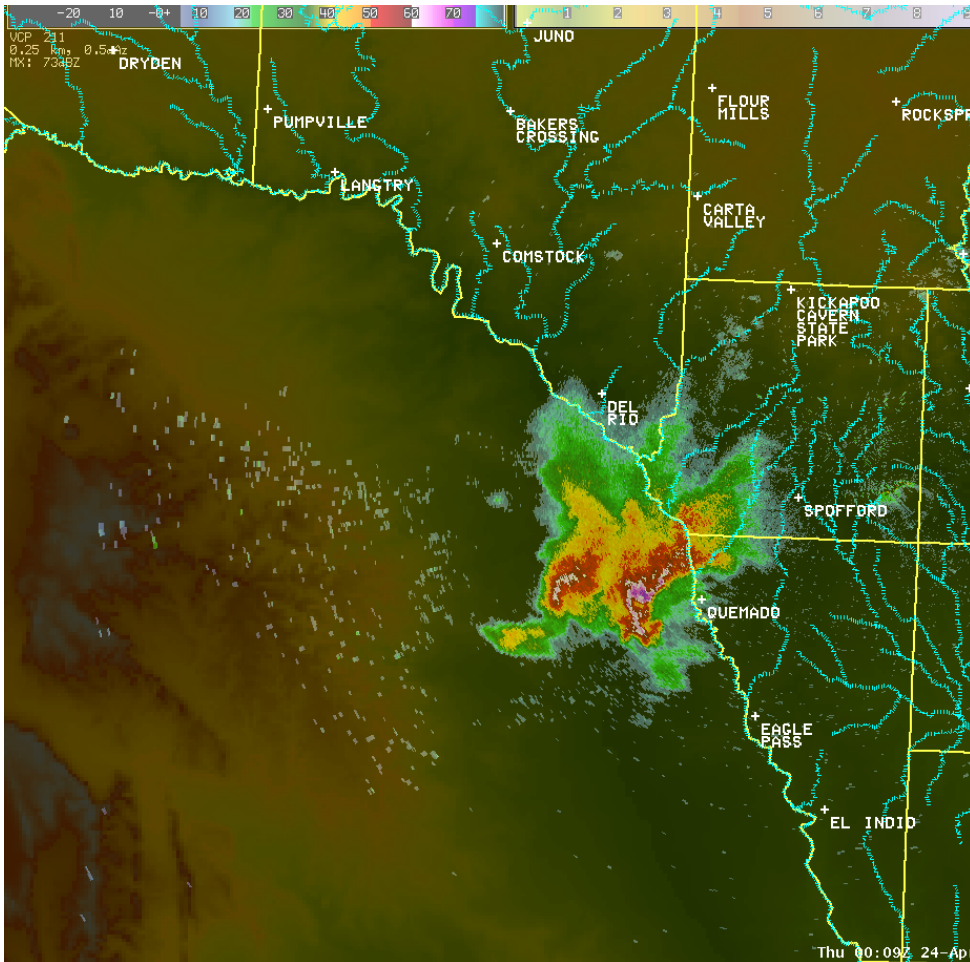


# Rio Grande Storms – April 23, 2014



# Serranias Del Burro (SdB) Storms



The Serrania del Burro are the northernmost part of the Sierra Madre Oriental mountain range in Coahuila, Mexico.

Traits that lead to SdB storms:

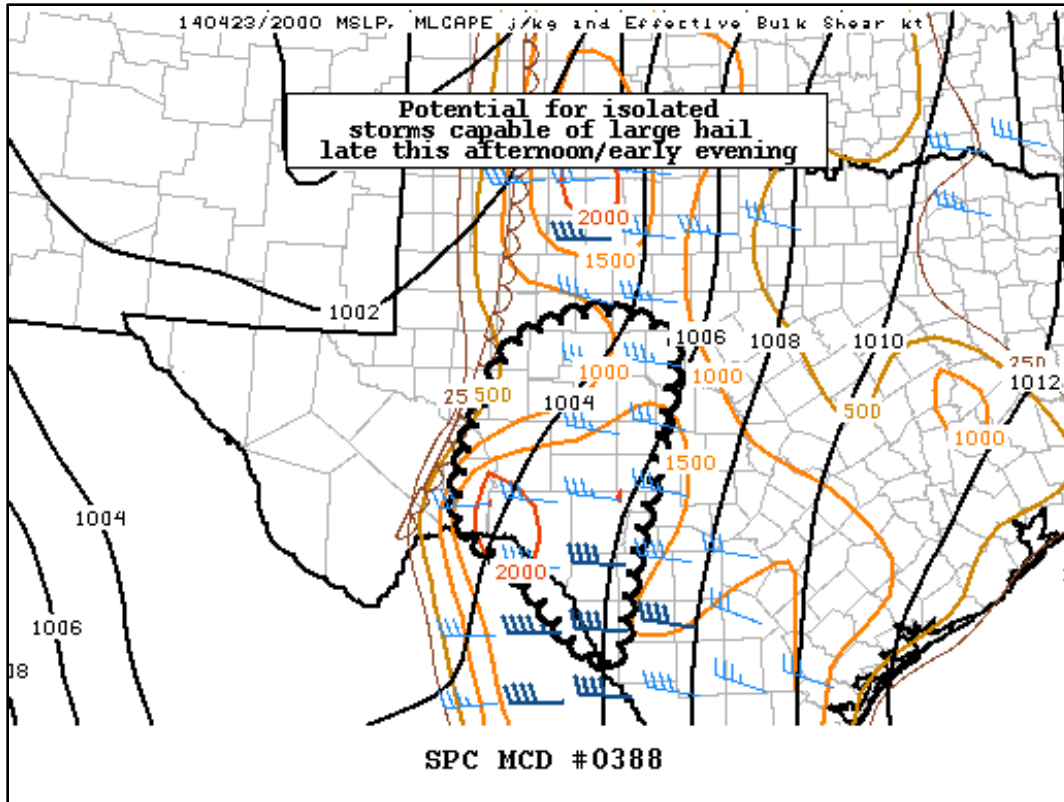
- Elevated terrain provides lift as the air is forced up the mountains.
- Rich moisture from the Gulf of Mexico in place to fuel the storms.
- The subtropical jet (part of the atmospheric jet stream) helps create wind shear that tilts the storms into supercells.

The storms move to the south and east, sometimes staying in Mexico, and sometimes crossing into Val Verde, Kinney, and Maverick Counties.

Storm Prediction Center Paper on Supercells of Serranias Del Burro:

<http://www.spc.noaa.gov/publications/edwards/delburro.pdf>

# Mesoscale Discussion 388



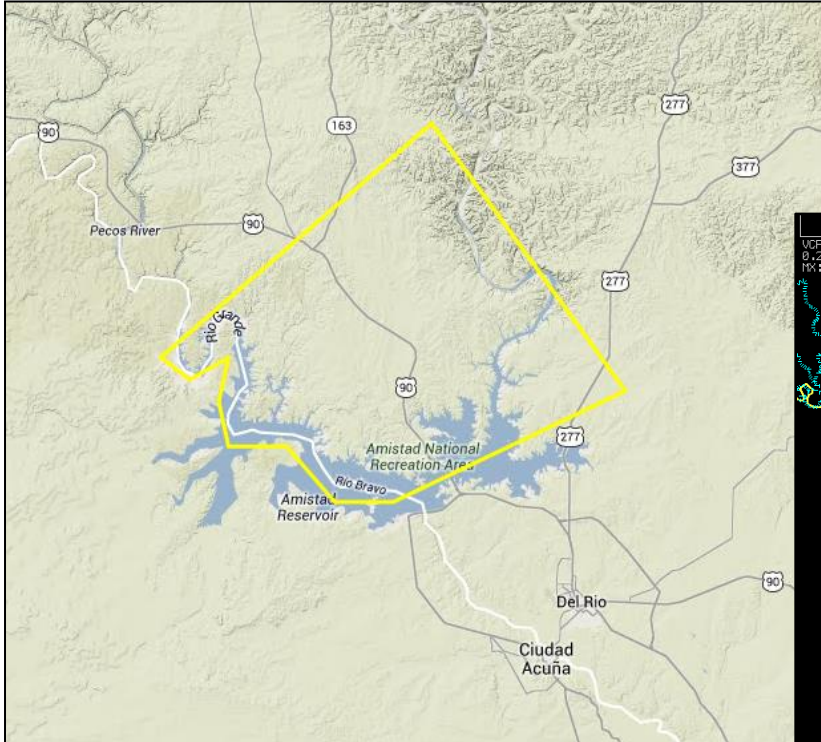
Issued by Storm Prediction Center in Norman, OK at 3:54 pm.

Mentioned Severe Potential, but indicated a watch would be unlikely.

Discussed storms firing along the dry line (which happened farther north near San Angelo) and storms moving off the higher terrain in Mexico.

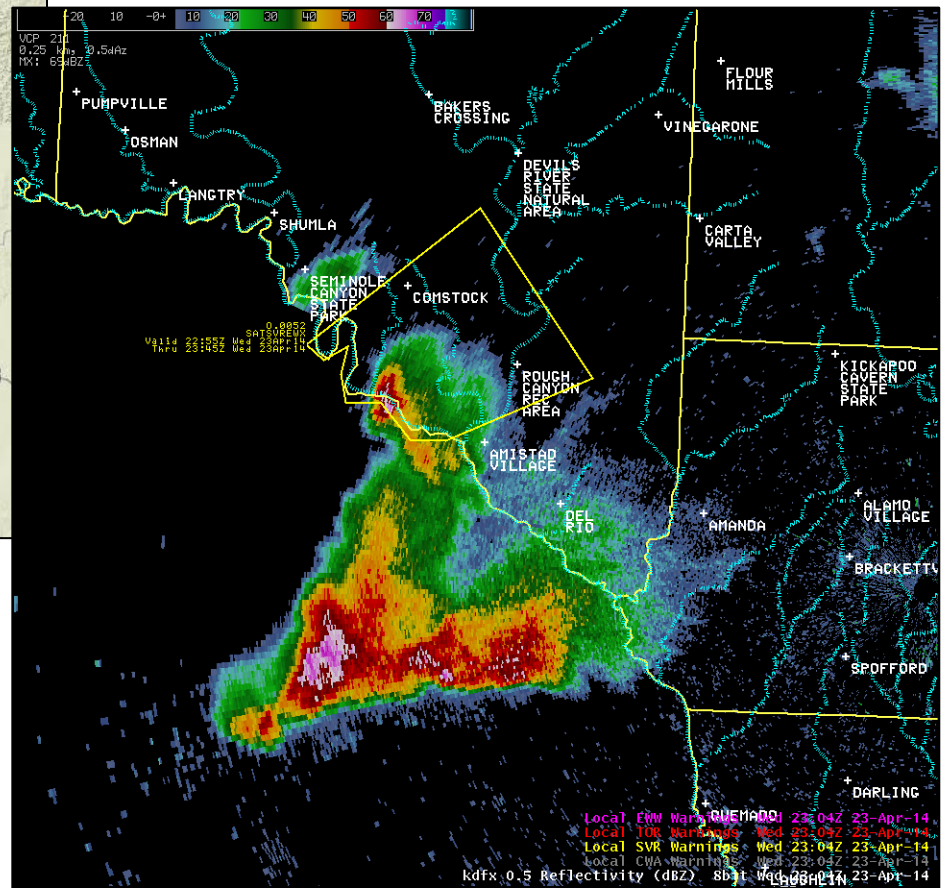
Severe hail and locally strong winds gusts were the primary threats talked about in this discussion.

# Severe Thunderstorm Warning #52



Val Verde County

5:55 pm – 6:45 pm



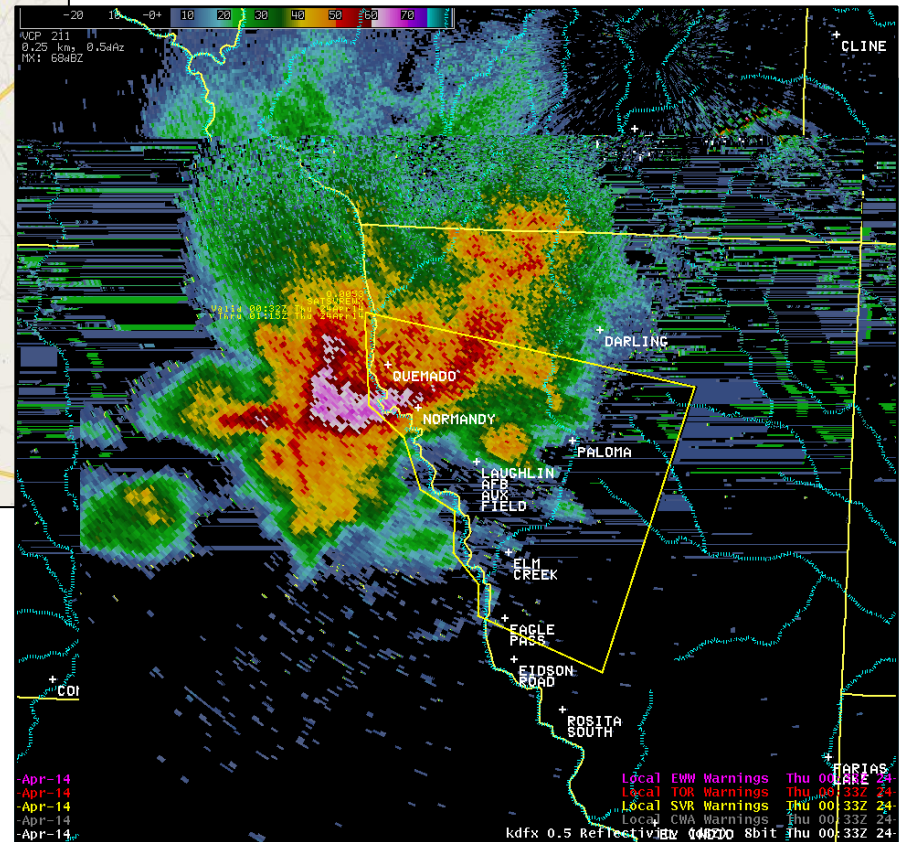
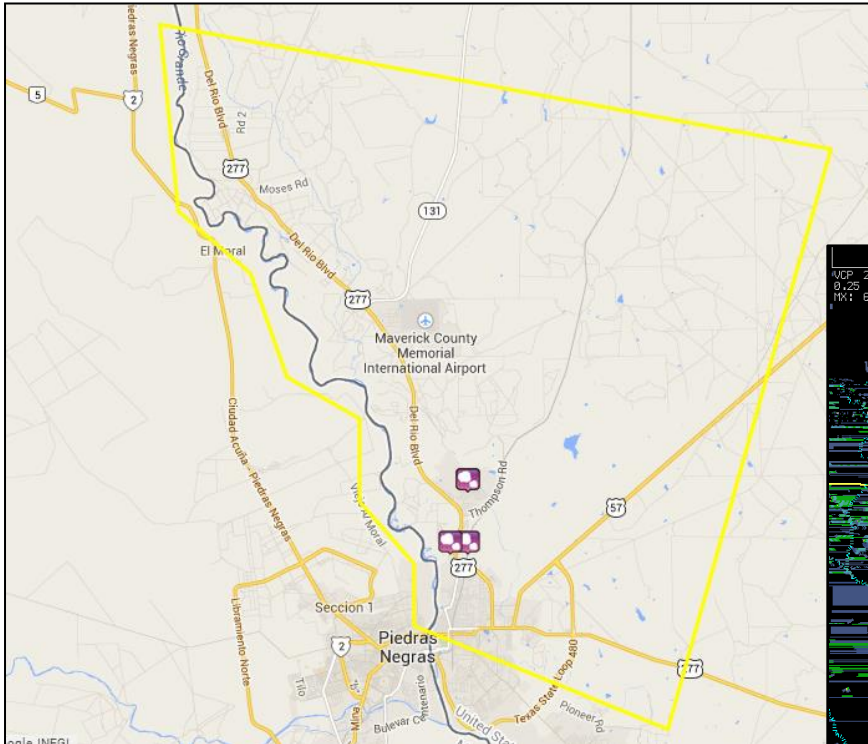
Reports:

Local FMW Warn: BUEMADO: 23:04Z 23-Apr-14  
Local TOR Warn: Auger: Wed 23:04Z 23-Apr-14  
Local SVR Warnings: Wed 23:04Z 23-Apr-14  
Local CWA Warnings: Wed 23:04Z 23-Apr-14  
kdfx 0.5 Reflectivity (dBZ) 861 Wed 23-Apr-14

# Severe Thunderstorm Warning #53

Maverick County

7:32 pm – 8:15 pm



## Reports:

8:04 pm...2.00" Hail...5 N Eagle Pass\*

8:13 pm...0.70" Hail...3 N Eagle Pass\*

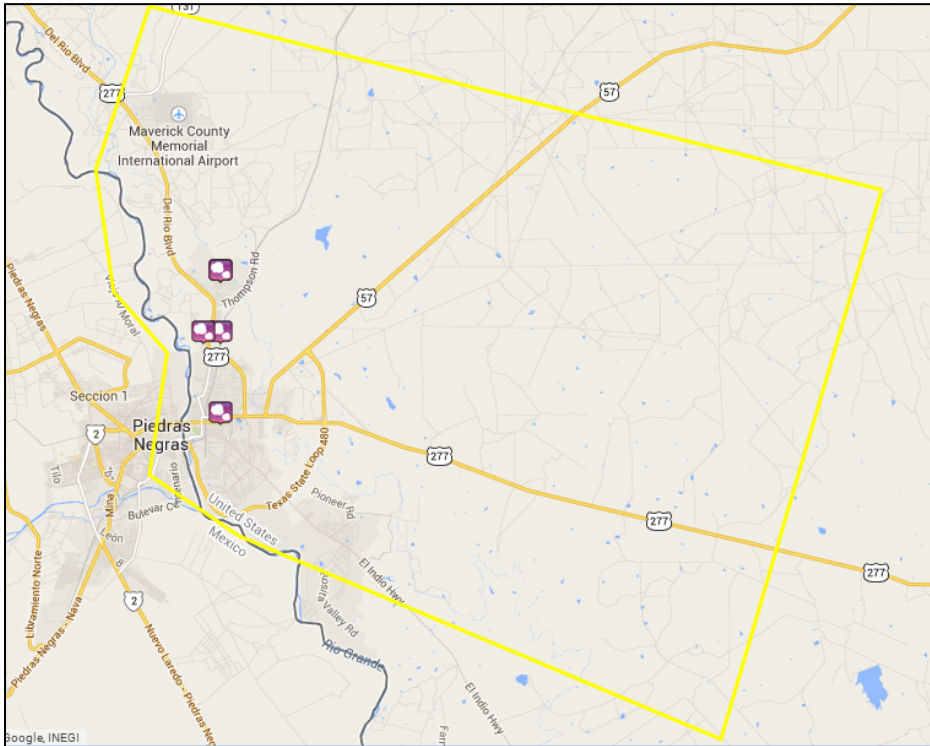
8:14 pm...1.00" Hail...3 N Eagle Pass\*

\*Indicates report took place in multiple warnings

# Severe Thunderstorm Warning #54

Maverick County

8:08 pm – 8:45 pm



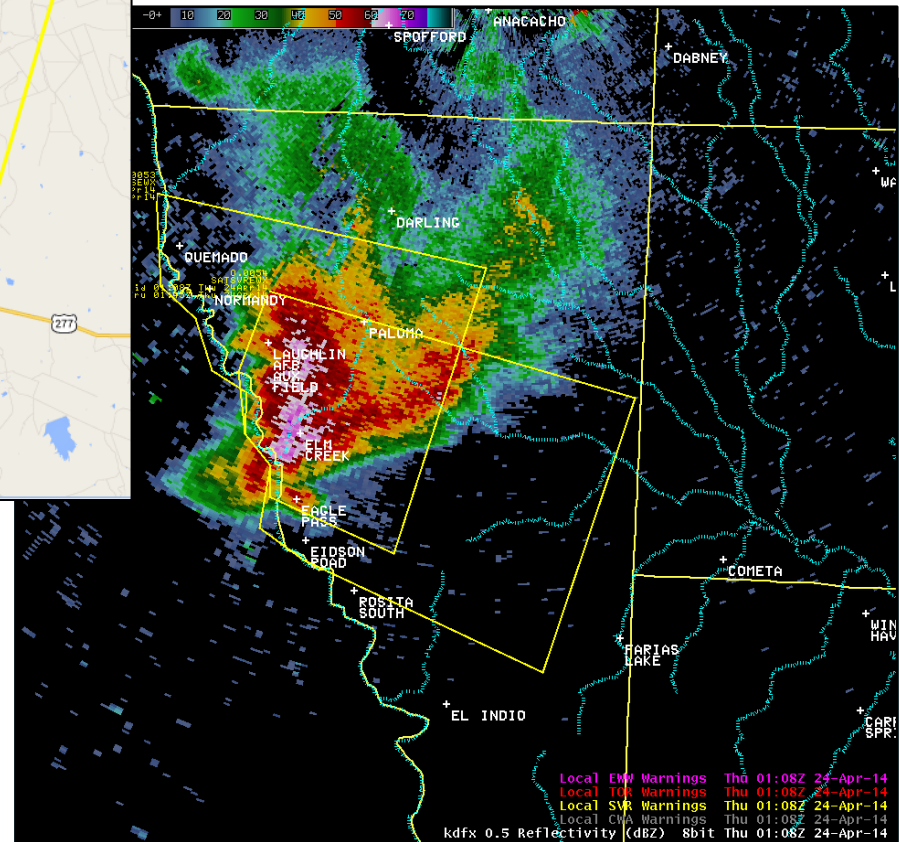
## Reports:

8:04 pm...2.00" Hail...5 N Eagle Pass\*

8:13 pm...0.70" Hail...3 N Eagle Pass\*

8:14 pm...1.00" Hail...3 N Eagle Pass\*

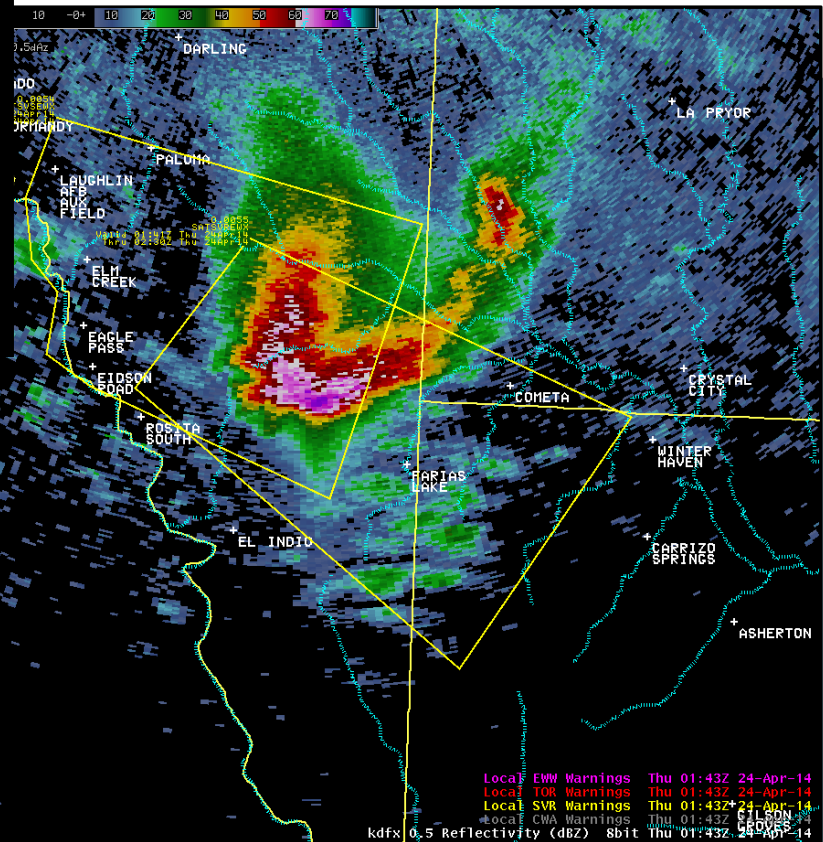
8:19 pm...1.25" Hail...Eagle Pass



# Severe Thunderstorm Warning #55

Northwestern Dimmit, Maverick,  
and Southwestern Zavala Counties

8:41 pm – 9:30 pm



Reports:

# All Hail Reports / Pictures

0808 PM HAIL 5 N EAGLE PASS 28.78N 100.49W  
04/23/2014 E2.00 INCH MAVERICK TX PUBLIC

TIME ESTIMATED FROM RADAR

0813 PM HAIL 3 N EAGLE PASS 28.75N 100.49W  
04/23/2014 E0.70 INCH MAVERICK TX PUBLIC

0814 PM HAIL 3 N EAGLE PASS 28.75N 100.50W  
04/23/2014 E1.00 INCH MAVERICK TX PUBLIC

0819 PM HAIL EAGLE PASS 28.71N 100.49W  
04/23/2014 E1.25 INCH MAVERICK TX LAW ENFORCEMENT

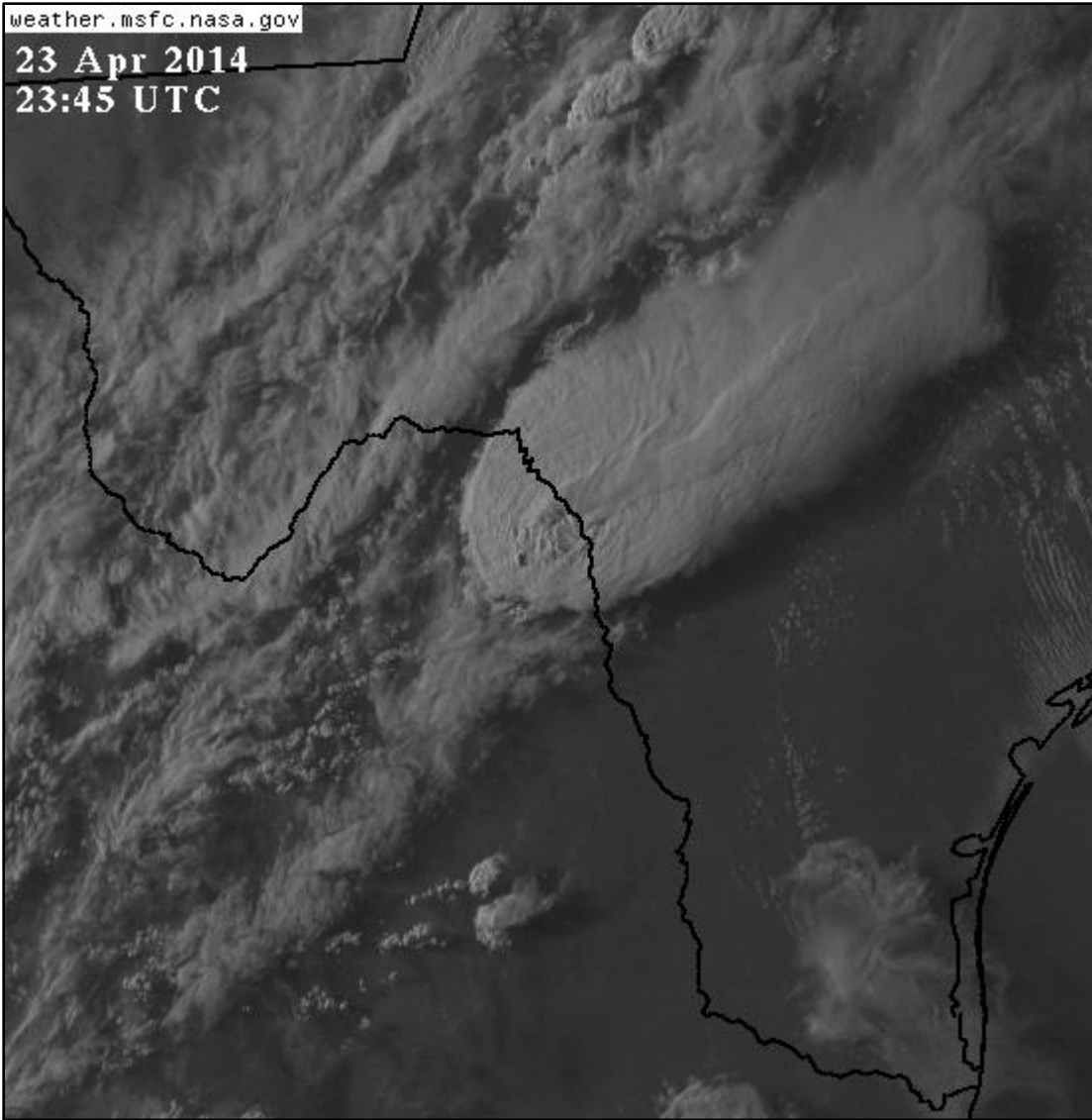


Hail from the north side of Eagle Pass // Photo Credit: Bill V. (via Facebook)



weather.msfc.nasa.gov

23 Apr 2014  
23:45 UTC

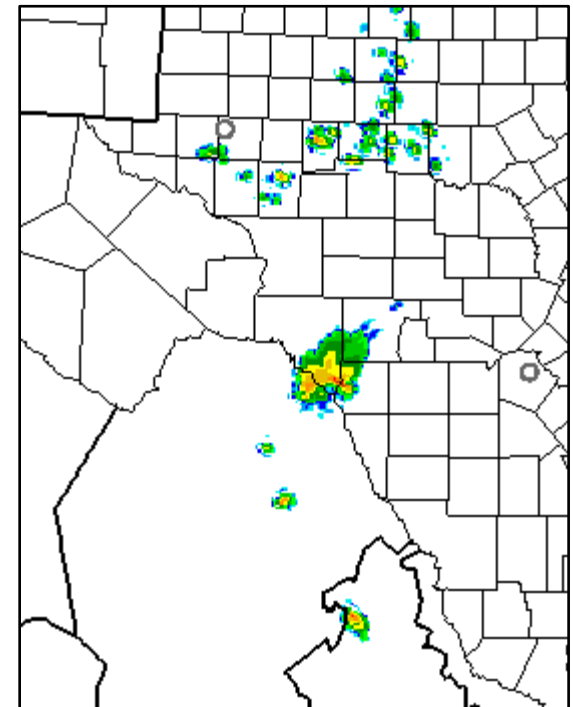


Cirrus blow off from the anvil of the storms over Mexico was driven over 100 miles to the Northeast by upper level winds leading to a cloudy evening in parts of the Hill Country. (image from 6:45pm)

By 2 pm on April 23<sup>rd</sup> the high resolution models that are run every hour were already picking up on a single thunderstorm crossing the Rio Grande at or just south of Del Rio.

The below image was a predicted radar reflectivity image for 6 pm. The model was slightly east with the storm location.

Severe Thunderstorm Warning #52 was issued just before 6 pm for a small storm over Val Verde County while the main supercell remained in Mexico until around 7:30pm



# Social Media



Hail in the Northwest side of Eagle Pass // Photo Credit: Jorge F. (via twitter)



Austin/San Antonio, TX  
Weather Forecast Office  
[weather.gov/ewx](http://weather.gov/ewx)



US National Weather  
Service Austin-San  
Antonio, Texas



@NWSSanAntonio