

***NATIONAL WEATHER SERVICE POLICY DIRECTIVE 10-24***

***JANUARY 2, 2024***

***Operations and Services***

***IMPACT-BASED DECISION SUPPORT SERVICES***

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***SUMMARY OF REVISIONS:*** This directive supersedes NWSI 10-24, “Impact-Based Decision Support Services,” dated January 2, 2024. This is an administrative update made only to fix a broken link in Appendix A. No content changes were made with this update, and the effective date was not affected.

## **1 Introduction**

The National Weather Service (NWS) provides decision-makers and the public with essential environmental data, information<sup>1</sup>, forecasts, and warnings to make better decisions, protect lives and property, and enhance the economy. The NWS is on a path to transform into a more nimble, flexible, and mobile agency that is eye to eye with decision makers. Informational services provided by the NWS have expanded beyond the focus of discrete messages, to include interpretative services to enhance Core Partner understanding of NWS information and aid in their decision making. Through interpretive services, Core Partners should gain an enhanced understanding of the spectrum of information and uncertainty in NWS forecasts to inform their decisions.

NWS Core Partners is a classification of NWS users defined as: Government and non-government entities that are directly involved in the preparation, dissemination, or discussion involving weather<sup>2</sup>, water, or climate related National Weather Service information<sup>1</sup> that supports decision making for routine or episodic high impact<sup>3</sup> events. These entities have a unique need for increased interaction with NWS personnel for provision of Impact-based

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<sup>1</sup> This “information” may pertain to any service area which the NWS supports, including space weather, floods, drought, tsunamis, aviation weather, fire weather, marine, etc.)

<sup>2</sup> In this document, “weather” is used generally to mean all service areas which the NWS supports, including space weather, tsunamis, aviation, fire, marine, etc.

<sup>3</sup> High impact - Any weather-dependent event that significantly impacts safety, health, the environment, economic productivity, or homeland security. No standard, nationwide criteria define a high impact event. It may impact millions of people or one sector, and it may vary in timing or location. (WRN Roadmap 2.0, p. 11)

Decision Support Services (IDSS) or to facilitate their role in supporting the NWS mission. Core Partners comprise the following categories of entities defined more fully in NWS Directive 10-2401, the Core Partner Identification and Management Instruction.

- Emergency Management Community
- Water Resources Management Community
- Government Partners
- Real-Time Media

NWS recognizes that there are a large number of additional entities (sometimes referred to as America's Weather and Climate Industry) that contribute to the overall services provided by NWS or that provide quality services to the public as critical Weather/Water/Climate Enterprise Partners in building a Weather-Ready Nation. However, this "Core Partner" designation is meant to identify those entities that have a unique need for direct access to NWS information and/or that require direct interaction with the NWS because of either the level of critical public services they provide or the need to facilitate their role in supporting the NWS mission.

Impact-based Decision Support Services (IDSS) is defined as the provision of relevant information and interpretative services to enable Core Partners's decisions when weather<sup>2</sup>, water, or climate have a direct impact on the protection of lives and livelihoods. IDSS may be characterized as being either **episodic** or **routine** in nature:

- **Episodic IDSS** - Event-driven IDSS provided to Core Partners, either related to a hazardous environmental event or a scheduled event where weather and water related variables are critical to the planning and execution of the event from a public safety standpoint. Examples include supporting Core Partners' decisions related to a hurricane or winter storm, including the aftermath, as well as providing support to a Core Partner for a scheduled event such as a festival or fair.
- **Routine IDSS** – Ongoing IDSS provided to a subset of core partners through the year to improve partner mitigation, preparation, response, and recovery efforts related to environmental hazards or to support routine, high-value decisions. Examples include joint training, Integrated Warning Team interactions, pre-event/scenario planning, water use/contingency forecasts and planning, table-top exercises used to plan actions and procedures addressing these events or incidents, after-action reviews, and daily coordination regarding routine high-value decisions such as aviation operations or reservoir releases.

Note: IDSS is a mission critical service for Core Partners; however, not all Core Partners are the recipients of IDSS. For example, members of the media may be an active participant in some NWS IDSS activities because of the unique role they play (in coordination with NWS) in communicating critical public safety information; however, NWS does not provide decision making support to the media related to the conduct of their operations.

The purpose of this directive is to specify the nature, scope, and bounds associated with providing NWS IDSS to support decision-making for routine or episodic high impact events, as well as recovery from these events, as distinguished from standard NWS forecast and warning services. Specifically, this policy defines the roles and responsibilities of various entities within

the NWS during IDSS efforts. Detailed guidance and procedures for NWS provision of IDSS is contained within instructions under this directive. Policies for the provision of standard NWS products/services available to the public, as well as standard products meeting the needs of a particular sector of the U.S. economy or a specific organization, are addressed in other NWS directives.

## 2 Policy/Legal Context

The [Weather Research and Forecasting Innovation Act of 2017, U.S. Code Title 15, Chapter 111, section 8545](#) codifies the NWS provision of IDSS, making public safety top priority. It describes the primary role of NWS Warning Coordination Meteorologists (WCM) in providing IDSS, which is “to help ensure that users of products of the National Weather Service can respond effectively to improve the outcomes of weather events.”<sup>4</sup> The Act directs the WCMs to “work closely with state, local, and tribal emergency management agencies, and other agencies related to disaster management to ensure a planned, coordinated, and effective preparedness and response effort,”<sup>5</sup> and it encourages the NWS to “assign other staff as the [NWS] Director considers appropriate to carry out such responsibility.”<sup>6</sup>

Additionally, through the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), the Department of Commerce/National Oceanic Atmospheric Administration (NOAA) has statutory authority to support the emergency management community (see Section 4 below for details of who will receive these services) at the federal, state, tribal, territorial, and local levels. Likewise, the National Preparedness System, mandated by Presidential Policy Directive (PPD)-8: National Preparedness, includes a series of National Planning Frameworks, one for each of the five mission areas: Prevention, Protection, Mitigation, Response, and Recovery. The NWS plays a key federal role in ensuring national preparedness related to weather, water, and climate conditions.

## 3 Weather/Water/Climate Enterprise<sup>7</sup> Context

The above public laws and statutes provide direction to the NWS to directly support emergency and disaster management at all levels. However, the NWS acknowledges this is not the exclusive domain of the government. Furthermore, the National Planning Frameworks and [Presidential Policy Document 8](#) (PPD-8) itself emphasize that it takes support from the “whole community” to build and sustain preparedness. The whole community includes federal, state, local, tribal, and territorial governments, as well as private (including our private sector Weather/Water/Climate Enterprise partners), academic/research and non-profit sectors, and also communities, households, families, and individuals, all contributing to successful preparedness efforts. This “whole community” concept is echoed in NWS’ Weather-Ready Nation efforts. Achieving a Weather-Ready Nation depends not just on NWS, but on an entire Weather/Water/Climate

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<sup>4</sup> 15 U.S.C. § 8545 (c) 1(A)

<sup>5</sup> 15 U.S.C. § 8545 (c) 1(E)

<sup>6</sup> 15 U.S.C. § 8545 (c) 1(c)(2)

<sup>7</sup> In particular the private sector component, sometimes referred to as America’s Weather and Climate Industry, includes all elements of the private sector (including media, consultants, equipment providers, etc.) that provide services to the public in the areas of climate, water, and weather, broadly defined (e.g., includes space weather). This does not exclude foreign-owned companies which provide services to the American public.

Enterprise, our Core Partners, as well as the educated actions of individuals who are prepared for and can respond to weather-related events<sup>8</sup>.

The NWS recognizes the growing capacity of the Weather/Water/Climate Enterprise to provide support not only to private businesses and the public, but to NWS Core Partners as well. The NWS aims to provide greater clarity about the type of IDSS provided and will be flexible in how it is provided to Core Partners who are also working with other Enterprise service providers. NWS employees providing IDSS should coordinate with other providers of weather and water services supporting Core Partners to the extent possible in an effort to ensure consistent messaging. NWS Core Partners, in conjunction with their service providers, will determine what IDSS is needed from the NWS, as well as any procedures for coordination and interaction between the NWS and those providers. NWS will consider a request and intends to provide service only per mutual agreement of NWS and the requestor.

Recognizing “whole community” participation is critical for effective preparedness and response activities, NWS IDSS is largely focused on providing services to government Core Partners, especially those in emergency management and water resources management who engage in decision-making which impacts protection of life and property.

#### **4 Guiding Principles**

Given the context provided above, NWS provision of IDSS will be guided by the following principles:

- NWS’s primary focus is on supporting government partners who share similar mission objectives to ensure the safety of the public and particularly vulnerable populations.<sup>9</sup>
- NWS will support disaster management efforts of federal,<sup>10</sup> state, local, tribal, and territorial governments.
- NWS will interact with our partners from the national level to the local community level, therefore reaching as many who are potentially in harm’s way as possible.
- NWS will be flexible in how we provide IDSS to our partners, keeping in mind that they may also be receiving support from others in the Weather, Water, and Climate Enterprise.

#### **5 Continuum of Impact-based Messaging**

IDSS Services will be provided as part of a continuum of messaging ranging from impact-based messaging provided to the public to multiple types of IDSS services provided based on Core

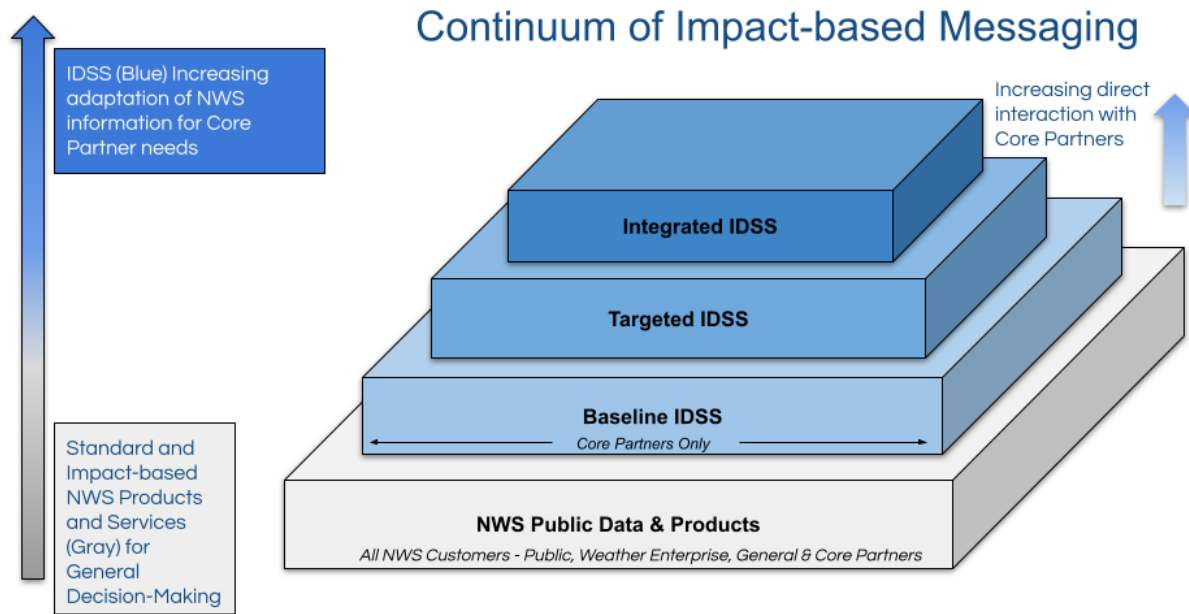
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<sup>8</sup> Within this document, the term event is used to refer to actual hazardous weather events of impact to the public (e.g., hurricane), incidents that are impacted in some way by weather conditions (e.g., environmental hazards such as chemical release), and large gatherings of people at a venue where public safety is often impacted by hazardous weather conditions (also referred to as “special events”).

<sup>9</sup> Non-government entities may also be supported as described within this document.

<sup>10</sup> To honor agreements with countries and territories and the terms of other international agreements, the term “federal” within this document encompasses international governments and organizations supported by NWS.

Partner need. See NWSI 10-2402, *Impact-Based Decision Support Operations* procedural directive for details related to this concept.



## 6 Provision of IDSS - IDSS Operating Cycle

Providing IDSS follows an integrated process, an IDSS Operating Cycle, that addresses four primary phases of IDSS readiness and delivery. See NWSI 10-2402, *Impact-Based Decision Support Operations* procedural directive for details of this operating cycle.



## 7 Emergency Circumstances

In rare cases, if NWS staff are concerned that lives and property are at imminent risk, IDSS may be provided to individuals/organizations outside the scope of existing policy or without a previous request/approval being in place. For example, in the event of an immediate threat, direct notification by NWS about the threat may be initiated to a General Partner (a partner who NWS interacts with but who doesn't meet the definition of Core Partner). The purpose of this type of notification, which is expected to occur infrequently, is to ensure awareness of the threat and that precautionary actions are underway. No further actions will be taken if the individual/organization is already informed of the threat (e.g., by Weather/Water/Climate Enterprise provider).

If such an action is taken, the local office or regional/center management will be notified, a record of the action made, and a review performed after the incident to determine the impacts, if any, of this action and if IDSS for the individual/organization is needed on an ongoing basis. If the NWS office providing direct IDSS has a reasonable expectation of providing future IDSS services to the individual/organization, then request and approval for future services will be obtained after the emergency situation has passed.

## 8 Authorities and Responsibilities

This directive establishes the following authorities and responsibilities:

### 8.1 The Office of the Chief Operating Officer (OCOO):

- a. Coordinates national and regional IDSS activities through the NWS Operations Center (NWSOC) for situational awareness.
- b. Identifies IDSS product consistency issues through NWSOC and collaborates with impacted regions (ROCs), and centers, to coordinate a resolution.
- c. Coordinates IDSS activities of the NOAA/NWS Liaisons to federal partner agencies through the NWSOC and the ROCs; provides significant event predictions to support Congressional liaisons.
- d. Coordinates the surge capability for onsite and remote deployments of Deployment-Ready staff (except IMETs) through the NWSOC in cases where regions request mutual aid assistance when the regional capability to support an incident is exceeded.
- e. Identifies issues and coordinates resolution...in coordination with the Analyze, Forecast, and Support office (AFSO) and in coordination with the appropriate chain of command.
- f. Consolidates, analyzes, and oversees national performance and effectiveness indicators of IDSS and socio-economic benefits of NWS services, in coordination with AFSO.
- g. Responds to requests from national level organizations seeking Core Partner status for IDSS and maintains a record of national organizations approved for IDSS. (See NWSI 10-2401, *NWS Core Partner Identification and Management* for implementation guidance.)
- h. When appropriate, ensures an IDSS review is conducted via national service assessment activities following major events.

- i. Provides policy guidance/assistance on interpretation of Core Partner definition in coordination with AFSSO.

## **8.2 The Analyze, Forecast, and Support Office (AFSSO):**

- a. Establishes national NWS policies, procedures, and requirements for the provision of consistent NWS IDSS based on public and partner needs, in coordination with applicable portfolios.
- b. Identifies issues and coordinates resolution of consistency of IDSS products and services from the national to regional levels, in coordination with Office of the Chief Operating Officer (OCCO).
- c. Establishes and manages NWS IDSS training and outreach/education requirements.
- d. Issues Service Description Documents (SDDs) to the public and partners to clarify the NWS' role in providing IDSS to Core Partners, in conjunction with OCCO.
- e. Addresses policy questions from National Centers for Environmental Prediction (NCEP), the Office of Water Prediction, and NWS regions related to IDSS, and provides clarity and guidance in coordination with the OCCO through its Operations Division and OCCO strategic policy staff.
- f. Responds to external requests for information regarding NWS IDSS Core Partners, in coordination with OCCO.
- g. Measures the effectiveness of the IDSS Program via coordination with OCCO and field offices. Creates and implements an IDSS evidence-based learning strategy.
- h. Develops and oversees fiscal year funding plans supporting field operations and training in support of IDSS activities.
- i. Develops NWS Annual Operating Plan milestones to support and evolve IDSS capabilities, in coordination with the field and OCCO.

## **8.3 The Office of the Chief Learning Officer:**

- a. Coordinates IDSS training and funding requirements with AFSSO and delivers these requirements to NWS Mission Delivery Council for prioritization and approval.
- b. Develops and delivers training materials to meet IDSS requirements.
- c. Assesses and evaluates IDSS training effectiveness.

## **8.4 The Office of Science and Technology Integration:**

- a. Plans, develops, demonstrates, and integrates scientific techniques and system capabilities in overall support of NWS weather, water, and climate IDSS efforts.
- b. Analyzes MDC-approved requirements for IDSS improvements in close coordination with AFSSO, and develops scientific and technological solutions to address these requirements through coordination with entities within NOAA, other federal agencies, and the external research community.
- c. Supports testbeds and proving grounds for transition testing and evaluation of advanced IDSS capabilities and practices.
- d. NWS will work with Enterprise partners, especially in the academic/research community, to ensure the latest physical and social science findings are incorporated into NWS IDSS support methodology.

**8.5 The Office of the NOAA Assistant Chief Information Officer:**

- a. Provides management, awareness, and oversight for information technology (IT) security for systems that support NWS IDSS. This includes compliance through Assessment & Authorization (A&A, formerly Certification & Accreditation (C&A)) security activities.
- b. Implements and conducts all IT security tasks in support of NWS IDSS, as stipulated in NWS Policy Directive 60-7, *Information Technology Security Policy*.

**8.6 The Offices of Dissemination and Central Processing:**

- a. Provide system engineering, facilities engineering, and logistical services to sustain operational systems supporting NWS IDSS.
- b. Manage, operate, and supply software and data support for operational systems essential to the provision of IDSS.
- c. Procure, operate, administer, and maintain hardware and communications networks that host or support operational systems essential to the provision of IDSS.

**8.7 The National Centers for Environmental Prediction (NCEP), The Office of Water Prediction (OWP), and the Tsunami Warning Centers:**

- a. Produce regional, national and international products as necessary to support NWS IDSS, in collaboration with NWS regional and local offices as appropriate.
- b. Provide Core Partners with detailed, accurate, timely, and reliable IDSS, particularly in association with high impact events. Assists ROCs and local offices with IDSS to regional, state, and federal partners.
- c. Ensure regional, national and international IDSS products and service updates are timely, accurate, and consistent.
- d. Provide input for national IDSS requirements to AFSO.
- e. Identify the resources needed for any of the individual centers to be organized, trained, and equipped to fulfill IDSS program requirements.
- f. Respond to requests from national level organizations seeking Core Partner status for IDSS and maintain a record of national organizations approved for IDSS. (See 10-2401, *NWS Core Partner Identification and Management* for implementation guidance.)
- g. As appropriate, maintain a cadre of Deployment-Ready staff to support national level IDSS requirements in-person and remotely.

**8.8 The NWS Regions:**

- a. Manage and oversee a Regional Operations Center (ROC).
- b. Provide IDSS to regional Core Partners and federal partner agencies in coordination with the appropriate national center(s), regional and local office(s). The ROCs may also assist with IDSS for local partners when requested by local offices, NWSOC, NWS Communications Office, or NOAA Public Affairs Office.
- c. Identify the resources needed for their offices to be organized, trained, and equipped to fulfill IDSS program requirements.
- d. Coordinate the IDSS surge capability for deployments of Deployment-Ready staff (except IMETs) in cases where the local capability to support an incident is exceeded



- and local offices request mutual aid assistance.
- e. Coordinate with the NWS personnel that supports the FEMA National Incident Management Assistance Team (N-IMAT) members when deployed within their region for high-impact events and liaise between N-IMAT and local WFO(s) as appropriate.
  - f. Provide technical and operational assistance to NWS National Centers and local offices in support of IDSS activities, as necessary.
  - g. Provide input to AFSSO for national IDSS requirements.
  - h. Ensure offices comply with IDSS program directives.
  - i. Respond to requests from regional level organizations seeking Core Partner status for IDSS and maintain a record of regional organizations approved for IDSS. (See 10-2401, *NWS Core Partner Identification and Management* for implementation guidance.)
  - j. Work with NWS local offices to maintain a regional cadre of qualified Deployment-Ready staff to meet the majority of incidents and events likely to occur within the region.
  - k. Maintain situational awareness of regional operations, including the deployment of staff on-site to provide IDSS, and provide pertinent information to the NWSOC.
  - l. Maintain awareness of deployed personnel for on-site IDSS and provide pertinent information to the NWSOC.
  - m. Complete travel vouchers and necessary reimbursement procedures for IDSS deployments in a timely manner.
  - n. Identify IDSS product consistency issues, and collaborate with impacted offices, regions, and centers, to coordinate a resolution.

## **8.9 The NWS local offices:**

- a. Provide Core Partners with detailed, accurate, timely, and reliable IDSS, particularly in association with high impact events.
- b. Assist in the development of IDSS products and services that are consistent with surrounding offices and regional and/or national products and services, when applicable.
- c. Provide outreach and engage external users to promote IDSS and assess such attributes as quality, timeliness, consistency, satisfaction, and overall effectiveness of their IDSS program to make future enhancements.
- d. Identify the resources needed for their office to be organized, trained, and equipped to fulfill IDSS program requirements.
- e. As appropriate, maintain a cadre of personnel as Deployment-Ready staff to meet the anticipated needs of local Core Partners in-person and remotely.
- f. Respond to requests from local organizations seeking Core Partner status for IDSS and maintain a record of local organizations approved for IDSS. (See 10-2401, *NWS Core Partner Identification and Management* for implementation guidance.)
- g. While providing enhanced IDSS, identify potential local office operational needs and coordinate the resolution of these needs with the region when the response exceeds the local office capabilities.
- h. Identify IDSS product consistency issues, and collaborate with impacted offices, regions, and centers to coordinate a resolution.


**9 Measuring the Effectiveness of IDSS**

The NWS will measure the effectiveness of the IDSS Program via coordination among AFSSO, OCOO, NCEP, OWP, Regions and field offices using:

- a. Stakeholder service satisfaction measures
- b. Decision Support operations performance metrics (currently under development)

**10 Implementing Policy**

Instructional directives will be issued to implement this policy as needed and determined by the Director of AFSSO. In addition, the NWS is clarifying the scope and bounds of IDSS for the wide and growing variety of NWS Core Partners.

  
11FEB2025  
Kenneth Graham                      Date  
Assistant Administrator  
for Weather Services

## APPENDIX A - REFERENCES

### Applicable References:

[IDSS Service Description Document](#) – Impact-Based Decision Support Services for NWS Core Partners

- NWSI 10-2401 NWS Core Partner Identification and Management
- NWSI 10-2402 Impact-Based Decision Support Operations
- NWSI 10-2403 Impact-Based Decision Support Products and Services Specifications
- NWSI 10-2404 Integrated IDSS & Deployment Management
- NWSI 10-2405 Applied IDSS - Surface Transportation