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***NATIONAL WEATHER SERVICE INSTRUCTION 10-2404***
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***Operations and Services***
***Impact-Based Decision Support Services, NWSPD 10-24***

***INTEGRATED IDSS & DEPLOYMENT MANAGEMENT***

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***SUMMARY OF REVISIONS:*** This is a new directive. The purpose of this procedural directive is to define a common framework of terminology and methodologies for a minimum baseline of consistent IDSS management and delivery already practiced today. This instruction documents consistent planning and operational procedures observed and collected across the field regarding the details of Integrated IDSS delivery.

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# Integrated IDSS and Deployment Management

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## 1. Introduction: Description of Integrated IDSS

This directive provides instructions for Integrated Impact-based Decision Support Services (IDSS), specifically covering:

- Types of Integrated IDSS deployments that include virtual and on-site
- The evaluation and operations of a deployment, whether virtual or on-site
- Use of the Deployment-Ready (DR) program, including qualification and continuing education of an employee deemed Deployment-Ready
- The management of DR staff and Integrated IDSS deployments

Integrated IDSS is part of a spectrum of IDSS delivery to Core Partners (Figure 1) that constitutes the most direct one-on-one engagement and support and is based on Core Partner needs and NWS operational unit resources. NWS staff directly support Core Partners in response to an event or incident, or on a routine basis to support high-value decision making, directly interacting with Core Partner operations. Products and services delivered through Integrated IDSS provide information specific to Core Partner needs and decision thresholds.

### Context of National Response Framework

NWS IDSS for the Emergency Management (EM) community includes support to government emergency operations at the Federal, state, local, tribal, and territorial levels (e.g., Incident Command Posts, Emergency Operations Centers, etc.), including support to government operations of Emergency Support Functions (ESF)[1], described in the National Response Framework (NRF), for which NOAA has been identified as playing a federal support role.

Integrated IDSS, as defined in IDSS Operations Instruction 10-2402 section 2, includes three types of deployment integration:

1) Virtual Deployment: IDSS provided from the office or other remote location not coincident with the location of the Core Partner;
2) Onsite Deployment: IDSS provided onsite at the location coincident with the core partner in response to an event or incident; and
3) Embedded Operations: IDSS provided permanently or semi-permanently on location with the core partner (e.g., CWSU operations).

This more direct interaction with Core Partners, addressing more specific needs, necessitates effective planning and/or Deployment-Ready (DR) staff.

Through the Relationship Building and Readiness Phases of the IDSS Cycle (IDSS Operations Instruction 10-2402), offices will maintain a Core Partner Profile to identify key Core Partner needs, assess office resources, and plan for the situations that Integrated IDSS can be offered for particular Core Partners.

## 2. Determining On-site Deployed Versus Virtual Deployed IDSS

Integrated IDSS may be delivered virtually, with DR staff working directly with a Core Partner from a location not coincident with the Core Partner (e.g., NWS operational unit) or on-site with the Core Partner (e.g., Emergency Operations Center (EOC) or Incident Command Post (ICP)). Virtual delivery is the most common form of IDSS delivery.

### 2.1 Deployment Environment and Complexity

By understanding the environment and complexity of a potential deployment, operational units can better plan and determine how Integrated IDSS should be provided.

Virtual or On-site Deployments generally fall into one of three NWS-defined categories in terms of event scale, complexity, characteristics, and sensitivities. The complexity for a given deployment can be characterized by the following:

[1] These emergency support functions, as defined by FEMA's National Response Framework, include transportation, communication, public works and engineering, firefighting, information and planning, logistics management, public health and medical services, search and rescue, oil and hazardous materials response, agriculture and natural resources, energy, public safety and security, long-term community recovery, and external affairs.

- **High Complexity Deployment:** Federal/State/Local Level EOC involving multiple NWS WFOs/RFCs, National Centers, and ROCs. Potential national media coverage, attending dignitaries, large scale of impact (i.e., Hurricane Maria), mental impact (i.e., Dec 2021 KY tornadoes), and long term deployments ( i.e., Deep Water Horizon).
- **Moderate Complexity Deployment:** State Level EOC or ICP established with an individual or multiple NWS Weather Forecast Offices (WFOs), River Forecast Centers (RFCs), National Centers, and Regional Operations Centers (ROCs). Potential national media coverage or attending dignitaries. Potential local or regional media coverage, attending local dignitaries, moderate scale of impact (i.e., hazmat event), and short to medium length deployments (i.e., up to a week).
- **Low Complexity Deployment:** County or local level Pre-Planned Event Support. Single WFO Integrated IDSS that lasts one to several days.

Note: NWS Complexity categories have been specifically defined to accommodate NWS operations and are similar in concept, but not the same as National Incident Management System (NIMS) Incident Complexity Type definitions.

Integrated IDSS differs from Targeted and Baseline in that a dedicated NWS staff resource is primarily devoted to supporting an individual Core Partner or Core Partner Organization. Through this direct interaction with Core Partners, NWS is able to build trust and expedite partner critical decision making.

NWS operational units, in coordination with the Core Partner, determine whether Integrated IDSS is best provided virtually, on-site, or as a combination of the two. The Operational Unit official-in-charge has the responsibility to accept and designate Core Partner IDSS requests as staffing and technical resources allow or are available. In many cases, IDSS can be provided virtually where staff typically have greater resources for technological and information sharing amongst fellow staff. Virtual IDSS can be as efficient as on-site IDSS when on-site IDSS cannot be provided due to limited staffing and/or on-site resources.

In determining whether or not to accept a Core Partner request for Integrated IDSS, the office official-in-charge should carefully consider both the needs of the Core Partner, as well as available resources to provide on-site or virtual IDSS, based on the prioritization criteria in the introduction above.

In some instances, multiple staff may be needed to ensure IDSS needs of several Core Partners are sufficiently addressed. The decision to provide Integrated IDSS is determined by the office official-in-charge in coordination with the Core Partner, and should first be based on needs and requirements established within Core Partner Profiles developed during the Relationship Building Phase of the IDSS Operations Cycle. Additional consideration is required during the Readiness phase of the IDSS Delivery cycle when planning for potential scheduled event requests or an unscheduled or incident-driven event.

Considerations on whether to provide on-site or virtual IDSS may depend on a number of factors, including the scope and complexity of the event or incident, staffing availability or qualifications, or safety of NWS staff enroute to/from, or at the location.

The NWS has created a web portal specific to Impact-based Decision Support Services (IDSS). This

website is a place for NWS employees to share and learn about the latest innovation in DSS from across the agency. An employee can visit the IDSS Portal for additional information about deployment resources, best practices, and training for the Deployment-Ready qualification.

**Capacity to Provide Support**

NWS aims to provide an equitable level of support to all entities within each service level described above, including on-site and virtual Integrated IDSS. However, office officials-in-charge will continue to have the discretion to determine how to most effectively support multiple requests for IDSS, especially during large scale events with widespread impacts. This statement does not reflect a change from current levels of support provided to Core Partners. In the event of wide-spread impacts, NWS regional and national management will support decisions on investing resources to best meet the needs of NWS Core Partners.

## 2.2 Assessment of the Event / Incident Complexity

An accurate assessment of a potential virtual or on-site deployment is critical to effectively allocate resources and properly respond to the needs of the requesting Core Partner. This assessment should include both: 1) the scope and complexity of an event; and 2) the competency level and skill set required to support the event.

A concerted effort must be taken in the Relationship Building Phase of the IDSS Cycle to accurately assess the nature of a deployment to an event or incident to ensure effective IDSS delivery.

By evaluating the complexity of an event or incident and identifying the subsequent type of deployment, the office official-in-charge can more effectively assess the staff competencies required to provide IDSS.

In general, the complexity and associated type of deployment will inform the level of staff competency and experience needed to be deployed.

## 2.3 Assessment of Staffing Availability and Qualifications

Due to the sensitivities and complexities of providing Integrated virtual or on-site IDSS, any staff assigned to a deployment should be designated Deployment-Ready and have the necessary skill competencies and experience. Required training must be completed and proficiency achieved by DR staff as verified by the office official-in-charge or designated IDSS training officer. (See Section 5 of this instruction). Additional consideration should be given to the scope, character, and complexity of an event or incident to determine the level of expertise and experience needed to provide Integrated IDSS. In the event staffing availability or qualifications do not permit an On-site Deployment, Virtual IDSS may be provided.

The IDSS Portal contains tools that the office official-in-charge can use to identify event complexity and staff Deployment-Ready qualifications.

The office official-in-charge organizing/leading the overall event or incident deployment may need to determine if additional IDSS staff with a particular expertise or experience are required, taking into consideration the complexity, nature, and scope of the incident or event, but not necessarily the actual size. For example, support to EMs for an event with over 100,000 people in attendance does not

immediately equate to needing an employee with more expertise. If an operational unit does not have a qualified individual, coordination with the region (or even NWS HQ) may be necessary. In addition, events that are larger or more sensitive in nature may require collaboration with the ROC.

### 2.4 Resource Tracking

The Regional Operations Centers track on-site Deployments and coordinate mutual aid deployments as needed. Requests for contingency funding and staffing will be made from the office official-in-charge to the appropriate ROC. The ROC will report and triage requests and forward to the appropriate regional contact for approval.

### 2.5 Safety Considerations

The safety and welfare of deployed NWS staff is of utmost importance and will be considered prior to/during deployment, as well as during travel. The following guidance will be followed:

- While deployed, personnel will follow all safety protocols established by the incident safety officer
- NWS personnel will follow all NOAA-required safety policies & training (aviation / boating safety training, etc.)

Every employee has the right and obligation to report safety problems and contribute ideas regarding their safety. If the employee is unable to provide support due to a safety concern, they should immediately contact their supervisor and incident safety officer, if applicable.

Management/supervisors should be knowledgeable about the Critical Incident Stress Management (CISM) materials, and resources should be readily available to their employees to use pre-deployment, during the deployment, and post-deployment. CISM training is part of the Professional Development Units (PCU) training, but additional resources should be continually made known to the employees.

## 3. Virtual and On-Site Deployments

### 3.1 Deployment Internal Coordination Activities

Effective internal coordination is necessary before and while NWS employees are deployed virtually or on-site.

The NWS operational unit accepting a request for a virtual or on-site Integrated IDSS deployment will provide notification to the respective ROC or NWS Operations Center (NWSOC) once request for virtual or on-site deployment has been accepted. This will be communicated utilizing the methodology agreed upon by the ROC/NWSOC and their respective operational units.

NWS Local Operational Unit coordination activities include the following:

- Contact the ROC and inform the Duty Officer of the deployment, including start and stop dates and the names of the staff involved; and
- Coordinate with their ROC if coordination with a National Center(s) is anticipated during deployment.

NWSOC and ROC activities related to deployment coordination include the following:

- If an operational unit receives a request for Integrated IDSS that it cannot support with local resources, the operational unit will elevate the request to the ROC. As a Mutual Aid coordinator, the ROC investigates options to provide resources to meet the Integrated IDSS request.
- The ROC has the responsibility to track deployments of NWS personnel for Integrated IDSS. This information is shared with the NWS Operations Center to inform NWS Senior Staff of the NWS' IDSS operational posture via the Deployment Tracker.
- The ROC has the responsibility to coordinate collaboration between local operational units and National Centers.

If directly approached for support by a local Core Partner outside of their primary Core Partners, a National Center should address that Core Partners needs as resources allow, but also direct them back to their local servicing operational unit and notify the appropriate ROC with information regarding the IDSS provided.

Additional NWS office staff may assist in the creation and provision of briefings based on direction from the assigned DR staff and with approval from the office official-in-charge.

Other NWS offices and National Centers may also need to participate based on the scope of the incident and needs of the Core Partners. It is suggested that all NWS operational units providing expertise to the event or incident response collaborate their support in an overarching IDSS support plan that is coordinated by the on-site representative.

### 3.2 Deployment External Duties and Responsibilities

Integrated IDSS, particularly on-site, is typically provided for Core Partner operations that are implemented through coordinating structures consistent with the concepts and principles outlined in the National Incident Management System (NIMS). See the NWS Core Partner Identification and Management Instruction 10-2401 for detailed information on who NWS may support with IDSS.

Once a Virtual or On-site Deployment is activated, assigned DR staff should perform the following duties, as practicable within deployment timelines:

Prior to Arrival:

1) Onsite Deployment should be coordinated with ROC or NWSOC and travel orders and regional deployment documentation completed. If deployment is not from a local operational unit, DR staff should establish contact with the local NWS operational unit (e.g., phone call, dedicated chatroom, teleconferencing, etc.) and routinely coordinate with local operational unit staff on the forecast, trends, etc.
2) When deploying staff, NWS operational units should use the recommended IDSS Deployment Checklist from the IDSS Portal to ensure any requirements and preparations are addressed before an individual is deployed.
3) DR staff should: establish contact with the Core Partner on-site and identify the command structure: follow guidance listed in the Core Partner Profile and/or Scheduled Event Action

Plan; and establish incident weather requests protocol with the command team.

4) DR staff should request to engage as soon as possible with the other Weather/Water/Climate Enterprise support providers (e.g., contracted private sector support) to ensure that roles are defined and understood by all parties involved, as well as to determine best methods of communication in ensuring a consistent message to Core Partners.
5) Assigned staff should have a working knowledge of the associated Core Partner Profile and the Event or Incident Action Plan.

After Arrival:

6) DR staff should check in with Core Partner(s) to confirm tactical needs and safety protocols, locate NWS operational space, and operational protocol including reporting structure. In this regard the deployed staff member(s):
   a) define expectations in coordination with the shift supervisor and/or event coordinator, especially if it's an event that warrants multiple employees; and
   b) for flooding deployments, make contact with responding federal and state water resource agencies to establish collaboration protocol.
7) Document Core Partner interaction within an IDSS log including:
   a) Briefings provided by the NWS; and
   b) Critical Core Partner decisions related to IDSS provision.
   Note: This will be critical information for mandatory legal audits, or After-Action Reports.
8) Provide weather briefings as requested using content and delivery mechanisms based on Core Partner needs and capabilities.
9) Routinely coordinate with the local office staff on the forecast, trends, etc.
10) Support local officials at media briefings and press conferences if requested

To avoid confusion and inconsistency in messaging, operational unit staff should direct inquiries from a Core Partner to the designated staff responsible for providing Integrated IDSS to that partner unless designated DR staff are not available.

### 3.2.1 Interaction with General Partners/Public During Deployments

IDSS, especially Integrated IDSS, is typically provided for Core Partner operations that are implemented through a coordinating structure such as, but not limited to, the NIMS Incident Command Structure (ICS). In support of these coordinating structures at the federal, state, local, tribal, or territorial level (e.g., Incident Command Post, state, local or event Emergency Operations Center, Joint Field Office, etc.), the NWS provides a common level of awareness and knowledge on the nature and timing of relevant weather events to inform Core Partner operations. These coordinating structures may include representatives of and participation by organizations that are not covered under the definitions of NWS Core Partners provided in NWSI 10-2401, *Core Partner Identification and Management*. NWS support to these coordinating structures focuses on informing Core Partners and their supporting agencies. When NWS provides IDSS within these coordinating structures to support the aggregate life safety preparation and response, NWS recognizes that information of value and use in operational efforts is indirectly provided to all response participants. NWS will not provide tailored advice to General Partners (partners who NWS interacts with but who do not meet the definition of Core Partner) and the Public on impacts of weather (e.g., how to expedite restoration activities). In responding to requests for specific weather guidance and information beyond that provided to Core Partners, NWS personnel will

inform the requester that tailored support, including customized and highly localized forecasts and warnings, may be provided by Weather/Water/Climate Enterprise partners (See, weather.gov/enterprise).

### 3.2.2 Interaction with Weather/Water/Climate Enterprise Partners

NWS recognizes the value of coordination during an event to ensure consistent weather messaging to all involved in the support effort and to the general public. NWS will work with Core Partners and any contracted private sector support entities involved in the event or incident. NWS may coordinate with contracted private sector support entities to ensure consistency of messaging. When multiple support providers are present, NWS will be flexible in the level and/or type of IDSS provided, seeking input from Core Partners as to what support is needed and what level of coordination is required.

NWS encourages this event coordination; however, Core Partners, in conjunction with their weather support providers will determine the appropriate level of and procedures for coordination and interaction between NWS and those providers. Actual capacity to provide coordination will inherently depend upon the scope and nature of the event, available resources, as well as the willingness and ability of the parties to participate in any coordination activities.

## 4. Embedded Deployment

NWS units permanently embedded with other Federal agencies (such as Center Weather Service Units) and NOAA/NWS liaison positions) provide dedicated, full-time IDSS. Their operations and products are fully customized to meet their Federal partner's mission. For example, embedded NWS unit products are uploaded and viewed on non-NWS equipment in response to Federal partner requests and must be communicated (written or verbal) in a way that the Federal partner (i.e., an air traffic controller or FEMA) can understand. Embedded operations are typically provided on-site within another Federal partner's facility, possibly using equipment furnished by the Federal partner. Embedded NWS employees may also have to obtain additional qualifications or vetting to be able to work at the Federal partner's facility.

Embedded employees are encouraged to complete the IDSS Professional Development Series (IDSS PDS) whether or not the Federal partner with which they are embedded uses the National Incident Management System (NIMS) or Incident Command Structure (ICS).

## 5. Application of IDSS Deployment-Ready Program

Deployment-Ready program should be used as consideration in the decision on a deployment assignment. However, it is not a necessary condition of deployment. Staff readiness for a given deployment is determined by the office official-in-charge based on a number of factors, including, but not limited to, successful completion and maintenance of the DR program and competencies exhibited.