

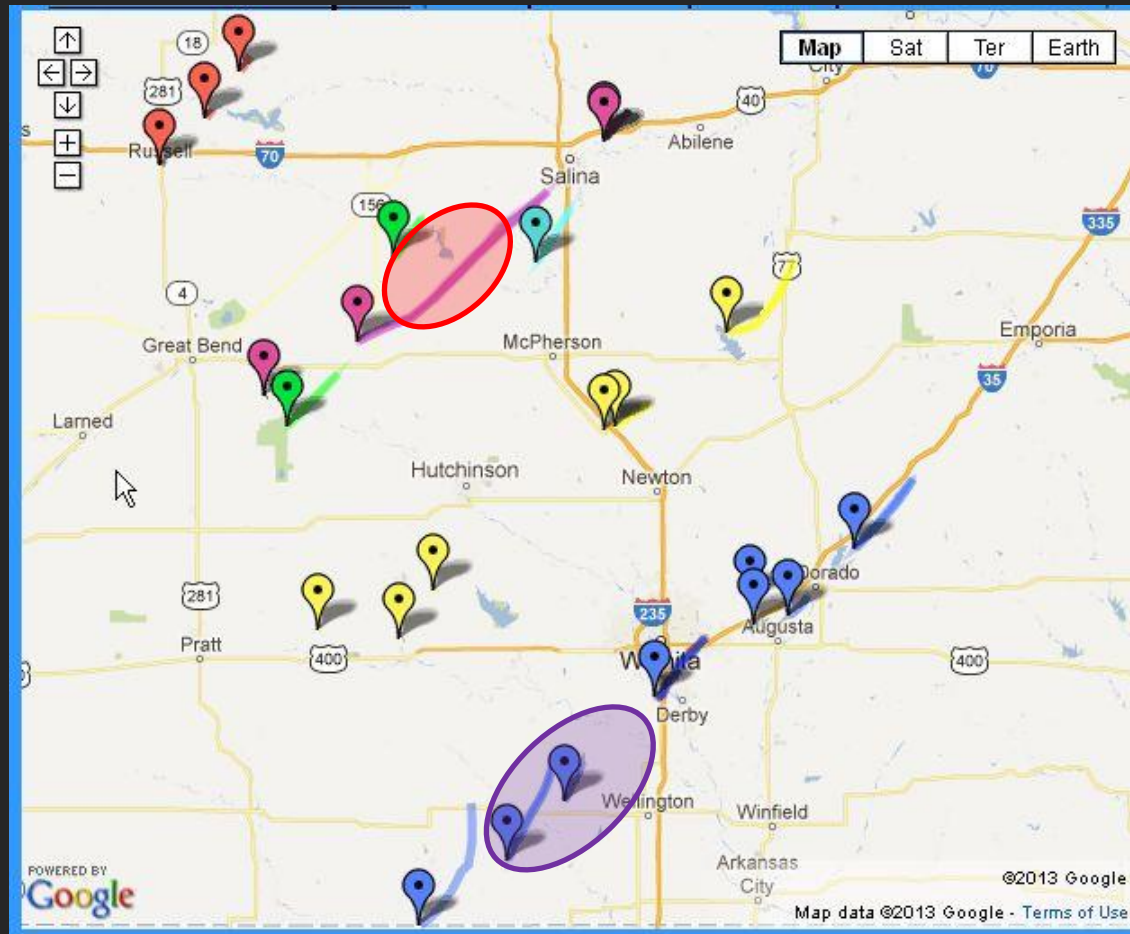


# ***Central Kansas Tornado Outbreak***

***April 14<sup>th</sup>, 2012***

***Part 2***

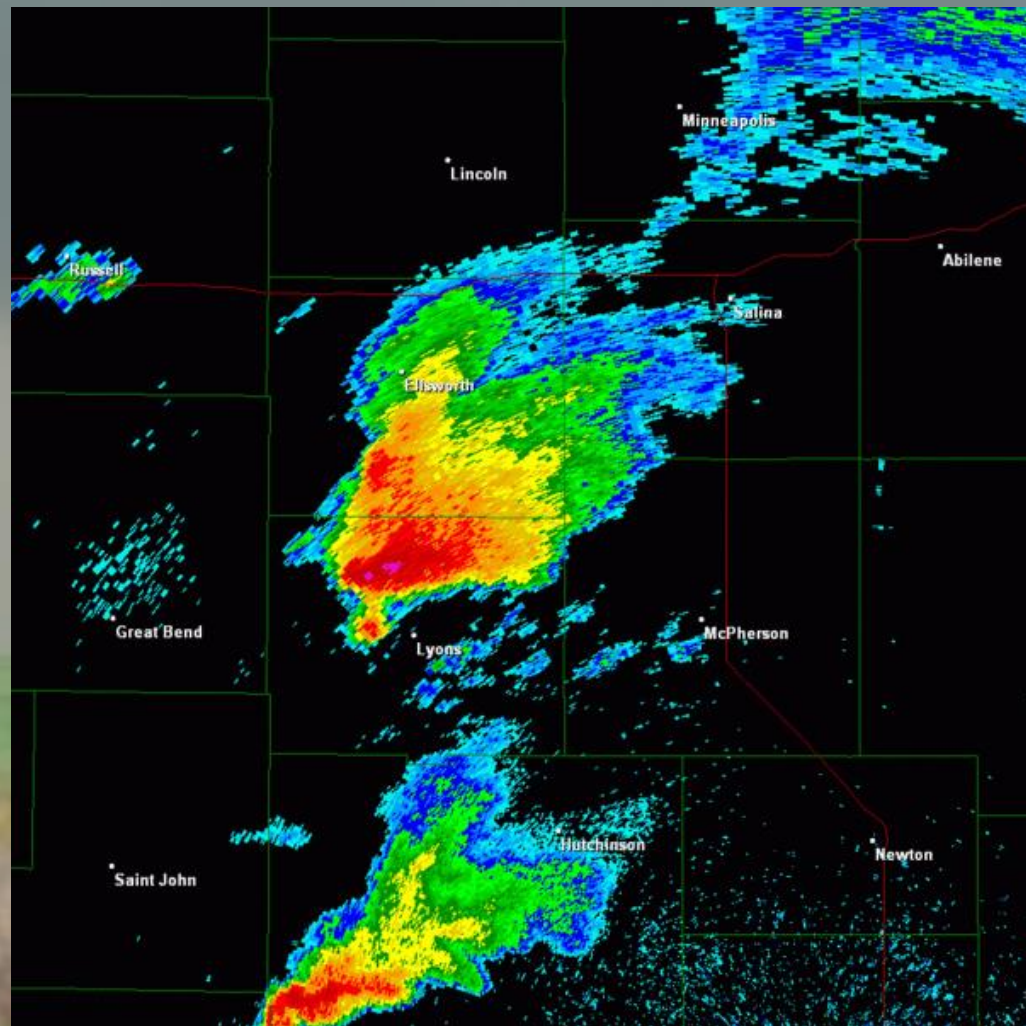
# ***Tornado Tracks***



***6 Separate Tracks***

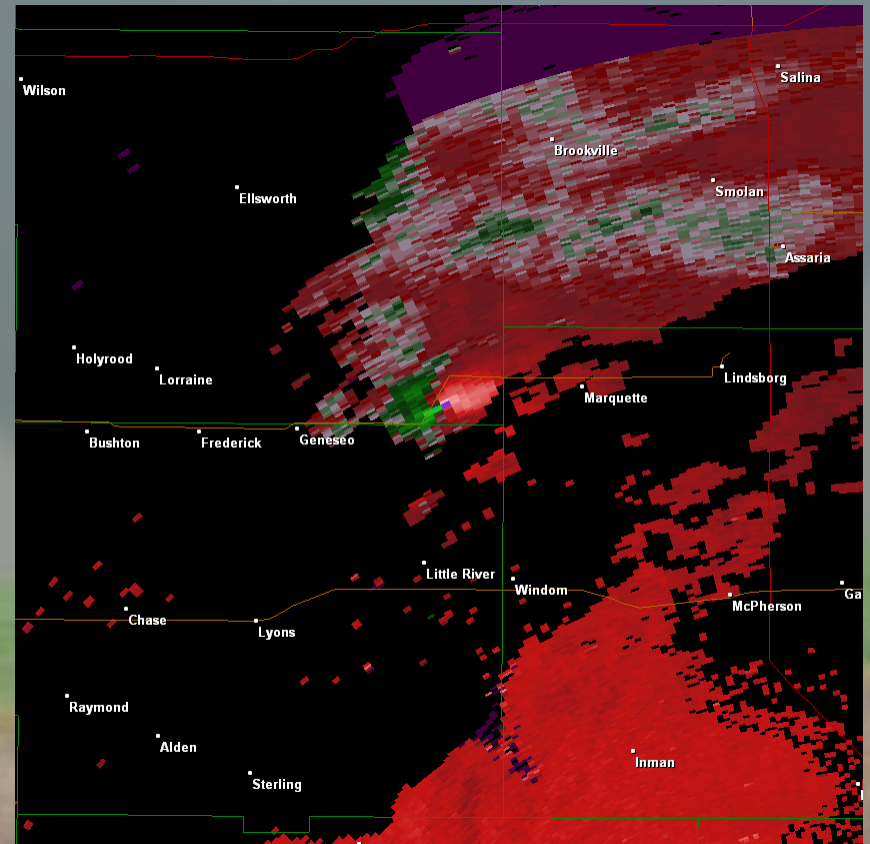
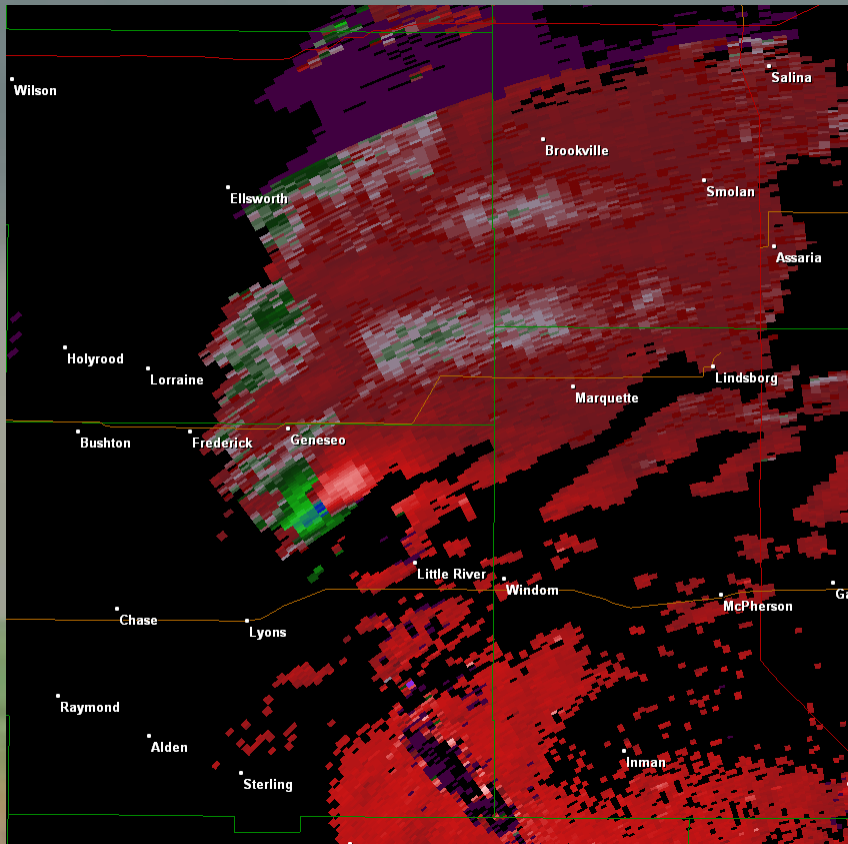
# *EF-4 Rips Across Central Kansas*

## *JMB Tornadic Supercell*





# ***SRM Shows the EF-4 Beast***





# Devastation in SE Ellsworth Co.

Ellsworth

Brookville

Smolan

Assaria



Little River



erson

Ga

Raymond



***... "A Twister is Coming!" ...***



***Family made the Right Decision and Survived!***



# A Look at Dual Pol Data

Ref with  
Debris  
Ball?

Bushton

CC

Ch

SW

15,000 ft

ZDR

CC at  
1.9 deg

Brookville

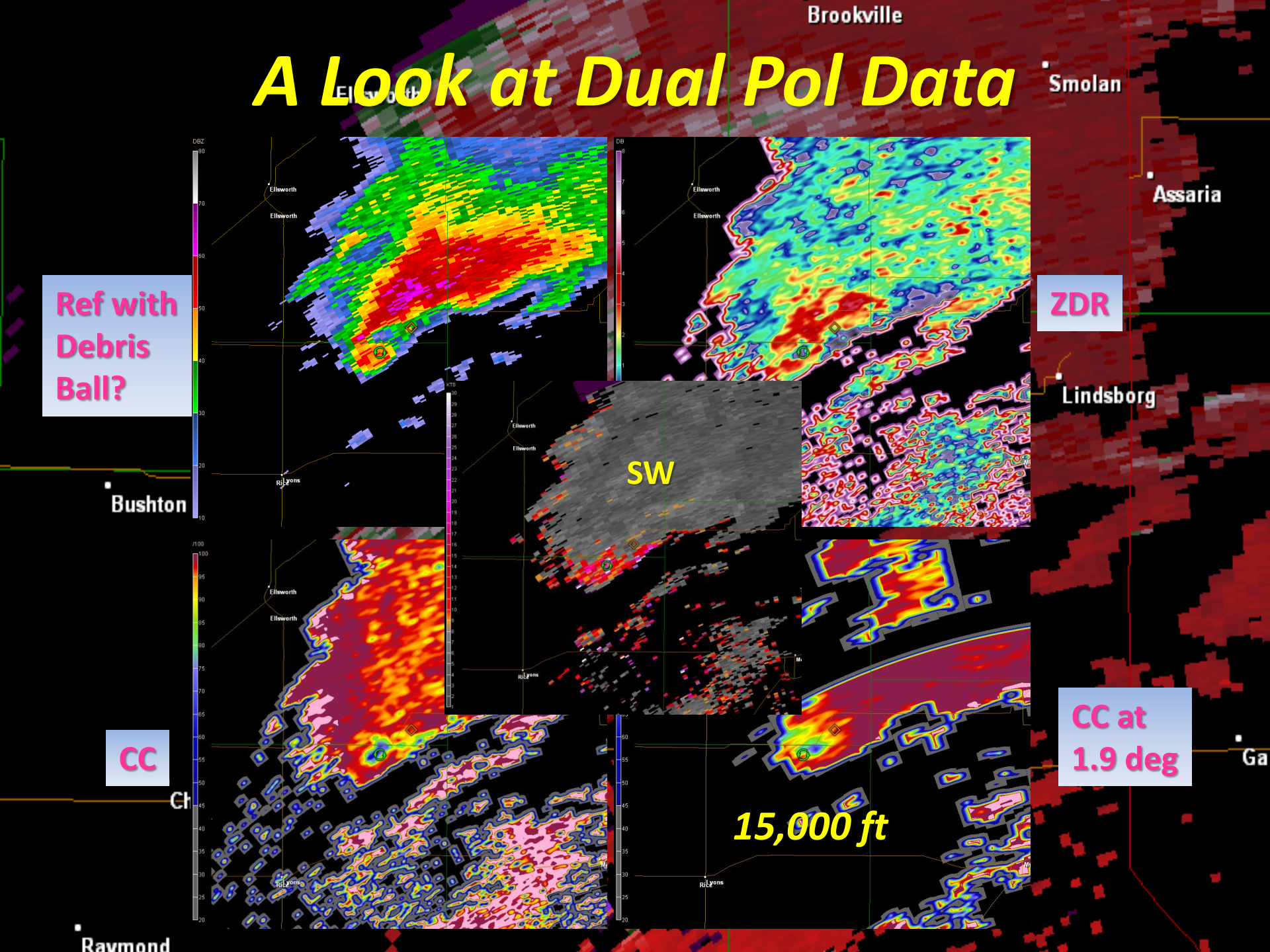
Smolan

Assaria

Lindsborg

Ga

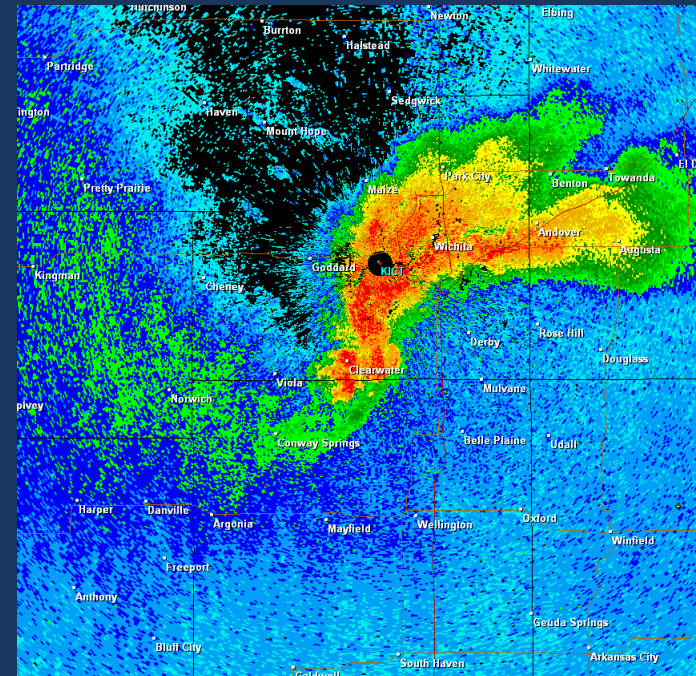
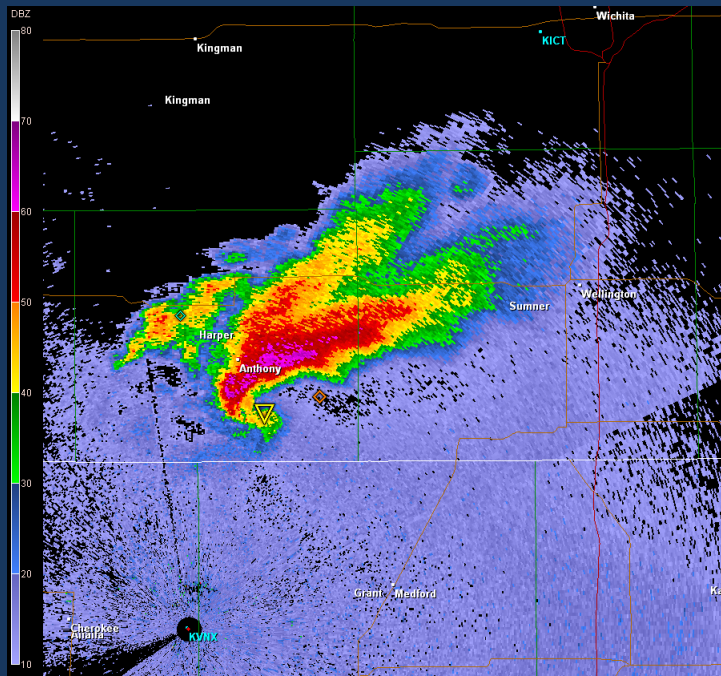
Raymond



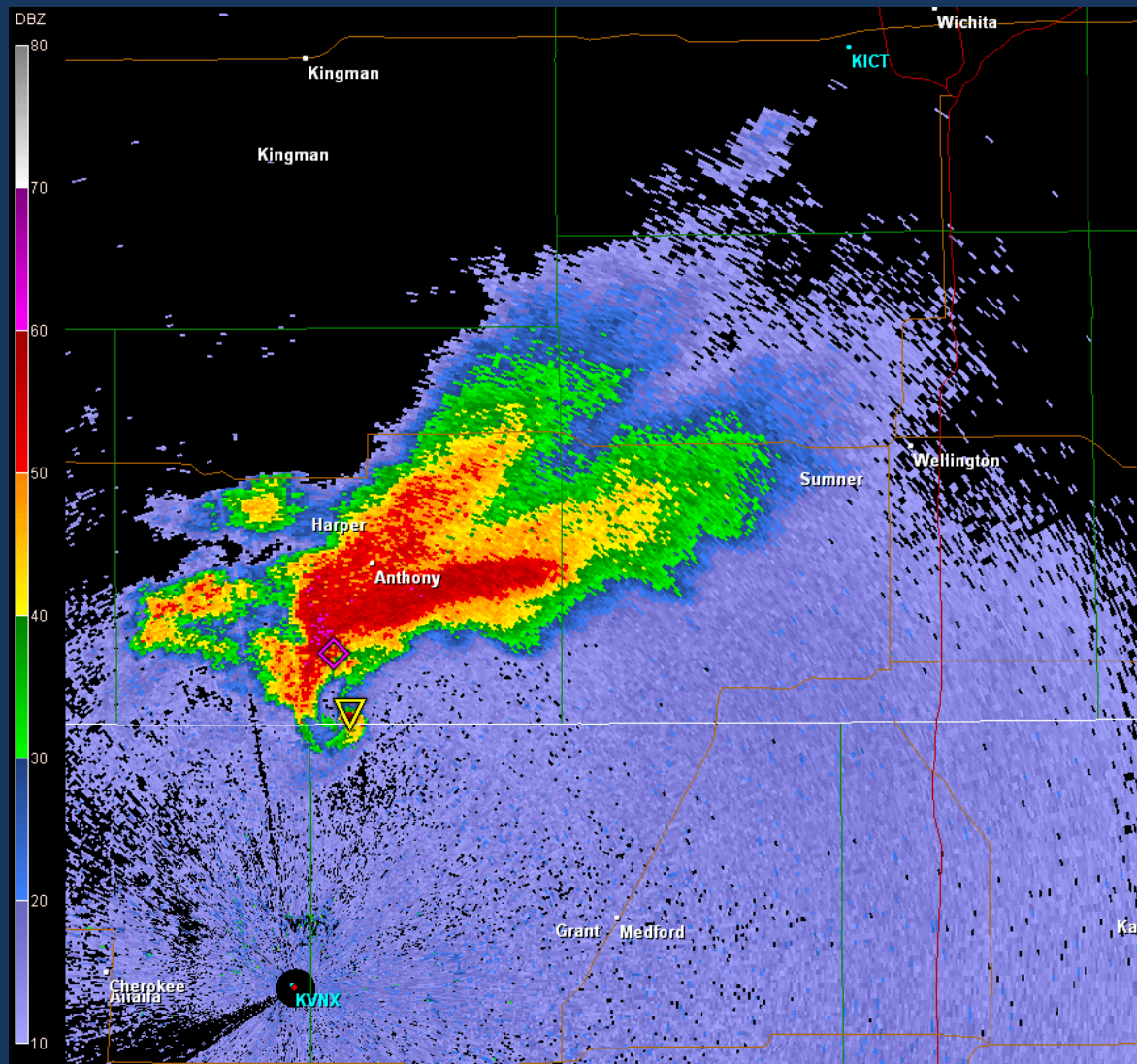


# *South Central Kansas*

## *ADK Tornadic Supercell*

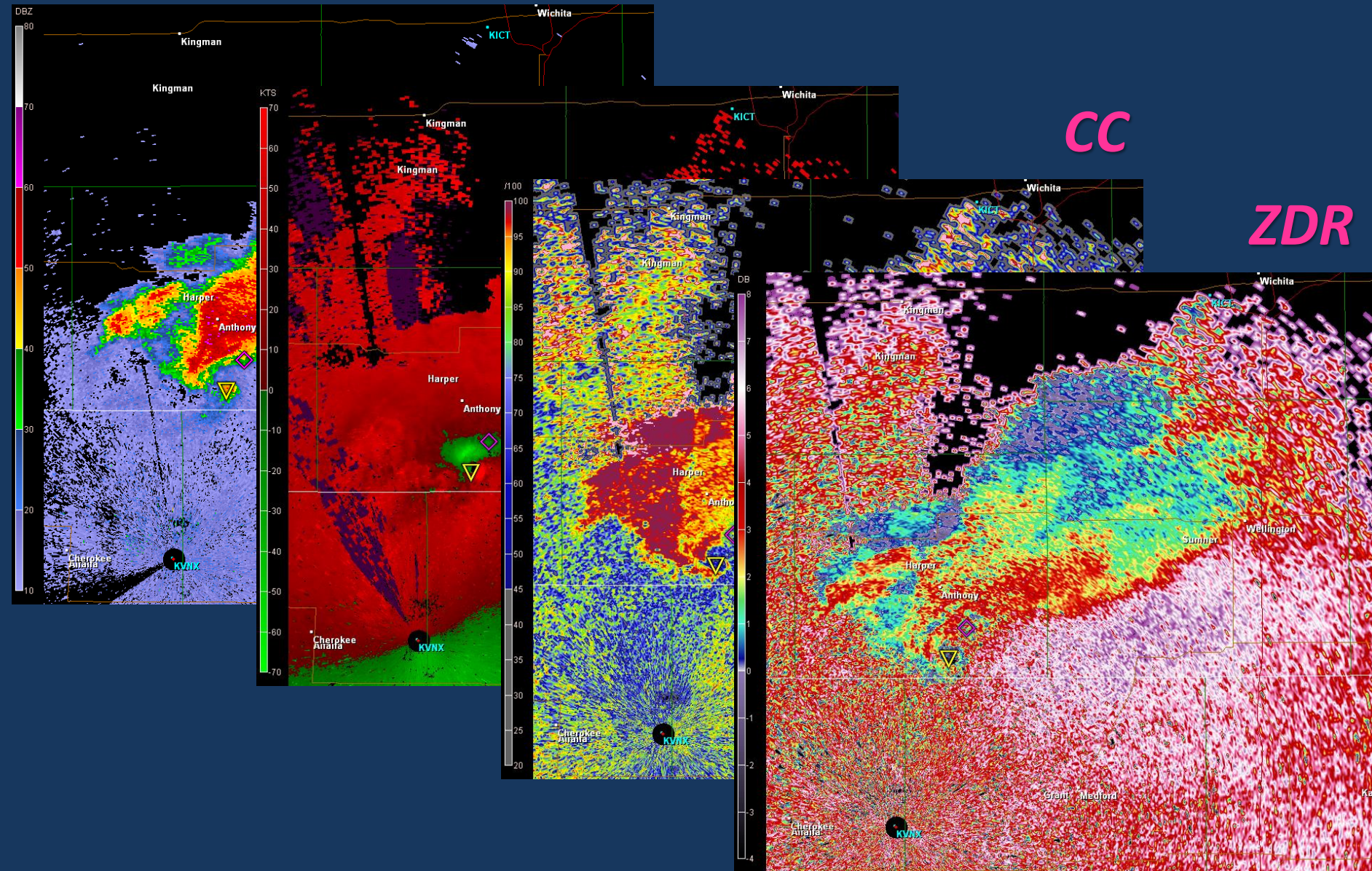


# *Beast Develops in Oklahoma*



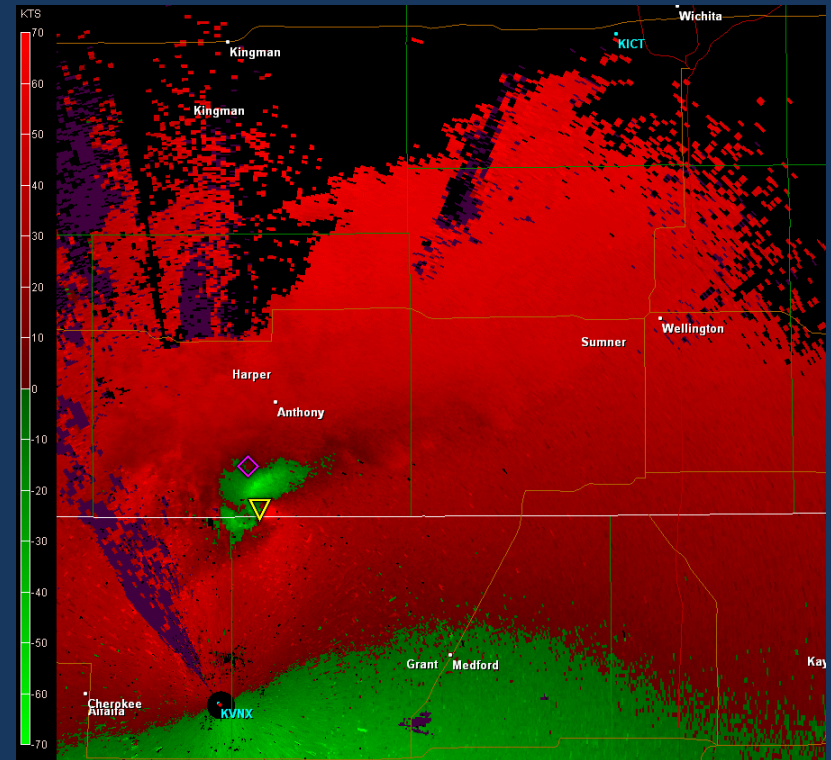
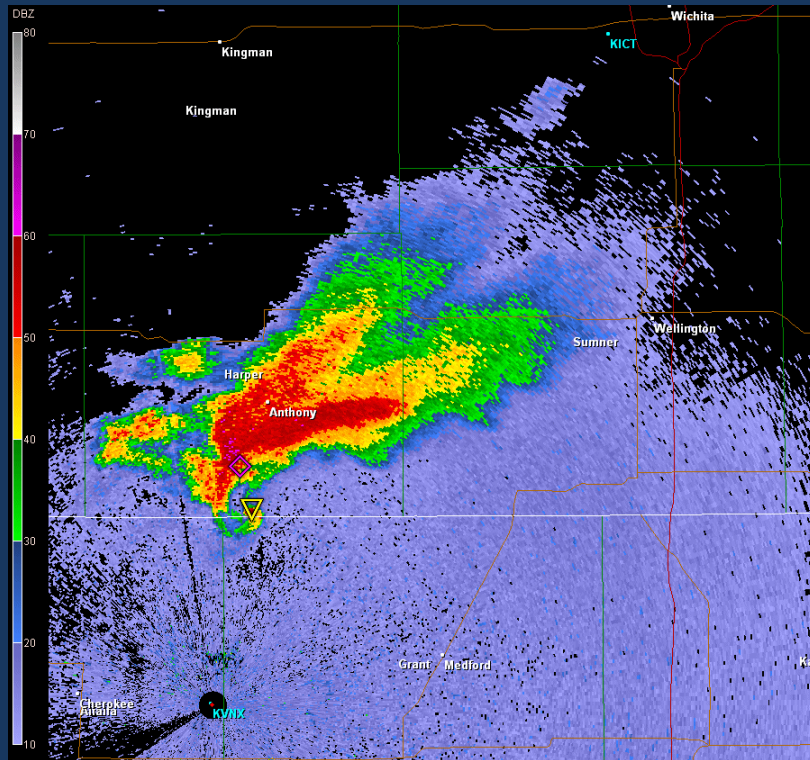


# Dual Pol Delivers Again



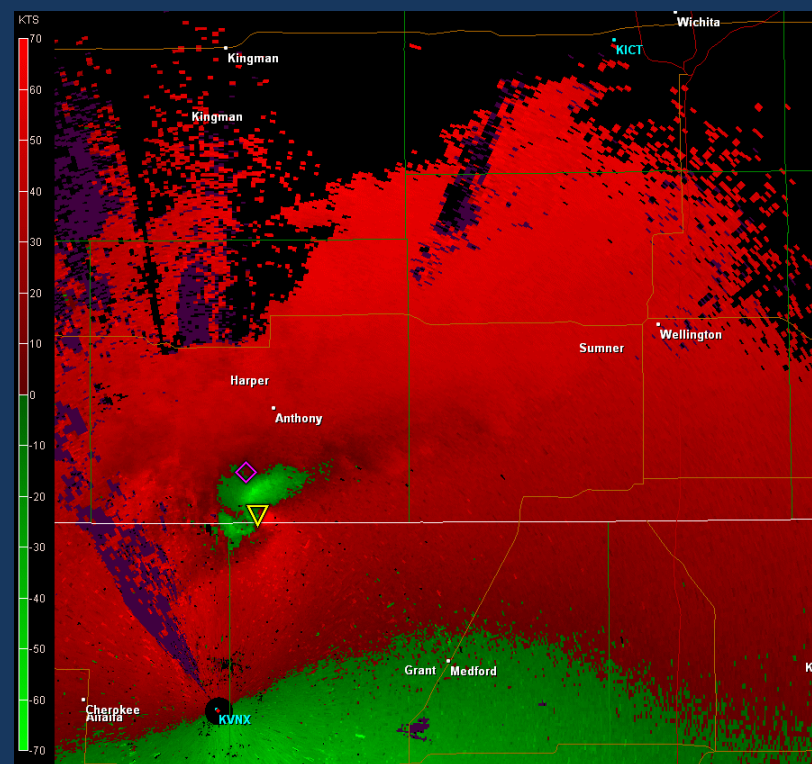
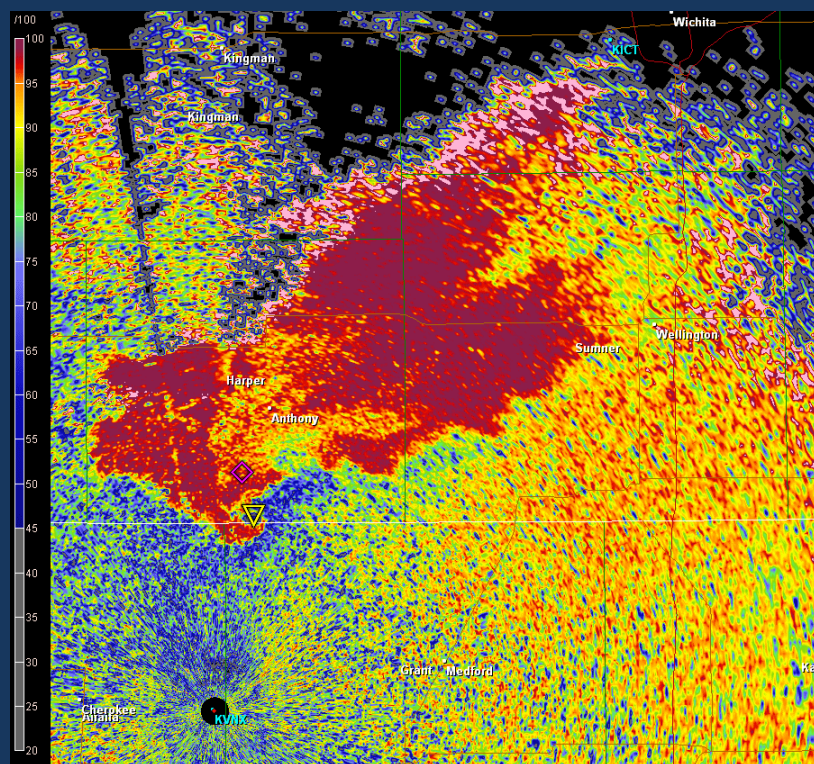


# *VNX Radar Replay*



*Cyclic RFD and Occlusion Process*

# *VNX Radar Replay*

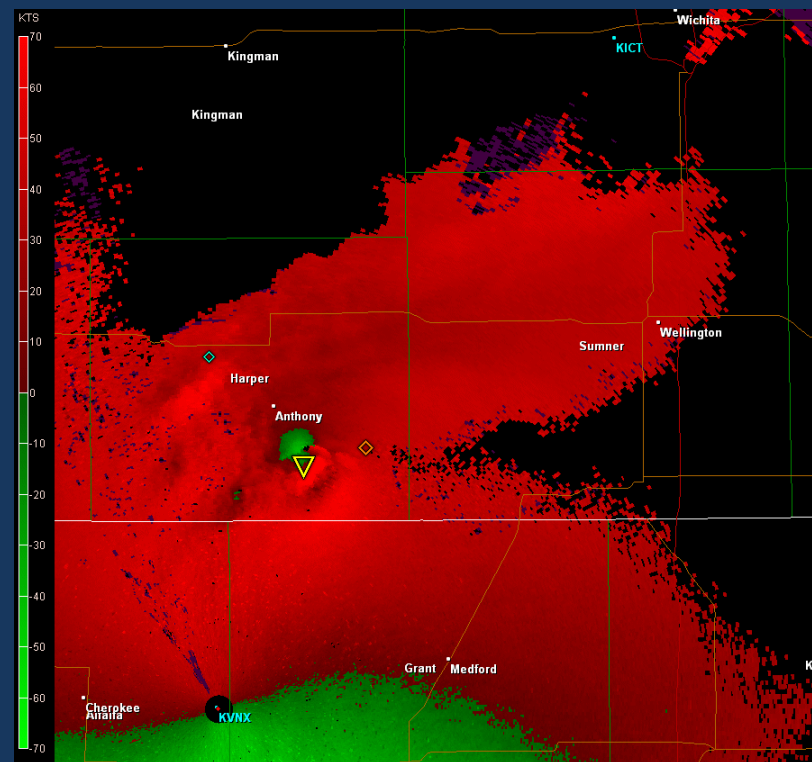
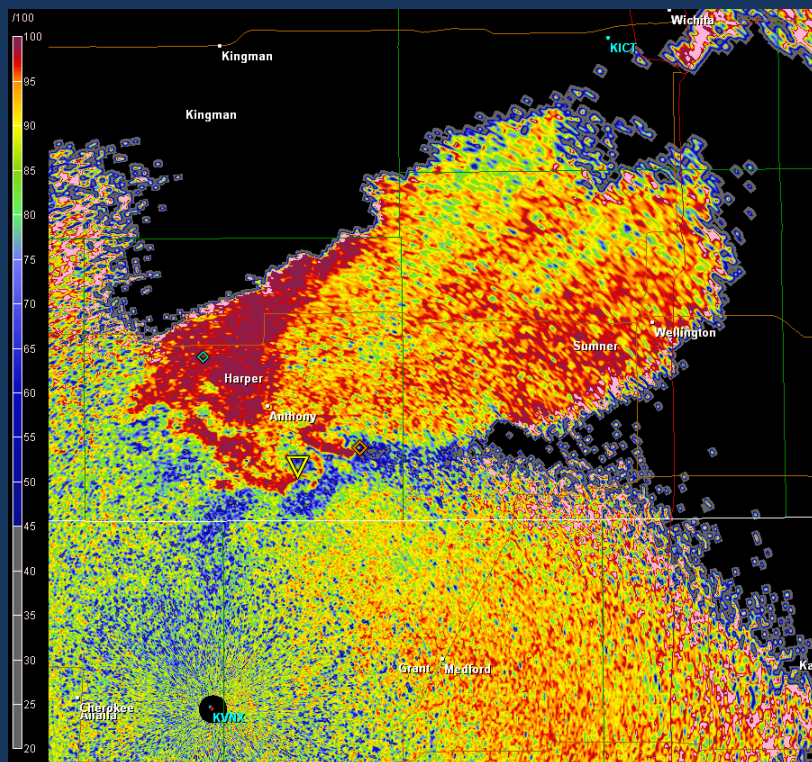


*Low CC helps track and identify debris within cyclic tornado and strong mesoscale wind flow region to the S-E.*



# VNX Radar Replay

## 1.3 Elevation Slice

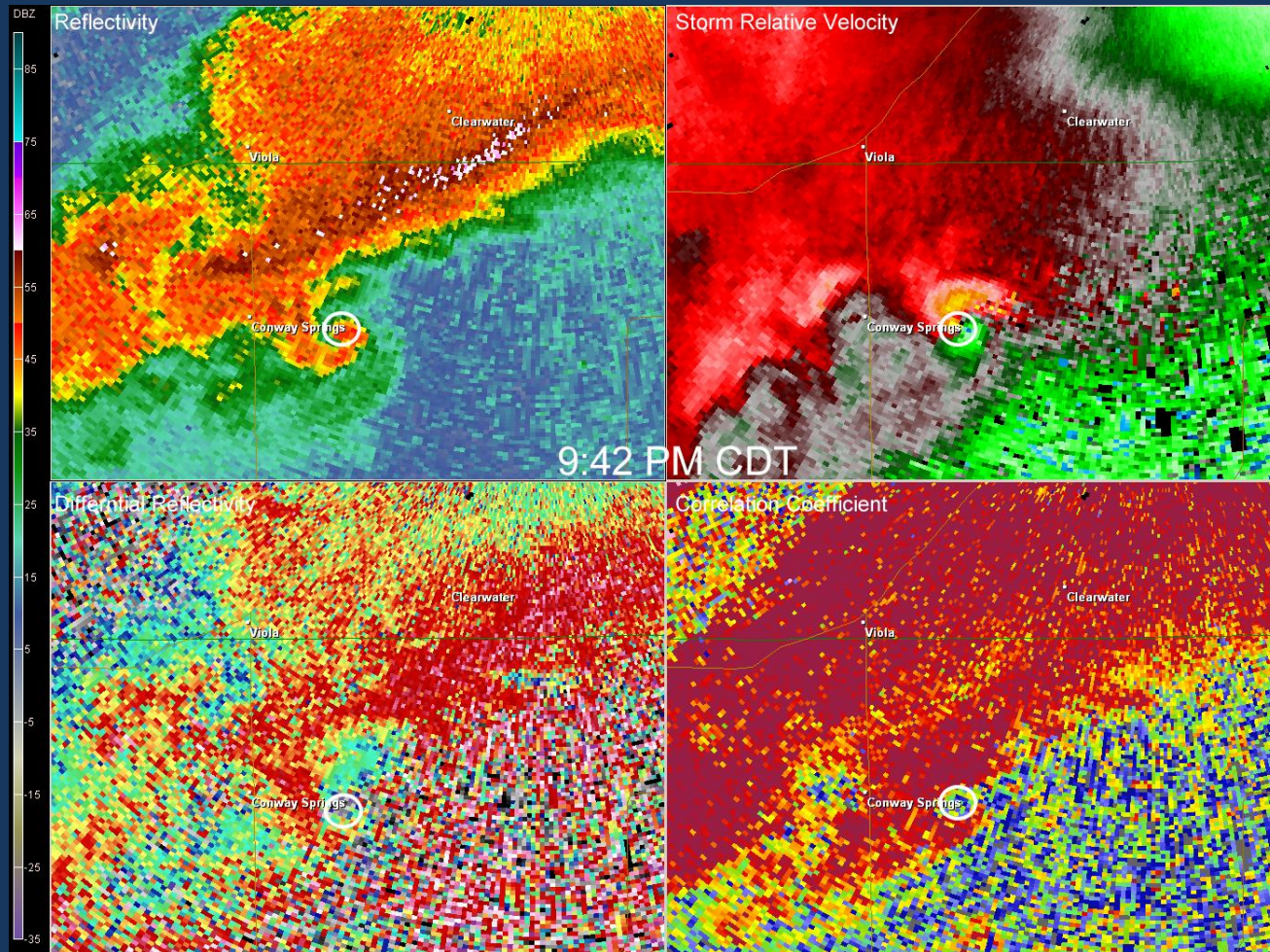


*CC helps shows cyclic mesocyclone and tornadic evolution  
(brief break in damage path just W of SU county line?)*



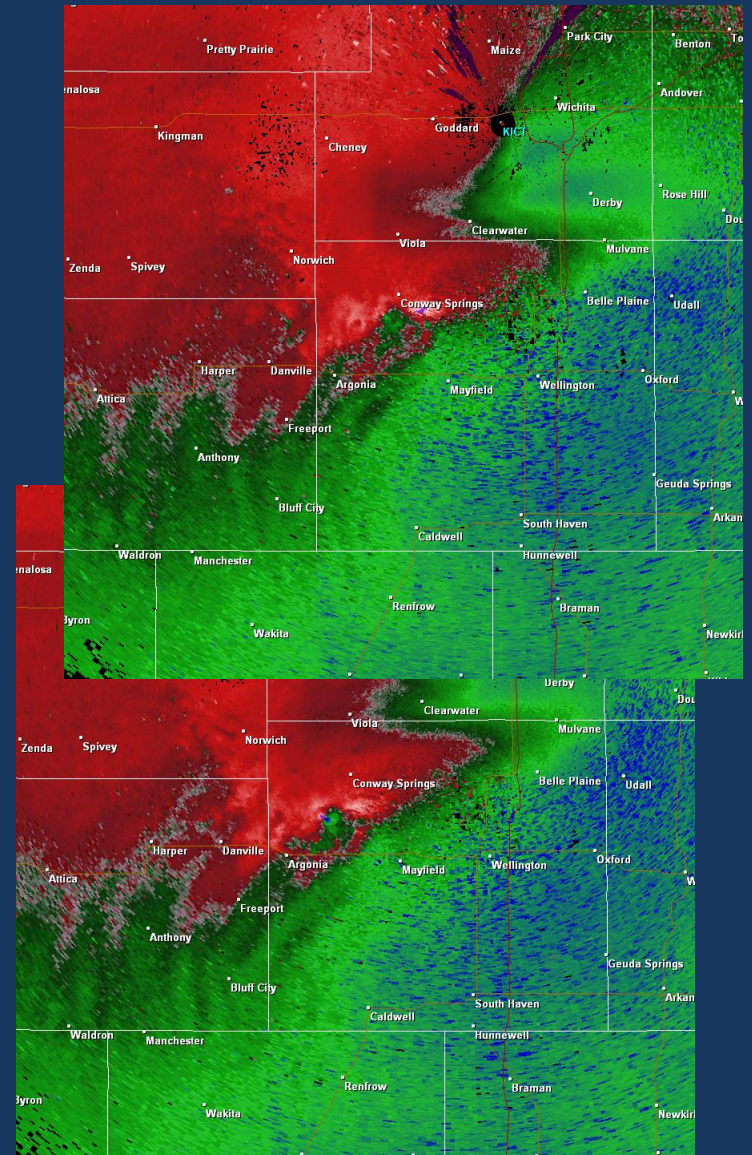
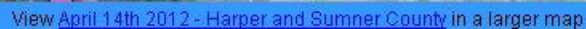
# Another Debris Ball...

*Dual Pol Style*



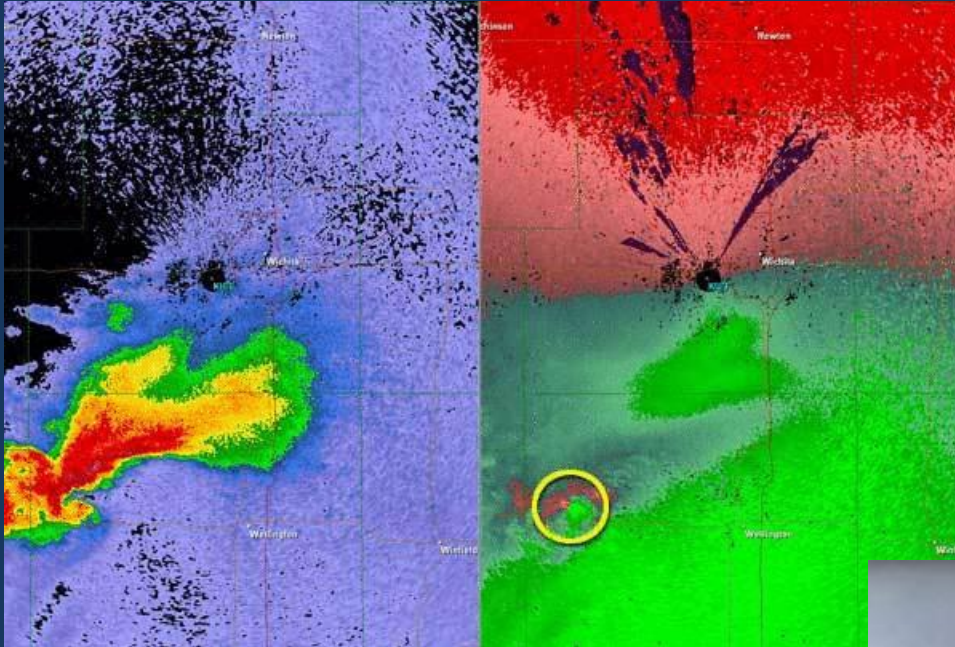


[View April 14th 2012 - Harper and Sumner County in a larger map](#)





# ***EF-3 Tornado Hits Southeast Wichita***



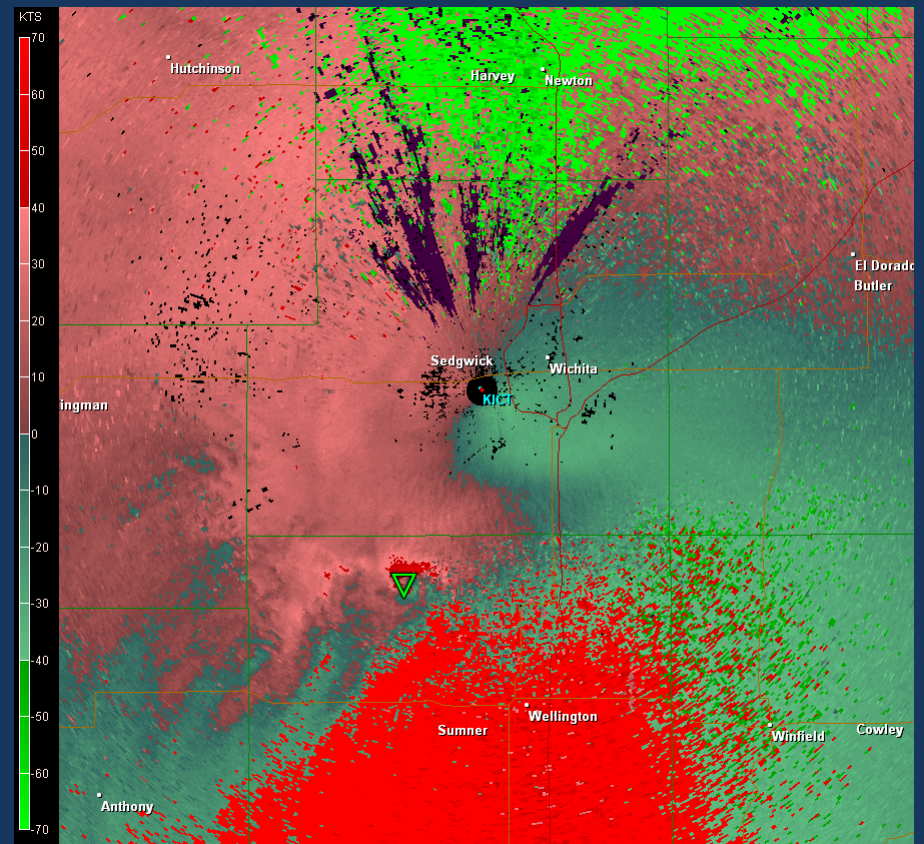
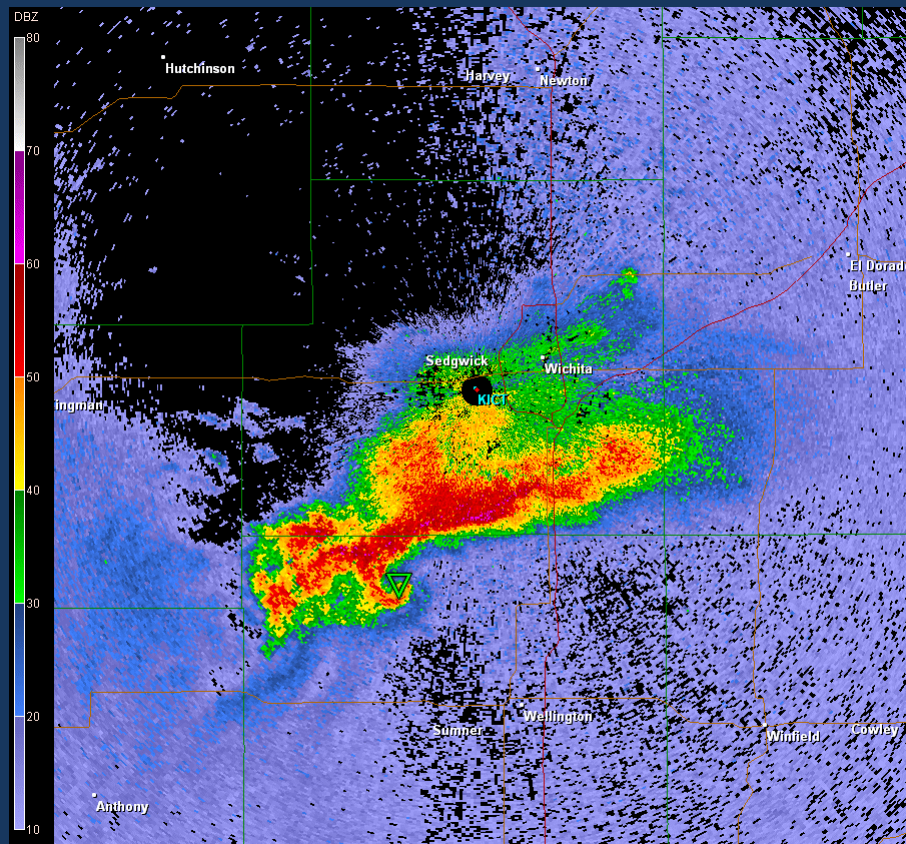


# Strong Inflow Precedes Tornado

KICT	0153	72	66	83	160	23	33	947	10	200	BKN
KICT	0219	72	66	83	170	22	32	949	10	200	OVC T
KICT	0237	72	66	83	170	35	46	949	10	120	OVC TR-
KICT	0253	70	68	93	170	35	49	949 973	3	22	OVC TR+
KICT	0253	70	68	94	170	35	49	949	3	22	OVC TR+
KICT	0305	70	68	94	160	21	37	954	1.5	24	OVC TR+
KICT	0311	68	66	94	180	37	53	956	0.5	22	OVC TR+
KICT	0316	64	64	100	150	23	53	952	0.2	6	OVC TR+
KICT	0319	63	63	100	120	20	53	952	0.2	6	OVC TR+
KICT	0326	63	63	100	70	24	40	950	1.5	20	OVC TR+
KICT	0333	63	63	100	130	13	73	951	6	22	OVC +
KICT	0342	68	66	94	200	17	30	952	10	24	BKN TR-
KICT	0353	72	68	88	190	14	25	951	10	22	OVC T
KICT	0353	72	68	88	190	14	25	951 980	10	22	OVC T
KICT	0422	70	66	88	170	19	27	949	10	24	OVC
KICT	0453	71	67	87	170	18	26	946 963	8	24	OVC

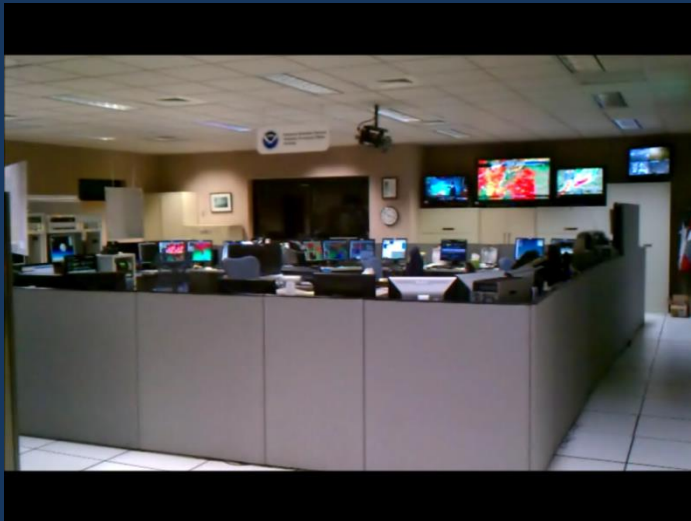


# *EF3 Moves Across South Wichita*



# A Close Call for Airport & NWS...

```
KICT 150305Z 16021G37KT 1 1/2SM R01L/3500VP6000FT +TSRA BR OVC024CB 21/20  
A2954 RMK AO2 PK WND 17037/0256 PRESRR TWR EVACUATING DUE TO REPORTED  
TORNADO VC SW MOVG NE CONS LTGICCG TS E-S-SW MOVG NE P0015 $  
A2954  
KICT 150311Z 18037G53KT 1/2SM R01L/1400V5500FT +TSRAGS FG SCT008 OVC022CB  
20/19 A2956 RMK AO2 PK WND 18053/0311 GSB10 PRESRR UNMANNED CONTROL  
TOWER CONS LTGICCG TS OHD E-S-SW MOVG NE P0043 $  
20/19 A2956
```

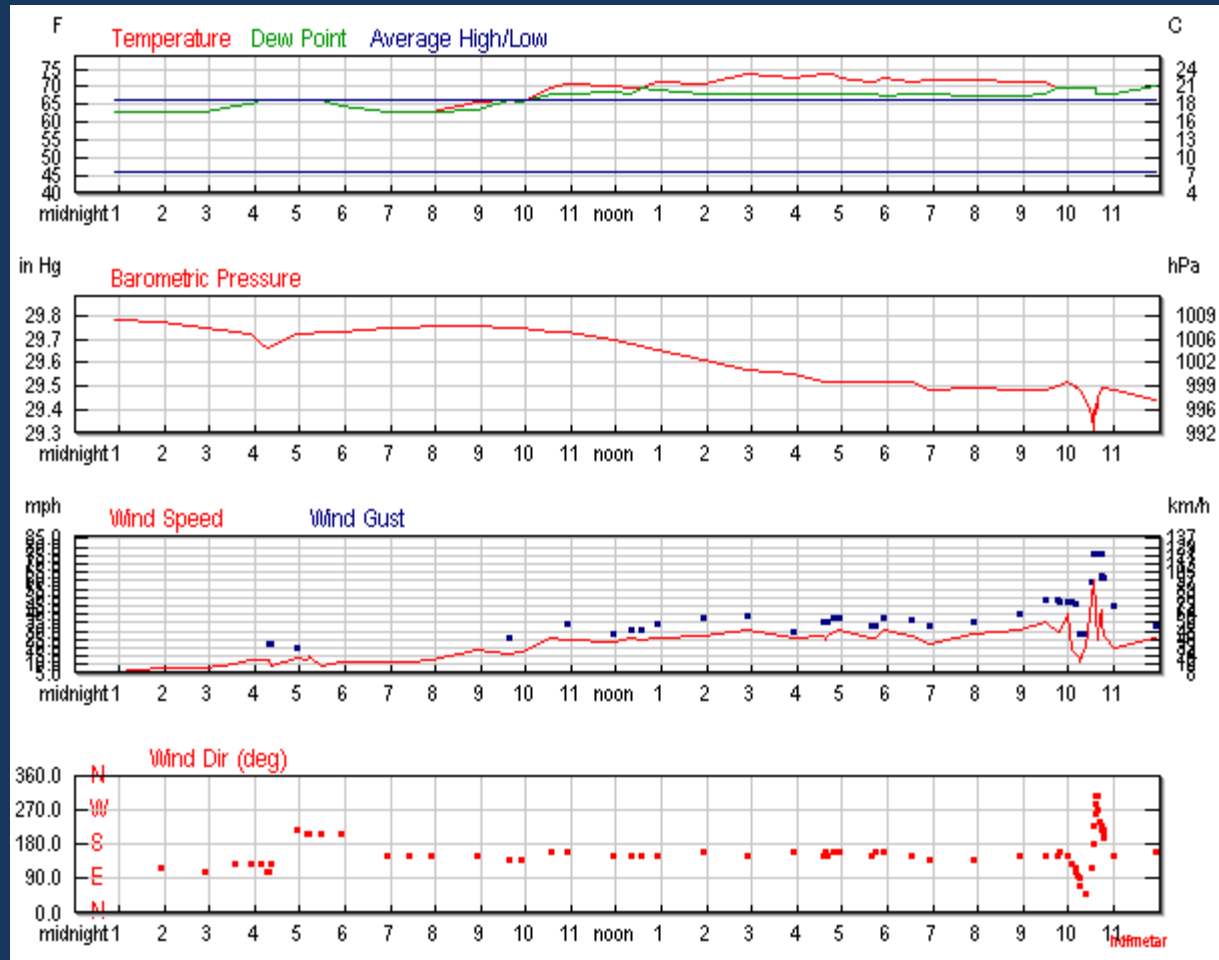


*We practiced what we preach!  
...Take Shelter...*

```
KICT 150333Z 13013G73KT 070V180 6SM +FC -TSRA BR FEW008 OVC022CB 17/17  
A2951 RMK TORNADO B32 6SE MOVG NE AO2 PK WND 27073/0329 WSHFT 0316  
GSB10E18 CONS LTGICCG TS NE-SE MOVG NE P0199 $  
A2951
```

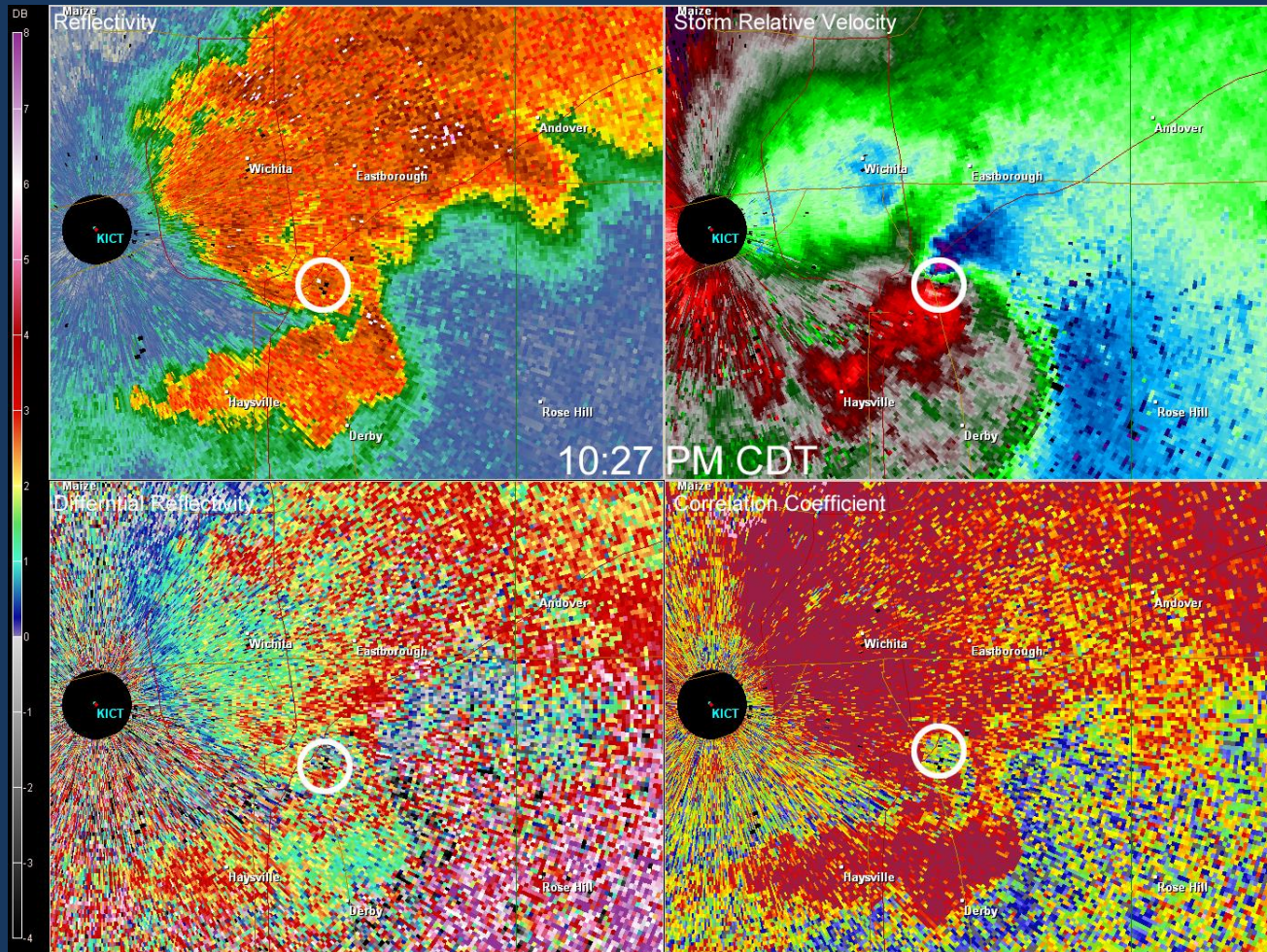


# IAB Meteogram



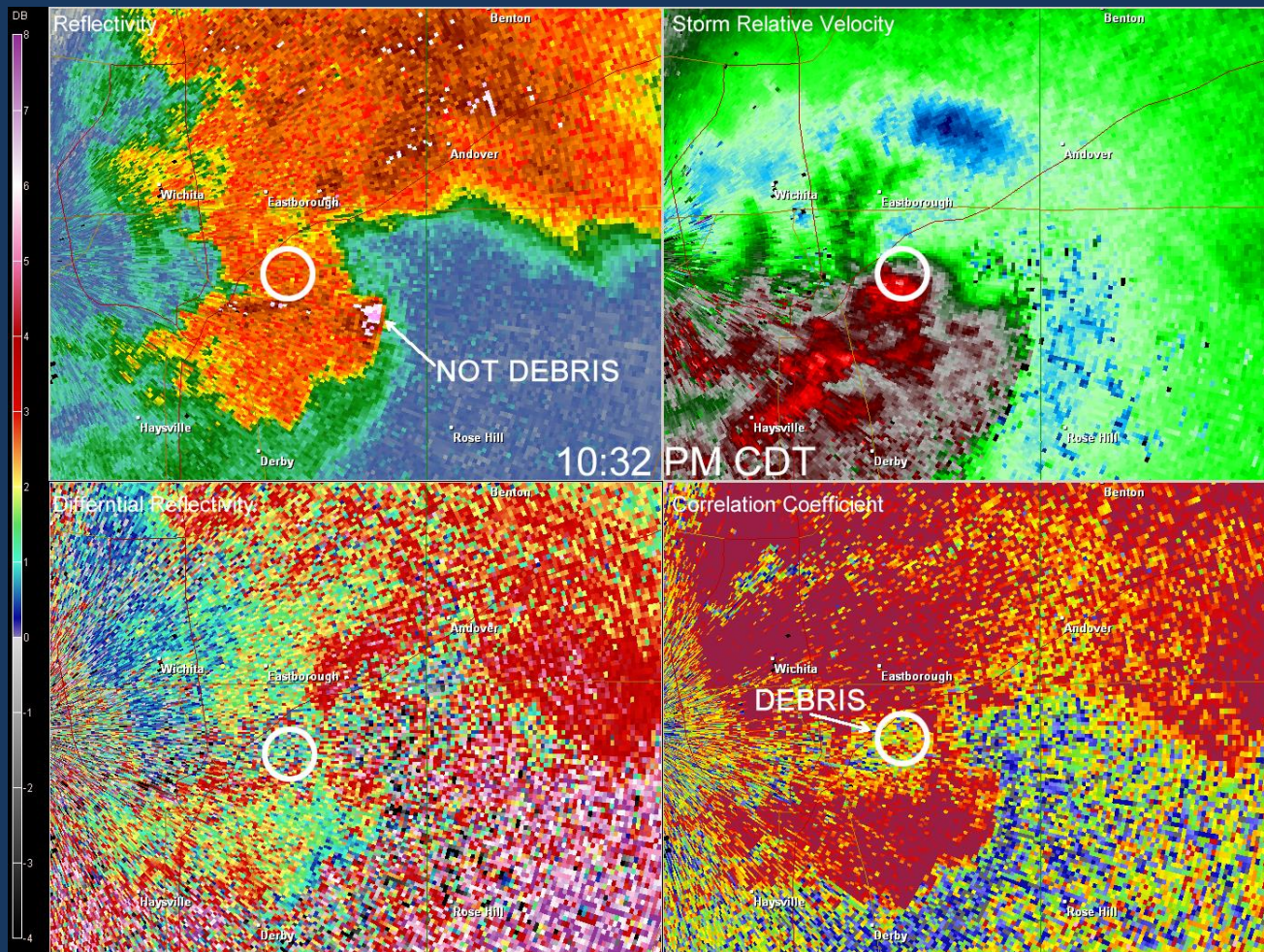
**Pressure drop from 29.52" to 29.31" in 30 mins.**  
**Wind gust to 76 mph on periphery of tornadic circulation.**

# Debris...Debris!



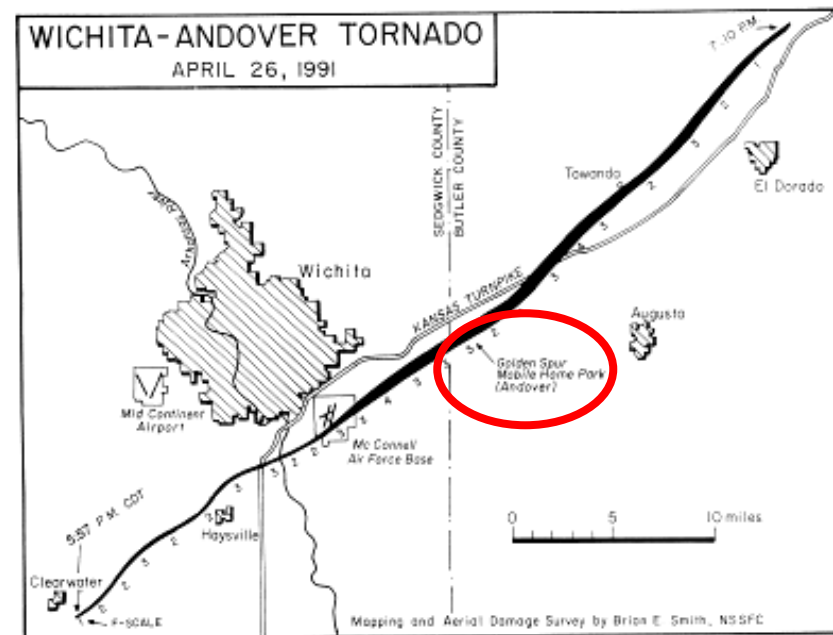
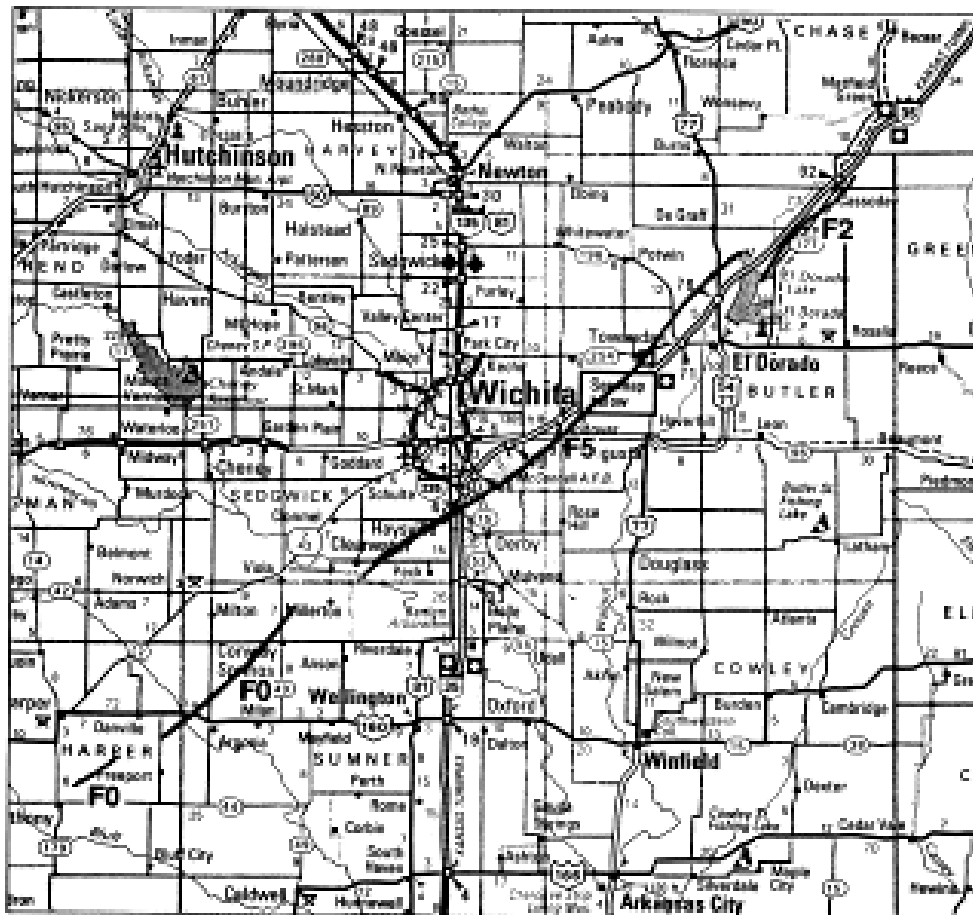


# *Debris or Not Debris?*



# Wichita's Violent Recent Past

## Wichita/Andover Tornado



17 Fatalities

4 – South Wichita

13 – Andover

All in Andover lived in Manufactured Housing

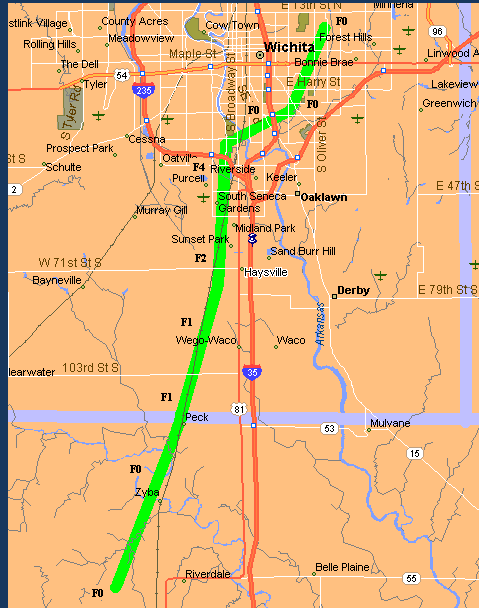
**1991**

Figure 1. Tracks of tornadoes produced by the supercell which spawned the Wichita/Andover tornado.



# *Wichita's Violent Recent Past*

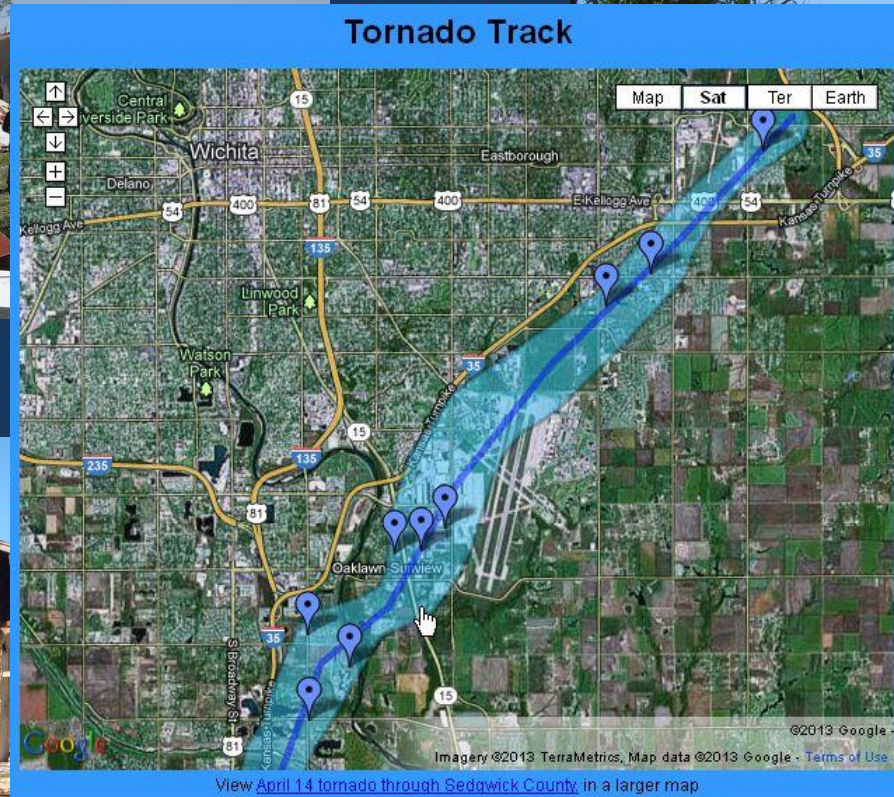
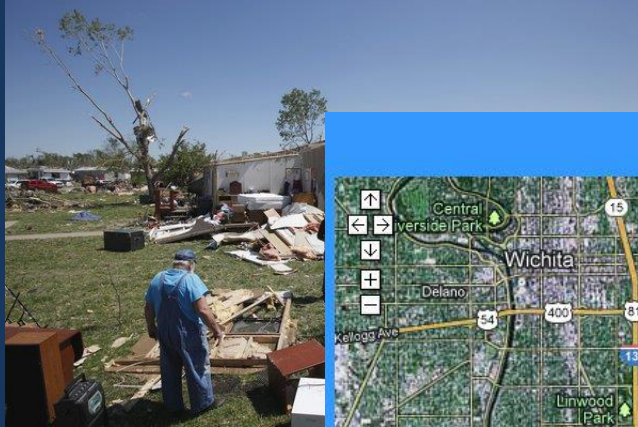
*South Wichita/Andover – 1991  
17 Fatalities  
(13 in mobile home park)*



*South Wichita/Haysville -1999  
6 Fatalities*

*Both had adequate lead times before tornadoes hit!*

# *South Wichita Hit Again – 2012!*





# ***Citizens Heeded the Warnings!***



***Pinaire Mobile Home Park Hit  
in Oaklawn***

***They had a shelter and more  
Importantly – THEY TOOK SHELTER!***

***NO LIVES LOST!!!***



# Similarly Different

*The Wichita CWA affected by 3 Significant Tornadoic Outbreaks ('91-'99-'12)*

---

All 3 had **timely warnings** (30 mins or more in advance)

April 14<sup>th</sup> 2012 an **EF-3** (Wichita) & **EF-4** (Ellsworth Co)

-- '90s events were **F-5** and **F-4**

Mobile home parks hit in each

-- **No fatalities** in 2012

-- **Lives Saved in all 3 Events; Higher Level of Community Awareness and Response in 2012 likely Attributed to No Loss of Life.**

**Learning from Past Tragedies (More Storm Shelters)**

**Community Outreach & Education (NWS, Media & EM's)**

**Advance Awareness (Forecasts and Warnings)**



# ***This Sums It Up...***

Ron and Barbara Moore had hoped heavy straps that in the past have held their 80-foot mobile home stable in 65 m.p.h. winds, might do so in a tornado. But like virtually every mobile home in the park, theirs was blown to shreds. The loudspeakers alerted the Moores,

***Golden Spur Residents  
in 1991 after tornado.  
(13 people died)***



***Kansas Governor  
after April 14<sup>th</sup>.  
(no fatalities)***

The destruction had Brownback shaking his head that no one was killed and only a few injuries, mostly minor, were reported.

He credited weather forecasters for getting warnings out 24 to 48 hours in advance, and residents for acting on those warnings.

"The citizenry of Kansas did an amazing job of getting prepared for it," Brownback said. "People took it seriously, they got out of the way, they prepared for it, and as a result of that and the grace of God, we had no fatalities."

Sedgwick County fire Capt. John Troyer told Brownback that there were about 150 mobile homes in the Pinaire park. The park does have a hardened storm shelter where a lot of residents found refuge.

***...WE ALL MADE A DIFFERENCE...***