

August President's Message  
Hazard Simplification: Put Simply, Get 'er Done

Dave Freeman, 2016 NWA President

Take a good, hard, long look at the list (<http://www.weather.gov/help-map>) you see at the bottom of this article. I am very sure that over the long history of the National Weather Service's weather warnings program, there were good reasons—apparently at least 122 good reasons—for the way that we try to communicate weather risks to the general public. But as the old saying goes, “The road to hell is paved with good intentions.” We started down the road with very good intentions, and each paving stone was laid with good intentions. But the road has taken us to a place we did not intend—or want—to go.

The genesis of our weather warnings system was in the “Dark Ages of Communication” compared to today. When the first weather warnings were issued, there were very primitive means of communicating with the general public. Basically, it didn't matter whether a weather warning was issued in the middle of the night, for example, because there was no practical means to deliver that message to people who were at home, sound asleep. Weather information was on a “pull” basis—someone had to want the information and seek it out—by turning on the radio or the TV.

But the world has changed when it comes to communication! With the expansion of NOAA Weather Radio and the addition of tone alerting in the early 1970s, we began a quick march to a world of “push” alerts. Throw in mobile phones, tablets, and even computerized phone calls to land lines, and you have a population that is increasingly connected 24/7 to a blizzard of weather information.

That's because at the same time we were seeing these tremendous advances in communication technology and infrastructure, we were also witnessing a revolution in the weather business. The steady advance of modern meteorology in the first half of the 20th century became a torrent of new technology, knowledge and capability in the closing years of the century. All of a sudden, we meteorologists could detect and forecast many things that were previously unknown or out of reach. So we did.

And we ended up with 122 different NWS weather hazard products. Given that research consistently shows that the average person on the street probably can't even tell you the difference between a Tornado Watch and a Tornado Warning, it is clear we have a communication problem.

This is seriously complicated by the fact that so many people are now connected with mobile devices on their bedside table, and yes, NOAA Weather Radios. When we issue something at 2:00 in the morning, people actually get the message. And they are not necessarily happy about it!

























So it is heartening that our community, our National Weather Service, is meeting this challenge head-on. The NWS Hazard Simplification Project is making good progress toward designing a path forward for our community that will reflect modern communication and social science realities and our meteorological capabilities. You can see some of the current progress on the Weather Ready Nation website. <http://www.nws.noaa.gov/com/weatherreadynation/files/HazardSimplification.pdf>


































We also have some great examples of how other nations have navigated this course—the UK Met Office being one that we learned about at our NWA Annual Meeting in 2014.


































I urge everyone in the operational meteorology community to support these efforts, even knowing that it is very likely that some sacred cows will have to be sacrificed. The bottom line is that our effectiveness is only partially measured by FARs and PODs. The real measure of the success of a weather warning is this: Did the people take the appropriate action in time to protect lives and property?





























(If you would like to learn more about this, check out this excellent presentation on the NWS Warning Decision Training Division website. <http://wdtb.noaa.gov/courses/awoc/documentation/handouts-Core/The-Warning-Response-Process.pdf> Full disclosure: you will see a familiar face.)

I urge the Hazard Simplification Team and the leadership of the National Weather Service to be bold and proactive. No doubt this will be a topic of some interest and discussion at our Annual Meeting in a couple of weeks. I look forward to seeing you there!

Hazard / Weather Event Click on the Hazard/Weather Event For Definitions	Color Sample	Color Name	RGB Color	Hex Code
<a href="#"><u>911 Telephone Outage</u></a>		Silver	192 192 192	C0C0C0
<a href="#"><u>Administrative Message</u></a>		White	255 255 255	FFFFFF
<a href="#"><u>Air Quality Alert</u></a>		Gray	128 128 128	808080
<a href="#"><u>Air Stagnation Advisory</u></a>		Gray	128 128 128	808080
<a href="#"><u>Arroyo and Small Stream Flood Advisory</u></a>		Springgreen	0 255 127	00FF7F
<a href="#"><u>Ashfall Advisory</u></a>		Dimgray	105 105 105	696969
<a href="#"><u>Ashfall Warning</u></a>		Darkgray	169 169 169	A9A9A9
<a href="#"><u>Avalanche Advisory</u></a>		Peru	205 133 63	CD853F
<a href="#"><u>Avalanche Warning</u></a>		Dodgerblue	30 144 255	1E90FF
<a href="#"><u>Avalanche Watch</u></a>		Sandybrown	244 164 96	F4A460
<a href="#"><u>Beach Hazards Statement</u></a>		turquoise	64 224 208	40E0D0
<a href="#"><u>Blizzard Warning</u></a>		Orangered	255 69 0	FF4500
<a href="#"><u>Blizzard Watch</u></a>		Greenyellow	173 255 47	ADFF2F
<a href="#"><u>Blowing Dust Advisory</u></a>		Darkkhaki	189 183 107	BDB76B
<a href="#"><u>Brisk Wind Advisory</u></a>		Thistle	216 191 216	D8BFD8
<a href="#"><u>Child Abduction Emergency</u></a>		Gold	255 215 0	FFD700
<a href="#"><u>Civil Danger Warning</u></a>		Lightpink	255 182 193	FFB6C1
<a href="#"><u>Civil Emergency Message</u></a>		Lightpink	255 182 193	FFB6C1
<a href="#"><u>Coastal Flood Advisory</u></a>		Lawngreen	124 252 0	7CFC00
<a href="#"><u>Coastal Flood Statement</u></a>		Olivedrab	107 142 35	6B8E23
<a href="#"><u>Coastal Flood Warning</u></a>		Forestgreen	34 139 34	228B22
<a href="#"><u>Coastal Flood Watch</u></a>		Mediumaquamarine	102 205 170	66CDAA
<a href="#"><u>Dense Fog Advisory</u></a>		Slategray	112 128 144	708090
<a href="#"><u>Dense Smoke Advisory</u></a>		Khaki	240 230 140	F0E68C
<a href="#"><u>Dust Storm Warning</u></a>		Bisque	255 228 196	FFE4C4

Hazard / Weather Event Click on the Hazard/Weather Event For Definitions	Color Sample	Color Name	RGB Color	Hex Code
<a href="#"><u>Earthquake Warning</u></a>		Saddlebrown	139 69 19	8B4513
<a href="#"><u>Evacuation - Immediate</u></a>		Chartreuse	127 255 0	7FFF00
<a href="#"><u>Excessive Heat Warning</u></a>		Mediumvioletred	199 21 133	C71585
<a href="#"><u>Excessive Heat Watch</u></a>		Maroon	128 0 0	800000
<a href="#"><u>Extreme Cold Warning</u></a>		Blue	0 0 255	0000FF
<a href="#"><u>Extreme Cold Watch</u></a>		Blue	0 0 255	0000FF
<a href="#"><u>Extreme Fire Danger</u></a>		Darksalmon	233 150 122	E9967A
<a href="#"><u>Extreme Wind Warning</u></a>		Darkorange	255 140 0	FF8C00
<a href="#"><u>Fire Warning</u></a>		Sienna	160 82 45	A0522D
<a href="#"><u>Fire Weather Watch</u></a>		navajowhite	255 222 173	FFDEAD
<a href="#"><u>Flash Flood Statement</u></a>		Darkred	139 0 0	8B0000
<a href="#"><u>Flash Flood Warning</u></a>		Darkred	139 0 0	8B0000
<a href="#"><u>Flash Flood Watch</u></a>		Seagreen	46 139 87	2E8B57
<a href="#"><u>Flood Advisory</u></a>		Springgreen	0 255 127	00FF7F
<a href="#"><u>Flood Statement</u></a>		Lime	0 255 0	00FF00
<a href="#"><u>Flood Warning</u></a>		Lime	0 255 0	00FF00
<a href="#"><u>Flood Watch</u></a>		Seagreen	46 139 87	2E8B57
<a href="#"><u>Freeze Warning</u></a>		Darkslateblue	72 61 139	483D8B
<a href="#"><u>Freeze Watch</u></a>		Cyan	0 255 255	00FFFF
<a href="#"><u>Freezing Fog Advisory</u></a>		Teal	0 128 128	008080
<a href="#"><u>Freezing Rain Advisory</u></a>		Orchid	218 112 214	DA70D6
<a href="#"><u>Freezing Spray Advisory</u></a>		deepskyblue	0 191 255	00BFFF
<a href="#"><u>Frost Advisory</u></a>		Cornflowerblue	100 149 237	6495ED
<a href="#"><u>Gale Warning</u></a>		Plum	221 160 221	DDA0DD
<a href="#"><u>Gale Watch</u></a>		Pink	255 192 203	FFC0CB
<a href="#"><u>Hard Freeze Warning</u></a>		Darkviolet	148 0 211	9400D3
<a href="#"><u>Hard Freeze Watch</u></a>		Royalblue	65 105 225	4169E1
<a href="#"><u>Hazardous Materials Warning</u></a>		Indigo	75 0 130	4B0082
<a href="#"><u>Hazardous Seas Warning</u></a>		Thistle	216 191 216	D8BFD8
<a href="#"><u>Hazardous Seas Watch</u></a>		Darkslateblue	72 61 139	483D8B
<a href="#"><u>Hazardous Weather Outlook</u></a>		Palegoldenrod	238 232 170	EEE8AA
<a href="#"><u>Heat Advisory</u></a>		Coral	255 127 80	FF7F50
<a href="#"><u>Heavy Freezing Spray Warning</u></a>		Deepskyblue	0 191 255	00BFFF
<a href="#"><u>Heavy Freezing Spray Watch</u></a>		Rosybrown	188 143 143	BC8F8F
<a href="#"><u>High Surf Advisory</u></a>		Mediumorchid	186 85 211	BA55D3

Hazard / Weather Event Click on the Hazard/Weather Event For Definitions	Color Sample	Color Name	RGB Color	Hex Code
<a href="#"><u>High Surf Warning</u></a>		Forestgreen	34 139 34	228B22
<a href="#"><u>High Wind Warning</u></a>		Goldenrod	218 165 32	DAA520
<a href="#"><u>High Wind Watch</u></a>		Darkgoldenrod	184 134 11	B8860B
<a href="#"><u>Hurricane Force Wind Warning</u></a>		Westernred	205 92 92	CD5C5C
<a href="#"><u>Hurricane Force Wind Watch</u></a>		Darkorchid	153 50 204	9932CC
<a href="#"><u>Hurricane Local Statement</u></a>		Moccasin	255 228 181	FFE4B5
<a href="#"><u>Hurricane Warning</u></a>		Crimson	220 20 60	DC143C
<a href="#"><u>Hurricane Watch</u></a>		Magenta	255 0 255	FF00FF
<a href="#"><u>Hydrologic Advisory</u></a>		Springgreen	0 255 127	00FF7F
<a href="#"><u>Hydrologic Outlook</u></a>		lightgreen	144 238 144	90EE90
<a href="#"><u>Ice Storm Warning</u></a>		Darkmagenta	139 0 139	8B008B
<a href="#"><u>Lake Effect Snow Advisory</u></a>		Mediumturquoise	72 209 204	48D1CC
<a href="#"><u>Lake Effect Snow Warning</u></a>		Darkcyan	0 139 139	008B8B
<a href="#"><u>Lake Effect Snow Watch</u></a>		Lightskyblue	135 206 250	87CEFA
<a href="#"><u>Lake Wind Advisory</u></a>		Tan	210 180 140	D2B48C
<a href="#"><u>Lakeshore Flood Advisory</u></a>		Lawngreen	124 252 0	7CFC00
<a href="#"><u>Lakeshore Flood Statement</u></a>		Olivedrab	107 142 35	6B8E23
<a href="#"><u>Lakeshore Flood Warning</u></a>		Forestgreen	34 139 34	228B22
<a href="#"><u>Lakeshore Flood Watch</u></a>		Mediumaquamarine	102 205 170	66CDAA
<a href="#"><u>Law Enforcement Warning</u></a>		Silver	192 192 192	C0C0C0
<a href="#"><u>Local Area Emergency</u></a>		Silver	192 192 192	C0C0C0
<a href="#"><u>Low Water Advisory</u></a>		Brown	165 42 42	A52A2A
<a href="#"><u>Marine Weather Statement</u></a>		Peachpuff	255 239 213	FFDAB9
<a href="#"><u>Nuclear Power Plant Warning</u></a>		Indigo	75 0 130	4B0082
<a href="#"><u>Radiological Hazard Warning</u></a>		Indigo	75 0 130	4B0082
<a href="#"><u>Red Flag Warning</u></a>		Deeppink	255 20 147	FF1493
<a href="#"><u>Rip Current Statement</u></a>		turquoise	64 224 208	40E0D0
<a href="#"><u>Severe Thunderstorm Warning</u></a>		Orange	255 165 0	FFA500
<a href="#"><u>Severe Thunderstorm Watch</u></a>		Palevioletred	219 112 147	DB7093
<a href="#"><u>Severe Weather Statement</u></a>		Aqua	0 255 255	00FFFF
<a href="#"><u>Shelter In Place Warning</u></a>		Salmon	250 128 114	FA8072
<a href="#"><u>Short Term Forecast</u></a>		Palegreen	152 251 152	98FB98
<a href="#"><u>Small Craft Advisory</u></a>		Thistle	216 191 216	D8BFD8
<a href="#"><u>Small Craft Advisory For Hazardous Seas</u></a>		Thistle	216 191 216	D8BFD8
<a href="#"><u>Small Craft Advisory For Rough Bar</u></a>		Thistle	216 191 216	D8BFD8

Hazard / Weather Event Click on the Hazard/Weather Event For Definitions	Color Sample	Color Name	RGB Color	Hex Code
<a href="#"><u>Small Craft Advisory For Winds</u></a>		Thistle	216 191 216	D8BFD8
<a href="#"><u>Small Stream Flood Advisory</u></a>		Springgreen	0 255 127	00FF7F
<a href="#"><u>Special Marine Warning</u></a>		Orange	255 165 0	FFA500
<a href="#"><u>Special Weather Statement</u></a>		Moccasin	255 228 181	FFE4B5
<a href="#"><u>Storm Warning</u></a>		Darkviolet	148 0 211	9400D3
<a href="#"><u>Storm Watch</u></a>		Moccasin	255 228 181	FFE4B5
<a href="#"><u>Test</u></a>		Azure	240 255 255	F0FFFF
<a href="#"><u>Tornado Warning</u></a>		Red	255 0 0	FF0000
<a href="#"><u>Tornado Watch</u></a>		Yellow	255 255 0	FFFF00
<a href="#"><u>Tropical Depression Local Statement</u></a>		Moccasin	255 228 181	FFE4B5
<a href="#"><u>Tropical Storm Local Statement</u></a>		Moccasin	255 228 181	FFE4B5
<a href="#"><u>Tropical Storm Warning</u></a>		Firebrick	178 34 34	B22222
<a href="#"><u>Tropical Storm Watch</u></a>		Lightcoral	240 128 128	F08080
<a href="#"><u>Tsunami Advisory</u></a>		Chocolate	210 105 30	D2691E
<a href="#"><u>Tsunami Warning</u></a>		Tomato	253 99 71	FD6347
<a href="#"><u>Tsunami Watch</u></a>		Fushsia	255 0 255	FF00FF
<a href="#"><u>Typhoon Local Statement</u></a>		Moccasin	255 228 181	FFE4B5
<a href="#"><u>Typhoon Warning</u></a>		Crimson	220 20 60	DC143C
<a href="#"><u>Typhoon Watch</u></a>		Magenta	255 0 255	FF00FF
<a href="#"><u>Urban and Small Stream Flood Advisory</u></a>		Springgreen	0 255 127	00FF7F
<a href="#"><u>Volcano Warning</u></a>		darkslategray	47 79 79	2F4F4F
<a href="#"><u>Wind Advisory</u></a>		Tan	210 180 140	D2B48C
<a href="#"><u>Wind Chill Advisory</u></a>		Paleturquoise	175 238 238	AFEEEE
<a href="#"><u>Wind Chill Warning</u></a>		Lightsteelblue	176 196 222	B0C4DE
<a href="#"><u>Wind Chill Watch</u></a>		Cadetblue	95 158 160	5F9EA0
<a href="#"><u>Winter Storm Warning</u></a>		Hotpink	255 105 180	FF69B4
<a href="#"><u>Winter Storm Watch</u></a>		Steelblue	70 130 180	4682B4
<a href="#"><u>Winter Weather Advisory</u></a>		Mediumslateblue	123 104 238	7B68EE