

Significant Weather Event Communication Survey

You can affect how NOAA's National Weather Service (NWS)¹ conveys significant weather events such as snowstorms, tornadoes, hurricanes, flooding, and more.

This survey will show you a few images that the NWS is considering to convey significant weather events. The survey will ask for your opinion on how well the images are providing important information about the events.

Eastern Research Group is doing this study for the NWS. This is not a commercial survey and your identity will not be disclosed.

Completing this survey is voluntary. By selecting "AGREE AND CONTINUE" below, you are indicating that you have read this and agree to participate in this survey. Otherwise, please select "Exit."

Thank you for taking the time to answer these questions.

***Paperwork Reduction Act Statement:** Public reporting burden for this collection of information is estimated to average 10 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. **Confidentiality Statement:** All data will remain confidential. There are no questions that ask for identifying information such as names or email addresses. Additionally, participants will not be taking the survey on their own equipment. Rented laptops will be used instead, which means that no IP addresses can be traced to an individual participant. The data is anonymous.*

____AGREE AND CONTINUE

____EXIT

¹ The National Weather Service is the official weather forecasting service for the United States.

Section 1. Color

The following questions are about your interpretations of color. Please read the directions for each question carefully.

1. The Phoenix Metro area is in a flash flood warning. News has emerged that there is a river of water dangerously traveling toward communities east of Phoenix. Which of the following maps best conveys the danger of this flood emergency?



a. Map 1 (Black)

b. Map 2 (Purple)

2. Currently the Phoenix Metro area doesn't have any severe weather. Which of these maps depicts no severe weather?

Map 1



Map 2



Map 3



- a. Map 1 (Blank)
- b. Map 2 (Blue)
- c. Map 3 (Green)

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--Page Break for Survey--

Section 2. Language

4. Please write a word or phrase to describe severe weather that:

May Occur: _____

Will Occur: _____

5. On a scale from 1-5, if forecasters are describing a severe weather event, how serious is the threat posed by each of these words or phrases?

	Not serious	Somewhat serious	Serious	Very serious	Extremely serious
Danger	1	2	3	4	5
Hazardous	1	2	3	4	5
Potential	1	2	3	4	5
Warning	1	2	3	4	5
Life-Threatening	1	2	3	4	5
Threat	1	2	3	4	5
Caution	1	2	3	4	5
Monitor	1	2	3	4	5
Alert	1	2	3	4	5
Emergency	1	2	3	4	5

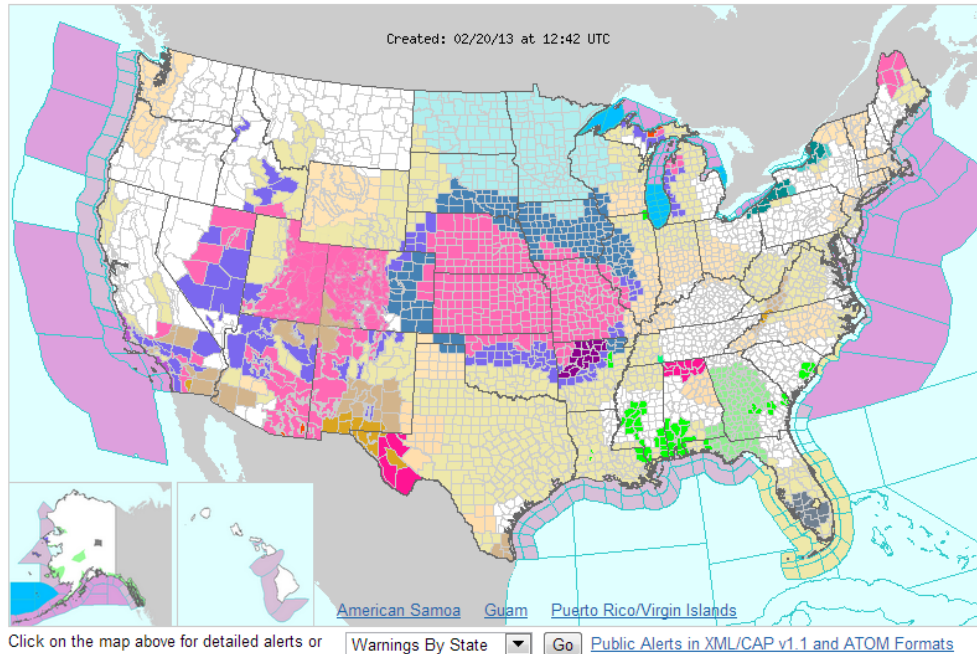
6. On a scale from 1-5, how soon do you expect to feel the severe weather impacts posed by each of these words or phrases?

	Not at all soon	Slightly soon	Soon	Very soon	Now
Danger	1	2	3	4	5
Hazardous	1	2	3	4	5
Potential	1	2	3	4	5
Warning	1	2	3	4	5
Life-Threatening	1	2	3	4	5
Threat	1	2	3	4	5
Caution	1	2	3	4	5
Monitor	1	2	3	4	5
Alert	1	2	3	4	5
Emergency	1	2	3	4	5

Section 3a. Feedback on Prototypes

In this next section, you will be asked to answer a few questions based on images for a weather warning system.

Please look at the following National map:



- [Blizzard Warning](#)
- [Winter Storm Warning](#)
- [High Wind Warning](#)
- [Storm Warning](#)
- [Lake Effect Snow Warning](#)
- [Flood Warning](#)
- [Gale Warning](#)
- [Wind Chill Warning](#)
- [Red Flag Warning](#)
- [Winter Weather Advisory](#)
- [Lake Effect Snow Advisory](#)
- [Wind Chill Advisory](#)
- [Flood Advisory](#)
- [High Surf Advisory](#)
- [Heavy Freezing Spray Warning](#)
- [Small Craft Advisory](#)
- [Brisk Wind Advisory](#)
- [Wind Advisory](#)
- [Blowing Dust Advisory](#)
- [Low Water Advisory](#)
- [Winter Storm Watch](#)
- [Air Quality Alert](#)
- [Fire Weather Watch](#)
- [Beach Hazards Statement](#)
- [Special Weather Statement](#)
- [Marine Weather Statement](#)
- [Hazardous Weather Outlook](#)
- [Hydrologic Outlook](#)

7. Based on your initial reaction to this map, what do the colors represent? [Open-ended]

8. How would you rate this map based on the following qualities?

	Poor	Fair	Good	Very Good	Excellent
Conveys hazard type					
Provides timing					
Shows forecast confidence					
Communicates impacts					
Suggests actions to take					

URGENT - WINTER WEATHER MESSAGE
 NATIONAL WEATHER SERVICE GRAND JUNCTION CO
 941 AM MDT THU SEP 26 2013

...EARLY-SEASON SNOW COMING TO THE EASTERN UINTA MOUNTAINS...

UTZ023-262345-
 /O.UPG.KGJT.WW.Y.0027.130927T0000Z-130928T0000Z/
 /O.NEW.KGJT.WS.W.0015.130927T0000Z-130928T0000Z/
 EASTERN UINTA MOUNTAINS-
 INCLUDING THE CITIES OF...MANILA...DUTCH JOHN
 941 AM MDT THU SEP 26 2013

...WINTER STORM WARNING IN EFFECT FROM 6 PM THIS EVENING TO 6 PM
 MDT FRIDAY...

THE NATIONAL WEATHER SERVICE IN GRAND JUNCTION HAS ISSUED A
 WINTER STORM WARNING FOR EARLY-SEASON HEAVY SNOW...WHICH IS IN
 EFFECT FROM 6 PM THIS EVENING TO 6 PM MDT FRIDAY. THE WINTER
 WEATHER ADVISORY IS NO LONGER IN EFFECT.

* TIMING...THIS EVENING THROUGH FRIDAY AFTERNOON. HEAVIEST SNOW IS
 EXPECTED TO OCCUR BETWEEN MIDNIGHT THROUGH FRIDAY MORNING.

* SNOW ACCUMULATION...4 TO 8 INCHES ABOVE 9000 FEET WITH 2 TO 4
 INCHES DOWN TO 7500 FEET. LOCALLY HEAVIER AMOUNTS ARE POSSIBLE
 ABOVE 9000 FEET.

* WINDS...WEST 10 TO 20 MPH WITH GUSTS TO 30 MPH BECOMING
 NORTHWEST BY FRIDAY MORNING.

* VISIBILITY...MAY BE RESTRICTED AT TIMES IN MODERATE SNOWFALL.

* IMPACTS...SLUSHY AND SNOW PACKED ROADS ARE POSSIBLE ALONG
 HIGHWAYS 191 AND 44 ABOVE 7000 FEET THURSDAY NIGHT AND FRIDAY.
 OUTDOOR ENTHUSIASTS WILL NEED TO BE PREPARED FOR THE CHANGING
 WEATHER TONIGHT AND FRIDAY.

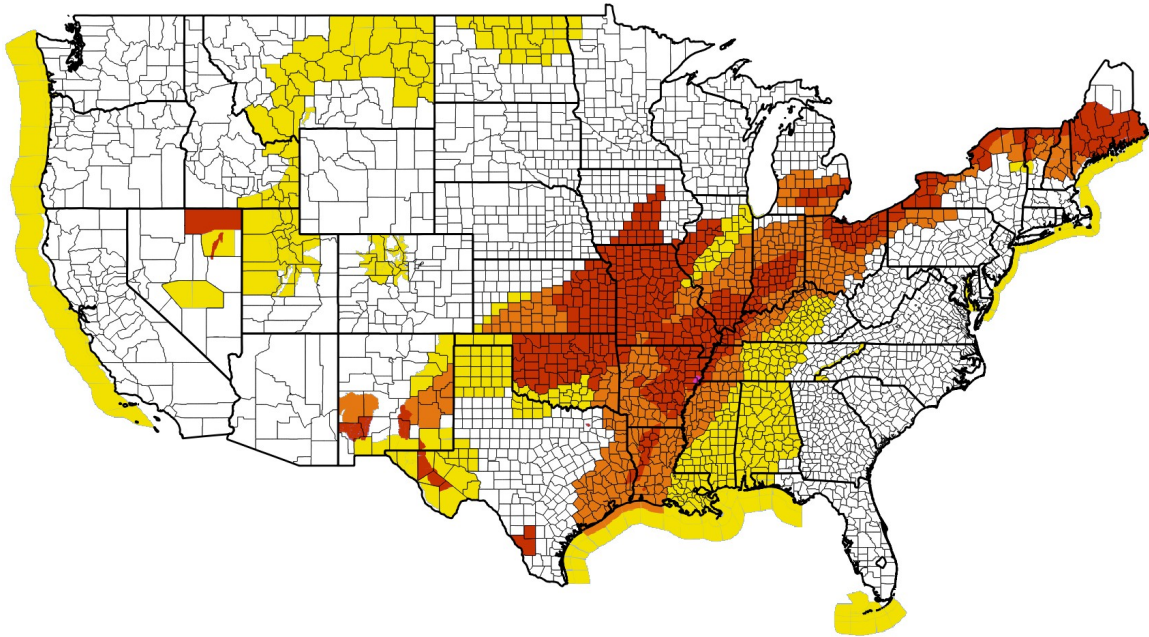
9. How would you rate this image based on the following qualities?

	Poor	Fair	Good	Very Good	Excellent
Conveys hazard type					
Provides timing					
Shows forecast confidence					
Communicates impacts					
Suggests actions to take					

Section 3b. Feedback on Prototypes

In this next section, you will be asked to answer a few questions based on images for a weather warning system.

Please look at the following national map:



Be aware: Significant hazardous weather may occur.	Be prepared: Significant hazardous weather is imminent or occurring.	Take action: Dangerous weather conditions are imminent or occurring.
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10. Based on your initial reaction to this map, what do the colors represent? [Open-ended]

11. How would you rate this map based on the following qualities?

	Poor	Fair	Good	Very Good	Excellent
Conveys hazard type					
Provides timing					
Shows forecast confidence					
Communicates impacts					
Suggests actions to take					

National Weather Service Grand Junction CO
Issued at 1205 PM MDT Mon Sep 23 2013



WEATHER THREAT LEVEL: ORANGE
BE PREPARED: MODERATE CONFIDENCE FOR A SIGNIFICANT WINTER STORM.

- * WHERE: [COUNTY/CITY LIST]; View a [Map](#) of the affected area (opens in a new window).
- * When: Begins Wednesday morning and ends Thursday afternoon
- * Expected impacts: Hazardous travel conditions likely due to snow and slush on roadways. Tree and power lines may be damaged by the weight of the snow.
- * Snow accumulations: 6 to 12 inches.

No threat

Be aware: Significant hazardous weather may occur.

Be prepared: Significant hazardous weather is imminent or occurring.

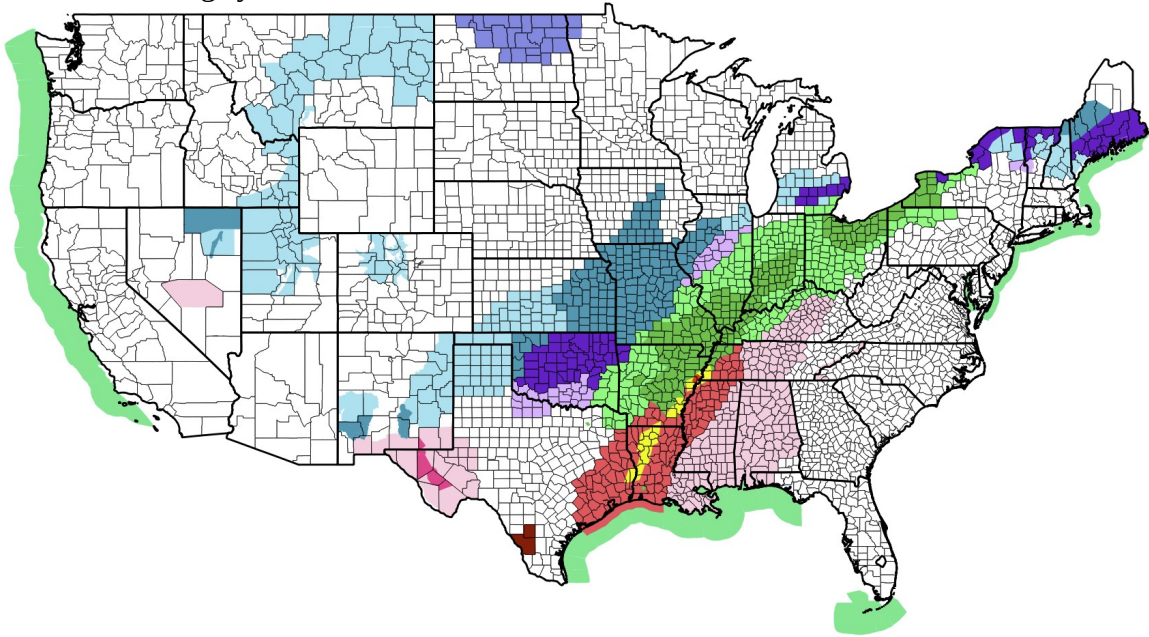
Take action: Dangerous weather conditions are imminent or occurring.

12. How would you rate this image based on the following qualities?

	Poor	Fair	Good	Very Good	Excellent
Conveys hazard type					
Provides timing					
Shows forecast confidence					
Communicates impacts					
Suggests actions to take					

Section 3c. Feedback on Prototypes

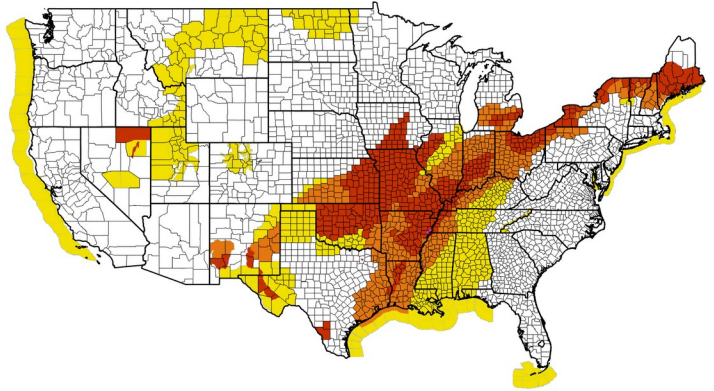
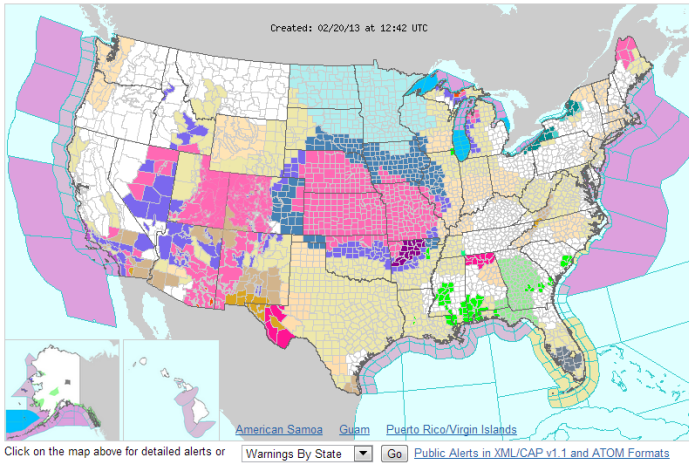
In this next section, you will be asked to answer a few questions based on images for a weather warning system.



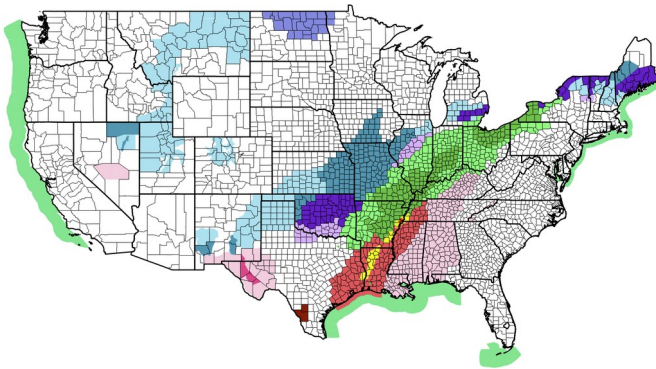
- Coastal flood warning
- Storm warning
- Frost advisory
- Winter storm watch
- Wind advisory
- Severe thunderstorm watch
- Flood advisory
- Tornado watch

13. How would you rate this image based on the following qualities?

	Poor	Fair	Good	Very Good	Excellent
Conveys hazard type					
Provides timing					
Shows forecast confidence					
Communicates impacts					
Suggests actions to take					



- Blizzard Warning
- Winter Storm Warning
- High Wind Warning
- Storm Warning
- Lake Effect Snow Warning
- Flood Warning
- Gale Warning
- Wind Chill Warning
- Red Flag Warning
- Winter Weather Advisory
- Lake Effect Snow Advisory
- Wind Chill Advisory
- Flood Advisory
- High Surf Advisory
- Heavy Freezing Spray Warning
- Small Craft Advisory
- Break Wind Advisory
- Wind Advisory
- Blowing Dust Advisory
- Low Water Advisory
- Winter Storm Watch
- Air Quality Alert
- Fire Weather Watch
- Beach Hazards Statement
- Special Weather Statement
- Marine Weather Statement
- Hazardous Weather Outlook
- Hydrologic Outlook



14. Of these three maps, which one does the BEST JOB of:

	Map #1: Multiple (>100 colors)	Map #2: 4 colors (green, yellow, orange, red)	Map #3: 22 colors (saturated/unsaturated colors)
Conveys hazard type			
Provides timing			
Shows forecast confidence			
Communicates impacts			

Suggests actions to take			
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Demographics

15. Are you?

- Male
- Female
- Other/prefer not to answer

16. What is your age?

17. What is the highest level of formal education you have completed?

- Less than high school
- Some high school
- High school graduate
- Some college
- Trade/technical/vocational training
- College graduate
- Some postgraduate work
- Post graduate degree

18. What is your level of expertise in meteorology?

- No expertise
- I'm a novice
- General understanding
- A few years of experience/practice
- I'm an expert

19. What is the primary language that you speak at home?

- English
- Spanish
- Other (please specify)

20. Are you color blind?

- Yes
- No
- Don't know