

NATIONAL WEATHER SERVICE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NWS Product Changes and Decision Support Services

Phil Hysell - Blacksburg, VA

Chris Strong - Baltimore/Washington

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NWS Impact Based Warnings Review and Changes

Phil Hysell - Blacksburg, VA

Current Impact-Based Warnings

Impact-Based Tornado (TOR) and Flash Flood (FFW) Warnings

Note: Regardless of tags (discussed in later slides), ALL warnings will always tone-alert on NOAA Weather Radio

TOR



● BASE



● CONSIDERABLE



● CATASTROPHIC

FFW



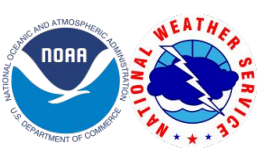
● BASE



● CONSIDERABLE



● CATASTROPHIC



Impact-Based Tornado (TOR) Warning Review

MOST of our TORs are BASE (no damage threat tag) warnings

Every TOR will send a Wireless Emergency Alert (WEA).

...TORNADO EMERGENCY FOR WASHTA...

THE NATIONAL WEATHER SERVICE IN SIOUX FALLS HAS ISSUED A

- * TORNADO WARNING FOR... CHEROKEE COUNTY IN NORTHWEST IOWA...
- * UNTIL 800 PM CDT
- * AT 720 PM CDT...A LARGE AND EXTREMELY DANGEROUS TORNADO WAS LOCATED NEAR WASHTA...AND MOVING NORTHEAST AT 30 MPH.

THIS IS A TORNADO EMERGENCY FOR WASHTA. TAKE COVER NOW. THIS IS A PARTICULARLY DANGEROUS SITUATION.

THIS IS A PARTICULARLY DANGEROUS SITUATION.

HAZARD...DAMAGING TORNADO.

SOURCE...EMERGENCY MANAGEMENT CONFIRMED TORNADO.

IMPACT...YOU ARE IN A LIFE THREATENING SITUATION. FLYING DEBRIS MAY BE DEADLY TO THOSE CAUGHT WITHOUT SHELTER. MOBILE HOMES WILL BE DESTROYED. CONSIDERABLE DAMAGE TO HOMES...BUSINESSES AND VEHICLES IS LIKELY AND COMPLETE DESTRUCTION IS POSSIBLE.

- * THE TORNADO WILL BE NEAR... QIMBY AROUND 730 PM CDT. CHEROKEE AROUND 745 PM CDT. AURELIA AROUND 750 PM CDT.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

HEAVY RAINFALL MAY HIDE THIS TORNADO. DO NOT WAIT TO SEE OR HEAR THE TORNADO. TAKE COVER NOW.

&&
LAT...LON 4259 9585 4291 9565 4291 9550 4283 9538
4269 9539 4256 9569 4256 9577
TIME...MOT...LOC 0023Z 225DEG 27KT 4260 9567

TORNADO...OBSERVED
TORNADO DAMAGE THREAT...CATASTROPHIC
HAIL...1.50IN

Tornado Tag	
TORNADO...RADAR INDICATED	Evidence on radar and near storm environment is supportive of a tornado. A tornado may be developing or ongoing, but no confirmation has been received.
TORNADO...OBSERVED	Tornado is confirmed by spotters, law enforcement, etc.
Tornado Damage Threat Tag	
TORNADO DAMAGE THREAT...CONSIDERABLE	There is credible evidence that a tornado, capable of producing considerable damage, is imminent or ongoing.
TORNADO DAMAGE THREAT...CATASTROPHIC	A severe threat to human life and catastrophic damage from a tornado is occurring. This will only be used when reliable sources confirm a violent tornado.
Tornado Tag In Severe Thunderstorm Warnings	
TORNADO...POSSIBLE	A severe thunderstorm has some potential for producing a tornado although forecaster confidence is not high enough to issue a Tornado Warning.



Impact-Based Flash Flood Warning (FFW) Review

How Will This Impact You?

Previously, Wireless Emergency Alerts (WEA) were activated for all Flash Flood Warnings. WEA is an alerting network in the United States designed to disseminate **emergency alerts/messages** to mobile devices such as cell phones to inform you of imminent threats for extreme weather and other emergencies. Now, WEA will be activated only if a Flash Flood Warning contains a 'considerable' or 'catastrophic' damage tag.

Previously

All Flash Flood Warnings



Now



Flash Flood Warning



Flash Flood Warning
'CONSIDERABLE'
Damage Threat



Flash Flood Warning
'Catastrophic'
Damage Threat



BASE (no tag) Minor, Common	<ul style="list-style-type: none"> - Isolated property impacts - Some emergency response - Common stream flooding
CONSIDERABLE Moderate, Unusual	<ul style="list-style-type: none"> - Some structural impacts - Extensive emer. response - Significant stream flooding
CATASTROPHIC Major/Record, Emergency	<ul style="list-style-type: none"> - Widespread prop. impacts - Overwhelming response - Very rare stream flooding

Bottom Line: A "BASE" FFW will not WEA!

Flash Flood Warnings: Considerable vs Catastrophic

Considerable



Catastrophic



“Are cars being carried away by flood waters or are they stranded in the water?”
“Are motorists able to walk away from flooded cars with assistance?”

Flash Flood Warnings: Considerable vs Catastrophic

Considerable



Catastrophic



- “Is water flowing rapidly around buildings or does it appear to be more like standing water?”**
- “Are buildings pushed off their foundations and/or destroyed, or are homes just flooded?”**
- “How high is the water reaching into worse-impacted buildings?”**

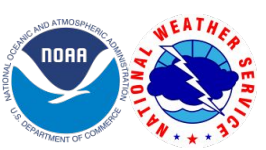
On or About July 15: Impact-Based Severe Thunderstorm Warnings (SVR)

Most of our warnings

Thunderstorm Damage Threat (tag category)	Wind	Hail (diameter)
Base (no tag; default)	58 mph (<i>60 mph will appear in the warning</i>)	1.00 inch (U.S. quarter)
Considerable	70 mph	1.75 inch (golf ball)
Destructive	80 mph	2.75 inch (baseball)



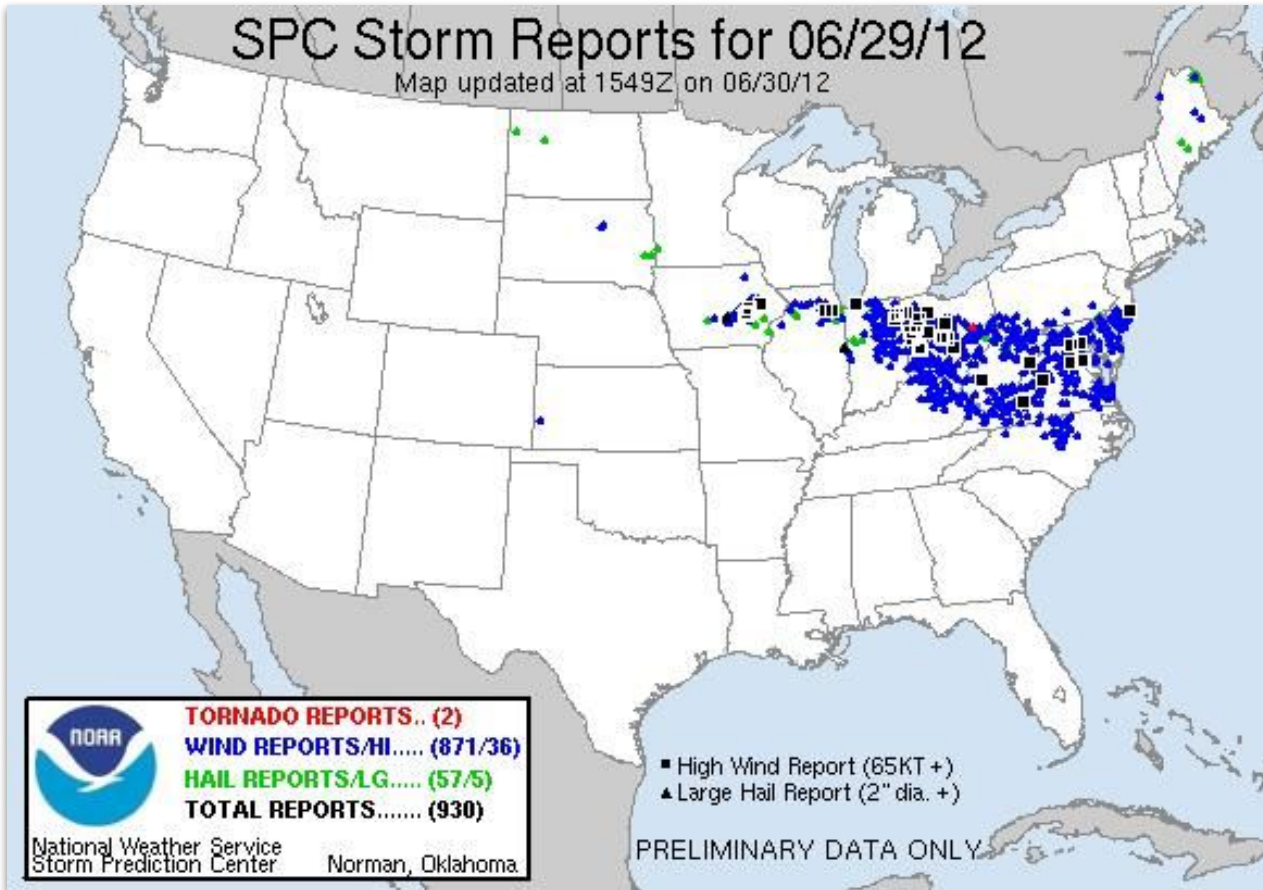
BIG CHANGE!!



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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

- Large hail 2.75" or greater is very rare
- It's *most* likely the "DESTRUCTIVE" tag would be used for severe winds



* Severe Thunderstorm Warning for...
 Southwestern Jackson County in southwestern Oklahoma...
 Southwestern Tillman County in southwestern Oklahoma...
 East central Foard County in northern Texas...
 Wilbarger County in northern Texas...
 Southeastern Hardeman County in northern Texas...

* Until 730 PM CDT.

* At 648 PM CDT, a severe thunderstorm was located 5 miles east of Quanah, moving southeast at 25 mph.

THIS IS A DESTRUCTIVE STORM FOR VERNON AND QUANAH.

HAZARD...Three inch hail and 70 mph wind gusts.
 SOURCE...Radar indicated.
 IMPACT...People and animals outdoors will be severely injured. Expect shattered windows, extensive damage to roofs, siding, and vehicles.

* Locations impacted include...
 Vernon, Quanah, Chillicothe, Eldorado, Davidson, Thalia, Lockett, Medicine Mound, Fargo, Odell, Oklaunion, Grayback and Rayland.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

For your protection move to an interior room on the lowest floor of a building.

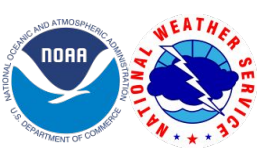
This is a dangerous storm. Prepare immediately for large destructive hail capable of producing significant damage. People outside should move to shelter inside a strong building, and stay away from windows.

&&

LAT...LON 3450 9962 3431 9907 3402 9907 3383 9939
 3417 9976 3432 9977

TIME...MOT...LOC 2348Z 310DEG 23KT 3431 9966

THUNDERSTORM DAMAGE THREAT...DESTRUCTIVE
 HAIL THREAT...RADAR INDICATED
 MAX HAIL SIZE...3.00 IN
 WIND THREAT...RADAR INDICATED
 MAX WIND GUST...70 MPH



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...Strong thunderstorms will impact portions of Jefferson, Franklin, Jackson and Perry counties until 415 PM CDT...

At 322 PM CDT, Doppler radar was tracking a line of strong thunderstorms extending from 6 miles north of Sesser to 5 miles west of Elkhville, moving east at 30 mph.

HAZARD...50 mph wind gusts and pea size hail.

SOURCE...Radar indicated.

IMPACT...Gusty winds could knock down tree limbs and blow around unsecured objects.

Locations impacted include...

West Frankfort, Benton, Rend Lake Area, Sesser, Zeigler, Royalton, Elkhville, Valier, West City, Thompsonville, Waltonville, Dowell, Orient and Hanaford.

Frequent cloud to ground lightning is occurring with this storm. lightning can strike 15 miles away from a thunderstorm. Seek a safe shelter inside a building or vehicle.

This storm may intensify, monitor local radio and tv stations, as well as local cable tv outlets, for additional information and possible warnings from the National Weather Service.

A tornado watch remains in effect until 800 PM CDT for southern Illinois.

&&

LAT...LON 3821 8913 3820 8871 3788 8872 3788 8915
3791 8954 3803 8921

TIME...MOT...LOC 2022Z 281DEG 27KT 3818 8905 3802 8911 3793 8936

MAX HAIL SIZE...0.25 IN
MAX WIND GUST...50 MPH

- Also starting around July 15, 2021 Special Weather Statements for sub-severe weather events will have tags for hail and wind
- SPS with tags may also be issued for waterspouts (inland lakes) and landspouts

Impact-Based Warnings - WEA (Initial Issuance)

TOR



● BASE



● CONSIDERABLE



● CATASTROPHIC

FFW



● BASE



● CONSIDERABLE



● CATASTROPHIC

SVR



● BASE



● CONSIDERABLE



● DESTRUCTIVE

Impact-Based Follow-Up Statements - WEA

(First Follow-Up)

TOR

FFW

SVR

BASE

BASE

BASE

CONSIDERABLE

CONSIDERABLE

CONSIDERABLE

CATASTROPHIC

CATASTROPHIC

DESTRUCTIVE



Impact-Based Follow-Up Statements - WEA

(Successive Follow-Ups)

TOR

FFW

SVR



BASE



BASE



BASE



CONSIDERABLE



CONSIDERABLE



CONSIDERABLE



CATASTROPHIC



CATASTROPHIC



DESTRUCTIVE



NWS Baltimore-Washington

@NWS_BaltWash

Flash Flood Warning including Mustoe VA until 8:30 PM EDT

Flash Flood Warning

Valid Until
8:30 PM EDT Sunday
June 13, 2021

Safety Information

- Move immediately to higher ground!
- Avoid walking or driving through flood waters!

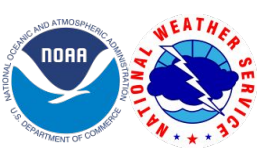
Potential Exposure

Population: 138
Schools: 0
Hospitals: 0

5:26 PM · Jun 13, 2021 · Svr Wx Impact Graphics - LWX

Auto-Tweeting

- TOR
 - BASE
- FFW
 - CONSIDERABLE
- SVR
 - CATASTROPHIC



Impact Based Warnings (IBW)

Questions? Comments?

- Any questions on Impact Based Warnings?
- Any questions on when these warnings and follow-up statements trigger WEA?

Thank you!

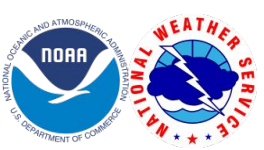
Hazard "Simplification"

NWS Watch, Warning, Advisory Periodic Table

The diagram for the WW code shows the following details:

- Code:** WW
- Phenomenon:** Winter Weather
- Significance:** Advisory
- Background Note:** According to <https://www.weather.gov/forecasting/ww>, text color is chosen to be most readable.
- Question/Comments:** andrea.parrish@noaa.gov

Step 1: Repair the current system!



Hazard “Simplification”

Revamp the system. (Explore an entirely new system)

Let’s face it: The public doesn’t understand Advisories.

- Are Advisories the step between a Watch and a Warning?
- Are Advisories a downgrade from a Watch?
- Are Advisories issued before a Watch? (Like an Outlook?)

(Hint: The answer to all three of these is no.)

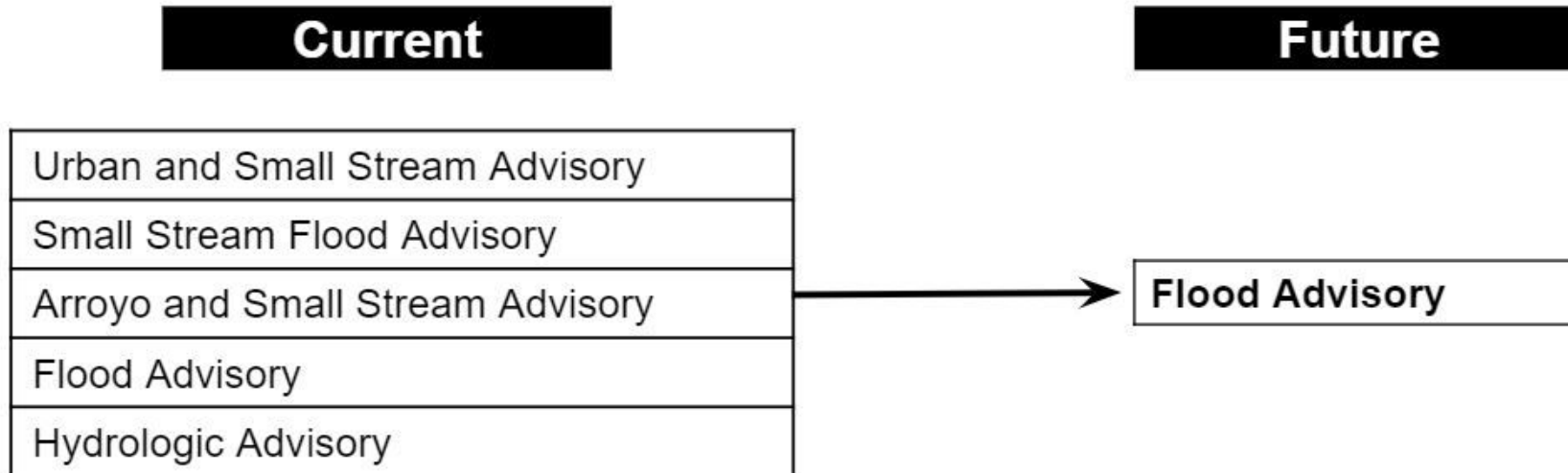
We also have Special Weather Statements.

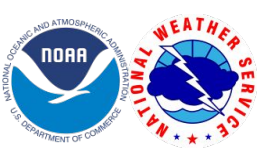
- Are these “better” than Advisories?

Hazard “Simplification”: Next Steps

Flood Advisory and Extreme Temperature Consolidation will be in the “coming months”:

Flood Advisory consolidation

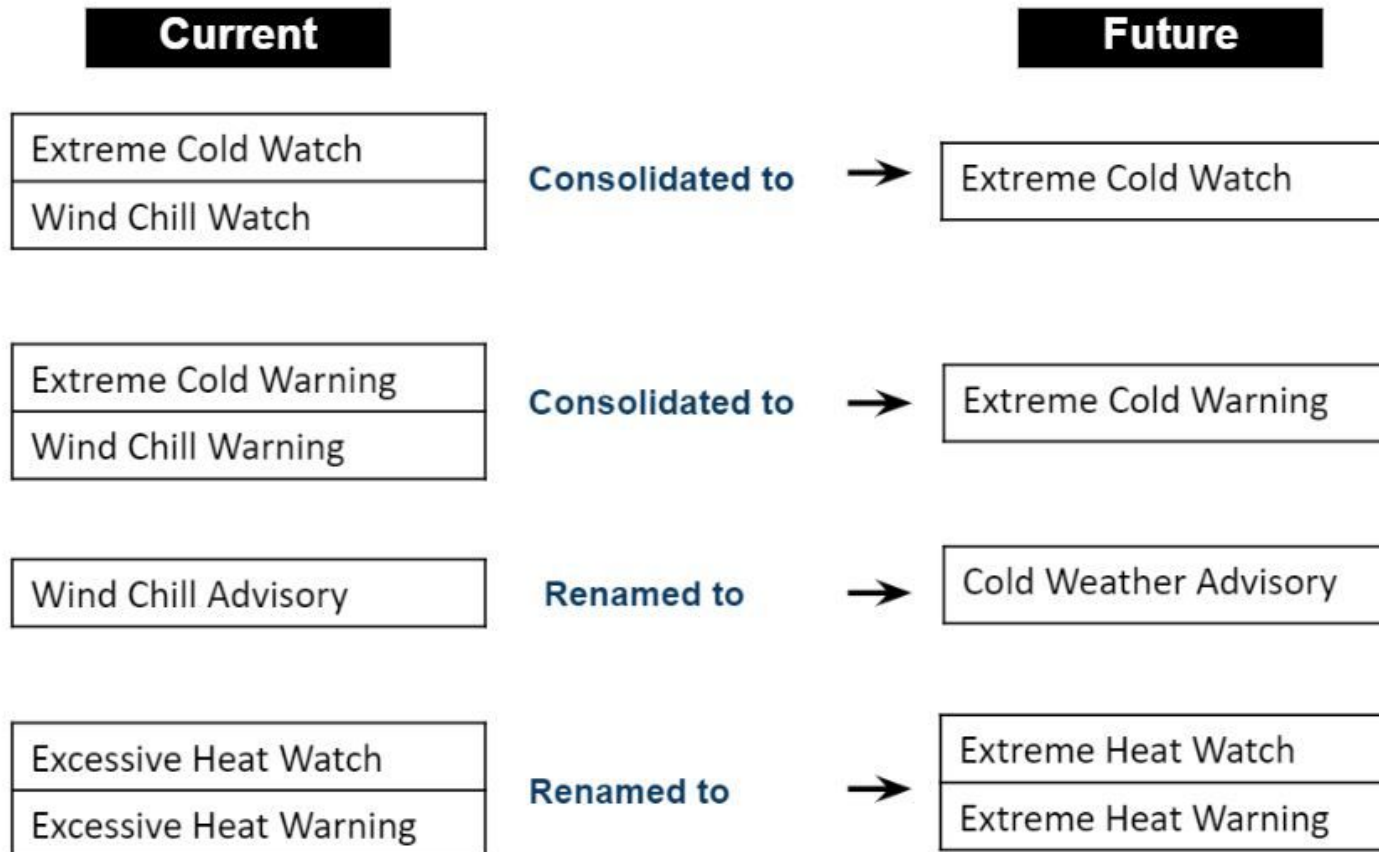


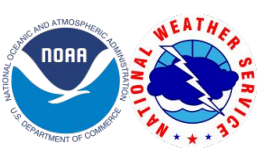


Hazard “Simplification”: Next Steps

Flood Advisory and Extreme Temperature Consolidation will be in the “coming months”:

Extreme Temperature Consolidation and Renaming





Hazard “Simplification”: Planned Major Change

This decision has been made and is now final:

- All Watches and Warnings remain the same. People understand this system.
- Advisories will be replaced with plain language headlines.
- All Special Weather Statements will be converted to plain language headlines.
- *These changes will **not** be made prior to 2024.*

Hazard “Simplification”: Planned Major Change

What Will Remain the Same?

WATCH

What should I do? - Prepare!



WARNING

What should I do? - Take action!



What Will Change?

ADVISORY

&

SPECIAL WEATHER STATEMENT

Become

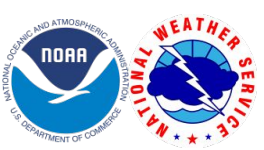


PLAIN LANGUAGE HEADLINES

An event less serious than a Warning is *happening*

What should I do? - Exercise caution to avoid impacts.

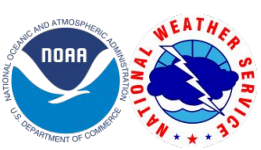




List of Advisories to be Discontinued

Winter Weather Advisory	Lake Wind Advisory	Air Stagnation Advisory*	High Surf Advisory
Wind Chill Advisory	Frost Advisory	El Nino/La Nina Advisory	Small Craft Advisory - <i>transition to "Warning"</i>
Dense Fog Advisory	Blowing Dust Advisory	Tsunami Advisory - <i>transition to "Warning"</i>	Lakeshore Flood Advisory
Dense Smoke Advisory	Dust Advisory	Freezing Spray Advisory	Coastal Flood Advisory
Wind Advisory	Ashfall Advisory	Low Water Advisory	Flood Advisory (Areal)
Heat Advisory	Freezing Fog Advisory	Brisk Wind Advisory	Flood Advisory (River)

*Issued in collaboration with EPA



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Current

Proposed

WSWLWX

URGENT - WINTER WEATHER MESSAGE

National Weather Service Baltimore MD/Washington DC
207 PM EST Wed Jan 3 2018

MDZ011-013-014-016-507-508-VAZ057-040500-
/O.EXA.KLWX.WW.Y.0001.180104T0300Z-180104T1600Z/
Southern Baltimore-Prince Georges-Anne Arundel-Charles-
Northwest Harford-Southeast Harford-King George-
207 PM EST Wed Jan 3 2018

...WINTER WEATHER ADVISORY IN EFFECT FROM 10 PM THIS EVENING TO
11 AM EST THURSDAY...

- * WHAT...Total snow accumulations of 2 to 4 inches are expected.
- * WHERE...Portions of central, northern and southern Maryland and central Virginia.
- * WHEN...From 10 PM this evening to 11 AM EST Thursday.
- * IMPACTS...Snow will quickly stick on roads and sidewalks, making the morning commute dangerous. Visibility will be reduced to under 1 mile at times in snow. Bitterly cold conditions will follow through the weekend causing snow to remain on untreated surfaces.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

Be prepared for snow covered roads and limited visibilities, and use caution while driving. The latest road conditions for the state you are calling from can be obtained by calling 5 1 1.

WSWLWX

Winter Weather Statement

National Weather Service Baltimore MD/Washington DC
207 PM EST Wed Jan 3 2018

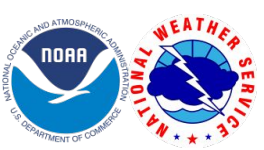
MDZ011-013-014-016-507-508-VAZ057-040500-
/O.EXA.KLWX.WW.S.0001.180104T0300Z-180104T1600Z/
Southern Baltimore-Prince Georges-Anne Arundel-Charles-
Northwest Harford-Southeast Harford-King George-
207 PM EST Wed Jan 3 2018

...2 TO 4 inches of snow expected this evening into tomorrow
morning...

- * WHAT...Total snow accumulations of 2 to 4 inches are expected.
- * WHERE...Portions of central, northern and southern Maryland and central Virginia.
- * WHEN...From 10 PM this evening to 11 AM EST Thursday.
- * IMPACTS...Snow will quickly stick on roads and sidewalks, making the morning commute dangerous. Visibility will be reduced to under 1 mile at times in snow. Bitterly cold conditions will follow through the weekend causing snow to remain on untreated surfaces.

PRECAUTIONARY/PREPAREDNESS ACTIONS...

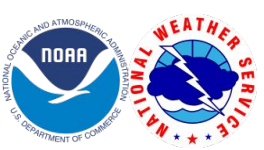
Be prepared for snow covered roads and limited visibilities, and use caution while driving. The latest road conditions for the state you are calling from can be obtained by calling 5 1 1.



Questions? Comments?

- Learn more about Hazard Simplification/HazSimp at <https://www.weather.gov/hazardsimplification/>
- Send HazSimp questions or comments to hazsimp@noaa.gov

Thank you!



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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Weather Decision Support Services for Special Events

Eric Seymour - Wakefield, VA

What is DSS?

- **Purpose - *“Provide decision makers with critical environmental data and forecasts to allow them to better protect life and property.”***
- **Information could include:**
 - **Weather**
 - **Water**
 - **Climate**
 - **Watches/Warnings**
 - **Critical Thresholds**

DSS for Weather Events

- ***Emailed briefings*** directly to partners
- ***Conference Calls***
 - Usually by VDEM Regions
 - VDEM State level calls
 - Hospital Systems
- ***Social Media post***
- ***Briefing Pages –***
 - [Wakefield](#)
 - [Blacksburg](#)
 - [Baltimore/Washington](#)



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WRN
WEATHER-READY NATION

Winter Storm Briefing

Decision Support Briefing #
As of: Time Day, Month Date



<http://www.weather.gov/akq/RainandSnow>

What Has Changed?
✓ Initial briefing

Weather Forecast Office
Wakefield, VA

@NWSWakefieldVA

/NWSWakefieldVA

Presentation Created
12/12/2020 8:27 PM

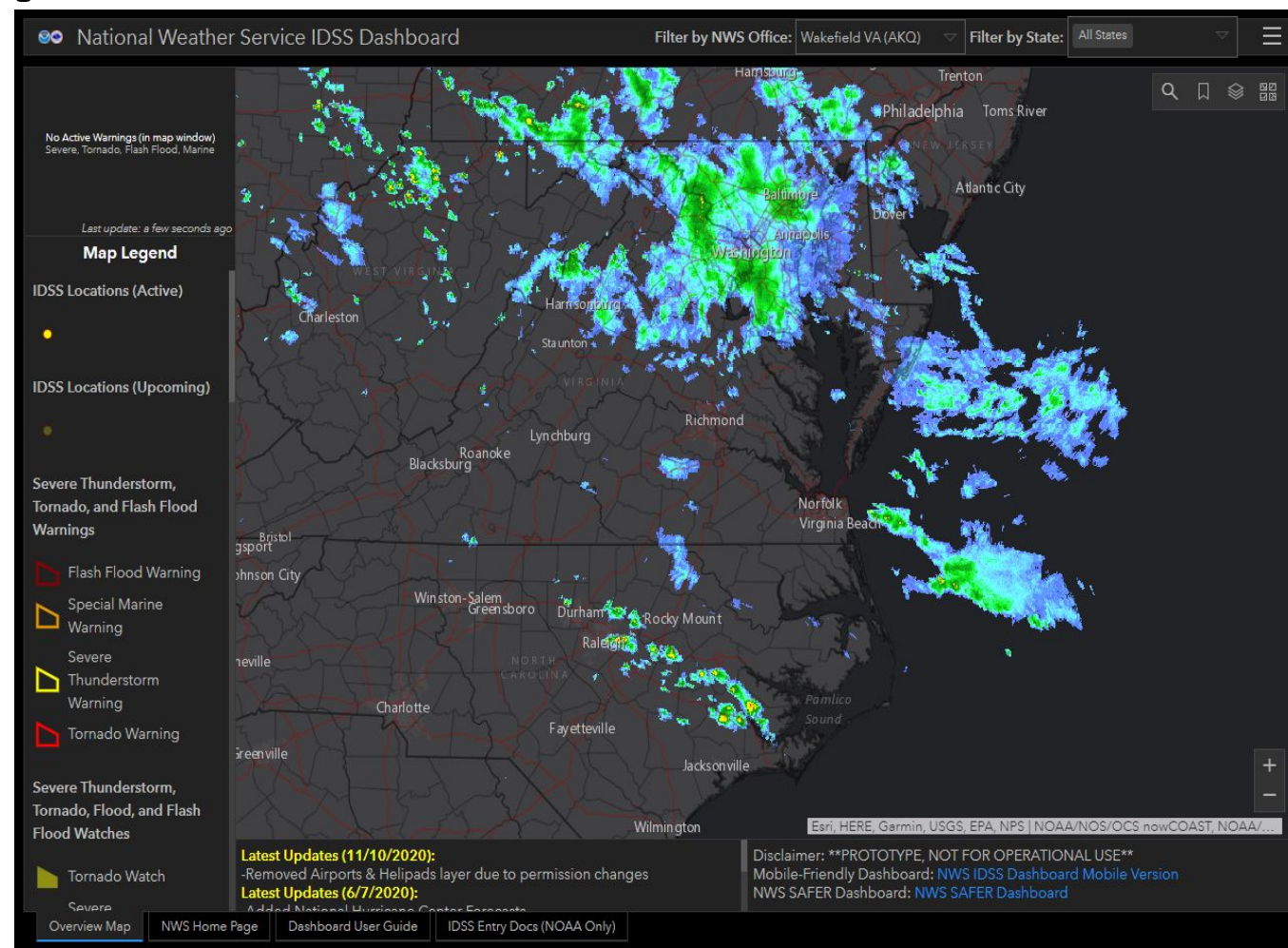
DSS for Special Events

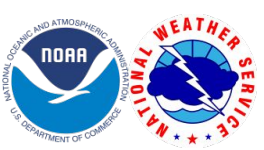
- ***Locality initiated*** – request made from local or state government partner.
- ***Event Examples***
 - County/State Fairs
 - Festivals
 - Sporting Events
 - Political Debates



DSS for Special Events

- ***The NWS can provide:***
 - Specialized Briefing pages
 - Inclusion of your event in weather warnings and statements
 - Text and emails through INWS
 - Direct coordination with NWS Meteorologist
 - Onsite support – if needed
 - Point and click and hourly forecast graphics specific to the event location
 - Inclusion on the IDSS Dashboard
 - Lightning alerts

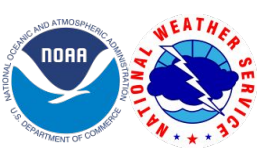




DSS for Special Events

- ***How do I register?***

- Reach out to your local NWS office
- Wakefield: <https://www.weather.gov/akq/specialevents>
- Blacksburg: <https://www.weather.gov/rnk/emer>
- Baltimore/Washington:
- Charleston, WV: <https://www.weather.gov/rlx/decision-support>
- Morristown, TN: [Registration Form](#)



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Decision Support Services Review

Eric Seymour - Wakefield, VA

Chris Strong - Baltimore/Washington

Hurricane Isaias

Rainfall totals:

2" – 6" Inland

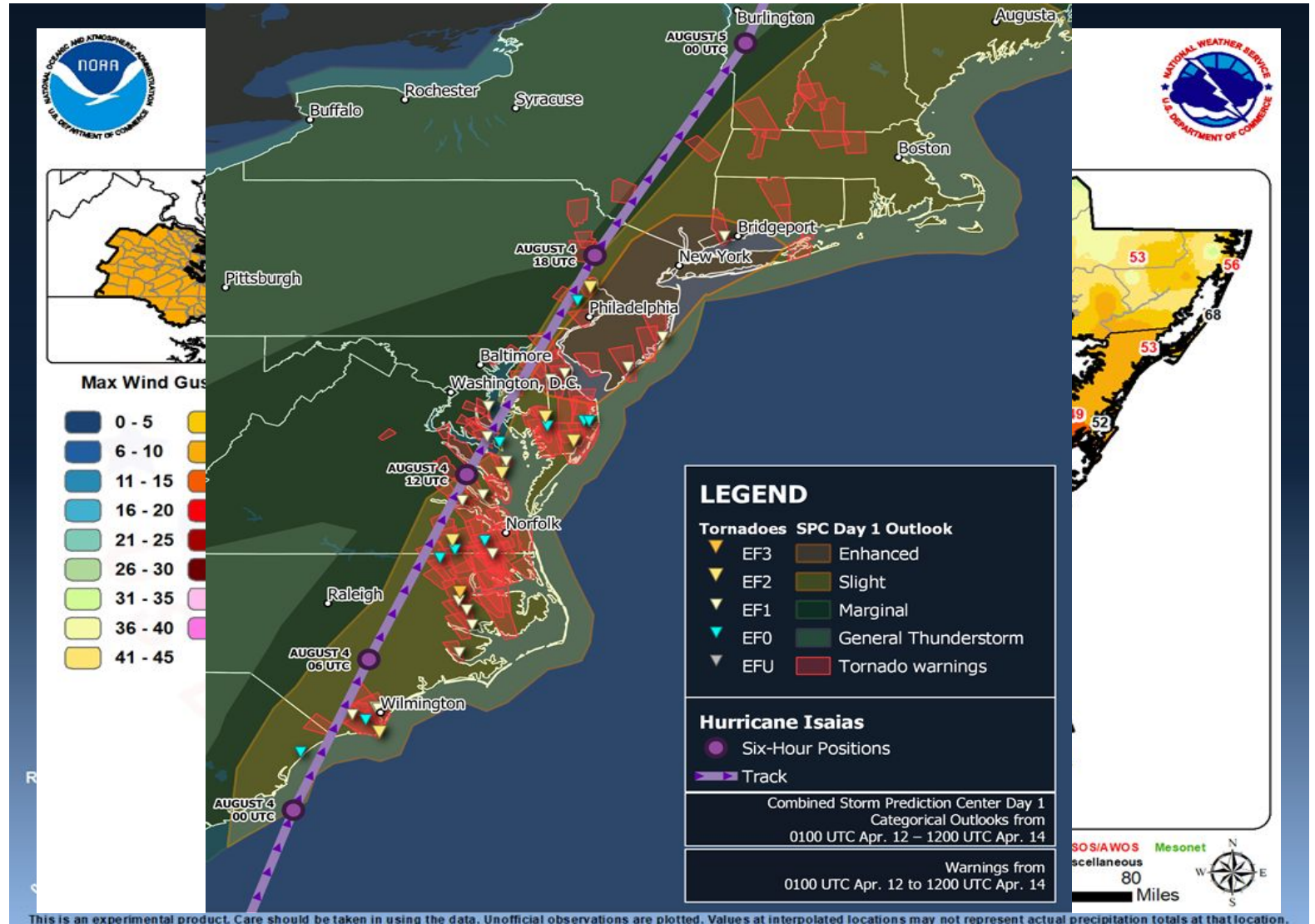
Wind Gust

25 – 40 mph inland.

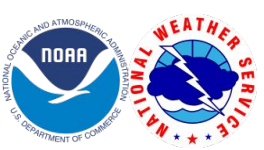
40 – 70 mph coastal areas.

Tornadoes 15 in the Wakefield CWA.

7 in Virginia.



This is an experimental product. Care should be taken in using the data. Unofficial observations are plotted. Values at interpolated locations may not represent actual precipitation totals at that location.

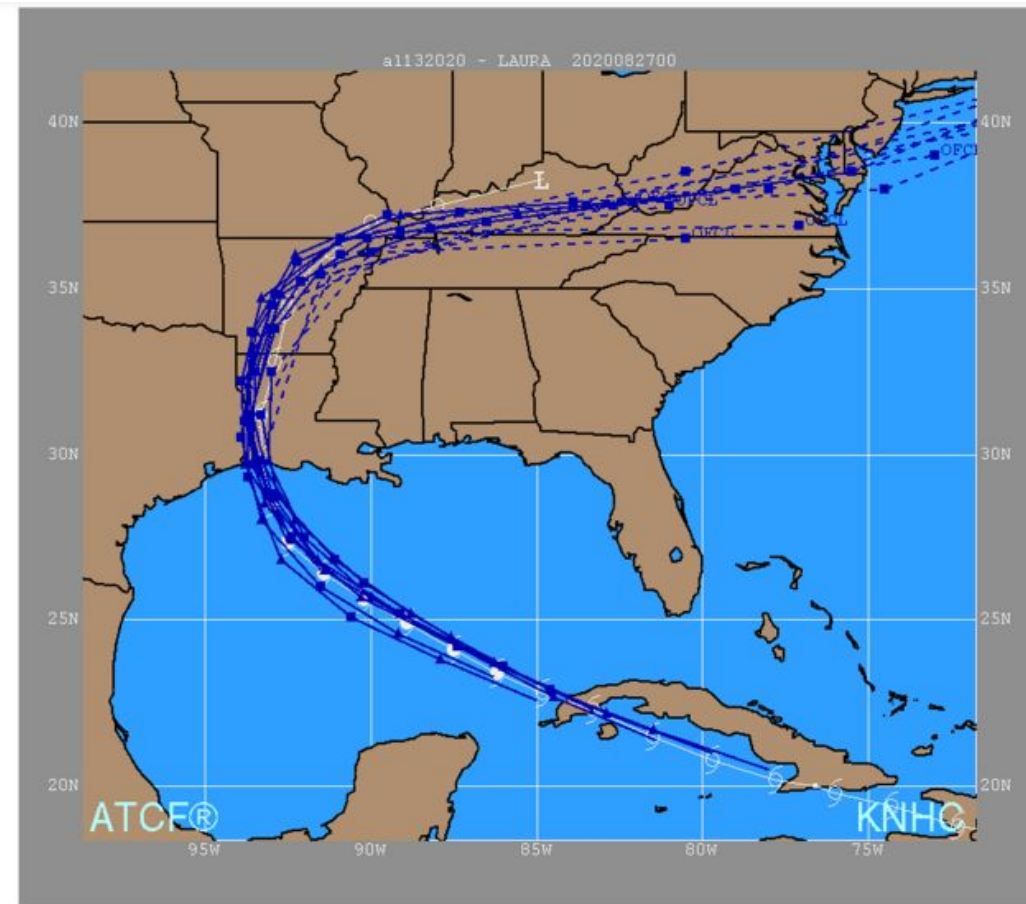


Hurricane Isaias Briefings

- What content was included:
 - Headlines – Watches/Warnings and Advisories
 - Storm Position/Track and Intensity Update
 - Wind Threats – Max speed and arrival timing
 - Rainfall Amounts and Flood Threat locations including River Flooding
 - Storm Surge and Coastal Flood threats
 - Tornado Risk and threat areas
- What other information is needed?

Hurricane Laura

Category 4 landfall: Cameron LA
18' storm surge
47 direct fatalities (U.S. & Hispaniola)
\$19B in U.S. Damage



Official track forecasts (blue lines) for Hurricane Laura, 24 August 0600 UTC to 27 August 0000 UTC 2020. The best track is shown by the white curve with the tropical cyclone symbols.

Hurricane Laura

Power of the storm surge



Figure 12. Near Cameron, Louisiana before (top) and after (bottom) Hurricane Laura. Images courtesy of NOAA National Ocean Service.

Hurricane Laura

Wind Damage in LA

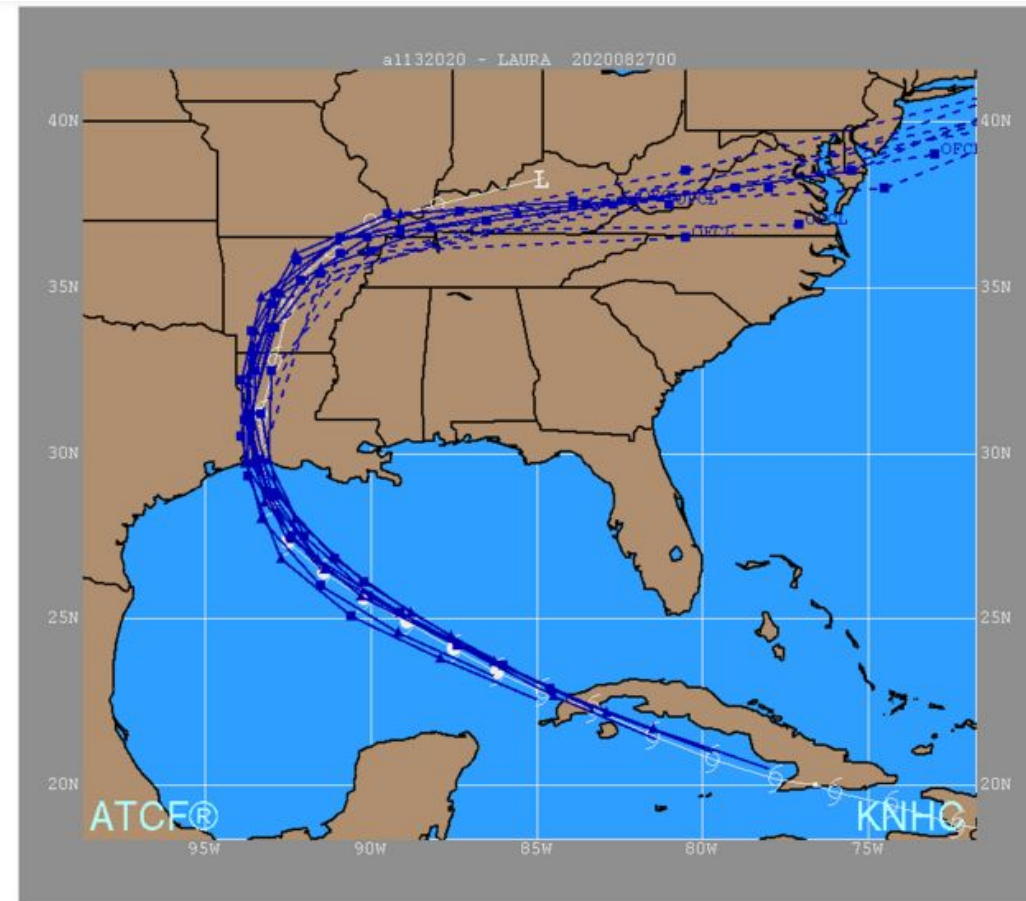
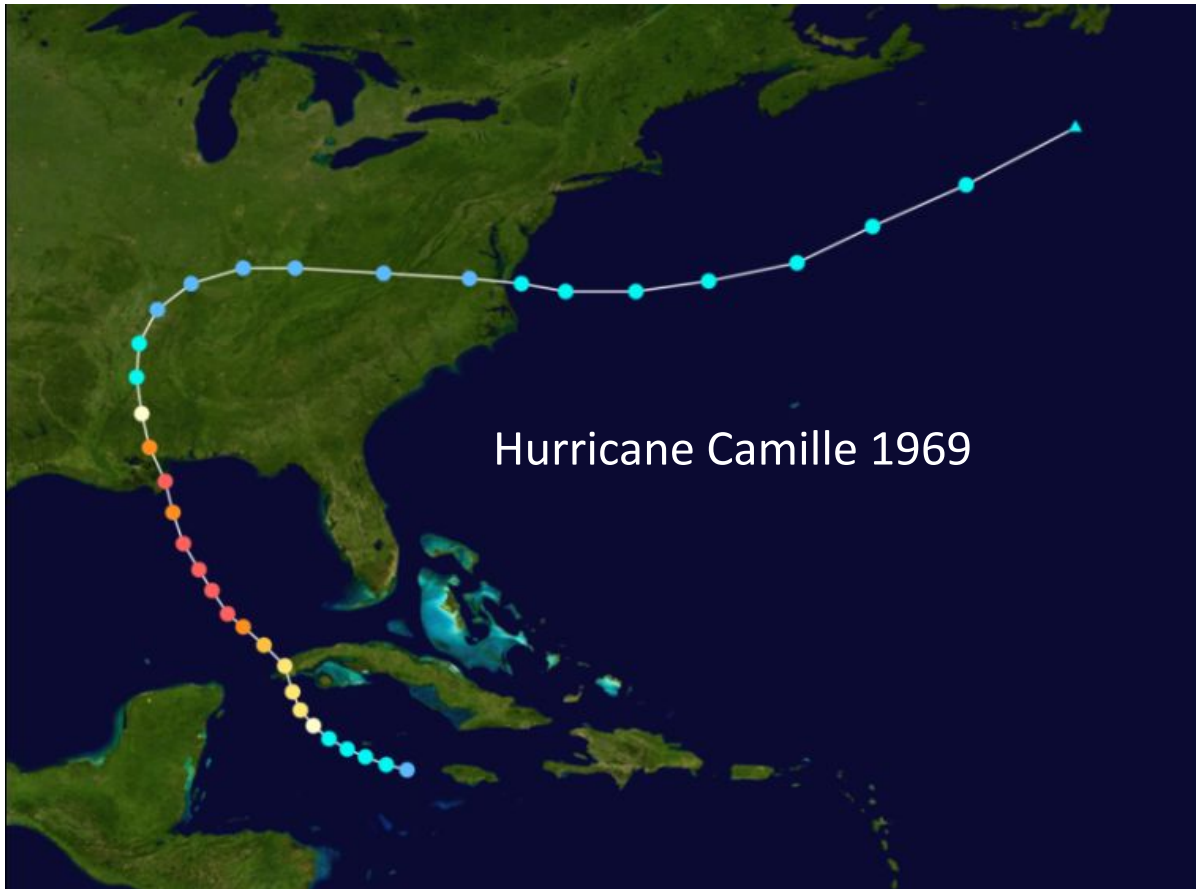


Severe Hurricane Laura damage near Lake Charles, Louisiana. STRINGER/AFP via Getty Images.



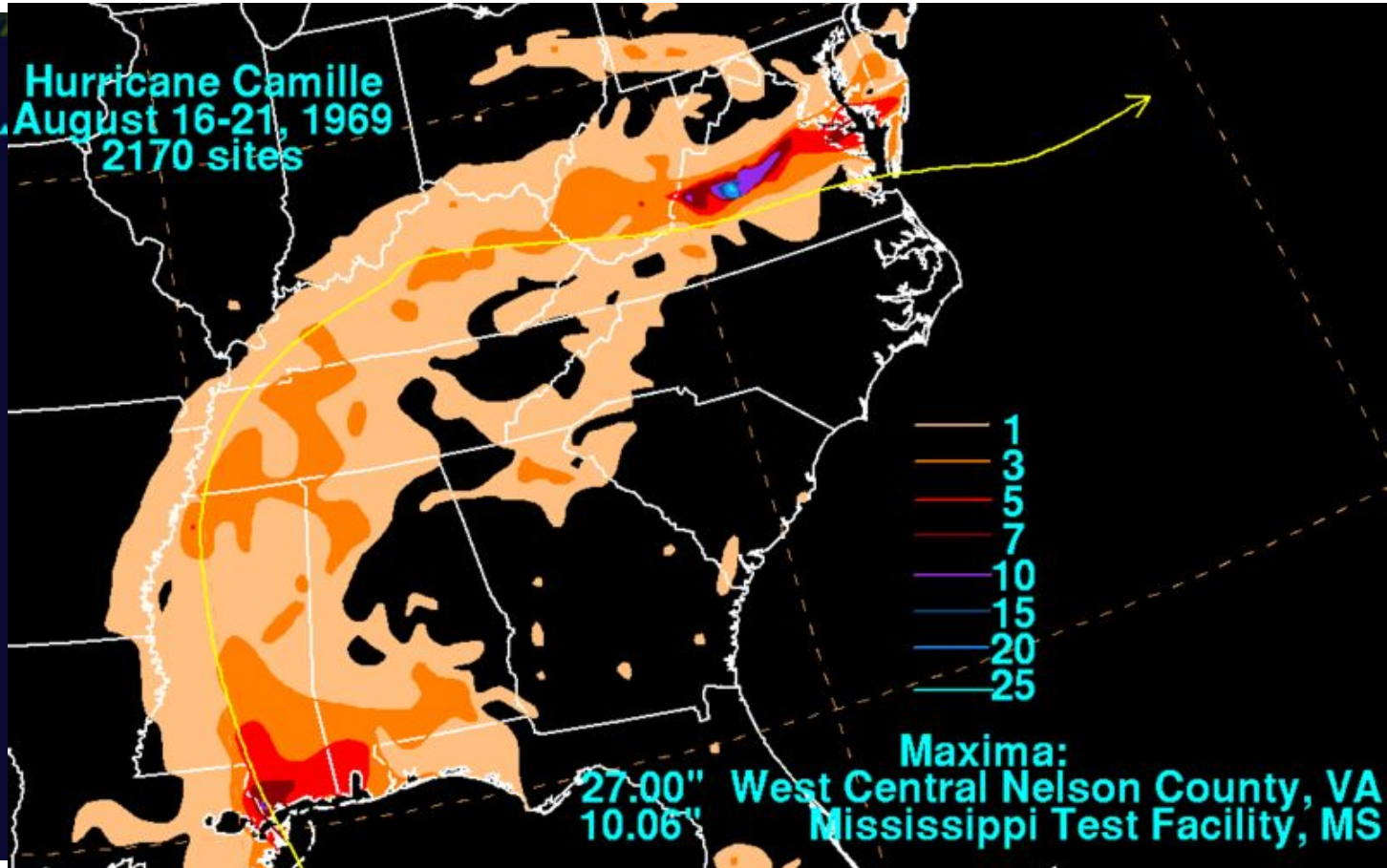
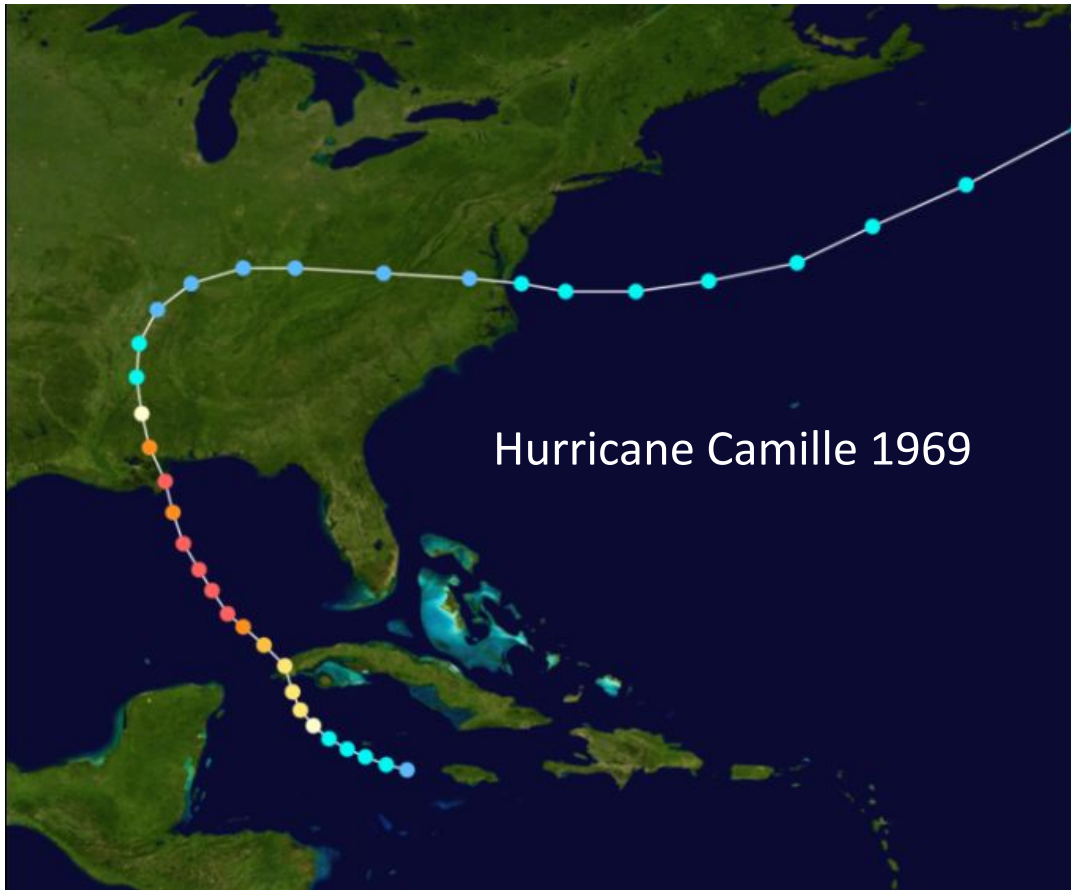
Figure 14. Windows blown out of the Capital One Tower in downtown Lake Charles after Hurricane Laura. Joe Raedle/Getty Images.

Hurricane Laura



Official track forecasts (blue lines) for Hurricane Laura, 24 August 0600 UTC to 27 August 0000 UTC 2020. The best track is shown by the white curve with the tropical cyclone symbols.

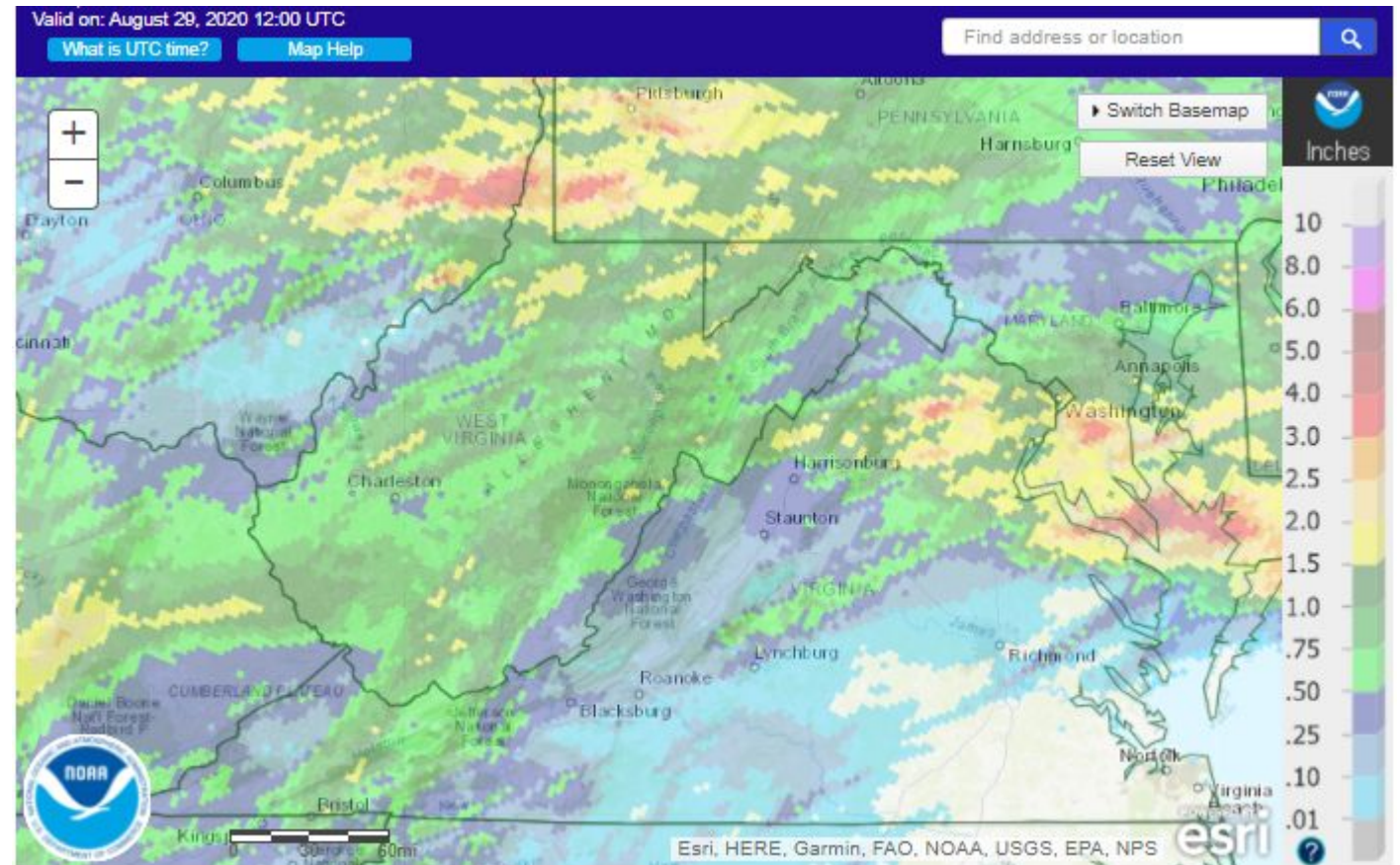
Hurricane Laura

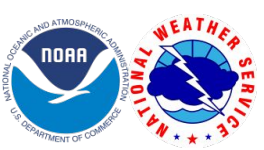


Hurricane Laura

Analogs can be beneficial
at times...but,

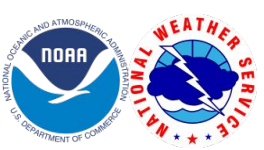
Tropical systems, even
similar ones, tend to impact
localities differently.





Thunderstorm Briefings

- What content is normally included:
 - Severe Weather Outlooks – Day 1, 2 or 3
 - Type of weather – Winds, Hail and/or Tornadoes
 - Timing of event
 - Rainfall amounts – Potential for flooding
 - Like full briefing or shorter one page version?
- What other information is needed?



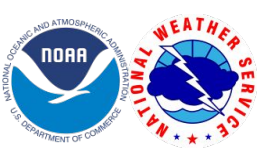
Winter Weather

- What content is normally included:
 - Type of weather – Snow, Sleet and/or Freezing Rain
 - Precipitation amounts – both snow and ice
 - Timing of event and when change over may occur
 - Max Wind Speeds and wind chill information
 - Coastal Flooding - Hydrographs
- What other information is needed?



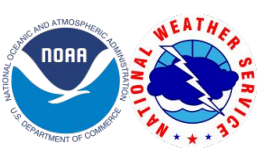
Winter Weather

- Conference Calls
 - VEST State
 - NWS Wakefield leads, collaborated with other NWS offices
 - Regional calls
 - Including 2/3/7 combo
 - Led by NWS Balt/Wash, collaborated with Blacksburg/Wakefield
 - Localities when needed



Heavy rain and flooding

- What content is normally included:
 - Rainfall amounts
 - Flood watch and warning areas
 - River flood forecast – Hydrographs
 - Coastal Flooding and Wind Forecast if needed
- What other information is needed?



When do we issue these briefings?

- Winter Weather:
 - Issuance of watches and warnings
 - Multifaceted event – Multiple weather threats
 - Dangerous Cold behind the winter weather
 - Event with significant impacts based upon timing of event for an event that does not have a watch or warning.
- Tropical events
 - When TC will result in watches or warnings with in the next 4 days.

When do we issue these briefings?

- Extratropical Coastal Storms:
 - Issuance of High wind watches and warnings
 - Widespread Moderate to Major Coastal flooding
- Convective:
 - Enhanced/Moderate/High Risk events as determined in SPC Outlook. Could do for slight risk events on case by case basis
- Widespread rain
 - Issuance of a Flood Watch
- Heat Waves
 - Excessive heat warnings or multi-day heat advisories

Non-Weather Emergency Messages (NWEM's)

ADR	Administrative Message
AVA	Avalanche Watch
AVW	Avalanche Warning
BLU	Blue Alert
CAE	Child Abduction Emergency
CDW	Civil Danger Warning
CEM	Civil Emergency Message
EQW	Earthquake Warning
EVI	Evacuation Immediate
FRW	Fire Warning
HMW	Hazardous Materials Warning
LAE	Local Area Emergency
LEW	Law Enforcement Warning
NUW	Nuclear Power Plant Warning
RHW	Radiological Hazard Warning
SPW	Shelter In Place Warning
TOE	Telephone Outage Emergency
VOW	Volcano Warning
DMO	Practice/Demo Warning

See event code descriptions at

https://www.fema.gov/sites/default/files/documents/fema_event-code-s-glossary_02-01-2021.pdf

FEMA Fact Sheet

Event Code Descriptions for Use with IPAWS

These Non-Weather Emergency Message (NWEM) event codes are available to state, local, tribal and territorial Alerting Authorities for use with the Integrated Public Alert & Warning System (IPAWS). The weather-related event codes, not listed here, are reserved for the National Weather Service. Use of these event codes by Alerting Authorities depends on established IPAWS permissions. The codes may be used with EAS, WEA, and/or NWEM except where indicated.

ADR – Administrative Message

A non-emergency message that provides updated information about an event in progress, an event that has expired or concluded early, pre-event preparation or mitigation activities, post-event recovery operations, or other administrative matters pertaining to the Emergency Alert System. **(EAS & NWEM only)**

AVA – Avalanche Watch

Conditions are favorable or expected but not imminent or occurring. The purpose of an Avalanche Watch is to warn the public that Avalanche Warning criteria are likely to be met in 24-48 hours. **(EAS & NWEM only)**

AVW – Avalanche Warning

Conditions are imminent or occurring.

BLU – Blue Alert

A message issued by state and local authorities to warn the public when there is actionable information, related to a law enforcement officer who is missing, seriously injured or killed in the line of duty, or when there is an imminent, credible threat to an officer. A Blue Alert could quickly warn the public if a violent suspect may be in your community, along with providing instructions on what to do if the suspect is spotted and how to stay safe.

CAE – Child Abduction Emergency

An emergency message, based on established criteria, about a missing child believed to be abducted. A local or state law enforcement agency investigating the abduction will describe the missing child, provide a description of the suspect or vehicle, and ask the public to notify the requesting agency if they have any information on the whereabouts of the child or suspect.



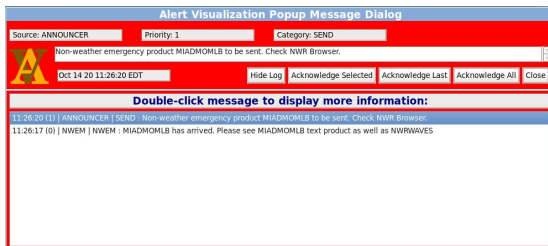
February 2021 1

NOTE: Some state/local EAS plans do not authorize all NWEM types and may have special rules on CAE and other alert types. Reach out to [your Amber Alert contact](#) for more information.



NWS Actions When Your Alert is Received from IPAWS

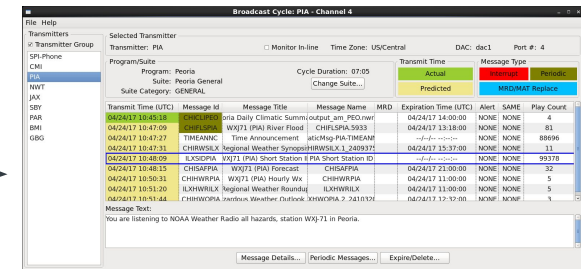
Receive Notification of Incoming Alert in NWS AWIPS



WFO staff review/adjust alert



Place alert message in NWR broadcast suite for alert duration



Configuration of Alert Origination Software

```
WOUS44 KMRX 032016
LEWMRX
TNC011-032116-

BULLETIN - EAS ACTIVATION REQUESTED
LAW ENFORCEMENT WARNING
TN CLEVELAND/BRADLEY COUNTY EMERGENCY MANAGEMENT AGENCY
RELAYED BY NATIONAL WEATHER SERVICE MORRISTOWN TN
316 PM EST WED FEB 3 2021

...MISSING ENDANGERED CHILD...

THE FOLLOWING MESSAGE IS TRANSMITTED AT THE REQUEST OF TN.

NAME: HAWKINS... AMANDA M
SEX: FEMALE
RACE: WHITE
HEIGHT:
5'00"
EYE COLOR: BROWN
WEIGHT: 130 LBS
HAIR COLOR: BROWN
DATE OF
BIRTH: 09/22/1992

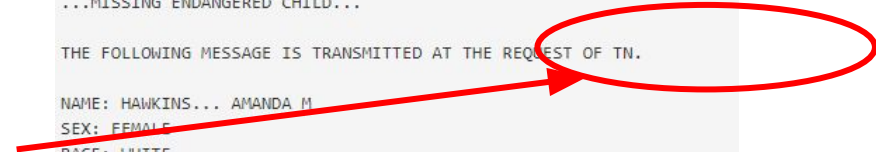
SUSPECT VEHICLE DESCRIPTION: 2005 GOLD
CADILLAC STS DISPLAYING TN REGISTRATION CSY-948

CHILD
DESCRIPTION:
BELLA LENA HAWKINS
3 YEARS OLD
WHITE FEMALE
2FT
25
POUNDS
GREEN EYES
LIGHT BROWN HAIR

BE ON THE LOOKOUT FOR THE FOLLOWING INDIVIDUAL WHO IS A PERSON OF
INTEREST IN AN ONGOING CUSTODIAL INTERFERENCE INVESTIGATION. IF
YOU KNOW THE LOCATION OF OR HAVE INFORMATION REGARDING THE
INDIVIDUALS OF THIS MESSAGE CONTACT THE CLEVELAND POLICE
DEPARTMENT AT (423)728-7311 EXT. 0 FOR ADDITIONAL DETAILS SEE THE
CLEVELAND POLICE DEPARTMENT SOCIAL MEDIA PAGES.
HTTPS://WWW.FACEBOOK.COM/CLEVELANDPOLICETN/

$$

A6BEF99E-BECB-A34B-DF0A-B9F45F967C8B/BRADLEYCO
```



Ask your alert software vendor if they properly populate the CAP <senderName> with the Requesting_Agency as recommended in the latest IPAWS Design guidance.

If not, this will cause confusion. Your agency name will not be properly cited in the alert message broadcast by NWR and transmitted over other NWS systems.

- NWS will try to catch/correct this on your behalf before NWR broadcast, but cannot correct it in the NWS text product automatically sent over other NWS systems.



Must select NWEM (may instead say “HazCollect”, “NWS”, or similar) in order to achieve NWS (e.g. NWR) dissemination

Create Public Message

Templates

Selected Template: None ?

Message Type

IPAWS-OPEN Endpoint * DEMO - COG ID: 120028 ?

EAS ?

WEA ?

NWEM ?

Distribution Channel(s)

Select Distribution Channel(s)

EMnet EAS

IPAWS WEA

IPAWS EAS

Hazcollect

Hours Minutes

Approximate Expiration
2/16/21 11:03 AM

Select Alerts

EAS NWEM

WEA COG ONLY

EVENT CODE

CATEGORY

WEA HANDLING

Publishing Options

Publishing Channels: Everbridge Network Alertus Web Posting Social Media

CAP Channels: Wireless Emergency Alerts (WEA) CAP RSS Feed

Emergency Alert System (EAS)

Non-Weather Emergency Messages (NWEM)

COG to COG (CAPEXCH)

▼ CAP CHANNELS (WEA, EAS, NWEM, CAPEXCH)

Test Mode - This message will only be sent to the IPAWS test environment. Status: Available

* PIN Enter IPAWS credentials

CAP Fields

	WEA	EAS	NWEM	CAPEXCH
*Message Status	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Source	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*Scope	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Restriction				<input type="checkbox"/>
Addresses				<input type="checkbox"/>

Enter a good Description and Instruction because they become the narrative broadcast by NWR and narrative in the NWS text product used by others.

File Tools

Choose Alert Type: **civil emergency message** Alert Duration: **00:15** Choose Destinations

Quick Alert

Areas to Alert: FL - Brevard County

Message Type: **Alert** Event Category: **Safety** Urgency: **Immediate** Severity: **Severe** Certainty: **Likely**

English (U.S.) | Spanish (U.S.)

URL for Additional Information:

Headline: **EAS Civil Emergency Message**

Description: **41** characters
This is a test this is a test this is a test

Mobile Short Text: 35 characters (5 more required)
This is a test of the 90 characters

Mobile Long Text: 36 characters (4 more required)
This is a test of the 360 characters

Recommended action to be taken:
This is the recommended action

Record Audio Pre-recorded Audio

Attachments	Size	M:SS
...Remote Station\temp\CL_011_ID7093_TM602D155A_TM5F623444_en-US.mp3	94.1K	0:11

WOUS44 KMRX 032016
LEWMRX
TNC011-032116-

BULLETIN - EAS ACTIVATION REQUESTED
LAW ENFORCEMENT WARNING
TN CLEVELAND/BRADLEY COUNTY EMERGENCY MANAGEMENT AGENCY
RELAYED BY NATIONAL WEATHER SERVICE MORRISTOWN TN
316 PM EST WED FEB 3 2021

...MISSING ENDANGERED CHILD...

THE FOLLOWING MESSAGE IS TRANSMITTED AT THE REQUEST OF TN.

NAME: HAWKINS... AMANDA M
SEX: FEMALE
RACE: WHITE
HEIGHT:
5'00"
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DATE OF
BIRTH: 09/22/1992

SUSPECT VEHICLE DESCRIPTION: 2005 GOLD
CADILLAC STS DISPLAYING TN REGISTRATION CSY-948

CHILD
DESCRIPTION:
BELLA LENA HAWKINS
3 YEARS OLD
WHITE FEMALE
2FT
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POUNDS
GREEN EYES
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BE ON THE LOOKOUT FOR THE FOLLOWING INDIVIDUAL WHO IS A PERSON OF INTEREST IN AN ONGOING CUSTODIAL INTERFERENCE INVESTIGATION. IF YOU KNOW THE LOCATION OF OR HAVE INFORMATION REGARDING THE INDIVIDUALS OF THIS MESSAGE CONTACT THE CLEVELAND POLICE DEPARTMENT AT (423)728-7311 EXT. 0 FOR ADDITIONAL DETAILS SEE THE CLEVELAND POLICE DEPARTMENT SOCIAL MEDIA PAGES.
[HTTPS://WWW.FACEBOOK.COM/CLEVELANDPOLICETN/](https://www.facebook.com/clevelandpolicetn/)

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A6BEF99E-BECC-A34B-DF0A-B9F45F967C8B/BRADLEYCO



Check punctuation and avoid use of special characters

Be careful if you paste content in your alert origination software. Check for unexpected characters. In this case, question marks were somehow entered into the alert Description or produced by the alert origination software and carried over into the NWS alert.

Place a space between each digit in phone numbers. Without the spaces, NWR's text to speech engine (and perhaps those of other systems) would have read these as long numbers (i.e. "two billion five hundred fourteen thousand..." and "nine hundred eleven").

```
WOUS44 KBMX 300942
CAEAL
ALC000-300957-

BULLETIN - EAS ACTIVATION REQUESTED
CHILD ABDUCTION EMERGENCY
AL ALABAMA LAW ENFORCEMENT AGENCY
RELAYED BY NATIONAL WEATHER SERVICE BIRMINGHAM AL
342 AM CST SAT JAN 30 2021

...AMBER ALERT - PRITCHARD AL...

THE FOLLOWING MESSAGE IS TRANSMITTED AT THE REQUEST OF AL ALABAMA
LAW ENFORCEMENT AGENCY.

THE STATE OF ALABAMA HAS ISSUED A CHILD ABDUCTION EMERGENCY AMBER
ALERT. THE PRICHARD POLICE DEPARTMENT AND THE ALABAMA LAW
ENFORCEMENT AGENCY ASK FOR YOUR ASSISTANCE IN LOCATING KAMEL
KARTER ANTONE BLACK MALE 11 MONTHS OLD. KAMEL ANTONE WAS SEEN ON
JANUARY 29 2021 AT APPROXIMATELY 11 P M WEARING A BLUE AND WHITE
SLEEPER WITH A RED UNDER SHIRT IN THE AREA OF DIAL STREET IN
PRICHARD AL AND IS BELIEVED TO BE IN EXTREME DANGER. THE CHILD WAS
ABDUCTED BY JAKOBIE RASHID ANTONE. ANTONE WAS LAST SEEN WEARING AN
ALL BLACK HOODIE BLACK JEANS AND BLACK SHOES. HE HAS A TATTOO ON
THE NECK OF CHINESE WRITING INSIDE RIGHT BICEP TATTOO ?LOYAL? AND
INSIDE LEFT BICEP TATTOO ?RESPECT?. THE SUBJECTS MAY BE TRAVELING
IN A WHITE OR SILVER CHEVROLET MALIBU BEARING AN ALABAMA OR TEXAS
LICENSE PLATE. IF YOU HAVE ANY INFORMATION REGARDING THIS MISSING
CHILD PLEASE CONTACT THE PRICHARD POLICE DEPARTMENT AT 2 5 1 4 5
2 2 2 1 1 OR CALL 9 1 1.

$$
```

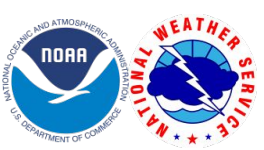
NWS NWEM Dissemination Only as Good as What You Send Us

Alert software vendor did not properly populate CAP <senderName> with requestingAgency as recommended in the latest IPAWS Design guidance

Incomplete Description makes this **alert unsuitable for NWS dissemination**. CAP message received by NWS suggests EM entered incomplete Description or a software issue.

```
<description>THIS IS A NORTH CAROLINA AMBER ALERT FOR A CHILD  
ABDUCTION....THE...</description>
```

```
WOUS42 KRAH 261651  
CAENC  
NCC000-261951-  
  
BULLETIN - EAS ACTIVATION REQUESTED  
CHILD ABDUCTION EMERGENCY  
NC NORTH CAROLINA DEPARTMENT OF PUBLIC SAFETY  
RELAYED BY NATIONAL WEATHER SERVICE RALEIGH NC  
1151 AM EST TUE JAN 26 2021  
  
...EAS CHILD ABDUCTION EMERGENCY...  
  
THE FOLLOWING MESSAGE IS TRANSMITTED AT THE REQUEST OF FL.  
  
THIS IS A NORTH CAROLINA AMBER ALERT FOR A CHILD  
ABDUCTION....THE...  
  
$$  
  
NC.001_580_2021-01-26T11:51:30-05:00/NC.001_580_2021-01-26T11:51:3  
0-05:00
```



Thank you!

- Impact-Based Warnings and WEAs
 - Severe Tstm, Tornado, Flash Flood
- NWS Hazard Message Simplification:
 - “Headline” Changes/Streamlining this year
 - “Advisory” going away no earlier than 2024
- NWS Weather Support for events
- Review of NWS Support in 2020
 - Hurricanes Isaias & Laura, Winter Storms, etc.
- Non-Weather Emergency Messages for IPAWS from EM