



Southwest Weather Bulletin

Autumn-Winter 2009-2010 Edition

National Weather Service El Paso/Santa Teresa

Spring-Summer 2009 Weather: Hot...Dry and Occasionally Stormy

The warm dry weather which occurred during the winter of 2009 continued through the spring and early summer period as the circulation pattern across the southern Rockies favored westerly winds and high pressure. Little or no rain fell across most of the region causing drought conditions which contributed to several large wildfires over southern New Mexico.

During late June and early July, high pressure to the east combined with low pressure west of the continental divide to induce south and southeast winds and abundant moisture inflow. As a result thunderstorms with heavy rains, damaging winds and hail strike the area bringing more widespread relief from the drought.

For most of July and August however, persistent high pressure aloft settled over the southern Rocky Mountains causing a return of hot mostly dry conditions and rather limited though occasionally strong thunderstorm activity.



On September 16 2009 this supercell thunderstorm brought large destructive hail to the El Paso Texas area. (Joe Rogash NOAA/NWS)

The 2009 monsoon season ended with bang and a roar as an unseasonably strong and deep low pressure system moved into the southwestern United States in mid September generating severe or heavy rain and flash flood-producing thunderstorms. This included a supercell thunderstorm which brought the most destructive hail storm on record to the El Paso area.



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Warm, dry and mostly sunny weather during the spring of 2009 was favorable for numerous outside activities including the Albuquerque Balloon Festival. (Diane Green)

Spring-Summer 2009 Weather Highlights

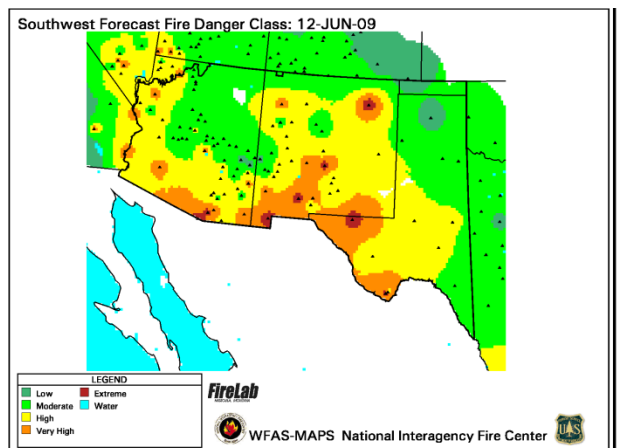
May 2: Winds gust to around 50 mph causing areas of low visibilities and blowing dust.

May 7-17: Hot dry weather prevails across the region with high temperatures around 95 to 100 over the deserts each day. El Paso sets a record on May 7 and again on May 10 with respective high temperatures of 99 and 98.

May 22: Much needed showers and thunderstorms drop 1 to 2 inches of rain over portions Dona Ana, Luna and El Paso counties including near and around the cities of Las Cruces and El Paso. Some homes are flooded in Dona Ana County in the community of Rodey and along highway 185 southeast of Hatch. Heavy rains also flood portions of Interstate 10 through El Paso.

May 24: Thunderstorm winds gust to 50 mph over portions of El Paso.

May 26: Dry microburst produces wind gusts near 60 mph at Deming.



Warm, dry weather during the spring and early summer of 2009 caused a very high to extreme wildfire danger across southern New Mexico and far western Texas.

May 28: Thunderstorms bring dime-sized hail to Horizon City TX.

June 1-20: Hot dry weather returns to most of the region. As a result wildfires burn thousands of acres across portions of southern New Mexico, especially the Gila and Lincoln National Forests and the New Mexico boot heel.



This thunderstorm produces torrential rains over east El Paso on June 22. (Kim Fuller)



A thunderstorm with heavy rains, small hail and cloud-to-ground lightning moves into Santa Teresa on July 3. (Joe Rogash NOAA/NWS)

Early Summer Thunderstorms Bring Flooding Rains and Severe Weather

June 22: Evening thunderstorms bring almost 2 inches of rain in an hour over portions of east El Paso and Horizon City. High waters close Gateway West in the Sparks subdivision.

June 23: A slow moving thunderstorm complex dumps torrential rains over the Cloudcroft NM vicinity with up to 3 inches of rain measured. Water over 2 feet-deep floods some apartments. Widespread street flooding is also reported and the heavy rains cause rockslides along Highway 82. Street flooding also affects much of Alamogordo while an inch of rain falls at Tularosa. Further south almost an inch of rain falls in 15 minutes at Santa Teresa and heavy rains flood a warehouse and some streets over El Paso.

June 24: Severe thunderstorms produce 62 mph wind gusts and almost an inch of rain over portions of White Sands Missile Range.



Heavy rains on July 3 cause this arroyo to overflow in Santa Teresa. (Joe Rogash NOAA/NWS)



July 3 thunderstorms with heavy rains also drench the Las Cruces area. (Jeff Passner)

Summer 2009 Weather Highlights

June 28: Widespread thunderstorms with heavy rains soak much of southern New Mexico and western Texas. Up to 2 inches of rain fall in an hour over El Paso flooding homes and streets across the city. Nine people have to be rescued from the floodwaters. Thirteen people are evacuated in Socorro TX after 9 homes are flooded. In Dona Ana County heavy rains wash out Baylor Canyon and Dripping Springs Road 8 miles east of Las Cruces. A further 2 inches of rain are measured northeast of the city while an inch of rain falls at La Union. In Otero County 2 inches of rain fall over portions of Mescalero with minor flooding also reported at Boles Acres and Timberon.

June 29: Heavy rains occur across southwestern New Mexico as over an inch of rain falls in 15 minutes at Tyrone with 2 inches of rain reported at Virden.

June 30: Morning thunderstorms drop heavy rains over southern Dona Ana and western El Paso counties with streets flooded over Anthony and Canutillo.

July 2009: Hot and dry over much of western Texas and southern New Mexico. The temperature reaches at least 100 degrees on 16 days at El Paso with rainfall amounts about a third of normal around the city.

July 2: Evening thunderstorms dump heavy rains over portions of southern New Mexico including 2.5 inches of rain falling at Mountain Park in Otero County. Some flooding is reported across Highway 82.



Strong thunderstorm over El Paso on July 16. (Joe Rogash NOAA/NWS)

July 3: Thunderstorms with heavy rains move through Dona Ana and El Paso Counties with almost an inch of rain falling in 15 minutes over a few locations. Lightning strikes also cause power outages around Santa Teresa. Further north, heavy rains fall in the Silver City and Hillsboro vicinities and wash out portions of Highway 27.

July 5: Severe thunderstorms and heavy rains hit Otero County. Winds gust to almost 70 mph near Alamogordo and blow the roof off of a church at Boles Acres. Heavy rains also flood portions of Highway 54 and the high waters damage a bridge near Three Rivers. Further west, thunderstorms bring over an inch of rain, street flooding and wind gusts to 50 mph to sections of Las Cruces.



Utility workers repair power lines blown down during the August 4 severe thunderstorms at Boles Acres. (Michael Johnson/ Alamogordo Daily News)

July 21: Severe thunderstorms bring 60 mph winds and marble-sized hail to La Luz in Otero County.

July 22: Severe thunderstorms and heavy rains move across Luna County with nickel-sized hail falling at Deming and winds gusting to 60 mph over Columbus. Streets also flood around Columbus after over an inch of rain falls. Further east winds blow down numerous trees in east El Paso.

July 26: Thunderstorm winds gust to almost 60 mph over northwestern Grant County with 55 mph winds at Lordsburg.

July 27: Over an inch of rain falls in only 15 minutes at Mayhill NM while winds gust to almost 60 mph at Deming. Thunderstorms also produce 50 mph winds and small hail at Gila Hot Springs.

July 28: Severe thunderstorms over northern Otero County drop quarter-size hail at Weed and Mayhill. Over an inch of rain falls near Hillsboro. In western Texas, 1.5 inches of rain fall in less than an hour at Dell City.

July 30: Almost 2 inches of rain fall in 40 minutes at Dell City TX causing major street flooding. Thunderstorm winds also blow down 9 utility poles near Columbus NM.

August 2009: Another warm dry month for most of southern New Mexico and far western Texas. Much of the region receives rainfall amounts about a third of normal including the El Paso area.

August 4: Severe thunderstorms produce wind gusts to 70 mph around Alamogordo. At Boles Acres the winds blow the roof off of a trailer and knock down power lines.

August 6: Severe thunderstorm winds gust to 70 mph at Alamogordo with 60 mph gusts at White Sands Missile Range.

August 14: Thunderstorm winds gust to 60 mph at Elephant Butte NM.

August 21: At Sierra County, thunderstorms produce torrential rains, flash flooding, and penny-sized hail at Oliver Lee State Park.



Heavy rains flood Interstate 10 near Horizon City on September 11.
(Gilbert Jordan)

August 23: Heavy rains cause minor flooding around Mescalero and Poverty Creek NM.

August 24: Heavy rains flood the Poverty Creek area with 10 to 15 feet of water in Rocky Canyon causing extensive damage to Forest Road 150.

August 25: Thunderstorms drop 1 to 2 inches of rain around Silver City.

August 27: Heavy rains flood streets across western portions of El Paso.

September 7: Thunderstorms bring heavy rains, flooding and marble-size hail to the Hueco Tanks area in west Texas.

September 8: Two inches of rain fall in 30 minutes at Poverty Creek while over 2 inches of rain fall in an hour at Columbus.

September 11: Late afternoon severe thunderstorms with heavy rains pound much of New Mexico and western Texas. Quarter-sized hail falls over western El Paso with heavy rains causing flash flooding over eastern sections of the city. An arroyo overflows and forces the

closure of Interstate 10 around far eastern El Paso and Horizon City. Over 2 inches of rain and quarter-sized hail fall over eastern portions of Las Cruces with water up to 3 feet deep along the Highway 70 frontage road. The rains flood homes over northeastern Las Cruces near Peach Tree Hill. Further north in Sierra County, over 2 inches of rain fall with the floodwaters inundating 5 homes at Williamsburg. In the Las Palomas area, rains flood Highway 187 causing cars to become stranded. Almost 2.5 inches of rain are measured near Silver City while a severe thunderstorm produces wind gusts to 60 mph near Deming.

September 17: Over Grant County, severe thunderstorms drop nickel-sized hail near Silver City and Buckhorn and over 2 inches of rain fall near Silver City and Tyrone.

September 19: Evening thunderstorms bring nickel to quarter sized hail to Deming, Las Cruces and Anthony. Over east El Paso, winds gust to 60 mph and almost 2 inches of rain fall causing flash flooding.

Record Hailstorms Smash El Paso County



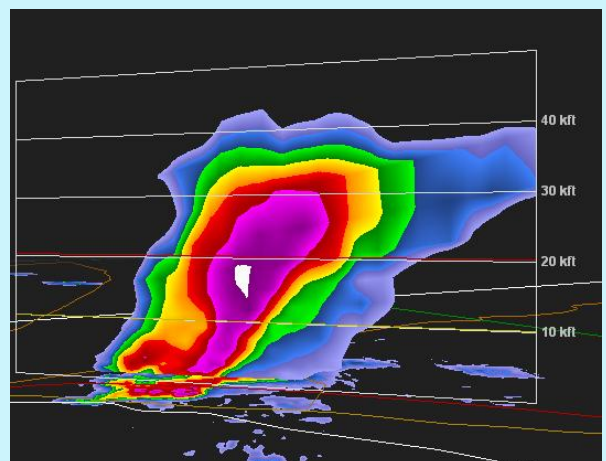
Tennis ball-sized hail caused widespread damage across the El Paso area on September 16. (El Paso Times)

During the afternoon of September 16, two supercell thunderstorms struck El Paso County dropping large destructive hail. The first storm produced golf ball-sized hail when it moved southeast across Hueco Tanks State Park in largely unpopulated areas. The second supercell however proved to be the most destructive hail storm in the county's history when it dropped hail up to the size of tennis balls from El Paso International Airport southeast to Tornillo. The hail damaged numerous motor vehicles, homes and businesses with damage estimates of \$150 million.



Hailstorm moving near Tornillo TX. (Mike Hardiman NOAA/NWS)

The storms developed after a weak cold front moved westward across the county with the east winds behind the front transporting moist unstable air into the region. In addition, strong westerly winds flowed near 50 mph in the upper levels as low pressure aloft approached from the west. This weather pattern was favorable for strong rotating updrafts which enhanced hail formation within the supercell thunderstorms.



Radar image of September 16 hailstorm



Sunset thunderstorm near Columbus NM.
(Mike Hardiman NOAA/NWS)



Flowers bloom after late summer heavy rains.
(Charlotte Rogash)

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