

Chase Day: April 25, 2009

Contributed by Chris Nuttall
Thursday, 30 April 2009
Last Updated Saturday, 24 July 2010

The upper-level pattern was characterized by a broad, stationary trough over the western CONUS. Over the next week, several short-wave trough would rotate around the main trough and move through the southern jet stream causing several severe events over the Southern Plains. Today would be the first day.

Moist air from the Gulf of Mexico had been steadily streaming northward across the Southern Plains for 2-3 days. Locations east of the Caprock in Texas (and farther east into Oklahoma) had dewpoints well into the 60s. Veering wind fields with height also promoted rotating storms with the possibility of tornadoes. Cold temperatures aloft suggested the large hail was also likely. However, an advancing cold front from the Northern and Central Plains was complicating matters.

The key to the whole day was how far south would the cold front make it. In the preceding week, the GFS was blowing the cold front all the way to the Hill Country of Texas. Subsequent runs began slowing the cold front down and eventually stalling it somewhere across the northern Texas Panhandle. The NAM was taking the cold front through most of the Texas Panhandle, stalled it along a line from Friona-Tulia-Wheeler-Gage. Only time would tell which model would verify. However, in both situations, a dryline was progged to set up just along the Caprock with the triple point setting up somewhere in the area of the NE Texas Panhandle.

I was off work this day, and the proximity of the target zone provided a perfect opportunity for me to log my first chase of the year.

Target: Wheeler, TX

[SPC Event Log](#)

[Photos from the Chase](#)

[Videos from the Chase](#)

[Map of the Chase](#)

Location:

NE TX Panhandle/W Oklahoma

Miles Traveled:
390 miles

Total Time:

9 hours

2:45pm CDT (1945z)

With such a close chase target. I wasn't in any hurry to leave. Since the position of the cold front would ultimately determine the target, I chose to wait until the last possible moment. The front had pushed through most of the Texas Panhandle around noon, and seemed to slow its advance by 2:00pm. With the multitude of chase options and the flexibility of the location, I changed my target to Shamrock, TX, so I left Amarillo headed east on I-40.

After suffering some equipment hiccups, I decided to pull over at the rest area between Groom and Alan Reed to get everything sorted out. While dealing with that, I started to notice several cumulus towers begin to build to my southwest, as well as overhead. I saw Steve Miller (TX) pass me on I-40 headed east, so I decided to give him a call and see if he wanted to convoy today. I don't like 3-4 car convoys, but prefer to have 1 other vehicle along in case somebody suffers car trouble. Gives me piece of mind.

3:19pm CDT (2019z)

After discussing the building Cu towers overhead, we decided to pull off at County Line Rd. just east of McLean. After taking a quick glance at GRLevel3 and SpotterNetwork, we appeared to be farther west than anybody else. This would later prove advantageous. Cells were starting to appear on radar. One echo in particular (Storm-A) showed some promise. Knowing the chase would likely begin soon, Steve, and I decided to head into McLean and fill up with gas and see how things would develop. We decided to head north on TX-273 to get in better position on the storm. The storm was quickly developing supercell characteristics on radar. It was pretty apparent both visually and from radar that there was a decent hail core. Unfortunately, this severely limited road options and how close I could get. After taking FM-2857 north, I eventually opted to officially "christen" the Jeep on some dirt roads to get south and east of Storm-A.

0.5 deg Z/SRV image from

KAMA
at 2154z (4:54pm CDT)

Turned east on TX-152 for a few miles before reaching a roadside picnic area. I was immediately south of Storm-A and pulled over to take a look. Steve and I experienced some pretty strong southerly winds. In a field about 500 yards to our south, we could see dust blowing from west to east. Looking overhead, there was some pretty violently rotating scud. About 30-45 seconds later, we had a cold northwest wind. There were also a couple of strong dust whirls (about 3-4 feet wide) within about 20-30 feet of us. We decided to quickly bail east and were blasted with more strong inflow winds from the southeast.

I stopped about 4 miles ENE of Briscoe to watch the storm. I continued to follow the storm east towards Allison. I opted to take a dirt road east from here to avoid the hail core, eventually reaching State Highway 47 and taking that east towards Reydon, OK, before turning north on OK-30.

6:30pm CDT (2330z)

I pulled off of OK-30 north of Reydon and watched for a few the storm for a few minutes. To be honest, it didn't really look very impressive. However, things changed quickly. As I approached the Washita River, the cloud base began to lower, and several ragged funnels started to take shape. I got a lot closer than I intended. It looked like I was going to have a really nice white tornado drop in a field about a quarter of mile to my east, but nothing ever touched the ground. It was just about as close as you could get without having it touch (2.4MB).

I continued to follow Storm-A and turned east on OK-33. At Roll, I had to take some more dirt roads in order to keep in good position on the storm. The Canadian River made it impossible to get any closer than about 5 miles. Storm-A started to merge with other convection that had developed farther to the east, and really started to lose definition. Steve and I debated bailing and heading for some more impressive storms to the south. However, with sunset less than 2 hours away, our chances of making it were slim, so we decided to keep with our current storm.

7:55pm CDT (0055z)

Storm-A began to reorganize...again. Steve and I headed for Leedy, OK, but we separated at this point. Steve took some rural roads north and west of town, while I decided to stick with OK-34. I pulled off the highway at a historical marker about 2 miles NE of town, and stayed here until dark.

0.5 deg Z/SRV image from

KVNX
at 0058z (7:58pm CDT)

Several wall clouds and funnels developed and dissipated over the course of the next 30-45 minutes. Some of them were quite impressive, however nothing ever touched the ground (2.4MB). Steve was much closer to the storm than I was, and he also verified this. I continued watching Storm-A from this position as it cross the highway and eventually moved away to the northeast. It was quickly getting dark, and I met up with Steve in Leedy to make the drive back home. We spent the trip discussing the day's events, what could have prevented tornado formation, and the forecast for the next day.

SUMMARY:

No tornadoes from this day. I guess it could be called a bust with all the hype that all of us forecasters gave to it, but it did definitely have potential. Either way, it was still nice to log a chase, and so close to home to boot.

I think there are a few reasons why Storm-A never did drop a tornado. The storm had fairly high cloud bases most of the time it was in Texas. The storm initially developed and moved northeast right up the cold front, possibly moving north of the front at some point. After the front stalled and began retreating northward, Storm-A took a right turn and starting moving more easterly. This was right about the time it crossed into Oklahoma.

At this point, the deviant right-motion helped to increase storm-relative helicity. Back in the warm sector, Storm-A was able to ingest surface-based air parcels with a richer moisture content. This was evident with the "near tornado" north of

Reydon. However, additional convection fired farther to the southeast and eventually moved into very close proximity to Storm-A. causing it to have a rather tainted inflow. When I was north of Leedy, I was getting fairly cold (probably ~60 deg F) southeast winds flowing into Storm-A. The low-level jet at 850mb started to kick in around dark, which is probably gave Storm-A it's last chance at dropping a tornado before I broke off of it.

Still, this was the first time I can remember following a storm from initiation as a Cu tower. After ironing out a few kinks, I was able to successfully field test all of my equipment for the rest of the season. Overall, not a bad way to start out 2009.

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