

Naming Winter Storms

Report from the ad-hoc Committee
on Naming Winter Storms

Presented at AMS 2019 Phoenix

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Our initial charge - History

- The practice of giving names to tropical storms is now more than 60 years old.
- Many studies have shown naming tropical storms does draw user/public attention to the storm and promote life saving decision making by all information providers and users in the broad weather "enterprise".

Our initial charge - History

- For many years a number of local media providers and various foreign countries have had some naming convention for winter storms. Beginning in the winter of 2012-13, The Weather Channel (TWC) began naming winter storms, which has drawn much public and professional attention and discussion. Beginning in winter season 2015-16, The Irish meteorological service (Met Eireann) and U.K. meteorological service (UK Met Office) also began a system of naming winter storms.

Our initial charge - Purpose

- The committee (a subcommittee of the CECWCI) will study the meteorological, social, communication, decision-making and media aspects, and pros and cons of developing a weather enterprise wide supported system/procedure for naming winter storms in the US.

Our Initial Charge - Goals

1. **Should the US weather enterprise adopt a process, with NWS as the lead, to name "significant" winter storms before "major" social/economic impacts? Can committee reach agreement on terms "significant" or "major"?**
- 2. If the answer to (1) is **YES**, what might be the framework for an enterprise wide process to define the parameters of observation, forecast, possible impacts, communication, users, timing, others which will guide when to name or not? If committee answer to (1) is **NO** the committee will provide a summary recommendation for that answer.
- 3. If answer to (1) is **YES**, what is realistic time goal to begin a enterprise wide accepted winter storm naming system?
- 4. **Final report** as "keynote" part of symposium as special communication element at AMS Annual meeting Austin 2018

Identity Crisis

- “1974 Super Outbreak”: Fujita proposed naming the April 1974 tornado outbreak the “Jumbo Outbreak” (Potter, 2005)
- Hartford, CT: WFSB has been naming local winter storms since the early 70s
- NWS Buffalo at one point in time, named lake effect storms in the area

Presentations list

- **Tom Niziol** (Weather Channel)
 - A review of their operational experience with naming winter storms
- **Jen Henderson, Adam Rainear, Jen Sprague & Gina Eosco** (Committee members)
 - Social Science and Named Winter Storms
- **Gerald Fleming** (Met Eireann) and **Will Lang** (UK Met Office)
 - A review of their operational experience with naming winter storms
- **Cara Cuite** (Rutgers)
 - Differing perceptions of Hurricanes and Nor'easters
- **Dee Cotgrove** (formerly with UK Met Office) and **Helen Chivers** (UK Met Office)
 - A deeper dive into UK Met Office initial decision-making and an update on their operational experience

Weather Channel – alpha test

- Started naming winter storms in 2012
- Goal was effective communications on social media
- After some initial adjustments, decision-making process for naming storms has been relatively stable. Criteria are NWS Winter Warnings and population impact.
- They view it as a success, have requested NWS take on the responsibility.
- Their work continues into 2018-19 winter season.

Social Science and Named Winter Storms

- Generally speaking, a lacking research base to draw from (but growing w/ subject interest)
- Discussed challenges:
 1. Geography and differing impacts in locations
 2. Repeat events/repeated snow
 3. The consumer, audience, individuals

Social science studies directly related to winter weather

- Hall, G., and Endfield. (2017). "Snow Scenes": Exploring the Role of Memory and Place in Commemorating Extreme Winters. *Weather, Climate and Society*.
- Bonnan-White, J.; Shulman, J.; Bielecke, A. (2014). Snow tweets: emergency information dissemination in a US county during 2014 winter storms. *PIOS*.
- Drobot, S., Demuth, J. Schmidt, C. (2008). The January 5-6, 2008, California winter storm : assessing information sources, actions, and damages. *Natural Hazards Center*.
- Drobot, S. (2007). Evaluation of winter storm warnings: A case study of the Colorado Front Range December 20-21, 2006, winter storm. *Natural Hazards Center*.

Studies directly related to named winter storms

- **Rainear, A.M.**, Lachlan, K.A., & Lin, C.A. (2017). What's in a #Name? An Experimental Study Examining Perceived Credibility and Impact of Winter Storm Names. *Weather, Climate, & Society*. In Press. <https://doi.org/10.1175/WCAS-D-16-0037.1>

Social Science and Named Winter Storms

- Discussed functions
 1. Categorize and communicate risk for individuals to easily access and recall
 2. Organization of information
 3. Audience?
 - Public?
 - EM and Weather community?
 - Everyone?

UK Met office and Met Eireann experience – beta test

- Operational experience starting in Winter 2015-16 (now done year round)
- Initial motivation was to take control of a messy situation where media were using different names for winter storms and to inject authority, to have an authoritative voice in the European network.
- Viewed as a success; They continue to name winter storms; Practice has expanded to France, Spain, Portugal bloc (with different naming list)

Differing perceptions of Hurricanes and nor'easters

- **Cuite, Hallman, Shwom, Demuth, and Morss**
- Investigated the idea that Nor'easters aren't officially named, while tropical systems are
- When the forecast is **held equal**, do people perceive these storms differently?
 - Severity; evacuation likelihood, importance, and recommending evacuation; preparatory behaviors, all higher in hurricanes
 - Emotional responses to storm type were not different in either type

UK Met Office Communications Office

– a deeper review

- **Dee Cotgrove**, former Director of Communications for the UK Met Office, described her decision-making to initially proceed with naming winter storms.
- Perceived effectiveness of how we handled naming Hurricane/Superstorm Sandy allowing coverage of all associated impacts (tropical and non-tropical) was a positive.
- First year saw strong usage by media and political leaders. **Evaluation showed significant usage of storm naming and that people were better prepared for weather impacts.**
- **UK Met Office and Met Eireann won 2016 award from the International Association for the Measurement and Evaluation of Communication.**

What is UK Met Office saying today?

- Surveys have shown that storm naming can increase the reach of official warnings and encourage preparedness before they hit.
- Derrick Ryall, head of public weather services at the Met Office, said in September 2018: **“Naming storms has been proved to raise awareness of severe weather in the UK, crucially prompting people to take action to prevent harm to themselves or their property.”**

Ad-hoc Committee comments

- General themes around process:
 - Committee members feel **more informed**, yet have **unchanged opinions** from start
 - Many attribute this to **lacking research** before making an “informed” opinion
- Best course of action (if any):
 - Move issue up to Board of Enterprise Comm., more workshopping with the **individual subsets** involved to understand impact (EMs, Climate, Broadcast, Operational, DOT, etc.)
 - **Better assessment** of the current criteria, to understand what is “best” to trigger a name

Ad-hoc Committee comments

- Any recommendation to AMS:
 - Better understanding where naming fits within winter weather priorities
 - Understanding any potential harm of naming
 - AMS propose, and NWS examine the question based off success of Europe (akin to other social science projects)

NWS Specific Considerations

- The arbiter of naming winter storms each year would need to be in a position to act as an **honest broker** (e.g., government agency, professional society)
- **Collaboration** would be needed with **Canada** and **Mexico** to minimize any deleterious international border impacts
- Any NWS participation in research on naming winter storms **does not imply full endorsement or commitment to an operational change**
- NWS does not currently have plans to invest appropriated funds in this area

Next steps

- Write up a report
- Next AMS committee
- Examine why UK Met Office thinks winter storm naming produces an effective public response
 - And find out why they won an award for it from a professional organization that judges communication
- Why do some of the NWS WeatherReady Nation partners/other key partners use TWC Winter Storm naming?
 - What is their motivation? How is it working for them?
- Other social science research as needed



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Rebecca Schein, Sand Bruls, Vincent Busch, Kumanan Wilson, Larry Hershfield & Jennifer Keelan 

Pages 532-545 | Published online: 13 Apr 2012

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Other Fields Have Borrowed “Our” Ideas

An Uncomfortable Observation

- Dee's observation as to why control of the decision-making and policy regarding if/how winter storms were to be named remained in the UK Met Office Media shop:
“Communication is too important to be left to the meteorologists.”