Storm Data and Unusual Weather Phenomena - October 2009

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details	
NORTH DAKOTA, Central and V	West				
MOUNTRAIL COUNTY 1.0 ENE SANI	SH [47.99, -102.55], 1.1 ENE SANISH	[47.99, -102.55]			
	10/09/09 09:00 CS1 10/09/09 09:05 CST		0	Tornado (EF0, L: 0.15 mi , W: 20 yd) Source: Newspaper	

A waterspout formed over Lake Sakakawea near New Town. It did not form from a thunderstorm. Several factors contributed to the formation of this waterspout. Low pressure over the state was already producing upward motion and large scale circulation in the atmosphere. Cumulus clouds associated with a cold front passing through the area were producing snow showers. The combination of very cold air, in the upper 20s, and relatively mild water, near 60 degrees, caused significant instability in the lower several thousand feet of the atmosphere over the lake. This instability enhanced the instability associated with the low pressure and snow showers and changed atmospheric conditions over the lake. Strong surface winds interacting with the terrain around the lake may have formed a small vortex of rotating air that translated onto the lake. This vortex may have been stretched vertically by the updraft of the snow showers, leading to the waterspout forming. The water spout remained over the lake and there was no damage.

MOUNTRAIL COUNTY 4.0 W NEW TOWN [47.98, -102.57]						
10/09/09 10:00 CST	0	Funnel Cloud				
10/09/09 10:30 CST	0	Source: Newspaper				

Several funnel clouds were reported late in the morning over Lake Sakakawea near New Town. See the tornado entry earlier the same day.

Funnel clouds and a water spout formed over Lake Sakakawea near New Town during the late morning hours of September 9th. They did not form from thunderstorms. Several factors contributed to their formation. Low pressure over the state was already producing upward motion and large scale circulation in the atmosphere. Cumulus clouds associated with a cold front passing through the area were producing snow showers. The combination of very cold air, in the upper 20s, and relatively mild water, near 60 degrees, caused significant instability in the lower several thousand feet of the atmosphere over the lake. This instability enhanced the instability associated with the low pressure and snow showers and changed atmospheric conditions over the lake. Strong surface winds interacting with the terrain around the lake may have formed a small vortex of rotating air that translated onto the lake.

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Photo courtesy of L.M. Baker, reporter with the MHA Times of New Town, ND.