

Communicating Environmental Services

29th Annual Workshop on Hazards Research and Applications

July 12, 2004

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NOAA's National Weather Service



Communicating Environmental Services

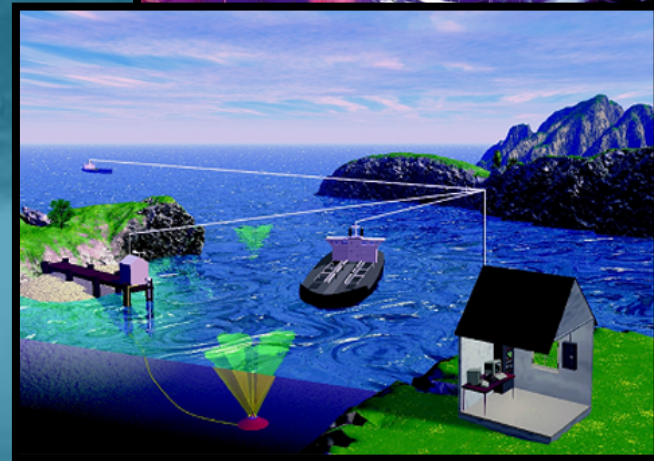
- **NOAA NWS Overview**
- **Teamwork**
- **NWS Products and Service**
- **Accurate Communication**

NWS Mission

- **Provide climate, water, weather forecasts and warnings to protect life and property and enhance the economy.**
- **Data and products are used by other government agencies, the private sector, the public, and the global community.**

NOAA Vision

- **To move NOAA into the 21st Century scientifically and operationally, in the same interrelated manner as the environment that we observe and forecast, while recognizing the link between our global economy and our planet's ecology.**



Teamwork

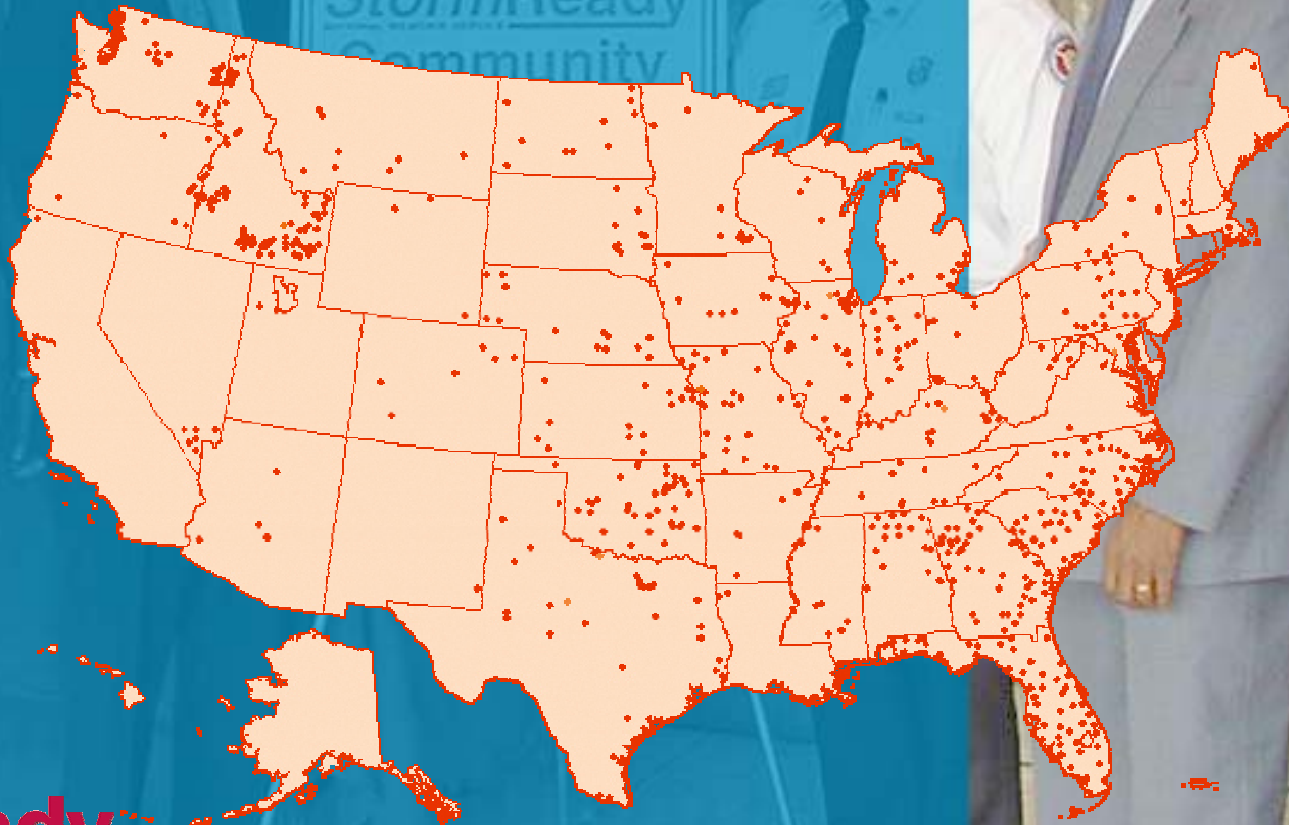
Partnerships are critical to ensure the right message is sent and received!





Teamwork

- **751 Communities**
- **47 States**



StormReady Success Story

Van Wert, Ohio F4 Tornado - 11/10/02

Forecast & Detection

Dissemination

Warning

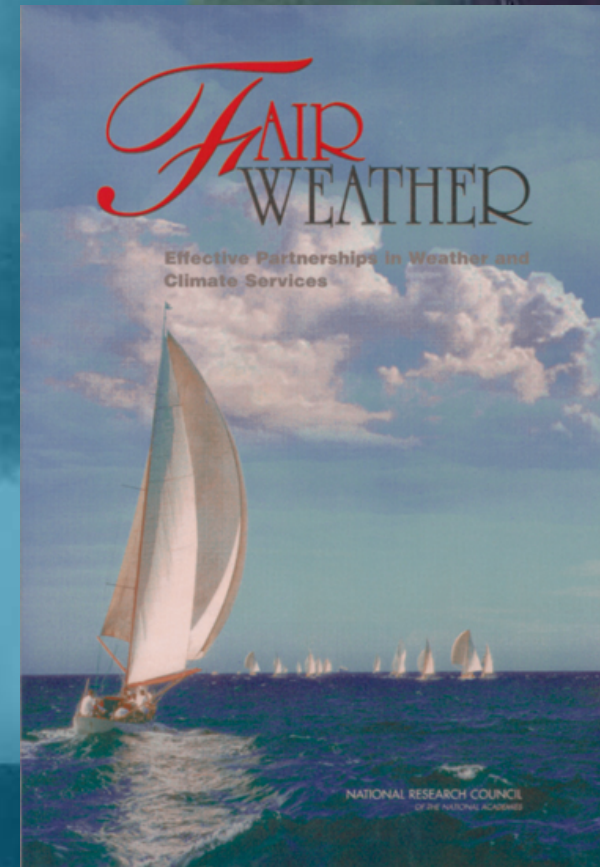
Response



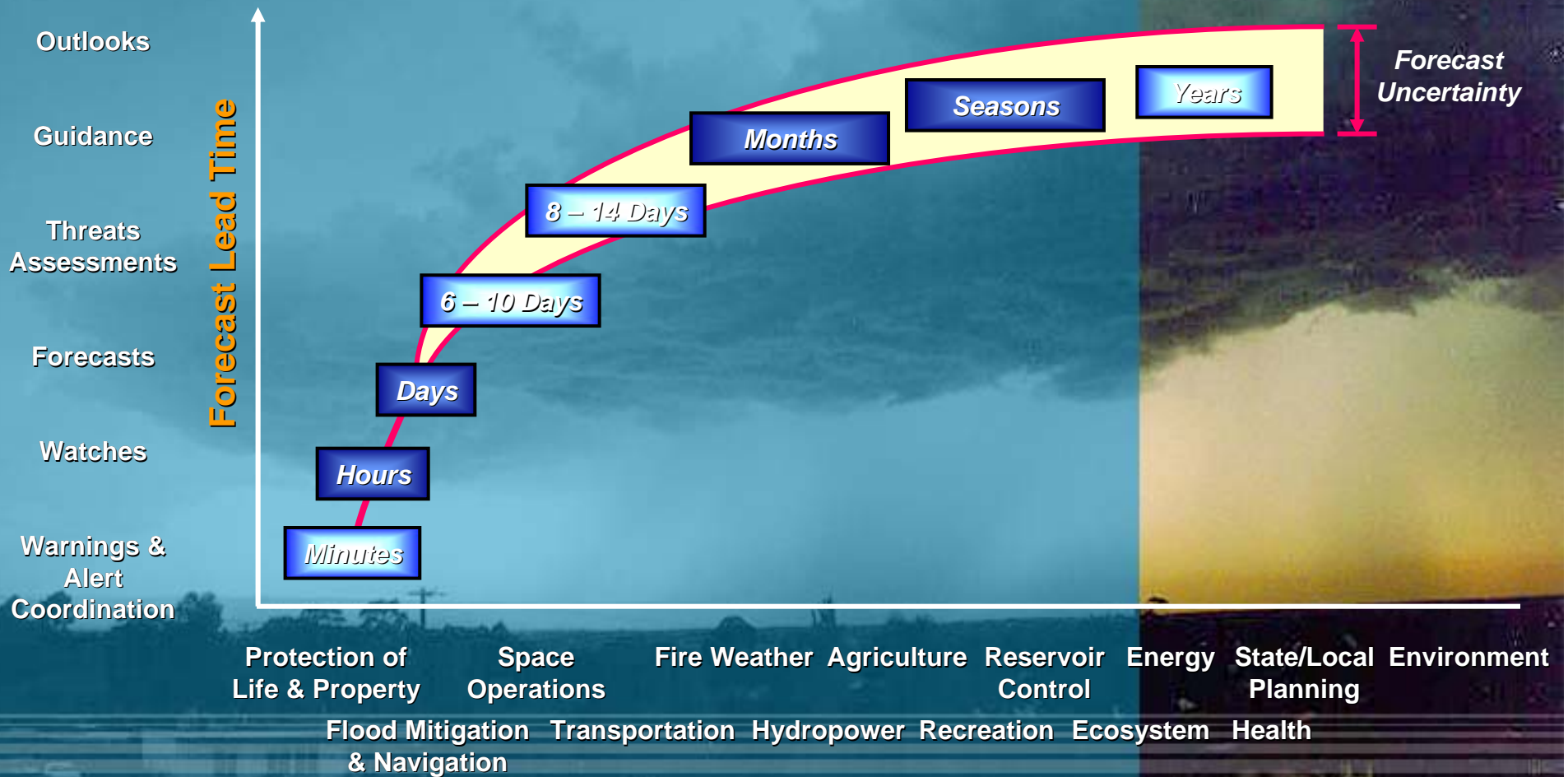
Teamwork

National Research Council's Report

- Today's partnerships are sound and functioning well
- Recommendations include:
 - **Congressional Mandate – protect life and property**
 - **Public/Private Partnership Process**
 - **Data and Products in standardized format**
 - **New/Discontinue Products**
 - **Communicate Uncertainty**

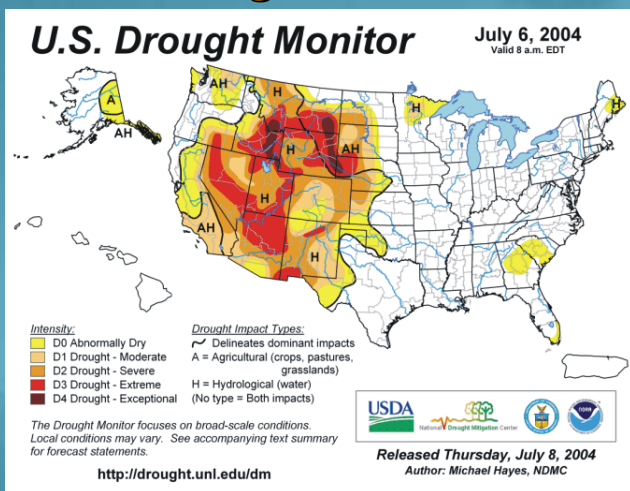


Seamless Suite of Products

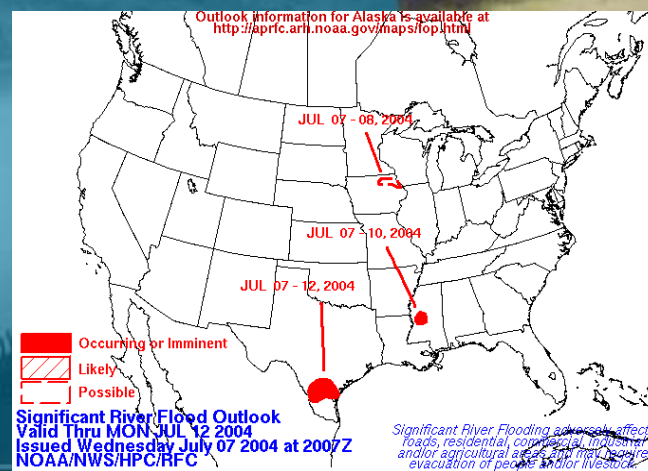
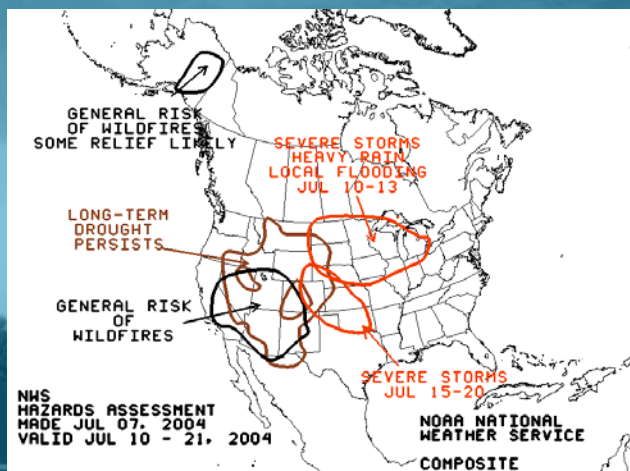
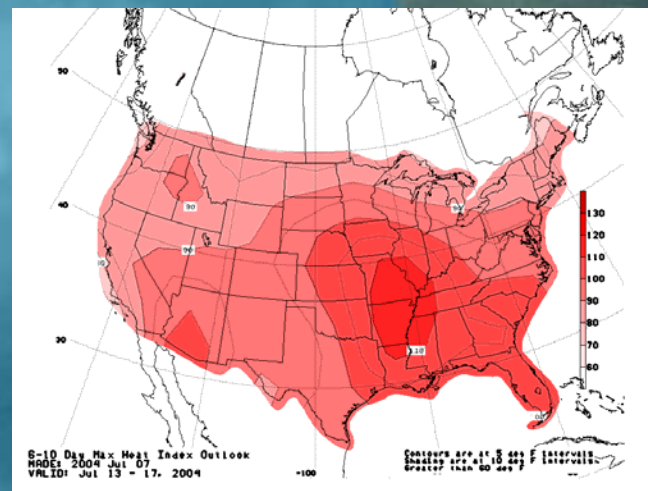


New Products

Drought Monitor



Excessive Heat Products



Hazards Assessments

5 Day Flood Outlook

Accurate Communication

Need accurate, timely, easily communicated, and understandable products!

NOAA NWS

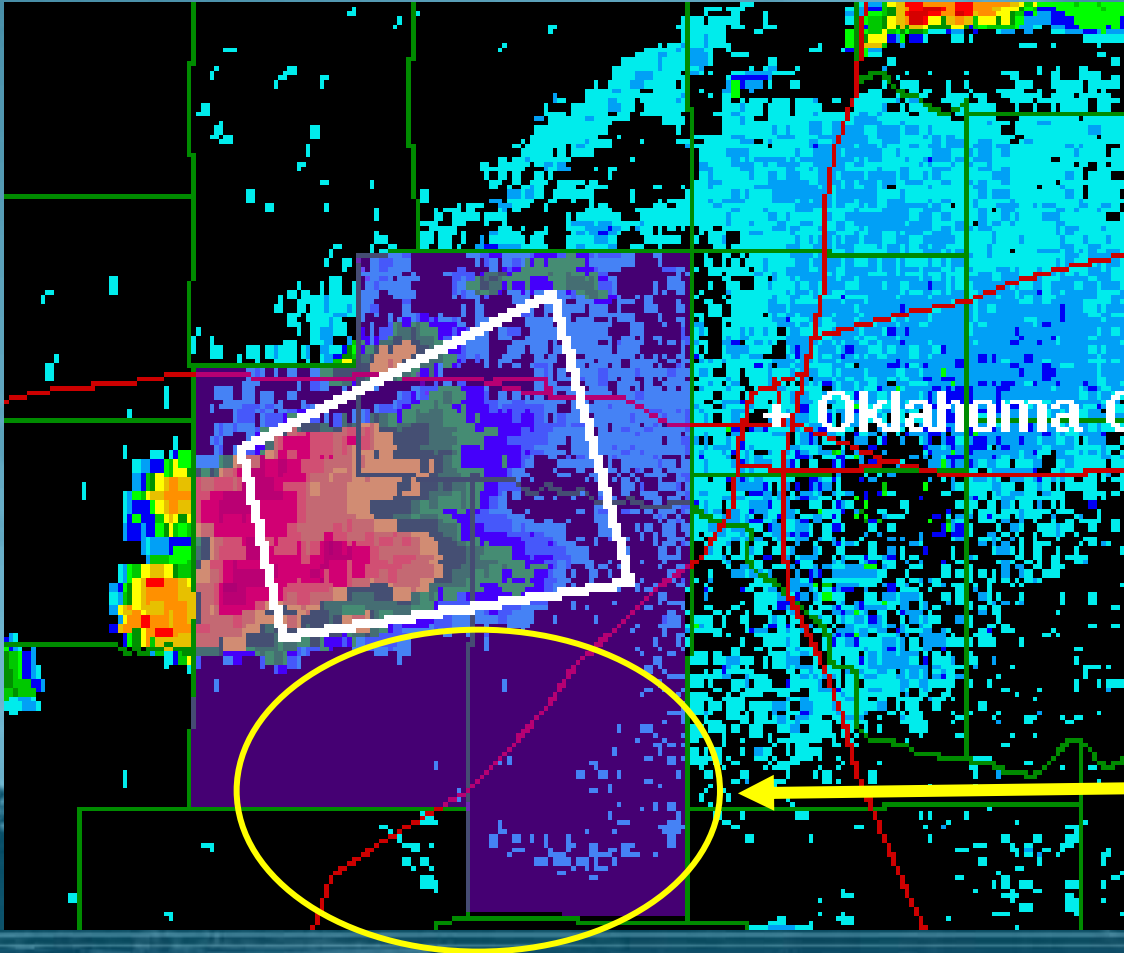
PARTNERS

END USERS



Communicating Threats

Severe Weather



National Weather Service Forecast Office - WFO, Ft. Worth, Texas - Microsoft Internet Explorer

Address: http://www.srh.noaa.gov/fwd/plan/WGUS54_KFWD_090707_200406.html

National Weather Service Forecast Office
Fort Worth, TX

Site Map News Organization Search Enter Search Here

North Texas Graphical Warning Information (Experimental) Wednesday, June 09, 2004 6:10:11 AM

National Weather Service WGUS54 KFWD 090707 200406 Warning Profile

FLASH FLOOD WARNING
Issued: Wednesday 6/9/2004 2:05:00 AM Expires: Wednesday 6/9/2004 6:00:00 AM

Status: WARNING

Event: Flash Flood

Area: 2,861.37 Sq. Miles

Location: Denton Parker Tarrant Wise

Impacted Population:	1,341,104
In Homes:	79,164
In Multi-Family Units:	14,231
In Mobile Homes:	8,445
English Spoken Well:	97.0%
English Not Spoken:	2.9%
Urban:	68.9%
Rural:	11.0%
Not Living in Texas in 1990:	6.7%

Source: 2000 Census

DESCRIPTION

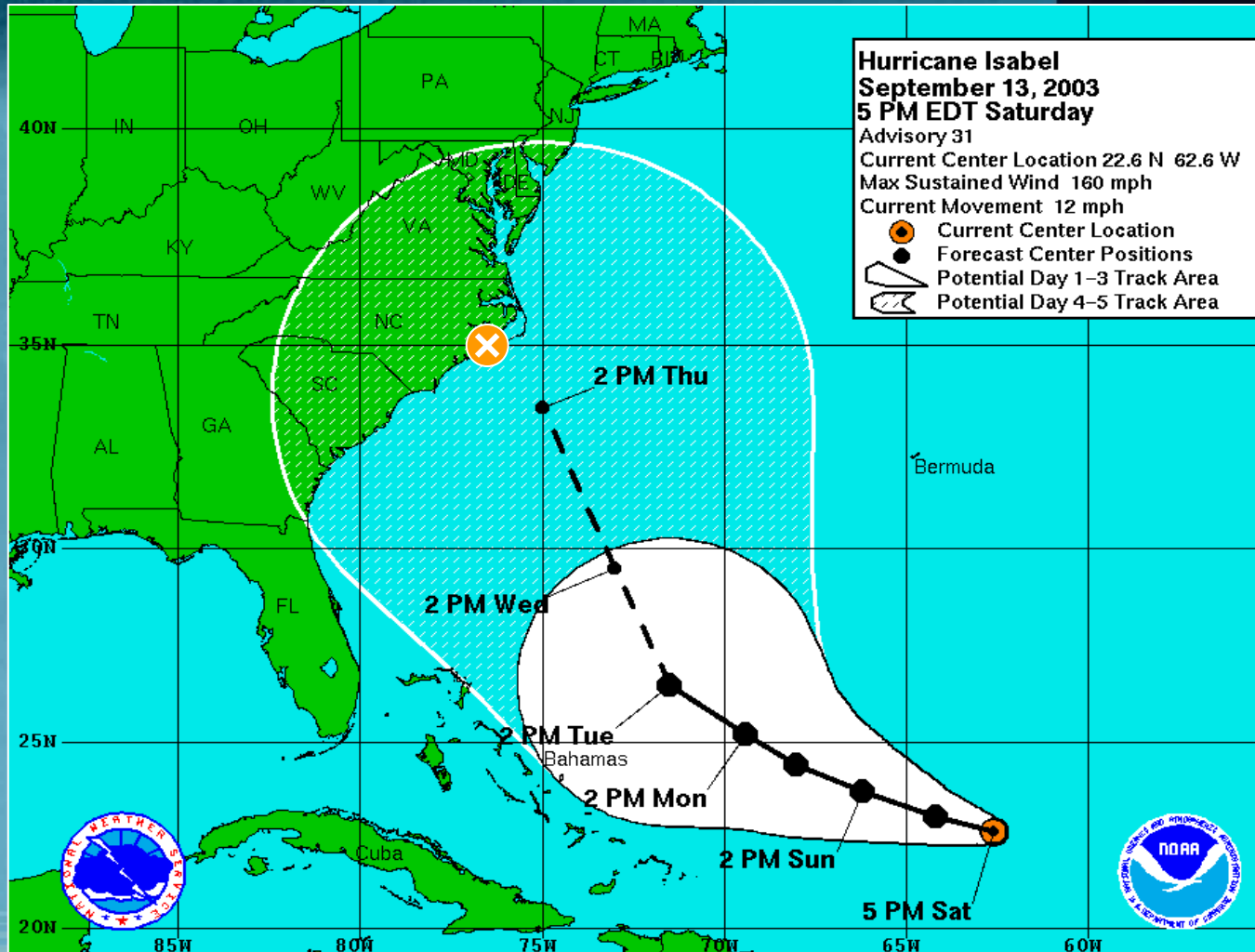
At 2:05 AM CDT... Law Enforcement Officials Reported Flash Flooding Of Some Service Roads Near Hudson Oaks... And Willow Park... In Parker County... Excessive Runoff From This Storm Will Cause Flash Flooding Of Small Creeks And Streams... Highways And Underpasses... Country Roads And Farmlands Along The Banks Of Creeks And Streams And Other Low Lying Areas Are Subject To Flash Flooding. Do Not Drive Your Vehicle Into Areas Where The Water Covers The Roadway. The Water Depth May Be Too Great To Allow Your Car To Cross Safely. Vehicles Caught In Rising Water Should Be Abandoned Quickly. Move To Higher Ground. A Flash Flood Warning Means That Flooding Is Occurring Or Is Imminent. Most Flash Flood Deaths Occur In Automobiles. Do Not Attempt To Cross Bridges... Dips... Or Other Low Spots If Water Covers The Roadway. Never Try To Cross A Flowing Stream... Even A Small One... On Foot. To Escape Rising Water Move Up To Higher Ground.

**Polygon
Eliminates
False Alarm Area**



Communicating Threats

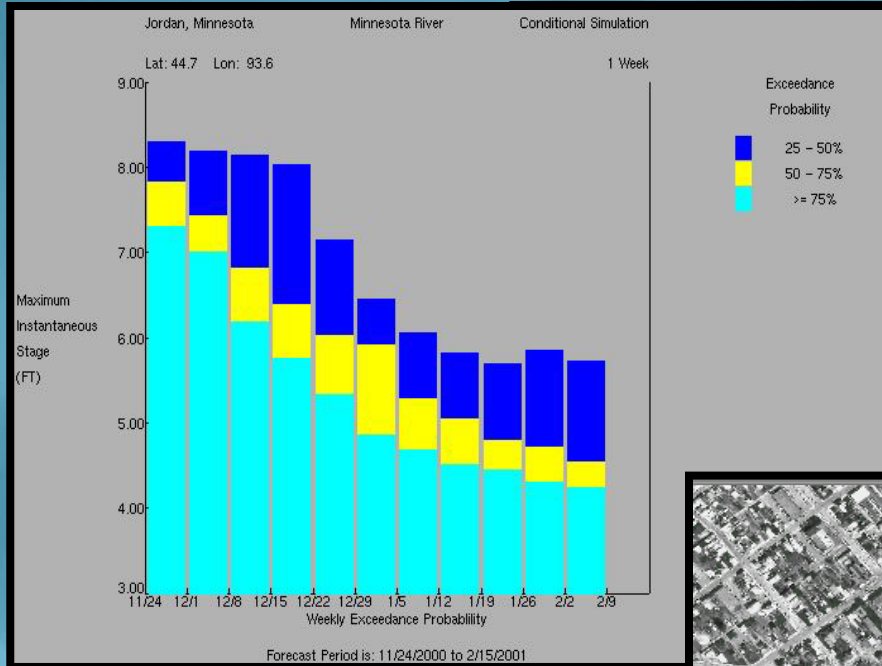
Hurricanes





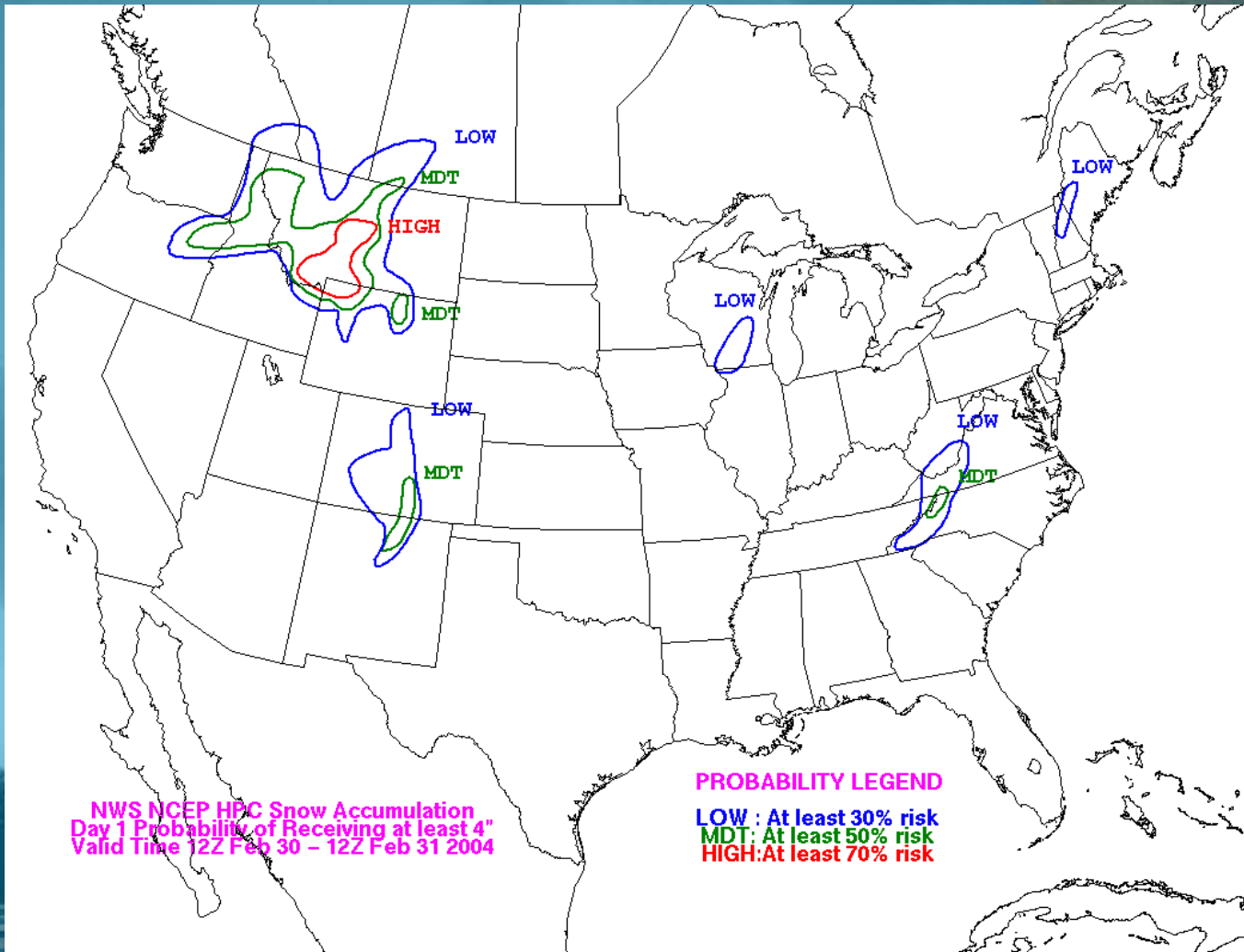
Communicating Threats

Flooding and Drought



Communicating Threats

Winter Weather



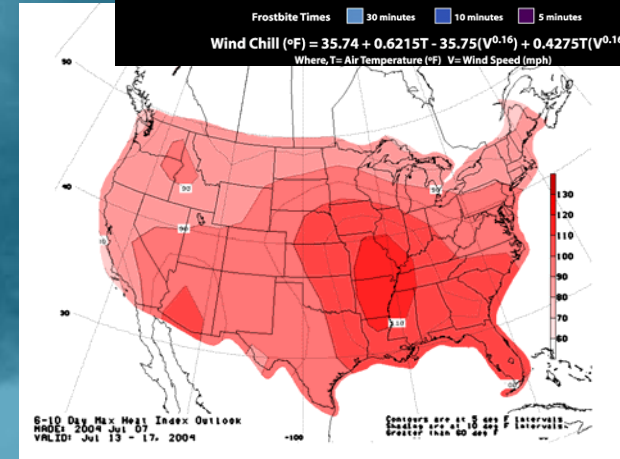
Communicating Threats Indices

- Today
 - *Wind Chill Index*
 - *Heat Health Index*
- Tomorrow
 - *Tornado F-scale Revision*
 - *Winter Storm Index?*
 - *Wet Dirt Index?*

		Temperature (°F)																	
		40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
Wind (mph)	5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
	20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
	45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
	55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98	

Frostbite Times: 30 minutes, 10 minutes, 5 minutes

Wind Chill (°F) = $35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$
 Where, T= Air Temperature (°F) V= Wind Speed (mph) Effective 11/01/01



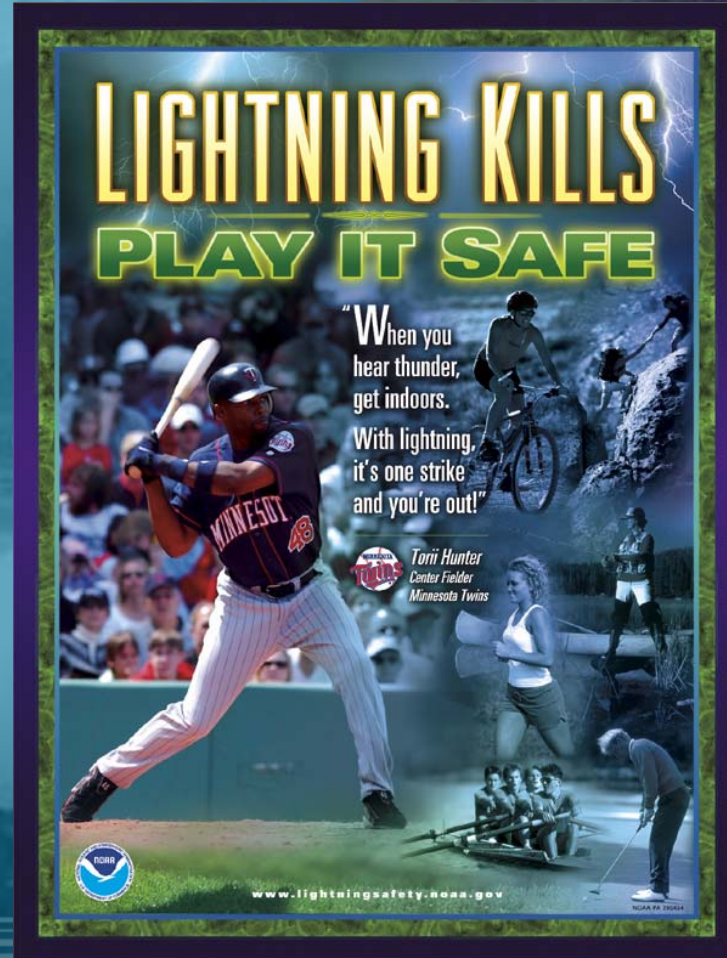
Awareness Campaigns



Your National Weather Service Says,

Turn Around Don't Drown™

Be safe when it comes to flooding. For important, life-saving safety rules, go to www.srh.weather.gov




LIGHTNING KILLS

PLAY IT SAFE

"When you hear thunder, get indoors. With lightning, it's one strike and you're out!"

Torii Hunter
Center Fielder
Minnesota Twins



www.lightningsafety.noaa.gov

NOAA PA 200414

Summary

- **Partnerships are critical to ensure the right message is sent and received!**
- **Users need accurate, timely, easily communicated, and understandable information!**

www.weather.gov