NOAA National Weather Service Survey: Assessing the Use and Institutionalization of Watch, Warning, and Advisory Language in Organizational Policies, Procedures, and Decision-Making

This is a voluntary survey.

NOAA's National Weather Service (NWS) is seeking to improve how it communicates weather and water information to the public. As part of this effort, NWS needs feedback from people such as yourself on the extent to which its information is used in setting policies, establishing procedures, and making decisions within your organization. In particular, NWS is interested in the extent to which your organization uses three specific types of NWS products: watches, warnings, and advisories. We'll describe these terms on the next page.

This survey is aimed at those individuals and organizations that use NWS weather information to make decisions, write policies, develop procedures, or conduct other such activities. These entities could include emergency management agencies, departments of transportation or public works, insurance companies, schools and universities, and others. Please feel free to send the survey Web link to your colleagues, or to organizations that use or communicate weather-related information.

Completing this survey is voluntary, and your responses to the questions are anonymous. Please note that the "save and continue" feature allows you to exit the survey and return to it at another time. Your responses will be saved for one week. Be aware that your saved responses may be viewed by others when using a public computer. For any questions or comments regarding this process, please email them to hazsimp@noaa.gov

Paperwork Reduction Act Statement: Public reporting burden for this collection of information is estimated at 20 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other suggestions for reducing this burden to Sarah Brabson, NOAA National Weather Service, SSMC 2, Room 17205, 1325 East West Highway, Silver Spring, MD. Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subjected to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.

General Background

- 1.) Which of the following categories best describes your primary area of employment (choose one)?
 - Agriculture
 - Air Transportation
 - Construction
 - Education College/University
 - Education PreK-12
 - Emergency Management (includes Fire, EMS, Law Enforcement, SAR, etc.)
 - Energy Production
 - Entertainment Indoor Venue
 - Entertainment Outdoor Venue
 - Finance, Insurance & Reinsurance
 - Health Care & Social Assistance
 - Hotel & Food Services
 - Humanitarian/Disaster Relief
 - Manufacturing
 - Marine Transportation
 - Media & Broadcasting
 - Military

- Mining/Drilling
- Natural Resources/Land Management
- Parks and Outdoor Recreation
- Rail/Surface Transportation
- Religious
- Retail
- Research, Science & Technology
- Telecommunications
- Transportation/Transit Agency
- Utilities & Public Works
- Water Management
- Weather/Climate Industry
- Wholesale
- Other Government/Public Entity [Allow open ended response for which entity]
- Other Private Entity [Allow open ended response for which entity]

[Conditional: If the answer to 1 includes any of the following, Emergency Management,

Transportation/Transit Agency, Energy/Utilities, Healthcare/Social Assistance, Natural Resources/Land Management, Parks and Outdoor Recreation, Water Management **OR** Other Government Agency, then ask the question 2]

2.) At what level do you work?

- Federal Government
- State Government
- Local Government
- Tribal Government
- My organization is not a government agency

3.) What is the name of your organization?

4.) Which of the following best describes your role in your job?

- Upper management
- Middle management
- Junior management
- Administrative staff
- Trained professional
- Consultant
- Researcher

- Support staff
- Field operator
- Undergraduate student
- Graduate student
- Self-employed
- Other

- 5.) In what states/territories do you primarily operate (check all that apply). If you work nationwide, check "Nationwide")?
 - AL •
 - AK • • AR

•

•

•

•

•

• ΑZ CA

СО

MD • ME •

•

• MI

MA

MS

MT

NC

ND

NE

MN • MO

•

•

•

•

•

- •
- СТ
- DC •
- DE
- FL •
- GA •
- HI • IA •
- ID •
 - IL •
 - IN •
- KS OH • ОК
- •
- LA •

- NH • NJ •
- NM • NV

OR

- NY
- •
- KY
- •

RI SC •

•

SD •

PA

- TΝ •
- ТΧ •
- UT •
- VA • VT •
- WA
- WI
- WV
- WY
- Nationwide •
- AS •
- GU
- MP
- PR
- VI •
- 6.) In what type of area do you primarily operate (check as many as apply):
 - Urban •
 - Suburban
 - **Rural/Wilderness**

Background on NWS Watches, Warnings and Advisories

Winter Storm Watch

.LATE SEASON WINTER WEATHER SYSTEM ARRIVES WEDNESDAY NIGHT INTO

.A LATE SEASON WINTER WEATHER SYSTEM WILL MOVE THROUGH NORTHERN CALLEGRNIA WEDNESDAY NIGHT THROUGH THURSDAY BRINGING SNOW TO

SURPRISE GIVEN THE RECENT WARM TEMPERATURES. SNOW IS EXPECTED TO

.WINTER STORM WATCH IN EFFECT FROM WEDNESDAY EVENING THROUGH

THE NATIONAL WEATHER SERVICE IN SACRAMENTO HAS ISSUED A WINTER STORM WATCH...WHICH IS IN EFFECT FROM WEDNESDAY EVENING THROUGH

MAIN IMPACTS: POSSIBLE TRAVEL DELAYS AND CHAIN CONTROLS OVER HIGHWAY 89. UNPREPARED TRAVELERS AND HIKERS IN THE LASSEN NATIONAL PARK AREA MAY EXPERIENCE TRAVEL DELAYS AND WINTER LIKE

ELEVATIONS ABOVE 6000 FT. THIS MAY IMPACT TRAVEL ON HIGHWAY 89 THROUGH LASSEN NATIONAL PARK AND CATCH TRAVELS AND HIKERS BY

/O.NEW.KSTO.WS.A.0009.160616T0600Z-160617T0000Z/

CONDITIONS WEDNESDAY NIGHT AND THURSDAY.

TIMING...WEDNESDAY NIGHT THROUGH THURSDAY AFTERNOON

URGENT - WINTER WEATHER MESSAGE

TAPER OFF THURSDAY EVENING.

223 PM PDT TUE JUN 14 2016

THURSDAY AFTERNOON ...

THURSDAY AFTERNOON.

CONFIDENCE...MEDIUM

WESTERN PLUMAS COUNTY/LASSEN PARK-INCLUDING THE CITIES OF...CHESTER...QUINCY

THURSDAY..

CA7068-151600-

NATIONAL WEATHER SERVICE SACRAMENTO CA 223 PM PDT TUE JUN 14 2016

The NWS issues **watches**, **warnings**, and **advisories** for a diverse set of weather and water events, such as severe thunderstorms, tropical storms, winter weather, flooding, and extreme heat. The picture to right provides an example of what these products look like when they come from the NWS. The questions in the next section of this survey focus on your organization's use of NWS **watches**, **warnings** and/or **advisories** in policies, protocols, laws, contracts, operating procedures, guidance documents, or other formal or informal activities. Here are the general definitions of these terms:

Watch: A watch is used when the risk of a hazardous weather or water event has increased, but its occurrence, location and/or timing is still somewhat uncertain. This term is intended to provide enough lead-time so those who need to set their plans in motion can do so.

Warning/Advisory: A warning or advisory is used when a

hazardous weather or water event is imminent, or is already occurring. A **warning** is used for conditions that pose a threat to life and property. An **advisory** is used for less serious conditions that cause significant inconvenience and, if proper precautions are not taken, could pose a threat to life and property. When a warning or advisory is issued, preparations should be completed or rushed to completion.

7.) Does your organization use NWS *watches, warnings,* or *advisories* in its activities, operations, or decision-making?

____ Yes ____ No [Exit survey]

8.) How much do you use NWS watches, warnings, or advisories in your organization?

Making staffing decisions (placing people on call, adding staff, etc.).

1 Takii	is staring decisions (pi			18 31					
•	Not at all	•	To a large	•	It is the				
•	To a small		extent		deciding				
	extent				factor				
Activa	ating an emergency ope	erati	ions center.						
•	Not at all	•	To a large	•	It is the				
٠	To a small		extent		deciding				
	extent				factor				
Sounding outdoor sirens.									
•	Not at all	•	To a large	•	It is the				
٠	To a small		extent		deciding				
	extent				factor				
Making evacuation decisions									
•	Not at all	•	To a large	٠	It is the				
٠	To a small		extent		deciding				
	extent				factor				
Movir	Moving people to safety/sheltering.								
٠	Not at all	•	To a large	•	It is the				
•	To a small		extent		deciding				
	extent				factor				
Allocating or pre-positioning resources (vehicles, salt/sand, etc.).									
•	Not at all	•	To a large	•	It is the				
•	To a small		extent		deciding				
	extent				factor				
Scheduling or canceling events (school, outdoor events, etc.).									
•	Not at all	•	To a large	•	It is the				
٠	To a small		extent		deciding				
	extent				factor				
Carrying out standard operating procedures.									
٠	Not at all	•	To a large	•	It is the				
٠	To a small		extent		deciding				
	extent				factor				
Other	·								
•	Not at all	٠	To a large	•	It is the				
•	To a small		extent		deciding				
	extent				factor				

We now want to ask you about each of these NWS products (*watches, warnings, and advisories*) individually and get a sense of whether those terms are used in official documents or policies. Let's start with the term *watch*. A *watch* is used when the risk of a hazardous weather event has increased, but its occurrence, location, and/or timing is still somewhat uncertain. This term is intended to provide enough lead-time so those who need to set their plans in motion can do so.

- 9.) Is the NWS term *watch* specifically written into any of your organization's policies, contracts, operating procedures, or by-laws?
 - ____ Yes ____ No
- 10.) Is the NWS term *watch* specifically written into any statutes, ordinances, or executive orders enacted by a separate body that your organization must follow?
 - ____Yes No [Skip to
 - ____ No [Skip to Question 13]
- 11.) Which of your organization's policies, contracts, operating procedures, or by-laws uses the NWS term watch? Please include any statutes, ordinances, or executive orders enacted by a separate body that your organization must follow. (*Please use as few words as possible to describe.*)
 [Open -ended]
- 12.) In your best estimation, if the NWS were to alter this specific term (but continue to convey the same information), how much time would your organization need to adapt your policies, contracts, operating procedures, or by-laws? (*Check one.*)
 - ____ 0-3 months
 - ____ 4-6 months
 - ____ Over 6 months to 1 year
 - Over a year, but not more than 2 years
 - More than 2 years
- 13.) Do your organization's policies, contracts, operating procedures, or by-laws use the *information* contained in NWS *watches*?
 - ____Yes
 - ____ No

14.) For what types of weather events do you depend on a watch? (Check all that apply)

- Tropical cyclones (tropical storms, hurricanes)
- Severe weather (thunderstorms, damaging winds, tornadoes/waterspouts, hail)
- Winter storms (snow, freezing rain, ice)
- Inland Flooding (including flash and river/stream flooding)

- Coastal flooding (including tsunamis and storm surge)
- Extreme heat
- Extreme cold and wind chills
- Poor visibility (dust storms, fog)
- Fire weather conditions
- Rough waters (high surf, gales, rough seas, choppy waters, rip currents)

Now let's turn to *warnings*. A *warning* is used when a hazardous weather event is imminent, or is already occurring. A *warning* is used for conditions that pose a threat to life and property. When a *warning* is issued, preparations should be completed or rushed to completion.

- 15.) Is the NWS term *warning* specifically written into any of your organization's policies, contracts, operating procedures, or by-laws?
 - ____Yes

____ No

- 16.) Is the NWS term *warning* specifically written into any statutes, ordinances, or executive orders enacted by a separate body that your organization must follow?
 - ____Yes

____ No [Skip to Question 19]

- 17.) Which of your organization's policies, contracts, operating procedures, or by-laws uses the NWS term warning? Please include any statutes, ordinances, or executive orders enacted by a separate body that your organization must follow. (*Please use as few words as possible to describe.*)
 [Open -ended]
- 18.) In your best estimation, if the NWS were to alter this specific term (but continue to convey the same information), how much time would your organization need to adapt your policies, contracts, operating procedures, or by-laws? (*Check one.*)
 - 0-3 months
 - 4-6 months
 - Over 6 months to 1 year
 - Over a year, but not more than 2 years
 - More than 2 years
- 19.)Do your organization's policies, contracts, operating procedures, or by-laws use the *information* contained in NWS *warnings*?
 - ____Yes

____ No

20.)For what types of weather events do you depend on a warning? (Check all that apply.)

- Tropical cyclones (tropical storms, hurricanes)
- Severe weather (thunderstorms, damaging winds, tornadoes/waterspouts, hail)
- Winter storms (snow, freezing rain, ice)
- Inland flooding (including flash and river/stream flooding)

- Coastal flooding (including tsunamis and storm surge)
- Extreme heat
- Extreme cold and wind chills
- Poor visibility (dust storms, fog)
- Fire weather conditions
- Rough waters (high surf, gales, rough seas, choppy waters, rip currents)

{NEXT SCREEN}

Finally, let's discuss *advisories*. An *advisor*y is used when a hazardous weather event is imminent, or is already occurring. An advisory is used for less serious conditions than those associated with a warning,

but that cause significant inconvenience and, if proper precautions are not taken, could pose a threat to life and property. When an *advisory* is issued, preparations should be completed or rushed to completion.

21.) Is the NWS term *advisory* specifically written into any of your organization's policies, contracts, operating procedures, or by-laws?

- ____Yes ____No
- 22.)Is the NWS term *advisory* specifically written into any statutes, ordinances, or executive orders enacted by a separate body that your organization must follow?

____Yes

____ No [Skip to Question 25]

- 23.) Which of your organization's policies, contracts, operating procedures, or by-laws uses the NWS term advisory? Please include any statutes, ordinances, executive orders enacted by a separate body that your organization must follow. (*Please use as few words as possible to describe.*) [Open -ended]
- 24.) In your best estimation, if the NWS were to alter this specific term (but continue to convey the same information), how much time would your organization need to adapt your policies, contracts, operating procedures, or by-laws? (*Check one.*)
 - 0-3 months
 - 4-6 months
 - Over 6 months to 1 year
 - Over a year, but not more than 2 years
 - More than 2 years
- 25.)Do your organization's policies, contracts, operating procedures, or by-laws use the *information* contained in NWS *advisories*?
 - ____Yes

____ No

26.)For what weather events do you depend on an advisory? (Check all that apply.)

- Severe weather (thunderstorms, damaging winds, ternadaes (waterspeuts, heil)
 - tornadoes/waterspouts, hail)
- Winter storms (snow, freezing rain, ice)
- Inland flooding and river/stream flooding
- Coastal flooding (including tsunamis and storm surge)

- Extreme heat
- Extreme cold and wind chills
- Poor visibility (dust storms, fog)
- Rough waters (high surf, gales, rough seas, choppy waters, rip currents)

{NEXT SCREEN}

27.)Do you have software or technology that relies on the words watch, warning, or advisory? ____

____Yes

____ No [Skip to Question 30]

28.)What software or technology rely on the words? [open-ended, but short/limited characters!]

29.)In your best estimation, how much time do you need to adapt your software or technology? (*Check one.*)

- 0-3 months
- 4-6 months
- Over 6 months to 1 year
- Over 1 year, but not more than 2 years
- More than 2 years

30.) In the table below, please rate the extent that you agree or disagree with each statement. In these statements, the term "policy" should be interpreted broadly to mean policies, contracts, guiding documents, laws or operating procedures.

1	Not at all				Very Much		
I rely more on the fact that a watch, warning, or advisory is issued than I do the information conveyed by these words.	1	2	3	4	5	6	N/A
One or more of the terms watch, warning, or advisory are embedded in my organization's policies.	1	2	3	4	5	6	N/A
If the NWS changed the wording of watch, warning, or advisory to a new term(s), this would have major impacts on my policies.	1	2	3	4	5	6	N/A
The information conveyed in the text of a watch, warning or advisory is more important to my organization than the terms themselves.	1	2	3	4	5	6	N/A
My software program could easily adapt to new hazard message terms.	1	2	3	4	5	6	N/A
I rely on both the terms watch, warning or advisory, as well as the information conveyed by these terms.	1	2	3	4	5	6	N/A
Changing my software would be difficult right now.	1	2	3	4	5	6	N/A
Introducing new terms into my organization's policies would be difficult.	1	2	3	4	5	6	N/A
If the NWS changed the words watch, warning, or advisory to new terms, it would have a major impact on my policies.	1	2	3	4	5	6	N/A
Changing the terms watch, warning, advisory would have very little impact on me and my organization.	e 1	2	3	4	5	6	N/A

Thank you for taking the time to complete this survey. Your input will be very helpful to NOAA's National Weather Service as it considers enhancements to the current watch, warning, and advisory system.

Please feel free to share this survey link with your coworkers and colleagues.