

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

Tom Trice

Local Government Consultant
Retired Director of Public Works – Bloomfield Township
Retired Deputy City Manager –City of Royal Oak
Past National President – APWA

Thank you goes to Chris Porman, Assistant City Manager/Municipal Services Director City of Plymouth



Takeaways

What happened?

How did we handle it?

What has Changed?

What is coming?

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The Great Blizzard of '78





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.



- 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.



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.

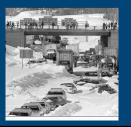














The Great Blizzard of '78

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













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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Weather Forecasting





The Great Blizzard of '78

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



"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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The Great Blizzard of '78





Eurekas!!