



**Roosevelt County/Fort Peck Reservation  
Tornado Event July 15, 2013  
National Weather Service Glasgow  
Storm Survey Summary – Final Update July 30, 2013**



During the afternoon of Monday, July 15<sup>th</sup>, a severe thunderstorm that originated in Valley County moved into Roosevelt County, and produced at least one tornado that traveled a considerable distance across the area. Numerous reports indicated that the tornado dissipated and reformed at least twice, and given the rural nature of the area, and not being able to readily see where that may have occurred, this report treats this severe thunderstorm and tornado as one event.

Event Type: Tornado

Tornado Rating: EF-2

Max Estimated Wind Speed: 120 mph (based on damage to power poles)

Estimated Start Time of Tornado: 345 pm

End Time of Tornado: 456 pm

Path Length: 21.3 miles

Path Width: up to a quarter mile wide based on eyewitness reports and photographs

A total of 10 severe thunderstorm and tornado warnings were issued, nine of which verified with an average lead time of 23.6 minutes.



Photo by Kim Murray



Photo by Deb Rustebakke and Randi Rath



Photo by Joshua Cover



Photo by Tony Fast from Lustre looking east



Photo by Richard Knowlton

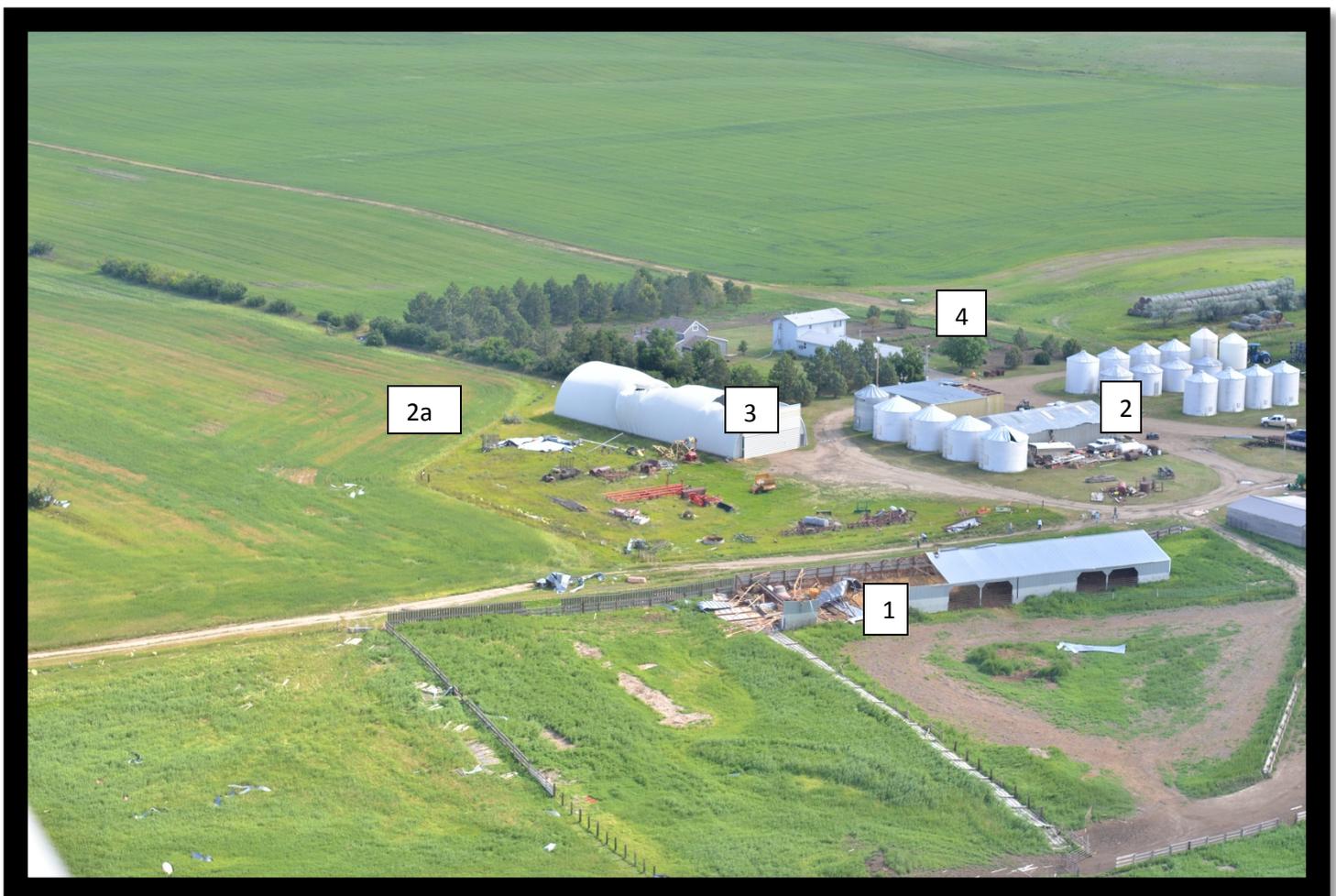


Photo by Ty Handy

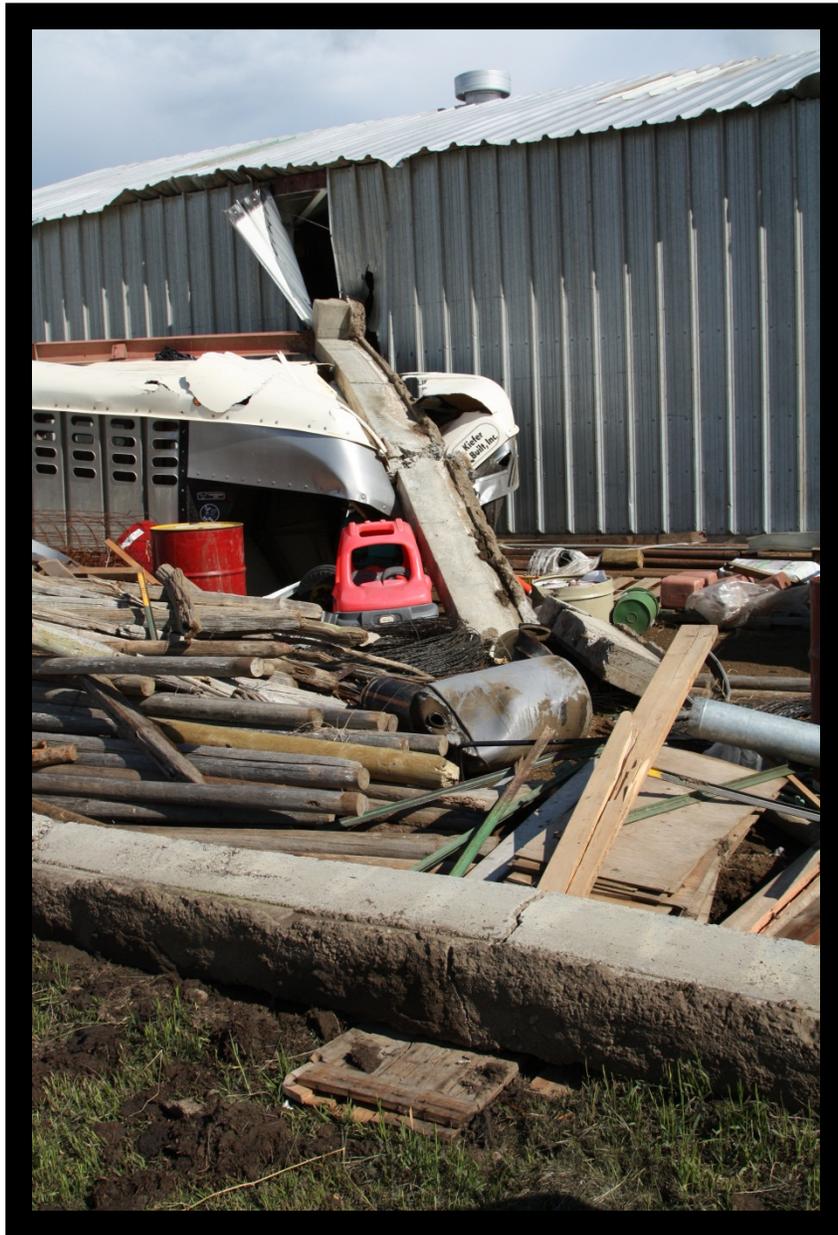
Reports started coming into Roosevelt County dispatch of a tornado at 345 pm. There was little but grassland in the origination location 19 miles north of Wolf Point, MT. The first damage that was found from the tornado was on County Road 250, 19 miles NNE of Wolf Point, MT at approximately 352 pm. A dead tree had limbs broken off and was partially debarked. The next damage that was accessible was on Montana Highway 13, 17 miles north of US Highway 2. A power line had a metal cross member bracket broken. As we continued on the survey, we traveled east down County Road 2042. A vacant residence 7.5 miles east of Montana Highway 13 had a shed blown over that was not anchored

onto any foundation. There was some debris from a dump site blown around and there were several large broken tree branches as well. As the road turned south for a short while, at 8.5 miles east of Highway 13, two signs were damaged. Radar indicates the tornado was at this location between 430 and 435 pm. One sign was bent but still in place, another was totally sheared where the metal post met the ground. At this point, we could also observe large round hay bales that had been blown into tree rows. These hay bales weigh about 1200-1500 lbs each. Winds at the first residence were estimated at 70 mph. Winds at the signs and hay bales are estimated to be at 110 mph.

The farm with the most damage was 10 miles east of Highway 13 and would have hit around 439 pm. At this location we observed a calving barn (1) that had the west side of the roof blown off, and the walls caved in. The structural supports were still in the ground, but the 4x4's holding up the walls had been sheared about 4 feet off of the ground. A storage building (2) next to a larger Quonset (3), totaling it out. The materials landed west of the large Quonset (2a). A third Quonset that also had metal roofing that was peeled off of the building. (4) The storage building had heavy, long concrete foundation pieces that were pulled out of the ground and tossed onto equipment. Winds at this location are estimated to have been 115 to 120 mph. There were some power poles southeast of this farm that were damaged as well, and the wind estimates for that are 120 mph.



*Farm located 10 miles east of Montana Highway 13 off of the County Road 2042. This photo is looking from SW to NE.  
Photos courtesy of Bill Martin and Dallas Aero.*



*Photo showing concrete footing moved 6 inches to the south, and in one case, thrown up and into the horse trailer. Photo NWS Glasgow.*

The tornado then moved across the Poplar River valley. At this point, some photos show it off the ground, but the circulation on the ground may have continued while the visible condensation funnel had to lower itself to the valley bottom. At 447 pm, a farm right on County Road 2042 had the roof peeled off of a well-constructed metal building by rear flank downdraft winds. Wind speeds at this location were estimated at 110 mph. From that farm, they could see the tornado two miles south of them and 13.5 miles east of Montana Highway 13. At this location, 9 power poles were snapped, and irrigation pipes were lifted and moved westward. A large cottonwood tree was also uprooted. Wind speeds were estimated at 100 mph.



*Photos looking at a tornado 2 miles south of this location. Photo Courtesy of Swank Farms.*



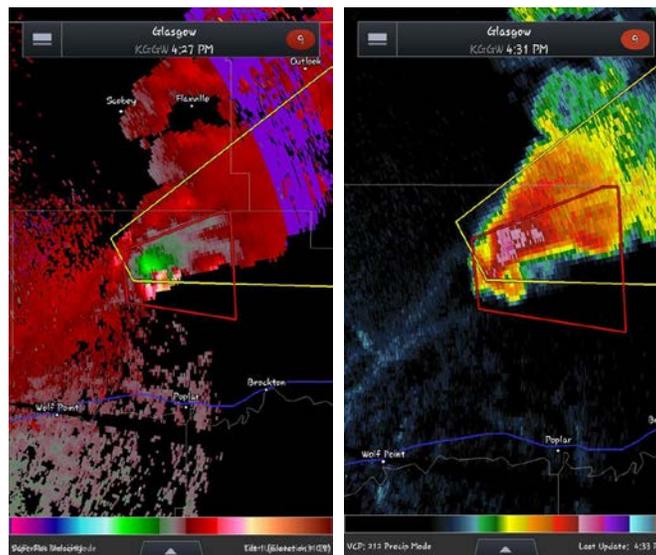
*Aerial Photo showing thunderstorm wind damage to building in above photo on Country Road 2042. Photo Courtesy of Bill Martin and Dallas Aero.*

As the storm moved east it dissipated about 19 miles east of Montana Highway 13, or 4 miles west of the Brockton Road, aka County Road 1041. Photo and reports from those on the ground indicate that the tornado dissipated by 456 pm.

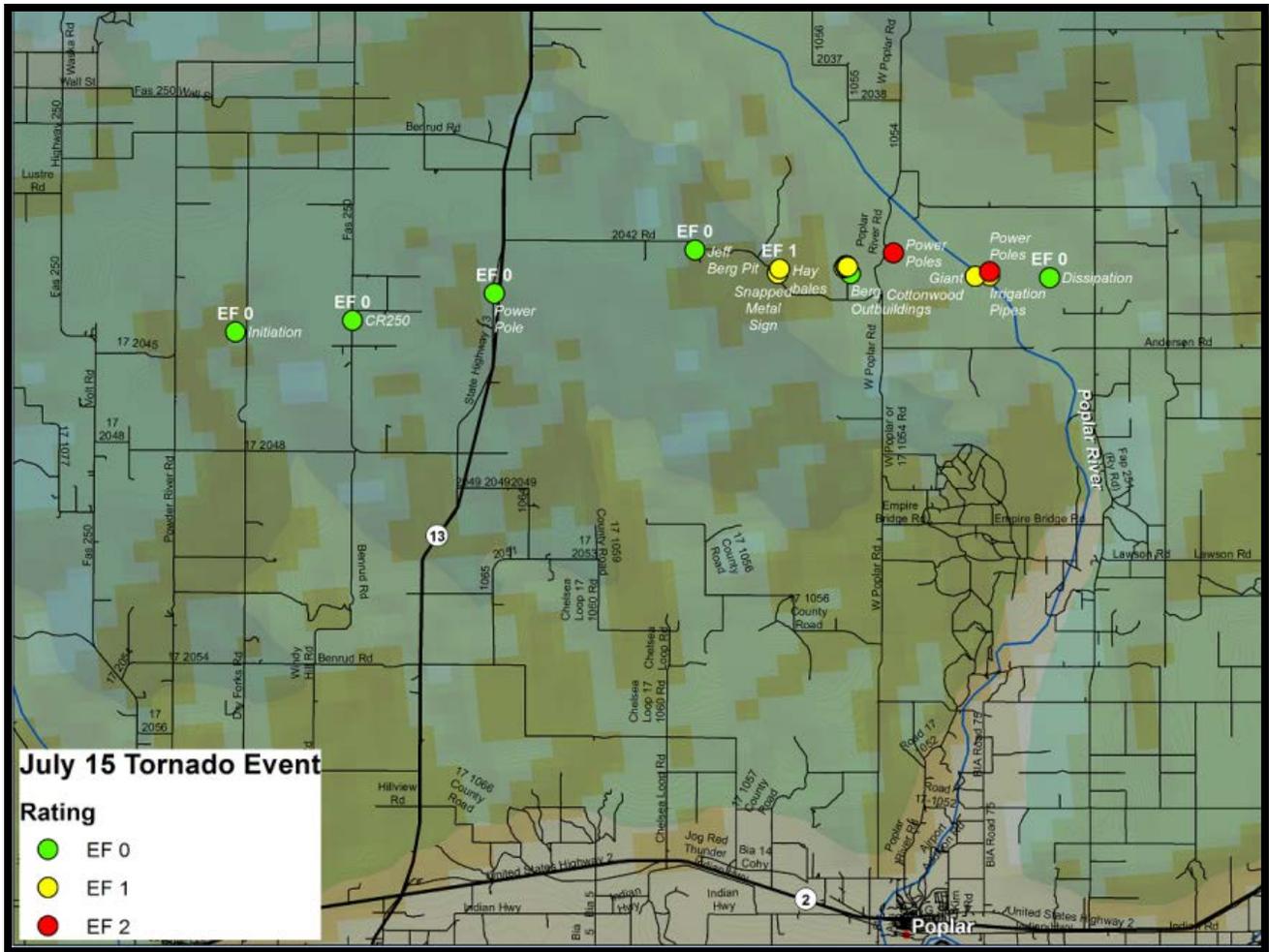
We are still reviewing many photos and videos and trying to validate the times the photos were taken. If you have any photos or video, please contact either Tanja Fransen or Bill Martin at the NWS Glasgow office. 406-228-2850, or email us details at [ggw.wxreport@noaa.gov](mailto:ggw.wxreport@noaa.gov).



*Mark Swank with the well-known cottonwood tree just off the Poplar River that was the picnic site for generations of farm families in the area for 4<sup>th</sup> of July celebrations. While the tree had some dead on it, there were many live branches left on this beautiful 4 foot in diameter tree. Photo by NWS Glasgow*



**Storm Relative Velocity and Base Reflectivity at 427 pm and 431 pm on July 15, 2013.**



*Path of the tornado and the damage indicators that were found on the survey.*

The NWS Glasgow office would like to thank all the people who have sent us photos and video (and continue to do so). Thank you Dan Sietsema from Roosevelt County Disaster and Emergency Services for showing us the area on the ground, and we greatly appreciate Tracy and Dallas O'Connor with Dallas Aero in Poplar, MT for assisting us with doing the aerial survey. We also thank those who were impacted by the event, who graciously allowed us to tour their property and photograph the damage.