



# Southwest Weather Bulletin

Spring-Summer 2010 Edition

National Weather Service Santa Teresa-El Paso

## El Nino Brings Wild Stormy Weather to New Mexico and Western Texas

A pronounced El Nino circulation pattern combined with an unusually south Polar jet stream to bring active stormy weather to southern New Mexico and western Texas from late autumn through the winter and early spring. A series of strong and deep low pressure systems moving across the southwestern United States resulted in periods of heavy snows, high destructive winds and even thunderstorms with hail and heavy rains. By April, Cloudcroft had received over 150 inches of snow. In addition periods of cool weather occurred with temperatures below normal for much of the period. By the early spring, warming temperatures and melting snow over the mountains enhanced the flood threat across the Borderland.

In fact it was a very stormy winter and early spring for much of the United States. Record-setting heavy snows fell from the Mid-Atlantic and Washington DC areas all the way to the southern plains including the Dallas TX vicinity. In addition extremely heavy rains flooded much of southern New England. In April portions of Mississippi, Tennessee and Arkansas were devastated by historic floods and tornadoes.



Snow covers the city of El Paso after a winter storm moved across the region Nov 30 and Dec 1. (Mike Hardiman NWS/NOAA)



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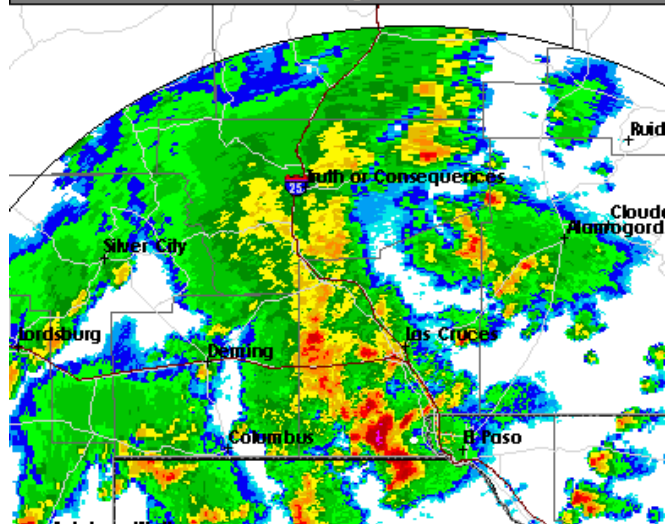


# Autumn and Early Winter 2009 Bring Severe Thunderstorms...Damaging Winds and Heavy Snows



Severe thunderstorms moved into the El Paso-Santa Teresa area on Oct 20. (Joe Rogash NWS/NOAA)

National Weather Service WSR-88D Image from: EPZ 10/20/2009 23:25 UTC



Santa Teresa radar image shows severe thunderstorms moving into the Santa Teresa-El Paso area during the late afternoon of Oct 20.

Oct 20: Severe thunderstorms strike the Borderland producing wind gusts to 70 mph over El Paso. Thunderstorms also drop over an inch of rain at La Mesa NM while heavy rains flood streets at Silver City. Dime-sized hail falls at Hurley.

Oct 28-29: A winter-like storm with a strong cold front moves across the region with 9 inches of snow falling at Cloudcroft and light snow falling around El Paso. Winds gust to 73 mph at St. Augustine Pass with wind gusts near 60 mph reported over east El Paso.



A winter-like storm brought snow to the Franklin Mountains in El Paso on Oct 29. (Chris Carney NWS/NOAA)





**Snow over the Franklin Mountains on Dec 01. (Greg Lundeen NWS/NOAA)**

Nov 29-Dec 1: A major winter storm with a deep low pressure system and strong cold front moves slowly across New Mexico and western Texas. The storm initially brings rain showers and isolated thunderstorms with heavy rain before a push of cold air causes the rain to change over to moderate and heavy snows. Over an inch of water falls on some locations during the period. Heaviest snows fall upon the Sacramento Mountains with 10 to 20 inches reported around Cloudcroft. In addition 12 inches of snow fall at Sierra Blanca in Hudspeth County Texas with 3 to 6 inches falling across the El Paso metropolitan area. 1 to 3 inches of snow also fall around Las Cruces and Alamogordo.

Dec 3: A fast moving upper disturbance brings 1 to 3 more inches of snow around El Paso and Las Cruces.



**Santa Teresa after the Dec 01 snows.  
(Joe Rogash NWS/NOAA)**



**Dec 01 snows brought winter fun for these young Santa Teresa residents. (Joe Rogash NWS/NOAA)**

# Major Wind Storm Blasts Western Texas and Southern New Mexico



High winds seriously damaged the administrative building at White Sands Missile Range. (Shari Vialpando Las Cruces Sun News)

On December 8 a broad upper-level trough covered the western United States while an embedded and very energetic short wave entered the southern Rockies. The dynamics of the disturbance were enhanced by a pronounced jet stream aloft extending across southern New Mexico. The resultant circulations generated a deep surface low which moved across New Mexico into the Texas panhandle. This pattern induced very

strong pressure gradients both at the surface and aloft resulting in a major wind storm and widespread damage over the Borderland during the morning and early afternoon.

Winds gusted to around 100 mph east of Las Cruces at St. Augustine Pass and Aguirre Springs, seriously damaging a large administrative building at White Sands Missile



Trailer blown over at White Sands Missile Range. (Shari Vialpando Las Cruces Sun News)



Wind damage at Cloudcroft NM. (John Fausett NWS/NOAA)



Range where 2 people suffered minor injuries. Further north, wind gusts near 70 mph blew down trees and over a hundred power lines around Cloudcroft and Mescalero, and damaged numerous buildings including the Elderly Day Care Center. Power was knocked out across this area with no electricity available for some persons for at least a week. A state of emergency was thus declared for Cloudcroft.

The El Paso area was hard hit as winds gusted to near 80 mph over eastern portions of the city. The winds blew roofs off of buildings and broke windshields on numerous



**Winds damaged the Elderly Day Care Center at Mescalero NM . (Mereya Braden Ruidoso News)**

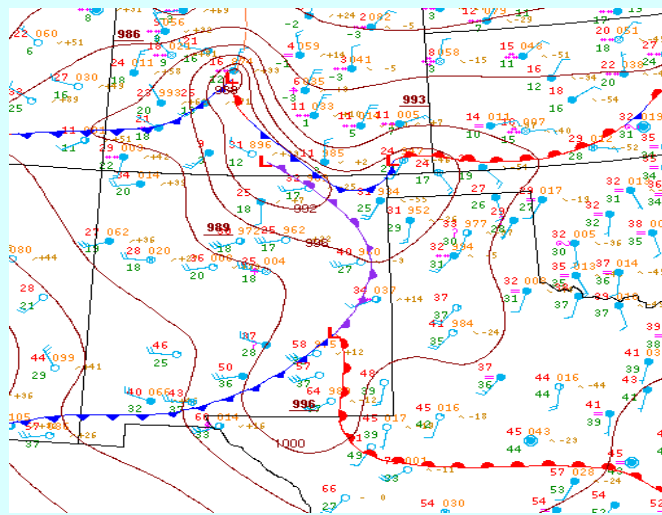


**An electrical fire destroyed this building in Hueco Village TX after winds blew down nearby power lines. (Greg Lundeen NWS/NOAA)**



**Winds blew down this carport in El Paso. (El Paso Fire Department for the El Paso Times)**

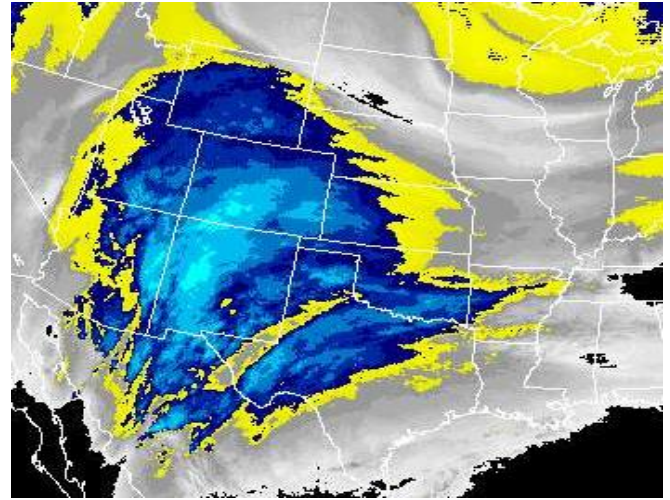
motor vehicles. Several children suffered minor injuries when the winds shattered windows on a school bus. The winds also collapsed a large awning on Cohen Stadium. Falling rocks and debris forced the closure of Trans Mountain Road and Highway 54 causing traffic jams across the city. Trees and power lines were also blown down around west Texas resulting in electrical outages. Downed power lines even initiated a fire which destroyed a building in Hueco Village. Finally the storm dropped 4 inches of snow over Pinos Altos NM.



**Weather map showing the Dec 08 storm system.**



**Cloudcroft NM on Dec 9. (Mike Hardiman NWS/NOAA)**



**Satellite image of Jan 28 storm over the southwest.**

December 23: Storm brings 9 inches of snow to Cloudcroft while 8 inches of snow fall at Pinos Altos and 4 to 6 inches occur around Silver City.

Dec 29: 1-3 inches of snow fall around El Paso and Las Cruces.

Jan 20: Winds gust to almost 70 mph at St. Augustine Pass with gusts from 50 to 60 mph in the El Paso and Las Cruces areas. 4 inches of snow also fall near Silver City.

Jan 22-23: Winter storm initially brings moderate to heavy rains over southwestern NM, flooding a camp ground near Gila Hot Springs when the Gila River overflows. After cold air pushes into the region, 12 to 24 inches of snow fall around Cloudcroft with 5 to 10 inch snows in the Silver City vicinity.

Jan 27-29: Low pressure system with a cold front drops heavy rains over portions of southern New Mexico and western Texas. 2.5 inches of rain fall at Virden NM with .5 to 1 inch of rain falling most elsewhere.



**Cloudcroft experienced more heavy snows on Feb 3-4. (Mike Hardiman NWS/NOAA)**

Colder air then moves into the Borderland causing the rain to change over to snow. As a result 6 to 12 inches of snow fall around Cloudcroft with 6 inches falling at Bayard and up to 2 inches falling around El Paso and Deming.





**Satellite image of another strong storm hitting the southwestern United States on Feb 3.**

Feb 28: Winds gust over 60 mph and small hail falls over east El Paso. To the north 6 more inches of snow fall at Cloudcroft.

Mar 8. Ice pellets fall over portions of El Paso.

Mar 10: Winds gust to 66 mph over El Paso.

Mar 26: Major wind storm blows through southern New Mexico and western Texas. Winds gust to 84 mph at El Paso Airport to tie a record. Winds also gust to 115 mph at St. Augustine Pass with gusts to 84 mph at White



**The Lordsburg Playas after early February heavy rains. (Mike Hardiman NWS/NOAA)**

Feb 3-4: Winter storm dumps heavy rains over portions of the lowlands and heavy snows over higher mountain areas. Almost 1.5 inches of rain fall over sections of northeast El Paso with around a half inch to an inch of rain most elsewhere. On the mountains over a foot of snow falls around Cloudcroft while in southwestern New Mexico 10 inches of snow fall at Duncan with 8 inches reported at Elk.

Feb 10-11: 4 to 6 inches of snow fall around Cloudcroft.

Feb 22-23: Another 8 to 12 inches of snow fall at Cloudcroft with 5 inches of snow falling near Santa Clara and Silver City. Portions of northeast El Paso also receive an inch of snow.



**Cloudcroft after the Feb 3-4 snows. (Mike Hardiman NWS/NOAA)**

Sands Space Harbor and 75 mph at White Sands Missile Range Headquarters. Blowing dust lowers visibilities to under a quarter mile over sections of El Paso and around Deming forcing the closure of Highways 180 and 11.

April 1: Another storm brings wind gusts to 96 mph at St. Augustine Pass and gusts around 70 mph over El Paso and White Sands Missile Range. The high winds blow the roof off of a Masonic Lodge at Truth or Consequences.



**Forest Road 14 in Grant County during early March. By the end of winter the heavy snow accumulations made driving almost impossible across the Gila National Forest. (U.S. Forest Service)**

Apr 4: In El Paso 2 boys and a girl (ages 2,5 and 7 ) suffer serious injuries when the large inflated jumping balloon they are in is picked up by a dust devil and carried up at least 10 feet before crashing to the ground 3 houses away.

Apr 12: A severe thunderstorm drops golf ball-sized hail near Horizon City TX.

April 14: Severe thunderstorms bring torrential rains and golf ball-sized hail to Tornillo TX, collapsing a carport. The heavy rains flood homes and streets and cause an arroyo to overflow.

April 16-17. Heavy rains fall across Sierra County NM as 1 to 2 inches of rain are reported around Truth or Consequences, Winston and Monticello.

April 22: Windy across the region with wind gusts around 60 mph over Deming and El Paso. Thunderstorms with small hail also move through Hurley and Mescalero.

Apr 29: Low pressure system produces wind gusts around 60 to 70 mph including in the El Paso and Las Cruces vicinities.



**Blowing dust over Santa Teresa on April 1. (Joe Rogash NWS/NOAA)**



**3 children were injured in this jumping balloon when it was carried off by a dust devil on April 4. (Jay Koester El Paso Times)**





**Poppies in bloom on the Franklin Mountains in west El Paso.  
(Greg Lundeen NWS/NOAA)**



**Charlotte Rogash**



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**Spotters...Please call the National Weather Service If You Observe:**

**Tornado or Funnel Cloud...Report Time, Location and Movement**

**Hail...1/2 Inch or Larger**

**Damaging Winds...Damage To Buildings, Motor Vehicles, Trees, Power Lines  
And Other Structures**

**Flash Flooding...Flooding Of Streets and Buildings , Or If Rivers, Streams And  
Arroyos Flood Or Overflow**

**Heavy Rains...1/2 Inch of Rain In Less Than 30 Minutes Or At Least 1 Inch Of  
Rain In Less Than 2 Hours**

**Blowing Dust...Whenever Blowing Dust Reduces The Visibility To Less Than 2 Miles.**

**Snow Amounts Greater Than An Inch**