



NWS Central Region Impact-based Decision Support Services (IDSS) Prototype Project

Putting the Service in DSS

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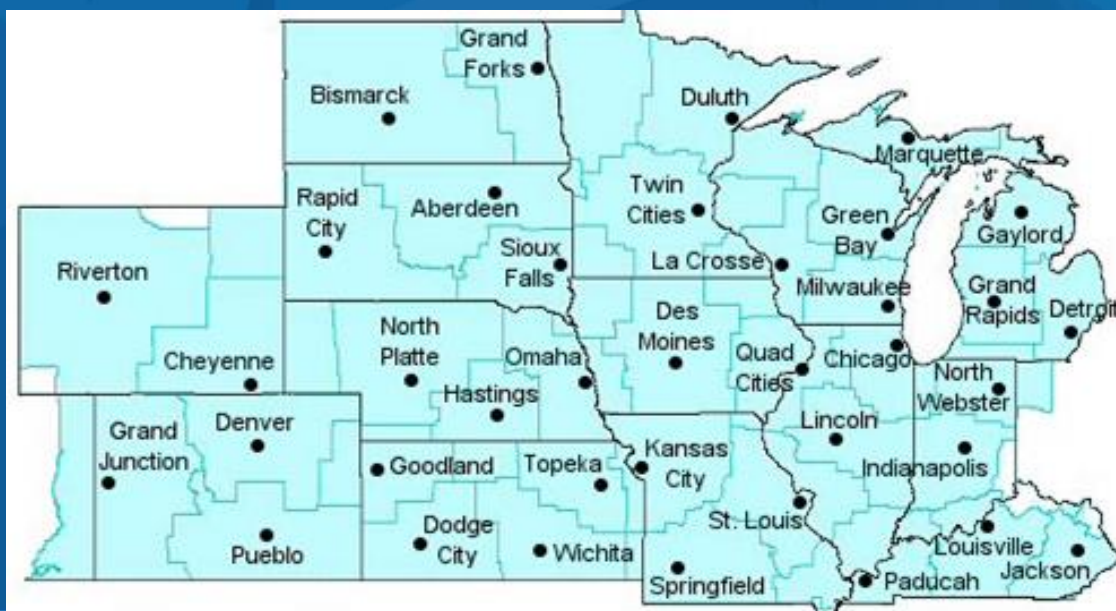
AMS 2017



Central Region IDSS

"NWS' provision of relevant information and interpretative services to enable core partners decisions when weather, water, or climate has a direct impact on the protection of lives and livelihoods."

– WRN Roadmap





Central Region IDSS



In a Weather-Ready Nation, Central Region Weather Forecast Offices will provide a consistent and standardized suite of baseline Impact-Based Decision Support Services (IDSS) utilizing common resources, tools, practices and training.

Requirements / Needs
Best Practices



R&D

T&E

Baseline

Implement

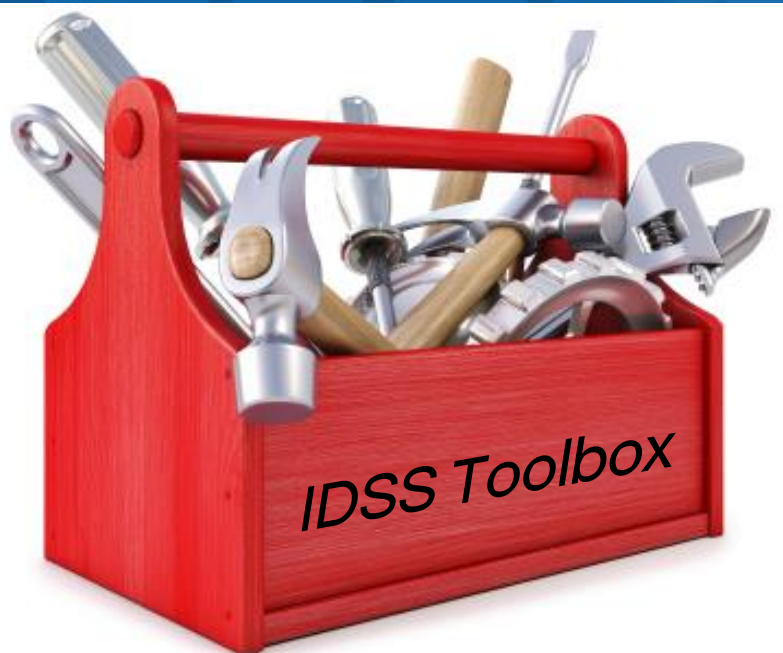




Central Region IDSS

Supporting a Forecaster Decision Support Environment & Common Operating Picture

Common Tools - Procedures - Services



IDSS Culture

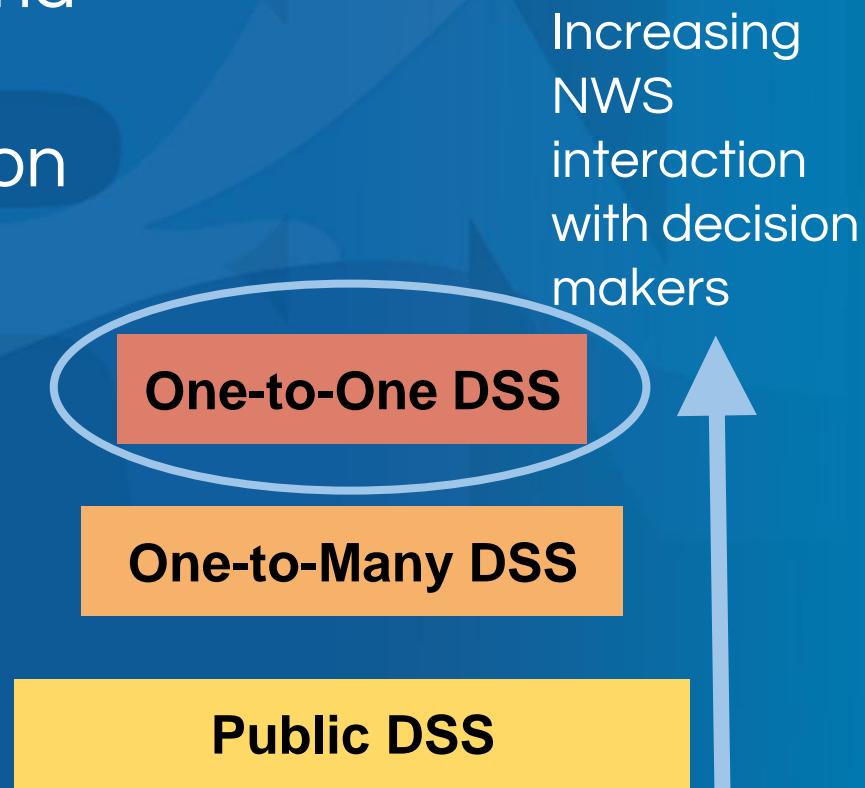


Central Region IDSS

Supporting Core Partners

Provide scheduled onsite and remote DSS based on core partner request, coordination and WFO resources.

One-to-one DSS for the safety of many





Central Region IDSS

DSS Calendar



DSS Request Form

NWS weather support services for an event includes:

- *The NWS will contact the event POC on the day of your event (You select the time of the briefing based on a weather briefing).
- *The NWS will maintain a constant weather watch in support of public safety for your event.
- *If hazardous weather is within a designated domain of the event, the NWS will contact the POC.
- *The POC is also encouraged to contact the NWS at any time for updated weather information.
- *An event information will be available to NWS forecasters for analysis and awareness.

*Required

Event Details

Event Name *

Example: Koss County Fair, Bala Marathon, etc.

Event Location (Street Address) *

If the event is over a broad area, use the most applicable street address. Provide any more detailed information in the notes section below.

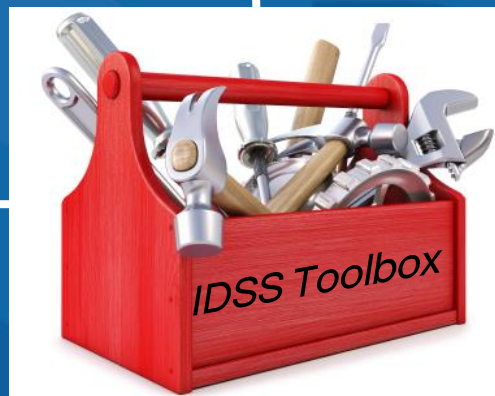
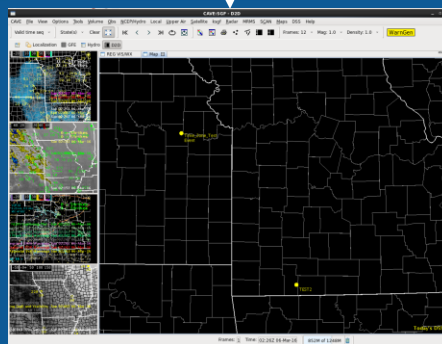
Event Location (City, State) *

Example: Miami, FL. *Provide any additional location details in the notes section below.

DSS Logging

NWS Topeka, KS - Decision Support Services				
Friday - April 16, 2016	Location	Contact	Additional Information	DSS Notes
Top Notebook	(City, state (containing event))	Mike Baker Police Chief 785-455-5188 containing event	Decision POC: Paul Stillbills-Deeds Chief 785-455-5177	0
Saturday - April 16, 2016	Location	Contact	Additional Information	DSS Notes
Top Notebook	(City, state (containing event))	Mike Baker Police Chief 785-455-5188 containing event	Decision POC: Paul Stillbills-Deeds Chief 785-455-5177	0
Sunday - April 17, 2016	Location	Contact	Additional Information	DSS Notes
Top Notebook	(City, state (containing event))	Mike Baker Police Chief 785-455-5188 containing event	Decision POC: Paul Stillbills-Deeds Chief 785-455-5177	0
Saturday - April 16, 2016	Location	Contact	Additional Information	DSS Notes
Open House Open House Party	(City, state (containing event))	Chief Tom 920794124 containing event	Decision POC:	0

DSS Plotting





Central Region IDSS

Request Form

Standard link for partners to request support

Calendar

Auto-populates on form submission

Emails

Automated forecast info emails sent to event POC

Log

Simple way to log the DSS that is provided

AWIPS

DSS events plotted as a menu option

One-to-one DSS





Central Region IDSS

CR is Providing Baseline DSS!

All WFO DSS Calendar Events

Today ◀ ▶ Tuesday, June 7 Print Week Month Agenda

Tuesday, June 7

6:00pm DSS: Circus Flora - 7 PM

Wednesday, June 8

8:00am Request: Bike Across Kansas

5:00pm Bushwhacker Days

9:00am DSS: Circus Flora - 10AM/7 PM

5:00pm DSS: Whitaker Music Festival

Thursday, June 9

» 12:00pm Request: Bike Across Kansas

Bushwhacker Days

8:00am Go Pro Mountain Games

11:00am Superman Celebration - Tier 1 (from WFO)

8:00pm Request: Prairie Band Potawatomi Pow Wow 20

7:00am DSS: Ballwin Days 2016

4:00pm DSS: Thursday Night Live

7:00pm DSS: Circus Flora

Friday, June 10

Bushwhacker Days

Go Pro Mountain Games

Superman Celebration - Tier 1 (from WFO)

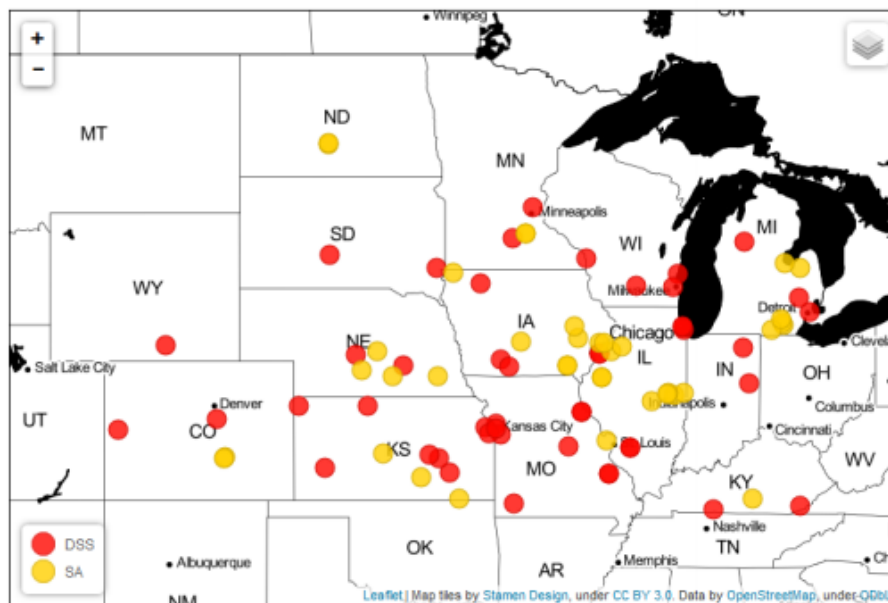
Request: Prairie Band Potawatomi Pow Wow 2016

8:00am Cruzers Car Show

Events shown in time zone: Central Time

7200+ Events & Counting

Regional DSS Viewer



ABR	DVN	ILX	MQT
APX	EAX	IND	OAX
ARX	FGF	IWX	PAH
BIS	FSD	JKL	PUB
BOU	GID	LBF	RIW
CYS	GJT	LMK	SGF
DDC	GLD	LOT	TOP
DLH	GRB	LSX	UNR
DMX	GRR	MKX	
DTX	ICT	MPX	

DSS summary

- 24 WFOs supporting 47 events

SA summary

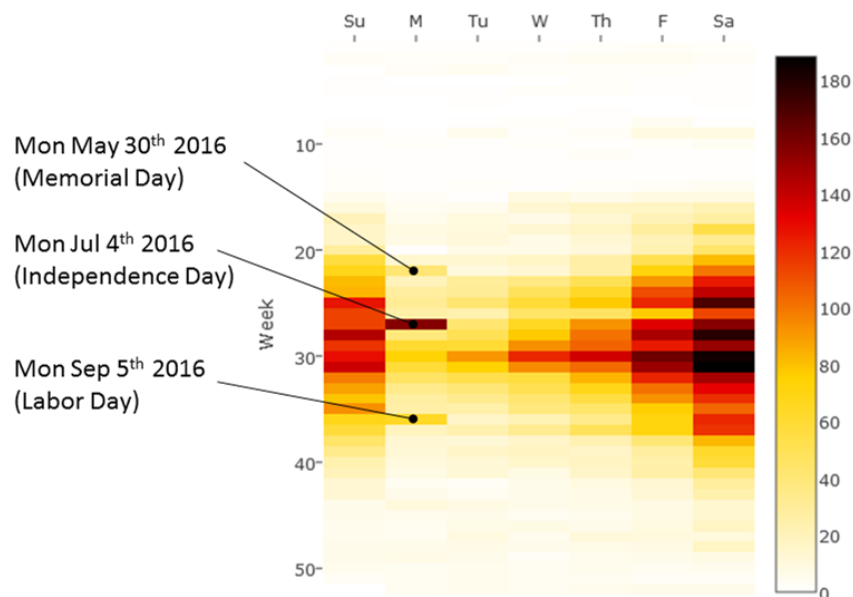
- 12 WFOs aware of 38 events



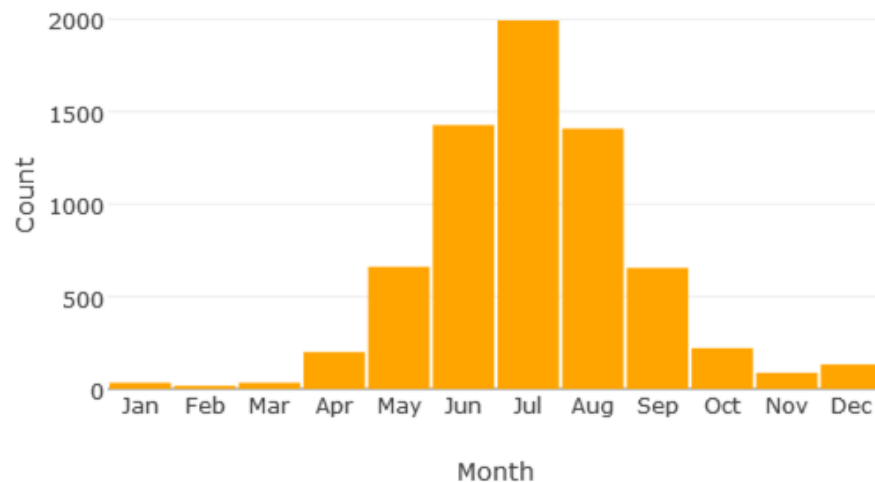
Central Region IDSS

When is DSS being provided?

Preliminary calendar plot of CR DSS events (n = 5638)



Preliminary histogram of CR DSS events (n = 6870)

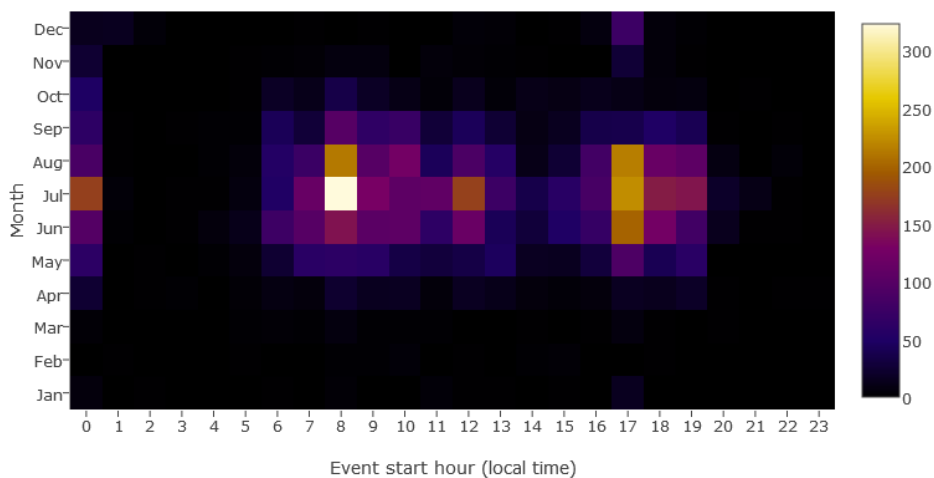




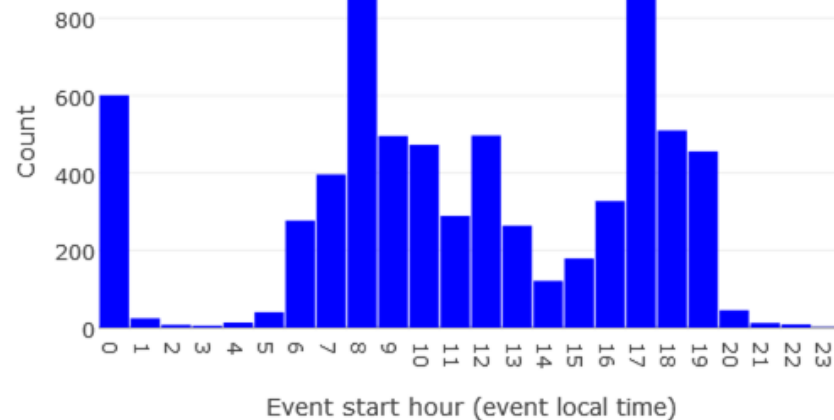
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When is DSS being provided?

Preliminary 2D histogram of
CR DSS events by month and event start hour (n = 6870)



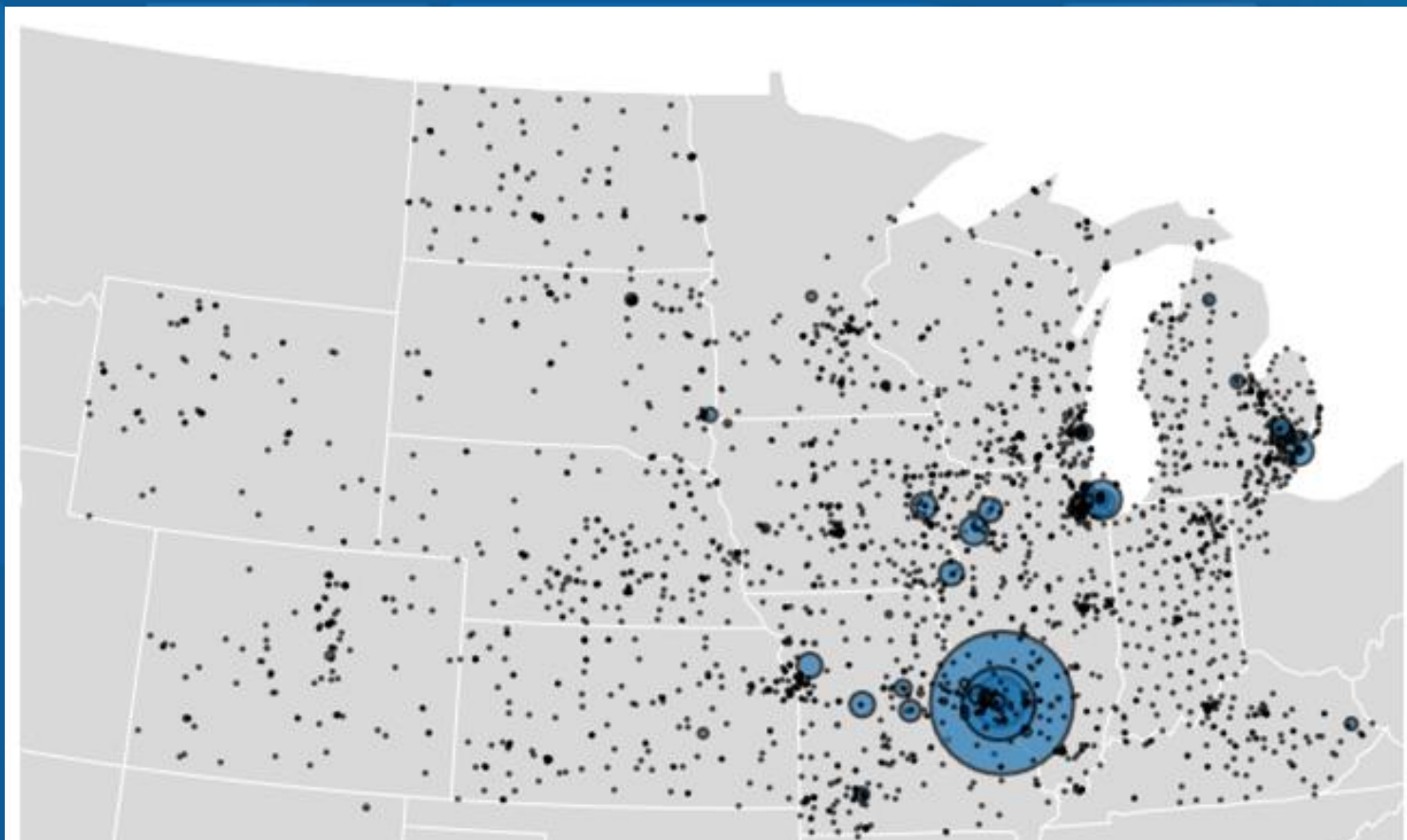
Preliminary histogram of CR DSS events (n = 6870)





Central Region IDSS

Where is DSS being provided?



DSS location lat/lon binned to 2 decimal places (n = 2580)



Assist NWS operations incorporating forecast confidence and impacts

- Improve DSS consistency
- Identify critical periods
- Set operational tempo
- Triggers actions & services
- Regional monitoring

A diagram illustrating the structure of a cell wall. It shows a network of cellulose fibers, which are composed of cellulose microfibrils. The microfibrils are represented by thin, wavy lines, and the fibers are represented by thicker, more organized bundles of these microfibrils. The diagram shows how the microfibrils are arranged in a way that provides structural support and strength to the cell wall.




Central Region IDSS

Situation Report & Conference Calls

Services to communicate value added DSS to core partners

Delivered via email blast as a “tap on the shoulder” to emergency management

<http://www.weather.gov/sgf/sitrep>

**National Weather Service**
Springfield, Missouri
Sunday, November 29, 2015 6:45 PM
Experimental Situation Report

Elevated Risk For Flooding


Heavy rain and flooding Summary:

- Flooding risk will continue tonight into Saturday morning, especially across southern Missouri.
- Heavy rain h
- Many low w
- Additional h


Current

- Areal Flood
- Flood Watch
- Flash Flood
- Freezing Rain
- Winter Weather
- Flood Advis
- Areal Flood

[Click for a description of this product](#)

**National Weather Service**
Topeka, Kansas
Sunday, November 29, 2015 4:54 PM
Experimental Situation Report

More Winter Weather Tonight; Continued Icing and some Snow



Overview

A wintry mix of precipitation will continue overnight into the early morning on Monday before drying out Monday afternoon into the evening. In the meantime, expect some areas (mainly from Marysville through Abilene and points West) to continue to see ice accumulations and some light snowfall accumulations. This will result in continued hazardous travel conditions.

[Click for a description of this product](#)

www.weather.gov/top

[NWSTopeka](#) [f](#) [@NWSTopeka](#)

[Click to evaluate this product](#)



Central Region IDSS

Integrated "End-to-End" IDSS

1. Science/Forecast



2. Partnerships/Outreach



3. Operations



4. Services Suite



5. Training





Integrated “End-to-End” IDSS

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Hazards & Impacts

DSS Matrix

Playbooks

Graphics

Watches & Warnings

Southern

Virtual DSS



NWSchat





Central Region IDSS

Observational Needs

- Emergency Mgmt. Decision Support Needs & Utility
- Effectiveness of Decision Support Services
- Weather Hazard Risk, Impacts and Vulnerabilities
- DSS Events and Incident Characteristics



Central Region IDSS

<https://sites.google.com/a/noaa.gov/dss-prototype-project/>

IDSS Prototype Project Team

WFO EAX - Andy Bailey, Dan Hawblitzel

WFO SGF - Steve Runnels, Andy Foster

WFO LSX - Wes Browning, Jon Carney, Kevin Deitsch

WFO TOP - Chad Omit, Brian Barjenbruch

Leadership - CRH Jim Keeney, NWSEO Andy Foster

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