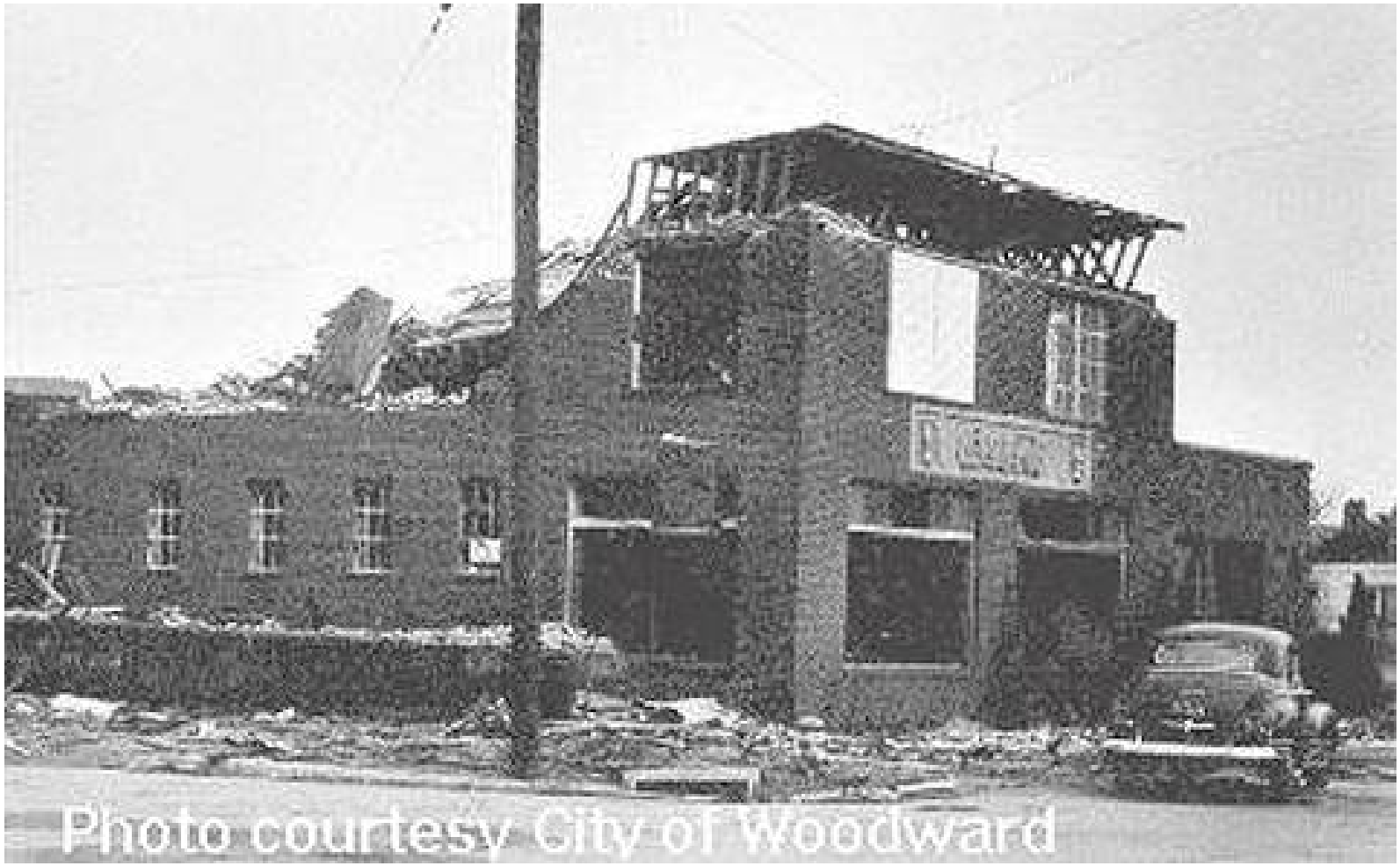
After the Sirens Sound... Now What?

Photo courtesy City of Woodward

The most deadly tornado to ever strike Oklahoma occurred on April 9, 1947 in the city of Woodward. The tornado began near Canadian, TX. Moving northeast, it continued on the ground for about 100 miles, ending in Woods County, west of Alva. The tornado was up to 1.8 miles wide and traveled speeds of up to about 50 mph. It first struck in the Texas, devastating two towns and producing at least 69 fatalities before crossing into Oklahoma. In Ellis County, the tornado did not strike any towns; however, nearly 60 farms and ranches were destroyed and 8 people were killed with 42 more injured. Moving into Woodward County, one death was reported near Tangier.

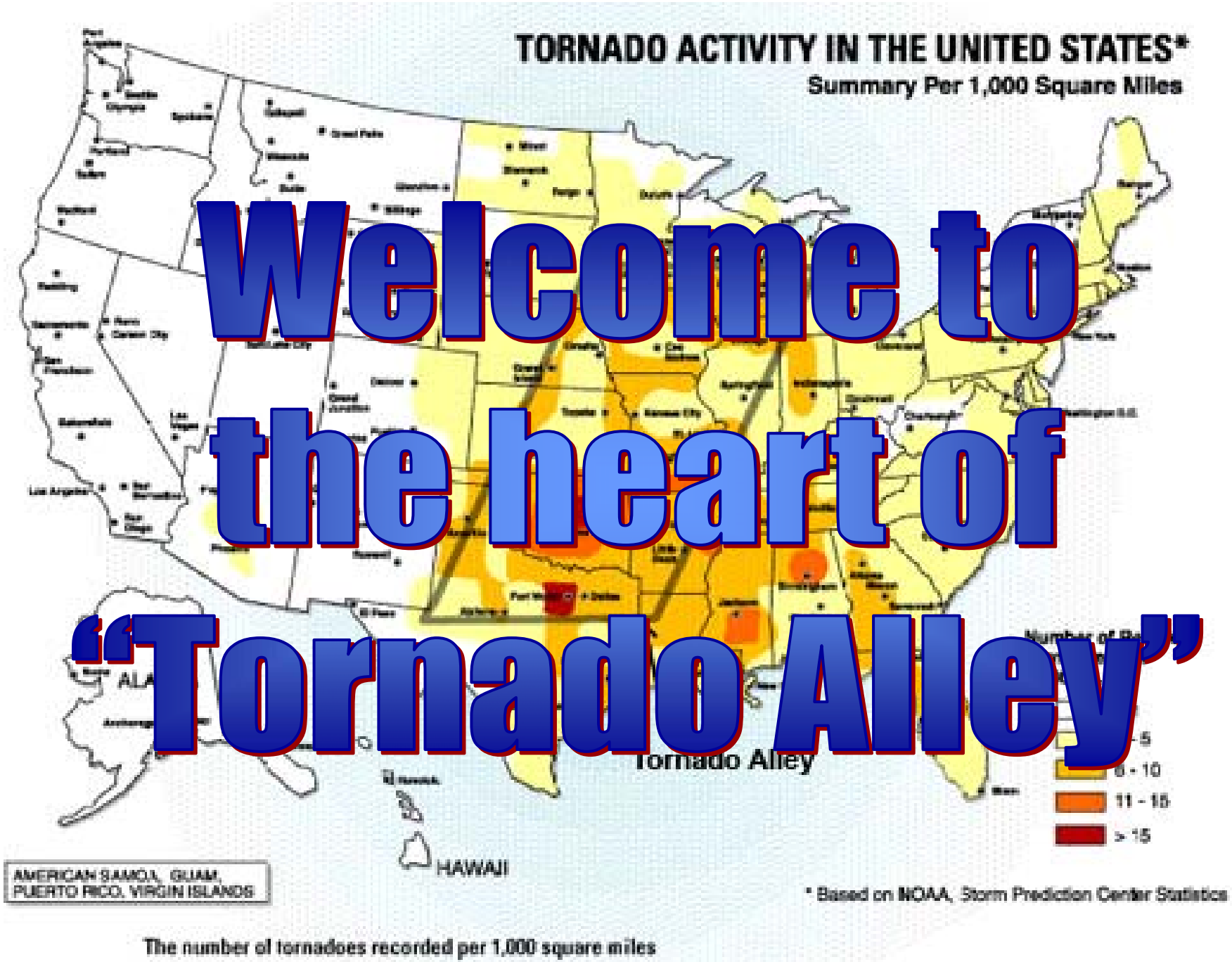
The F5 tornado unleashed its worst destruction on Woodward, striking the city without warning at 8:42 pm. Over 100 city blocks on the west and north sides of the city were destroyed with lesser damage in the southeast portion of the town. Confusion and fires reigned in the aftermath with over 1000 homes and businesses destroyed, at least 107 people killed in and around Woodward, and nearly 1000 additional injuries. The bodies of three children were never identified, and one child who survived the tornado was lost and never reunited with her family. Beyond Woodward, the tornado lost some intensity, but still destroyed 36 homes and injured 30 people in Woods County before ending.



At least 116 lives were lost in Oklahoma that night. Because of this and other devastating tornadoes in the late 1940's and early 1950's, and because of new technologies available after World War II, the Weather Bureau (now the National Weather Service) began a tornado watch and warning program in 1953. During the last five decades, the warning system composed of the National Weather Service, local agencies, and the media has continued to mature and provide better information to citizens to help protect them from tornadoes. Because of the strengths of the warning system, tornado death tolls in Oklahoma, and nationwide, have dropped considerably with each passing decade and, hopefully, will continue to decrease."

- Donald W. Burgess, National Severe Storms Laboratory (NSSL)

Welcome to the heart of "Tornado Alley"



The Moore “F6” Tornado:

•May 3, 1999 started sunny, warm, and humid. By 3 p.m. it had become evident that a widespread severe weather event was imminent. Large thunderstorms soon developed, and tornadoes began to break out across the state.

•The most significant tornado touched down just southwest of Amber, heading northeast, parallel to I-44. As the storm destroyed Bridge Creek, an OU “Doppler On Wheels” truck clocked winds speeds of 301 mph. (The old record was a 257-268 mph wind measurement from a Doppler weather radar near Red Rock, Ok). The tornado continued through parts of Oklahoma City and into Moore later striking Del City and Midwest City.

•Thirty six people were killed in this tornado. More than 10,500 buildings and many businesses were destroyed, causing $1.1 billion in damage, and making it the costliest single tornado in U.S. history, adjusted for inflation. However, early warning saved many lives. Warnings were issued well in advance of the tornado's arrival, and the Oklahoma City broadcast media interrupted programming to follow the storms on radar and even by helicopter.

4828

Oklahoma County Tornado Damage

Preliminary Estimate of Damage

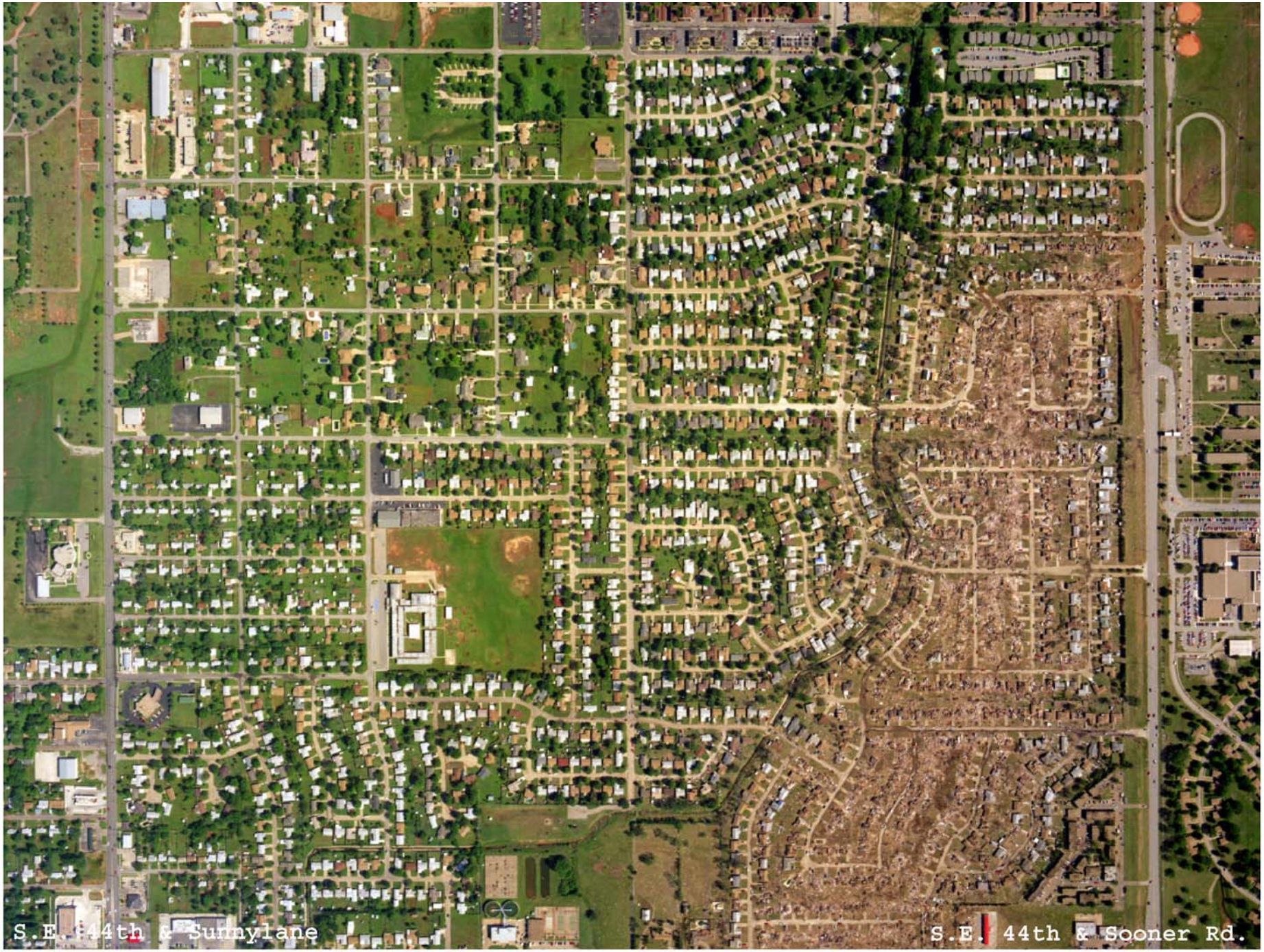
From 05/03/99 Storm				
Level 3=Destroyed, Level 2=Uninhabitable, Level 1=Damaged				
Damage Level	Total Parcels	Previous Mkt.	Recommended	$ Reduction
Residential Level 3	1,040	$69,146,220	$11,456,275	$57,689,945
Residential Level 2	216	$13,008,800	$7,553,129	$5,455,671
Residential Level 1	946	$60,798,200	$48,025,735	$12,772,466
Total Residential	2,202	$142,953,220	$67,035,138	$75,918,082
Comm/Resident L2	1	$37,400	$23,175	$14,225
Comm/Resident L1	1	$58,100	$48,450	$9,650
Total Comm/Resident	2	$95,500	$71,625	$23,875
Commercial Level 3	41	$17,150,550	$4,990,900	$12,159,650
Commercial Level 2	16	$11,379,800	$6,672,400	$4,707,400
Commercial Level 1	30	$14,006,250	$11,359,357	$2,646,893
Total Commercial	87	$42,536,600	$23,022,657	$19,513,943
Exempt Level 3	4	$0	$0	$0
Exempt Level 2	4	$0	$0	$0
Total Exempt	8	$0	$0	$0
Total Level 3	1,085	$86,296,770	$16,447,175	$69,849,595
Total Level 2	237	$24,426,000	$14,248,704	$10,177,296
Total Level 1	977	$74,862,550	$59,433,541	$15,429,009
Total Real Estate	2,299	$185,585,320	$90,129,420	$95,455,900

Personal Property

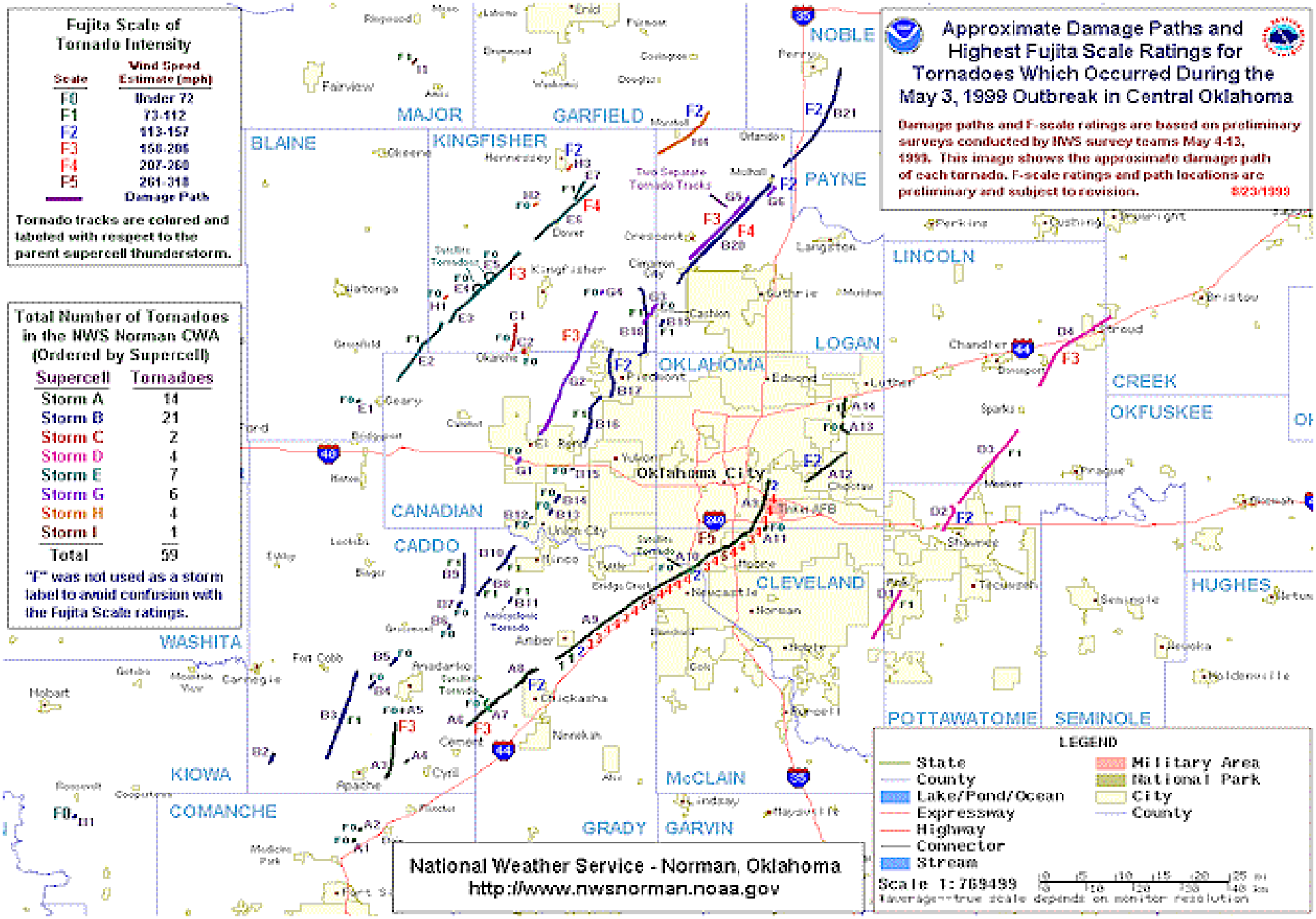
Damage Level	# of Businesses	Previous Mkt.	Recommended	$ Reduction
Level 3	67	$6,887,210	$0	$6,887,210
Grand Total		$192,472,530	$90,129,420	$102,343,110
Assessed Value				$11,498,794

h & Sooner Rd.
S.E. 15th & Air Depot

S.E. 15th Street


S.E. 44th & Sunnylane
S.E. 44th & Sooner Rd.

S.E. 44th & Sooner Rd.
S.E. 59th & Sunnylane
S.E. 59th & Sooner Rd.


Approximate Damage Paths and Highest Fujita Scale Ratings for Tornadoes Which Occurred During the May 3, 1999 Outbreak in Central Oklahoma
Damage paths and F-scale ratings are based on preliminary surveys conducted by NWS survey teams May 4-13, 1999. This image shows the approximate damage path of each tornado. F-scale ratings and path locations are preliminary and subject to revision.
5/23/1999
Fujita Scale of Tornado Intensity
Scale
Wind Speed Estimate (mph)
F0 Under 72
F1 73-112
F2 113-157
F3 158-206
F4 207-260
F5 261-318
Damage Path
Tornado tracks are colored and labeled with respect to the parent supercell thunderstorm.
Total Number of Tornadoes in the NWS Norman CWA (Ordered by Supercell)
Supercell Tornadoes
Storm A 14
Storm B 21
Storm C 2
Storm D 4
Storm E 7
Storm G 6
Storm H 4
Storm I 1
Total 59
"F" was not used as a storm label to avoid confusion with the Fujita Scale ratings.
National Weather Service - Norman, Oklahoma
http://www.nwsnorman.noaa.gov
LEGEND
State
County
Lake/Pond/Ocean
Expressway
Highway
Connector
Stream
Military Area
National Park
City
County
Scale 1:769499
NOBLE
MAJOR
GARFIELD
BLAINE
KINGFISHER
PAYNE
LINCOLN
LOGAN
OKLAHOMA
CREEK
OKFUSKEE
CANADIAN
CADDO
CLEVELAND
HUGHES
WASHITA
POTTAWATOMIE
SEMINOLE
KIOWA
COMANCHE
GRADY
McCLAIN
GARVIN
Oklahoma City
Two Separate Tornado Tracks

The Cordell Tornado:

- On October 9, 2001, the City of Cordell, the county seat of Washita County, was devastated by an F3 tornado.
- Since not many counties have expertise in estimating value due to such destruction, the Oklahoma County Assessor's Office (with their recent experience from the May 3, 1999, tornadoes) and the Ad Valorem Division volunteered to help.
- The assessor, Janie Bellah, wanted to wait until most of the damage was cleaned up (either repaired or torn down); so, we waited until the first week of December before inspecting the damage.
- The properties that were fully repaired received no adjustment. Other property values were reduced or removed completely.

2001 12 5

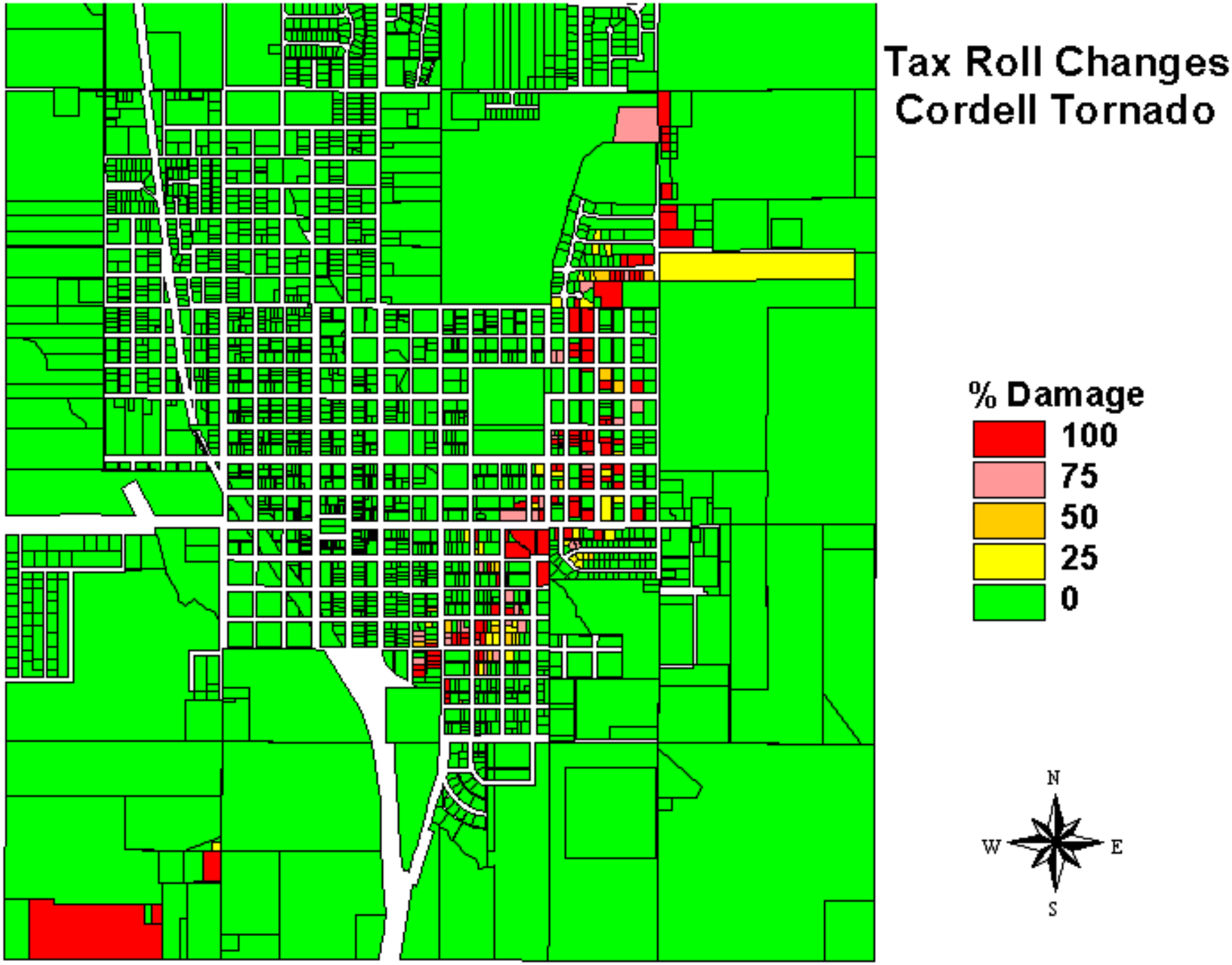
CONDU
DEC 4 2001

2001 12 5

The Results:

- Several hundred properties were looked at during a three day time period.
- Quite a few properties had been repaired back to a condition as good as before the tornado. Several other damaged properties were exempt from taxation (such as schools, churches, and county property).
- Two hundred properties were reduced in value by the eight people actually involved with the visual inspection.
- The total reduction in the “market” or “fair cash” value of the taxroll was $4,180,828. This value represents 10% of the entire taxable value of the City of Cordell and 3% of the entire taxable value of the Cordell school district.

Courthouse!


Tax Roll Changes
Cordell Tornado
% Damage
100
75
50
25
0
N
W
E
S

The Picher Tornado(s):

•May 10, 2008, Ottawa County was hit by a large F4 tornado (and a smaller F1 tornado).

•The following week as things settled down and the cleanup began, Linda Kelly, Ottawa County Assessor, requested Larry Martin and Marsha Rayborn, of the Ad Valorem Division, to assist the her office with taking the tornado damage off the taxroll. They spent the rest of that week visually inspecting and noting the damage primarily in the town of Picher.

•Phillip Buchanan, of Visual Lease Services - contracted by the County for visual inspection, primarily covered everything west of Picher.

•The following week, Troy Frazier, of the Ad Valorem Division, assisted by downloading the 2 tornado paths from the National Weather Service and printing maps of the affected rural areas with the Assessor's mapping. Within a couple of days, the area east of Picher was inspected.

TO BEE LEAD FREE:
WASH YOUR HANDS!
• BEFORE YOU EAT
• AFTER PLAYING OUTSIDE
• AFTER PLAYING WITH PETS
SHOOT FOR
YOUR DREAMS
ABSTINENCE
WISE UP
WILL HELP YOU SUCCEED
2008/05/21 10:02

2008/05/16 15:56

2008/05/20 16:40

2008/05/16 16:02

2008/05/16 15:59

2008/05/16 15:51

2008/05/16 15:40

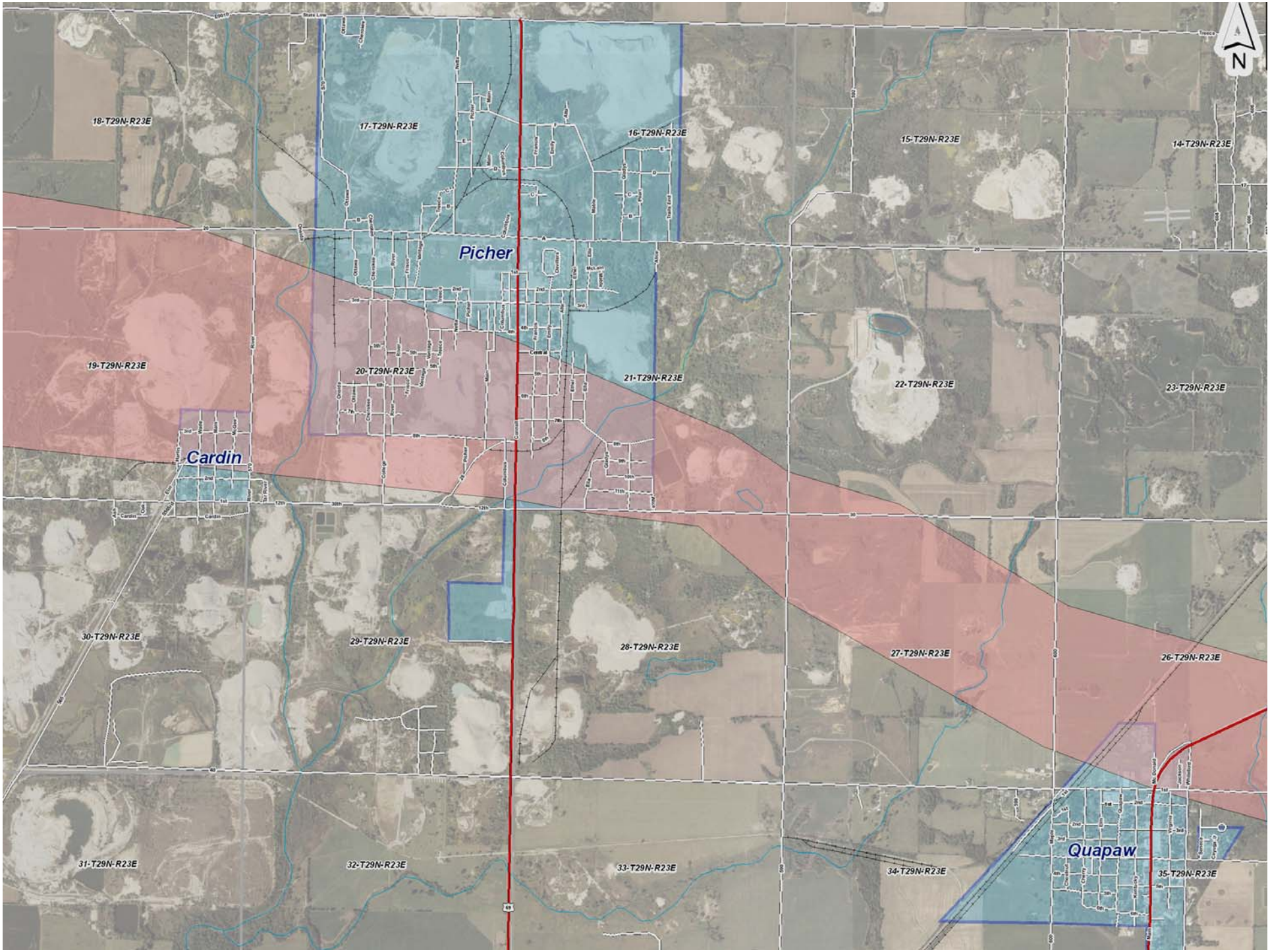
2008/05/14 16:12

The Results:

- With the tornados tracking across the entire county and the larger tornado being over a mile wide in places, some 50 square miles were inspected. This included several thousand properties that were looked at during a couple of weeks.

- Many properties, especially on the south side of Picher, were completely destroyed.

- Fortunately, most of the damaged properties in Picher were already purchased or in the process of being purchased by the federal government as part of the “super fund” buy-out. As a result, many of the houses destroyed in Picher had been recently abandoned just a week or two before the storm. Also, the government stated that the remaining buy-outs prices would not be altered because of the storm and the resulting damage.


N
18-T29N-R23E
17-T29N-R23E
16-T29N-R23E
15-T29N-R23E
14-T29N-R23E
Picher
19-T29N-R23E
20-T29N-R23E
21-T29N-R23E
22-T29N-R23E
23-T29N-R23E
Cardin
30-T29N-R23E
29-T29N-R23E
28-T29N-R23E
27-T29N-R23E
26-T29N-R23E
Quapaw
31-T29N-R23E
32-T29N-R23E
33-T29N-R23E
34-T29N-R23E
35-T29N-R23E

Oldest known photograph of a tornado
August 28, 1884, 22 miles southwest of Howard, South Dakota