



The Great Blizzard of '78

**The Great Blizzard of 1978
Winter Operations Conference
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The Great Blizzard of '78

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**Thank you goes to
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The Great Blizzard of '78

Takeaways

What happened?

How did we handle it?

What has Changed?

What is coming?

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The Great Blizzard of '78

One of the worst storms in the history of the Midwest hit beginning January 25, 1978



The Great Blizzard of 1978 not only brought heavy snow totals - but also hurricane force winds. The storm brought traffic - both in the air and on land - to a complete standstill.

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The Great Blizzard of '78

- January 26-27, 1978 ranks near the top with the Great White Hurricane of 1913
 - similar track and powerfulness.
- Storm evolved out of a winter that was infamous for cold and storms. The Winter of 1977-78 thus far had been one of the coldest, since records began, in many areas from the Rockies eastward to the Appalachians. Mammoth blizzards occurred late in January and early February from the Midwest to the East Coast as strong Arctic plunges dove south into the country and met up with the warmer winds from the deep south.



The Great Blizzard of '78

Record-setting pressure drop

These two low pressure systems caused an explosive intensification, resulting in The blizzard began as two systems merged and the storm rapidly intensified. a massive and powerful winter storm.

Today, we refer to these storms as **bomb cyclones**

A bomb cyclone or bombogenesis is the meteorological term.

When a storm undergoes bombogenesis, it rapidly strengthens. If an area of low pressure drops 24 millibars or more within 24 hours, it officially 'bombs out' or undergoes bombogenesis.

With the Great Blizzard of 1978, the pressure plummeted across the Ohio Valley and through the Great Lakes. According to the National Weather Service in Wilmington, on January 26, 1978, some of the lowest pressure readings ever were recorded in the United States mainland that were not associated with hurricanes.

The barometric pressure reading was 28.4.





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Wind gusts averaged 50 to 70 mph for most of the day on January 26.

There was a 21-degree temperature drop within 1 hour, 5 a.m. to 6 a.m.
According to the NWS, on January 26, the wind chills ranged from 50-60 degrees below zero.



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In 1978 I was a Maintenance Supervisor in the City of Farmington Hills. A new City, new DPW garage, some new equipment. What did we do? Expect 4 to 8 inches with high wind gusts Responded, salted and pulled off the road. Assigned plows to each fire station and the PD. Removed trees as Mother Nature allowed. Took five days to get vehicles removed from streets and get 240 miles of street plowed and open



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What did we respond with?

- 5 new GMC 6V53, automatic trans with PTO**
- 4 old County V6 gas, 5 speed/2 speed axels, PTO**
- 2 Champion road graders**
- 1 John Deere 544 front loader, V plow**
- 1 John Deere Back Hoe**
- 2 new GMC 4X4 pickups with plows**
- 11 full time employees**
- 240 miles of roads to clear (70 miles of major)**
- Straight rock salt**
- Straight sand**
- Chain saws and chippers**



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The Great Blizzard of '78

What is different today?

- Live hydraulics vs PTO
- Insulated cabs
- Air ride seats
- Automatic transmissions
- Diesel engines with real power
- Liquids/Pre wets/Pre treats
- Hydraulic swing plows, under body scrapers, directions 1773 spreaders, joy sticks
- Wings
- In cab computers
- Communications
 - Radios
 - Cell Phones
 - Social Media
 - University of Google



What Else?



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Weather Forecasting



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Planning and innovations: The evolution into the future.

- Skilled staffing to fill the void**
- Fuel technologies**
- Electric/Alternative Powered vehicles**
- Artificial Intelligence**
- Automated vehicle/equipment**
- Engine technology/Plow technology**
- Computer use and software**
- Professional, honesty, integrity – get what is needed not what's wanted**
- Communicating both written and orally**
- Education, training, certifications**
- Budget process**

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“It is not the richest, nor the strongest, nor the brightest that will succeed. It is those that can adapt to change the fastest that will survive”

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Eurekas!!