



**NATIONAL
WEATHER
SERVICE**

NWS Partners Webinar: Impact-based Decision Support Service Description Document

July 19, 2022

Office of Organizational Excellence (OOE)



Today's Webinar Agenda

- Welcome and Logistics
- Polling Questions
- NWS Partnership Strategy
- NWS IDSS SDD Updates
- Q/A and Open discussion
- Wrap-up



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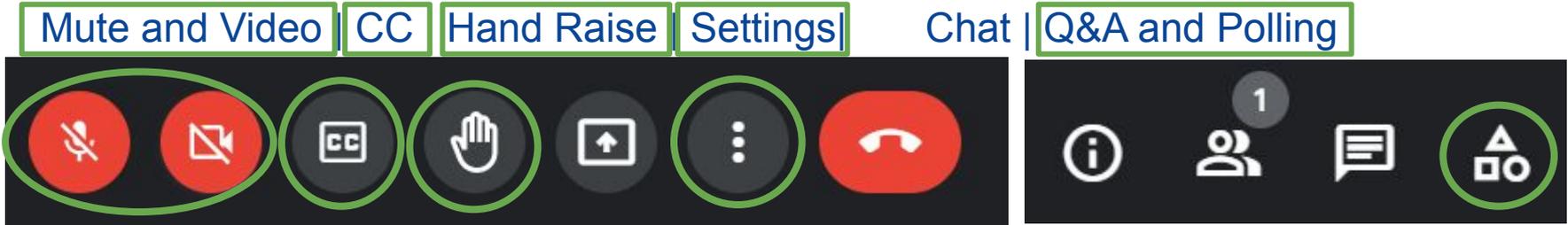


Wendy Levine
Sr. Policy Lead
Office of the COO

GoogleMeet Webinar Logistics

How to join the discussion!

- Keep your phone lines muted throughout (for call-in participants: to mute and unmute use *6).
- Raise your hand if you have a question and we'll respond in the order of the queue.
- The following features of google meet:



- This webinar will NOT be recorded. We will post slides and key takeaways afterwards at weather.gov/wrn/calendar
- You can also join by phone line only if you are having connectivity issues.

NWS Partners and IDSS

- December 6-7, 2017 Partners Workshop on IDSS



National Weather Service (NWS) Service Description Document (SDD)
Impact-Based Decision Support Services for NWS Core Partners
April 2018

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NWS Partnership Strategy & Customer Experience

Goals for the NWS Partnership Strategy

- 1 Improve the overall NWS partnership experience
- 2 Further enhance and develop new ways of leveraging and using partnership capabilities to help realize the NWS vision
- 3 Understand the landscape of NWS partnerships and develop a clear strategic vision of which key partnerships to enhance and develop



NWS Customer Experience (CX) Project

CX is the **perception** that customers or partners have of their experience with the organization.

Outcomes:

- Assessment of NWS CX maturity
- NWS CX concept
- Recommended CX activities and initiatives
- Recommended CX training and metrics
- Journey mapping and best practices

FORRESTER

Focus of CX assessment on **Enterprise Partners**



Weather Research & Forecasting Innovation Act of 2017

15 USC 85011. SEC. 101. PUBLIC SAFETY PRIORITY.

In conducting research, the Under Secretary shall prioritize improving weather data, modeling, computing, forecasting, and warnings for the protection of life and property and for the enhancement of the national economy.



The Washington Post

Capital Weather Gang

Congress passes comprehensive weather forecasting and research bill

- **Sec. 101 – Directed toward the NOAA (NWS) Mission**
 - Reauthorizes USWRP, HFIP, Tornado Research
- **201 – Improving Sub-seasonal and Seasonal Forecasts**
- **301 – Weather Satellite and Data Innovation**
- **401 – Federal Weather Coordination**
- **405 – Warning Coordination Meteorologist & Impact-based Decision Support services**
- **501 – T**

(1) IN GENERAL.—Subject to paragraph (2), consistent with the analysis described in section 409, and in order to increase impact-based decision support services, each warning coordina-

Signed into law on April 18, 2017



NWS Mission Statement Update

The Vision

A Weather-Ready Nation: Society is prepared for and responds to extreme weather, water, and climate events.

***“Ready, Responsive, Resilient”
through the provision of IDSS***



The Mission

Providing weather, water, and climate data, forecasts, warnings **and Impact-based Decision Support Services** for the protection of life and property and enhancement of the national economy.



Realization: Can't Accomplish Mission without WRN and IDSS



IDSS Philosophy/Enterprise Role

- **We Can't Do it Alone!** - Recognize the growing Enterprise capacity to provide decision support services.
- **Primary focus** - NWS IDSS supports government core partners with shared public safety mission
- **Flexibility** - NWS will be flexible in how we provide IDSS to our core partners, keeping in mind that they may also be receiving support from Enterprise partners.
- **Collaboration is critical** - Coordinate with Enterprise providers to ensure consistent messaging



WFO Los Angeles/Oxnard IDSS and DTN Collaboration for Super Bowl LVI

- NWS provided IDSS to government core partners; DTN provides weather support to the NFL.
- NWS and DTN had a pre-planning meeting to discuss roles and responsibilities, share DSS briefings, and support logistics.
- DTN participated in daily coordination calls lead by an NWS event coordinator to collaborate on consistent messaging.
- Collaboration was critical for understanding each other's support thresholds, planned messaging, and methods for mass notification and communication.



WEATHER EMERGENCY ACTIONS				
Hazard Levels	Wind	Lightning	Thunderstorm	Response Actions
Advisory	Sustained: 20-30 mph Gusts: 35+ mph	25 miles out	Conditions are favorable for T-storms to develop	Notification to staff Review site-specific plans
Watch	Sustained: 30-40 mph Gusts: 45+ mph	15 miles out	T-storms observed or developing	NWS coordination call Review logistics needs Prepare to implement shelter/evacuation plans
Warning	Sustained: 40 mph Gusts: 50+ mph	8 miles out	T-storms imminent or occurring	Radio ALL CALL weather WARNING Take immediate shelter in hardened locations Notify NFL Control when sites evacuated/secured



WeatherOps - Live Event Services DTN

NWS Weather Brief - SB56 Operations
 Issued @ 1800 hrs / No. 34
 Weather Forecast Office
 Los Angeles, CA
 Friday, February 11

Key Points

- Hot conditions through Sunday, with high temperatures reaching the low-mid 80s and near record-breaking heat. A Heat Advisory is in effect for the Los Angeles County coast and coastal valleys through Sunday afternoon.
- Santa Ana weather pattern persisting into the weekend, though weaker.

Feb 14-15 Outlook: Noticeably cooler, with high temperatures in the mid-70s Monday and low 60s Tuesday. Slight chance of showers Tuesday.

Potential Venue Impacts

- Dehydration and moderate to extreme heat stress could become issues this week, especially for those without effective cooling and adequate hydration and those who are not acclimated to the heat.

Weather Risk Outlook Through Tuesday

	Sat, Feb 12	Sun, Feb 13	Mon, Feb 14	Tue, Feb 15
Lightning				
Rain				24%
Rain Amount				0.01
Temperatures	84	82	76	63
Peak Wind Gusts	7	12	14	31
Visibility				
Risk Levels	Little to None	Minor	Moderate	Major

Progress Since 2018 (IDSS SDD V1.0)

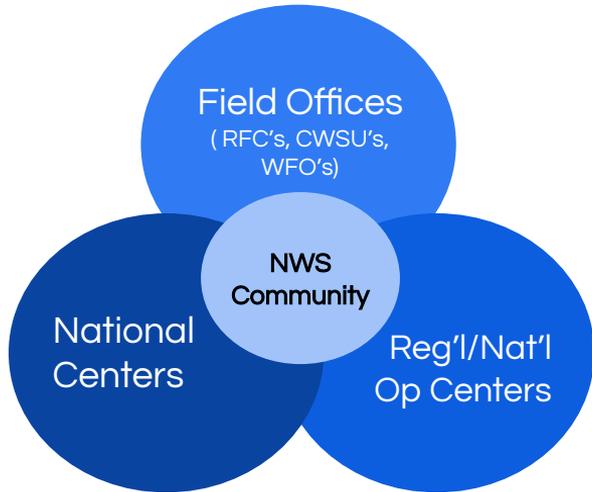
- **Published NWS Policy Directive (based on IDSS SDD V1.0)**
- **Drafting 4 key procedural directives on IDSS**
 - Core Partner Management - Who is a core partner? Levels of IDSS Service
 - IDSS Operations - IDSS operating model concepts
 - Integrated IDSS - IDSS deployment
 - IDSS Products/Services Specification - Describes IDSS products
- **Developing IDSS tools, techniques, and training**
- **Instituted NWS Communities of Practice - share best practices**



IDSS Communities of Practice

Goal:

Encourage internal NWS discussions including local, regional and national offices to identify and collaborate on IDSS best practices and challenges, and work together toward common IDSS solutions.



Best Practices/Challenges/Recommendation Areas:

- Providing IDSS during pandemic
- Mutual aid approaches and tools to support operational planning
- Incorporating probabilistic messaging in IDSS.



NWS Partners'
Meeting
July 2022

NWS Impact-based Decision Support Services (IDSS)

IDSS Service Description Document v2
Concept Overview
Katie Edwards, Andy Foster



IDSS



*Leadership is the capacity
to translate vision into reality.*

Warren G. Bennis



Our Vision: A Weather-Ready Nation: Society is prepared for and responds to weather, water, and climate-dependent events

Our Mission: Provide weather, water and climate data, forecasts, warnings, and **impact-based decision support services** for the protection of life and property and enhancement of the national economy.



Key IDSS Term Definitions Unchanged

IDSS Definition

“NWS defines IDSS as the 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.”

Unchanged.



Core Partner Definition

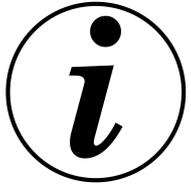
“Government and non-government entities which are directly involved in the preparation, dissemination, and discussions involving weather, water, or climate related National Weather Service information, that supports decision making for routine or episodic, high impact events. These entities have a unique need for increased interaction with NWS personnel for provision of IDSS or to facilitate their role in supporting the NWS mission.”

Unchanged.

Core Partner General Criteria - Unchanged



1. **Directly involved** in the preparation, dissemination, or discussion involving hazardous weather, water, climate, or other emergency information.



2. Possess a **unique need** for increased interaction with NWS for IDSS.



3. Have an **operational linkage** of an allied mission of public safety or **critical interdependency** on each other's data or actions which impact the missions of both organizations.

The focus of IDSS is for the Core Partners - Categories Unchanged

NWS Core Partners consist of the following four categories:

Members of the emergency management (EM) community

- Public safety officials at the federal, state, local, tribal, or territorial level charged with protecting the public

Members of the water resources management (WRM) community

- Public officials at the federal, state, local, tribal, or territorial level and are charged with managing the nation's water resources for the public good, including infrastructure (e.g., dams, levees, reservoirs, etc.)

Government partners.

- Federal, state, local, tribal, or territorial government partners who have missions that require close coordination with the NWS to support the operational linkages of an allied mission of public safety or critical interdependency on each other's data/actions

Members of the real-time media.

- Members of the real-time media are entities that operate systems that routinely and rapidly relay weather and water watches, advisories, warnings and forecast information to a significant part of the population served by an NWS office



IDSS - It's About People

Service and the provision of IDSS is about people - together leveraging science to serve our partners and our communities through preparedness efforts ensuring “whole community” resilience through equitable service delivery.

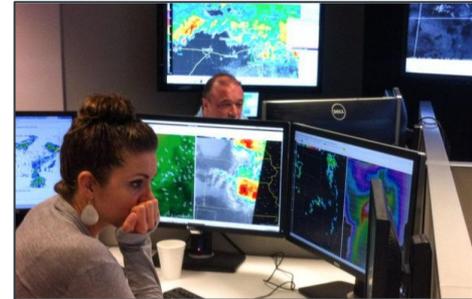
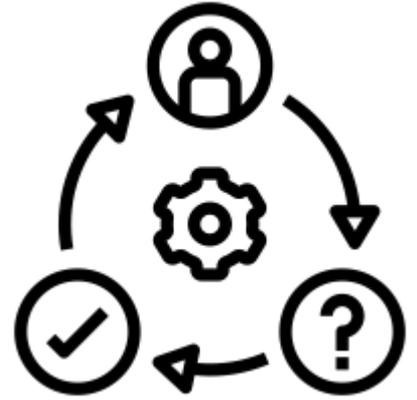


Updated Concept: IDSS Operating Model

The NWS has created a common internal framework for a baseline of consistent IDSS delivery, while maintaining flexibility in the delivery approach, based on NWS Core Partner needs.

Key Elements of the IDSS Operating Model:

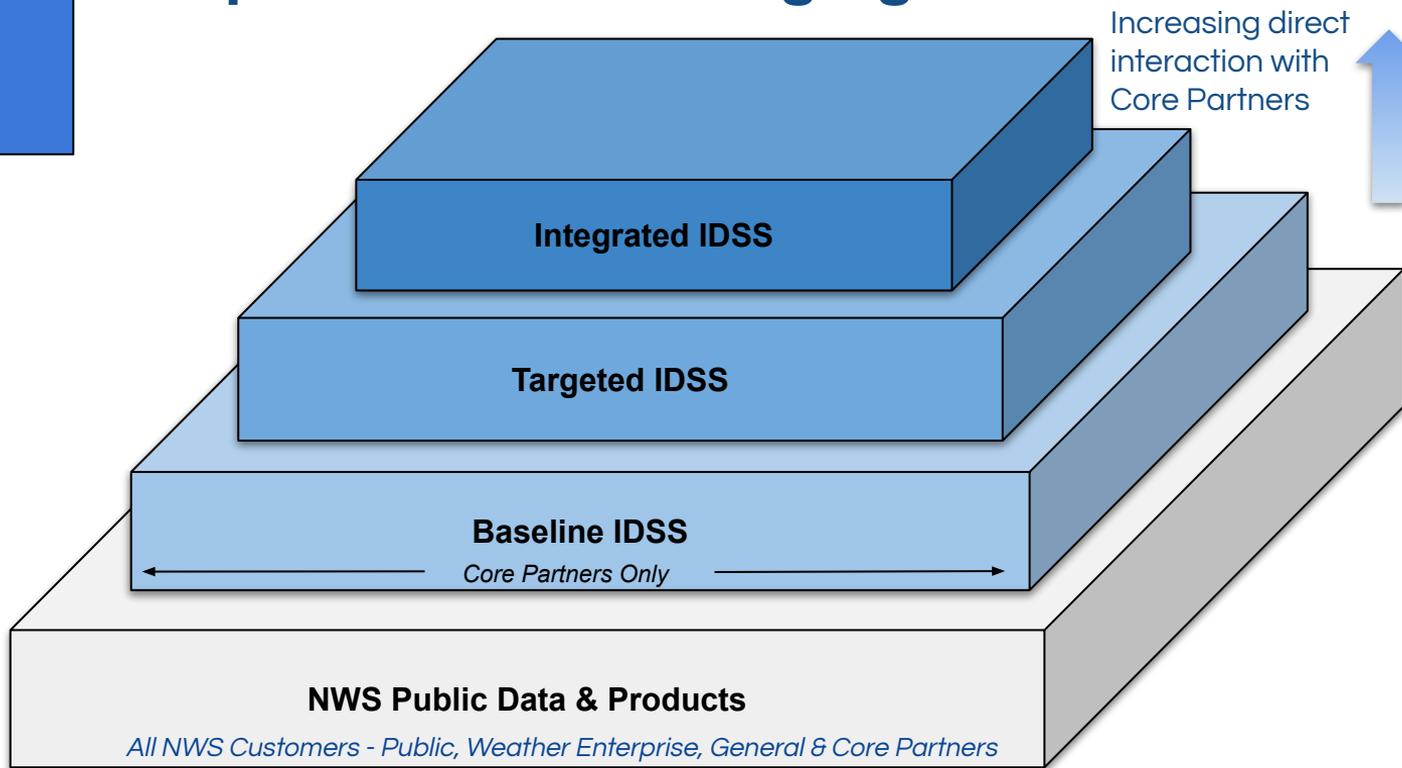
1. Continuum of Impact-based Messaging and Services
2. IDSS Operational Cycle



Updated Concept: Continuum of Impact-based Messaging and Services

IDSS (Blue) Increasing adaptation of NWS information for Core Partner needs

Standard and Impact-based NWS Products and Services (Gray) for General Decision-Making



Continuum of Impact-based Messaging Services

Messaging Foundation

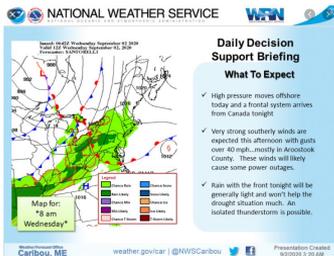
Increasing direct interaction with Core Partners

Public Services



NDFD drives general forecast information, while forecaster generated Weather Graphics and Social Media posts convey **general impacts**.

Baseline IDSS



Forecasters directly send IDSS Graphic Packages, and conduct Webinars to all Core Partners, focusing on **general impacts**. They respond to Core Partner questions in NWSChat.

Targeted IDSS



Targeted Webinars, Emails, Graphics Packages, etc. to subsets of Core Partners to convey **impacts based on their customized thresholds in a way tailored to their needs**

Integrated IDSS



Integrated One on One Virtual or Onsite Support to an Individual Core Partner that requires **on-demand customized impact information**

Increasing adaptation of NWS information for specific Core Partner decisions



NATIONAL WEATHER SERVICE

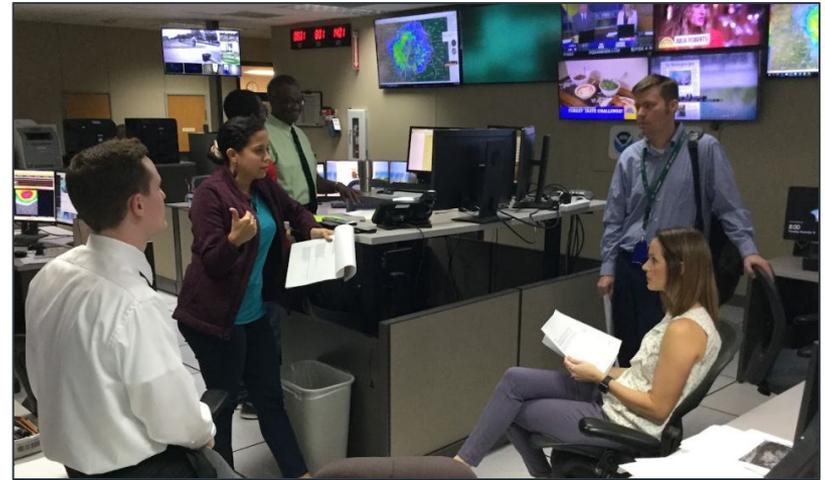
Elimination of “Deep Core Partner” term

Deep Core Partner VS. Core Partner

Concept Clarification: All core partners may be served at any level of the continuum, depending on the event, the Core Partner need and the available NWS resources. This is not a change.

Intent of the “Deep Core Partner” designation is now covered by the IDSS Operating model, within the Continuum of Impact-based Messaging and Services.

Terminology Change Reasoning: Given this IDSS Operating Model paradigm, it is no longer necessary to articulate how services are provided to specific Core Partners



Sector-Specific Core Partner Clarifications

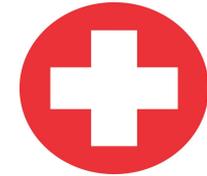
Key Core Partner Qualifying Element: Emergency Management Function toward public safety.

Unchanged.



Education

- EM Function of Schools/Universities



Health

- Government emergency dispatch centers
- Life Flight Dispatch



Non-Water Related Utilities - Emergency Management and public safety focus for Space Weather impacts and Nuclear facilities emergency support.

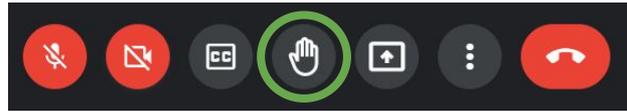
Market Failure Justification

Where environmental information services are not otherwise available...



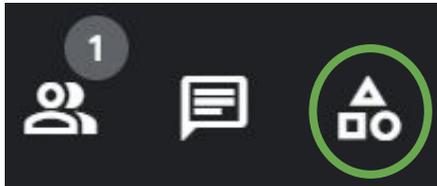
Any Questions So Far?

Hand-raise Option



OR

Q&A feature



Q&A

Give everyone an easy way to ask questions

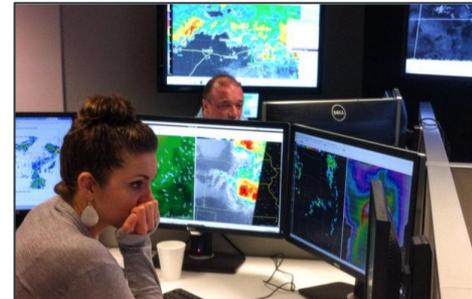
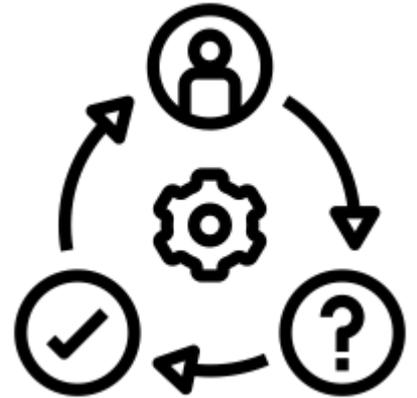
+ Ask a question

Updated Concept: IDSS Operating Model

The NWS has created a common internal framework for a baseline of consistent IDSS delivery, while maintaining flexibility in the delivery approach, based on NWS Core Partner needs.

Key Elements of the IDSS Operating Model:

1. Continuum of Impact-based Messaging and Services
2. IDSS Operational Cycle



Updated Concept: IDSS Operational Cycle

Relationship Building

Begins well in advance of an event through routine, continuous interactions with Core Partners.

Includes building trust through engagement and documenting needs in Core Partner Profiles.

Readiness

Activities to prepare and ensure NWS office readiness to effectively and appropriately respond to the unique needs of their Core Partners.

Includes needs/resources assessment, IDSS **Planning Guides**, and office IDSS training activities.

Continuous Engagement with Core Partners

Delivery

Tactical execution of IDSS products and services to Core Partners.

Includes support via **Action Plans** for a specific weather, water or climate event, routine high value IDSS, emergency incident-driven event, and/or scheduled special event.

Evaluation

Gather feedback and refine our services.

Includes post-event performance reviews and Core Partner surveys.



Updated Concept: IDSS Operational Cycle

Relationship Building



- First meet and greet
- Build out partner profile
- Document thresholds
- Table top exercises,
- Preparedness engagement.

Readiness



- Seasonal preparation and planning
- Partner and NWS needs/resources assessments
- IDSS Planning Guide development
- NWS IDSS training activities.

Continuous Engagement with Core Partners

Delivery



- Action Plan based tactical IDSS
- Emergency incident-driven event Operations
- Scheduled special event Operations

Evaluation



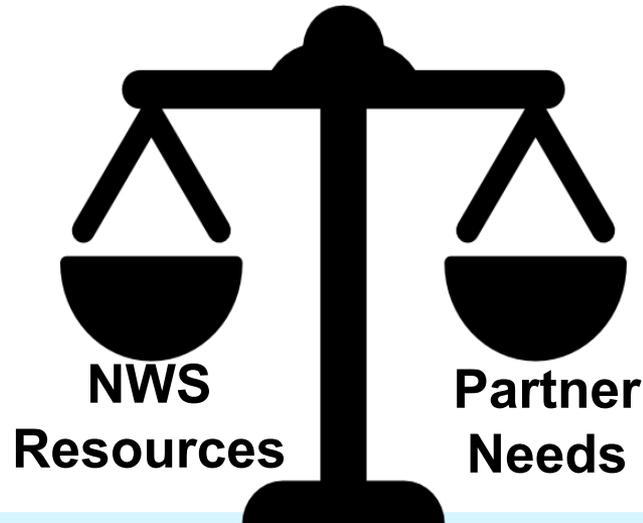
- Includes post-event performance reviews
- Local, regional or national service assessments
- Core Partner surveys.



NWS' Capacity to Provide IDSS is limited...

Goal: To provide equitable level of support to all Core Partners' needs.

NWS will continue to have the discretion to determine how to leverage its resources to best support multiple IDSS requests, especially during large-scale events with widespread impacts.



Summary of IDSS enhanced concepts to be included in IDSS SDDv2

- **Continuum of IDSS Messaging & Services** - Baseline, Targeted, Integrated IDSS
- **IDSS Operations Cycle**
- **Core Partner designation & sector-specific related updates**
- **Public Impact-based Messaging:** Making IDSS content available more broadly
- **Increased IDSS delivery consistency and collaboration** between local NWS offices, regional NWS offices and National Centers



Summary of IDSS concepts unchanged in IDSS SDDv2

- **IDSS Policy/legal context**
- **NWS approval of core partners** - how NWS reviews requests to be a core partner and an appeal process
- **Best practices - Recognition of the Enterprise role**
- **Emergency circumstances** - when lives are at imminent risk, **NWS will take action** to alert or assist those affected even if not within the bounds of our stated policies. These actions will be reviewed after the fact to identify impacts, if any.



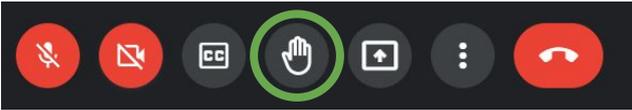
IDSS Best Practices

- Flexibility when multiple providers are present. We take our cues from our Core Partners
- Joint support - NWS will provide an opportunity for coordination - Key for consistency of messaging
- NWS focus is on supporting core partners, even if non-core partners are present
- Referral to Enterprise partners when outside the scope of NWS mission
(weather.gov/enterprise)
- Information sharing
 - NWS will share IDSS content more broadly - Aim is free-open exchange of data
 - Limitations:
 - As resources allow
 - Not a safety/security issue
 - Not pre-decisional information
 - Any new content/displays we plan to continue will go through public comment/review



Open Discussion

Hand-raise Option



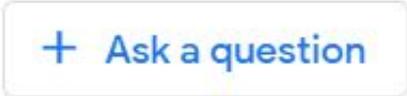
OR

Q&A feature



Q&A

Give everyone an easy way to ask questions



Moving Forward

- Your feedback will be incorporated into draft IDSS SDD V2.0
- Expect public notification of formal comment/review of SDD V2.0 in Fall 2022
- As with SDD V1.0, NWS will continue to refine details of IDSS operations after SDD V2.0
 - NWS is committed to incorporating lessons learned from core partners and Enterprise partners
- Expect formal comment/review on any new IDSS products/services
 - New IDSS product specifications from draft instruction
 - IDSS Management System capabilities
 - Program/sector-specific policy or SDD (e.g., surface transportation, climate)



Future Engagements and Feedback Opportunities

- **[CANCELED] NWS Partners Meeting:** July 28, 2022 - Boulder, CO
 - This meeting has been postponed due to a large number of attendees preferring to join virtually, as well as limitations on the meeting venue.
- Partner calls with NWS Leadership: Ongoing
- **NWS Partners Webinar:** Social, Behavioral and Economic Sciences - August 31, 2022
- NWS Strategic Plan Refresh: Fall 2022

THANK YOU!!

weather.gov/wrn/calendar

