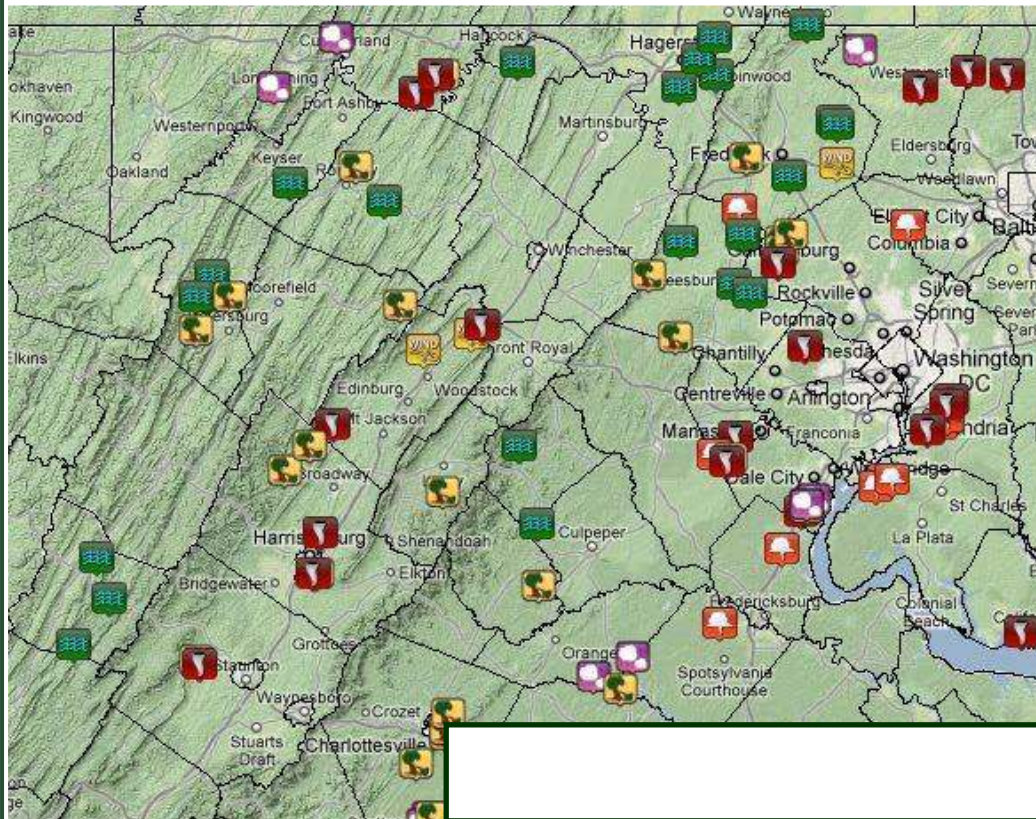


April 27th-28th Tornado Outbreak

*By, Stephen Konarik,
General Forecaster*

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During late April 2011, an historic tornado outbreak impacted a large section of the southern and eastern United States. Late on the 27th and continuing into the late morning of the 28th, the storm system responsible for the deadly tornadoes across the South moved through the mid- Atlantic region. This storm system helped created intense wind shear (winds changing direction and speed with height) over the Mid-Atlantic. This wind shear, when combined with moderate instability over the region, allowed tornadoes to rapidly form. In addition large hail, damaging winds, and flash flooding occurred. The storm system pro-



Tornadoes *(continued)*



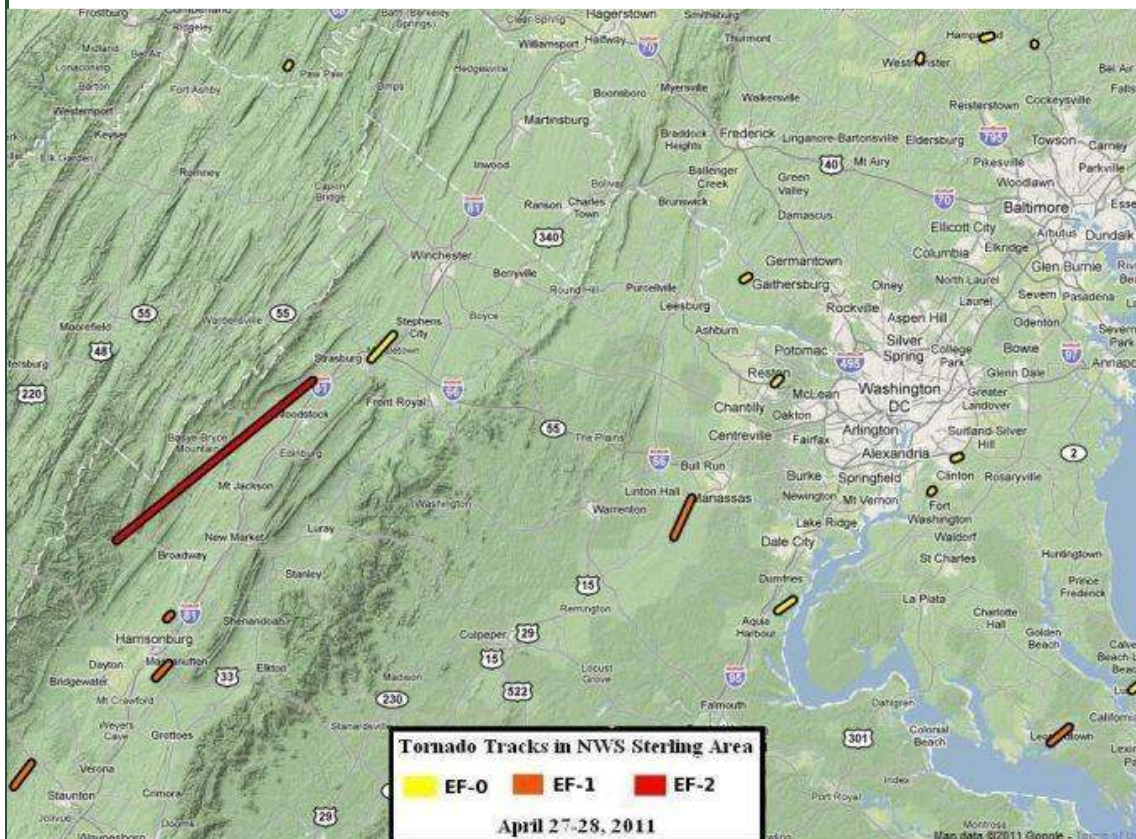
Shenandoah County Damage to a Poultry House

ings. This ranks second in total number of tornado warnings compared to the 43 tornado warnings issued by WFO Sterling during the roughly six hour period on September 17, 2004 as the remnants of Tropical Storm Ivan moved through the Mid-Atlantic. During the April 27-28, 2011 outbreak, for the 19 tornadoes that occurred in the WFO Sterling region, the average lead time was over 11 minutes. The first tornado of the event touched down shortly after 6:15pm on the evening of the 27th, as noted by the weather observer at Quantico Marine Corps Base (NYG). This tornado, rated an EF-0, lofted debris (likely trees) into the air but did no other damage. The particular thunderstorm cell responsible for this tornado tracked northeast across the Potomac River into Maryland, where

duced 19 tornadoes in the Washington-Baltimore WFO county warning area alone, mainly across northern portions of Virginia and Maryland. This was by far the most tornadoes ever recorded for a two day period in April. It took over two weeks to survey areas suspected of having tornado damage. For this event, there were a total of 13 tornadoes rated EF-0, 5 rated EF-1 and one rated EF-2. The image below (image 1&2) shows a list of all severe weather and flash flood reports from this event.

During a near 20 hour period from the late afternoon on the 27th through about noon on the 28th, WFO Sterling issued 38 tornado warn-

St. Mary's County Damage



it spawned three more EF-0 tornadoes, one of which struck portions of Andrews Air Force Base in Prince Georges County.

The most intense and longest track tornado observed in the Mid-Atlantic region was an EF-2 tornado that tracked over 33 miles across Rockingham and Shenandoah Counties in Virginia's Shenandoah Valley between 2am and 3am on the morning of the 28th. This tornado was responsible for 2 minor injuries, which fortunately were the only two reported in WFO Sterling's CWA during the entire event.

With peak winds estimated at 130 mph and a width of 400 yards, this EF-2 torna-

(continued next page)

Tornadoes *(continued)*

do was on the ground for over 20 minutes from its initial touchdown near Fulks Run, VA before it dissipated over St. Luke, VA. Damage included destruction of a mobile home, a poultry facility (see photo previous page), and numerous sheds in a swath from Orkney Springs to Basye to Bryce Resort. In addition, numerous roofs were taken off and hundreds of trees uprooted.

A total of 5 EF-1 rated tornadoes, with wind speeds of 90 to 100 mph, impacted the area. These were responsible for damage to dozens of houses as other structures as well as the uprooting of countless large trees. (see photo previous page) The final tornado, one of the 12 EF-0 tornados of the event, tracked nearly 2 miles through the community of Lusby, MD shortly before noon on the 28th of April. It, too, uprooted a number of trees with its estimated 70 mph winds.

Tornado Specifics

Location	Start/ End Time	Event Type	Path Length	Path Width
Stafford County Southeast of Triangle	Apr. 27 6:15 pm-6:22 pm	EF-0 Tornado 65 mph	2.0 mi	Unknown
Prince George's County 1 SE Friendly	Apr. 27 7:06 pm-7:07 pm	EF-0 Tornado 70 mph	0.4 mi	75 yds
Prince George's County 1 N Clinton	Apr. 27 7:12 pm-7:13 pm	EF-0 Tornado 70 mph	0.2 mi	50 yds
Prince George's County Andrews AFB and Camp Springs	Apr. 27 7:16 pm-7:17 pm	EF-0 Tornado 70 mph	0.8 mi	100 yds
Prince William County Nokesville and Bristow	Apr. 27 10:46 pm-11:01 pm	EF-1 Tornado 90 mph	5.8 mi	125 yds
Fairfax County Reston	Apr. 27 11:25 pm-11:28 pm	EF-0 Tornado 80 mph	1.2 mi	75 yds
Allegany County 2N Town Creek	Apr. 28 1:27 am-1:28 am	EF-0 Tornado 80 mph	0.5 mi	75 yds
Allegany County 3NW Green Ridge	Apr. 28 1:35 am-1:35 am	EF-0 Tornado 80 mph	0.1 mi	75 yds
Rockingham/Shenandoah County Fulks Run to St. Luke	Apr. 28 2:12 am-2:41 am	EF-2 Tornado 130 mph	33.2 mi	400 yds
Augusta Churchville	Apr. 28 2:17 am-2:23 am	EF-1 Tornado 100 mph	4 mi	150 yds
Rockingham Linville	Apr. 28 3:01 am-3:02 am	EF-1 Tornado 90 mph	0.9 mi	50 yds
Shenandoah/Frederick Counties NE of Strasburg to just N of Middletown	Apr. 28 3:45 am-3:49 am	EF-0 Tornado 70 mph	4.3 mi	175 yds
Rockingham County Keezletown	Apr. 28 3:55 am-3:58 am	EF-1 Tornado 90 mph	2.7 mi	150 yds
Montgomery County North of Poolesville	Apr. 28 6:45 am-6:47 am	EF-0 Tornado 65 mph	0.8 mi	50 yds
Carroll Westminster	Apr. 28 7:37 am-7:38 am	EF-0 Tornado 65 mph	0.6 mi	50 yds
Baltimore 2E Hampstead	Apr. 28 8:09 am-8:11 am	EF-0 Tornado 65 mph	1.1 mi	50 yds
Baltimore 2 WNW Hereford	Apr. 28 9:54 am-9:54 am	EF-0 Tornado 70 mph	0.1 mi	75 yds
St. Marys Breton Bay	Apr. 28 11:25 am-11:29 am	EF-1 Tornado 90 mph	3.3 mi	50 yds
Calvert Lusby	Apr. 28 11:41 am-11:43 am	EF-0 Tornado 70 mph	1.8 mi	50 yds

