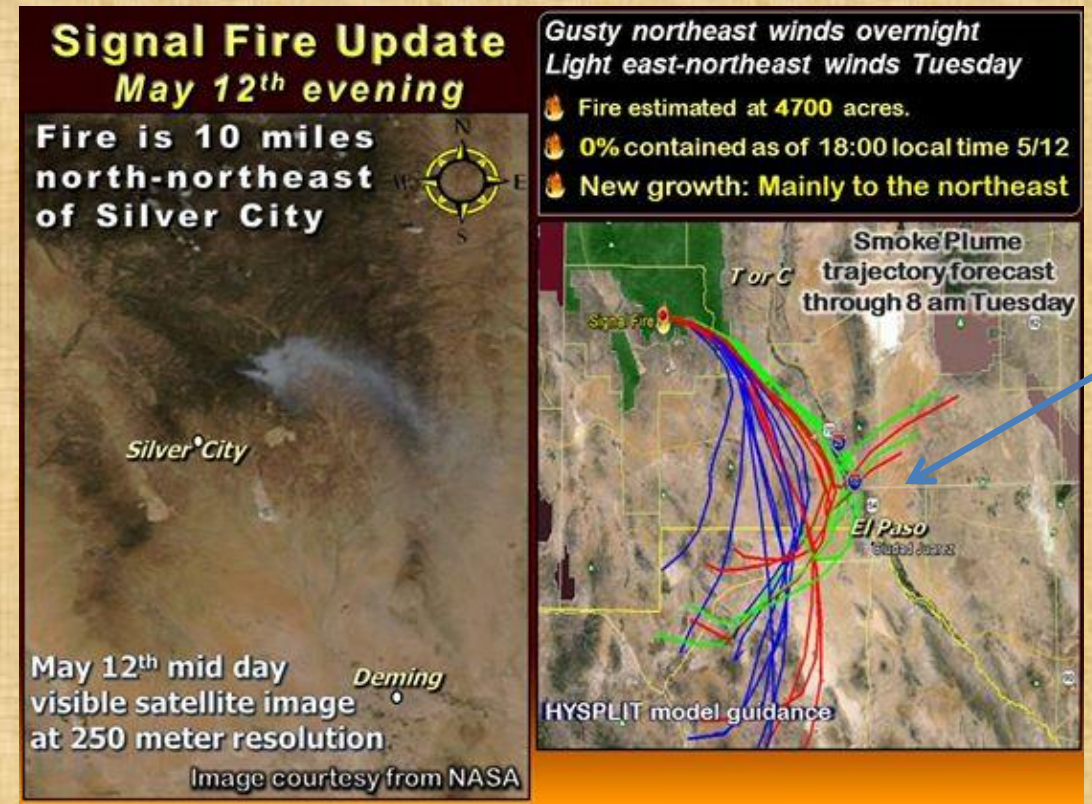
The closure order and map are posted on the forest website at http://tinyurl.com/p56bntv.

The human-caused fire started May 11, 2014 about 10 miles north of Silver City, NM. Around 100 personnel remain assigned to the incident to mop up hot spots and patrol firelines.

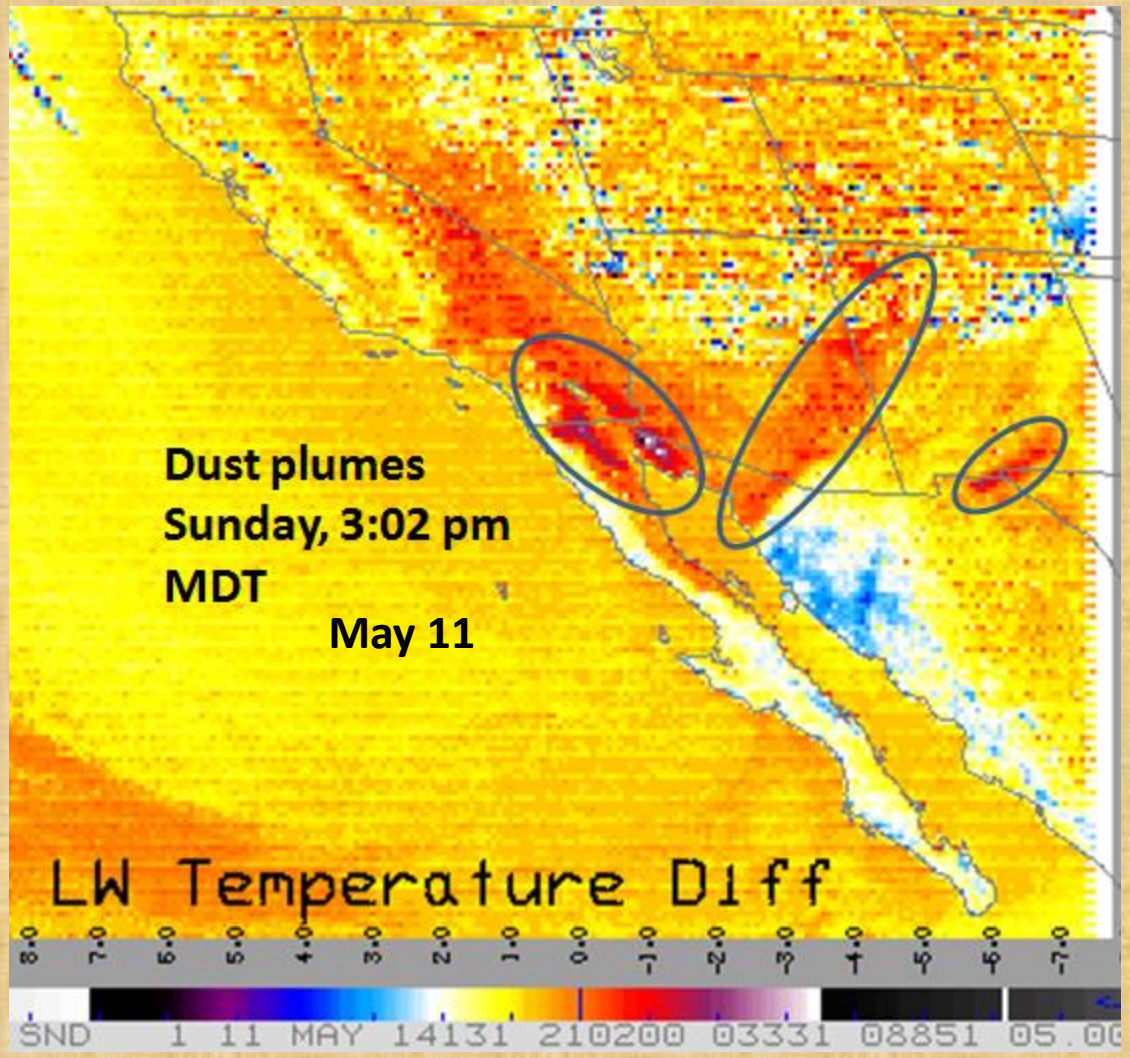
Significant Events




May 11 Dust Storm
440 PM
SIGNAL FIRE
Smoke Plume
New Fire
Dust Plumes
It is not unusual during a dry spell to have smoke from fires and blowing dust to infiltrate New Mexico Skies.
Sun 22:40Z 11-May-14



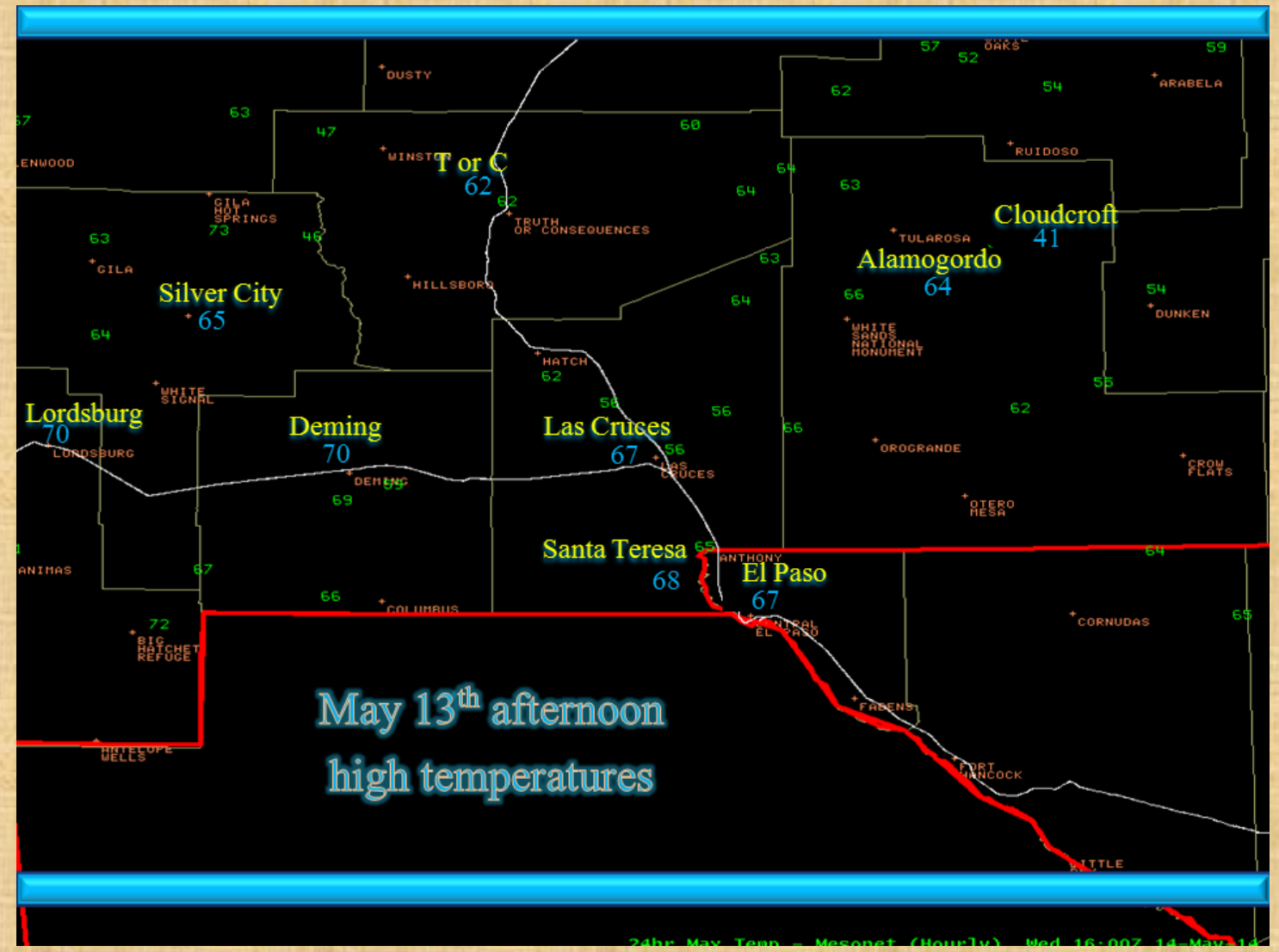
The National Weather Service Runs Trajectory and Dispersion Models for Smoke and Hazmat Events.


Dust plumes
Sunday, 3:02 pm
MDT
May 11
LW Temperature Diff
8.0 7.0 6.0 5.0 4.0 3.0 2.0 1.0 0.0 -1.0 -2.0 -3.0 -4.0 -5.0 -6.0 -7.0
SND 1 11 MAY 14131 210200 03331 08851 05.00

Ranger Peak 5/11/2014

63 mph winds at
El Paso International Airport

Significant events-continued



Significant events-continued

May 13 record cold:

El Paso Intl Airport – tied record low max of 67 deg.
Santa Teresa NWS – record low max of 68 deg.
Cloudcroft – record low max of 49 deg.
and
a record low min of 23 deg.

Significant events-continued

DUST STORM TURNS UGLY THURSDAY MAY 22 530 PM
6 MI EAST OF THE ARIZONA STATE LINE IN NEW MEXICO

HIGHEST WIND REPORTED
WAS 64 MPH FROM A NMDOT
SITE CLOSEST TO THE ACCIDENT LOCATION

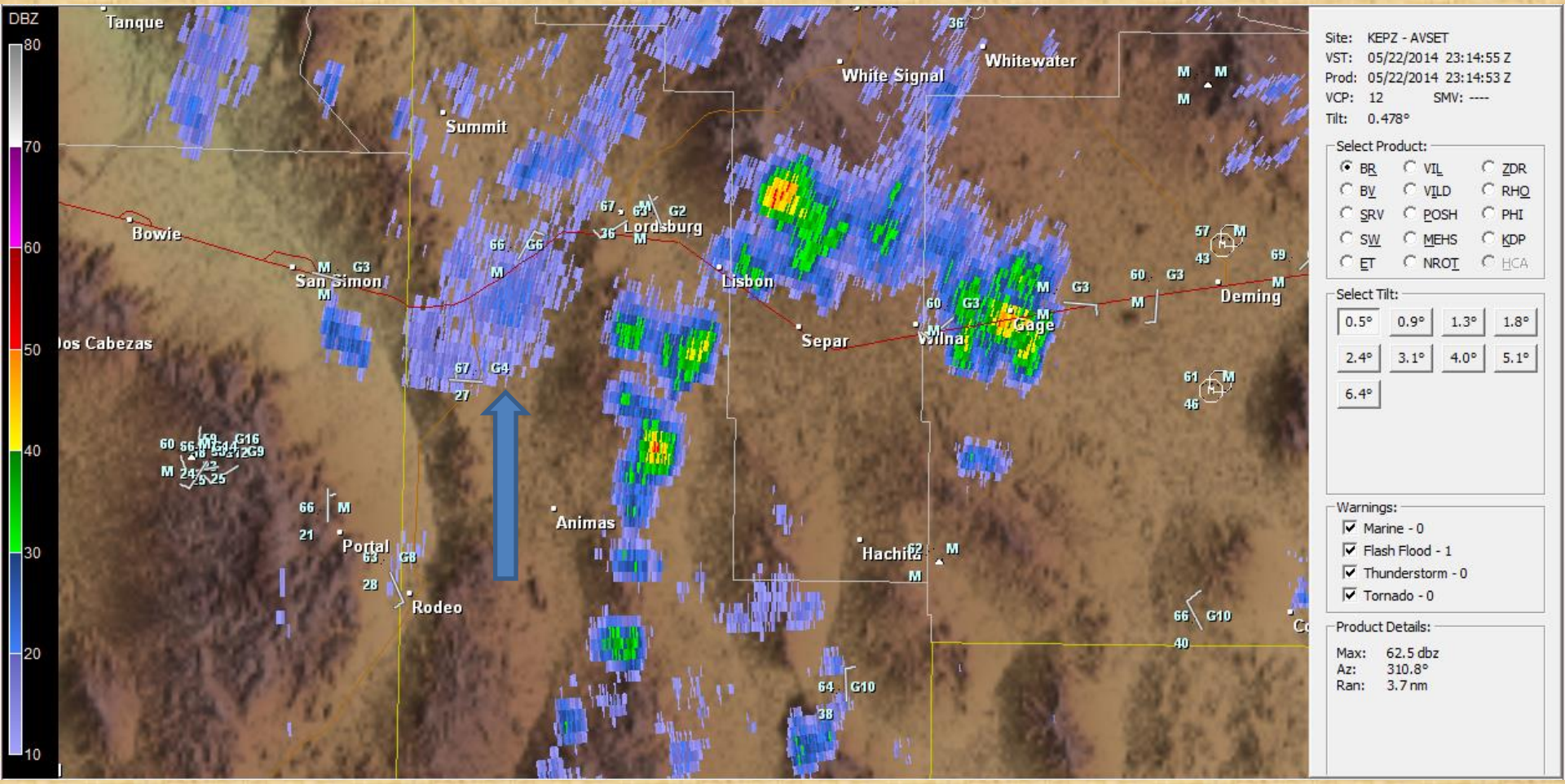
The accident occurred at the start of the travel period for the Memorial Day holiday weekend. The National Weather Service in Tucson on Thursday afternoon had reported "dry thunderstorms" east of Tucson and issued a "Blowing Dust Advisory" for Interstate 10 from Tucson west to Casa Grande, Arizona. The advisory stated that high winds and low visibility could make driving hazardous. Drivers had been advised to pull to the side when encountering blowing dust that lowered visibility.

It is not uncommon for dust storms to close stretches of I-10 in the area of New Mexico-Arizona state line because blowing dust causes visibility difficult.

Daniel Borunda may be reached at 546-6102.


CAUTION
DUST STORMS
MAY EXIST

Here is a radar composite snap shot near the time of the accident. Note the relatively weak signature of the collapsing as compared to the stronger cells farther east. Often Small thunderstorms or even towering cumulus clouds can produce strong outflow winds when they collapse.



Special Features

LIGHTS OUT!

In the past, motorists driving in dust storms have pulled off the roadway, leaving lights on. Vehicles approaching from the rear and using the advance car's lights as a guide have inadvertently left the roadway and in some instances collided with the parked vehicle. Make sure all of your lights are off when you park off the roadway.

HEED WARNINGS

During threatening weather listen to commercial radio or television or NOAA Weather Radio for Dust Storm Warnings. A Dust Storm (or Sand Storm) Warning means: Visibility of 1/2 mile or less due to blowing dust or sand, and wind speeds of 30 miles an hour or more.

DUST STORM SAFETY TIPS

If dense dust is observed blowing across or approaching a roadway, pull your vehicle off the pavement as far as possible, stop, turn off lights, set the emergency brake, take your foot off of the brake pedal to be sure the tail lights are not illuminated.

Don't enter the dust storm area if you can avoid it.

If you can't pull off the roadway, proceed at a speed suitable for visibility, turn on lights and sound horn occasionally. Use the painted center line to help guide you. Look for a safe place to pull off the roadway.

Never stop on the traveled portion of the roadway.

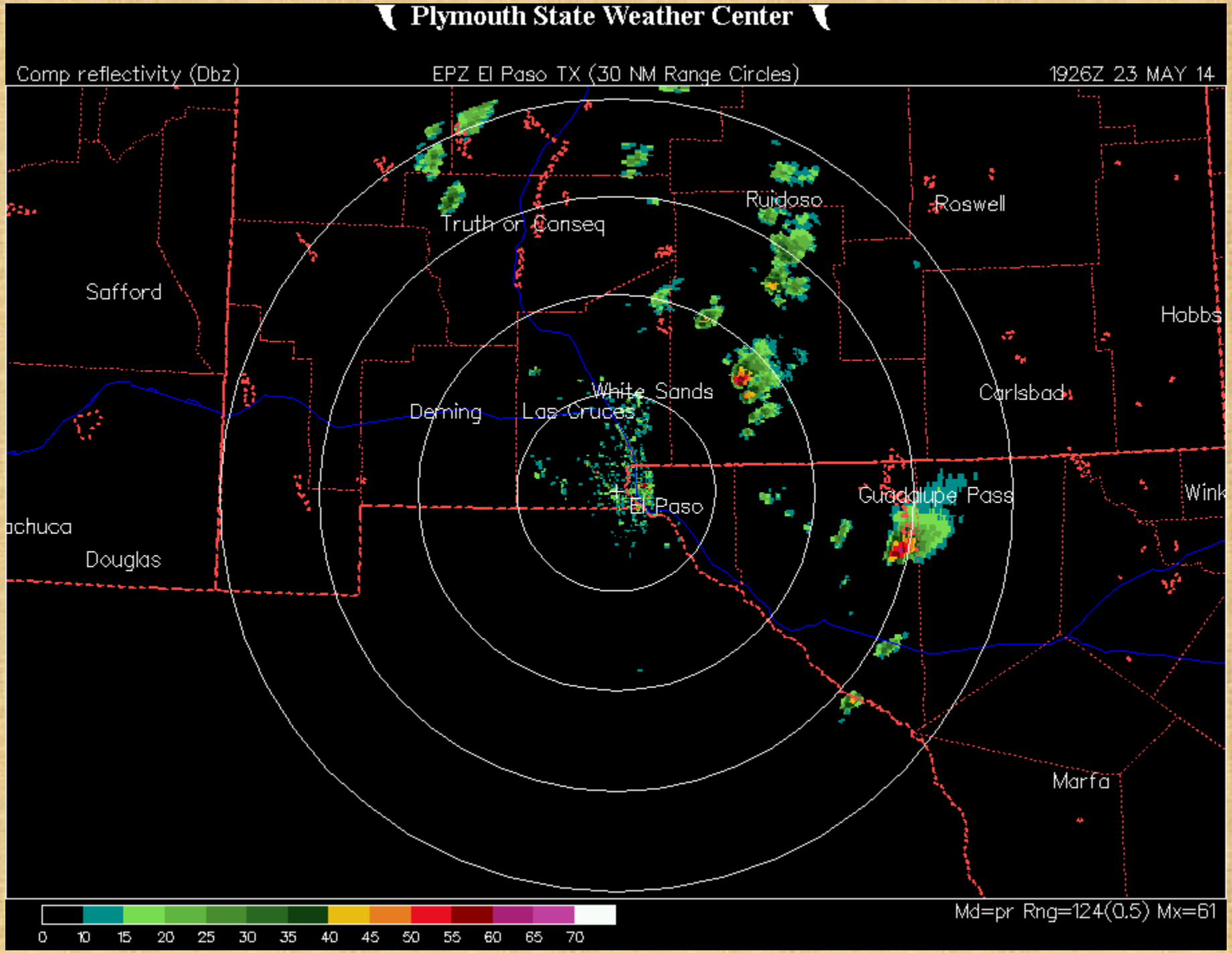
MOTORIST BEWARE!

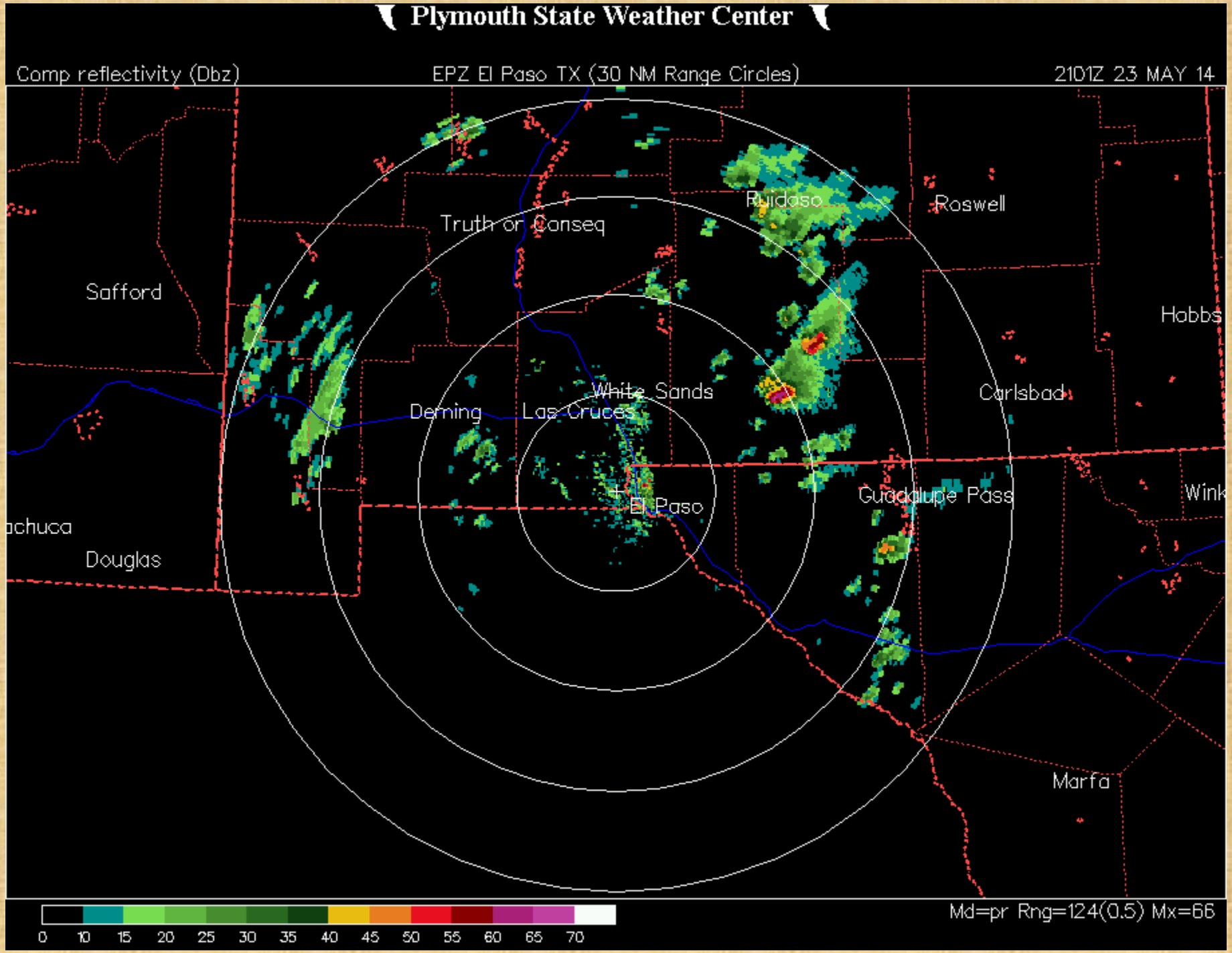
A dust storm usually arrives suddenly in the form of an advancing wall of dust and debris which may be miles long and several thousand feet high.
They strike with little warning, making driving conditions hazardous. Blinding, choking dust can quickly reduce visibility, causing accidents that may involve chain collisions, creating massive pileups. Dust storms usually last only a few minutes, but the actions a motorist takes during the storm may be the most important of his or her life.

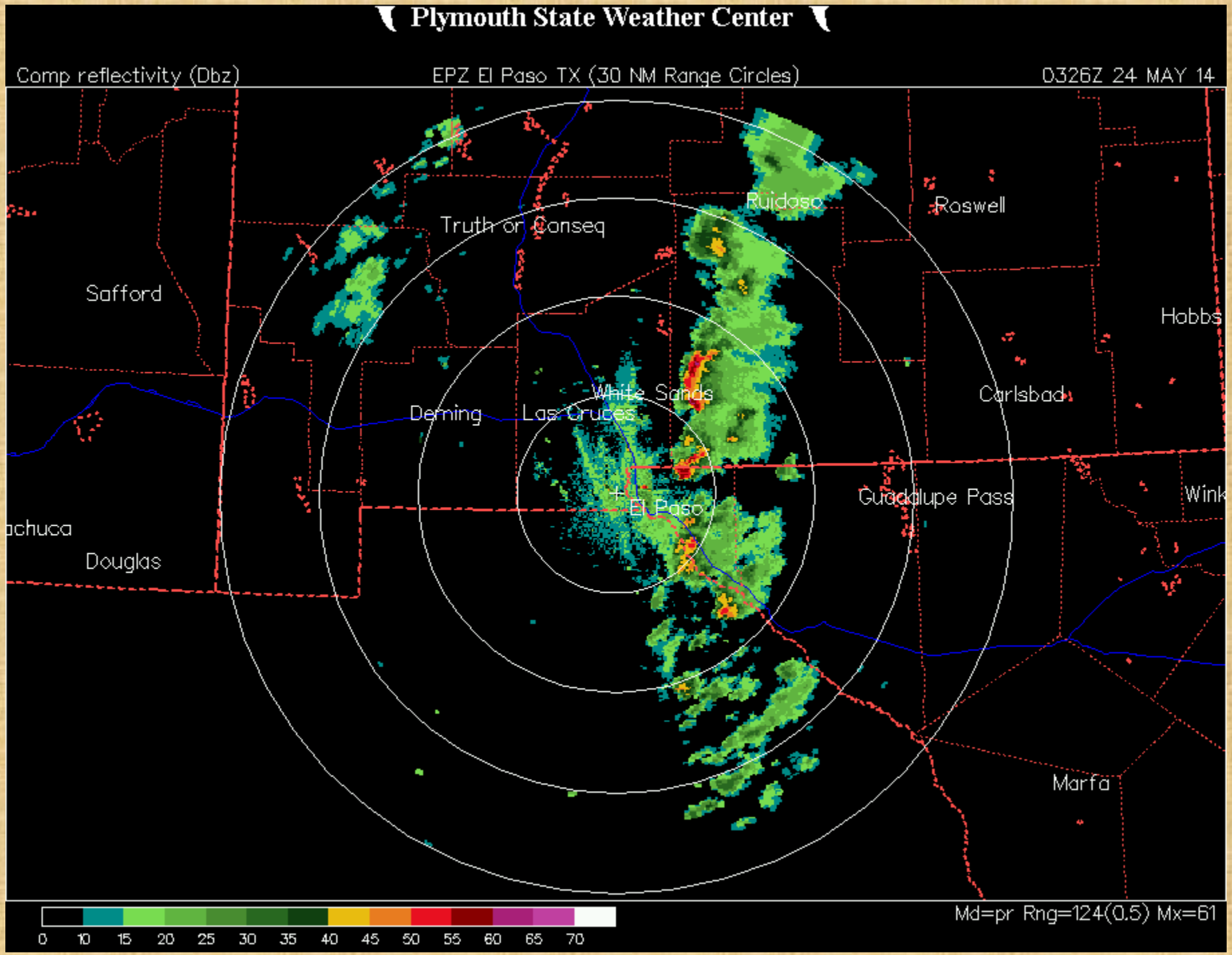
Significant events-continued

FRIDAY MAY 23 HAD POTENTIAL FOR SEVER THUNDERSTORMS AROUND THE BORDERLAND

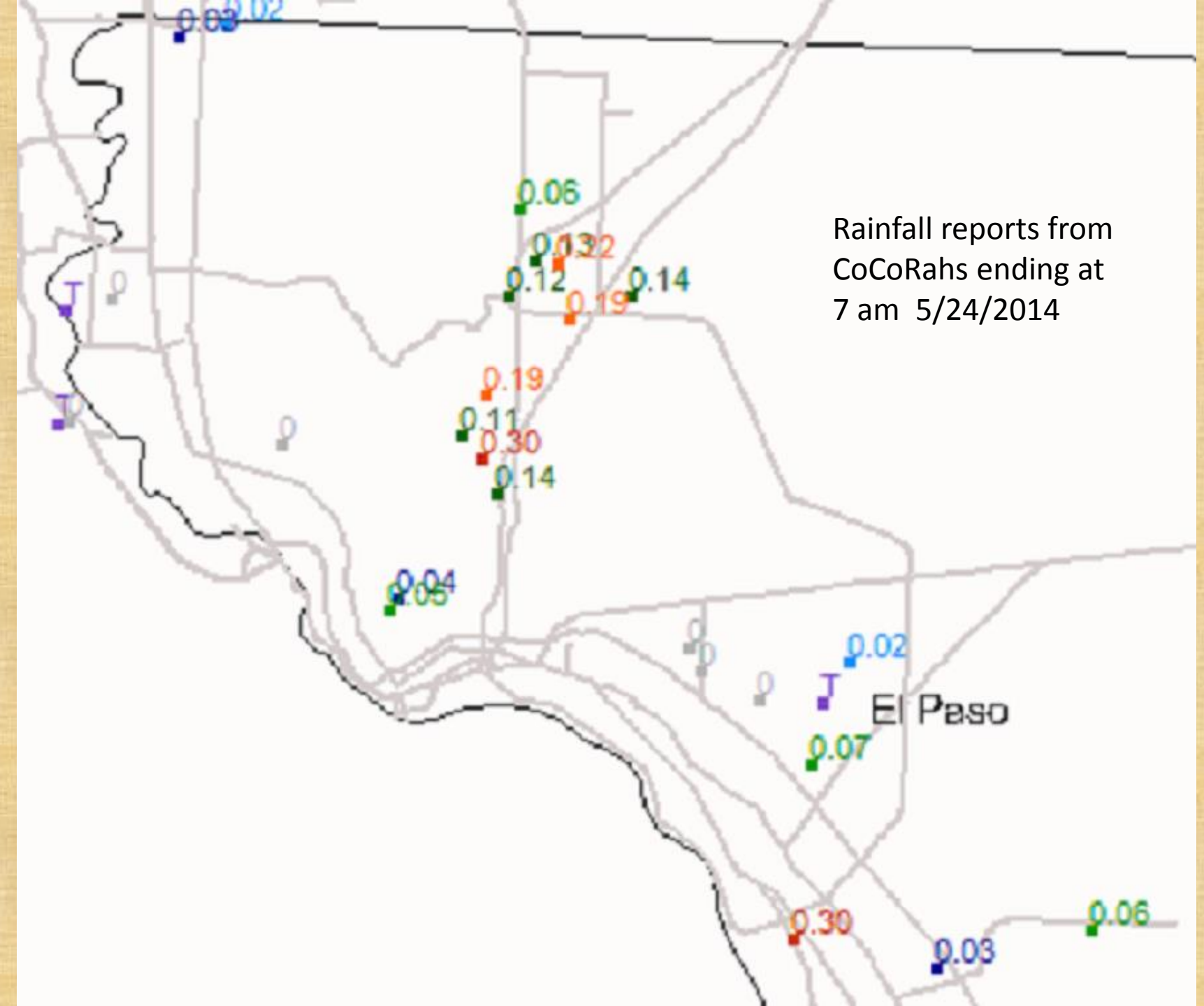
Here are some select radar snap shots some strong to severe thunderstorms over Otero and Hudspeth counties during the afternoon and evening hours

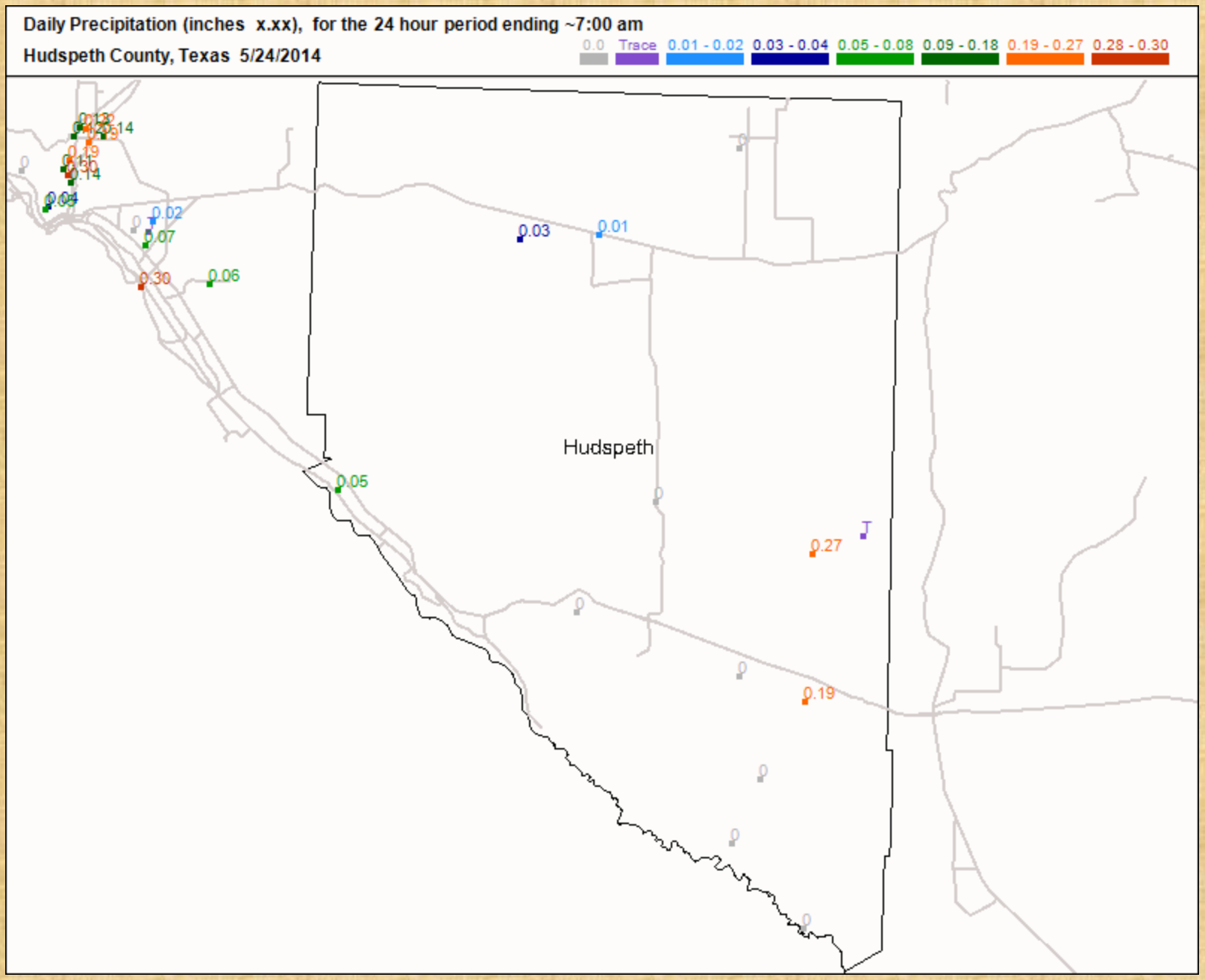

Plymouth State Weather Center
Comp reflectivity (Dbz)
EPZ El Paso TX (30 NM Range Circles)
1926Z 23 MAY 14
Truth or Conseq
Ruidoso
Roswell
Safford
Hobbs
White Sands
Deming
Las Cruces
Carlsbad
El Paso
Guadalupe Pass
Douglas
Marfa
0 10 15 20 25 30 35 40 45 50 55 60 65 70
Md=pr Rng=124(0.5) Mx=61

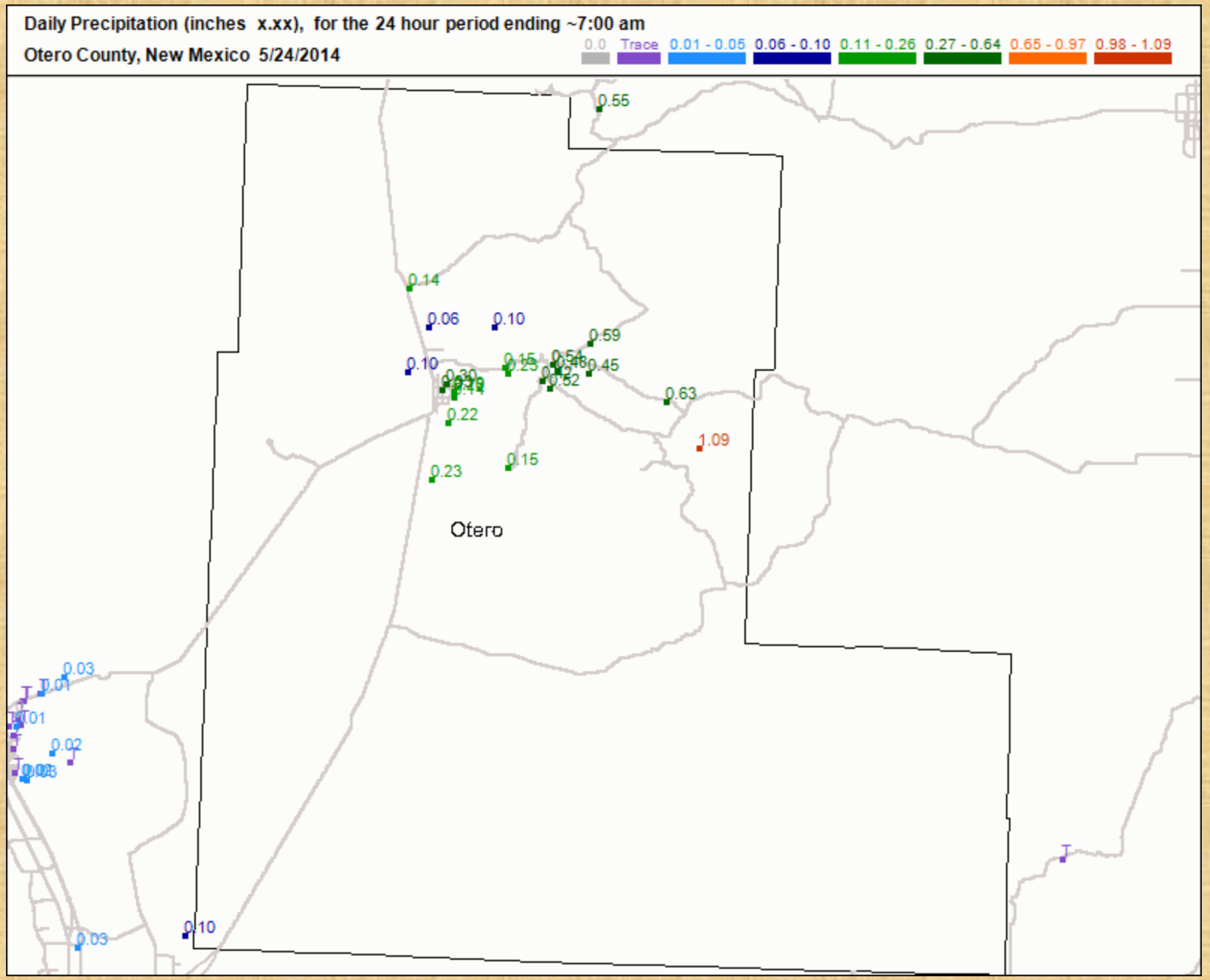

Plymouth State Weather Center
Comp reflectivity (Dbz)
EPZ El Paso TX (30 NM Range Circles)
2101Z 23 MAY 14
Truth or Conseq
Ruidoso
Roswell
Safford
Hobbs
White Sands
Deming
Las Cruces
Carlsbad
El Paso
Guadalupe Pass
Douglas
Marfa
0 10 15 20 25 30 35 40 45 50 55 60 65 70
Md=pr Rng=124(0.5) Mx=66

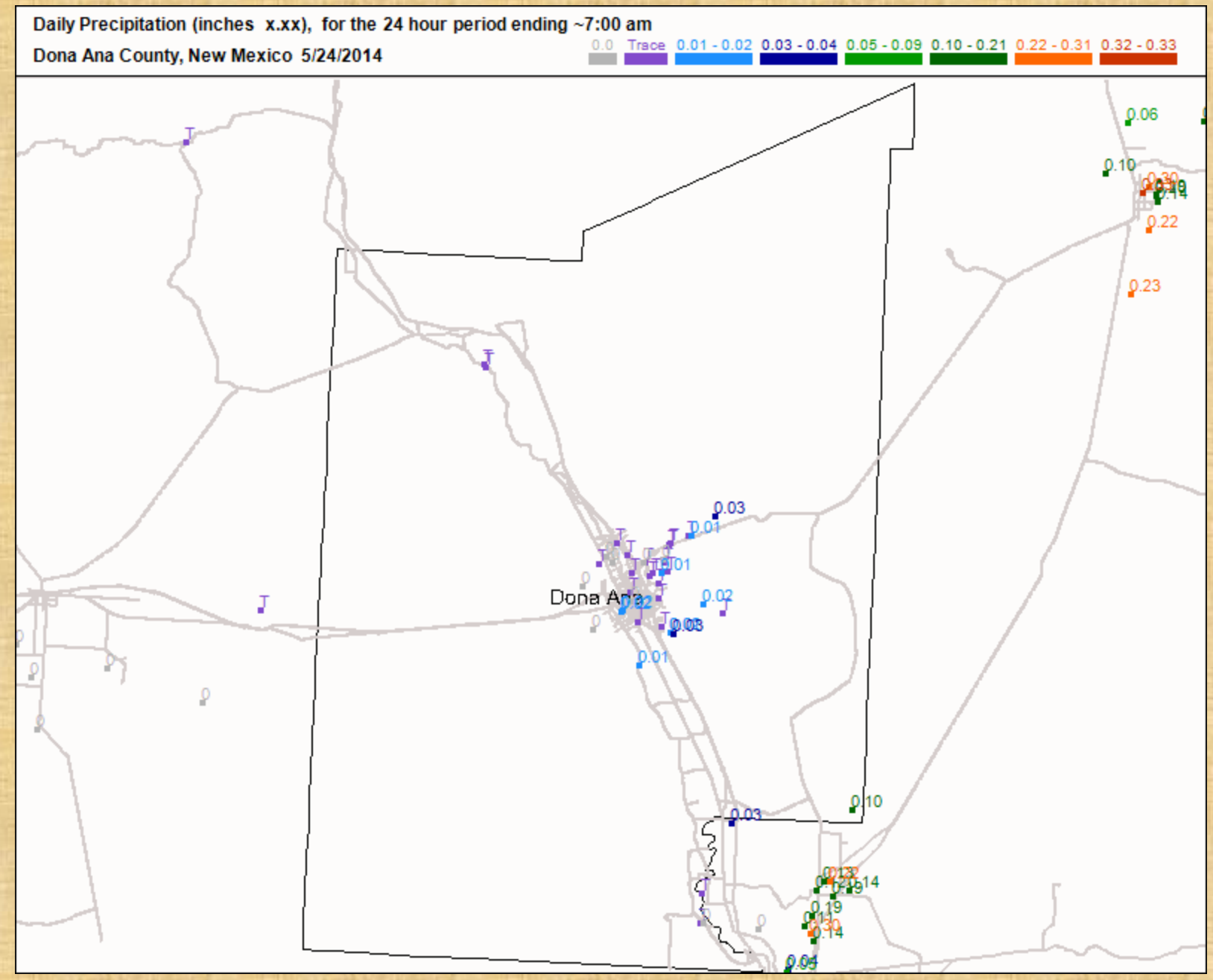

Plymouth State Weather Center
Comp reflectivity (Dbz)
EPZ El Paso TX (30 NM Range Circles)
0326Z 24 MAY 14
Truth or Conseq
Ruidoso
Roswell
Safford
Hobbs
White Sands
Deming
Las Cruces
Carlsbad
El Paso
Guadalupe Pass
Douglas
Marfa
0 10 15 20 25 30 35 40 45 50 55 60 65 70
Md=pr Rng=124(0.5) Mx=61

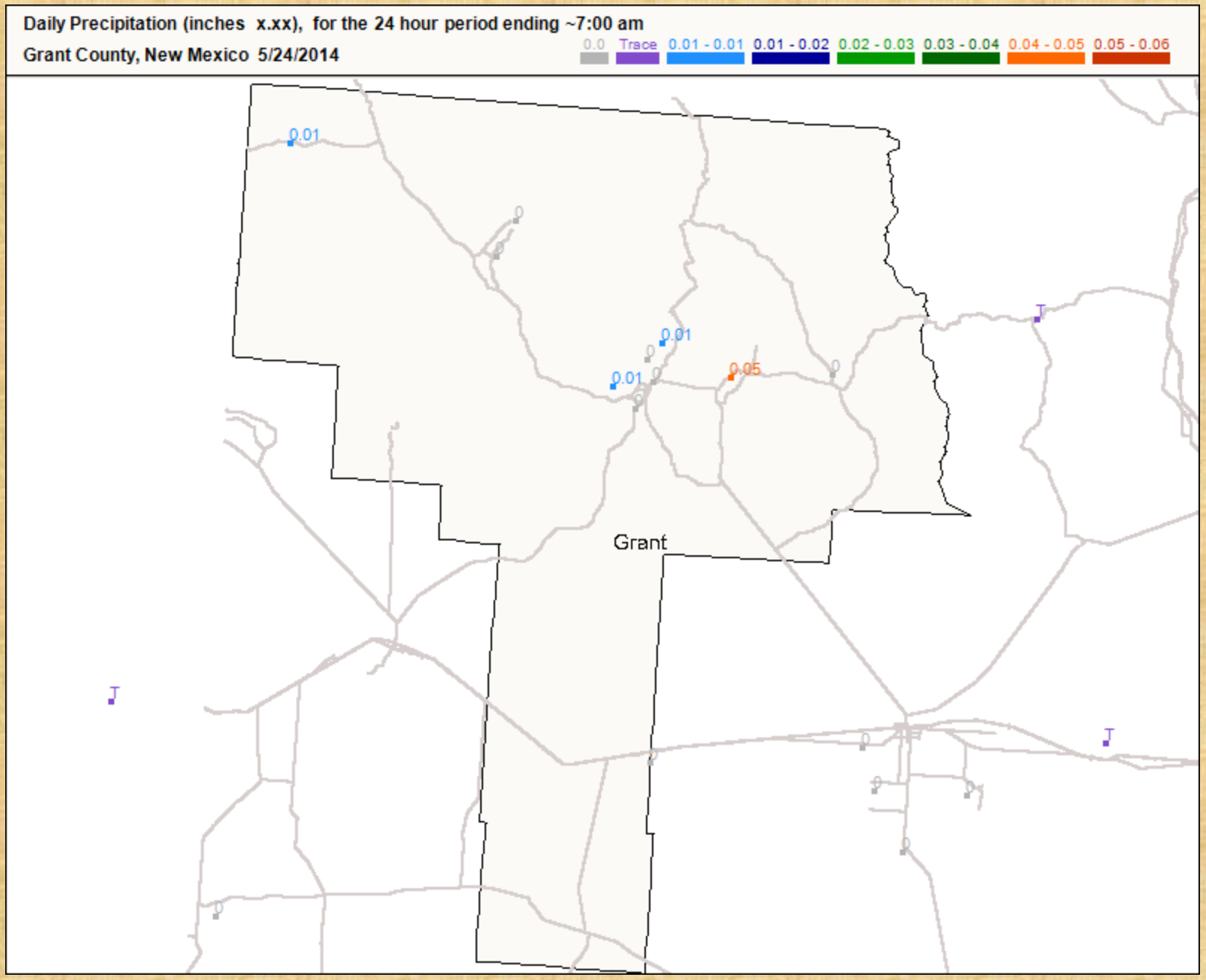
Rainfall was fairly rare during May. Here are some rainfall maps from CoCoRaHs of the rain event over the Borderland On May 23 2014.


0.06
0.12
0.14
0.19
0.19
0.11
0.30
0.14
0.04
0.05
0.02
El Paso
0.07
0.30
0.03
0.06
Rainfall reports from
CoCoRahs ending at
7 am 5/24/2014


Daily Precipitation (inches x.xx), for the 24 hour period ending ~7:00 am
Hudspeth County, Texas 5/24/2014
0.0
Trace
0.01 - 0.02
0.03 - 0.04
0.05 - 0.08
0.09 - 0.18
0.19 - 0.27
0.28 - 0.30
0.14
0.19
0.14
0.02
0.07
0.30
0.06
0.03
0.01
Hudspeth
0.05
T
0.27
0.19


Daily Precipitation (inches x.xx), for the 24 hour period ending ~7:00 am
Otero County, New Mexico 5/24/2014
0.0
Trace
0.01 - 0.05
0.06 - 0.10
0.11 - 0.26
0.27 - 0.64
0.65 - 0.97
0.98 - 1.09
0.55
0.14
0.06
0.10
0.59
0.10
0.45
0.52
0.63
0.22
1.09
0.15
0.23
Otero
0.03
0.02
0.10
0.03


Daily Precipitation (inches x.xx), for the 24 hour period ending ~7:00 am
Dona Ana County, New Mexico 5/24/2014
0.0
Trace
0.01 - 0.02
0.03 - 0.04
0.05 - 0.09
0.10 - 0.21
0.22 - 0.31
0.32 - 0.33
Dona Ana


Daily Precipitation (inches x.xx), for the 24 hour period ending ~7:00 am
Grant County, New Mexico 5/24/2014
0.0
Trace
0.01 - 0.01
0.01 - 0.02
0.02 - 0.03
0.03 - 0.04
0.04 - 0.05
0.05 - 0.06
0.01
0.01
0.01
0.05
Grant

Got Rainfall?

Join CoCoRaHS!

CoCoRaHS is the **Co**mmunity **Co**llaborative **Ra**in, **H**ail, and **S**now Network -- a non-profit, community-based, high-density network of volunteers who take daily measurements of rain, hail, and snow in their backyards.

The data is sent to the National Weather Service, and is used to help improve river forecasts, and flash flood guidance. It also helps meteorologists understand local rainfall and snowfall patterns.

All you need is a standard 4-inch rain gauge, an interest in weather, and an internet connection!

CoCoRaHS has been a nationwide network for many years, and there are several observers in the El Paso/Santa Teresa County Warning Area… especially around Las Cruces and Deming. However, there are only a handful of observers in the El Paso area, and there are plenty of gaps in Sierra, Hudspeth, and Hidalgo counties.

CoCoRaHS is volunteer-friendly. Unlike the NWS COOP Observer Program, the emphasis is on understanding areal distribution of precipitation for specific events – not on building a continuous record for a specific point location. If you're away, you can easily send a "multi-day precipitation" report, or just report "Missing" precipitation. During dry stretches, you can report "daily zeros" *en-masse* rather than remembering to do it every day.

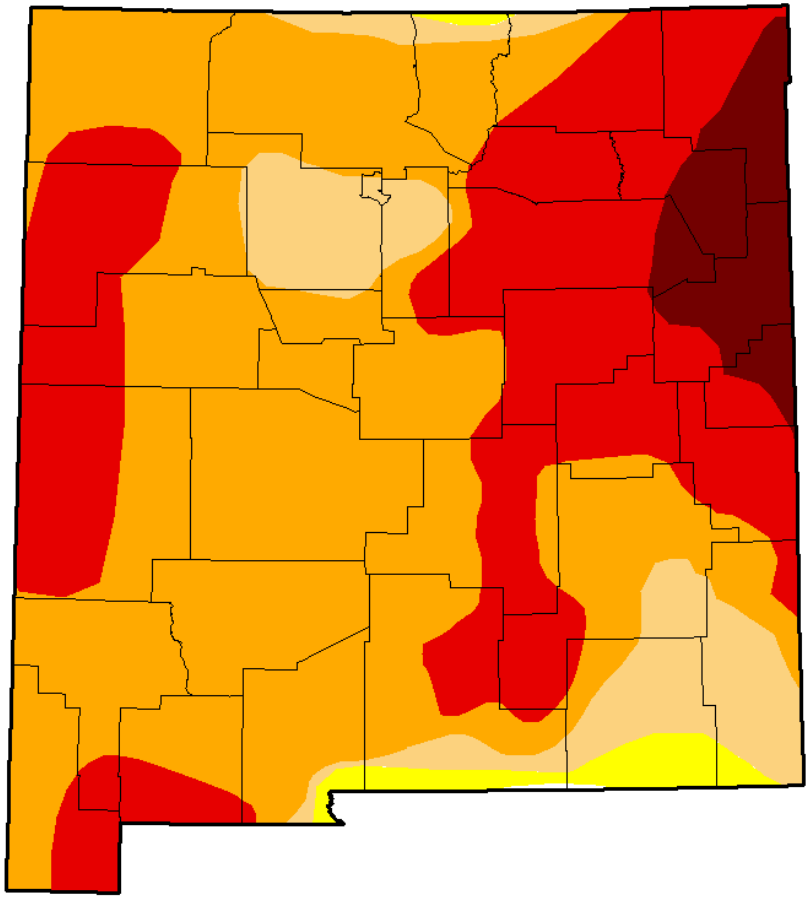
For more information on CoCoRaHS, visit the NWS El Paso Volunteer Portal at:

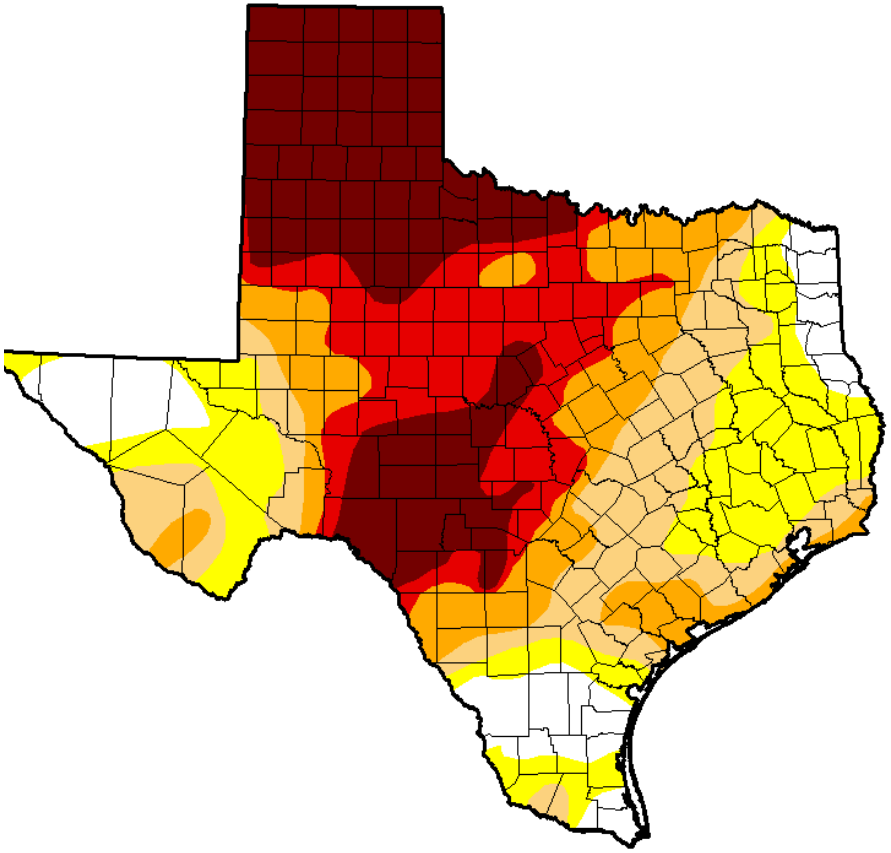
www.weather.gov/elpaso/?n=volunteer

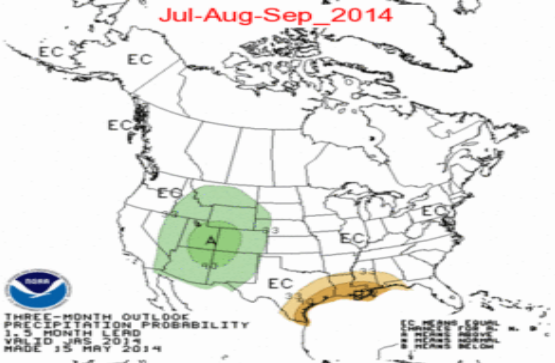
There's plenty of CoCoRaHS observers in Las Cruces, but very few in El Paso. Help us fill-in the gaps!

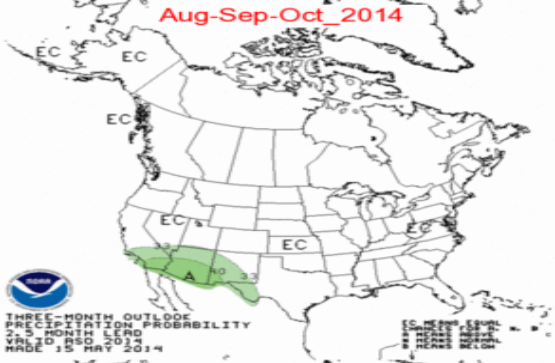
Current drought conditions as of May 20

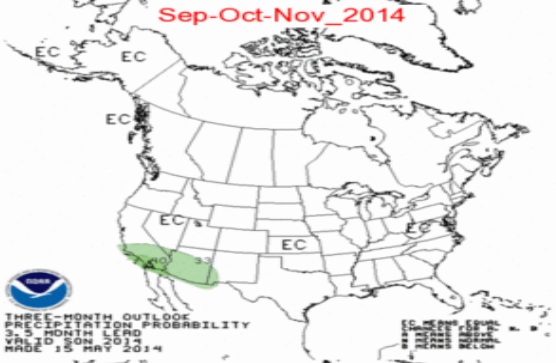
- Abnormally Dry – D0
- Moderate Drought – D1
- Severe Drought – D2
- Extreme Drought – D3
- Exceptional – D4

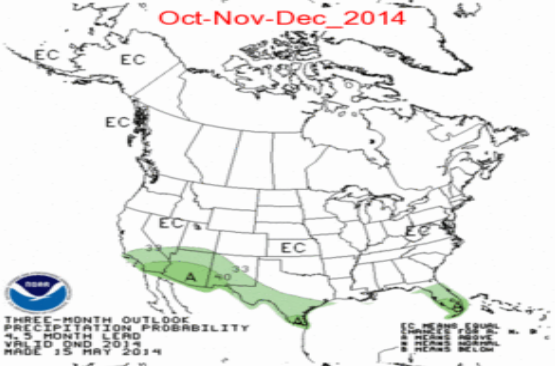


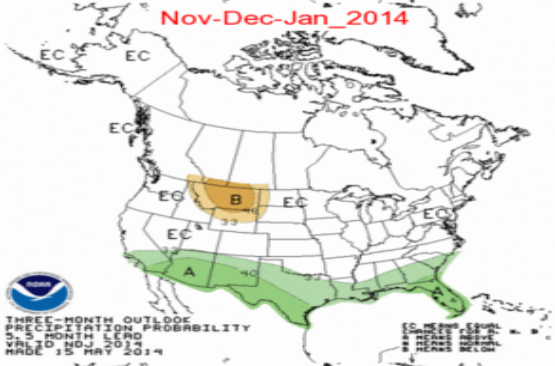


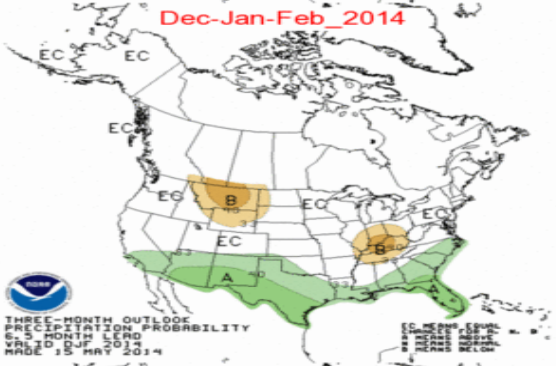


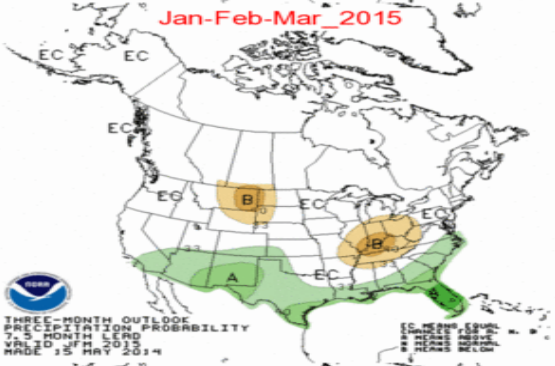


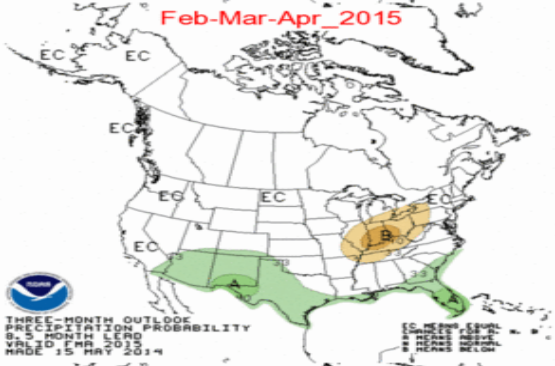


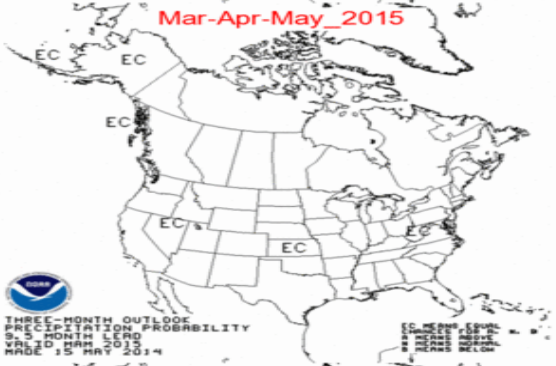


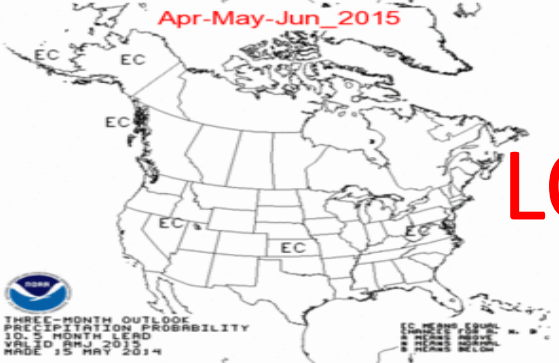


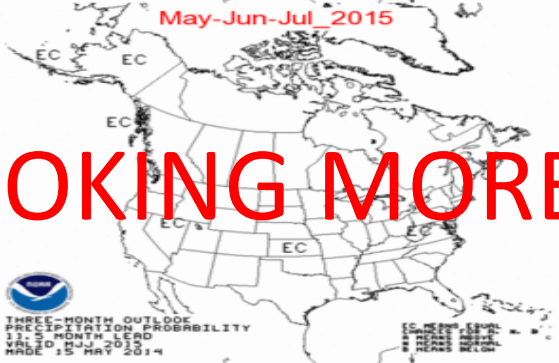


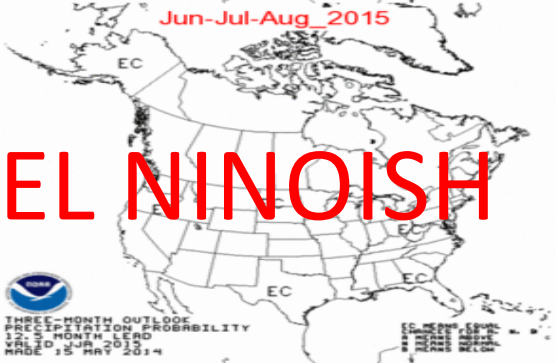




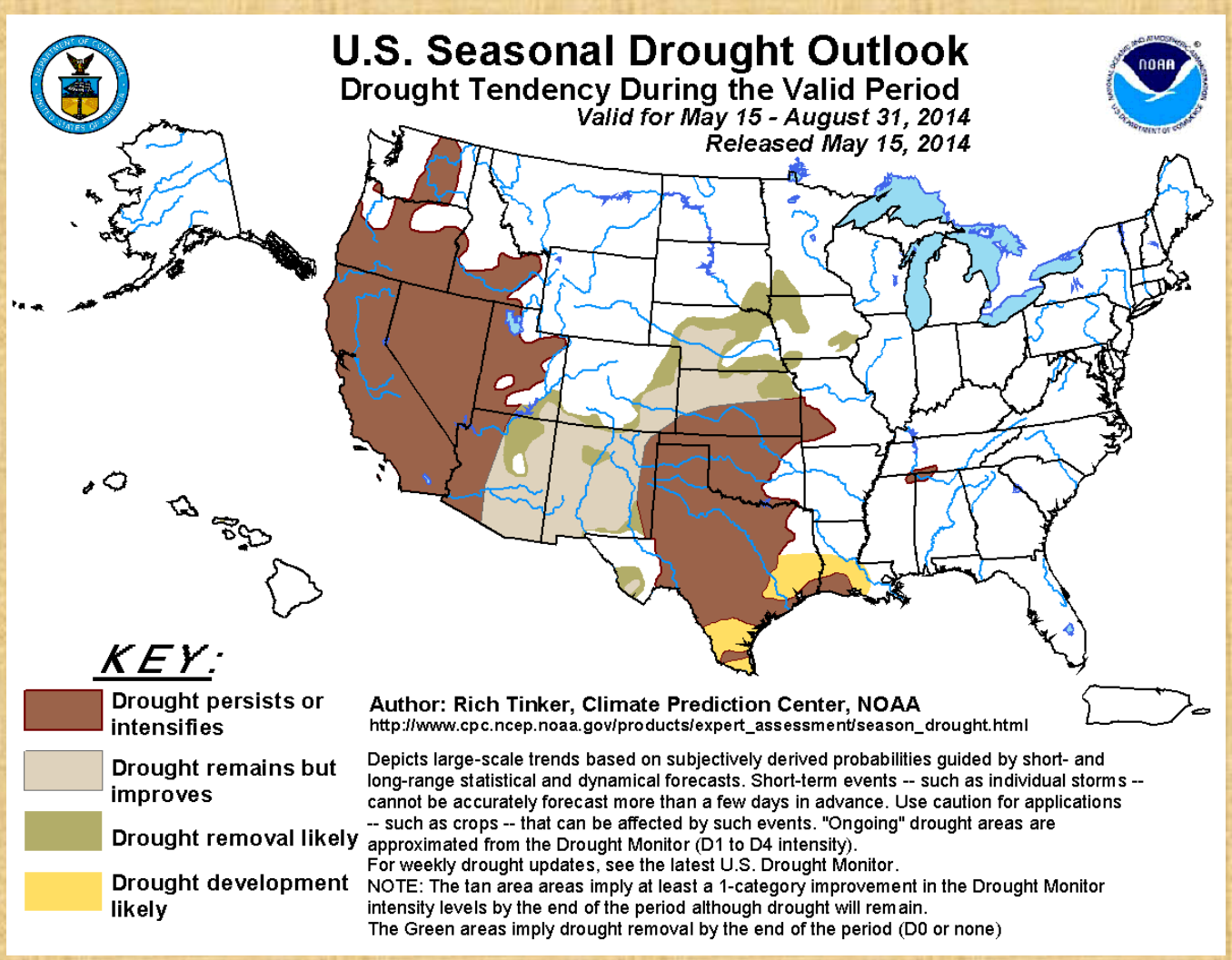








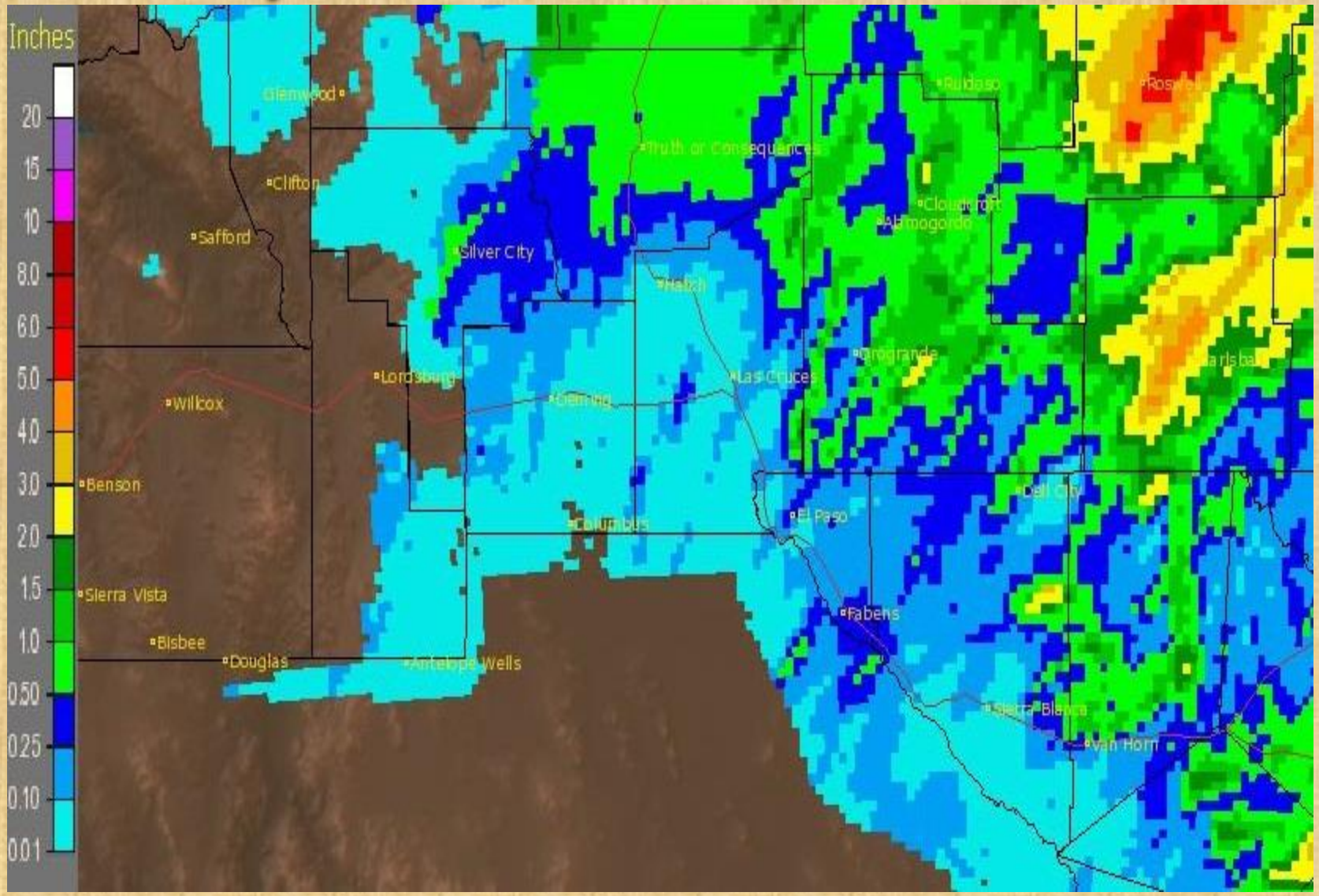
LOOKING MORE EL NINOISH



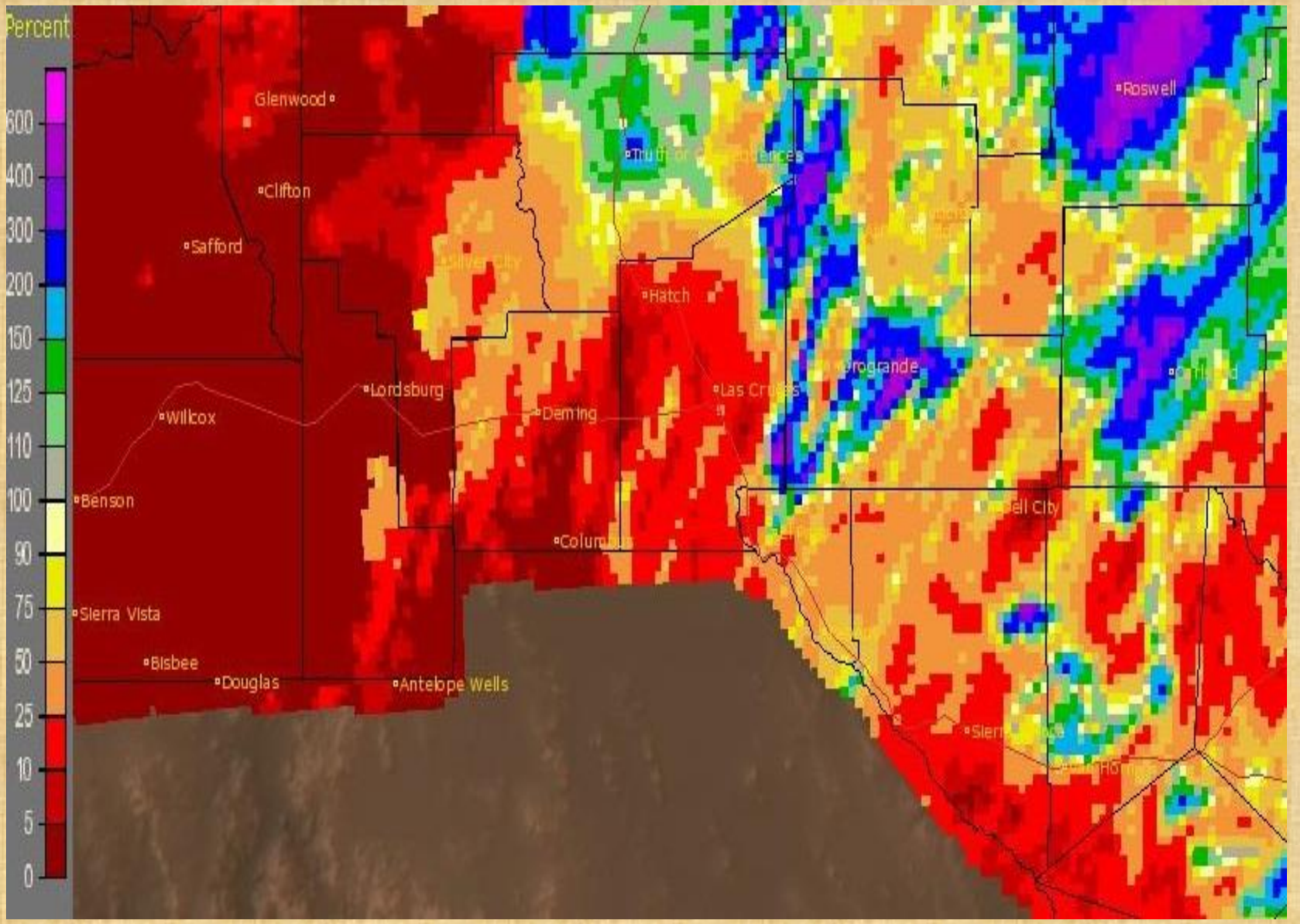
SUGGESTING A *NORMAL TO POSSIBLY A SLIGHTLY ABOVE NORMAL* MONSOON

Temperature and precipitation

May 2014 Radar Rainfall Estimate

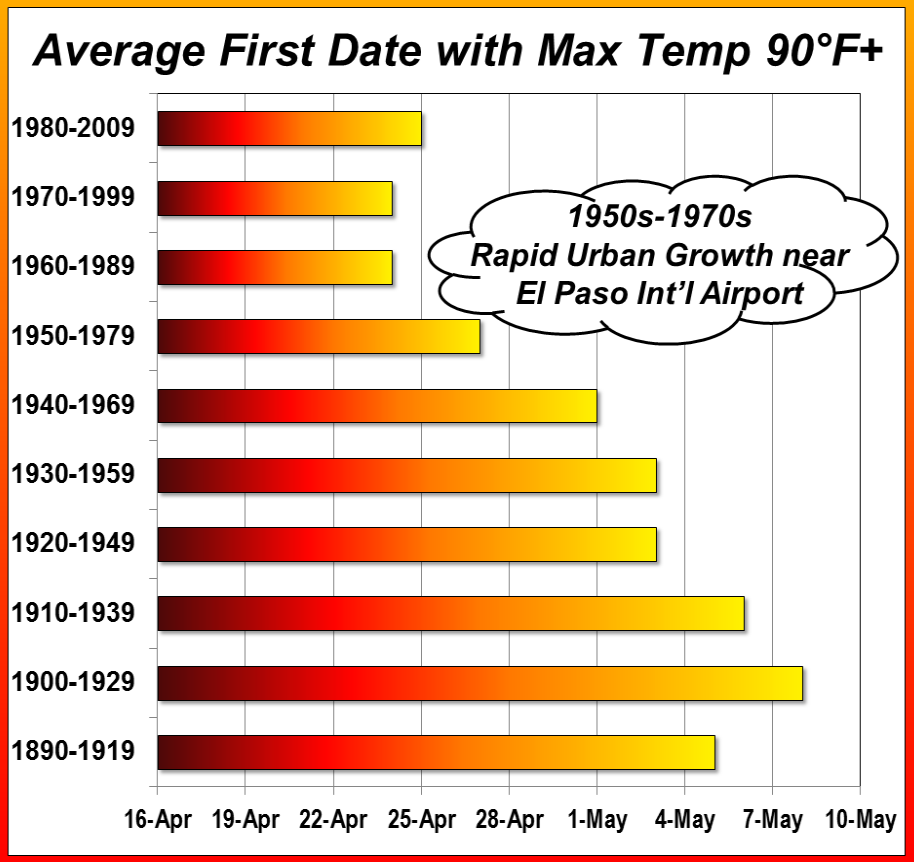


May 2014 Radar Rainfall Estimate
(Percent of normal)



El Paso's "First 90-Degree Day" Climatology

- First 90-Degree Day keeps getting earlier
- 1900-1929: Average Date of first 90+ was May 8th
- 1980-2009: Average has crawled back to April 25th



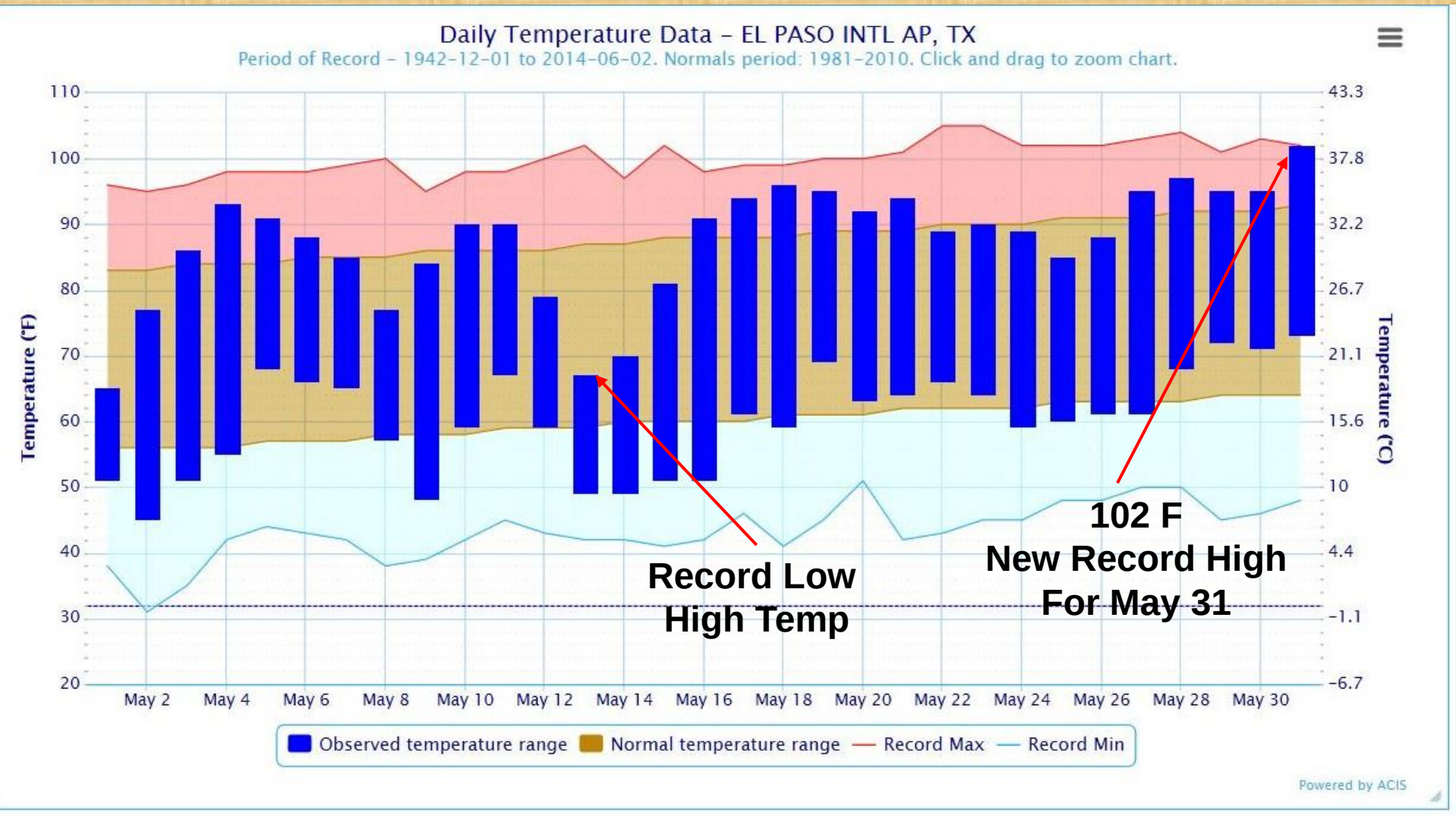
Recent "First 90" Days	
2014	May 4
2013	April 29
2012	March 25
2011	April 2
2010	May 5
2009	Apr 22
2008	Apr 15
2007	May 4
2006	April 13
2005	May 4

Top 3 Earliest:

March 18, 1907
March 25, 2012
April 2, 2011

Top 3 Latest:

May 28, 1957, 1917
May 27, 1909
May 26, 1946


Daily Temperature Data – EL PASO INTL AP, TX
Period of Record – 1942-12-01 to 2014-06-02. Normals period: 1981-2010. Click and drag to zoom chart.
Temperature (°F)
Temperature (°C)
110
100
90
80
70
60
50
40
30
20
43.3
37.8
32.2
26.7
21.1
15.6
10
4.4
-1.1
-6.7
May 2
May 4
May 6
May 8
May 10
May 12
May 14
May 16
May 18
May 20
May 22
May 24
May 26
May 28
May 30
Record Low
High Temp
102 F
New Record High
For May 31
Observed temperature range
Normal temperature range
Record Max
Record Min
Powered by ACIS

Severe Weather Reports May 2014

Date/Time	Location	Event
May 6 250 pm	San Augustin Pass	66 mph
May 6 415 pm	Salinas Peak	61 mph
May 6 600 pm	10 ENE El Paso	59 mph
May 6 257 pm	8 NNW Rodeo	58 mph
May 6 457 pm	6 NE El Paso	57 mph
May 7 215 pm	San Augustin Pass	87 mph
May 7 330 pm	WSMR Main Post	72 mph
May 7 124 pm	8 NNW Rodeo Hidalgo County	63 mph
May 7 525 pm	1 SW High Rolls Otero County	60 mph
May 7 355 pm	3.3 NNE El Paso	61 mph
May 7 600 pm	2 WNW El Paso	54 mph
May 11 600 pm	San Augustin Pass	81 mph
May 11 554 pm	WSMR Main Post	62 mph
May 11 555 pm	Silver City Airport	54 mph

Severe Weather Reports-Continued

Date/Time	Location	Event
May 11 246 pm	11 NE Mescalero Otero County	54 mph
May 11 315 pm	20 WNW Tularosa Sierra County	60 mph
May 11 402 pm	El Paso International Airport	63 mph
May 11 559 pm	3 ENE Clint El Paso County	58 mph
May 29 744 pm	Northrup Strip	60 mph
May 29 453 pm	8 W Columbus (Sapphire Energy)	55 mph