**Tour 5 Day 1, June 3rd 2007**

We started in Denver with ideas about heading down to Hobbs, NM / La Mesa, TX, but it was a fairly early show and by the time we got into Texas it was clear that we'd never make it. We stopped in Dumas to observe a junky mass of storms coming out of New Mexico and had to choose between those or a decent looking storm heading for bad air west of Lubbock.

Eventually we decided to head over to Dalhart since it provided the best series of roads from which we could maneuver. We first let a small storm with dime sized hail run us over north of town, then followed it east where, to our surprise, it developed supercell characteristics and even a well pronounced lowering! More than we expected. Eventually we decided to drop south through Vega and head west on I-40 towards a storm near Tucemcari, NM, but it fizzled before we could get there and when we got to I-40 we headed east towards a new severe storm heading into Amarillo. This storm contained large hail and was highly electrified. Finally, as we headed into Amarillo (our stopping place for the night), the sunset created an impressive red-only rainbow right in front of us.

Day 1 total: 534 miles

**Tour 5 Day 2, June 4th 2007**

Not much of a chase day. Lots of popcorn storms with very high bases and weak (if any) structure. One cell had decent structure and good CGs but as soon as we pulled over and set up our tripods, the CGs stopped. We kind of did a few circles hoping something would happen between Clayton, NM and Texline, TX but eventually gave up and headed to Raton, NM for the evening.

Day 2 total 344 miles, tour total 878.

**Tour 5 Day 3, June 5th 2007**

Today, we ended up intercepting a weak anticyclonic high based supercell with poor structure that soon died. Shortly thereafter, we got on another weak high based storm west of Sterling, CO. We set up shop to watch it and it actually intensified and treated us to a really nice CG light show. We watched it for about an hour before heading in for dinner and then on to Valentine, NE for the evening.

Day 3 total 648 miles, 1526 total for the tour.

**Tour 5 Day 4, June 6th 2007**

We started the day in Valentine, NE with high hopes, but also concern as we were under a robust cloud deck in the morning. This burnt off rapidly as we head north into our target area near Wall, SD.

Arriving at Wall, it seemed like it would still be some time before initiation so the group dispersed into Wall Drug for lunch. Coming out of Dairy Queen, we looked to the south only to see a giant developing supercell already with a large tail cloud to our south! We hurried to gather the group and blasted west out of Wall, then south into the Badlands National Park. The storm got it’s act together very quickly. We headed through the park and arrived in Interior, SD just in time for the storm to drop a long cone-like tornado near Kyle, SD about 25 miles south of us that was on the ground for about 20 minutes. The tornado looked to be fairly weak and the motion was not very dynamic from our vantage, but considering the distance we were from it, the tornado must have been in excess of 5000 feet long. There were a number of instances where it had a very pronounced debris fan.

After the tornado we decided to plunge south out of Interior to getback in position within the notch near the now cycling wall cloud, but unfortunately we were cut off by the hail core and had to run quickly to the north back through the Badlands. As we reached I-90 and bolted east, it was clear that the storm had transitioned into a monster HP hailer and the tornado threat was rapidly diminishing. We decided to head north out of Kadoka and stayed just ahead of the storm all the way to Pierre, stopping several times to take photos of the fantastic shelf structure. After dinner we drove to Sioux Falls for the night where we were intercepted (actually followed all the way from Mitchell) by a news crew that wanted to interview the group. The interviews were on TV the following morning as we ate breakfast.

Day 4 total 601 miles, 2127 total for the tour.

**Tour 5 Day 5, June 7th 2007**

Today was a long and frustrating chase day, though still fun of course. We started the morning in Sioux Falls and headed east into Minnesota, stopping for fuel in Albert Lea. Just prior to getting there, we crossed a line of developing convection and knew it was going to be a VERY early show as it was only 11 AM! The upper level winds were blasting off to the northeast. The surface winds were very strong too, but were also going to the northeast, meaning we had great speed shear but very little directional shear, which I believe was a major problem today.

After the fuel stop we headed south into Iowa (where I hadn't chased for 6 years, my first good supercell near Ames in 2001). Not far after Mason City we got off the highway and headed east because the line was already lighting up with a northeast to southwest orientation and we were on the west side. After punching through a heavy rain core, we tried to intercept a couple of the better looking line segments, but were continuously frustrated by the roads and storms that were moving 55+ MPH. After criscrossing a couple times with the master class, both groups blew off the upper part of the line and headed south, where the storms were more supercellular and a couple had become tornado warned. The problem is they were 70 miles away. We dove down through Watertown and Dunkerton and into Cedar Rapids onto a cell that had apparently produced a brief tornado earlier and had a massive block wall cloud to the north of us. It looked like a wedge hanging from mid-air. Unfortunately it was moving away from us at 60 miles per hour and we couldn't keep up, so we had to drop off and get the next cell. We did this two or three more times to storms that produced wall clouds, but just weren't spinning enough to produce tornadoes. Eventually we ran out of cells and called it a night, having chased all the way to Maquoketa, not far from the Illinois / Wisconsin border A number of these storms did eventually produce tornadoes in the woods of Wisconsin quite a bit later.

We spent the night in Council Bluffs, IA. 869 miles today for 3004 total.

**Tour 5 Day 6, June 8th 2007**

Just a driving day back to Denver. We did a total of 537 miles for a tour total of 3541 for the tour.

**Tour 6 Day 1, June 10th 2007**

A long day with only a so-so reward. We departed Denver and made good time all the way to Valentine, then headed north to Murdo and stopped there to wait for the nose of the moisture to our northeast to collide with a warm front that was in the area and initiate, or to drop south to play another boundary that was already popping, albeit in horrendous dew points. We waited there for some time as we had a line of mushball storms to our south in 52 degree dew point air heading slowly towards 68-70 degree dew points, and as much as 5000 joules of CAPE in the area to the north, albeit heavily capped.

Ultimately we decided the north option was capped out and headed south towards Winner, SD, where the moisture was better. It ended up being a long ride through Winner, down to Gregory and Burke, and ultimately back into Nebraska east of Jamison. We ended up with a nice shelf cloud with some great colors and good lightning, but our attempts to get into a decent hail core were stymied and we then had to drive all the way to Rapid City.

Interesting notes: In the area of Winner we saw no less than 3 drive-in theaters. I hadn't seen one in years and there were 3 out in the middle or nowhere! Also, a new record for smallest town: Wewela, SD (which does appear on the Rand McNally Road Atlas), population 5!

Total mileage for the day was 888! I think that may be a one day record for me.

**Tour 6 Day 2, June 11th 2007**

We jumped north from Rapid City with the intent of playing the frontal boundary up in northwestern ND. We planned to stop when we hit I-94, but the SPC meso analysis parameters all painted a big bullseye in the vicinity of Watford City, so we continued north. Eventually we stopped at a scenic overlook at the Theodore Roosevelt National Park, right in the middle of what should have been the area of maximum CAPE, convergence, and shear, and the only place where the cap was eroded. Instead, it appeared to be the only place that was capped out. With hotel rooms in Pierre, SD, we then were faced with a tough question: To the north of us, a monstrous supercell fired right on the Canadian border, nearly anchored. From our position we could see everything we needed to know: big overshooting top, rock hard updraft wall, back sheared anvil, roiling flanking line. But, it was 100 miles away, and 100 miles farther away from our hotel that was already 350 miles away. Eventually, we blew it off as it continued to tease us visually. Lucky though because the storm didn't last too long and would have died before we got there.

We then made the long drive to Pierre. One interesting thing that happened was that as we drove south out of Bismarck behind a dying squall line instead of the expected cold outflow air from the east, we were suddenly getting warm air in 40-50 MPH bursts from the west. We concluded that it must have been a hot burst resulting from a nearby dry microburst, and indeed Roger's in-van weather station saw it's temperature reading go from the low 70's (it was after dark) to the low 90's in a matter of a couple of minutes! Then a few miles down the road everything went back to normal and we got the expected cold outflow from the east.

A frustrating cap-bust day. 658 miles for a 2 day total of 1546 miles.

**Tour 6 Day 3, June 12th 2007**

We awoke to a fairly heavy cloud deck and I really didn't have very high hopes that we'd get the heating we'd need to get anything but rain storms. The moisture was clearly already there, being in the 70 dewpoints when we awoke. Well, I was wrong about the potential as the area was T-boxed almost as soon as we left Pierre. With the entire plains seemingly engulfed in squall lines, it was a day to try and find an embedded supercell in the line. Well, we found one pretty quickly once we got to I-90, and headed west to Murdo, SD, then south on 83 to White City, where a cell was brewing up just off to the east. As we waited while Roger went cruising off into the hail core trying to harvest some baseballs for his Boeing contract, the storm really got it's act together and soon produced a well pronounced lowering with obvious cascading motion. As the RFD came around and eroded the back side of the updraft, the storm crossed the road near us and headed north into a road hole. Taking a farmer's word for it that the dirt road we were on was a mud pit farther up the road, we had to go about 5 miles back east to White City then all the way back up to I-90 to get back in front of the storm, which was heading due north at about 20 MPH.

Once we got out to 83 we really got a good look at the overall structure of the storm, and it was a true supercell: rock hard updraft and vault region, large beaver tail at mid-level, and solid wall cloud with a developing tail cloud. Finally, back in Murdo, we got west and right under the storm, just as the wall cloud totally wound up and produced a funnel about 2/3 of the way to the ground, and possibly the longest tail cloud I've seen. If it had dropped a tornado, we would have been about 1/2 a mile from it as it came towards us! The wall cloud then crossed over us and I-90, and we chased it north of Murdo until the storm seemed to lose focus and we ran out of roads. Upon further review, two of the guests have pictures from when we were moving after the funnel passed over us that seem to indicate that the funnel did indeed reach the ground. Can't really confirm or deny whether it was a brief tornado, but I didn't see it so it wouldn't count for me anyway.

We then headed north all the way back to Pierre (mileage was 203 for the day as we passed the hotel where we had started) and left the line of storms two our west to try and punch out of an extension of the line segment to our east. We ended up almost in a hurricane-eye like area, with towers arcing from our west all the way around to our north then our east. It was pretty cool in the hole, with an eerie long roll cloud off to the north as we punched east, and strong winds continuously changing directions as we went through. Punching out in front, we decided the whole thing had lined out and tried to get run over by an oncoming hail core, but the storms were rapidly turning into nothing more than large rainstorms. We decided to call it a day and headed down to our stop for the evening, North Platte, NE, after stopping at the Bunkhouse in Valentine for some wall-eye.

527 miles today for a 3 day total of: 2073.

**Tour 6 Day 4, June 13th 2007**

Wow!!! What a long, exciting chase day. Probably the most difficult chase driving I've done though. We started in North Platte with a target of Woodward, OK, so we had a long 240 miles drive just to get into position. As we drove down, we noticed an outflow boundary left over from yesterday's mosh-pit of convection and decided to play it, getting there just as it started to light up near Englewood, KS. We were soon posed with an unusual problem: We had 3 cells nearby, and all three of them looked great both visually and on radar! We started to head north with the idea of playing the east most storm when the storm in front of us produced a funnel right in front of the vans. The white cigar shaped funnel didn't make it down, but the storm then produced a second long, horizontal funnel that eventually became sort of an aerial horseshoe. Everything near us was spinning like crazy all day, and this storm was no exception. We then decided to push on to Ashland and the storm to the east.

On the road to Ashland, we were somewhat cut off by the core and would have to punch it. Roger ordered vans 2 and 3 to wait while he went and sampled the core. As he and Steve headed off, we started to get hit by small hail, and then we heard Roger screaming over the radio, "Big hail a mile in, turn around now!!" As this came over, we started getting hit by some bigger stuff, including maybe a few quarter sized stones. While we waited for word from Roger, the storm had developed 2 meso-markers on GRLevel3, one which was now just north of the town, and one which was rapidly approaching the town. As Stu and I decided to start inching towards the town, Roger came over the radio again: "We're east of the town, get over here right now, this thing is going to tornado any second!" With that, we went plowing into the town, which was totally flooded. As we entered the town we were getting blasted by winds from the north. Suddenly, they stopped and the winds changed and blasted us from the south as we came into town. After I saw Stu's van hit about 1 foot of water, I noticed that the business to the side of the road all had elevated driveways, so I pulled off and zipped down them to get past the flood. Then, as we popped out of the rain, Roger came over the radio again "You guys be REAL careful, the meso is coming right over the town!". Immediately as the rain cleared we could see the meso straight in front of us over the road, forcing us to come to a screeching halt. We waited for a couple of minutes and blasted east with the meso spinning like crazy and producing funnels that made it about 1/2 way to the ground. Unfortunately it did not produce for us, but the first meso had produced a truncated cone tornado for Roger!

We were then posed with a tough decision between blowing north and taking the long way around the storm to get east of the enormous blob of storms now underway, or the short way through the core to the south. We chose the south option. After stopping in Buffalo, OK, we punched the core of the cell to our east, only to find we'd have to punch another core to get in front of what was now a beast of a storm near Fairview (which actually produced 2-3 tornadoes that we never got to see). The second core punch was wild: 70-80 mph winds, flooded roads, torrential rain, no visibility, and trees and debris in the road. The lightning was amazing, with repeated strikes within a mile or so of the vans, over and over again.

As we passed through the remnants of the cell in Orion, it spun up an impressive meso and for the 3rd time of the day we stopped as a meso right in front of us tried to get it's act together. I noted wrapping rain curtains below the meso, but never did see and debris on the ground. Finally we made it into Fairview, but the storm to the north had finally given up and we decided to head south and call it a day.... we thought!

As we entered O'Keene, we realized we were going to get cored by a new storm coming into town with reported ping pong ball hail and very strong straight line winds, so we decided to hole up the vans and wait in a local convenience store. As we gathered, the tornado sirens went off (we knew there wasn't really a threat for tornadoes), and the locals started getting ready to head for the shelter of a concrete store room. There were a few tense moments but eventually we realized that the cell had missed us to the north and we decided to head south to the hotel. Unfortunately there was a monster core in our path, and after briefly considering driving through it, we started getting hailed on and were forced to run for it, finding an east bound paved road to try and escape but again we ate part of the core with blinding rain and once again an incredible amount of nearby lightning strikes, the kind where they are so close that the bolt and thunder are near simultaneous. On the several cores we punched, that was a consistent theme, very, very electrified.

We finally escaped east and then headed south through Kingfisher and into El Reno. Problem: The storms were not done with us yet and we had to pass through the lines of big cores AGAIN on the way to the hotel. Same story, blinding rain, heavy wind, and crazed lightning.

What a long adrenaline filled day! 3 hours of fast driving to get to the target area, then almost 8 hours of non-stop chasing!

A couple of interesting observations from the day:

The day was a great example of how you can make a number of good decisions on chase day, but making just one that doesn't work out can cost you the big prize. We managed to make 250 miles quickly to get into chase position, and for the early part of the day, the Ashland storm was the storm of the day so to get right to that from North Platte was pretty nice. If we had a crystal ball though, we would have gone north out of Ashland then east to get around to the Fairview storm which produced 3 nice tornadoes. At the point of decision though it seemed like we could get south and east through the cores and be in position pretty easily as opposed to going 25 miles north and 25 miles east before dropping back down, which was all the road network would have allowed. The sad thing is how easy OKC chasers had the day: They probably worked their normal day, got home, looked at the radar and saw the storms, and drove 20 miles west of the city right to the anchored notch.

Despite the enormous cores going up everywhere, aside from the beginning of the day there was very little hail. Lucky for us I guess, but I'm interested in going back and checking the meteorology on that one. The lapse rates must not have supported big hail.

Visibility continued to be a problem as it had all year. When chasing this kind of system, you quickly have so many accessory clouds around that it's hard to make out important features.

We all know this one: boundaries are important. As each developing storm hit the outflow boundary, it went crazy for a period before dying off. A chaser 101 point, but heck, it was part of my thesis so I figure I should mention it 

The day’s mileage was 644 miles for a total of 2717 on the tour.

**Tour 6 Day 5, June 14th 2007**

We played around with storms forming on an outflow boundary from last night between Wichita Falls, TX, and Lawton, OK. The storms were pretty much junk. We eventually gave up and headed for Childress, TX through the scenic Wichita Mountains.

Mileage for the day: 389 miles for a 5 day total 3106

**Tour 6 Day 6, June 15th 2007**

Just a drive from Childress to Denver, 527 miles for a total of 3633 for Tour 6, about average I guess.

Total mileage for my 2 tours this year, 3541 plus 3633 = 7174