

NWS Louisville Decision Support Services

Memphis All-Hazards Decision Support Workshop

February 10, 2010

Joe Sullivan
Warning Coordination Meteorologist
NWS Louisville, KY

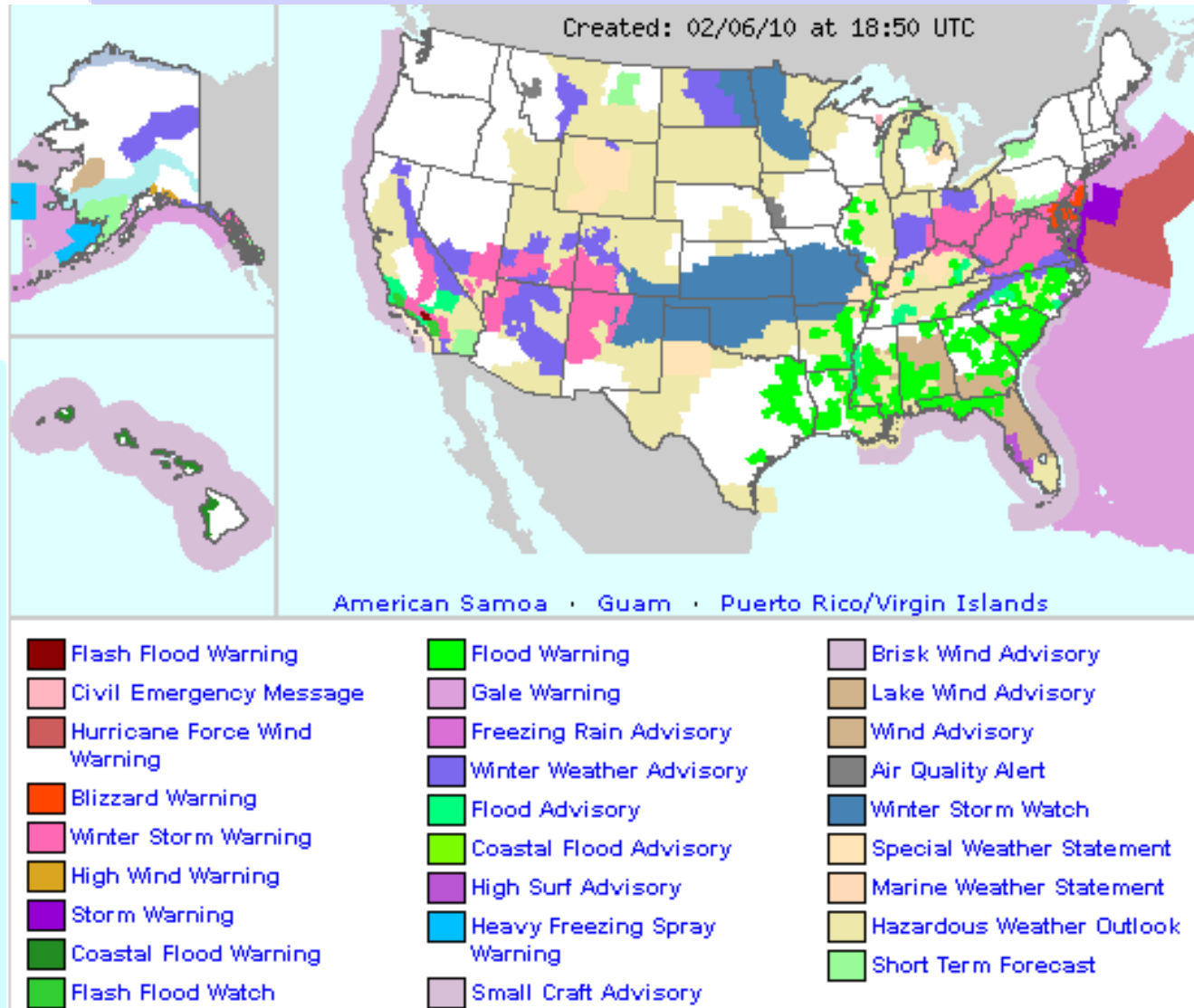
NWS Mission

" The National Weather Service (NWS) provides weather, hydrologic, and climate **forecasts and warnings** for the United States, its territories, adjacent waters and ocean areas, *for the protection of life and property* and the enhancement of the national economy. NWS data and products form a national information database and infrastructure which can be used by other governmental agencies, the private sector, the public, and the global community. "

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Our *“Bread and Butter”*



Disasters and Emergencies

Disaster:

a sudden calamitous event bringing great damage, loss, or destruction

Emergency:

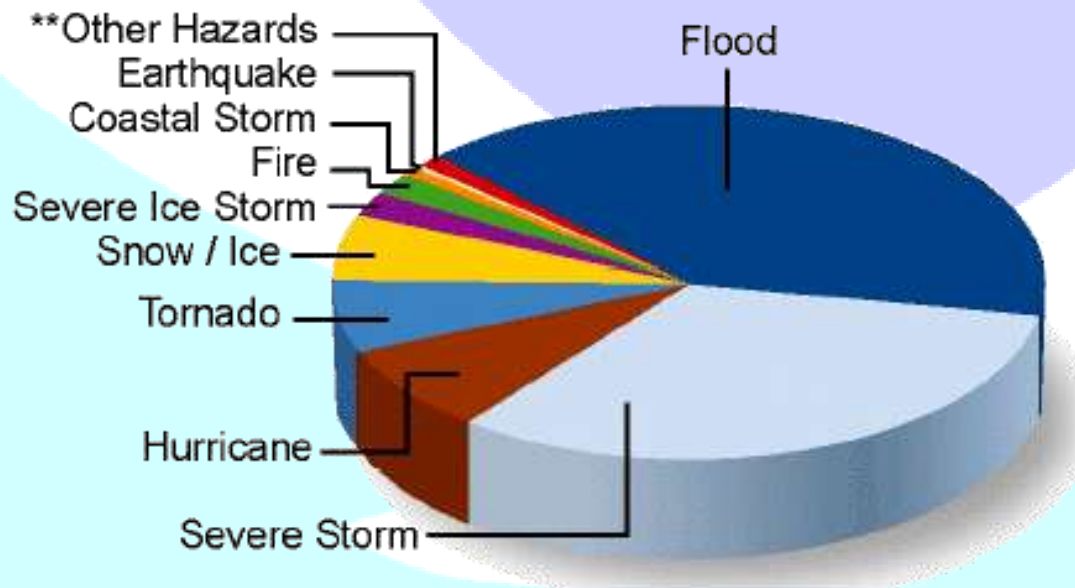
1 : an *unforeseen* combination of circumstances or the resulting state that calls for immediate action

2 : an urgent *need for assistance* or relief

Source: [merriam-webster.com](https://www.merriam-webster.com)

Disasters

Disasters by Type (1965-2003)



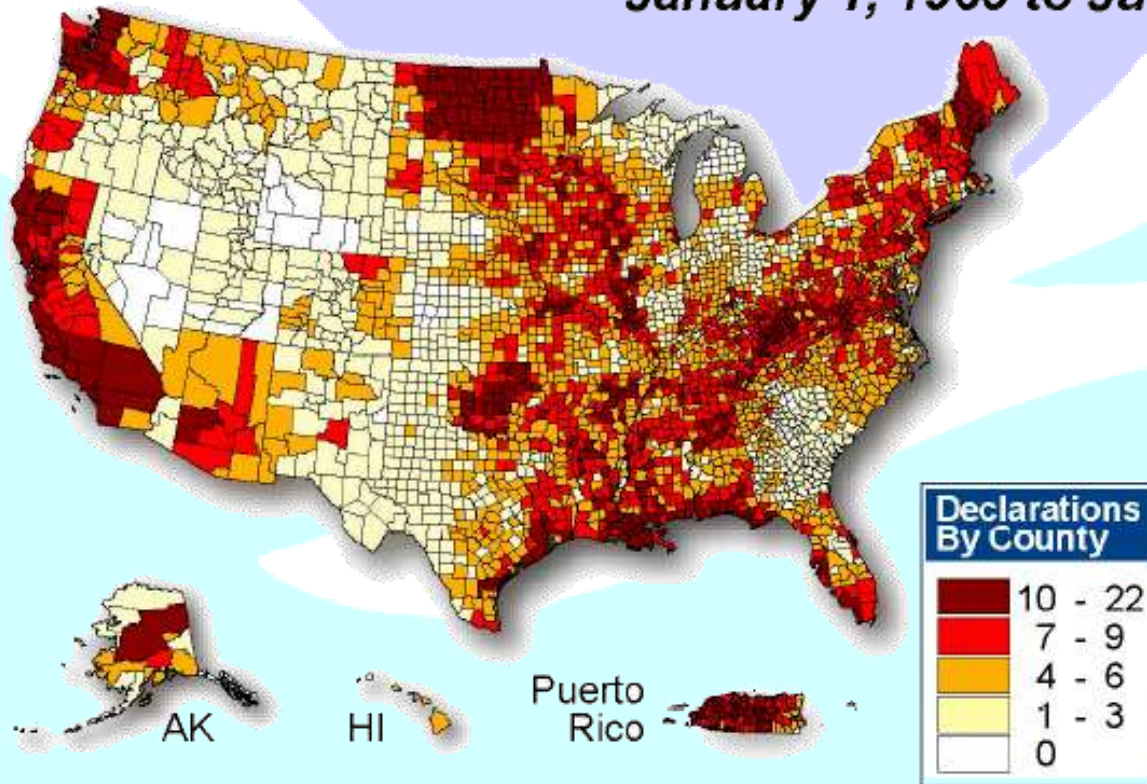
**Other Hazards include: Drought, Volcano, Other, Freezing, Mud/Landslide, Typhoon, Human Cause, Terrorist, Dam/Levee Break, Toxic Substances

Source: FEMA's National Emergency Management Information System

Disasters

Presidential Disaster Declarations

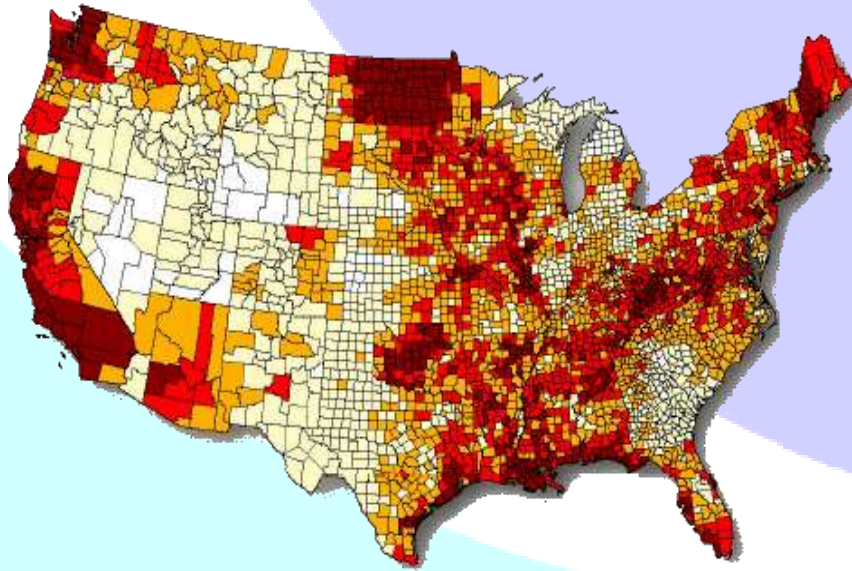
January 1, 1965 to June 1, 2003



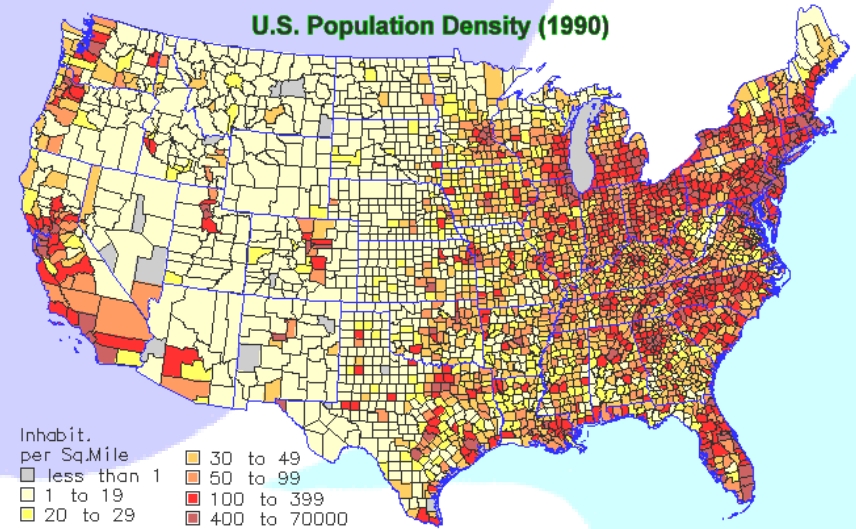
Mapped Total: 1,214*

* Prior to January 1, 1965, 185 declarations did not have county designations. Therefore, of the total declared disasters (1,399), only 1,214 are included in the Mapped Total.

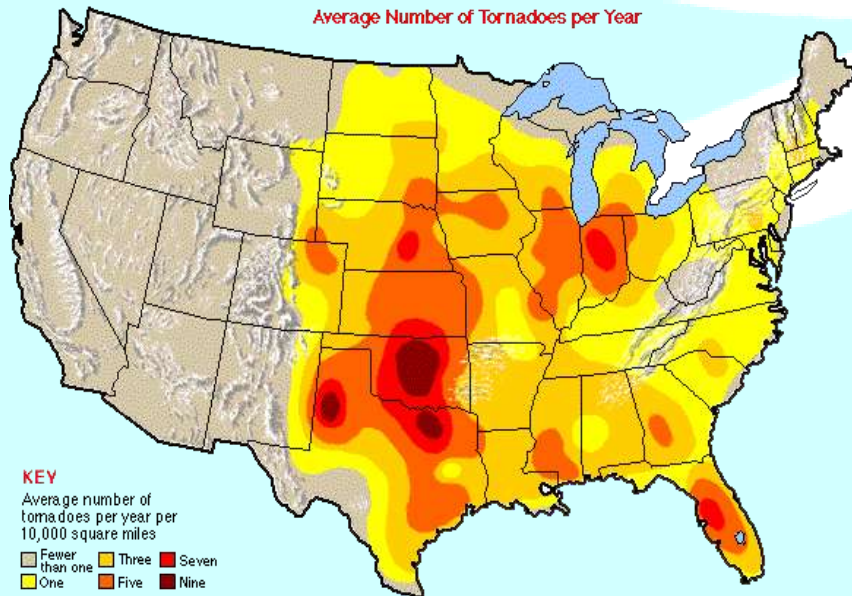
Disasters, Weather, and the NWS



U.S. Population Density (1990)



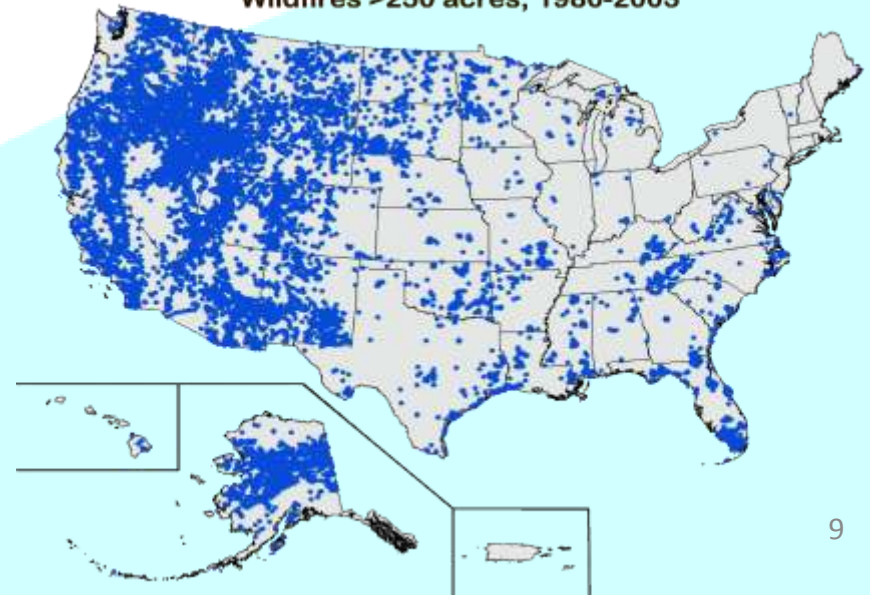
Average Number of Tornadoes per Year



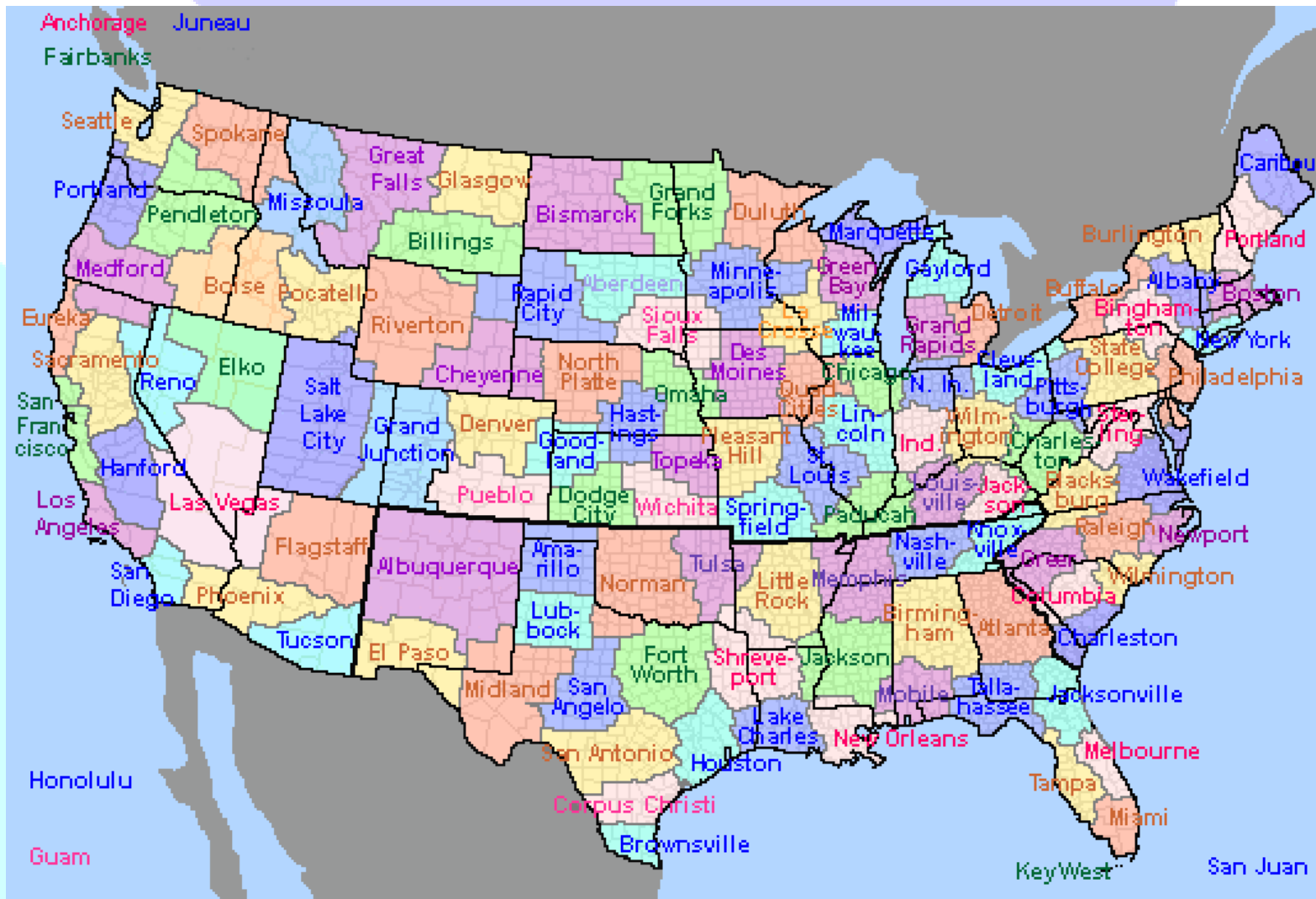
KEY
Average number of tornadoes per year per 10,000 square miles

Fewer than one	Three	Seven
One	Five	Nine

Wildfires >250 acres, 1980-2003



Disasters, Weather, and the NWS



Brooks, Kentucky

January 16, 2007



Photo Credit: Michael Clevenger, Courier-Journal

Brooks, Kentucky

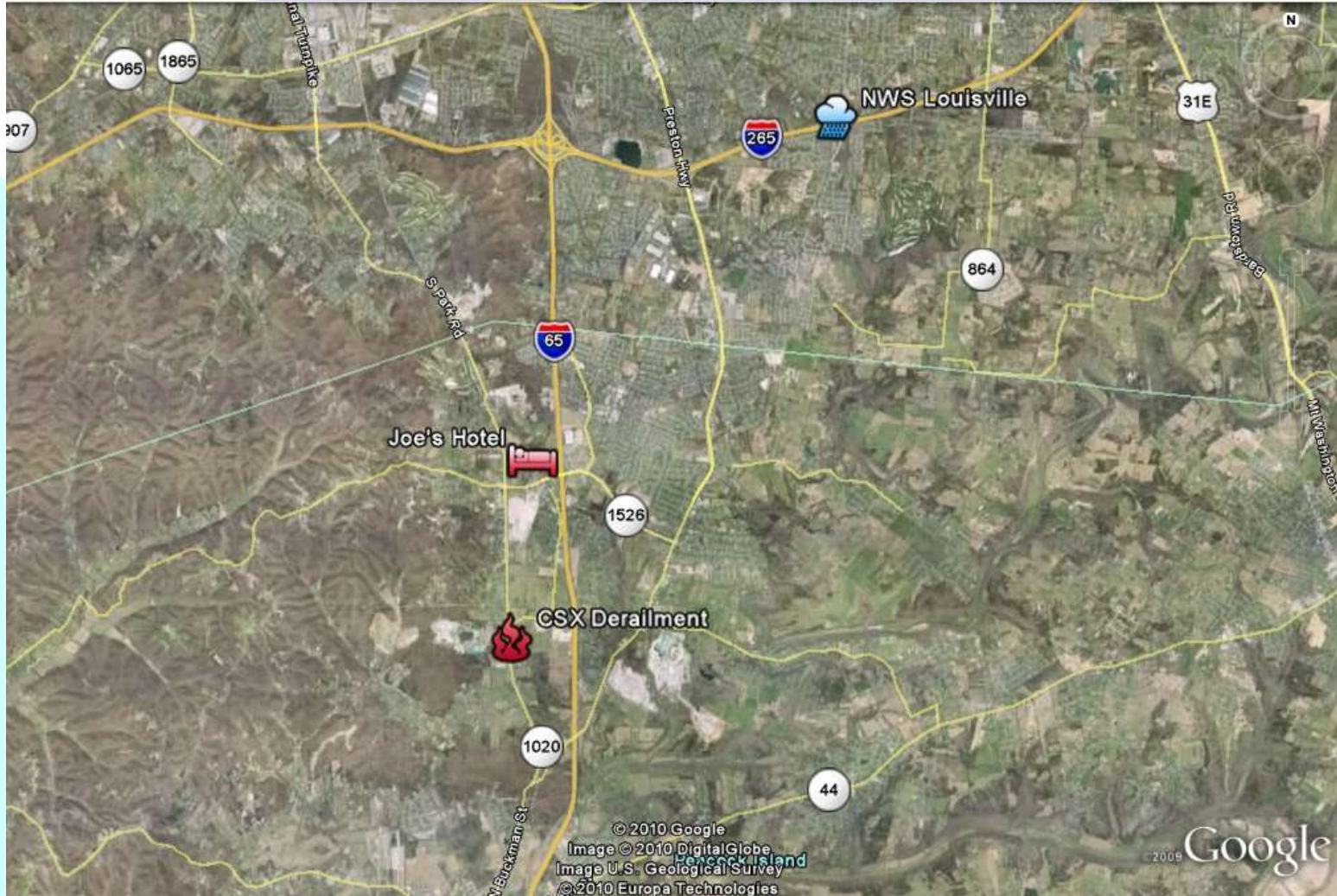
January 16, 2007



Photo Credit: Michael Clevenger, Courier-Journal

Brooks, Kentucky

January 16, 2007





National Weather Service Support for Hazmat Incidents

Joe Sullivan
Warning Coordination Meteorologist
National Weather Service
Louisville



Friday Night: Mostly clear, with a low around 67.

Saturday: Sunny, with a high near 93.

Saturday Night: Mostly clear, with a low around 65.

Sunday: Sunny, with a high near 90.

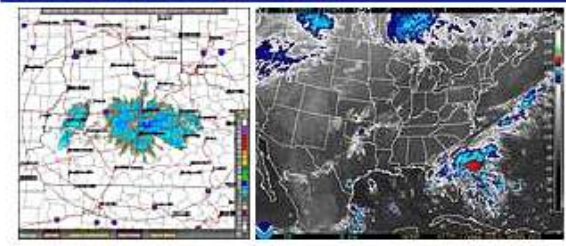
Sunday Night: Mostly clear, with a low around 69.

Monday: Mostly sunny, with a high near 90.

Monday Night: Partly cloudy, with a low around 71.

Tuesday: Mostly sunny, with a high near 88.

Radar and Satellite Images



Detailed Point Forecast

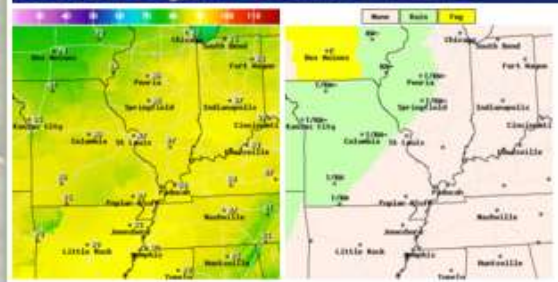
[Move Up]

Click Map for Forecast



Lat/Lon: 38.15 -85.73 Elevation: 440 ft

National Digital Forecast Database



Additional Forecasts & Information

- Zone Area Forecast for Jefferson County, KY
- Forecast Discussion
- Air Quality Forecasts
- Intable Forecast
- Text Only Forecast
- Hourly Weather Graph**
- Tabular Forecast
- Text Forecast (°C)
- About Point Forecasts
- Local Climatology
- Digital Forecast
- Graphical Forecasts Home
- Hazardous Weather Outlook
- River Info / AHPS
- Science / Technology
- Preparedness
- Severe Weather Data
- WFO Louisville Home

National Weather Service:
Louisville, KY

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Locations within 5 miles of this point include...Audubon Park KY...Buechel KY...Fairdale KY...Highview KY...Hollow Creek KY...Hollyville KY...Lynnview KY...Minor Lane Heights KY...Newburg KY...Okolona KY...Parkway Village KY...Roxley Hills KY...South Park View



weather.gov/louisville



[Back to Louisville's homepage](#)

LOUISVILLE SPOT FORECASTS

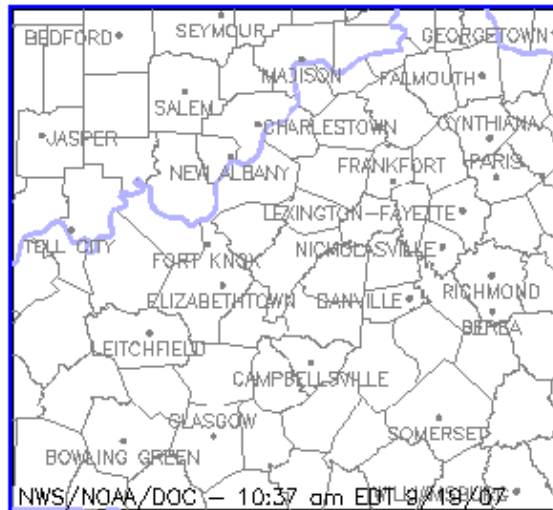
for

Wednesday

☐ Sep 19 2007 ☐

[CALENDAR](#)

Submit a new Spot Request



NWS/NOAA/DOC - 10:37 am EDT 9/19/07

Pending Question Complete

Name	Ignition Time	Status
No Entries		

[Track forecasts sent from AWIPS](#)



National Oceanic and Atmospheric Administration (NOAA)

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National Weather Service
Fire & Public Weather Services Branch
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LOUISVILLE SPOT FORECAST REQUEST

Required Elements in RED (*)



PROJECT NAME		REQUESTING AGENCY	
(*)Project Name:	Hazmat Spot Test	(*)Requesting Agency:	NWS
<input type="radio"/> Wildfire	<input type="radio"/> WFU	<input checked="" type="radio"/> HAZMAT	
<input type="radio"/> Prescribed Fire	<input type="radio"/> SAR	(*)Requesting Official:	LMK WCM
Ignition Time:	1050	(*)Phone Number:	(502) 969-8842 Ext. 726
Date:	9/19/07	FAX Number:	(502) 968-5663
		Contact Person:	JBS

REASON FOR SPOT FORECAST REQUEST

(*)Must choose either Wildfire or one of the Non-Wildfire reasons

- Wildfire
- Non-Wildfire
- Under the Interagency Agreement for Meteorological Services (USFS, BLM, NPS, USFWS, BIA).
 - State, tribal or local fire agency working in coordination with a federal participant in the Interagency Agreement for Meteorological Services.
 - Essential to public safety, e.g. due to the proximity of population centers or critical infrastructure.

For NWS Spot forecast policy, see section 4.D in NWS Instruction 10-401 at <http://www.nws.noaa.gov/directives/010/010.htm>

LOCATION			FUEL	
(*)Lat:	37.115	(*)Elevation:	Top: 632	Bottom: 631
(*)Lon:	85.645	Drainage:	e	
7.5' Quad:		(*)Aspect:	e	
		Size:	1 (Acres)	
		Type:	Sheltering	
			<input type="radio"/> Full	
			<input type="radio"/> Partial	
			<input type="radio"/> Unsheltered	

OBSERVATIONS

Place	Elev	Time	Wind	Temp	Wetbulb	RH	Dewpt.	Sky/Weather
WFO LMK	631	1450	s 3	73.			62	clear

PRIMARY FORECAST ELEMENTS	REMARKS





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OBSERVATIONS								
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WFO LMK	631	1050	s 3	73			62	clear

PRIMARY FORECAST ELEMENTS	REMARKS
TDA TNT TMR (Today, Tonight, Tomorrow)	Test spot request
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sky / Weather	
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Temperature	
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Relative Humidity	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 20 Foot Wind	
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Smoke Dispersion	

NOTICE: Information provided on this form may be used by the National Weather Service (NWS) for official purposes in any way, including public release and publication in NWS products. False statements on this form may be subject to prosecution under the False Statement Accountability Act of 1996 (18 U.S.C. § 1001) or other statutes.



Other NWS services



- **Input into EAS**
 - Shelter in place
 - Evacuation

Other NWS services

- Phone support 24/7

-968-6329

- On-site support for large incidents



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July 26, 2007

Joint ESU Mission Statement

The mission of the Joint Emergency Services Unit is to provide a coordinated multi-disciplined response to public emergencies when law enforcement assistance is needed.



Joint ESU History

- **2002**

- **Post-9/11 concern in Louisville: how to respond to “non-compliant human biological vectors?”**
- **National search revealed no suitable model.**
- **Medical, health, legal, law enforcement, fire, hazmat, EMS, aviation and educational representatives met and devised a plan.**
- **Local, State and Federal Agencies joined together to create the **Emergency Health Powers Task Force (EHPTF)**.**

Joint ESU History

- **2003**

- **EHPTF** trained to detect, identify and isolate a “human biologic vector.”
- Name changed to **Medical Assistance and Tactical Team (MATT)**.
- Team used in preventative roles at several Louisville venues
 - Kentucky Oaks
 - Kentucky Derby
 - Thunder over Louisville

Joint ESU History

- **2004**

- **Mission reviewed; based on lessons learned, MATT name changed to **Joint Emergency Services Unit****

- **JESU**

- **J-ESU**

- **Joint ESU**

- **2007**

- **NWS joins Joint ESU (WCM)**



Joint ESU History



sville staff join
and ITO)
ake Hazmat



- Ryder Cup*



Joint ESU Personnel

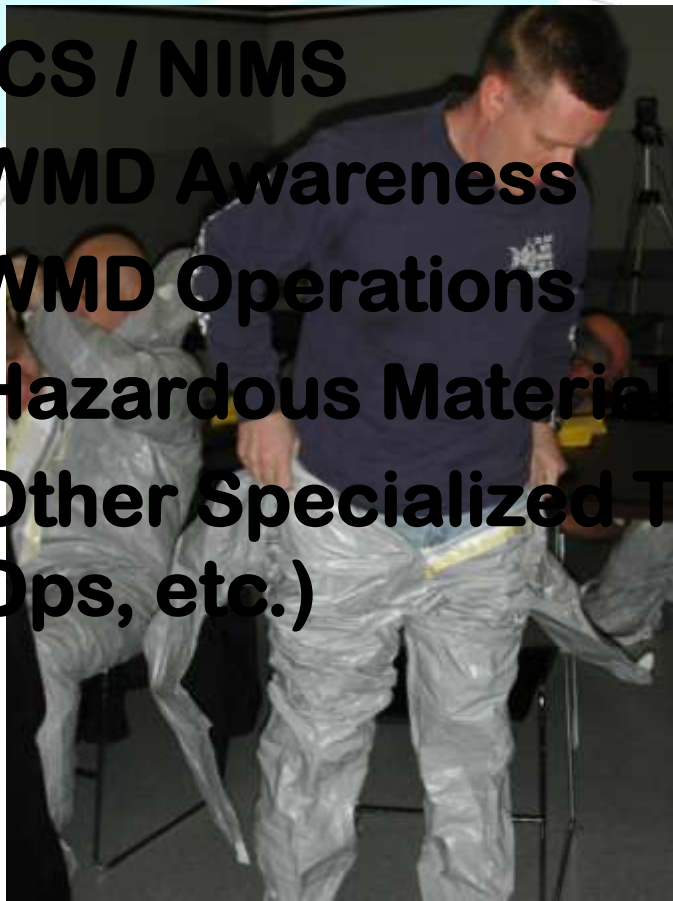
- **Louisville Metro PD**
- **Metro EMS**
- **Louisville Fire/Rescue**
- **Suburban Fire**
- **Jefferson County Sheriff**
- **Metro Corrections**
- **Louisville -Jefferson County EMA**
- **Metro Health Department**
- **Louisville Airport DPS**
- **New Albany, IN PD**
- **Floyd County,IN PD**
- **KY EMA**
- **University of Louisville**
- **KY Dept of Public Health**
- **41st Civil Support Team**
- **FBI**
- **US Marshals Service**
- **Federal Protective Service**
- **US Customs and Border Protection**
- **Transportation Security Administration**
- **NWS**
- **44 people, 21 agencies**

Joint ESU Personnel Skills

- **Physician**
- **Paramedic**
- **EMT-B**
- **Firefighter**
- **Hazmat (Tech and Specialist)**
- **Law Enforcement**
- **Public Health Specialist**
- **Epidemiologist**
- **Emergency Management**
- **EOD**
- **Educator**
- **Lawyer**
- **Meteorologist**
- **Information Technology**

Joint ESU Curriculum

- Hazardous Materials Awareness
- Hazardous Materials Operations
- ICS / NIMS
- WMD Awareness
- WMD Operations
- Hazardous Materials Technician
- Other Specialized Training (LSU tactical Ops, etc.)



Monthly J-ESU Training



Agency Se

On-going Training Goals

- **All operational members trained to the HAZMAT Technician Level**
- Rapid Intervention Team operations
- Decontamination
- Tactical operations
- WMD/ clandestine laboratories
- Radiation detection and operations
- **Confined space and trench rescue awareness**
- **Command courses for team leaders**
- **CAMEO, Aloha, Marplot**

Questions?



"The forecast for today:
scattered arrows."

Joe.Sullivan@noaa.gov