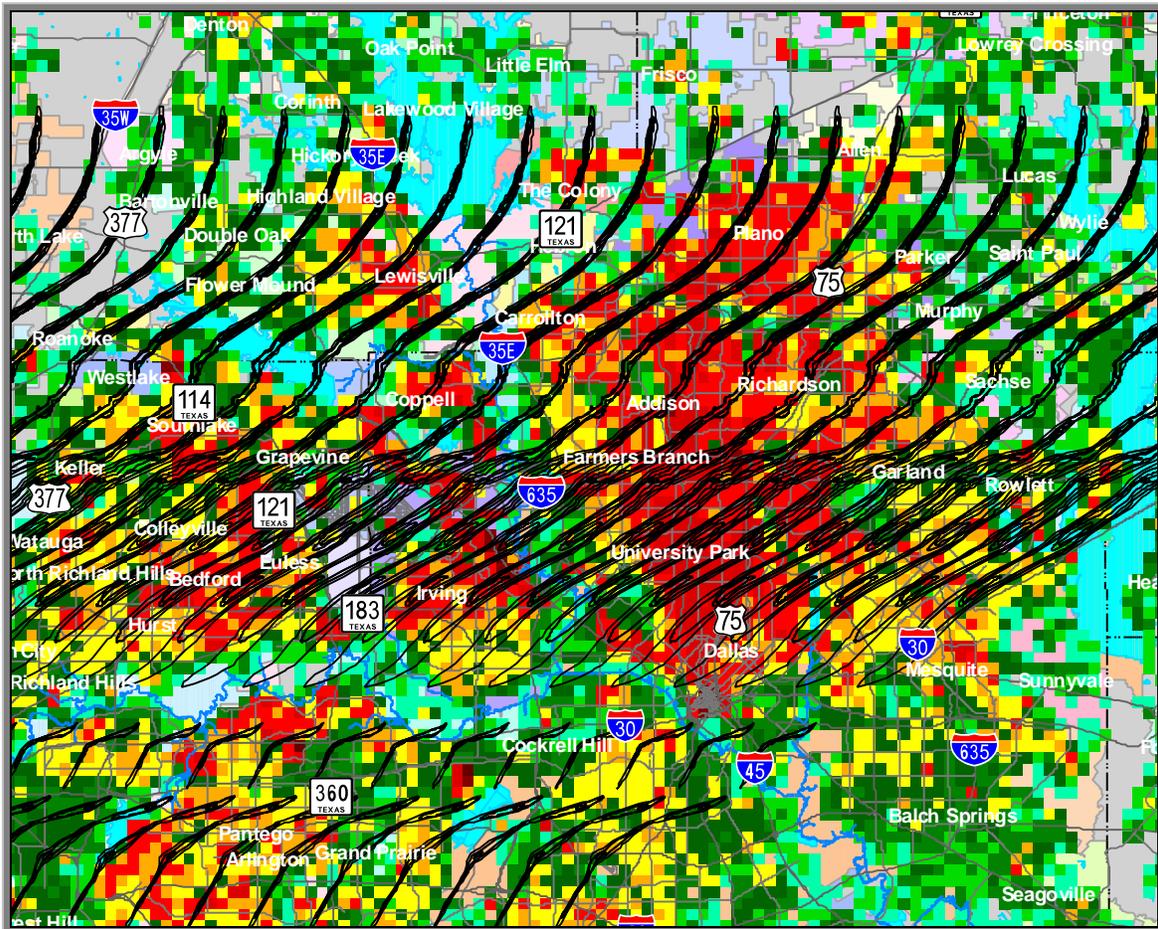


Section B

The Series 50 Summary

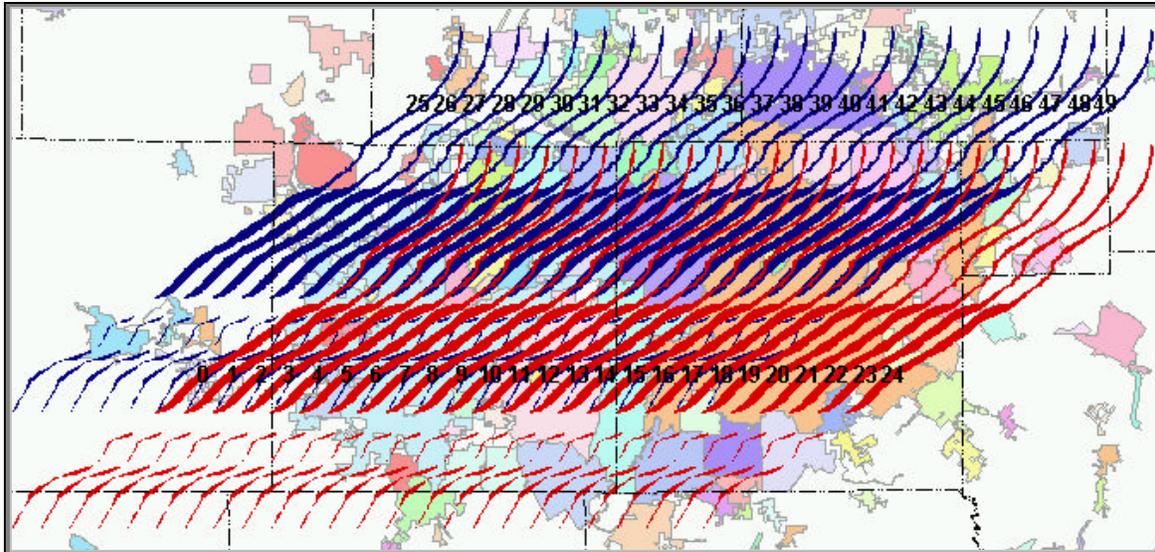
**Multiple Path Analysis of the Moore "A9"
Tornado Damage Path Across the
Dallas-Fort Worth Metroplex**





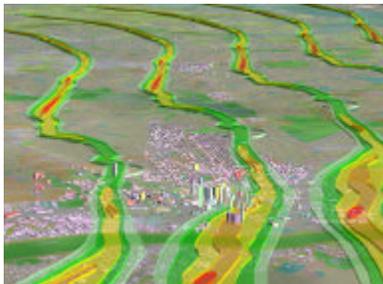
Overview

In addition to the five primary scenarios, a smaller subset of tornado paths (which included the most powerful tornado in the outbreak) was mapped fifty (50) times side by side in 2.5 mile increments across the core of the Metroplex. The 50 tornadoes were divided into 2 groups of 25, with the second group mapped 10 miles north of the first group. This group of 50 tornadoes would significantly tap into the sprawling urban geography of the Metroplex. Structures, demographics and population in the path were estimated for each of these 50 more specific tornado groups.



Above: *The Series 50 Tornado Map.* Fifty (50) groups of the Moore Tornado and 2 earlier touchdowns of Storm “A” are mapped across the core of the Dallas-Fort Worth Area. Each group is identified by a specific number (0-49).

Of the 50 paths, 31 would likely have produced property losses greater than \$1 Billion – 19 would have exceeded \$2 Billion. As many as 7 of the paths would surpass the \$3 Billion mark. Thirty-eight (38) of the 50 would have at least 10,000 structures in the path -- 10 having more than 30,000. More than half of the paths would have at least 45,000 people living in the impacted residential structures.



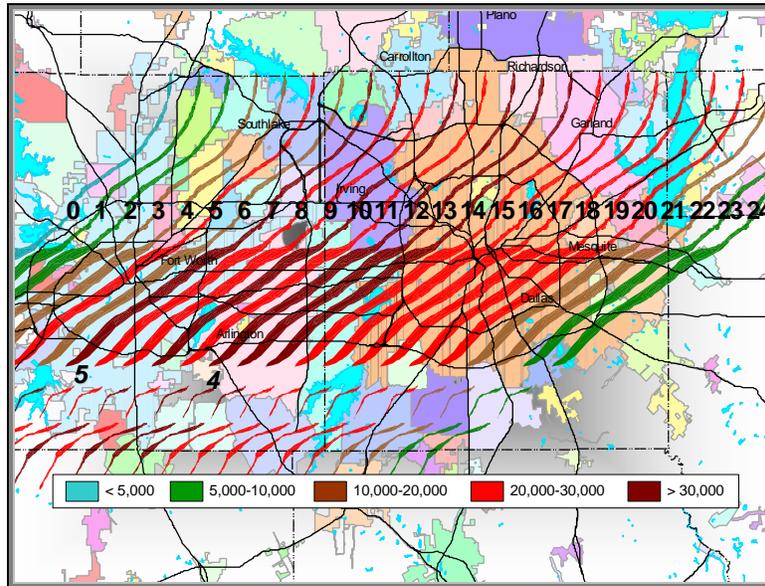
It is apparent that a tornado of this size and magnitude entering the urban core of the Dallas-Fort Worth Metroplex would be a huge threat. Even more apparent is the susceptibility of the North Dallas area. The high density development, significant collection of apartment communities, and high property values make it a dangerous and costly place for a tornado touchdown. A downtown strike does not necessarily correspond to the highest threat. Even though

downtown areas have high job densities and expensive high-rises, the high structure densities of sprawling residential areas have a comparatively large number of residents and household units. For that reason alone, the timing of a tornadic outbreak (during work or at-home hours) may be the greatest variable in defining where most lives would

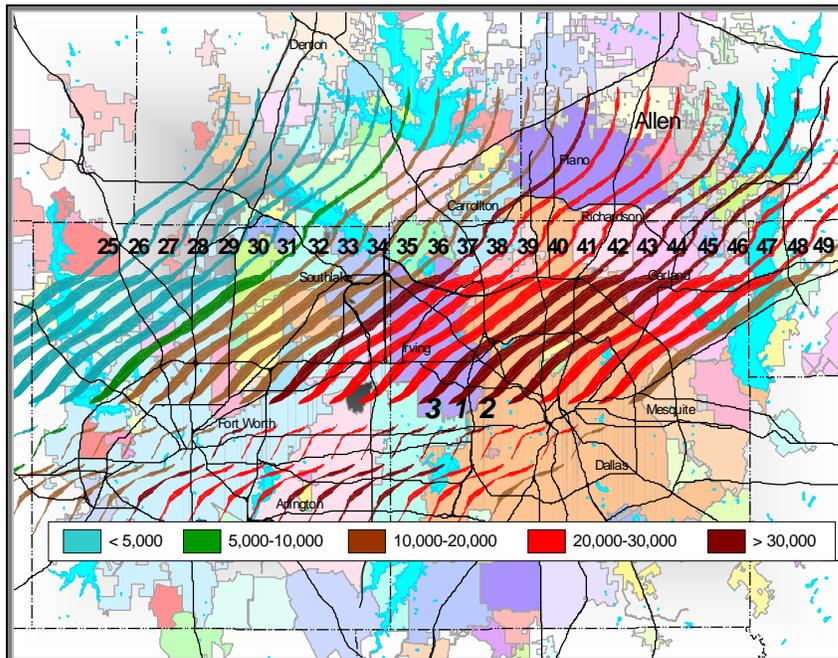


Tornado Damage Risk Assessment – Dallas-Fort Worth

be a risk. Also of note is the possibility that residential structures are less durable on average than many downtown commercial structures -- putting residents of expansive subdivisions in a more susceptible position.



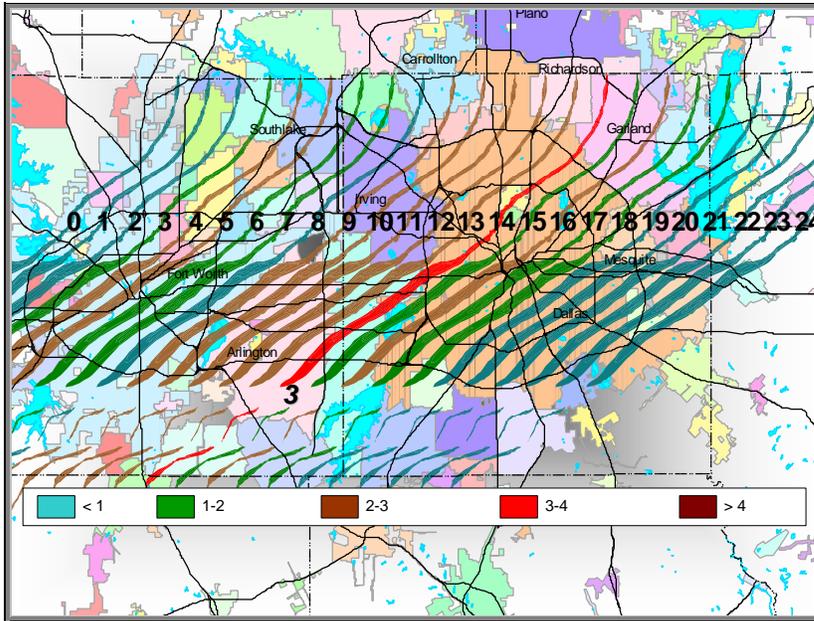
Above: Number of Structures Impacted by Tornado (Series 0 – 24). Light brown paths, such as paths 3-4, have 10,000-20,000 structures in each of their paths. Red paths, such as paths 15-20, have 20,000-30,000 structures in each of their paths. Dark red paths, such as paths 10-15, have over 30,000 structures in each of their paths. The large numbers 4 and 5 at the base of 2 of the paths indicate that those routes contain the 4th and 5th largest number of structures of the 50.



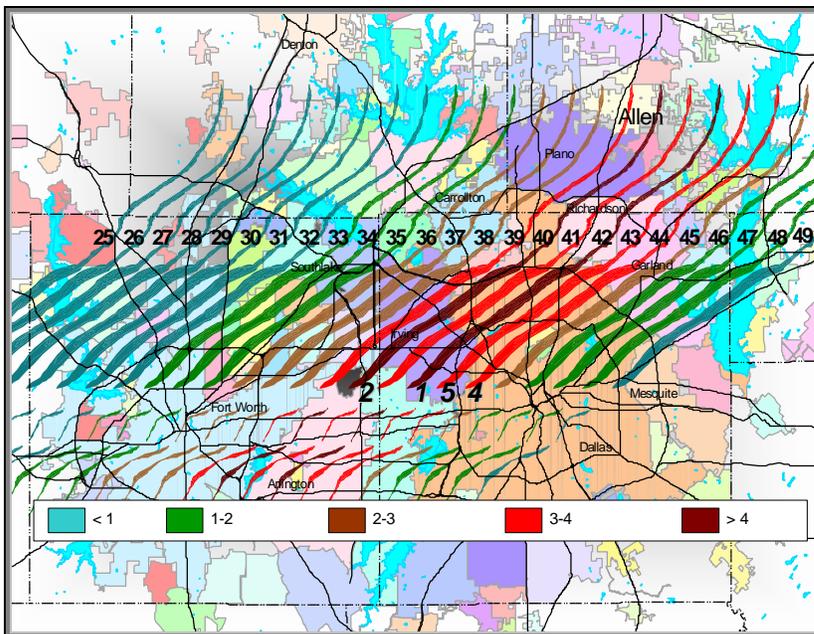
Left: Number of Structures Impacted by Tornado (Series 25 – 49). Light brown paths, such as paths 32-36, have 10,000-20,000 structures in each of their paths. Red paths, such as paths 38-41, have 20,000-30,000 structures in each of their paths. Dark red paths, such as paths 42-45, have over 30,000 structures in each of their paths. The large numbers 1, 2, and 3 at the base of 3 of the paths indicate that those routes contain the 1st, 2nd and 3rd largest number of structures in their paths of the 50 paths.



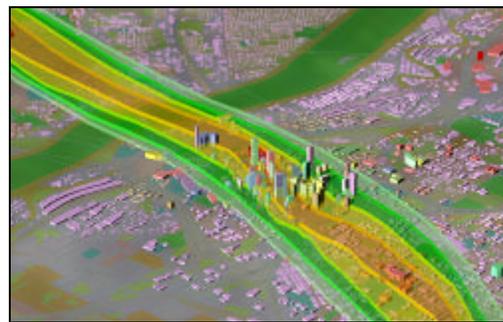
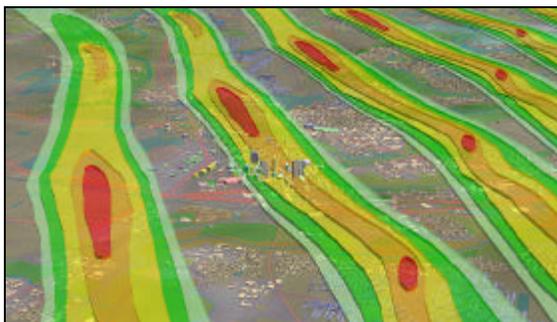
Tornado Damage Risk Assessment – Dallas-Fort Worth



Left: Potential Dollar Losses by Tornado in Billions (Series 0 – 24). Light brown paths, such as paths 9-13, would cause and estimated \$2 billion - \$3 billion of structural/property damage. Red paths, such as path 14, would cause \$3 billion - \$4 billion. The large number 3 at the base of path 14 indicate that it would contain the 3rd largest estimated damages of the 50 paths.



Left: Potential Dollar Losses by Tornado in Billions (Series 25-49). Light brown paths, such as paths 36-38, would cause and estimated \$2 billion - \$3 billion of structural/property damage. Red paths, such as paths 43-44, would cause \$3 billion - \$4 billion. Dark red paths, such as paths 40 and 42, would cause more than \$4 billion of structural/property damage. The large numbers at the base of 4 of the paths indicate that they would contain the 1st, 2nd, 4th, and 5th largest estimated damages of the 50 paths.

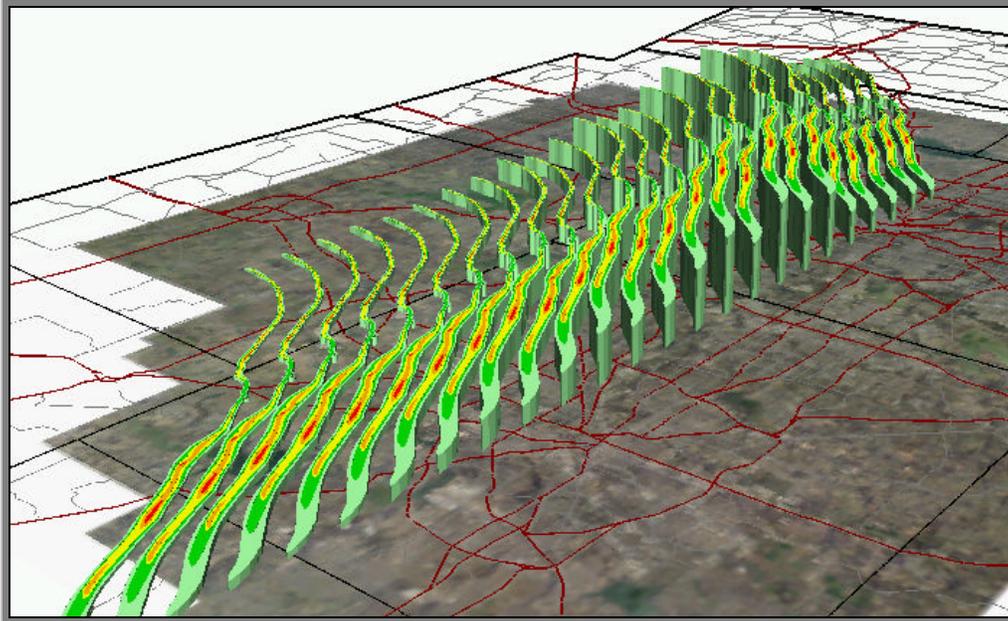




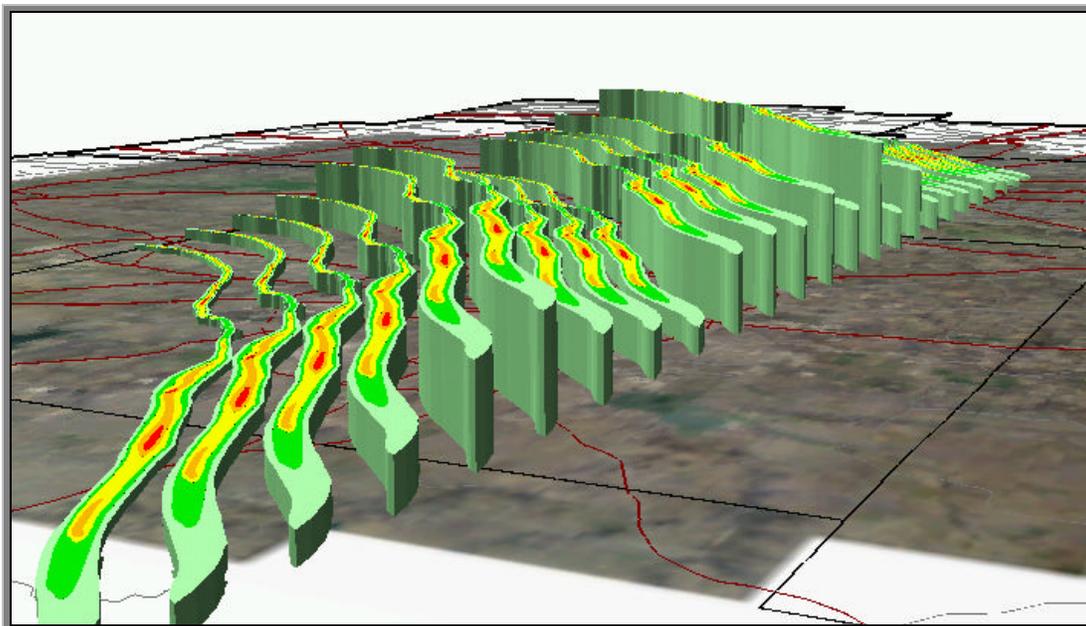
Tornado Damage Risk Assessment – Dallas-Fort Worth

Series	Structures in Path	*Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
0	2406	\$316,448,358	\$191,522,289	5452	8.22%
1	5771	\$632,043,248	\$387,404,114	14284	19.29%
2	9913	\$1,008,059,885	\$589,037,265	22542	27.51%
3	17015	\$1,620,903,466	\$1,037,439,824	36168	34.69%
4	19543	\$2,983,497,150	\$2,066,601,860	44883	43.87%
5	20368	\$3,979,677,509	\$2,545,755,367	42436	49.20%
6	16965	\$2,682,827,555	\$1,531,802,962	37699	40.06%
7	31358	\$2,143,382,141	\$1,108,270,937	66122	56.09%
8	22575	\$1,391,097,865	\$703,844,918	48487	44.80%
9	29436	\$3,597,245,919	\$2,079,033,876	63426	45.77%
10	33263	\$4,133,875,135	\$2,232,096,127	67246	51.77%
11	28362	\$4,134,768,501	\$2,134,808,070	62811	64.00%
12	30281	\$4,916,095,658	\$2,789,745,100	68314	56.39%
13	31158	\$4,370,754,299	\$1,987,058,095	64977	54.66%
14	30727	\$5,753,663,570	\$3,941,898,829	62246	52.71%
15	23626	\$2,460,227,611	\$1,262,647,648	54770	50.15%
16	21660	\$4,953,853,669	\$2,528,110,945	50226	47.49%
17	27389	\$1,704,413,866	\$1,033,185,791	57541	49.14%
18	27701	\$1,833,880,666	\$959,182,504	65161	56.05%
19	24553	\$1,786,112,262	\$808,954,876	52435	40.97%
20	20896	\$1,300,236,052	\$707,914,261	49207	44.20%
21	15819	\$1,095,085,667	\$706,631,046	38106	35.97%
22	11380	\$844,459,563	\$502,852,426	29124	28.07%
23	6793	\$533,442,692	\$294,697,930	17725	16.27%
24	5311	\$372,593,394	\$204,136,101	13290	13.78%
25	3605	\$271,127,774	\$144,119,124	8046	9.80%
26	3239	\$356,532,793	\$209,785,843	7414	10.24%
27	4233	\$542,719,799	\$332,654,758	10478	12.41%
28	4846	\$670,740,728	\$404,123,907	12293	16.65%
29	3182	\$375,282,550	\$241,371,359	7575	12.02%
30	4661	\$541,659,785	\$313,740,741	12371	13.68%
31	9863	\$1,219,210,332	\$667,934,812	25695	22.98%
32	10883	\$1,540,359,694	\$835,851,384	27888	23.90%
33	15420	\$2,236,784,438	\$1,388,161,116	39262	33.74%
34	14740	\$1,780,450,444	\$984,444,221	34903	36.77%
35	19517	\$2,872,010,210	\$1,600,019,435	45897	45.55%
36	19578	\$4,399,438,350	\$2,532,096,289	45727	48.31%
37	30777	\$4,000,160,862	\$2,026,021,257	65530	50.96%
38	29978	\$3,897,156,012	\$2,145,110,068	61320	55.47%
39	25863	\$5,910,283,877	\$3,281,126,836	52034	46.10%
40	28101	\$7,445,116,784	\$4,257,529,425	58152	51.87%
41	28956	\$5,429,061,454	\$3,177,692,741	64306	63.17%
42	33319	\$7,936,924,819	\$4,722,296,433	73146	63.13%
43	40151	\$5,311,871,897	\$3,453,368,522	80905	56.92%
44	38376	\$5,909,068,007	\$3,752,990,271	78962	62.80%
45	31352	\$3,869,454,255	\$2,035,259,191	61774	51.13%
46	28669	\$3,318,436,745	\$1,380,209,486	65440	50.71%
47	22824	\$2,324,869,961	\$1,176,145,137	52079	42.55%
48	25332	\$1,945,452,830	\$1,069,472,232	58638	41.98%
49	15704	\$1,327,825,795	\$677,621,897	37215	29.43%

• Numbers are presented as calculated by the computer. They should not be considered specific to the exact dollar as displayed.

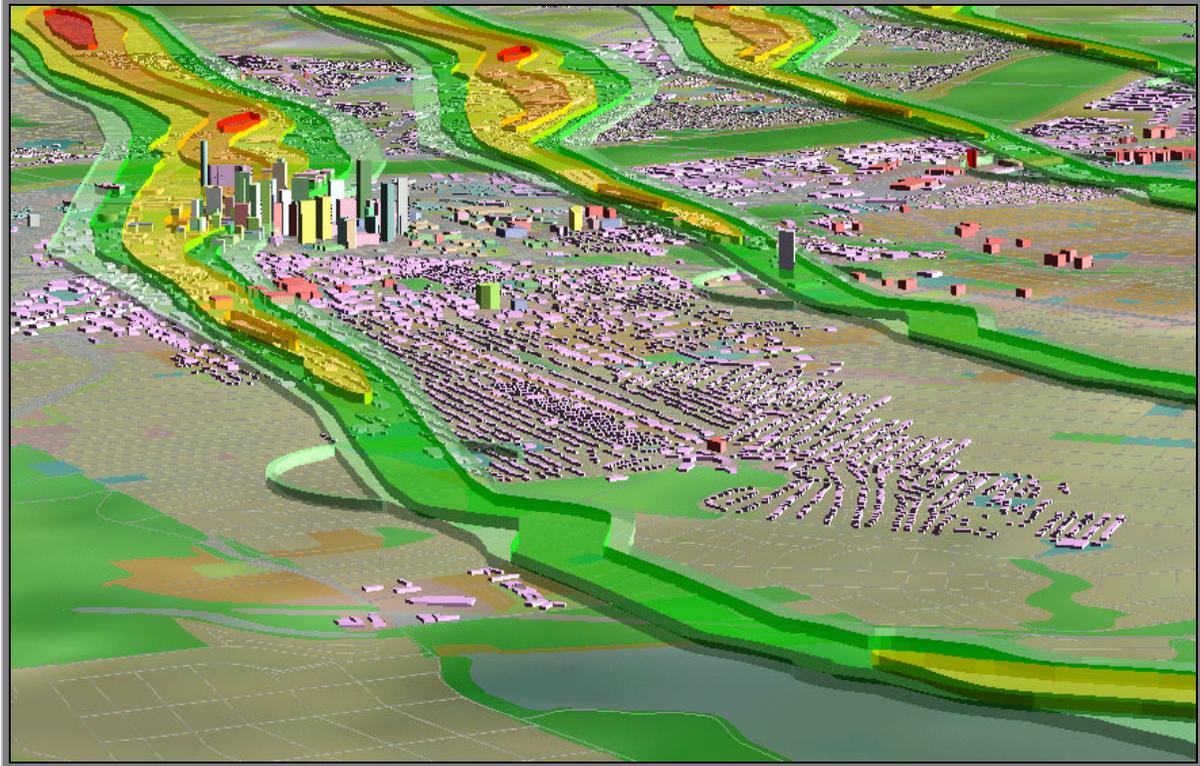


Above: Three-dimension exaggeration of tornado paths (Group 25-49) as a function of estimated structural/property damages. View is looking to the northeast from the southwest corner of Tarrant County. Higher paths in the vertical direction indicate greater potential dollar damages. Tornado paths show a dramatic increase in potential damages as they near and impact the northern half of Dallas County. This area represents the greatest combination of high structure density and high property values.

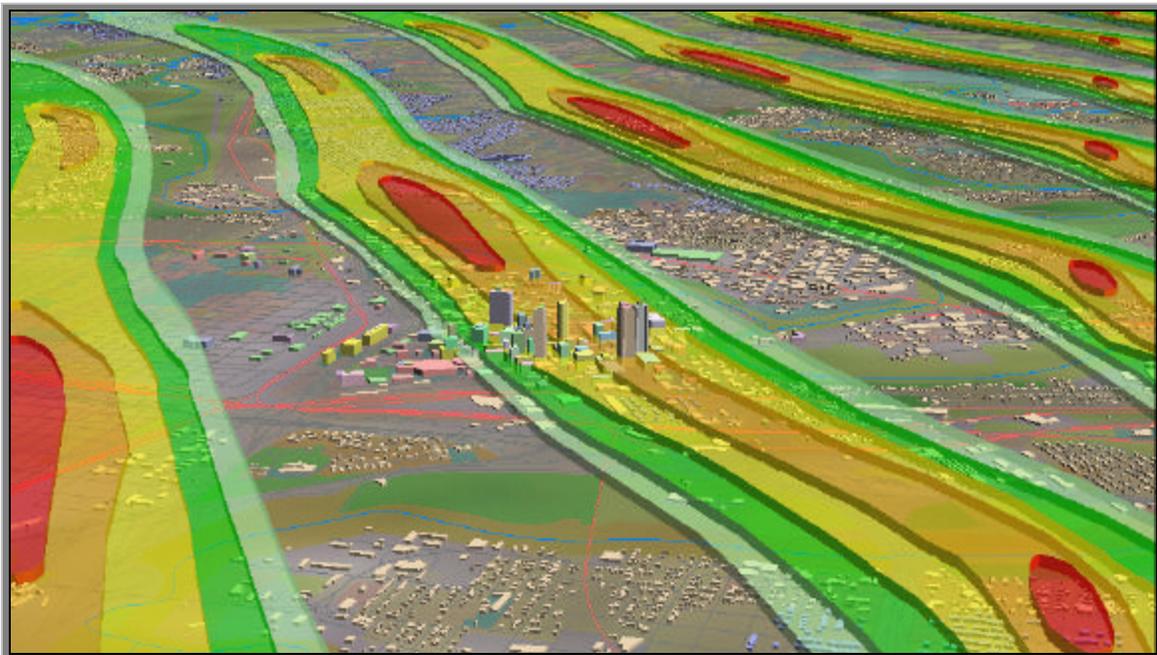


Above: Three-dimension exaggeration of tornado paths (Group 0-24) as a function of estimated structural/property damages. View is looking to the northeast from the southwest corner of Tarrant County. Higher paths in the vertical direction indicate greater potential dollar damages. Tornado paths show a spike in potential damages in central Tarrant County, a small decrease immediately to the east, and a major increase as they near and impact Arlington and enter western Dallas County.

 **Tornado Damage Risk Assessment – Dallas-Fort Worth**



Above: Three-dimension view of portions of tornado paths 13-16 adjacent to downtown Dallas. View is looking southwest towards downtown Dallas. Select building outlines have been mapped to help visualize the variety of impacts likely from each of these tornadoes.



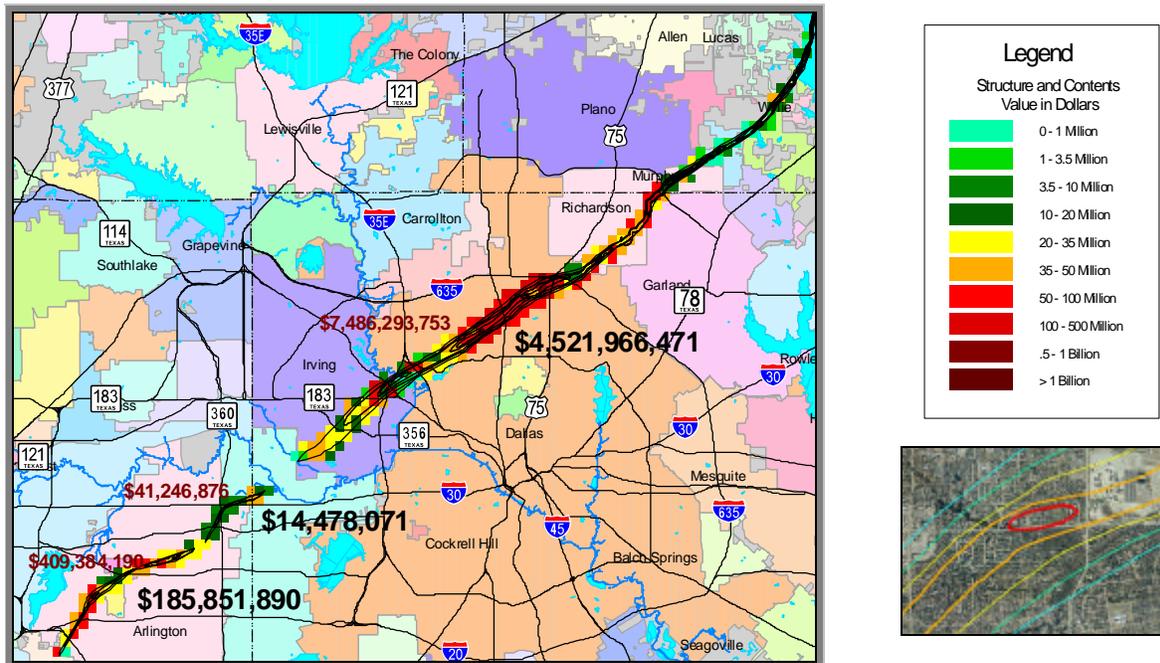
Above: Three-dimension view of portions of tornado paths adjacent to downtown Fort Worth. View is looking southwest towards downtown Fort Worth. Select building outlines have been mapped to help visualize the variety of impacts likely from each of these tornadoes.

The Most Damaging Path Series Path 42

Two of the 50 paths tested produced computer-estimated damages in excess of \$4 billion. It is really not feasible to say that a particular \$4 billion damage path is "worse" than another, particularly with so many variations in every path's demographic, traffic, and structural profile. None the less, we can still point out the path that the computer *calculates* to have the highest losses. In this case, it was the 42nd path in the series test. It calculated to have damages exceeding \$4.7 billion. It was a part of the trend that found North Dallas being the largest damage target in the region. The smaller sister tornadoes in Arlington contributed \$200 million of estimated damages to the \$4.6 billion credited to tornado "A9". Overall, this path contained the largest property value estimates, was the 3rd most developed, had the 3rd largest number of residents estimated in the path, and had the 3rd largest number of estimated structures in the path. The path contained portions of the Six Flags Business Park, Texas Stadium, The I-635/U.S. 75 area businesses in North Dallas, and Texas Instruments.

Structures in Path	Property Value in Path	Potential Damages	Residents Living in Path	Percent of Path that is Developed
33319	\$7,936,924,819	\$4,722,296,433	73146	63.13%

Potential Damages Rank: 1st Structures in Path Rank: 3rd Residents in Path Rank: 3rd



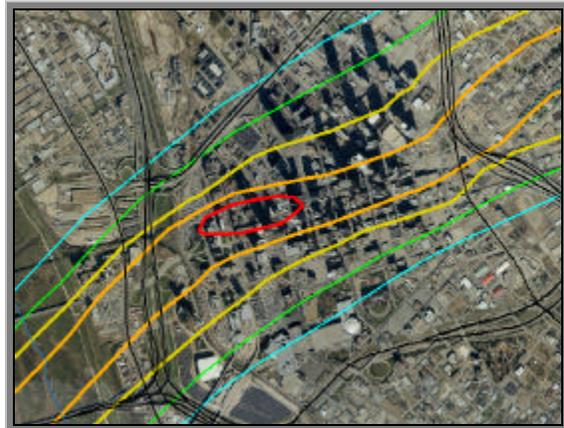
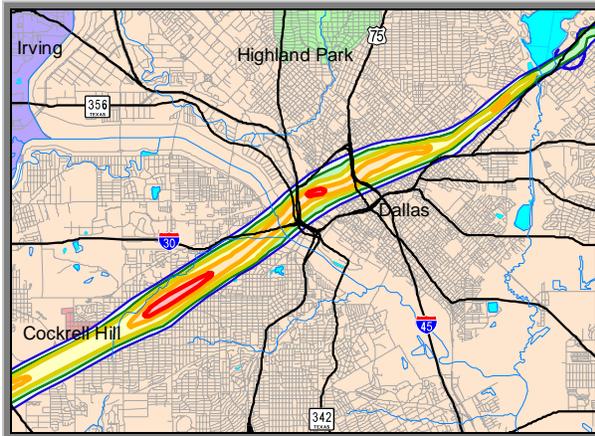
Above: Total estimated structure and contents value for Dallas-Fort Worth (distributed in uniform 2400x2400 foot grid cells) intersecting Series Tornado Path 42. The total value in each grid is a function of the number of structures and the value of the structures. The damage calculations for Path 42 will include a portion of each grid intersected. The small red number to the left of each of the three tornado paths is an estimate of the total structure and contents value located in the tornado path. The bold number to the right is an estimate of the total structure and contents damage after considering structure types and the anticipated damages from the Fujita Scale. Note the prominence of high values in North Dallas.



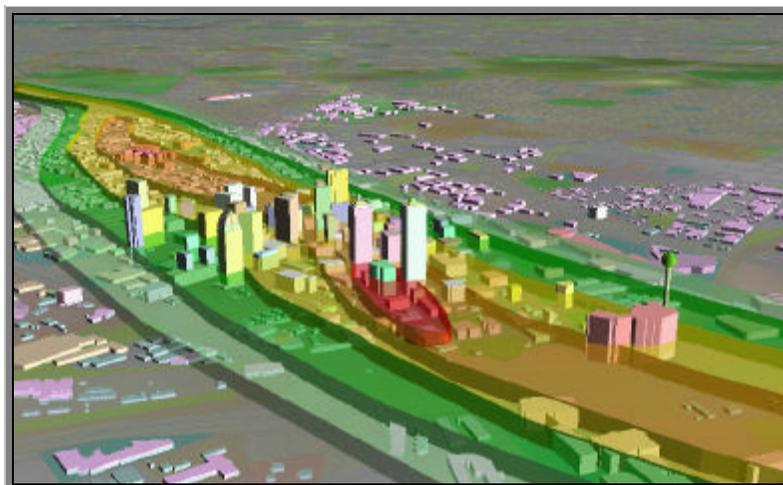
A Downtown Dallas Path

All paths in the study were generated with a degree of mathematical consistency in their increments of coordinate shifting. For instance, the Series of 50 tornado paths were begun in eastern Parker County and shifted eastward a multiple of exactly 2.5 miles to make up the individual members of the series. Ironically, both direct strikes to downtown Dallas were really not all that direct. The Scenario 4 path hit only the northwest portion of downtown and the Series 16 path took an eastward turn as it entered downtown -- hitting the southern half. Thus, no tornado path tested incorporated the lion's share of downtown Dallas property values. For the sake of completeness, another path was tested that featured a more direct strike to the majority of the Central Business District. As expected, this tornado path received high estimates of property values in the path and high estimates of total damages.

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
22558	\$6,707,955,011	\$4,533,999,840	54249	49.89%

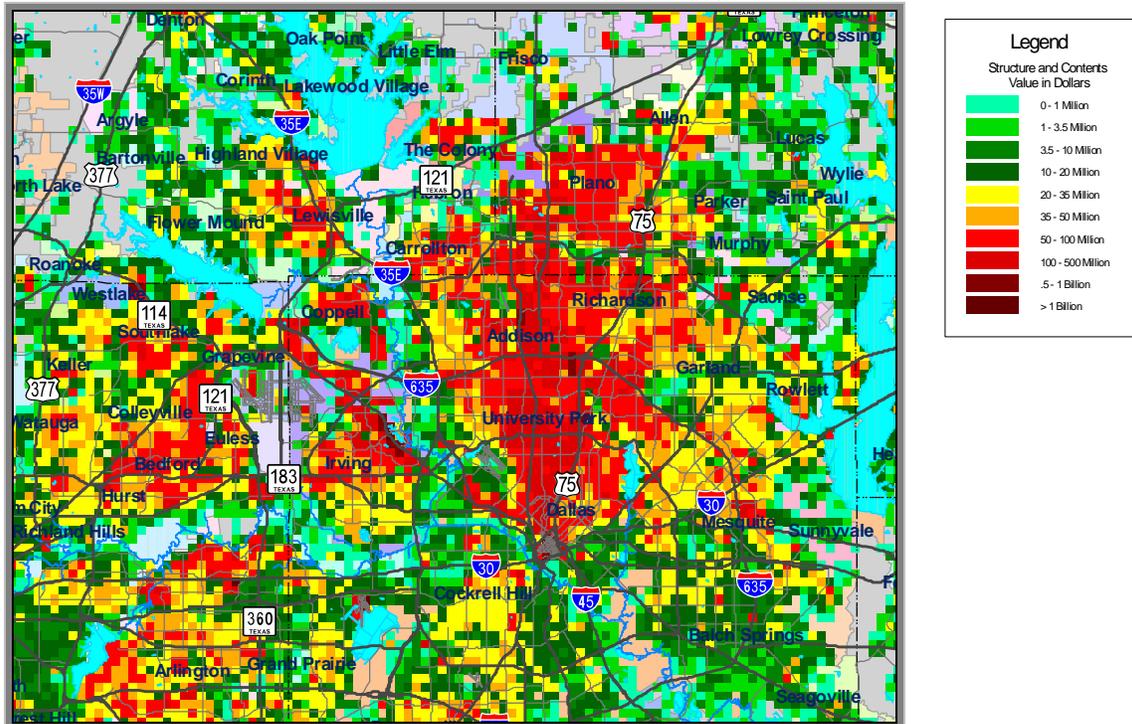


Above: *Special tornado path through downtown Dallas.* In this case, the majority of the Central Business District structures are contained in the tornado path -- some at the very damaging F-5 scale. The tornado path at this point is about 5000 feet wide.

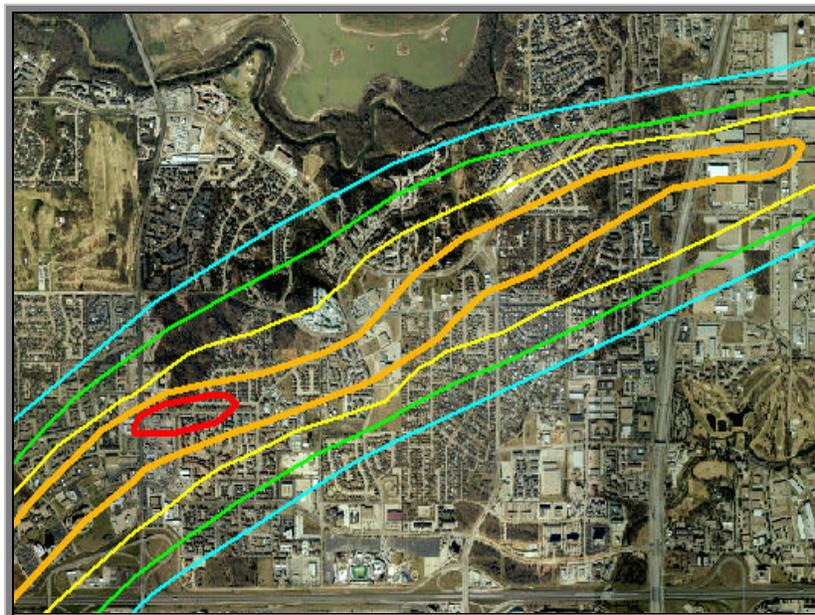




Tornado Damage Risk Assessment – Dallas-Fort Worth



Above: Structure and Content Property Values Along North-Central portion of Metroplex Urban Area -- Summarized by 2400x2400 grid cell. Tornadoes crossing areas represented in shades of red have a particularly high likelihood of producing costly damage. North Dallas is represented by the extensive red-shaded area to the center-right of the image.



Aerial Image Maps Courtesy of VARGIS LLC

Above: Portion of a single series tornado path crossing North Arlington. Aerial information makes it easy to confirm the extensive development of the Metroplex.



A Detailed Survey of 29 Series Paths

In order to help better visualize the series paths, 29 of the 50 paths are mapped on the following pages. Along with the visual alignment maps, tables of data describing key characteristics of the mapped paths are provided. Time and space did not allow individual maps to be developed for each of the 50 paths, but the maps provided do describe the overall trends in damages well. Each series survey features an alignment laid atop a digital grid containing the total estimated structure and contents value for each grid (uniform 2400x2400 foot grid cells). The grids intersecting all or a portion of the particular series path are displayed. The smaller map adjacent to the path map provides an aerial view of a portion of the path -- with Fujita-scale contour lines displayed. Tables provide information about the paths structures, values, residents and estimated damages. The ranking of each path relative to the other 49 paths is also presented in tabular form. Although the entire square data grid is presented on each map beneath the tornado path, only the data portion of the grid actually within the tornado boundary itself is reflected in the tables.

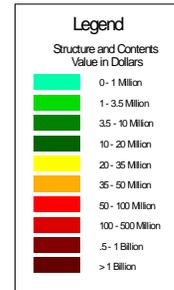
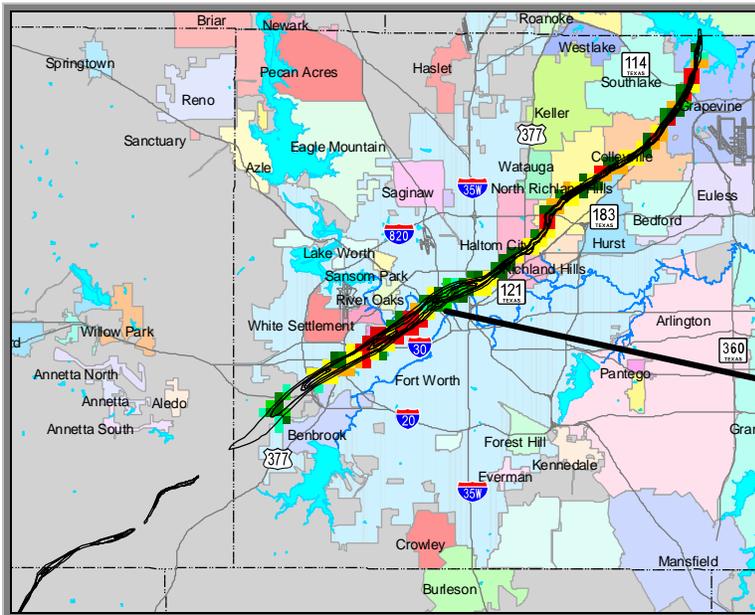
All Aerial Image Maps Courtesy of VARGIS LLC

Series Path 4

Potential Losses Rank: 15th

Structures in Path Rank: 29th

Residents in Path Rank: 29th



Path NE of downtown Fort Worth

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
19543	\$2,983,497,150	\$2,066,601,860	44883	43.87%

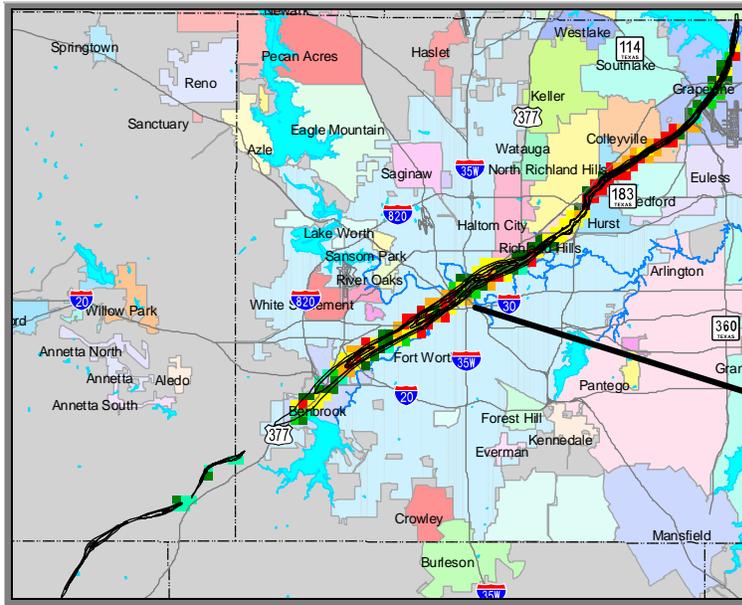
Tornado Damage Risk Assessment – Dallas-Fort Worth

Series Path 5

Potential Losses Rank: 10th

Structures in Path Rank: 27th

Residents in Path Rank: 30th



Path through Downtown Fort Worth

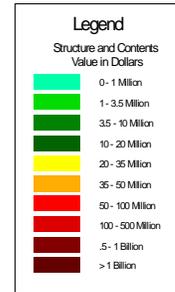
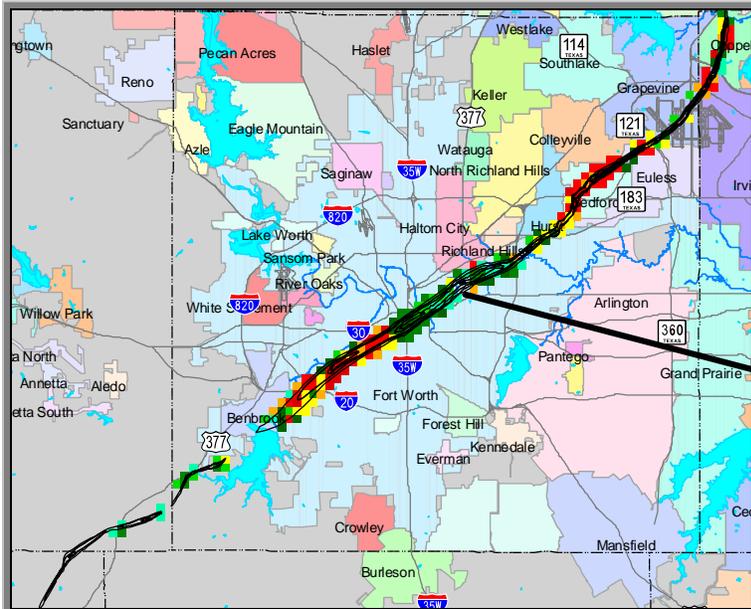
Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
20368	\$3,979,677,509	\$2,545,755,367	42436	49.20%

Series Path 6

Potential Losses Rank: 21st

Structures in Path Rank: 32nd

Residents in Path Rank: 33rd



F-4/5 Path along Trinity River

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
16965	\$2,682,827,555	\$1,531,802,962	37699	40.06%



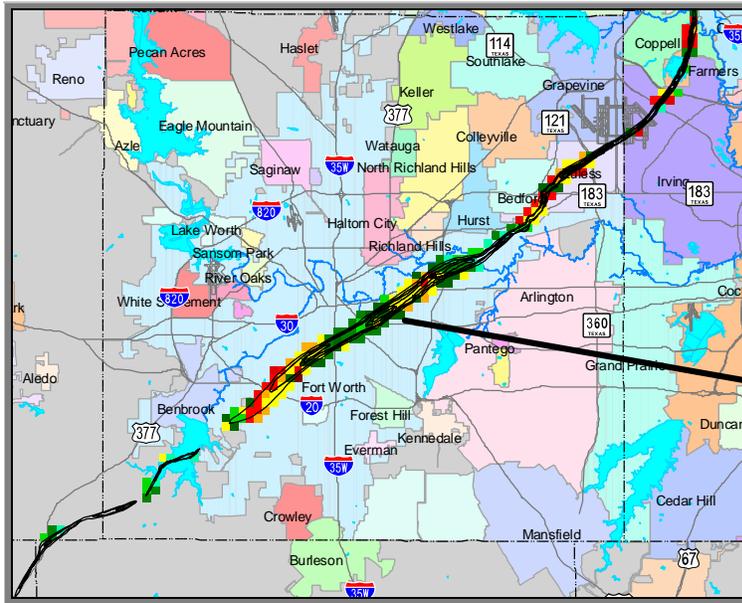
Tornado Damage Risk Assessment – Dallas-Fort Worth

Series Path 7

Potential Losses Rank: 26th

Structures in Path Rank: 6th

Residents in Path Rank: 6th



Path near Oakland Blvd and I-30 in eastern Fort Worth

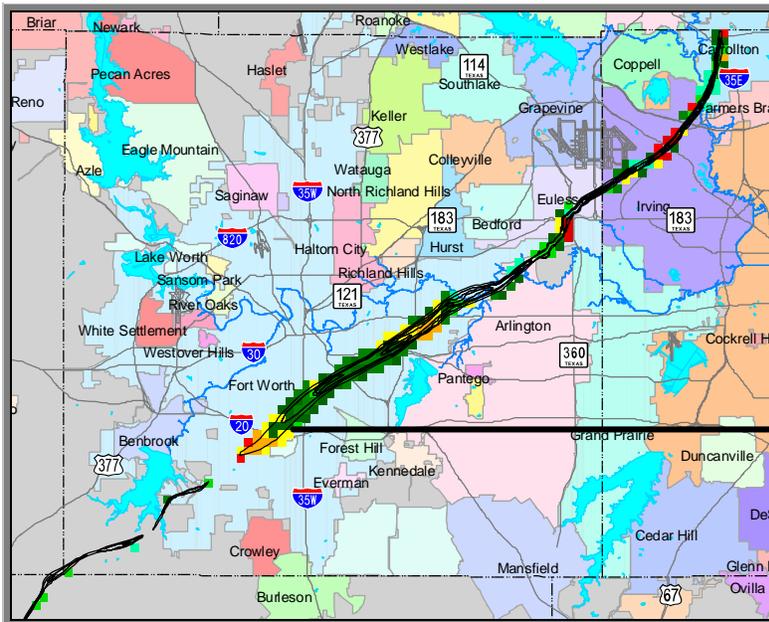
Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
31358	\$2,143,382,141	\$1,108,270,937	66122	56.09%

Series Path 8

Potential Losses Rank: 24th

Structures in Path Rank: 24th

Residents in Path Rank: 26th



Path in SW Fort Worth

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
22575	\$1,391,097,865	\$703,844,918	48487	44.80%



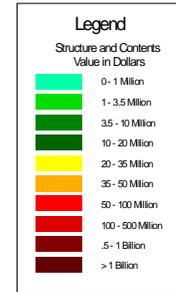
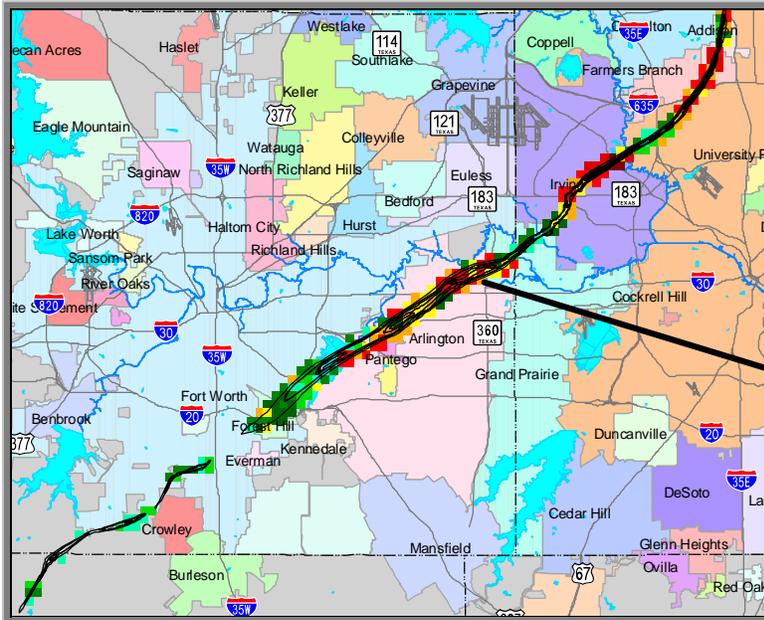
Tornado Damage Risk Assessment – Dallas-Fort Worth

Series Path 10

Potential Losses Rank: 12th

Structures in Path Rank: 4th

Residents in Path Rank: 5th



Path at U.S. 360 and Green Oaks in Northern Arlington

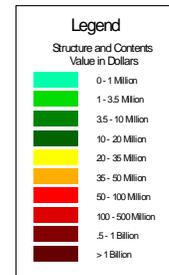
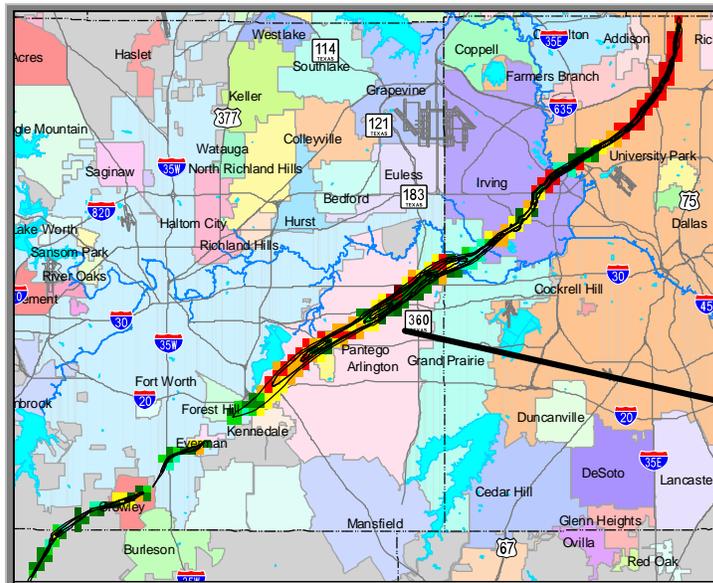
Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
33263	\$4,133,875,135	\$2,232,096,127	67246	51.77%

Series Path 11

Potential Losses Rank: 14th

Structures in Path Rank: 15th

Residents in Path Rank: 13th



F-5 Path through the University of Texas at Arlington Campus

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
28362	\$4,134,768,501	\$2,134,808,070	62811	64.00%



Tornado Damage Risk Assessment – Dallas-Fort Worth

Series Path 12

Potential Losses Rank: 8th

Structures in Path Rank: 10th

Residents in Path Rank: 4th



Path at U.S. 360 and U.S. 80 in Eastern Arlington

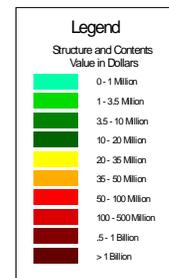
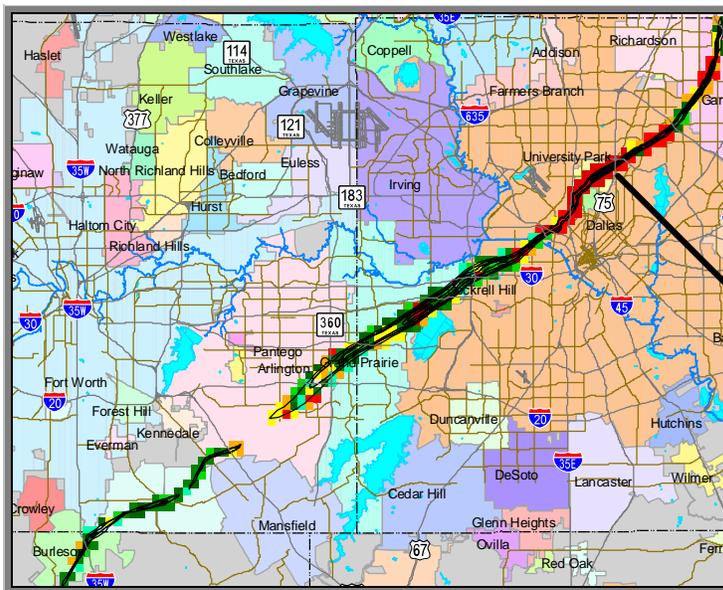
Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
30281	\$4,916,095,658	\$2,789,745,100	68314	56.39%

Series Path 14

Potential Losses Rank: 3rd

Structures in Path Rank: 14th

Residents in Path Rank: 14th



Path crossing U.S. 75 at University Park and North Dallas

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
30727	\$5,753,663,570	\$3,941,898,829	62246	52.71%



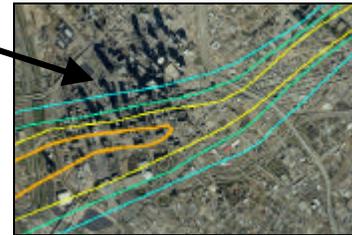
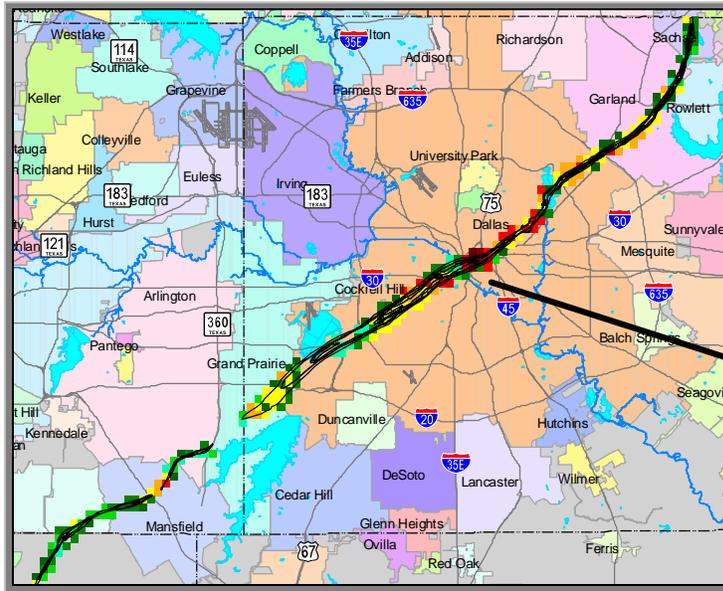
Tornado Damage Risk Assessment – Dallas-Fort Worth

Series Path 16

Potential Losses Rank: 11th

Structures in Path Rank: 25th

Residents in Path Rank: 24th



Southern edge of Downtown Dallas

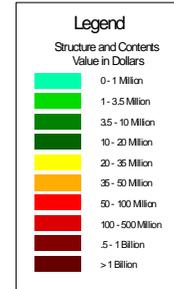
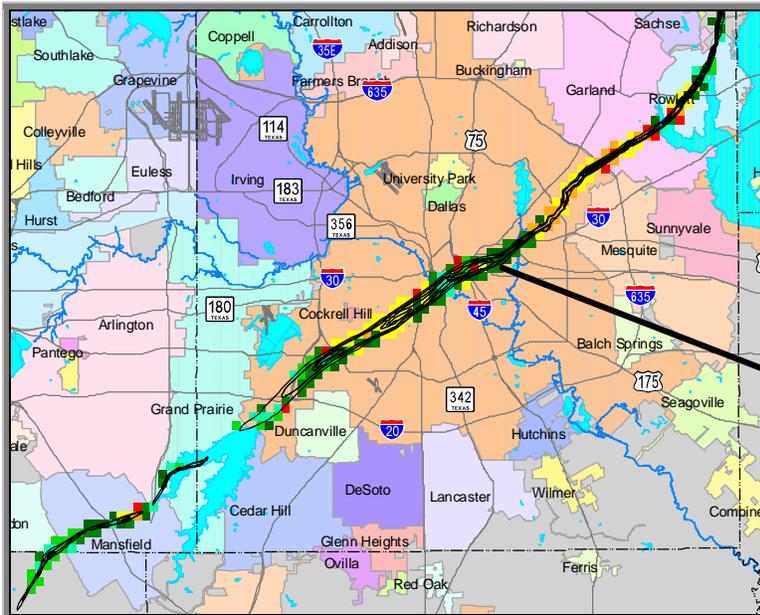
Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
21660	\$4,953,853,669	\$2,528,110,945	50226	47.49%

Series Path 17

Potential Losses Rank: 28th

Structures in Path Rank: 18th

Residents in Path Rank: 19th



Path through Fair Park just below Interstate 30 in Dallas

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
27389	\$1,704,413,866	\$1,033,185,791	57541	49.14%



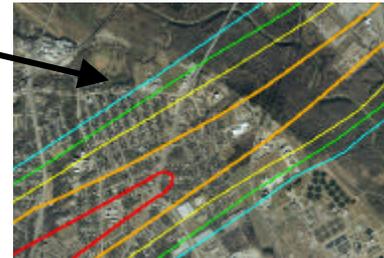
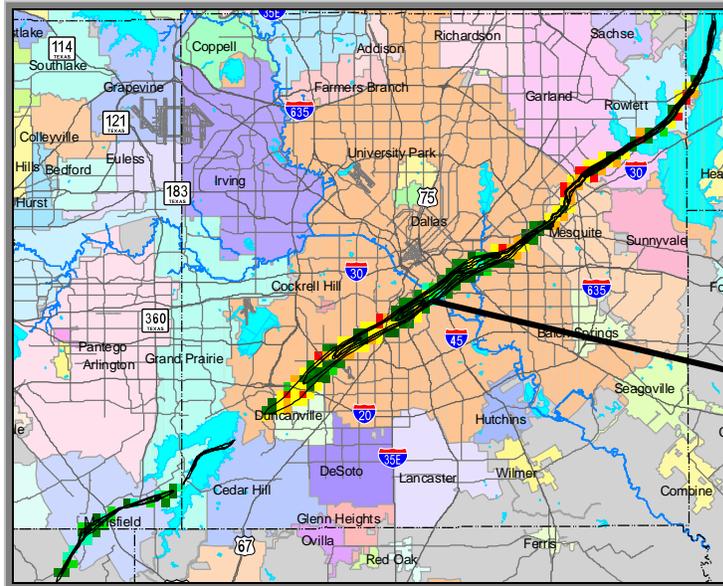
Tornado Damage Risk Assessment – Dallas-Fort Worth

Series Path 18

Potential Losses Rank: 31st

Structures in Path Rank: 17th

Residents in Path Rank: 9th



South Dallas path at Trinity River

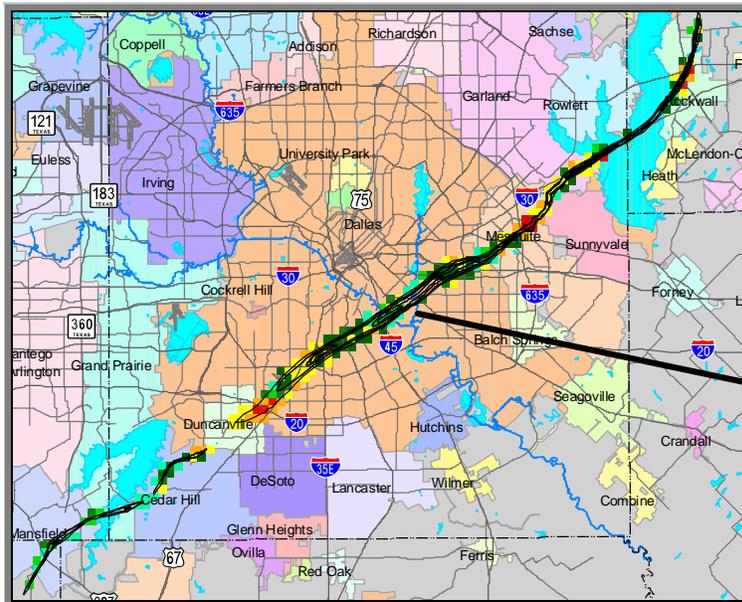
Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
27701	\$1,833,880,666	\$959,182,504	65161	56.05%

Series Path 19

Potential Losses Rank: 33rd

Structures in Path Rank: 21st

Residents in Path Rank: 21st



Path through Rochester Park

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
24553	\$1,786,112,262	\$808,954,876	52435	40.97%



Tornado Damage Risk Assessment – Dallas-Fort Worth

Series Path 20

Potential Losses Rank: 36th

Structures in Path Rank: 26th

Residents in Path Rank: 25th



Path near western Sunnyvale

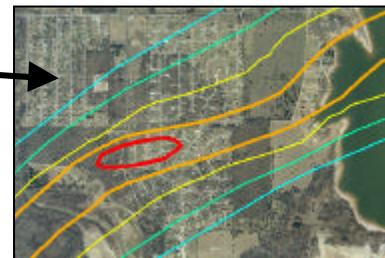
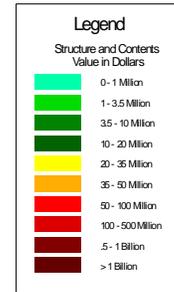
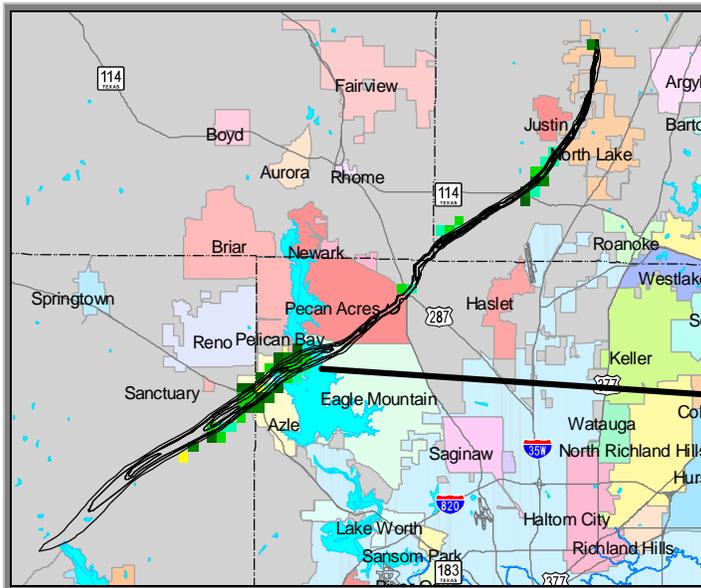
Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
20896	\$1,300,236,052	\$707,914,261	49207	44.20%

Series Path 25

Potential Losses Rank: 50th

Structures in Path Rank: 47th

Residents in Path Rank: 47th



Western Eagle Mountain Lake

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
3605	\$271,127,774	\$144,119,124	8046	9.80%



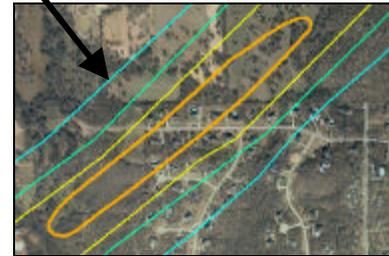
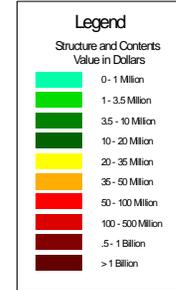
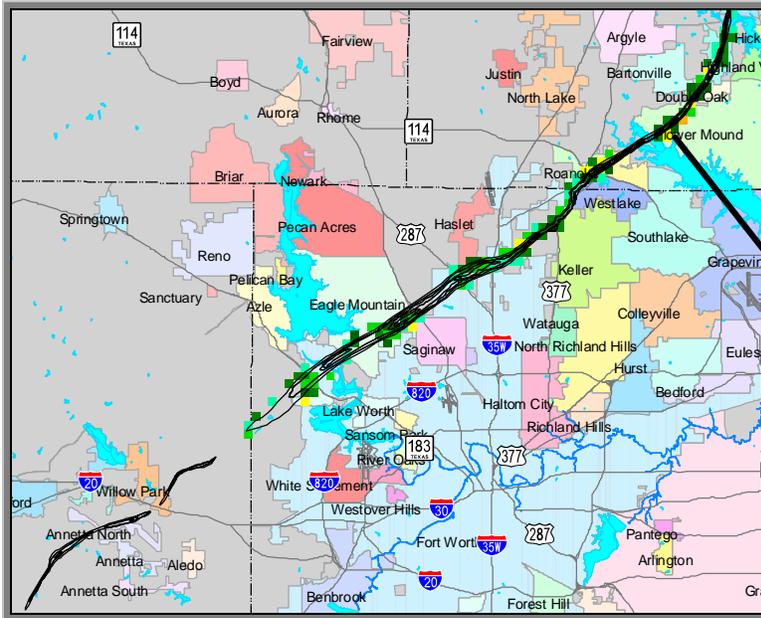
Tornado Damage Risk Assessment – Dallas-Fort Worth

Series Path 29

Potential Losses Rank: 46th

Structures in Path Rank: 49th

Residents in Path Rank: 48th



Expensive Homes in path through western Flower Mound

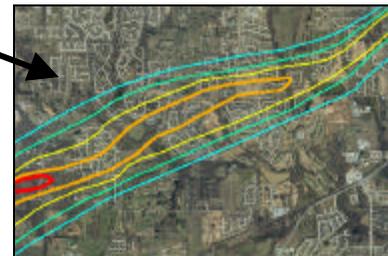
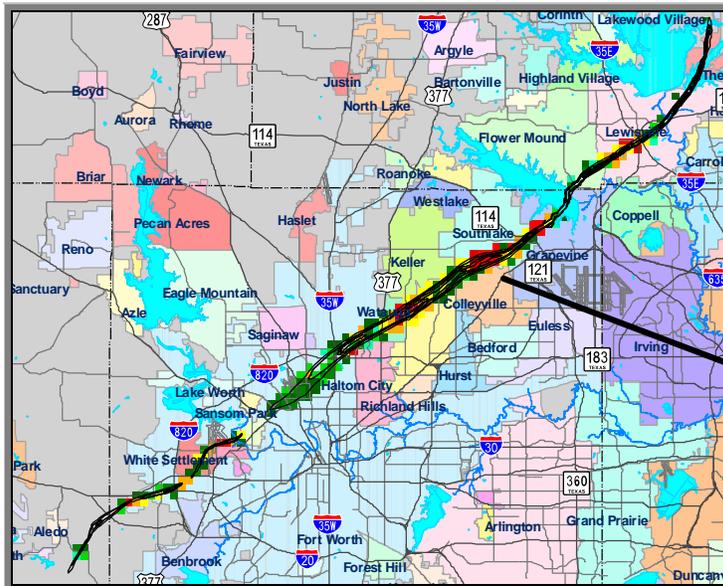
Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
3182	\$375,282,550	\$241,371,359	7575	12.02%

Series Path 33

Potential Losses Rank: 22nd

Structures in Path Rank: 35th

Residents in Path Rank: 31st



Path through Southlake

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
15420	\$2,236,784,438	\$1,388,161,116	39262	33.74%



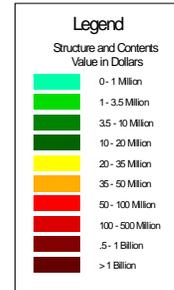
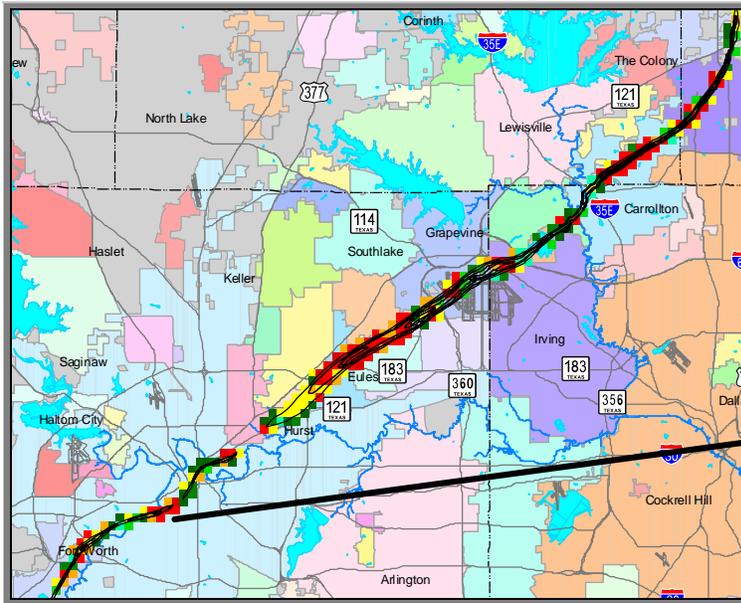
Tornado Damage Risk Assessment – Dallas-Fort Worth

Series Path 35

Potential Losses Rank: 20th

Structures in Path Rank: 30th

Residents in Path Rank: 27th



F-3 Damage Area in south Fort Worth residential area

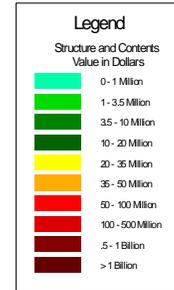
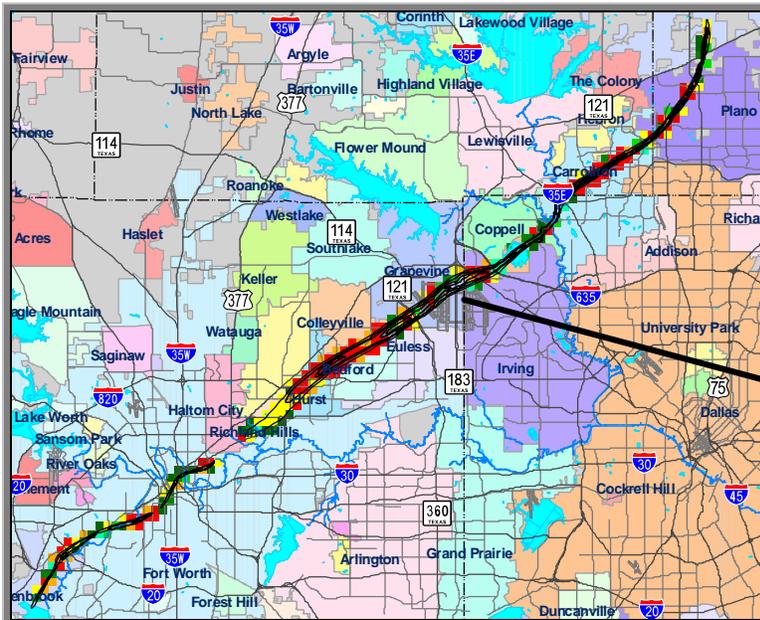
Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
19517	\$2,872,010,210	\$1,600,019,435	45897	45.55%

Series Path 36

Potential Losses Rank: 9th

Structures in Path Rank: 28th

Residents in Path Rank: 28th



Path through northern portion of DFW International Airport

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
19578	\$4,399,438,350	\$2,532,096,289	45727	48.31%



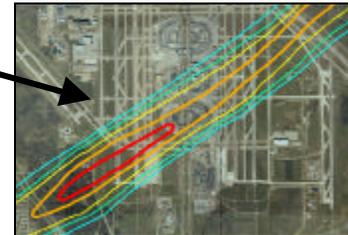
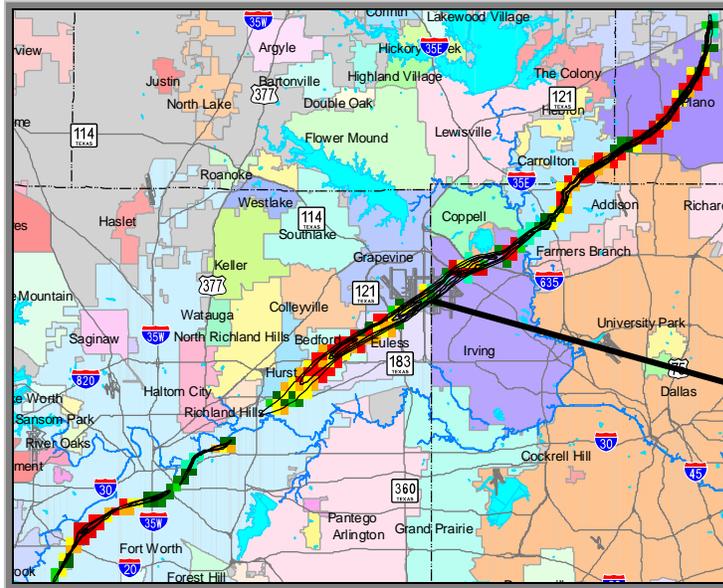
Tornado Damage Risk Assessment – Dallas-Fort Worth

Series Path 37

Potential Losses Rank: 17th

Structures in Path Rank: 8th

Residents in Path Rank: 7th



F-5 Path through DFW Airport

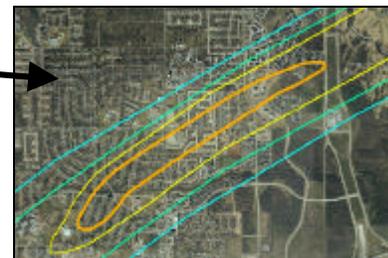
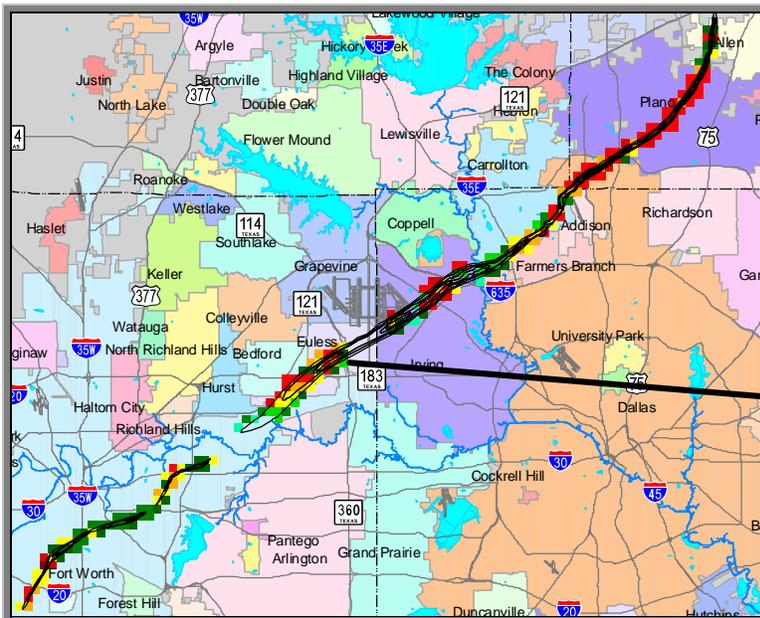
Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
30777	\$4,000,160,862	\$2,026,021,257	65530	50.96%

Series Path 38

Potential Losses Rank: 13th

Structures in Path Rank: 11th

Residents in Path Rank: 16th



F-4 Path through Euless

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
29978	\$3,897,156,012	\$2,145,110,068	61320	55.47%



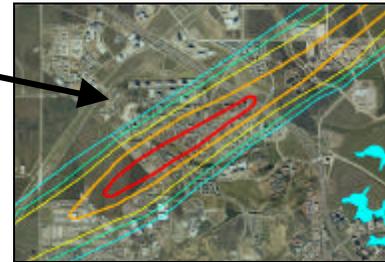
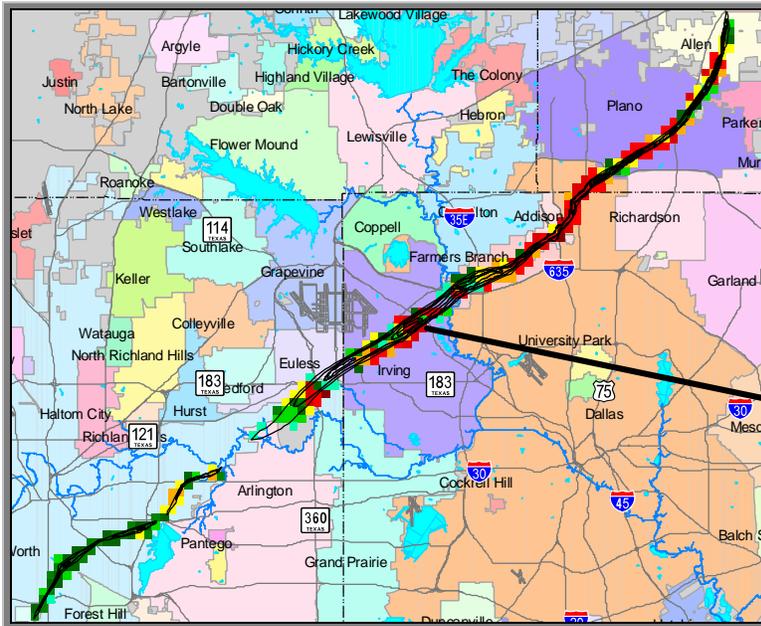
Tornado Damage Risk Assessment – Dallas-Fort Worth

Series Path 39

Potential Losses Rank: 6th

Structures in Path Rank: 19th

Residents in Path Rank: 23rd



Major up-scale apartment area in north Las Colinas

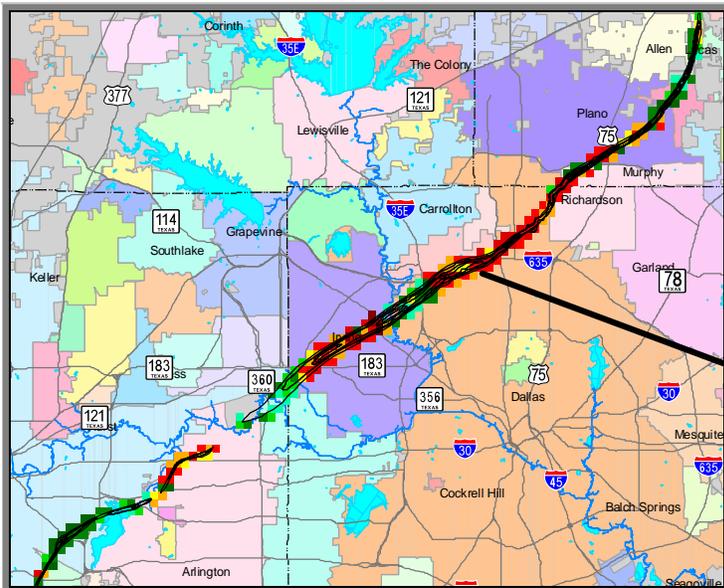
Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
25863	\$5,910,283,877	\$3,281,126,836	52034	46.10%

Series Path 40

Potential Losses Rank: 2nd

Structures in Path Rank: 16th

Residents in Path Rank: 18th



Path along I-635 in northern Dallas

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
28101	\$7,445,116,784	\$4,257,529,425	58152	51.87%



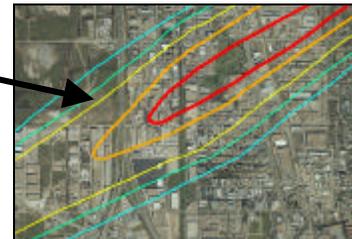
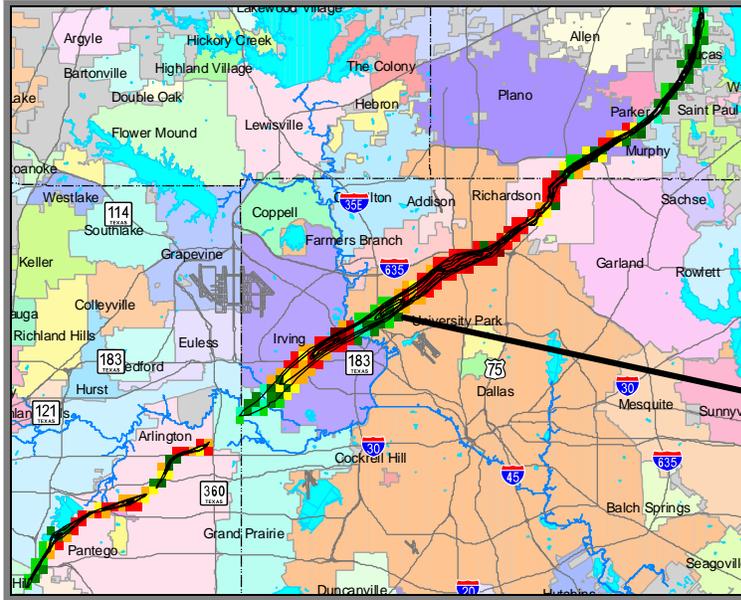
Tornado Damage Risk Assessment – Dallas-Fort Worth

Series Path 41

Potential Losses Rank: 7th

Structures in Path Rank: 13th

Residents in Path Rank: 11th



F-5 Path at I-35E and Loop 12

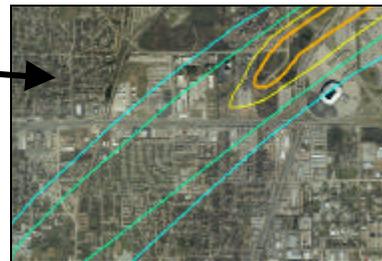
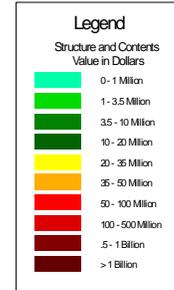
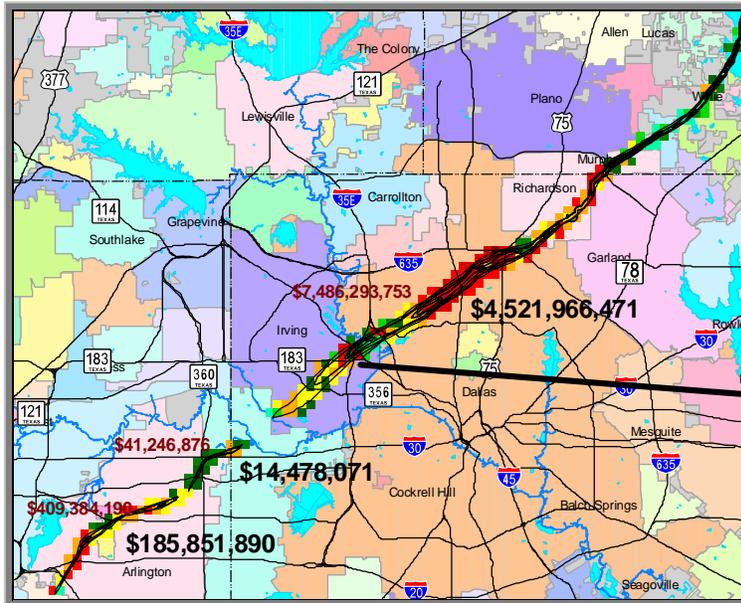
Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
28956	\$5,429,061,454	\$3,177,692,741	64306	63.17%

Series Path 42

Potential Losses Rank: 1st

Structures in Path Rank: 3rd

Residents in Path Rank: 3rd



F-4 North of Texas Stadium

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
33319	\$7,936,924,819	\$4,722,296,433	73146	63.13%



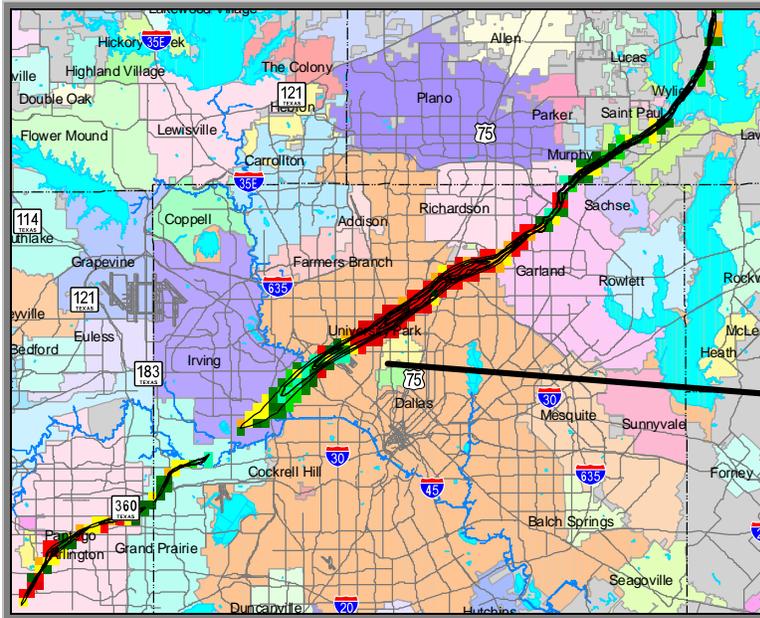
Tornado Damage Risk Assessment – Dallas-Fort Worth

Series Path 43

Potential Losses Rank: 5th

Structures in Path Rank: 1st

Residents in Path Rank: 1st



F-4 path at Bachman Lake and Love Field

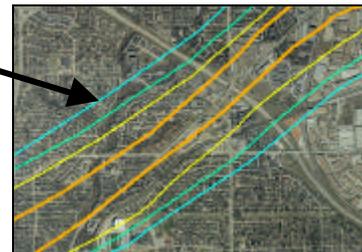
Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
40151	\$5,311,871,897	\$3,453,368,522	80905	56.92%

Series Path 44

Potential Losses Rank: 4th

Structures in Path Rank: 2nd

Residents in Path Rank: 2nd



Path near I-635 in North Dallas

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
38376	\$5,909,068,007	\$3,752,990,271	78962	62.80%



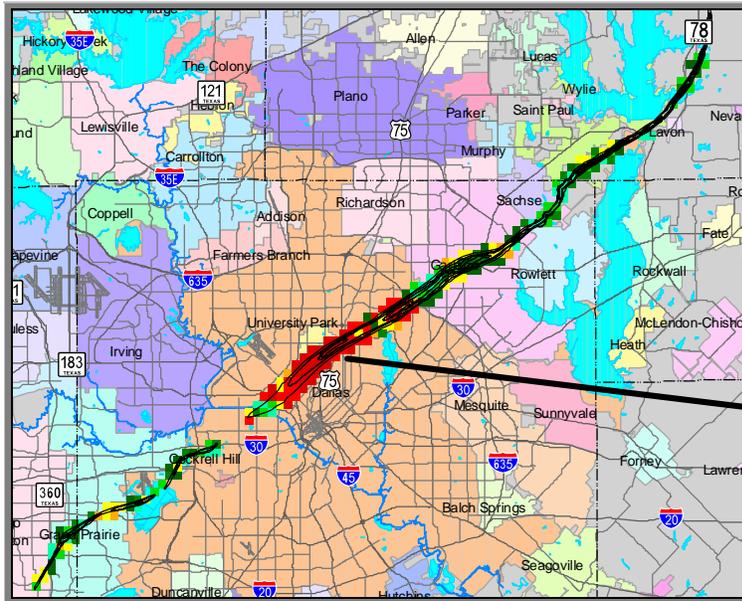
Tornado Damage Risk Assessment – Dallas-Fort Worth

Series Path 45

Potential Losses Rank: 18th

Structures in Path Rank: 6th

Residents in Path Rank: 15th



Huge Apartment Area near U.S. 75

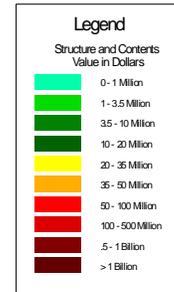
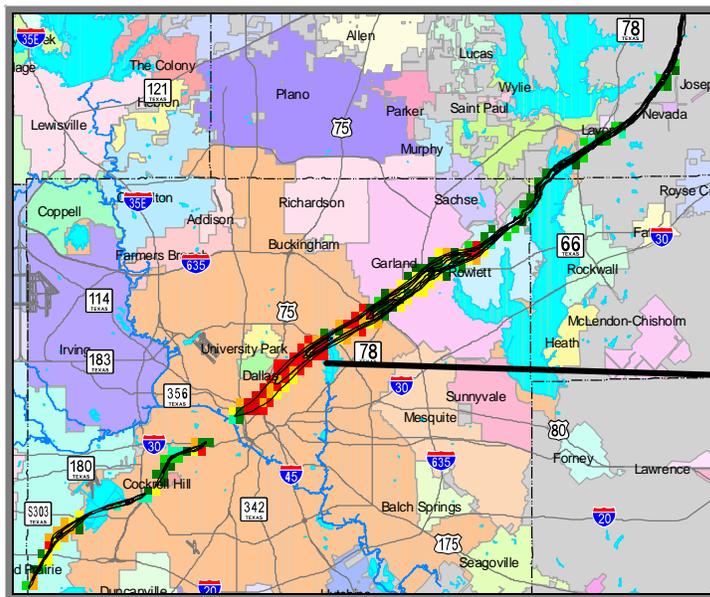
Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
31352	\$3,869,454,255	\$2,035,259,191	61774	51.13%

Series Path 46

Potential Losses Rank: 23rd

Structures in Path Rank: 14th

Residents in Path Rank: 8th



Path west of White Rock Lake

Structures in Path	Property Value in Path	Potential Losses	Residents Living in Path	Percent of Path that is Developed
28669	\$3,318,436,745	\$1,380,209,486	65440	50.71%



**Series Impact Rankings
Based on Computer-Estimated Values in Path**

Structures in Path			Property Value in Path			Potential Losses		
Rank	Series	Structures	Rank	Series	Value	Rank	Series	Damages
1	43	40151	1	42	\$7,936,924,819	1	42	\$4,722,296,433
2	44	38376	2	40	\$7,445,116,784	2	40	\$4,257,529,425
3	42	33319	3	39	\$5,910,283,877	3	14	\$3,941,898,829
4	10	33263	4	44	\$5,909,068,007	4	44	\$3,752,990,271
5	7	31358	5	14	\$5,753,663,570	5	43	\$3,453,368,522
6	45	31352	6	41	\$5,429,061,454	6	39	\$3,281,126,836
7	13	31158	7	43	\$5,311,871,897	7	41	\$3,177,692,741
8	37	30777	8	16	\$4,953,853,669	8	12	\$2,789,745,100
9	14	30727	9	12	\$4,916,095,658	9	5	\$2,545,755,367
10	12	30281	10	36	\$4,399,438,350	10	36	\$2,532,096,289
11	38	29978	11	13	\$4,370,754,299	11	16	\$2,528,110,945
12	9	29436	12	11	\$4,134,768,501	12	10	\$2,232,096,127
13	41	28956	13	10	\$4,133,875,135	13	38	\$2,145,110,068
14	46	28669	14	37	\$4,000,160,862	14	11	\$2,134,808,070
15	11	28362	15	5	\$3,979,677,509	15	9	\$2,079,033,876
16	40	28101	16	38	\$3,897,156,012	16	4	\$2,066,601,860
17	18	27701	17	45	\$3,869,454,255	17	45	\$2,035,259,191
18	17	27389	18	9	\$3,597,245,919	18	37	\$2,026,021,257
19	39	25863	19	46	\$3,318,436,745	19	13	\$1,987,058,095
20	48	25332	20	4	\$2,983,497,150	20	35	\$1,600,019,435
21	19	24553	21	35	\$2,872,010,210	21	6	\$1,531,802,962
22	15	23626	22	6	\$2,682,827,555	22	33	\$1,388,161,116
23	47	22824	23	15	\$2,460,227,611	23	46	\$1,380,209,486
24	8	22575	24	47	\$2,324,869,961	24	15	\$1,262,647,648
25	16	21660	25	33	\$2,236,784,438	25	47	\$1,176,145,137
26	20	20896	26	7	\$2,143,382,141	26	7	\$1,108,270,937
27	5	20368	27	48	\$1,945,452,830	27	48	\$1,069,472,232
28	36	19578	28	18	\$1,833,880,666	28	3	\$1,037,439,824
29	4	19543	29	19	\$1,786,112,262	29	17	\$1,033,185,791
30	35	19517	30	34	\$1,780,450,444	30	34	\$984,444,221
31	3	17015	31	17	\$1,704,413,866	31	18	\$959,182,504
32	6	16965	32	3	\$1,620,903,466	32	32	\$835,851,384
33	21	15819	33	32	\$1,540,359,694	33	19	\$808,954,876
34	49	15704	34	8	\$1,391,097,865	34	20	\$707,914,261
35	33	15420	35	49	\$1,327,825,795	35	21	\$706,631,046
36	34	14740	36	20	\$1,300,236,052	36	8	\$703,844,918
37	22	11380	37	31	\$1,219,210,332	37	49	\$677,621,897
38	32	10883	38	21	\$1,095,085,667	38	31	\$667,934,812
39	2	9913	39	2	\$1,008,059,885	39	2	\$589,037,265
40	31	9863	40	22	\$844,459,563	40	22	\$502,852,426
41	23	6793	41	28	\$670,740,728	41	28	\$404,123,907
42	1	5771	42	1	\$632,043,248	42	1	\$387,404,114
43	24	5311	43	27	\$542,719,799	43	27	\$332,654,758
44	28	4846	44	30	\$541,659,785	44	30	\$313,740,741
45	30	4661	45	23	\$533,442,692	45	23	\$294,697,930
46	27	4233	46	29	\$375,282,550	46	29	\$241,371,359
47	25	3605	47	24	\$372,593,394	47	26	\$209,785,843
48	26	3239	48	26	\$356,532,793	48	24	\$204,136,101
49	29	3182	49	0	\$316,448,358	49	0	\$191,522,289
50	0	2406	50	25	\$271,127,774	50	25	\$144,119,124



**Series Impact Rankings
Based on Computer-Estimated Values in Path**

Single Family Homes in Path			Residents Living in Path			Single Family Home Property Value in Path		
Rank	Series	Homes	Rank	Series	Residents	Rank	Series	Value
1	18	20427	1	43	80905	1	43	\$3,499,030,712
2	42	19172	2	44	78962	2	42	\$3,485,023,569
3	46	18552	3	42	73146	3	12	\$2,577,201,209
4	12	17875	4	12	68314	4	41	\$2,555,651,335
5	7	17471	5	10	67246	5	37	\$2,463,209,126
6	41	17264	6	7	66122	6	4	\$2,374,434,943
7	48	16918	7	37	65530	7	45	\$2,368,220,181
8	44	16681	8	46	65440	8	44	\$2,356,797,474
9	20	16315	9	18	65161	9	36	\$2,351,930,878
10	11	16290	10	13	64977	10	11	\$2,116,196,887
11	15	16156	11	41	64306	11	35	\$2,044,369,583
12	43	15780	12	9	63426	12	6	\$1,904,423,141
13	37	15458	13	11	62811	13	33	\$1,863,403,289
14	16	15188	14	14	62246	14	14	\$1,841,099,973
15	9	15050	15	45	61774	15	46	\$1,771,881,591
16	38	14820	16	38	61320	16	40	\$1,709,726,872
17	47	14445	17	48	58638	17	38	\$1,698,417,724
18	17	14253	18	40	58152	18	13	\$1,682,882,305
19	36	14139	19	17	57541	19	9	\$1,644,049,585
20	4	14116	20	15	54770	20	48	\$1,575,824,019
21	13	14107	21	19	52435	21	47	\$1,566,386,832
22	35	13810	22	47	52079	22	15	\$1,430,951,006
23	8	13175	23	39	52034	23	16	\$1,398,466,017
24	33	12796	24	16	50226	24	7	\$1,394,824,884
25	19	12625	25	20	49207	25	10	\$1,375,813,504
26	21	12601	26	8	48487	26	18	\$1,302,044,219
27	45	12466	27	35	45897	27	32	\$1,280,089,269
28	14	12407	28	36	45727	28	39	\$1,210,783,392
29	40	12397	29	4	44883	29	34	\$1,202,300,211
30	5	12297	30	5	42436	30	5	\$1,143,614,675
31	10	11424	31	33	39262	31	31	\$1,052,074,433
32	6	11343	32	21	38106	32	3	\$985,360,682
33	49	10755	33	6	37699	33	17	\$965,355,225
34	34	10254	34	49	37215	34	20	\$926,186,101
35	22	10250	35	3	36168	35	49	\$860,758,996
36	3	10038	36	34	34903	36	21	\$833,704,286
37	32	9575	37	22	29124	37	19	\$824,471,581
38	39	9476	38	32	27888	38	28	\$653,230,605
39	31	8813	39	31	25695	39	8	\$648,079,841
40	2	8100	40	2	22542	40	22	\$643,006,752
41	23	6008	41	23	17725	41	2	\$599,560,804
42	1	5253	42	1	14284	42	27	\$513,610,342
43	28	4572	43	24	13290	43	1	\$500,377,159
44	30	4358	44	30	12371	44	30	\$499,168,483
45	27	3956	45	28	12293	45	23	\$468,281,537
46	24	3828	46	27	10478	46	24	\$307,223,405
47	29	2362	47	25	8046	47	29	\$290,384,598
48	26	2147	48	29	7575	48	26	\$275,672,425
49	0	1960	49	26	7414	49	0	\$198,698,977
50	25	1827	50	0	5452	50	25	\$196,690,936



**Series Impact Rankings
Based on Computer-Estimated Values in Path**

Apartment Units in Path			Apartment Unit Property Value in Path			Commercial Property Value in Path		
Rank	Series	Units	Rank	Series	Value	Rank	Series	Value
1	43	23465	1	43	\$1,087,052,951	1	40	\$5,085,227,032
2	44	20305	2	39	\$905,307,233	2	42	\$4,079,443,655
3	10	18340	3	38	\$804,909,871	3	39	\$3,746,443,021
4	45	17788	4	44	\$748,830,379	4	16	\$3,396,088,919
5	14	17081	5	14	\$721,958,370	5	14	\$3,126,180,733
6	13	15960	6	10	\$718,373,811	6	44	\$2,734,717,354
7	39	15031	7	45	\$697,038,443	7	41	\$2,393,646,475
8	37	14323	8	13	\$667,822,189	8	5	\$2,177,586,811
9	40	14183	9	37	\$658,513,368	9	10	\$1,918,717,446
10	9	13904	10	40	\$618,059,437	10	12	\$1,908,767,767
11	38	12813	11	9	\$530,758,359	11	36	\$1,773,292,520
12	42	12729	12	46	\$480,082,301	12	11	\$1,613,491,504
13	7	12380	13	41	\$416,831,536	13	13	\$1,521,890,494
14	17	12224	14	19	\$383,359,364	14	38	\$1,318,226,671
15	12	11541	15	17	\$380,420,794	15	9	\$1,308,922,043
16	19	11018	16	7	\$376,001,092	16	46	\$1,049,086,947
17	11	10689	17	12	\$358,904,218	17	37	\$863,237,609
18	41	9575	18	11	\$355,796,171	18	45	\$770,441,803
19	46	9381	19	15	\$341,922,051	19	35	\$644,835,917
20	8	8652	20	42	\$324,645,900	20	15	\$636,684,627
21	48	7876	21	47	\$316,263,811	21	43	\$636,219,570
22	47	7678	22	8	\$312,174,553	22	19	\$565,870,248
23	18	6581	23	6	\$265,713,980	23	3	\$483,247,008
24	15	6522	24	4	\$239,695,774	24	6	\$459,633,433
25	5	6248	25	5	\$227,223,726	25	34	\$436,495,442
26	3	5736	26	18	\$220,323,733	26	47	\$433,776,804
27	16	5135	27	48	\$204,268,532	27	8	\$408,855,245
28	4	4955	28	49	\$170,477,665	28	2	\$367,167,063
29	6	4819	29	36	\$162,781,718	29	4	\$344,850,289
30	35	4718	30	35	\$161,906,435	30	17	\$332,179,989
31	36	4581	31	16	\$145,373,525	31	7	\$317,416,566
32	49	4313	32	3	\$130,430,146	32	49	\$293,226,272
33	20	3898	33	20	\$124,334,154	33	18	\$248,578,234
34	34	3027	34	21	\$88,690,649	34	33	\$237,367,052
35	21	2632	35	33	\$87,871,916	35	20	\$236,622,661
36	33	2021	36	34	\$80,908,305	36	32	\$179,001,074
37	32	893	37	32	\$48,769,788	37	22	\$173,148,165
38	31	765	38	31	\$35,342,639	38	21	\$160,576,505
39	2	752	39	2	\$25,458,206	39	48	\$156,090,284
40	23	645	40	23	\$18,964,091	40	31	\$121,548,558
41	25	644	41	22	\$17,204,931	41	0	\$102,610,335
42	22	642	42	24	\$16,106,687	42	1	\$94,612,790
43	24	343	43	25	\$14,488,808	43	29	\$60,607,525
44	29	320	44	29	\$12,889,026	44	26	\$53,006,135
45	0	192	45	27	\$8,620,374	45	23	\$44,079,930
46	1	125	46	0	\$7,515,333	46	25	\$42,374,065
47	27	119	47	1	\$2,100,860	47	30	\$29,264,962
48	26	48	48	26	\$1,163,273	48	24	\$28,640,631
49	30	22	49	30	\$613,108	49	27	\$17,915,232
50	28	0	50	28	\$0	50	28	\$4,092,655