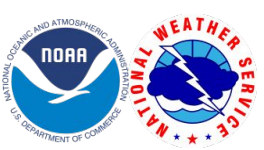


# NWS Updates



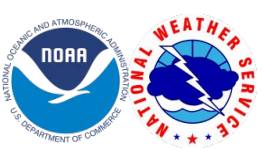
**Trisha Palmer**

**Warning Coordination Meteorologist**  
*National Weather Service Greenville-Spartanburg, SC*

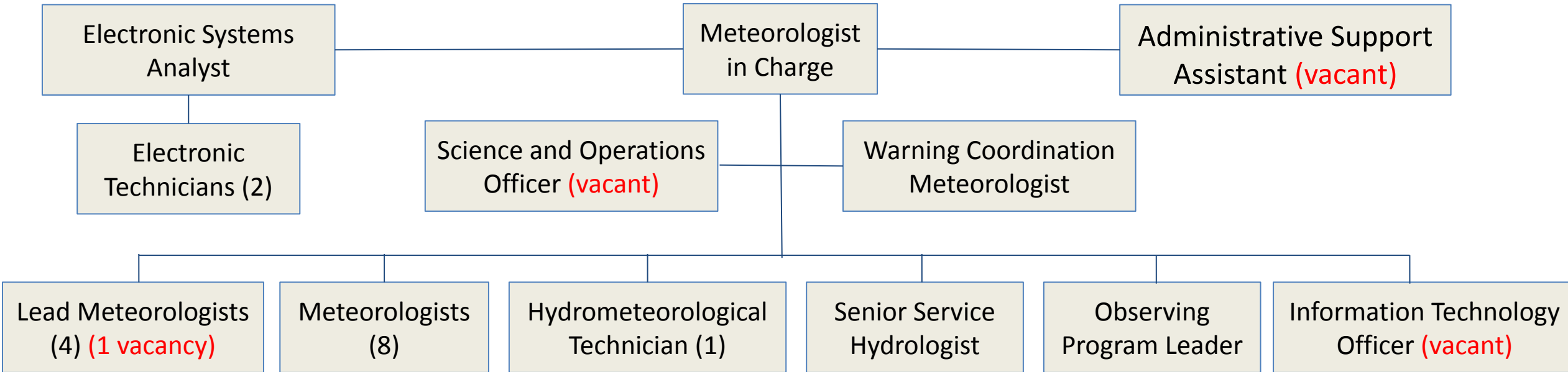


# 2023-2033 NWS Strategic Plan

- “Transforming the NWS into a more Nimble, Flexible, and Mobile agency providing indispensable mission services eye to eye with Decision Makers”
  - Goal 1: People as top priority - always!
  - Goal 2: Improve our infrastructure to be resilient and reliable
  - Goal 3: Transform our agency to meet current and future needs of society\*
    - Specifically: 3.1 - Enable and empower NWS personnel to provide water, weather, and climate services to decision makers anytime and anywhere (eye to eye objective).



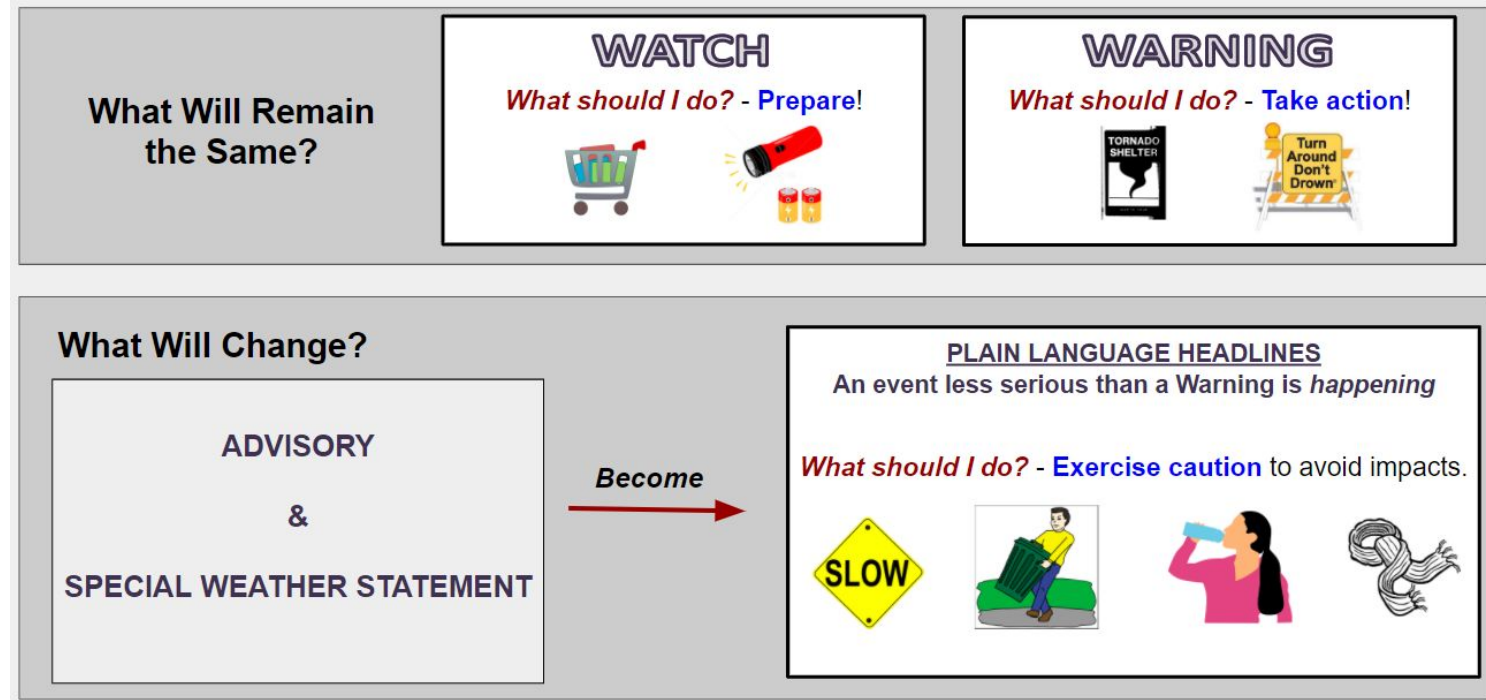
## NWS GSP Personnel Status (24 full-time)



25% of our staff are within 5 years of retirement; 4 are already eligible

# Hazard “Simplification” Update - Advisories and SPSs

- Advisories and Special Weather Statements will be replaced by “Plain Language Headlines”
- Not before 2025
  - This was supposed to be 2024 but was delayed (software issues)





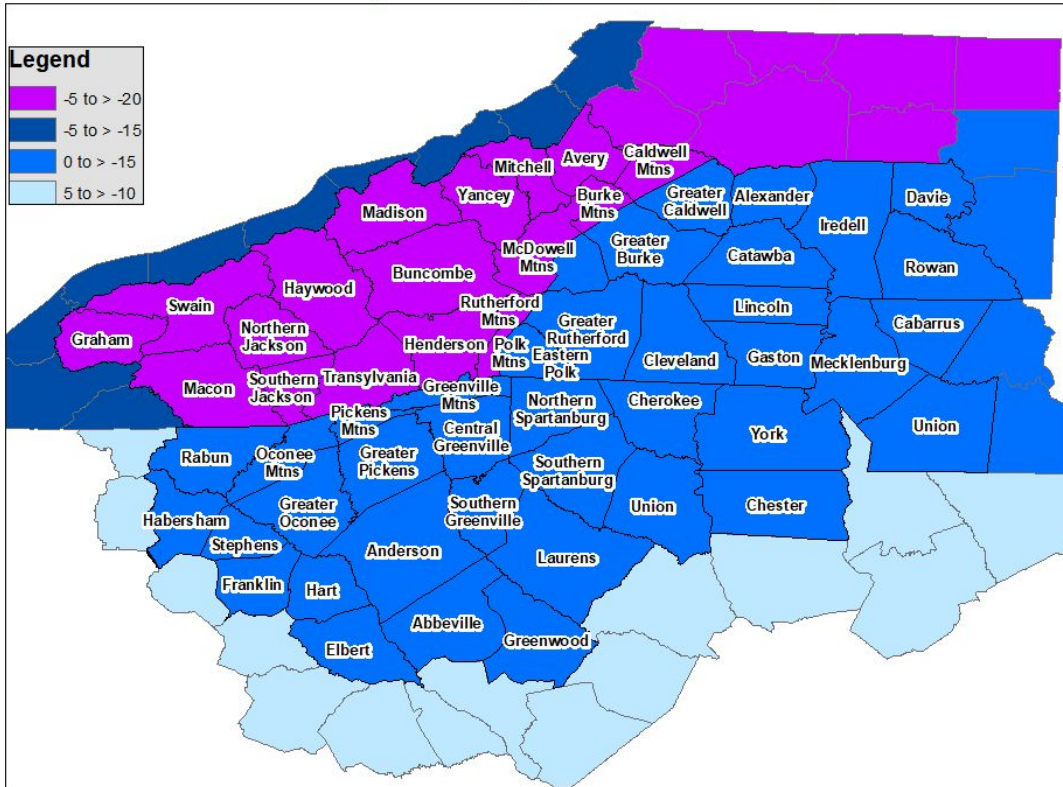
# NATIONAL WEATHER SERVICE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

## New Cold Weather Headlines - Winter 2024-2025

### To replace Wind Chill Advisory/Warning

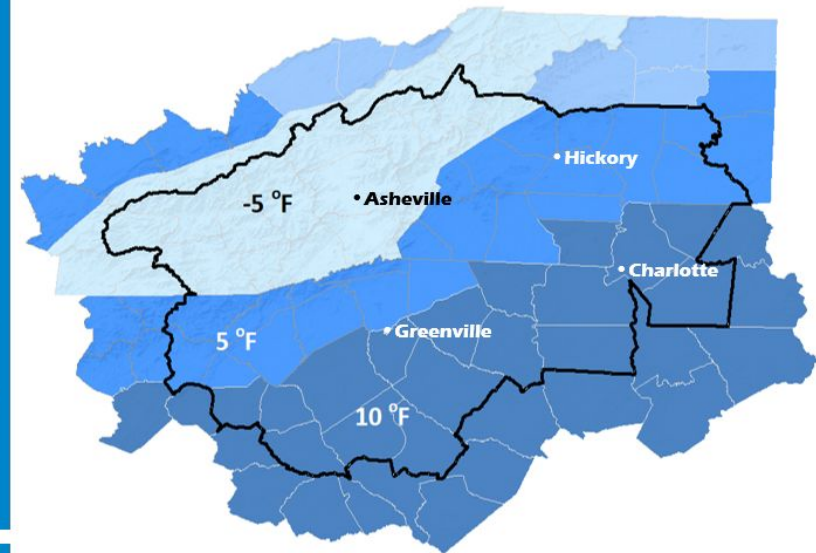
NWS Greenville/Spartanburg Wind Chill Advisory Criteria



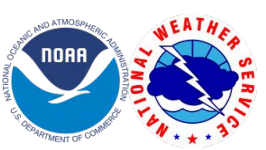

Cold  
Weather  
Advisory



## Greenville-Spartanburg



The map illustrates air temperatures that would initiate a Cold Weather Advisory for the GSP county warning area (CWA).



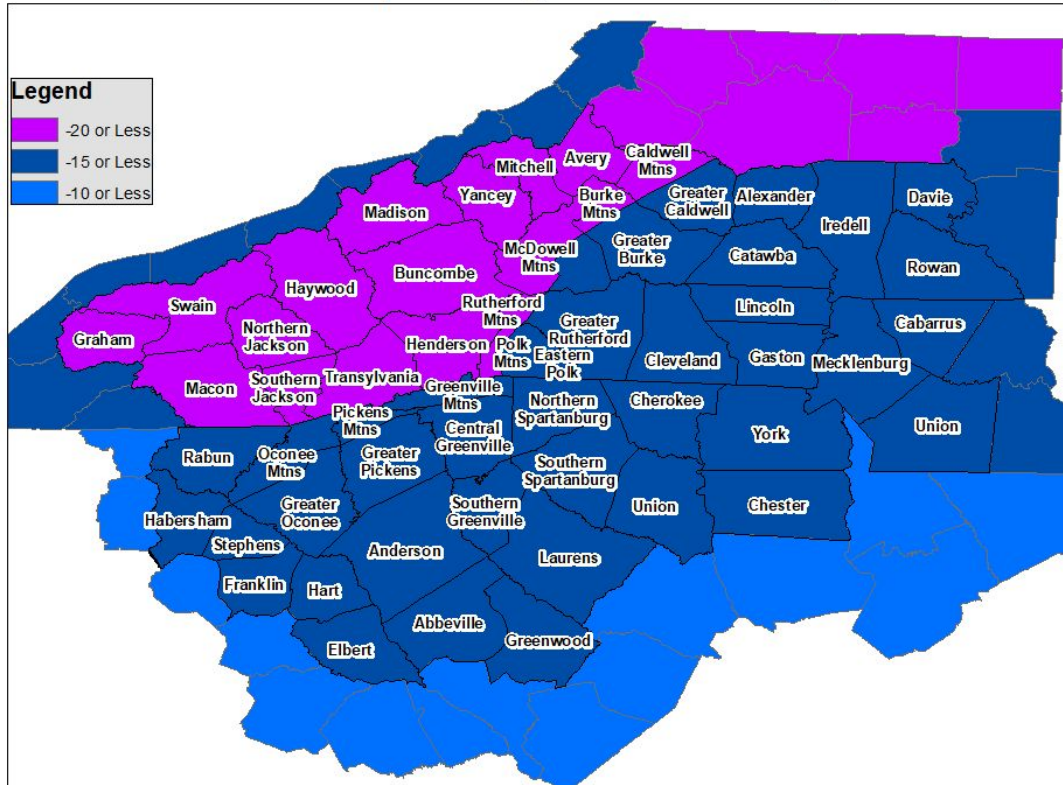
# NATIONAL WEATHER SERVICE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

## New Cold Weather Headlines - Winter 2024-2025

### To replace Wind Chill Advisory/Warning

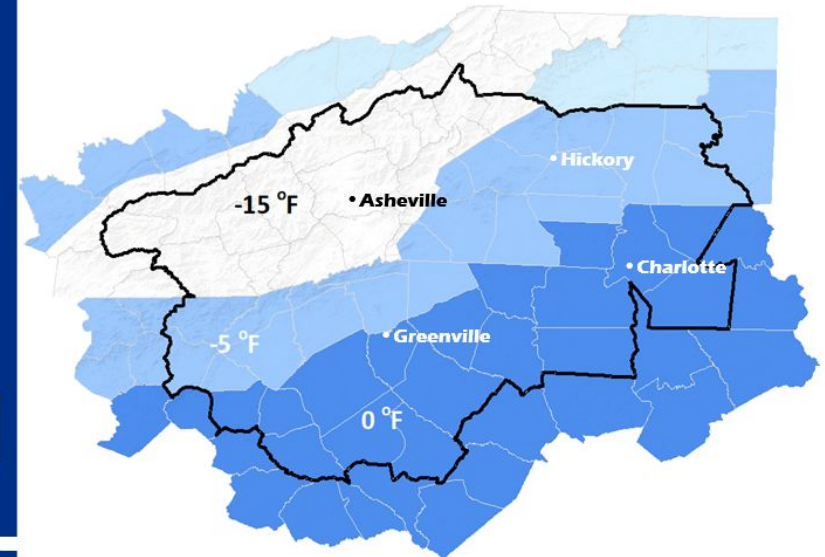
NWS Greenville/Spartanburg Wind Chill Warning Criteria




# Extreme Cold Warning



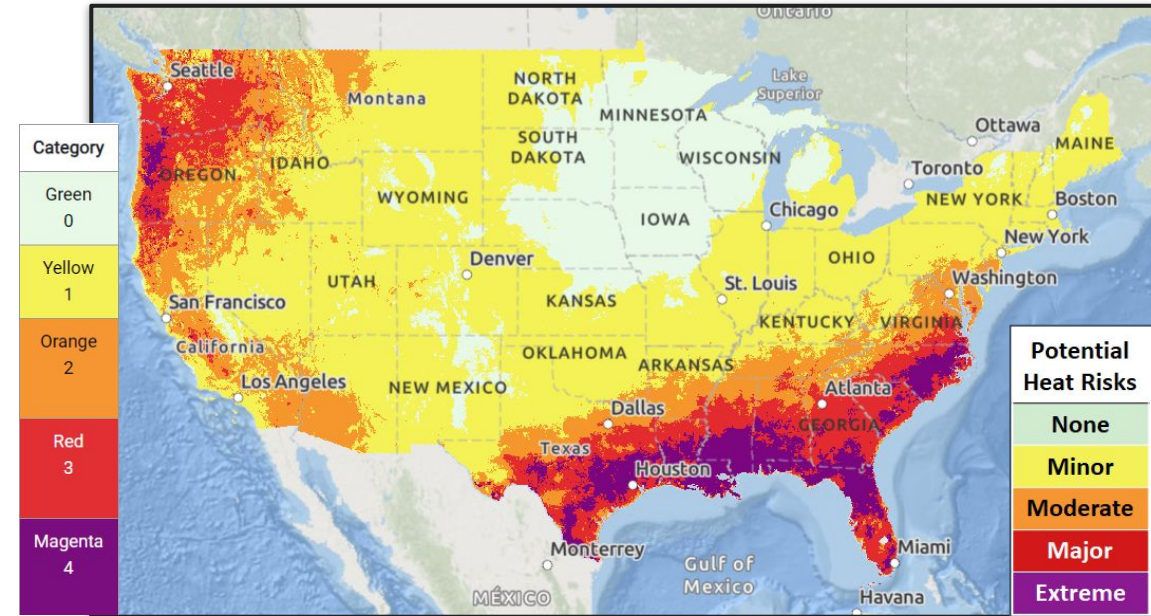
## Greenville-Spartanburg

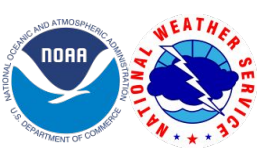


The map illustrates air temperatures that would initiate an Extreme Cold Warning for the GSP county warning area (CWA).

## Experimental HeatRisk

- Heat is the #1 killer
- HeatRisk (*Experimental*) is a
  - Numeric color-based index
  - Serves as framework to use peer-reviewed heat-health science/data *consistently* across the country
  - Developed as a heat service (includes serving heat-vulnerable populations)
  - Unique local thresholds based on local climatology and CDC heat-health relationship





# Experimental Heat Risk Categories

- **None (0)**: Little to no risk from expected heat
- **Minor (1)**:
  - Minor risk in “at risk” populations. Minor spike in heat illness. Non-zero, but very low, risk of mortality expected.
- **Moderate (2)**:
  - Moderate risk of heat-related impacts, mostly in “at risk” populations without effective cooling and/or hydration.
  - Primarily heat-related illness. Non-zero, but low, risk of heat-related mortality expected
  - “Hot” during the day, “warm” at night to general population in normally cooler climates.
- **Major (3)**:
  - Major risk of widespread heat-related impacts (including illness and mortality) for anyone without effective cooling and/or hydration.
  - Excessively warm day and nights (generally above 95th percentile)
- **Extreme (4)**:
  - ***Rare long duration and/or extreme event***
  - Extreme risk of widespread heat-related impacts (including illness and mortality) for anyone without effective cooling and/or hydration
  - Temps above 95th percentile for 2+ days and/or near all-time records

# Experimental Heat Risk Categories

- **None (0):** Little to no risk from expected heat
- **Minor (1):**
  - Minor risk in “at risk” populations. Minor spike in heat illness. Non-zero, but very low, risk of mortality expected.
- **Moderate (2):**
  - Moderate risk of heat-related impacts, mostly in “at risk” populations without effective cooling and/or hydration.
  - Primary
  - “Hot” c
- **Major (3):**
  - Major i
  - and/or
  - Excessi
- **Extreme (4):**
  - **Rare long duration and/or extreme event**
  - Extreme risk of widespread heat-related impacts (including illness and mortality) for anyone without effective cooling and/or hydration
  - Temps above 95th percentile for 2+ days and/or near all-time records

*Primary difference between **Extreme** and **Major** is duration and/or maximum intensity of heat. Both are potentially VERY impactful.*

# Experimental HeatRisk Info

- Fully deployed by end of May 2024
- During “Experimental” phase, won’t be supported 24/7
- This is another tool

## Heat Index

NWS Heat Index		Temperature (°F)															
		80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136	138
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	141	143
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137	141	143	145
55	81	84	86	89	93	97	101	106	112	117	124	130	137	141	143	145	147
60	82	84	88	91	95	100	105	110	116	123	129	137	141	143	145	147	149
65	82	85	89	93	98	103	108	114	121	128	136	141	143	145	147	149	151
70	83	86	90	95	100	105	112	119	126	134	141	143	145	147	149	151	153
75	84	88	92	97	103	109	116	124	132	141	143	145	147	149	151	153	155
80	84	89	94	100	106	113	121	129	138	141	143	145	147	149	151	153	155
85	85	90	96	102	110	117	126	135	141	143	145	147	149	151	153	155	157
90	86	91	98	105	113	122	131	141	143	145	147	149	151	153	155	157	159
95	86	93	100	108	117	127	137	141	143	145	147	149	151	153	155	157	159
100	87	95	103	112	121	132	141	143	145	147	149	151	153	155	157	159	161

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

■ Caution   
 ■ Extreme Caution   
 ■ Danger   
 ■ Extreme Danger

Heat stress in context for **general public.**

- Relatively simple: T + RH
- Light physical activity in shade

5'7" adult, 147.7 lbs, walking outside at 3.1 mph, wearing trousers and short sleeved shirt

## Wet Bulb Globe Temperature

Disclaimer: Always check with local officials for appropriate actions and activity levels. Experienced heat stress will depend upon duration and intensity of activity and personal health and vulnerability.

WBGT by Region (°F)			Threat Level WBGT at these values increasing heat stress.	Risk of heat illness				
Region 1	Region 2	Region 3		Low	Elevated	Moderate	High	Extreme
<72.3	<75.9	<78.3	Low Threat	Low	Elevated	Moderate	High	Extreme
72.3 - 76.1	75.9 - 78.7	78.3 - 82.0	Elevated Threat	Low	Elevated	Moderate	High	Extreme
76.2 - 80.1	78.8 - 83.7	82.1 - 86.0	Moderate Threat	Low	Elevated	Moderate	High	Extreme
80.1 - 84.0	83.6 - 87.6	86.1 - 90.0	High Threat	Low	Elevated	Moderate	High	Extreme
>84.0	>87.6	>90.0	Extreme Threat	Low	Elevated	Moderate	High	Extreme

Regions are from Grunstein, A., Williams, C., Phan, M. and Cooper, E. United States. Applied Geography, 56, pp.

Heat stress in context for **healthy, active outdoor communities.**

- More Complex: T + RH + wind + solar radiation
- High levels of outdoor physical activity

## HeatRisk (experimental)

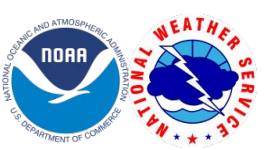
Risk of heat related impacts in **climatological context** with CDC heat-health information.

- Impacts-based: MaxT + MinT + CDC heat-health data
- Spectrum of heat-health impacts for *all* populations



## NWSChat/Slack

- <https://partnerservices.nws.noaa.gov/registration>
- NWS HQ cracking down on registrants: CORE PARTNERS ONLY
  - Members of the EM community (EM-approved Ham radio net control operators)
  - Government partners
  - Water resources community
  - Real-time media (“social media-ologists” don’t count)
- Re-validation: every 6 months
  - Email request will come from [nws.partnersupport@noaa.gov](mailto:nws.partnersupport@noaa.gov)
  - 3 emails before your account is deactivated
- Contact me or Jake if you have questions or concerns



## NWSChat/Slack

- <https://partnerservices.nws.noaa.gov/registration>
- NWS HQ cracking down on registrants: CORE PARTNERS ONLY
  - Members of the EM community (EM-approved Ham radio net control operators)
  - Government partners
  - Water resources community
  - Real-time media (“social media-ologists” don’t count)
- Re-validation: every 6 months
  - Email request will come from [nws.partnersupport@noaa.gov](mailto:nws.partnersupport@noaa.gov)
  - 3 emails before your account is deactivated
- Contact me or Jake if you have questions or concerns
- Now to the poll questions...

## Now that we've been using it a while, what are your thoughts on the new NWSChat?

I love it!



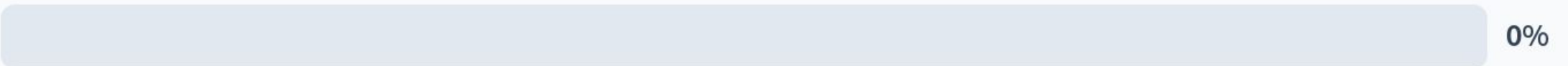
I like some of the new features, but I can take it or leave it.



I prefer the legacy NWSChat.



I don't use it.



We currently have 3 main public NWSChat channels: the main channel, datafeed (products), and stormreports (all LSRs). Some partners have requested that we add convective warnings (TORs, SVRs, and FFWs) to the main channel. Do you agree?

No, I think it would clutter the main channel

0%

Yes, I think it would be helpful

0%

I can go either way

0%

I'm not in NWSChat so I have no opinion

0%



## What is some specific feedback you have about NWSChat?

Nobody has responded yet.

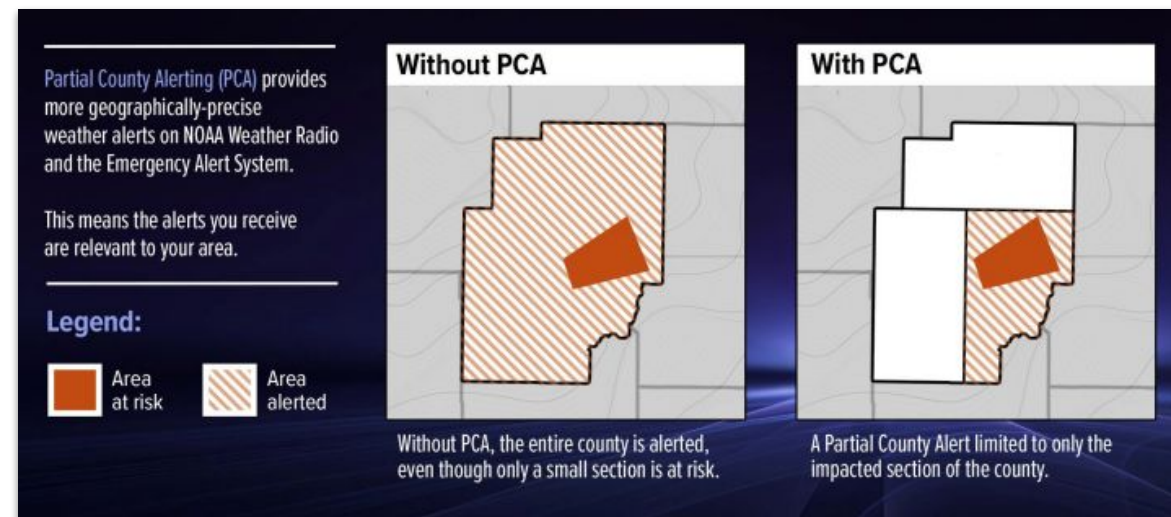
Hang tight! Responses are coming in.



## Partial County Alerting (PCA)

- NOAA Weather Radio is currently “county-based”
- PCA provides more geographically-precise weather alerts
- Fewer watches/warnings on NWR
  - Fewer programming interruptions on TV, radio, and cable systems that relay warnings via EAS

• <https://www.weather.gov/pca/>

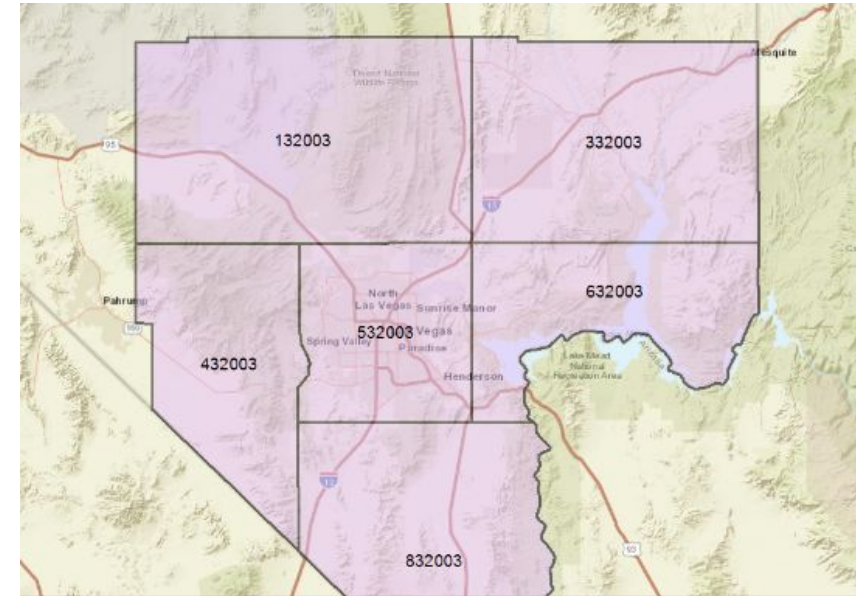


# How Does PCA Work?

- SAME Code: PSSCCC
  - 6-digit location code
  - P(artial) S(tate) S(tate) C(ounty) C(ounty) C(ounty)
  - Spartanburg SSCCC: 045083
- PCA is *opt in*
  - For EAS, broadcasters (particularly cable systems) choose partitions to convey based on broadcast footprints and partitions they do/do not service
  - NWR listeners using Public Alert™ SAME receivers choose partitions they want to receive warnings
  - *If no choice is made, there is no service degradation*

Numbers represent geographical area of the county (1 is NW, 9 is SE, etc)

1	2	3
4	5	6
7	8	9



Clark County, NV, has over 2.2 million residents. Metro Las Vegas (central zone) has over 2 million.  
State code: 32, County code: 003.



# Partial County Alerting (PCA)

- It's not all peaches and cream - NOT a quick process
  - Implemented once a year (spring)
  - Process must be started **a year** in advance
  - FCC Part 11 states *“Any subdivisions must be defined and agreed to by the local officials prior to use.”*
    - Meetings with EMs, State Emergency Communications Committees (State EAS Plan update), broadcaster organizations, stakeholders, government officials
  - Proposed implementations preceded by public comment period
  - GIS work on NWS side once subdivisions are agreed upon
- **This isn't feasible for every county**
  - Large counties? Geographically complex counties?
  - Targeted population centers in otherwise rural counties?
- Want it in your county? Reach out to us (reach out to the county EM first)!

# Quick-n-Dirty Impact-Based Warnings Review - WEA

## TOR



- BASE

- Rotation indicated
- Possibly confirmed



- CONSIDERABLE

- Confirmed
- “Considerable” damage



- CATASTROPHIC

- Confirmed, large, violent
- Tornado **EMERGENCY**

Note: Our office has never issued a Tornado **Emergency**

# Quick-n-Dirty Impact-Based Warnings Review - WEA

## TOR



● **BASE**

- Rotation indicated
- Possibly confirmed



● **CONSIDERABLE**

- Confirmed
- "Considerable" damage



● **CATASTROPHIC**

- Confirmed, large, violent
- Tornado **EMERGENCY**

## FFW



● **BASE**

- Isolated prop impacts
- Some emer. response



● **CONSIDERABLE**

- Widespread response
- Structural impacts



● **CATASTROPHIC**

- Major/overwhelming impacts
- Flash Flood **EMERGENCY**

Note: Our office has issued 10 Flash Flood **Emergencies** since 2014

# Quick-n-Dirty Impact-Based Warnings Review - WEA

## TOR



- **BASE**
  - Rotation indicated
  - Possibly confirmed



- **CONSIDERABLE**
  - Confirmed
  - "Considerable" damage



- **CATASTROPHIC**
  - Confirmed, large, violent
  - Tornado **EMERGENCY**



## FFW

- **BASE**
  - Isolated prop impacts
  - Some emer. response



- **CONSIDERABLE**
  - Widespread response
  - Structural impacts



- **CATASTROPHIC**
  - Major/overwhelming impacts
  - Flash Flood **EMERGENCY**



## SVR

- **BASE**
  - Standard warning
  - 60mph
  - 1" hail (quarters)



- **CONSIDERABLE**
  - 70mph
  - 1.75" hail (golfballs)



- **DESTRUCTIVE**
  - 80mph (tornado-like)
  - 2.75" hail (baseballs)



# IDSS Forecast Points Page

<https://www.weather.gov/forecastpoints>

Prototype IDSS Point Forecasts

Provide Feedback for the IDSS Point Forecast Web Public Information State

Help | Change Domain | Bookmark | Legend

Search Map...

Prototype IDSS Point Forecasts

Help | Change Domain | Bookmark | Legend

Search Map...

Hourly Table

Day of week:	Wednesday 4/20								Thursday 4/21								
Time:	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	12AM	1AM	2AM	3AM	4AM	5AM	6AM	7AM	8AM
Weather:	☀	☀	☀	☀	☀	☀	☀	☀	☀	☀	☀	☀	☀	☀	☀	☀	☀
Temperature (°F):	67	67	66	65	61	57	56	55	53	52	51	50	50	50	49	48	50
Heat Index, °F:	67	67	67	65	61	57	56	55	53	52	51	49	49	50	49	48	51
Wind Speed (mph):	8	8	7	6	5	5	5	5	5	5	5	3	3	2	2	1	2
Wind Gust (mph):	12	12	10	9	8	7	7	6	6	7	6	6	5	3	3	2	2
Wind Direction (°):	160	160	160	150	140	140	130	120	130	140	150	160	190	200	200	190	190
Wind Direction:	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗
Prob. of Precip. (%):	0	0	0	0	0	0	0	1	1	0	1	1	1	1	1	1	1
Prob. of Thunder (%):	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Precip. Amount (in.):	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Snow (in.):	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ice (in.):	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

“That forecast points page is the best thing since peanut butter!”



GSP Forecast Discussion  
3 miles SSE of Greer, SC

Weekly Summary

- Max Temp, °F
- Max Heat Index, °F
- Min Temp, °F
- Max Wind, mph
- Min Wind, mph
- Max Wind Gust, mph
- Max Cloud Cover, %
- Min Cloud Cover, %
- Max Prob. of Precip., %
- Max Prob. of Thunder, %
- Max RH, %
- Min RH, %
- Max Dew Point, °F
- Min Dew Point, °F

	Wed Apr 20	Thu Apr 21	Fri Apr 22	Sat Apr 23	Sun Apr 24	Mon Apr 25	Tue Apr 26
Max Temp, °F	67	74	81	81	81	84	80
Max Heat Index, °F	67	73	80	80	80	82	76
Min Temp, °F	47	47	51	54	56	57	59
Max Wind, mph	8	7	6	7	8	10	10
Min Wind, mph	5	1	1	1	2	2	2
Max Wind Gust, mph	12	10	8	12	14	16	17
Max Cloud Cover, %	70	81	18	15	29	27	36
Min Cloud Cover, %	24	11	1	1	6	7	19
Max Prob. of Precip., %	1	4	2	1	1	25	40
Max Prob. of Thunder, %	0	0					
Max RH, %	58	86	92	87	87	86	84
Min RH, %	29	42	41	38	37	37	40
Max Dew Point, °F	40	52	56	56	54	58	56
Min Dew Point, °F	34	42	51	52	52	53	43

Outlooks

	Day 1	Day 2	Day 3
Severe Thunderstorm	Not Expected	Not Expected	Not Expected
Excessive Rainfall	Not Expected	Not Expected	Not Expected

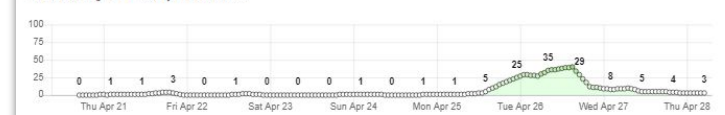
Hourly Table

Hourly Graphs

Temperature, °F



Probability of Precipitation, %

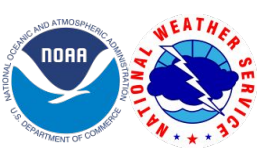


Probability of Thunder, %



Precip. Amount, in





# Questions? Comments?

- Need immediate weather support or a weather briefing?
  - Call the office: 864-848-9973 (24/7)
- Have a question or concern about anything else (that's NOT immediate weather support)?
  - Email or call me: [trisha.palmer@noaa.gov](mailto:trisha.palmer@noaa.gov), 864-436-6799
- Let me know how we can help!