



*Bottom Line Up Front:
T'was an active year!*

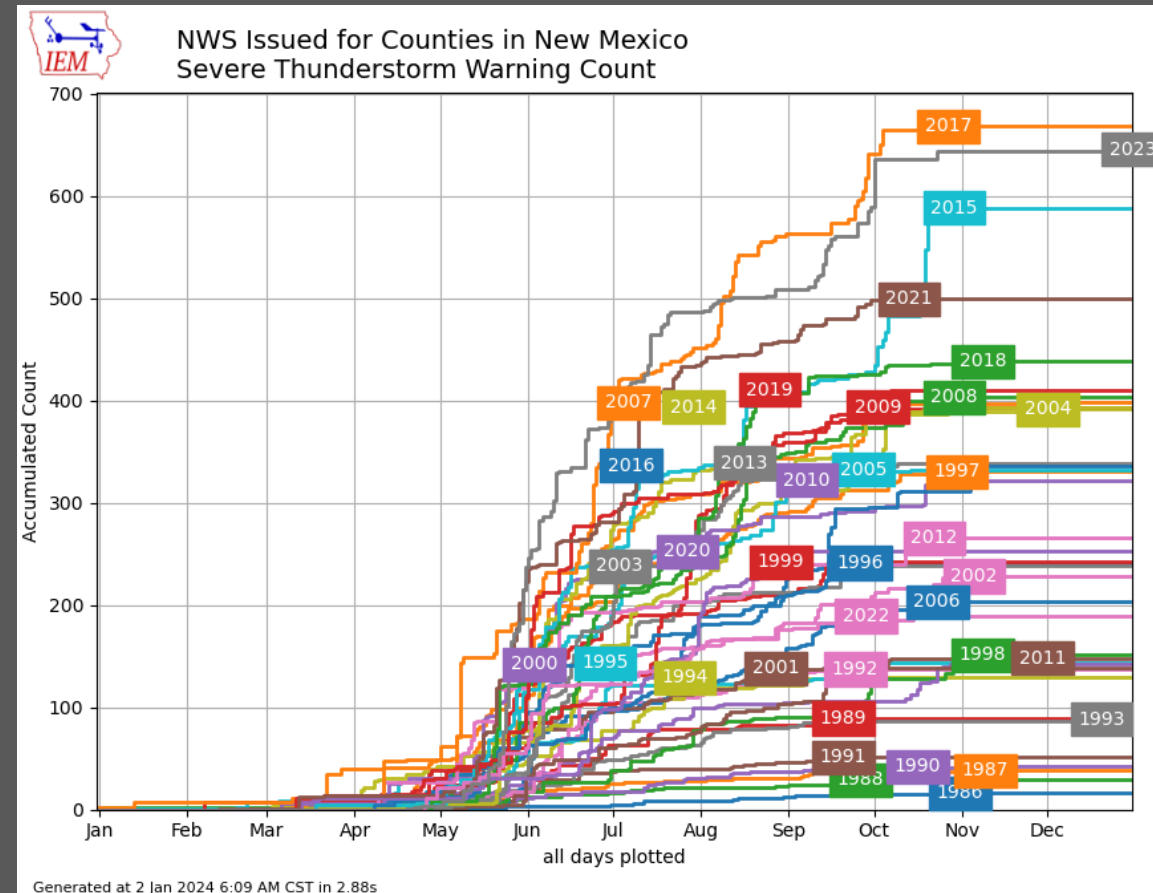
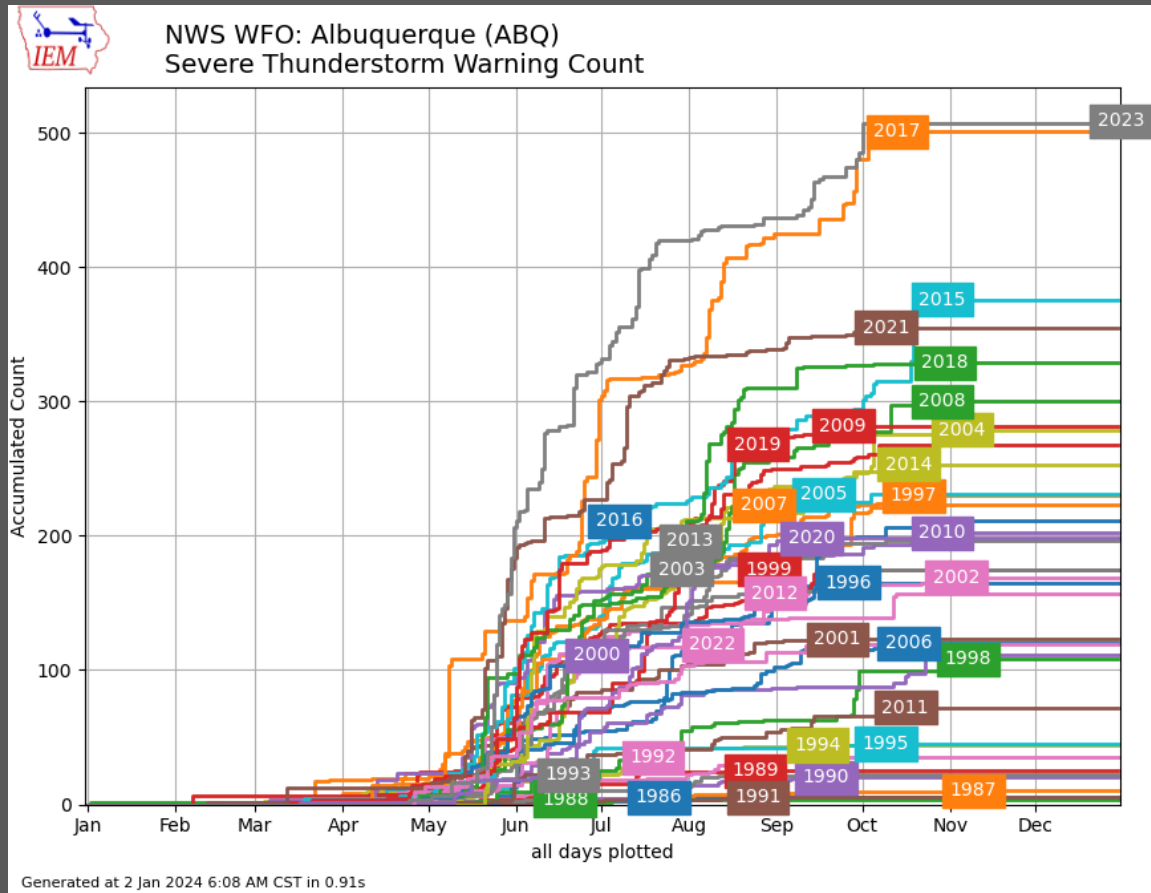
2023 Severe Weather Reports		
Event	NWS ABQ County Warning Area	Statewide
Tornado	11	13
Hail	208	223
Thunderstorm Wind Gust	78	126
Flash Flood	39	45
Total	336	407



2023 was an active year for severe weather. The 407 severe weather reports we received this year is the most since 2017 when we received 420 reports. Fortunately, we received less than half of 2022's total flash flooding reports (95), but all other types skyrocketed. In 2022, only 234 total severe weather reports were received. The average number of reports over the last 10 years is approximately 320.



509 Severe Thunderstorm Warnings were issued by NWS Albuquerque in 2023, well above the 119 severe thunderstorm warnings that were issued in 2022 and nearly double the 2011-2020 average of 256. In fact, it was a record! 509 severe thunderstorm warnings exceeded the 2017 record by 8 warnings! There were 645 severe thunderstorm warnings across all of New Mexico, just shy of the 668 record in 2017.



Last year, 249 Flash Flood Warnings were issued while only 128 were issued this year. Nonetheless, 128 Flash Flood Warnings is the third highest total since 1986, only behind 2022 and 2013 (129).

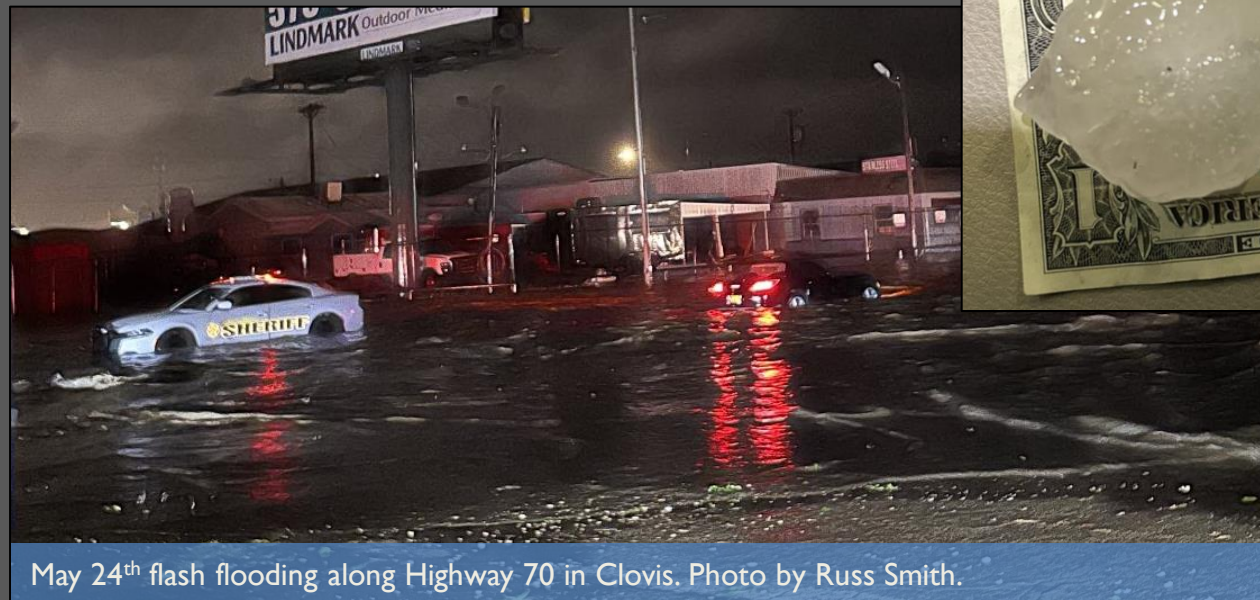
Several consecutive days of significant severe weather impacted eastern New Mexico from May 23-27, 2023. On May 23rd, afternoon thunderstorms developed along a sharpening dryline across eastern NM. Storms strengthened as they tracked eastward toward the Texas border, producing large hail and even a landspout tornado. Hail reports ranged in size from pennies to golf balls and were focused across Quay and Curry counties. The landspout was reported just south of Texico and caused no known damage.

Another round of thunderstorms developed along the dryline and the east slopes of the Central Mountain Chain on May 24th. Storm intensity ramped up as storms moved across far eastern NM where there was more moisture and instability. Several storm chasers were watching one particular supercell that tracked across Quay and Curry counties. Chasers reported that inflow wind speeds were reaching 80 to 90 mph which caused semi rollovers, blown out windows on a church, and abundant roof and sign damage. Two short-lived tornadoes were reported as well, but fortunately, they occurred in rural portions of the county and no known damage occurred. These thunderstorms also dropped very heavy rainfall of 2 to 4 inches of rain across portions of east central NM. Urban flooding occurred in Clovis causing some roads to be closed and cars to be stranded.

May 23rd hail removal with snow plow in Vaughn. Photo by David Foster.



May 24th hail in Clovis. Photo by Adam Spring.



May 24th flash flooding along Highway 70 in Clovis. Photo by Russ Smith.

Severe weather continued overnight as storms continuously re-developed across east central NM. After a short lull, more thunderstorms developed during the afternoon of May 25th and again lingered into the overnight hours. Quay County was particularly hard hit during the evening of the 25th with torrential rainfall amounts in excess of 5 inches. Streets throughout Tucumcari were flooded, closed or impassible with vehicles stranded in some areas. Significant hail damage was reported across Tucumcari and severe wind gusts of 70 to 80 mph were also common with these storms. Storms eventually shifted southward in Curry County around midnight.

Severe weather on the 26th covered much more of eastern NM as moisture pushed westward into the Rio Grande Valley early in the morning. Supercell thunderstorms erupted by mid afternoon and some of the initial storms developed over Torrance County. These storms rapidly intensified and a tornado and hail up to 3.5 inches were reported near Encino. This activity expanded and spread eastward through the day with large hail, damaging wind gusts,

May 25th supercell near Grady. Photo by Landon Moeller.



May 25th hail northwest of Logan on Highway 39. Photo by Brandon Osterhout.



May 26th hail south of Encino. Photo by Jennifer Shoemake.



May 25th hail northeast of Tucumcari on Highway 54. Photo by Hunter Fowkes.

May 26th hail near Elida. Photo by Charles Peek.



May 26th tornado near Encino. Photo by Della Dunlap.



and more torrential rainfall around the Caprock well into the night of May 26th. Flash flooding again occurred in the early morning hours within Curry County where saturated soils couldn't handle additional precipitation. Three day rainfall amounts exceeded 6 inches in many parts of Curry and Quay counties.

The overall coverage of showers and thunderstorms with severe hail, high winds, and flash flooding decreased across eastern NM as a large area of dry air spread over the state on May 27, 2023. A couple strong to severe thunderstorms moved east from Guadalupe and De Baca counties onto the Caprock region of Curry, Quay, and Roosevelt counties by the late evening hours of the 27th. Quarter to golf ball size hail and locally heavy rainfall was reported with a couple of these storms around Fort Sumner.

Additional storms across Lea County produced two tornadoes. Fortunately, both tornadoes occurred over open areas and no damage was reported.

May 26th tornado near Encino. Photo by Andrew Justin.

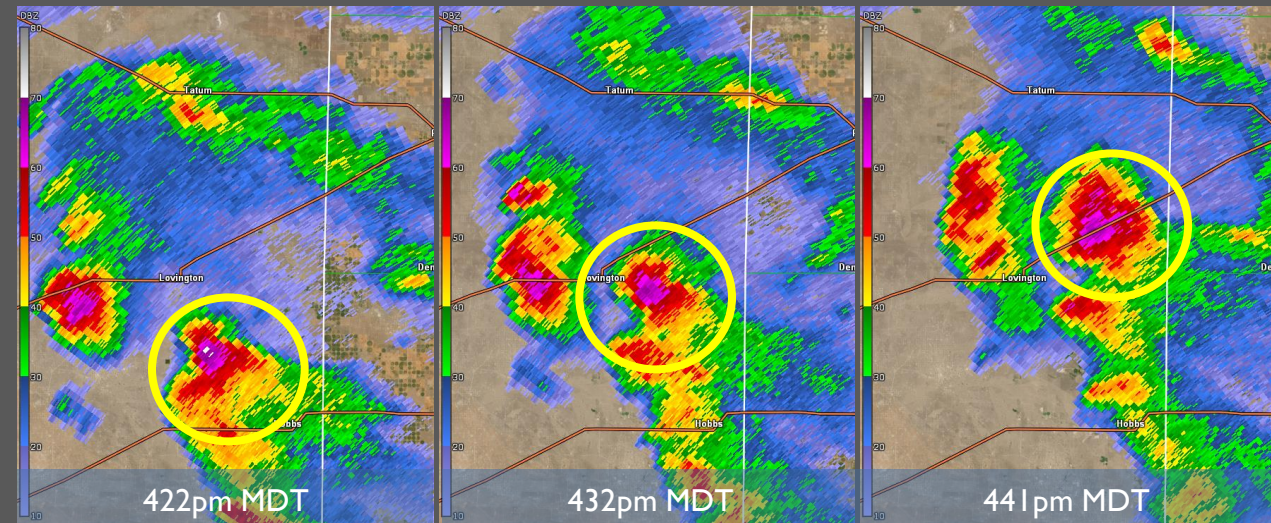


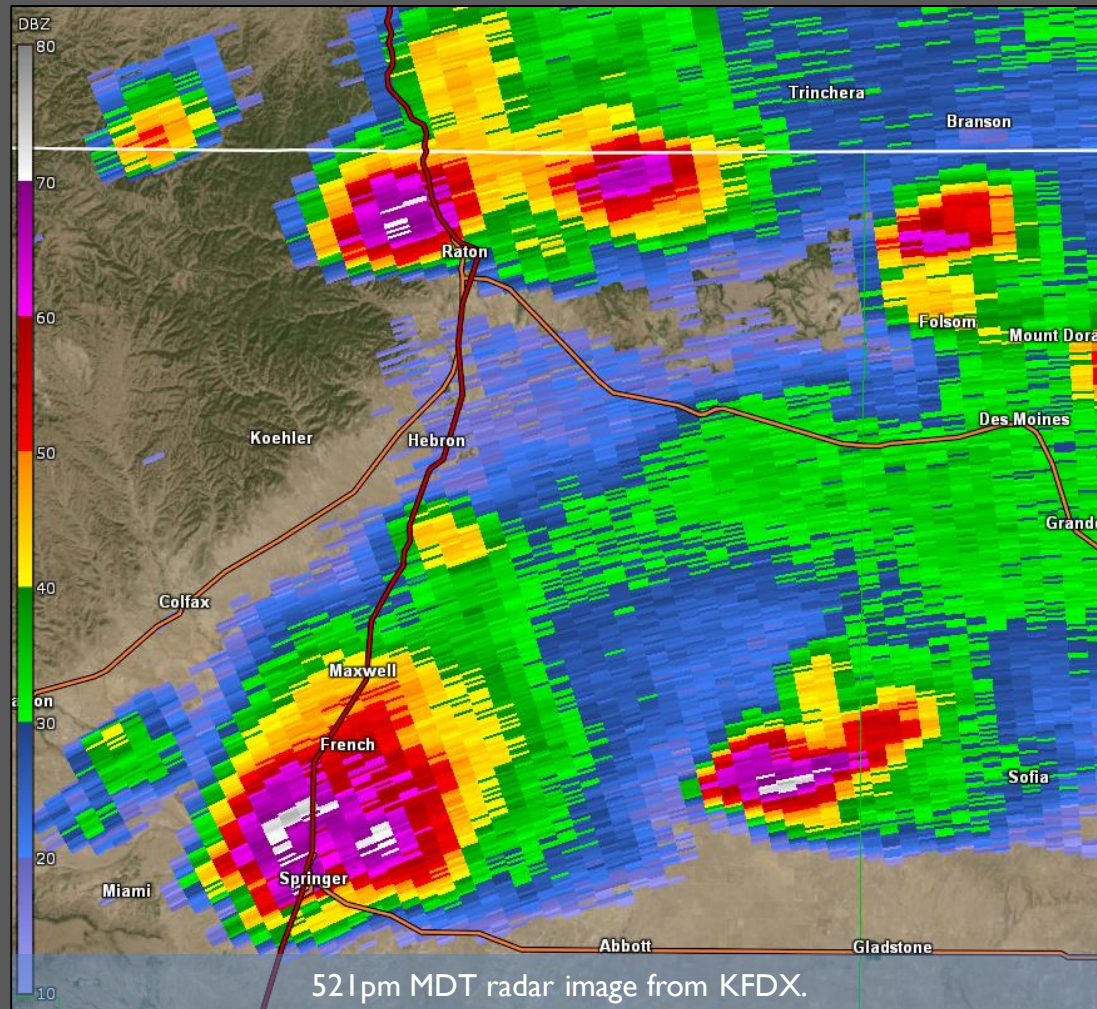


On May 31st, a left-moving supercell rapidly tracked north-northeastward across Lea County leaving a long trail of destruction in its wake due to straight-line wind gusts of up to 130 mph. Numerous power poles were broken along US Highway 62/180 and Highway 18 as well as many along local roads. A coolant building at the Xcel Energy Cunningham Plant also sustained significant damage. Numerous roofs were blown off of both commercial and residential buildings, irrigation systems overturned, and there was even a report of farm equipment blowing into a vehicle on State Highway 83. In the images below, the yellow circled storm is the supercell that caused the damage. Fortunately, shortly after the last image, the supercell began to weaken.

Elsewhere across eastern NM, several other supercells produced large hail and at least two tornadoes within Guadalupe and Lincoln counties. These tornadoes lasted on the order of 7 to 10 minutes and took on various shapes, like the photo shows to the left.

Fortunately, the tornadoes were in very rural areas and caused no known damage. Storm mergers quickly deteriorated storm organization during the late afternoon and early evening hours. However, before storms dissipated, heavy rain caused flash flooding on Highway 252 near Taiban and Highway 278 was closed due to flash flooding west of Grady.





A backdoor cold front enhanced from convective activity in Colorado dropped into northeast NM on June 22nd. Added moisture behind the front aided in the development of two rounds of severe thunderstorms across the region lasting into the early morning hours of June 23rd. Storms began across northeast NM, crossing the I-25 corridor between Raton Pass and Springer during the late afternoon. The large supercell near Springer pictured to the left dropped hail up to 2 inches in diameter across the interstate and continued to drop very large hail as it moved toward and impacted Abbott. Additional severe thunderstorms developed farther south and a cluster of several supercells tracked across Harding County, dropping copious amounts of hail up to the size of tennis balls.

The second round of severe thunderstorms developed during the mid to late evening hours across portions of Harding and San Miguel counties. These storms tracked across some of the same areas that the earlier storms impacted. Up to golf ball size hail was reported once again in Harding County.

On June 5th and 6th, an upper-level low off the coast of California helped funnel in subtropical moisture into the state resulting in the development of widespread showers and thunderstorms across central and eastern New Mexico. Most notably, two landspout tornadoes were captured on camera on the 5th as well as a funnel cloud. The first landspout was near Nara Visa and the second was on the west side of Albuquerque near Petroglyph National Monument. Neither produced any known damage, and thus were rated as EF-U. The subtropical moisture also resulted in heavy rain and abundant small hail producing storms. Flash flooding was reported on the Hermits Peak/Calf Canyon burn scar, but hail accumulations up to a foot were noted in flooded areas around Sedillo in the East Mountains! More heavy rain producing storms on the 6th resulted in another round of flash flooding around Sedillo with vehicles partially submerged in the flood waters. Areas around Hermits Peak/Calf Canyon were hit with heavy rain again as well as hail up to the size of ping pong balls!



June 5th landspout near Nara Visa. Photo by William Gronemeyer.



June 5th Petroglyph National Monument landspout. Photo by Ronald Ratliff.



June 5th funnel cloud between Des Moines and Clayton. Photo by Australia Sky and Weather.

June 11th wall cloud near Des Moines. Photo by Zach Osborn.



June 11th funnel cloud west of Capulin. Photo by Zach Osborn.



June 11th hail near Des Moines. Photo by Paul Briesch.

Eastern Colfax and Union counties were repeatedly hammered with large hail on June 11th and 12th as a moist backdoor cold front draped over the area and supercells repeated formed and tracked eastward. The largest hail noted through the period was baseball size which fell around Pasamonte (bottom right photo), but hail between ping pong ball size and tennis size were common. The hail caused significant damage to roofs, trees, and windshields, not to mention dented many vehicles. The repeated rounds of thunderstorms eventually caused creeks and arroyos to rise to bank full or out of their banks. Storm chasers in the area reported that water was overflowing canyons and racing across U.S. Highways 64/87 in multiple places. Additional reports suggested that the water flowing over the road was 6 to 10 inches deep.

In addition to the hail and flooding, a funnel cloud was also captured on camera west of Capulin. It sure was worth a double take as the terrain made it look like a tornado, but rest assured, it was only a funnel!

June 12th hail in Pasamonte. Photo by Chip Britt.



Severe weather returned in the fall on a few occasions in September, but much of fall severe weather occurred on October 2nd. Hail, high winds and heavy rain that led to flash flooding occurred across portions of central and eastern NM.

Storms initially developed along I-25 between Santa Fe and Las Vegas as well as within Eddy County. Multiple reports of flash flooding were received in Eddy County along U.S. Highway 285, to include that Rocky Arroyo was out of it's banks at the U.S. Highway 285 bridge. Large hail was also falling with these storms. Up to tennis ball sized hail fell on U.S. Highway 285 south of Lakewood and up to golf ball sized hail fell in Walnut Canyon in Carlsbad Caverns National Park. Meanwhile, as storms along I-25 reached Las Vegas, copious amounts of nickel to half dollar sized hail fell. The New Mexico Department of Transportation had to dispatch snowplows along I-25 to clear the three inches of hail accumulation. The hail also damaged roofs and broke windows, including at the Animal Care shelter. Later in the afternoon, a few storms developed over south central New Mexico which produced gusty winds over White Sands Missile Range.

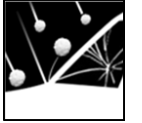
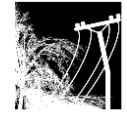
Nickel to quarter size hail getting plowed along I-25 near Las Vegas. Photo by Ranger Nash.



Hail near Las Vegas. Photo by Amina Sena.



Biggest, Fastest & Most Destructive | When and Where



Tornado

EF-0/EF-U

All 13 tornadoes that occurred were largely in very rural areas and resulted in little to no known damage. The longest path length was estimated to be 3.5 miles on May 27th for a tornado that occurred north of Gladiola in Lea County.

Hail

3.50 inches

The biggest hail this year was recorded in two different locations on consecutive days: 3.5 miles northwest of the Tucumcari Airport on May 25th, and 6.4 miles west-northwest of Encino on May 26th.

Thunderstorm Wind

130 mph

The highest thunderstorm wind gust occurred 8 miles northwest of Monument on May 31st in Lea County which significantly damaged a coolant building at the Xcel Energy Cunningham Plant.

Non-Thunderstorm Wind

111 mph

The highest non-thunderstorm wind gust occurred at the Salinas Peak Mesonet site on White Sands Missile Range on February 22nd.

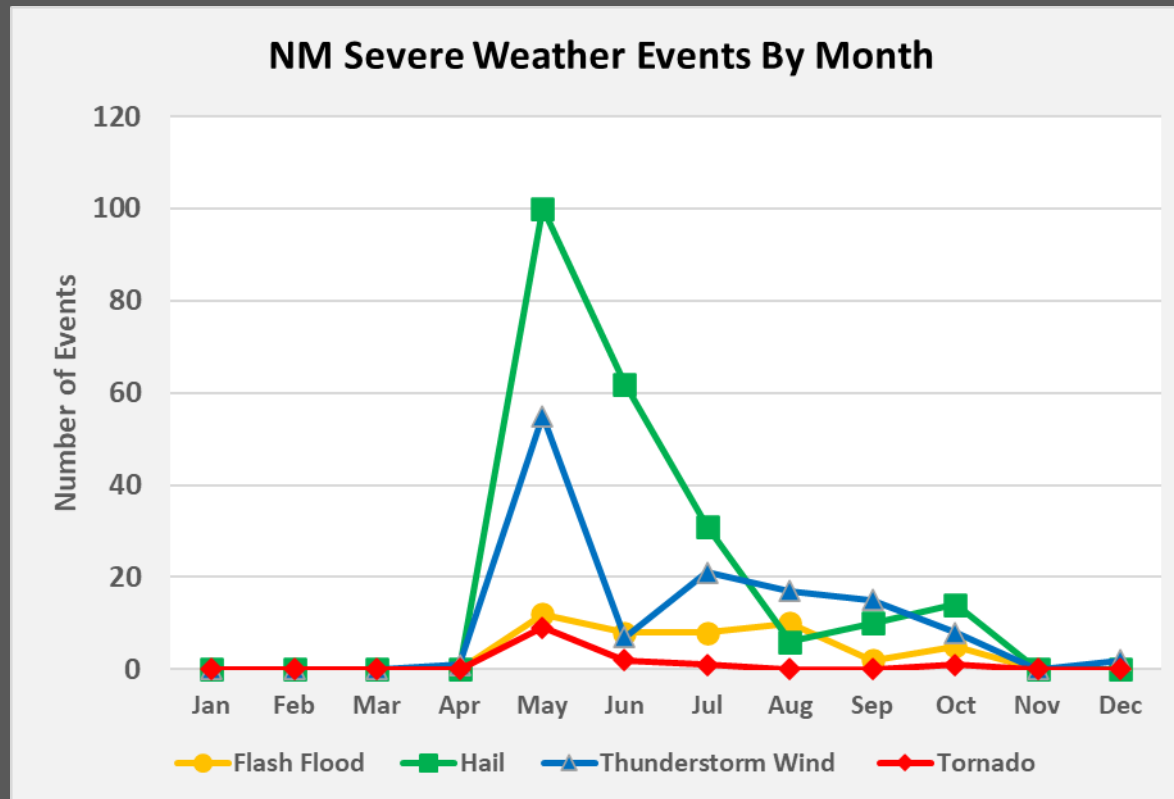


How does 2023 compare to normal?



Event Reports	Normal	2023	Verdict
Tornadoes	9 to 10 per year	13	Above Normal
Hail	~150 per year	223	Well Above Normal
Thunderstorm Wind Gusts	~80 per year	126	Above Normal
Flash Floods	~75 per year	45	Well Below Normal

Notes: At least one tornado has been reported each year since 1953, and before that it is likely that most tornadoes went unreported. The highest number of tornadoes ever reported was in 1991, when 31 tornadoes devastated parts of the state, especially Eddy and Lea counties. The average number of reports for most types of severe weather has steadily increased since 1950 due to increased awareness and accessibility to reporting. Normal values are averaged over the last 10 years (2013-2022).



The graph on the left shows the distribution of New Mexico severe weather events by month for 2023. New Mexico's primary severe weather season is in the spring, though a secondary season often occurs in the fall, while the summer monsoon brings most of the flash flooding.

This year, spring was incredibly active, particularly in mid to late May. Repeated rounds of severe weather caused flooding across parts of eastern NM and a few flash flood reports continued through the monsoon season, though not nearly as active as last year. A few fall severe events were noted, but the secondary severe weather season was notably muted this year.