

## Slide 1

- Hi – my name is Eli Jacks and I’m the Chief of the Fire and Public Weather Services Branch here at National Weather Service Headquarters.
- Thanks for taking time out to view this presentation. I’ll be discussing some ideas on how we might improve the way we deliver our hazardous weather and water information.
- The National Weather Service has embarked on a “Weather Ready Nation” initiative, which is geared towards making America safer as our communities across the country become increasingly vulnerable to severe weather events
- The proposal I’ll discuss in this presentation is intended to fit in with this initiative, with the goal **(Click)** of ensuring the information we provide to you is as clear and understandable as possible.
- As we go along, I’ll be asking for your comments at several points. Your feedback will be very important, as it is only by reviewing a wide variety of feedback and engaging community discussion that we’ll be able to select the best approach for the long term.
- That said, I want to stress up front that there are NO immediate plans to make any changes at all at this point.
- A few logistical notes. First, running through this presentation will take about 15 minutes of your time, plus any time you take to provide comments.
- Also, the slides will advance automatically for the first several minutes. But then, at certain points, I’ll stop the presentation so you can take your time to consider the ideas I’ll discuss and also to provide any comments you have. When we get to these points, I’ll let you know what to do.
- Finally, if you wish to replay any slide as you go through the presentation, just click on that slide via the left hand menu.
- That should cover the logistics – now, let’s get started!

## Slide 2

- It’s our job to inform you when hazardous weather and water conditions are expected, such as snow and ice, wind and rain, flooding, and excessive heat and cold.
- We always aim to clearly communicate the expected impacts of these hazards so you can make appropriate decisions in response.
- On the next slide, you’ll learn about the terms we use to communicate this information – I’m sure you’ll find them to be at least somewhat familiar.

## Slide 3

- For over a generation, we’ve used the **(Click 3X)** “Watch”, “Warning,” and “Advisory” system to inform you of upcoming weather- or water-related hazards.
- The purpose of this system is 2-fold. **(Click)**. First, we want communicate how certain we are that a particular hazard will occur and, second, we want to provide information about **(Click)** the level of impact the hazard is expected to cause.
- Here are the specific term definitions. We issue a “Watch” **(Click)** if there is fairly high potential for a hazardous event, but its occurrence, timing, or impact is still uncertain.
- Once it appears that hazardous conditions are very likely or imminent, we issue either an “Advisory” **(Click)** or a “Warning” **(Click)**.
- Now, here’s the difference between “Advisory” and “Warning”. We use “Advisory” **(Click)** to describe ongoing or imminent conditions that are expected to cause significant inconvenience and, if caution is not exercised, could lead to situations that may threaten life or property.
- On the other hand, we use “Warning” **(Click)** for conditions that are imminent or already occurring – and pose an immediate and direct threat to life or property.
- So, in summary, a “Watch” is issued if an adverse conditions are **(Click) possible**, an “Advisory” expresses that caution **(Click)** is advised for imminent or ongoing events, and a “Warning” is issued for **(Click) dangerous** events that require immediate action or preparedness.

#### Slide 4

- These definitions would seem to be clear enough. But, surveys we've conducted and anecdotal evidence suggest that – even after a generation – this is not necessarily the case.
- For example, some results suggest that there is significant confusion between the terms “Watch” and “Advisory”.
- **(Click)** Here are a few examples validating this from my own personal experience. **(Click)**
- The first two examples shown here demonstrate obvious confusion between the watch and warning terms. In the third example **(Click)**, this periodical incorrectly used “Advisory” and “Warning” together.
- So at this point I'd ask you – have you ever experienced similar confusion among our terms, or do you know anyone else who has? **(Click)** If so, how might we make things better?

#### Slide 5

- Another possible source of confusion is that, over the years, we have developed individual sub-categories within the broader Watch, Warning and Advisory categories. These were created on the premise “the more specific the better.”
- But is this premise correct? **(Click)**. Here are all of the individual sub-category messages we use for winter weather. We call each of the individual sub-categories “message products”... and there are 14 winter products in all.
- So.... **(Click)**...might it be that, in creating all of these individual products, we have inadvertently created a situation where we're working against clarity? **(Click)** Might it be time to consider a simpler approach to communicate our hazard messages?
- By the way, I'm focusing on winter weather for the moment – but the ideas I'm about to describe could also be applied to other hazards such as flooding, extreme heat, wind, and fog, and perhaps even severe thunderstorms and tornadoes.
- As you review these ideas, please consider whether you think the proposed wording and formats would represent an improvement.
- At the same time, remember that these are just examples of how we might simplify and clarify our messages.
- There may be other options we could consider and some of these may come from you directly via the feedback you provide. With that, let's get started on the first of our cases.

#### Slide 6

- One idea we've discussed is to drop the “Watch” and ‘Advisory” terms in favor of ONE simpler term.
- Let's consider a case where light freezing rain is imminent or already occurring on a Thursday, while a more significant ice storm is expected Friday night.
- **(Click)** Under current policy, as now shown, we would issue a Freezing Rain Advisory for Thursday and a Winter Storm Watch for Friday – both at the same time,
- But, instead of asking our users to understand and distinguish between these two products, what if we issued a headline as shown in this second set of blue and red text? **(Click)**
- Note the proposed, generic term “Special Message” at the end of the first sentence. The intent is to indicate that something other than routine is expected. Think of it as a call to “listen for important information about to follow”. This information is provided in the second sentence, expressed in plain English.
- I'm going to ask for your comments on this idea in a moment, so take your time to review this proposed change and then, when you're ready, click on the flashing arrow at the bottom center of this slide to go on.

### Slide 7

- Here's your first opportunity to provide us with feedback, What would you think about using "Special Message", instead of "Watch" or "Advisory" for the case I just described?
- Please enter your input in the comment box, press the "Submit" button, and then advance to the next slide by clicking on the flashing arrow below. If you do not wish to provide comments, simply click on the flashing arrow when I'm done speaking to move on.

### Slide 8

- Ok, in this second case, the forecaster wishes to express that what was expected to have been a light freezing rain event is now going to be a mixed precipitation event - in other words, with some snow or sleet mixing in. **(Click)**
- Under current policy, this would require the forecaster to issue a new Winter Weather Advisory and cancel the Freezing Rain Advisory, as shown in the blue and red text.
- But what if – using the same approach as on the last slide – we just updated the previous message headline to describe the change – again, in plain English? **(Click)** This second set of blue and red text suggests how the "Special Message" approach could be used to clarify the message.
- Again, as with the last case, please take your time to review this proposal, then go on to the next slide by clicking on the flashing arrow at the bottom.

### Slide 9

- Here's your next opportunity to comment. What would you think about using the "Special Message" term to update our information, rather than issuing a new product (and canceling the old one) as we do today?
- Again, please enter your input in the comment box, press the "Submit" button, and then advance to the next slide by clicking on the flashing arrow below. If you do not wish to provide comments, simply click on the flashing arrow when I'm done speaking to move on.

### Slide 10

- Now, let's look at what a FULL "Special Message" might look like. Let's say it's Monday **(Click)**, and the forecaster wants to inform you that a storm may be on the way for Thursday.
- Rather than issuing a "Watch", the forecaster could issue a "Special Message" to express that something *other than routine* is expected. In this example, there's the potential for a light to moderate snowfall, not expected to exceed 6".
- As highlighted on the last line of the message **(Click)**, we could also include an expression of forecast confidence for various levels of snow accumulation to further clarify the message.
- In keeping with the goal of expressing ourselves in plain English, we could use terms such as "high", "moderate" and "low" to express our confidence. Perhaps you have other ideas.
- When you're ready to move on, click on the flashing arrow at the bottom of the page.

### Slide 11

- Please comment on the idea of using “Special Message” rather than “Watch” to convey the possibility of a storm 2-4 days into the future.
- Also – what do you think about the idea of expressing our confidence using a dedicated line within the message using simple terms such as “low, medium and high?”
- Please enter your input, press “Submit” and then click on the flashing arrow to advance to the next slide. Or, to move on without providing comments, just click on the flashing arrow when I’m done speaking.

### Slide 12

- So far, I’ve been discussing “Watch” and ‘Advisory only. Now, let’s consider “Warning.” Should we keep this term to express our expectation of immediate and direct weather and water threats?
- We think the answer to this question is “yes” for a few reasons. **(Click)** First, past surveys have shown “Warning” is the best understood of our terms.
- **(Click)** Also this term carries a great deal of importance for decision makers, as it can serve as the signal for emergency managers and other municipal authorities to mobilize resources and implement special plans.
- **(Click)** Still, we *could* simplify here too by eliminating the individual Warning products currently in use and, instead, utilizing just one “Warning” term *consistently*.
- **(Click 2X)**. Here’s what I mean. Instead of retaining all the individual products such as Wind Chill Warning, Ice Storm Warning, and Lake Effect Snow Warning, **(Click)** we *could* just use one product led with “The National Weather Service has issued a Warning for” ...followed by specific high impact terms such as **(Click)** “dangerous,” significant” or “extreme”, along with other important information to describe what’s expected.
- In this scenario, forecasters would have more flexibility to issue Warnings for such events as short bursts of heavy snow that drop visibilities to near zero for a period of time, or a glaze of ice that occurs at rush hour. Our current policy, based on the wide variety of individual warning products, restricts this flexibility to some extent as things stand.
- Please take a moment to review this proposal, then click on the flashing arrow to continue when you’re ready.

### Slide 13

- Based on the case I just discussed, please comment on whether we should use a single “Warning” statement to convey important hazard information, rather than utilizing the current variety of individual warning products.
- Please enter your input, press “Submit” and then click on the flashing arrow to advance to the next slide. If you have no comments, just click on the flashing arrow when I’m done speaking to continue.

### Slide 14

- Now that we’ve discussed Warnings, let’s go back to our winter storm, which (you’ll recall from Slide 11) originally appeared to be a light to moderate event of 6” or less back on Monday.
- It is now Wednesday **(Click)** and it turns out this storm will be much stronger than originally expected. It now poses a direct threat to life and property.
- As a result, and using the approach on the previous slide, the “Special Message for the possibility of Snow” has been upgraded to a “Warning for a Dangerous Winter Storm”. The second sentence contains additional impact information, clearly expressed with the goal of inspiring proper action.
- Also note that additional key information is provided in the individual lines beneath the headline **(Click)**, and the forecast confidence line at the bottom **(Click)** has been revised to reflect the increased severity of the storm.
- When you’re ready to move on, please click on the flashing arrow.

### Slide 15

- Please comment on this proposal to convey the increased threat by smoothly transitioning from “Special Message” to “Warning” - and changing only the impact and confidence information, as shown in the previous example.
- Press “Submit” when you’re done providing input, then click on the flashing arrow to move on. If you have no comments, just click on the flashing arrow when I’m done speaking to continue.

### Slide 16

- So far, I’ve focused on winter hazards, but we also face similar challenges in other service areas, such as flooding.
- In fact, there are 20 message products available to describe flooding hazards – even more than the 14 products we have for winter.
- Flood events evolve as precipitation moves through a region. What may begin as a *flash* flood - or in other words, a localized, short-duration event - can become a more widespread, longer lasting flood.
- **(Click)** Under current policy, this scenario would require canceling the Flash Flood Warning, and issuing a new Flood Warning for the same region.
- **(Click)** But in a simplified approach, and as with the winter weather example, we could simply issue just one warning for all flooding events – and update it (as shown here) to describe in plain English how the flooding threat has changed.
- Click on the flashing arrow when you’re ready to move on.

### Slide 17

- What do you think about using a single warning for flooding instead of multiple warning products, as just described?
- Press “Submit” when you’re done providing input, then click on the flashing arrow. If you wish to move on without providing comments, just click on the flashing arrow when I’m done speaking.

### Slide 18

- Believe it or not, under the current system, there are sometimes cases where we issue three products at once!
- In the example I’m now showing **(Click)**, a moderate rain storm led to flooding of intersections and low lying areas on a Thursday afternoon. It’s expected to end shortly, but more heavy rain is expected Friday evening into Saturday morning, causing additional flooding hazards.
- We would actually issue three products – an Urban and Small Stream Advisory, a Flash Flood Watch, and a Flood Watch - to cover this case under current policy, as shown here.
- **(Click)** But what if we used the Special Message approach to communicate these non-routine, flood related developments to the public?
- When you’re ready, click on the flashing arrow

### Slide 19

- What comments do you have on using the “Special Message” approach for flood messages in place of the current “Watch” and “Advisory” approach?
- Press “Submit” when you’re done providing input, then click on the flashing arrow. If you wish to move on without providing comments, just click on the flashing arrow when I’m done speaking.

## **Slide 20**

- Thanks for staying with the presentation so far - we're almost done! Here's a final opportunity to provide input.
- If you have any final summary comments based on the ideas I've discussed, please enter them in the comment box. This would be a good place to provide your opinion as to whether you think the overall idea of a simplified approach to hazard messaging has merit, and, if so, how far we should take the idea.
- For example, what would you think about extending this concept beyond winter weather and flooding to also include such hazards as extreme heat and cold, wind, and even severe thunderstorms, and tornadoes?
- Press "Submit" when you're done providing input, then click on the flashing arrow. If you wish to move on without providing comments, just click on the flashing arrow when I'm done speaking.

## **Slide 21**

- The National Weather Service issues forecasts and warnings to protect life and property and support the national economy. Our ability to do so relies, in large part, upon the clarity and understandability of our hazard messages. That's what this initiative to support our Weather Ready Program is all about!
- Of course, any change away from the current Watch, Warning and Advisory system will require careful thought and consideration, and there are technical issues that would need to be addressed.
- With this in mind, we appreciate the comments you've provided and we will consider them all carefully as we plan next steps.
- This completes the presentation. We'll communicate the results of this process via the National Weather Service website and other means once we've completed the analysis.
- Once again – thanks so much for your time and attention.