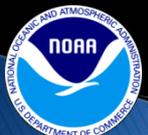


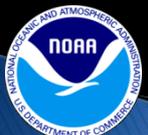
Cataloging Weather's Impacts to Our Area

- ▶ **Prepared by:**
Kyle Struckmann
National Weather Service
Baltimore/Washington Forecast Office



The Impacts Catalog

- ▶ From the NWS “Weather-Ready Nation Roadmap”
 - Identifies high-impact needs of NWS Core Customers
 - Significant impact on a local community or sector
 - Helps focus NWS forecasters on issuing forecasts and warnings critical to minimizing those impacts.



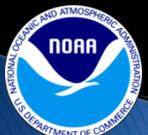
Impacts Catalog

- ▶ Database of Local Impacts From Hazardous Weather
- ▶ Data collected by Emergency Response Meteorologists.



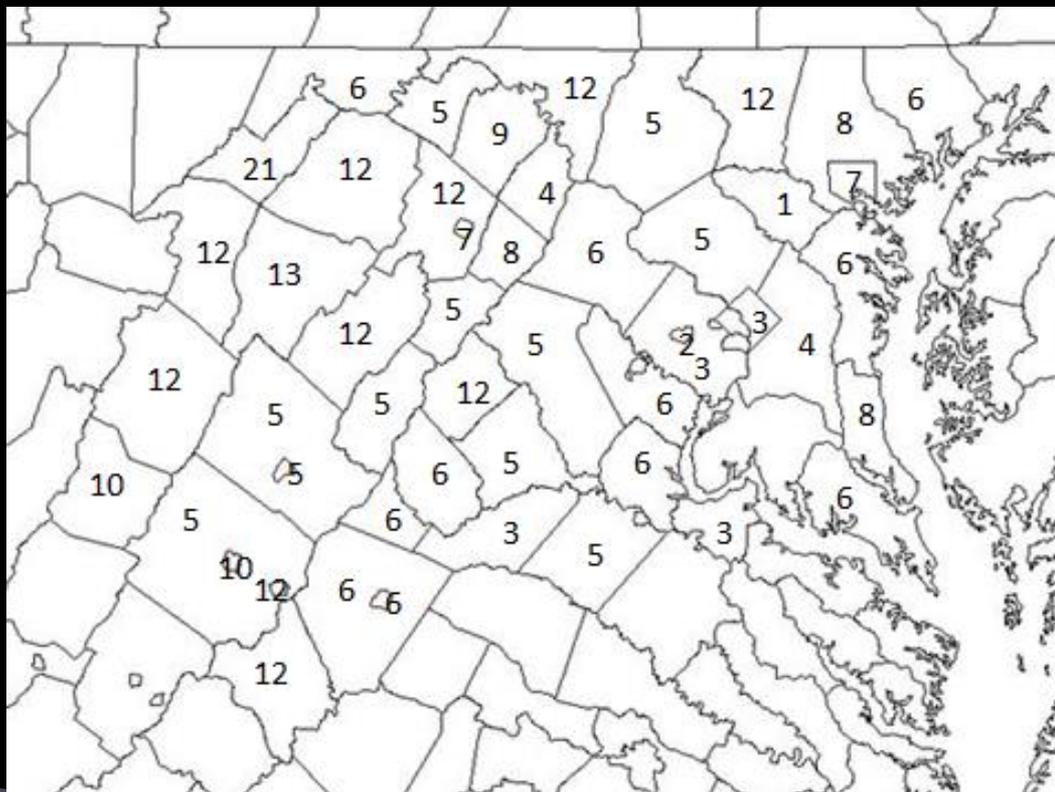
Impacts Catalog

- ▶ Visited Emergency Managers to gather data 2013-14
- ▶ Impacts from three weather hazards:
 - Winter Storms
 - Flooding
 - Heat



Impacts Catalog

► High-Impact Snow Thresholds

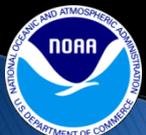


Key Finding from Winter Impacts

- Snow Amount is only one piece of the puzzle.

Total Impact Also Includes:

- Ice Accumulation
- Wind
- Temperature
- Length of Snow
- Time of Day
- May cause power outages, hinder snow removal, create need for shelters.



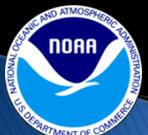
Impacts Catalog

- ▶ How do you quantify something with so many factors?
- ▶ Proposed “Snow Impact Index”



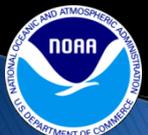
Snow Impact Index

- ▶ Combines forecasts for snow amount with ice accumulation, wind and temperature.
- ▶ Includes time factor (e.g. rush hours have highest impact, etc.)
- ▶ Weighting factors added:
 - Snow and time of day highest factors
 - Ice accumulation
 - Temperature, winds and duration no additional weight
- ▶ Result is an index (0 – 48) to indicate an “extreme”, “high”, “medium” or “low” impact storm.



Impacts Catalog

- ▶ For any storm classified as “extreme” or “high” impact: impact statements will be included in Watches, Warnings, Advisories.
- ▶ Example*:
 - Avoid unnecessary travel and follow instructions from law enforcement officials.
 - Make sure to be well stocked with food, medications and other important supplies.
 - Heavy wet snow will cause downed trees leading to some power outages.
- ▶ * More specific local impacts may be used in the future.



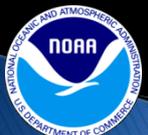
Heat Impacts

- ▶ Like winter storms, heat impacts are based on several factors in addition to temperature/heat index:
 - Length of heat wave
 - Indirect events, such as power outages
- ▶ High impact events are usually those that require additional mobilization, such as opening shelters.



Variable Message Signs Initiative

- ▶ Partnership with state highway departments.
- ▶ Applies to “High-Impact Sub-Advisory” events
 - For example: Isolated snow squall causes poor visibilities and slippery conditions on interstate.
- ▶ Message will be displayed on variable message signs on major highways. Alerts motorists of dangerous conditions ahead.
- ▶ Plan to initiate this winter.



Summary

- ▶ Impacts Catalog defines high-impact needs of NWS core customers.
- ▶ Local data gathered from emergency managers.
- ▶ Impacts to be included in watch/warning/advisory statements.
- ▶ Variable Message Signs

