

High Impact, Significant Nighttime Tornadoes in Northeast Kansas June 11, 2008

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SPC Outlooks

Jun 11, 2008 2000 UTC Day 1 Convective Outlook

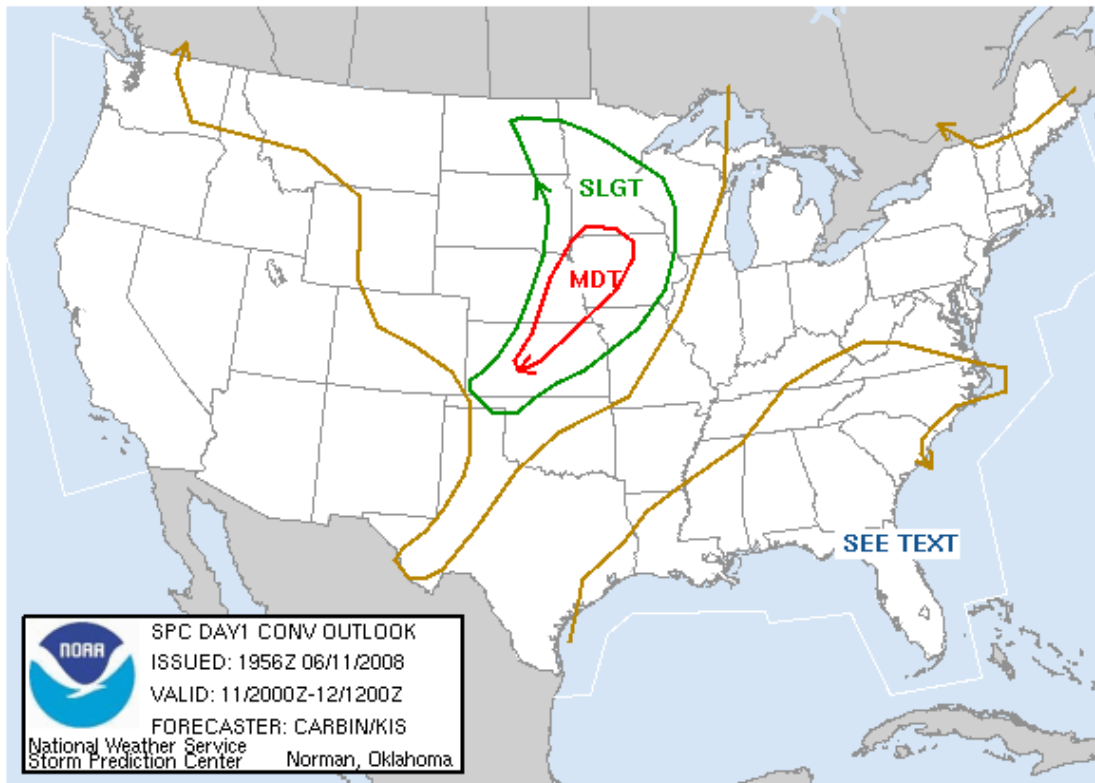
Updated: Wed Jun 11 20:00:21 UTC 2008

[Probabilistic to Categorical Outlook Conversion Table](#) (Effective Feb 14, 2006).

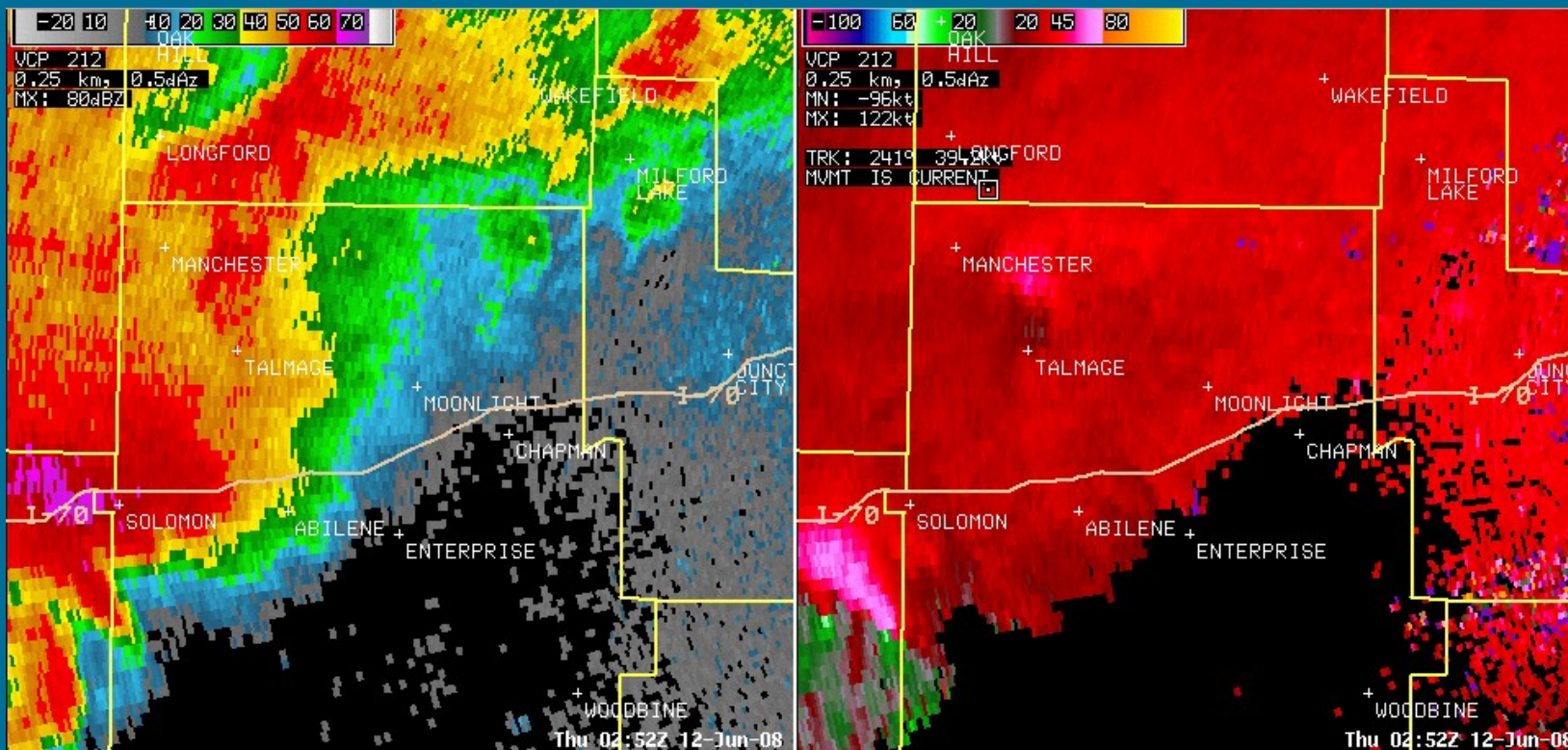
Public Severe Weather Outlook

The SPC is forecasting ...severe thunderstorms expected over parts of the corn belt and mid-missouri river valley later today and tonight.... Please [read](#) the latest public statement about this event.

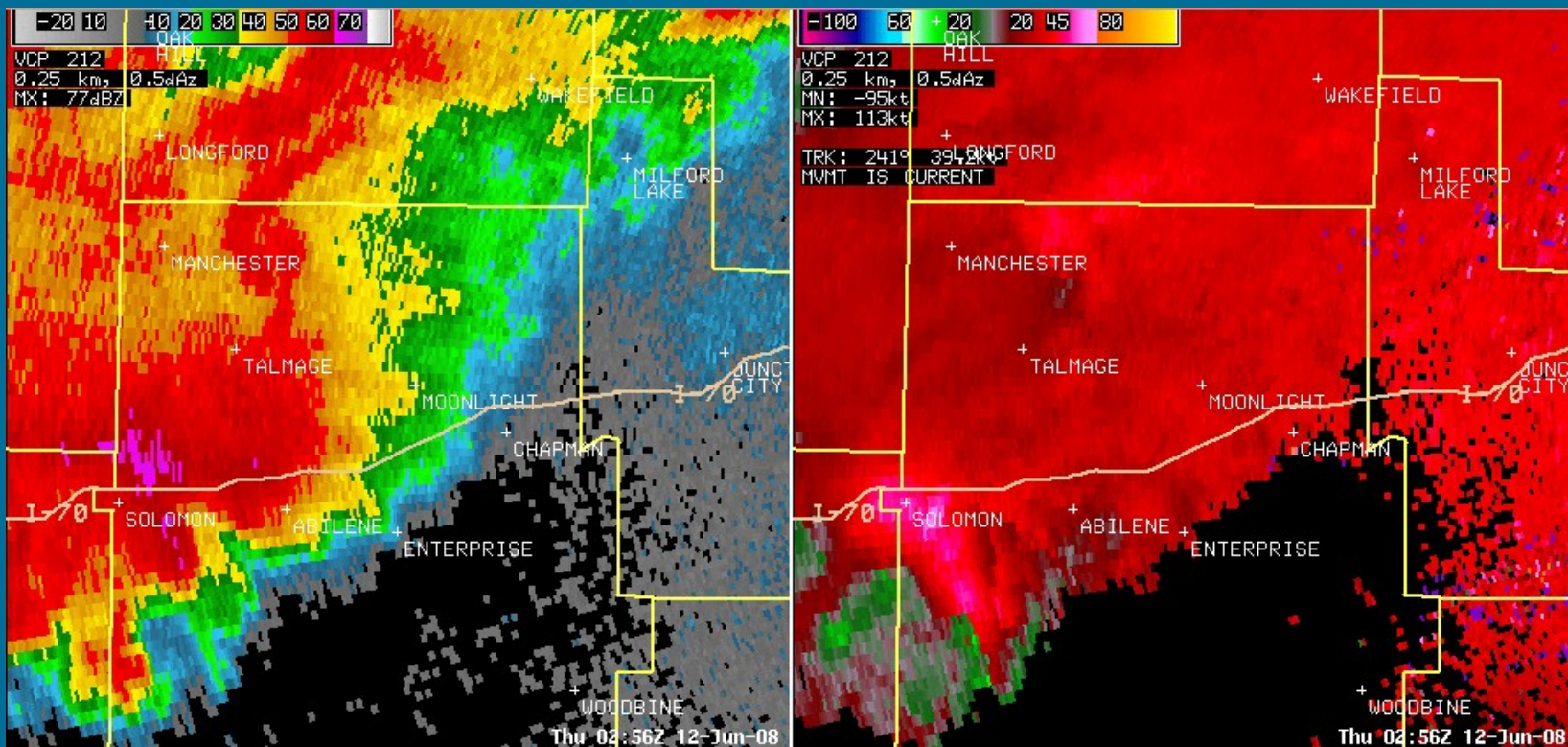
Categorical Graphic



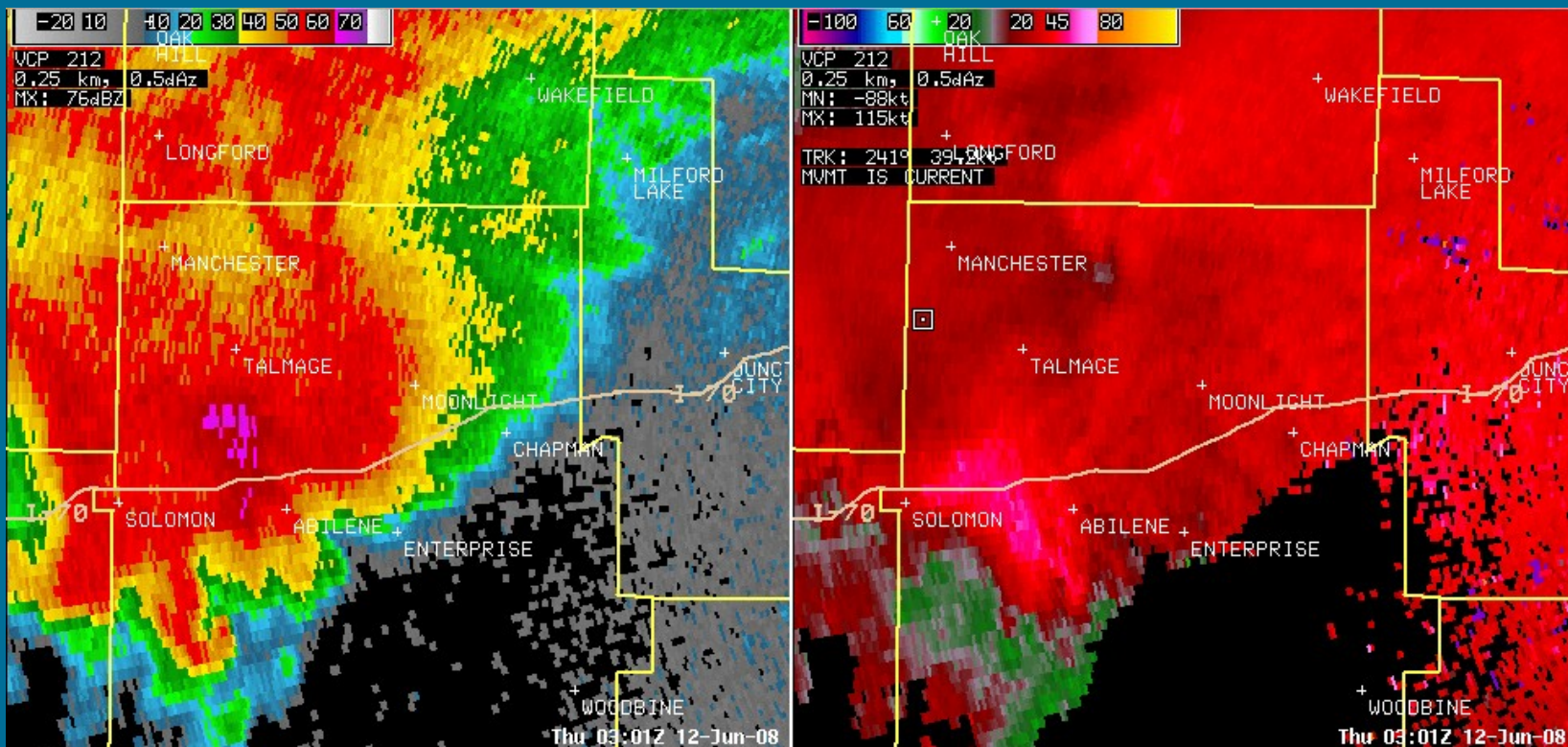
NWS Radar Images Dickinson County



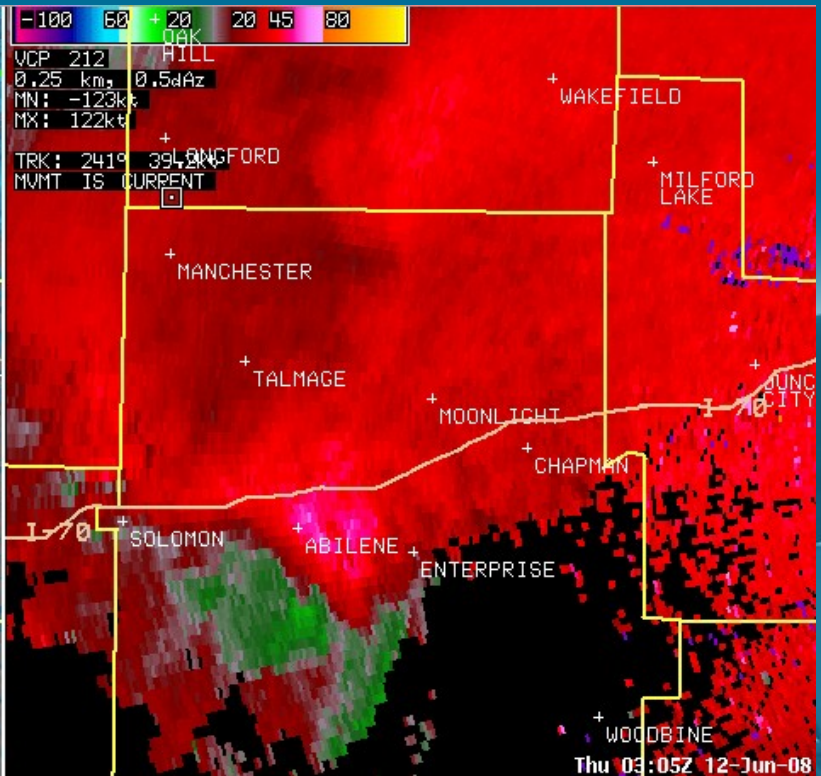
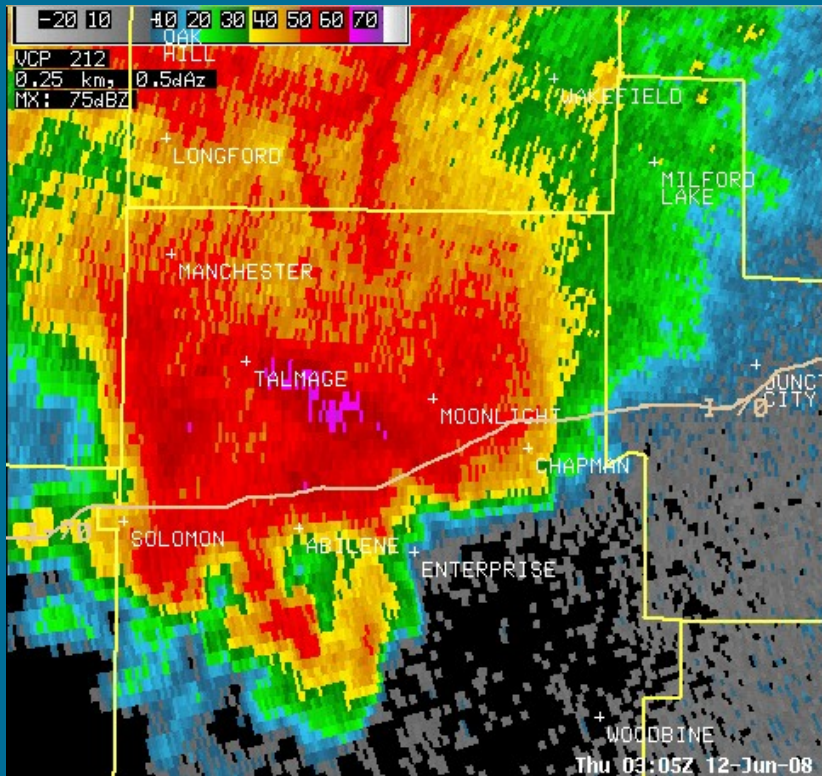
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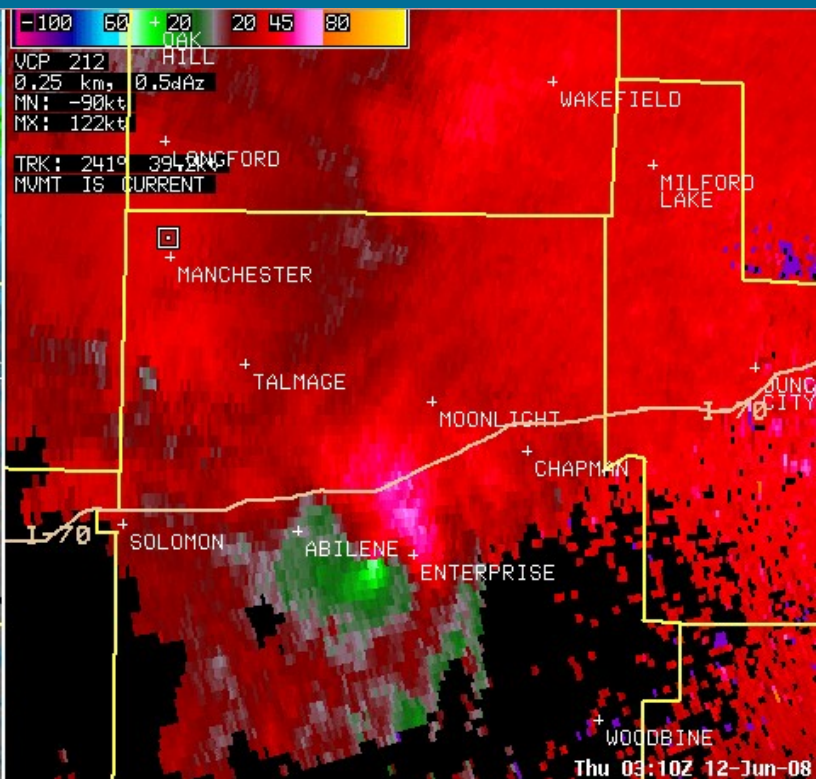
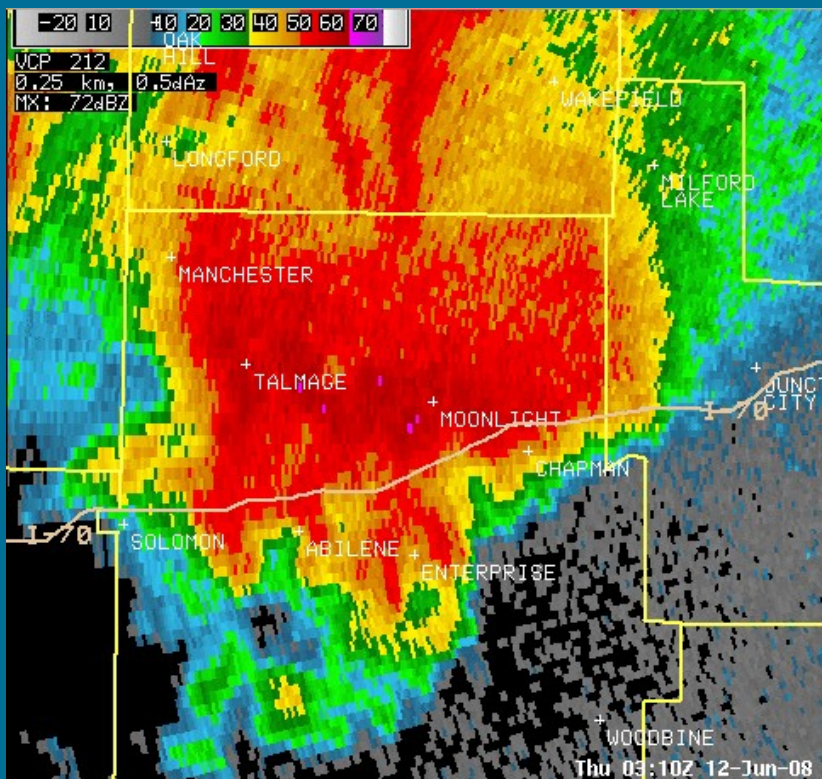
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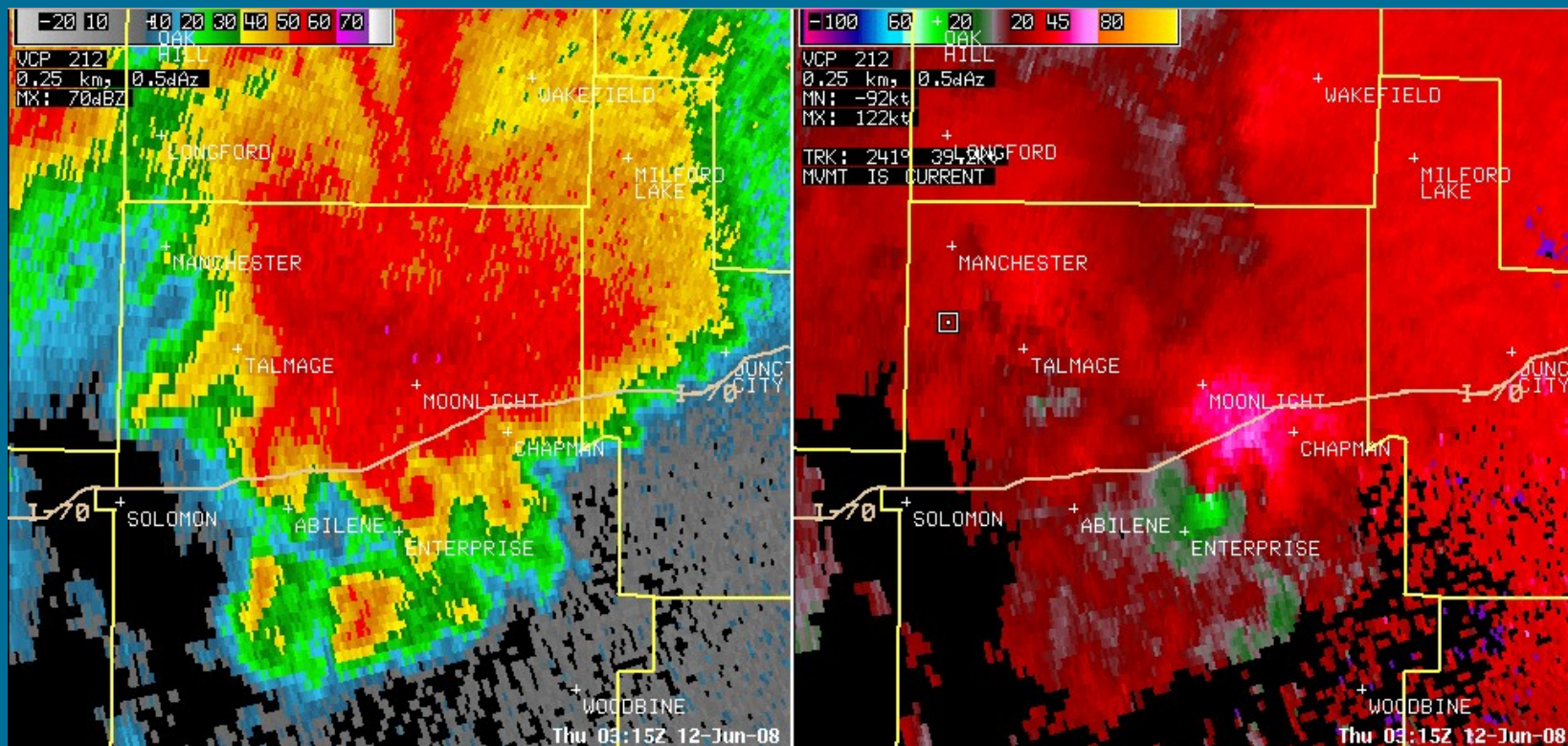
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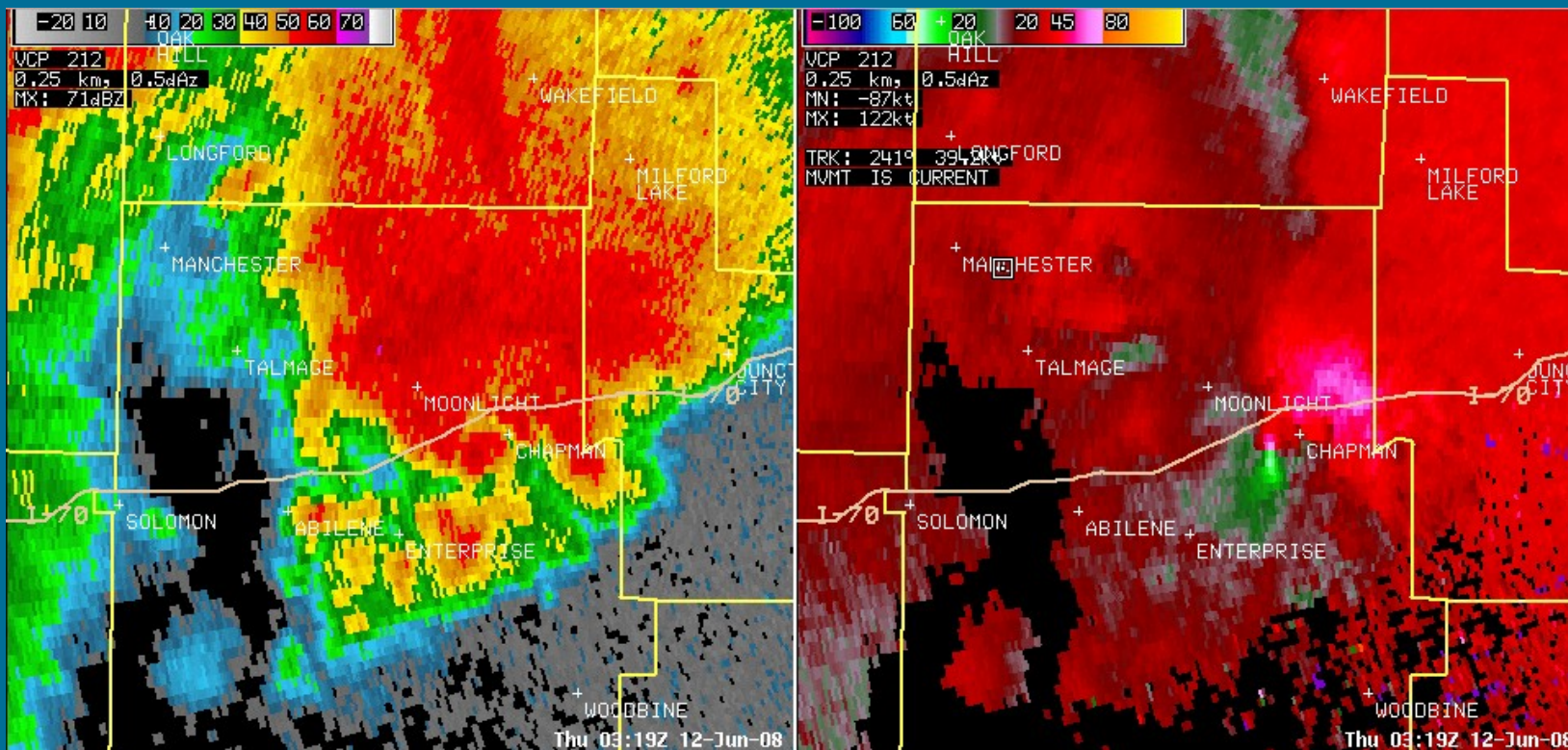
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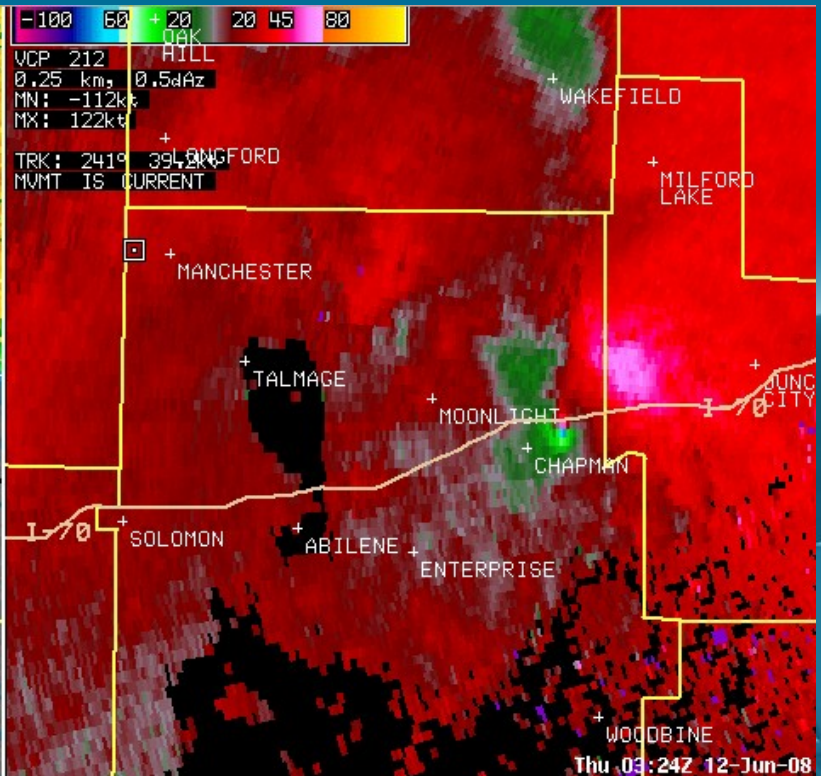
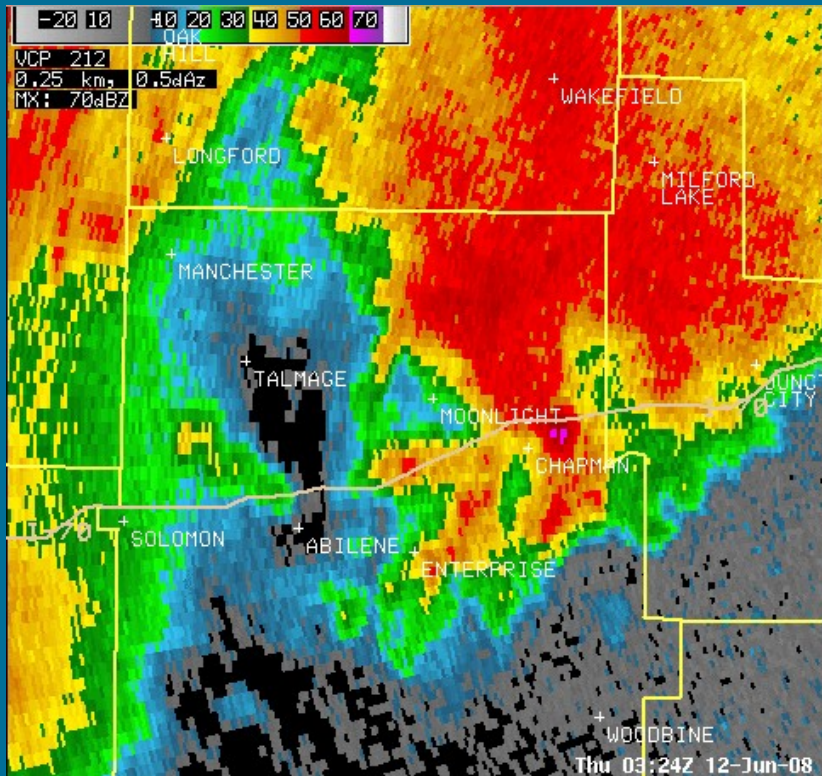
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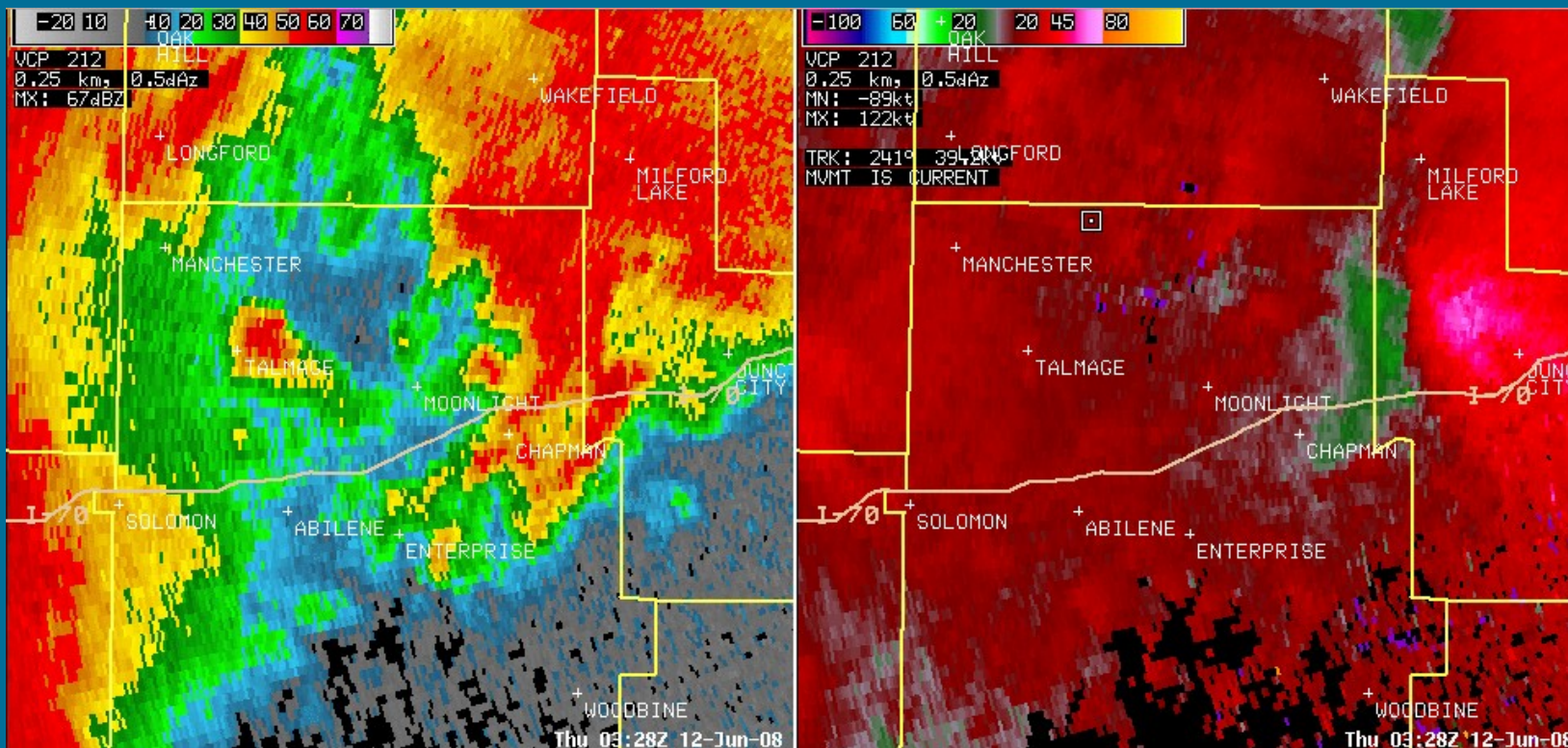
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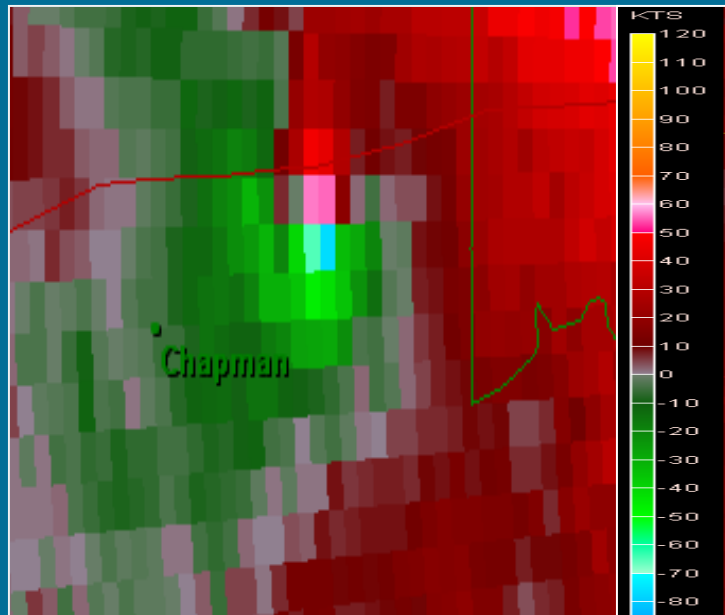
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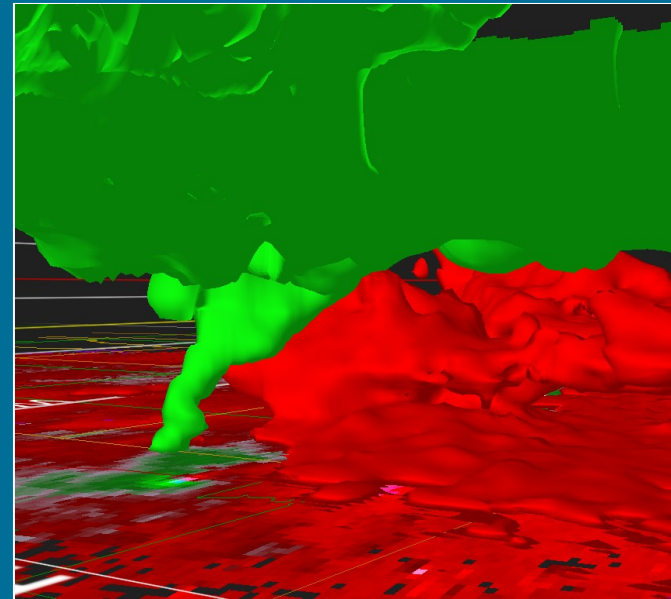
NWS Radar Images Dickinson County



SRM Images of the Dickinson County Supercell



Storm Relative Motion from KTWX, NWS Topeka, KS Doppler Radar just after the tornado moved through Chapman.



A 3-D rendering of the image at left. The perspective is roughly from KTWX, looking Southwest at the approaching storm.

TORNADO WARNING
NATIONAL WEATHER SERVICE TOPEKA KS
945 PM CDT WED JUN 11 2008

THE NATIONAL WEATHER SERVICE IN TOPEKA HAS ISSUED A

* TORNADO WARNING FOR...
CENTRAL DICKINSON COUNTY IN CENTRAL KANSAS...

* UNTIL 1030 PM CDT

* AT 942 PM CDT...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED

A

SEVERE THUNDERSTORM CAPABLE OF PRODUCING A TORNADO 14 MILES
SOUTHWEST OF SOLOMON...OR 4 MILES SOUTHEAST OF SALINA...MOVING

EAST

AT 48 MPH.

* LOCATIONS IMPACTED INCLUDE...

SOLOMON...

ABILENE...

ENTERPRISE...

MOONLIGHT...

WOODBINE...

CHAPMAN...

The tornado warning
issued for Central
Dickinson County,
including Chapman,
was issued at 9:45 pm.

THIS INCLUDES INTERSTATE 70 BETWEEN MILE MARKERS 267 AND 289.

~~THIS STORM HAS A HISTORY OF PRODUCING TORNADOES. TAKE COVER IN A
BASEMENT OR STORM SHELTER NOW!~~

IF A TORNADO APPROACHES...GO TO A BASEMENT OR SEEK SHELTER IN A
HALLWAY OR CLOSET ON THE LOWEST FLOOR OF THE BUILDING. USE BLANKETS
OR PILLOWS TO COVER YOUR HEAD AND ALWAYS STAY AWAY FROM WINDOWS.

What Worked?

- Supercell with history of tornadoes
- WFO Topeka alerted law enforcement at 9:53 pm to possible tornado near Abilene
- At 9:56 pm, staff notified Emergency Management that Abilene may be hit by a tornado
- At 10:12 pm, staff notified law enforcement that strong rotation near Enterprise
- At 10:22 pm to let law enforcement know that Chapman was in the path of the tornado

What Worked?

Tornadoes at night can be deadly. How did the residents of Chapman survive this tornado?

- **Early warnings issued by the NWS.**
- **Excellent collaboration between our office and the local media.**
- **Timely phone calls to decision makers in the county.**
- **Note the use of IEM Chat during their broadcasts.**

- **Long track supercells with a history of**

The Chapman Tornado

- At 10:23 pm, an off duty NWS employee reported a large tornado near Chapman with power flashes and debris observed.



© 2008 Scott Blair

What Went Wrong?

- **At 10:10 pm, staff was notified that Abilene NWR transmitter was off the air and remained off the air until 11:20 pm .**
- **Records show the initial tornado warning for Dickinson County went out, but conflicting reports from residents.**
- **Chapman residents had time to open a shelter at a school. One person left the shelter and suffered life threatening injuries.**

The Chapman Tornado



The Chapman Tornado



The Chapman Tornado



Satellite image of Chapman – courtesy Sherry Massey

Headlines from Chapman

‘The devastation is enormous’

Gov. Sebelius

In Chapman, one resident stated that when the sirens sounded, “We ignored it like we always do, then the windows blew”.

~ excerpts from a Topeka Capital Journal story ~

“It happened so quick. Living in Chapman, they say Chapman never gets hit by anything, so everyone was complacent.”

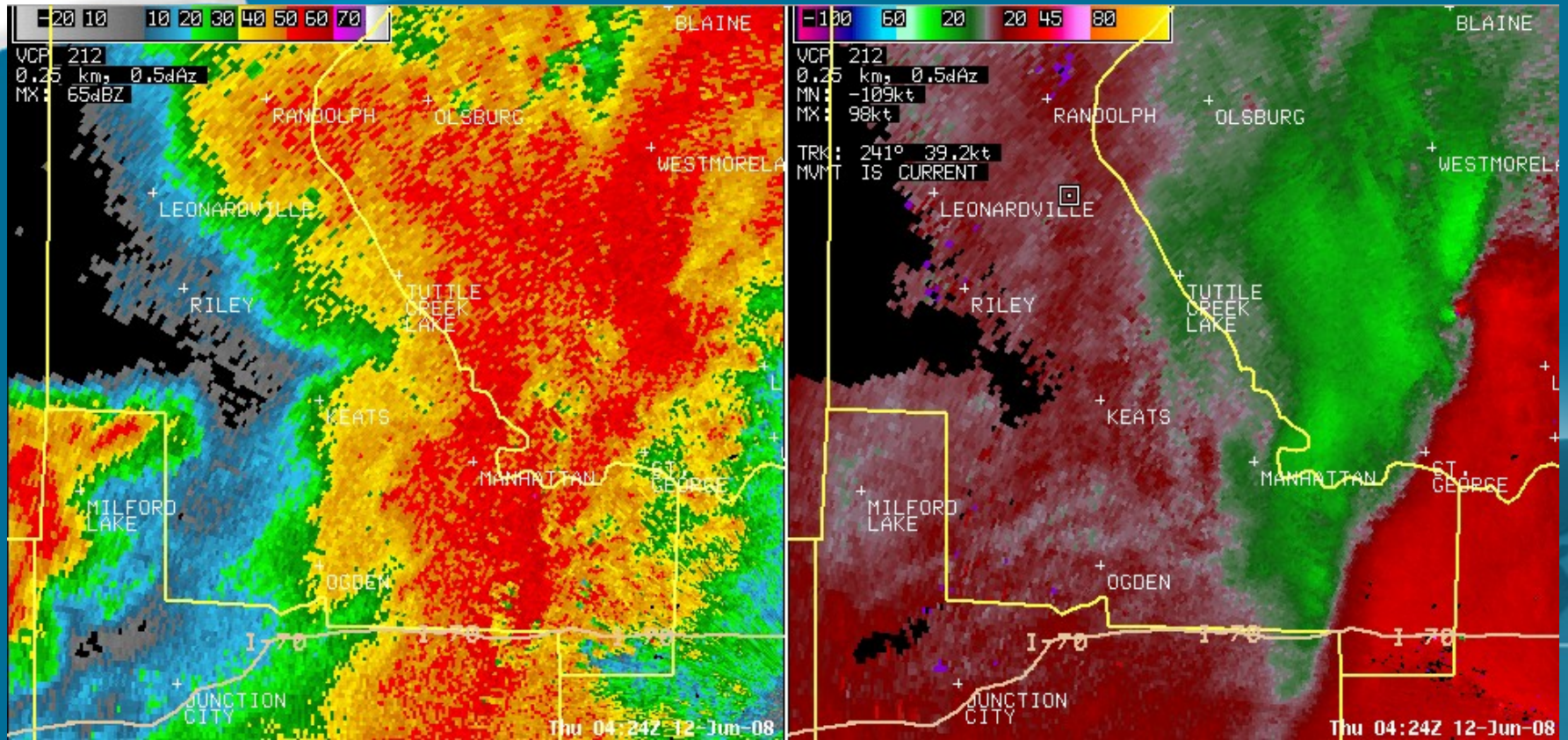
~ excerpt from a Daily Union story ~

The Manhattan Tornado



Video Still Courtesy Dick McGowan

The Manhattan Tornado



Radar Loop of the tornadic supercell as it moves through Manhattan.

What Worked?

- At 10:46 pm, the Riley County EM reports a tornado 1 mile west of Ogden
- At 10:53 pm, the ASOS at the Manhattan airport measures a 76 mph wind gust
- At 11:00 pm, the Riley County EM reports tornado damage to businesses and KSU in Manhattan
- KTKA Channel 49 shows live skycam footage of tornado in Manhattan

What Worked?

- First warning for portions of Riley County issued at 10:18 pm, including Ogden
- Report of tornado 1 mile west of Ogden at 10:46 pm
- Tornado warning for Riley Co and southwest Pottawatomie Co issued at 10:41 pm
- Tornado moved into southwest Manhattan at 10:58 pm

SEVERE WEATHER STATEMENT

NATIONAL WEATHER SERVICE TOPEKA KS

1104 PM CDT WED JUN 11 2008

**...A TORNADO WARNING REMAINS IN EFFECT UNTIL 1130 PM CDT FOR
SOUTHWESTERN POTTAWATOMIE AND EASTERN RILEY COUNTIES...**

**AT 1101 PM CDT...NATIONAL WEATHER SERVICE DOPPLER RADAR AND STORM
SPOTTERS WERE TRACKING A LARGE TORNADO. THIS TORNADO WAS LOCATED
IN MANHATTAN...DOING DAMAGE AND MOVING NORTHEAST AT 31 MPH.**

LOCATIONS IMPACTED INCLUDE...

**MANHATTAN AND TUTTLE CREEK STATE PARK ARE DIRECTLY IN THE PATH OF
THIS TORNADO.**

**THIS IS AN EXTREMELY DANGEROUS AND LIFE THREATENING SITUATION. IF YOU
ARE IN THE PATH OF THIS LARGE AND DESTRUCTIVE TORNADO...TAKE COVER
IMMEDIATELY!**

**STAY TUNED TO NOAA WEATHER RADIO OR LOCAL MEDIA OUTLETS FOR THE
LATEST SEVERE WEATHER INFORMATION.**

The Manhattan Tornado



The Manhattan Tornado



NWS Damage Survey - KSU campus

The Manhattan Tornado



NWS Damage Survey photo

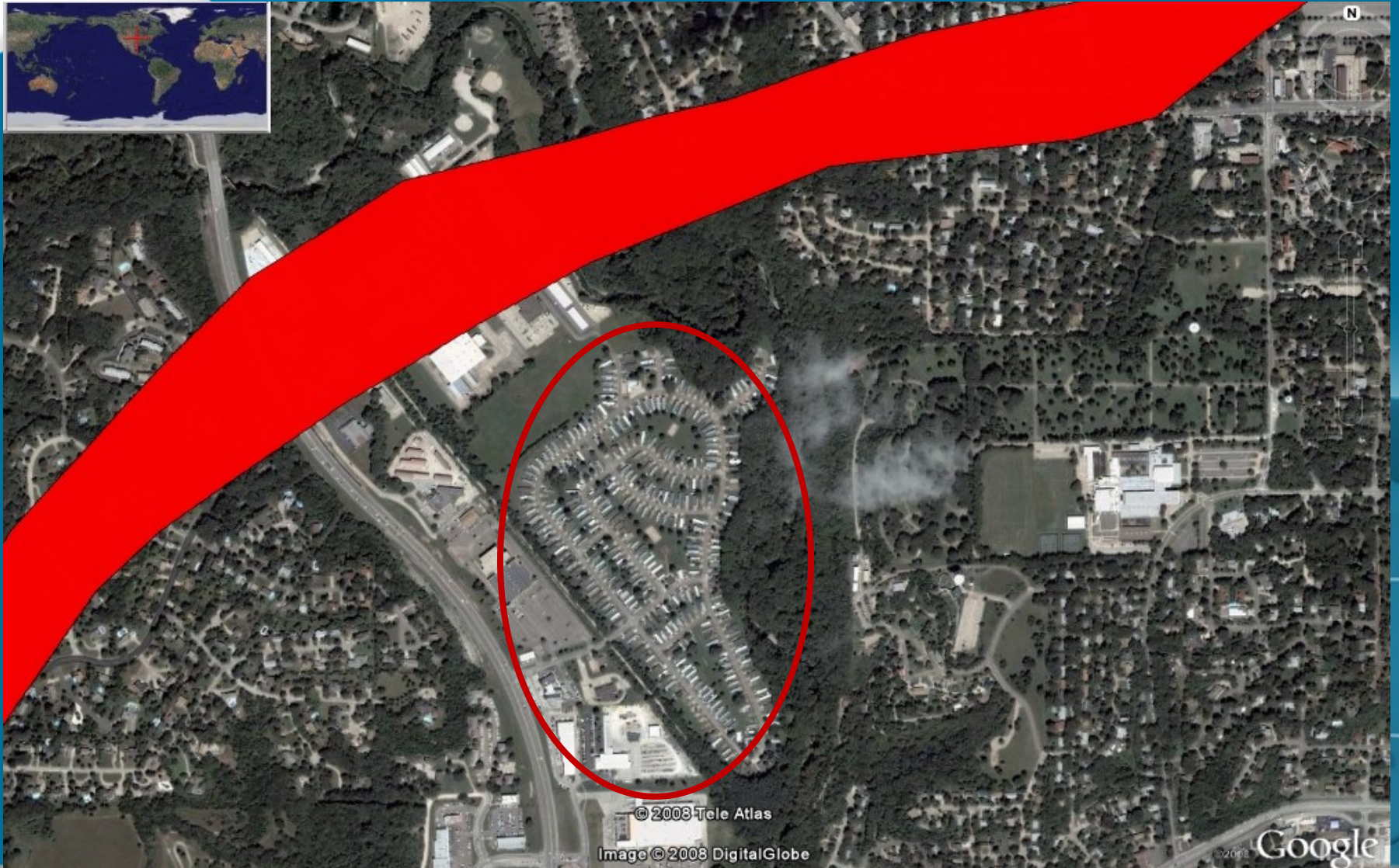


EF4 Damage in Manhattan



Aerial Photo of the Miller Ranch Subdivision in Manhattan – courtesy KHP

The Manhattan Tornado



No Fatalities and No Major Injuries in Manhattan!

“We were just lucky”

“It just hit like a freight train – no sound before, we just heard the debris start hitting, then ‘boom’, said one Manhattan resident...”

“Todd and Kathy had a radio and the television on and had been watching the storm reports, but they still said, “It came out of nowhere.”

~ excerpts from a Manhattan Mercury story ~

“The good news is it could have been a whole lot worse, nobody was killed, nobody was injured.”

~ excerpt from a Clay Center Dispatch story ~

Media Partnerships!

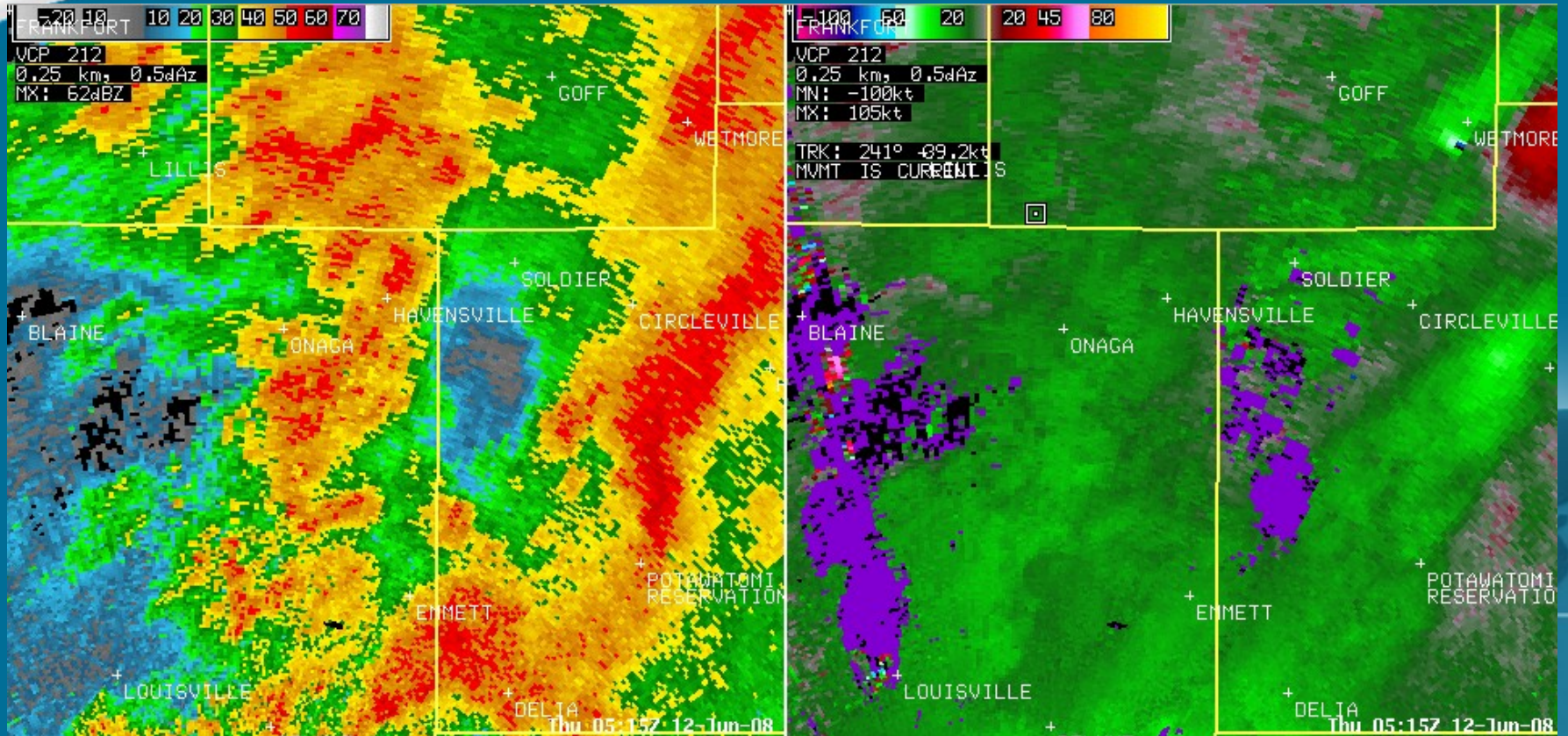


Clip from KTKA Channel 49 in Topeka – courtesy Matt Miller

The Soldier Tornado

- Tornado Warning issued for portions of Pottawatomie Co at 11:19 pm.
- Tornado Warning issued for portions of Jackson and Nemaha Counties at 11:50 pm – including Soldier.
- Tornado touched down in Pottawatomie Co at 11:46 pm.
- At 11:50 pm, NWS notified Pottawatomie County dispatch that Havensville was about to be hit by tornado.
- At 12:02 am, NWS notified Nemaha and Jackson County dispatch that circulation was near Soldier.
- At 12:10 am, Pottawatomie Co relayed damage reports.
- At 12:13 am, Jackson County relayed damage reports.

The Soldier Tornado



The Soldier Tornado

- **One fatality occurred just northeast of Soldier - a resident in a mobile home.**



Video still of the Soldier tornado - courtesy of Mike Peregrine

The Soldier Tornado



The Soldier Tornado - EF2

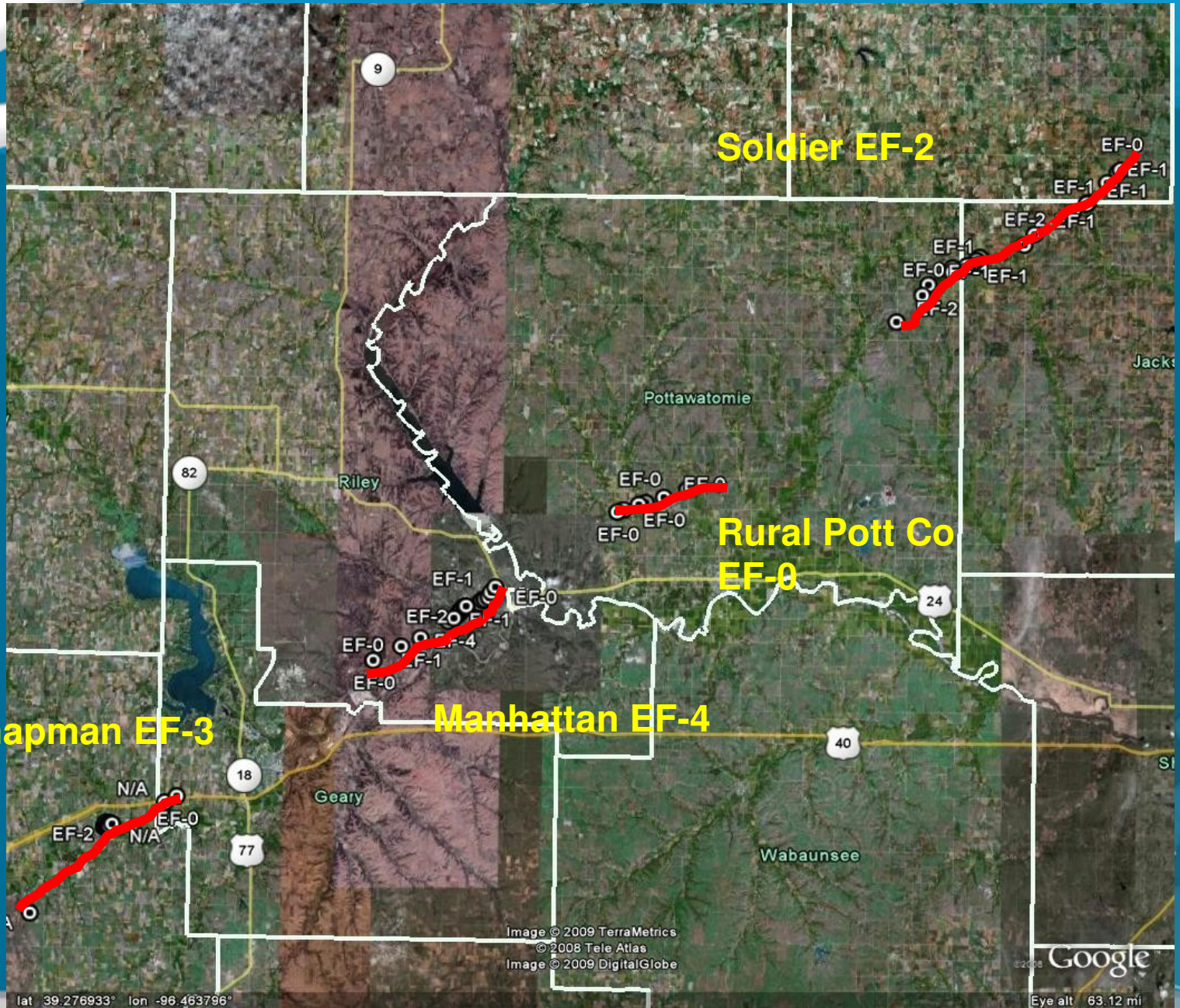


Failure of the garage door and large windows on the front of the house at left contributed to the destruction.



Summary

- 5 Tornadoes in WFO Topeka's county warning area on June 11, 2008.
- All occurred after sunset – between 10 pm and 12:30 am.
- 2 Fatalities, 4 injuries (one very serious injury in Chapman).
- Effective communication between our office, local emergency management, dispatchers and storm spotters.
- Excellent coordination with media contributed to the effectiveness of the warnings and helped save lives.



Soldier EF-2

Rural Pott Co EF-0

Chapman EF-3

Manhattan EF-4

lat 39.276933° lon -96.463796°

Image © 2009 TerraMetrics
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Image © 2009 DigitalGlobe

Google

Eye alt 63.12 mi

Two EF0 tornadoes

Carlton in southwest Dickinson County - brief touchdown

Western Pottawatomie County - 4.6 miles long, 75 yards wide, minor damage.

* One EF2 tornado near Soldier - 17.5 miles long, 300 yards wide, destroyed 3 homes, damage to cemetery.

* One EF3 tornado Chapman - 12.9 miles long, ½ mile wide destroyed numerous houses, two schools and two churches and some local businesses.

* One EF4 tornado in Manhattan - 8.7 miles long, ¼ mile wide over 900 homes impacted, several businesses and homes destroyed, damage to the KSU campus.

The End

