

# A Tale of Three Winter Storms

The Winter Storm Playbook: offers messaging 5 days in advance

Goal: improve mitigation and preparedness prior to a severe winter event

Three key events:

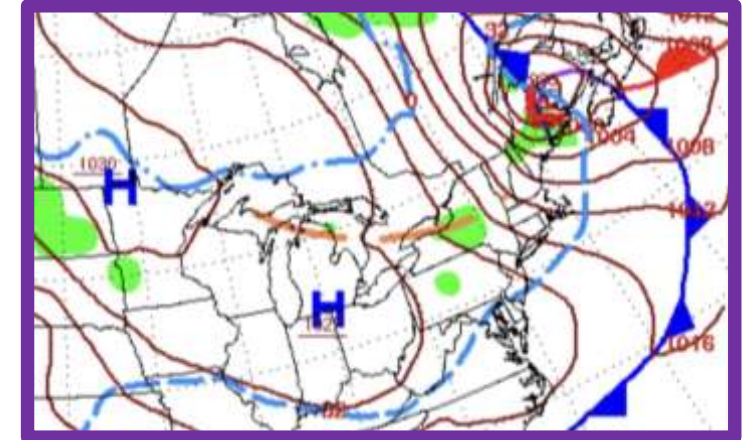
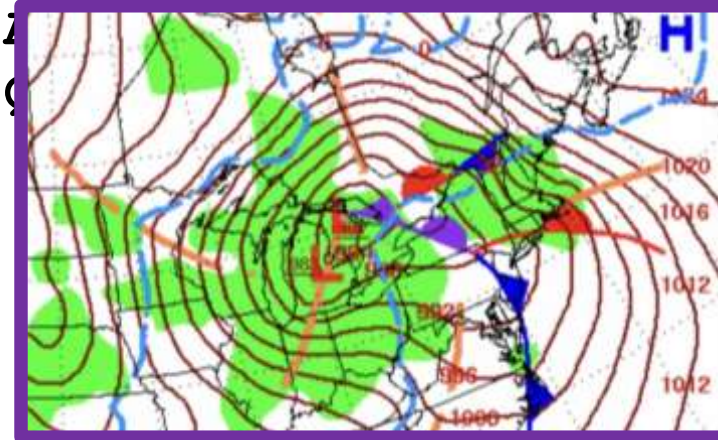
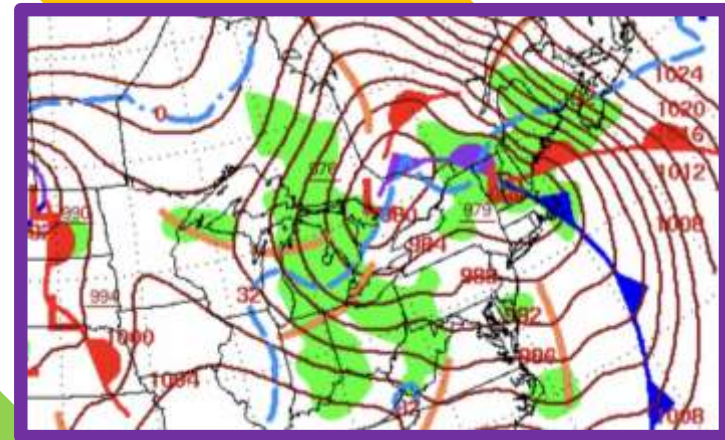
1. January 9<sup>th</sup> - 10<sup>th</sup>:

Affected southern Ontario on January 9<sup>th</sup> then

Quebec on January 10<sup>th</sup>

2. January 12<sup>th</sup> - 13<sup>th</sup>,  
followed by snow squalls

3. March 21<sup>st</sup>:  
Affected eastern Quebec



Storms 1 and 2 were predicted accurately but blowing snow and the amount of snowfall from storm 3 were underestimated. There were some late alerts for storm 3

due to mixed model guidance.

- "We're only as good as the models" - models predict most storms well, which helps us improve mitigation and prepare for an event
- Model uncertainty leads to hesitancy, thus delaying alerts
- Therefore, when there is model uncertainty, it is recommended to emphasize reduced confidence in early messaging until consolidation improves