

Storm Data and Unusual Weather Phenomena - October 2013

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------

NORTH DAKOTA, Central and West

(ND-Z034) MORTON, (ND-Z040) SLOPE, (ND-Z041) HETTINGER, (ND-Z042) GRANT, (ND-Z043) BOWMAN, (ND-Z044) ADAMS, (ND-Z045) SIOUX

	10/04/13 11:00 CST		7.95M	Heavy Snow
	10/05/13 10:00 CST		0	

(ND-Z042) GRANT, (ND-Z044) ADAMS, (ND-Z045) SIOUX

	10/04/13 19:00 CST		15K	Blizzard
	10/05/13 11:00 CST		0	

An intense very early winter storm October 4-5 impacted southwest and parts of south central North Dakota, bringing wind gusts over 45 mph and snowfall of twenty inches in some locations.

A classic Colorado Low storm moved out of the central Rocky Mountains on the 4th, then moved slowly northeast before exiting into the Upper Mississippi Valley later on the 5th. Bands of heavy snow developed underneath the system's TROWAL (Trough Of Warm Air Aloft) from over southwest North Dakota into Western South Dakota. The heaviest snow with this system occurred over the northern Black Hills of western South Dakota, where over three feet of snow fell due to the TROWAL and a strong upslope northerly low level flow. Snowfall amounts tapered off into North Dakota, but were still significant with over twenty inches reported in southern Hettinger County. Snowfall north of Interstate 94 quickly dropped to less than one inch with decreased forcing aloft, and also near the Missouri River where the rain/snow line was located.

In addition to the heavy snow, strong northeast winds with peak gusts over 45 miles per hour during the late afternoon and evening of the 4th resulted in blizzard conditions over Adams, Grant, and Sioux counties. Winds decreased later on the 5th as the surface low moved into Minnesota.

Impacts from this storm were severe, with President Obama signing a disaster declaration for parts of the state. Impacts included an estimated eight million dollars in damages to public infrastructure and power utilities. Significant losses occurred to both cattle and crops. The wet snow and high wind killed cattle and the storm delayed a harvest that was already behind schedule due to a wet fall.

SHERIDAN COUNTY --- 3.6 NW GOODRICH [47.51, -100.17]

	10/11/13 14:57 CST		0	Funnel Cloud
	10/11/13 14:59 CST		0	Source: Law Enforcement

A retired law enforcement officer reported this funnel cloud in real time. He stated there was no debris visible below the funnel and that it did not touch ground.

A brief funnel cloud was observed over Sheridan County in central North Dakota. The funnel lasted for a few minutes before dissipating.