

Response to Comments on Impact-based Decision Support Services (IDSS) Service Description Document (SDD) Version 2

Background

In April 2018, National Weather Service (NWS) published its IDSS Service Description Document (SDD) v1.0 titled "Impact-Based Decision Support Services (IDSS) for NWS Core Partners," to communicate to external partners and the public the concepts and high level practices involved in NWS IDSS. The original SDD was identified as a first issuance, noting that it would be updated periodically as NWS continued to assess and revise our guidance for providing IDSS, based on internal input, feedback from our Core Partners, and input from partners in the Weather, Water, and Climate Enterprise.

More recently, in April 2023, the NWS released for public comment a draft update of the SDD. This SDD v2.0 included the following changes based largely for consistency with internal documentation being developed related to NWS IDSS:

- Included the concept of the continuum of impact based messaging;
- Included the concept of the IDSS Operating Cycle;
- Changed "deep core partner" designation to Prioritizing the Provision of Higher Levels of IDSS Services;
- Changed the term "Recurring" IDSS to "Routine" IDSS;
- Provided additional content in Core Partner Clarification Table based on internal need for proper understanding of who is/is not to be considered a Core Partner;
- Made minor wording changes to include terminology more meaningful to NWS local offices and to ensure consistency with new IDSS instructions.

The comment period for SDD v2.0 was April 4 - June 4, 2023. NWS sought comments directly through issuance of an NWS Public Information Statement (PNS), as well as through our internal listing of Enterprise Partners with whom we routinely communicate. Two (2) sets of comments were received. A copy of the comments received is provided in the Appendix.

The SDD describes NWS's provision of Impact-based Decision Support Services, a key element of the NWS mission:

NWS 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.

This mission includes support for critical foundational data supporting providers throughout the Weather, Water, and Climate Enterprise, as well as providing actionable information to decision-makers and the general public to protect lives and property. Partnerships and communication between the NWS, the emergency management community, the private sector,

and amplifying voices in local communities are incredibly important for completing the “critical last mile” — to ensure NWS forecasts and information produce the life-saving actions that are intended.

The SDD provides details on who will be provided IDSS; describes levels of service that will be provided; relates NWS IDSS to the DHS/FEMA National Response Framework (NRF); and describes the focus of NWS IDSS with respect to complementary services provided by our partners in the Weather, Water, and Climate Enterprise (particularly private sector providers of weather services).

Comments received were appreciated and our responses to the concerns raised are provided below. Some of the issues raised have been discussed with our Enterprise partners since 2013. Where appropriate, we have repeated those responses herein for completeness and convenience. The full responses to input on past versions of the SDD may be viewed here:

- https://www.weather.gov/media/cool/SDD_IDSS_Version_1_Comment_Response.pdf
- https://www.weather.gov/media/cool/2014_SDD_and_IDSS_Philosophy_Comment_Response.pdf

Response to Comments on 2023 Version of SDD (v2)

Grouping the comments into major categories results in the following areas of concern, along with a response to the comment/concern:

1. Concern Raised - Support for IDSS vs. foundational datasets/infrastructure - Given limited resources NWS expansion of services in IDSS may detract from our critical role in providing foundational datasets and other weather infrastructure that are essential to support our Enterprise partners.

Response: We understand the concern that increased attention on decision support activities might imply reduced efforts on development/enhancements to foundational data produced by NWS (e.g. our numerical weather model results or our radar observations) or other services provided by our forecasters. Based both on elements of our past experience and technical aspects of the federal budget, NWS does not believe that our users will experience any degradation in current or planned future improvements to these key service areas.

When NWS was proposing to implement NWSChat (service which allows online instant-messaging coordination with our core partners) similar concerns were expressed -- that the time spent by our forecasters on this type of coordination would detract from standard warning preparation activities and operations within the office. In reality, use of NWSChat has been a huge success, both for our core partners and for NWS. NWS warning preparation activities overall have benefitted immensely from the input provided by NWSChat participants and coordination among the NWSChat users has served to add critical consistency to messaging provided to the

public from NWS, emergency management community, the media, and other providers of weather services.

Regarding the federal budget -- there are very real limitations on the NWS ability to transfer resources between these functions [between local operations and foundational data sets not stemming from local operations]. Unlike personal budgets or the funds available within a private company, funds appropriated to federal agencies, including NWS, must be spent on a bona fide need related directly to the purpose for which the funds are appropriated. The current NWS budget is appropriated in over a dozen of these categories, and it is illegal for NWS to spend money appropriated for one category on a purpose served by another category. NWS has also been very public in its intent to adopt a simpler, and more functional, structure for future budgets, which will make it even more difficult to “dilute” spending on foundational data.

(see also

https://www.weather.gov/media/coo/SDD_IDSS_Version_1_Comment_Response.pdf, #3).

In addition, NWS regularly monitors the quality of all NWS operational functions, to ensure no degradation of services.

2. Concern Raised - Continued expansion in the definition of entities who can receive NWS IDSS -

- a. The proposed SDD further expands the definition of entities who might qualify to receive IDSS services from the NWS well beyond government emergency managers and federal agencies. The proposed SDD continues to direct NWS offices that at the discretion of the official-in-charge, support may be provided to non-government agencies with a public safety function such as the emergency management function of “primary/secondary schools, colleges/universities and hospitals/long-term care facilities”. The SDD opens a window to expansion of NWS activities in areas historically served by the commercial sector because of much greater reliance on local NWS office management discretion and by often ceding decisions on who may receive IDSS services to Core Partners outside of the NWS.
- b. Expansion to include Red Cross as core partners is an example.
- c. The proposed SDD provides additional expansion in that “Core Partners” can also include water resource management professionals in “quasi-government” and “private organizations which are not formally government agencies but which employ personnel who routinely exercise authority similar to the public officials described above..” This proposed expansion is importantly against the accepted principles of NWS IDSS support, including through Congressional direction in the Weather Act. Footnote 12 explicitly mentions that non-governmental organizations can be supported as described in the document.

Response:

- a. While the primary focus of NWS IDSS is on support to government partners, the NWS definition of core partner has always included reference to additional entities who functionally perform the same duties as government emergency managers/public safety officials. In the 2013 version of the SDD, the definition read:

“public safety officials who serve as employees or contract agents of a government agency at the federal, state, local, tribal, or territorial level and are charged with protecting the public from hazards that are influenced by weather or weather-related events. Other members of this community include: safety and emergency personnel, from universities or other large entities with large populations whose roles are functionally equivalent to the public safety officials.”

The wording included in the definition was intended to provide guidance for NWS employees so that they can clearly understand the limited nature of support to non-government organizations and to support increased understanding by Enterprise partners who might support those entities that are not supported by NWS.

Further details are in #1 in the 2018 response document (https://www.weather.gov/media/coo/2014_SDD_and_IDSS_Philosophy_Comment_Response.pdf).

Action taken - Provided clarification in SDD (footnote 14 and Appendix A): “Support for health, education, infrastructure/utilities, is not broad, as services provided by Enterprise partners, but limited in most cases to provision of hazardous weather information in conjunction with ongoing response efforts related to hazardous weather events.”

- b. Regarding Core Partner status of the Red Cross - “VOAD/COAD/NGOs are considered part of the Emergency Management Community, if/when working within ICS coordination structure or as a non-profit entity with a specific MOU in place to provide support.” (SDD v1.0, p 8; SDD v2.0 p24). This does not reflect a change.

NWS entered into an agreement with the Red Cross to ensure our existing level of service met our policies and to encourage greater consistency in services across NWS:

- The Weather Act directs NWS 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”* (Public Law 115-25, Section 405(c)1(E)).
- NWS routinely works with the Red Cross as part of response efforts that we support on behalf of our core partners in the Emergency Management (EM) community. A fair number of NWS offices currently have NWSChat accounts with local Red Cross entities to support those activities.

- c. Our handling of non-government entities within the water resources management community is consistent with our handling of similar entities within the emergency management community. There are key water resources-related infrastructure elements (e.g., dams) whose actions directly impact NWS forecasts and direct interaction with these entities is critical to the NWS mission.

Action taken - Provided clarification in SDD that services to quasi-government or private entities is limited to those cases where interaction is critical to public safety. It does not extend broadly to any quasi-government or private entity. , The last sentence of definition of Water Resources Management Community was clarified to read: *“In addition, **in select cases**, with approval of the NWS office official-in-charge*

*and as resources allow, the NWS may provide similar support to quasi-government and private organizations which are not formally government agencies but which employ personnel who routinely exercise authority similar to the public officials described above, **and whose actions impact NWS operations/forecasts.**”*

3. Concern Raised - Codification of seemingly non-standard, varying services within the Agency - the proposed SDD seems to enable varying, inconsistent service delivery within the agency, at the discretion of local NWS management as opposed to standard, consistent service delivery across the agency. This inconsistent policy makes the private sector’s job difficult to fill the void the NWS leaves behind. Industry needs clearly defined and consistent determinations on the scope of appropriate government activities, not poorly defined and inconsistent determinations which vary arbitrarily across the country, because of NWS initiated mission creep.
 - a. Section 4.3 delineates local NWS management can prioritize at their sole discretion, resource allocation and prioritization given multiple requests for NWS support, which can easily setup a situation where NWS may be perceived to favor one entity over another and can leave requests underserved, especially during a major severe weather event. Local NWS office management driven decision-making without clear, consistent procedures that can be uniformly applied throughout the agency is pervasive in the proposed SDD including Section 3.1, 4.2, 4.3, 6.2 and numerous mentions in Appendix A. There is also no process for transparency or reporting related to what entities have been granted IDSS support and which have not – it is all left to the discretion of local NWS management.
 - b. Such inconsistent processes create confusion and lead to inequitable treatment of one entity versus other similar entities, within a local area, region and across the country. As opposed to a standard, consistent set of activities in every NWS office, these activities are often random and irregular efforts by various individual offices. Furthermore, since they are non-standard activities, they sometimes lead to unrealistic expectations and wrong decisions by end users.
 - c. Additionally, there is no documented procedure for handling prioritizing requests for NWS IDSS in situations where members of the weather industry are already providing on-site or remote decision support to the same venue or entity. It does not seem to be an ideal distribution of government resources to have NWS resources deployed onsite if such support will be duplicative of the support already provided by an entity in the weather industry.

Response:

Past responses address potential issues with consistency of services and concerns about inequities.

- a. NWS understands the concern that decisions made at the local level runs the risk for inconsistencies, but it is critical to allow local offices to make these decisions because core partner responsibilities may vary from office to office, resources available may vary from office to office, and our local managers know best how to use their resources to maximize the service level we can provide overall. Decisions related to determining who is/is not a Core Partner are based on knowledge of our local partners’ responsibilities, ensuring those designated as a Core Partner are only those who are directly involved in decisions related to public safety. Any lack of consistency will certainly not be due to favoritism, but use of our best judgment in how to best use taxpayer funds. NWS support for our Core Partner has always been

subject to availability of resources. Because NWS managers are legally bound to limit spending to the appropriations provided within a given year's federal budget, they will always require the ability to adjust operational activities to ensure NWS is not spending funds it doesn't possess. Periodic review of Core Partners served by operational offices will take place by NWS regional and national managers. This statement DOES NOT reflect any change in the level of service we have and plan to provide.

Regarding transparency or reporting, NWS offices will maintain a record of organizations of those entities which have been approved to receive IDSS. Interested parties may request this information from the NWS (Analyze, Forecast, and Support Office). In addition, NWS is developing a core partner database which, when implemented, should facilitate such requests made to NWS regarding who we support as Core Partners and who NWS has not been able to support at the level requested.

Action - NWS is exploring ways to track instances where NWS support cannot be provided at requested levels and provide this information to Enterprise partners (in addition to information about whom we support as Core Partners).

- b. We have reviewed our practices with General Counsel and they have advised us that allowing our local office officials to make these decisions is an acceptable discretionary function of our local office officials. NWS has routine procedures in place as part of readiness/planning in the IDSS Operational Cycle to determine NWS ability to meet the services requested in order to manage expectations of all Core Partners. Each office will meet with their Core Partners to develop profiles and review planning guides for expected level of service. NWS is exploring ways to track instances where NWS support cannot be provided and plans to communicate these unmet needs to Enterprise Partners.
- c. The SDD, as well as our internal procedures, clearly state that how an office provides IDSS to a particular partner will be flexible, if a Core Partner receives support from one of our Enterprise partners, it is up to a Core Partner to determine the level of support they wish to receive from us and we will follow the Core Partner request to refrain from providing service if they indicate that it is not needed due to support from an Enterprise Partner. Those decisions are up to the discretion of the Core Partner working with their contracted support provider.

Action taken - Included the following statement in section 4.2: "Prioritization and determination of service level will also take into consideration any existing support provided to the Core Partner by Enterprise Partners."

- 4. Concern Raised - Expanded definition of IDSS activities - The definition of IDSS in section 2 and other areas of the document explicitly expands the definition of IDSS beyond the long-established definition and agreed upon government function of "protection of lives/livelihoods" by proposing support could be provided for a "scheduled event where weather and water related variables are critical to planning and execution of the event from a public safety standpoint". Government provided IDSS should be strictly limited to protection of life and property and only to government emergency managers and federal agencies.

Response: Past responses addressed concerns about support for scheduled/special

events. Wording was added to earlier versions of the SDD to refer to our internal policy on NWS Support for Special Events (NWSI 10-1806), the content of which was coordinated with our Enterprise Partners in the private sector. This document clarifies that Support for Special events is only provided to NWS core partners for safety of spectators/participants, not to event organizers or venue operators for support related to conduct of the event. The SDD includes the following wording to clarify this: *“The NWS does not provide special event organizers or venue operators with site-specific, tailored forecasts and consulting services. Rather the NWS refers event organizers and venue operators to our existing product suite and recommends that they contact Weather/Water/Climate Enterprise partners.”*

The definition of IDSS has not changed from our IDSS SDD v1.0. A change made was in the description of episodic IDSS to clarify that events could be a hazardous weather event or a scheduled event, as stated in footnote 7 of both SDD v1 and SDD v2 - ^{“7} *Within this SDD, 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”).* “

See item 2a, above, for response to the concern related to support for non-government entities.

5. Concern Raised - Arbitrary Definition of “Market Failures” Lacking Process To Substantiate Such Determination and Seemingly Permitting Almost Any NWS Activity - A new concept of “Market Failures” has been added to the proposed SDD without a clear, transparent definition of how such a situation would be objectively determined and validated prior to additional government activities being permitted, which could easily be duplicative of activities already provided by the United States weather industry. This concept could be used to justify the existence of almost any NWS activity. The list of known Market Failures provided is highly problematic because it is not clear how or why these are actual Market Failures based on any provided objective evidence. This section is an example of government overreach, and should be eliminated.

Action taken:

This section was deleted in the SDD. The following statement was added to Section 8 regarding unmet service needs: “Should NWS find instances where critical unmet services needs exist, NWS will evaluate these in collaboration with our Weather/Water/Climate Enterprise partners.” Guidance has been provided to internal directives that these instances of unmet needs should be raised to NWS headquarters for evaluation.

6. Concern Raised - Problematic Broad Definition of “Core Partner Requested Support” and “Emergency Situations” Could Arbitrarily Permit Any NWS Activity - The newly added sections to the proposed SDD sections related to “Core Partner Requested Support” and “Emergency Situations” are highly problematic. There is no objective and defined process governing the potential provision of services to an entity if they are identified as providing a public safety function by a Core Partner and likewise any such process to handle Emergency Situations. These sections, with the vague definition and lack of objective process, undermine the entire rest of the document. They could be used to justify custom forecasts and on-site NWS meteorologists for nearly any public event, gathering, institution or entity. At a minimum, any NWS policy on the provision of

these levels of service, such as those envisioned in the proposed philosophy/, should be strictly and unambiguously limited to government EMAs and to extreme imminent, life-threatening events.

Response: Concerns about our Emergency Situations sections have been raised and responded to in the past. The SDD clarifies that these actions are expected only infrequently and are to ensure awareness of an impending threat to public safety. This does not represent any change in our current services. SDD content was added to SDDv1 providing the following – *To ensure no unintended impact to Enterprise Partners, if such an action is taken, a senior NWS office official will be notified, a record of the action made, and review performed after the incident to determine impacts, if any, of this action and if IDSS for the individual/organization is needed on an ongoing basis.* An example scenario reflecting this is also provided in the SDD.

The section of the Core Partner table related to Core Partner Requested Support reflects NWS current operations and the notion of Core Partner Requested Support was included in SDDv1 (section 5.4.2). On infrequent occasions we are requested to include General Partners in IDSS discussions or to provide service to an entity who actively supports a Core Partner and is critical to their operations in support of public safety. While the request may come from a Core Partner, the decision is made by NWS and takes into account availability of resources. Instructions provided to operational staff make it clear that these infrequent requests may be denied and instead provide publicly available information and/or referrals to our Enterprise partners.

In general, while one might see these elements of flexibility as a way for NWS to quietly expand their services to many more customers, in reality NWS has quite limited resources and is not seeking to broadly expand our IDSS services beyond Core Partners. We are simply acknowledging that, infrequently, we may have to allow for flexibility in our policy framework when lives are at stake.

Action taken: NWS has clarified in SDDv2 and internal documentation that support to General Partners at the request of a Core Partner is not equivalent to providing IDSS to that General Partner and it does not make them a Core Partner. It is the inclusion of a General Partner in the IDSS services provided to an established Core Partner (e.g., Emergency manager, FAA).

7. Concern Raised - The replacement of the term America's Weather and Climate Industry partners with a more generic Weather/Water/Climate Enterprise Partners - The replacement of the term America's Weather and Climate Industry partners with a more generic Weather/Water/Climate Enterprise Partners is not only less specific but does not adequately recognize that the part of the Weather/Water/Climate Enterprise which provides such comprehensive services is in fact America's Weather and Climate Industry (as described earlier in this letter) – this should be explicitly stated and the previous language utilized as opposed to the generic and confusing term.

Response: NWS has chosen to transition away from using a particular name for the private sector component of the Weather, Water, and Climate Enterprise because the reference to Weather, Water, and Climate Enterprise is used more broadly within this profession. In addition, the new term recognizes both the hydrologic and climate services components of the industry and that not only do we work with partners who are commercial weather providers, but service providers from other government agencies and academic institutions which also develop and market their services to the

community (e.g., <https://uwm.edu/innovativeweather/partnerships/>; <https://campusweatherservice.com/about/>; <https://mesonet.agron.iastate.edu/>; <https://www.fema.gov/about/news-multimedia/mobile-products>; <http://www.wrds.uwyo.edu/>; <https://weather.rap.ucar.edu/>; <http://www.nysmesonet.org/about/mission>; <https://cig.uw.edu/our-work/>) .

The definition of AWCI included in SDDv1 has been retained by incorporating it into the Weather, Water, and Climate Enterprise definition in SDDv2: *“includes all elements of the private sector (including media, consultants, equipment providers, etc.) which provide services to the public in the areas of climate, water, and weather, broadly defined (e.g., includes space weather). The term does not exclude foreign-owned companies which provide services to the American public.”*

Action taken: Included the following text in section 1 of the SDD and the definition of Weather, Water and Climate Enterprise: “The private sector component, **sometimes referred to as America’s Weather and Climate Industry...**”

8. Other Feedback Received:

- a. Suggest describing IDSS as a “mission-critical service” because it is not included as part of the NWS mission statement.

Action taken: Included this phrase in a few locations within the SDD.

- b. The SDD should recognize the role of the academic community in providing training to support IDSS.

Action taken: Added sentence to section 5: “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.”

Conclusion

The majority of issues raised during this review relate to concerns about the potential expansion of NWS services, especially into areas traditionally served by our private sector partners. These concerns are readily acknowledged and understood by NWS and were discussed at length over the past decade. Additional content was added to the SDD to ensure the role of our partners is well understood within all levels of the agency and to offer clarity in how we plan to make decisions on who is or is not provided IDSS.

The SDD defines our current level of service and procedures for providing IDSS. The NWS has implemented many internal measures to ensure that, per recommendations in the Fair Weather report, rather than establishing rigid boundaries for each sector we continue to improve how we interact and communicate so that any negative impacts of our actions are avoided.

We feel confident that the following measures implemented over the past decade will ensure that NWS services are not broadly expanded into areas traditionally served by our private sector Enterprise partners and that competition is avoided:

- Seek input on all substantial changes to our environmental information services
- Worked with the private sector as we draft internal guidance for supporting areas where the private sector is active (this was done for:
 - [NWSI 10-1806 - NWS Support for Special Events](#)
 - [NWSI 10-2401 - Applied IDSS - Surface Transportation](#)
 - [NWSI 1-1003 - Provision of Environmental Information Supporting Mobile](#)

[Devices](#))

- Developed internal guidance for NWS staff on how to support non-Core Partner requests for services, including providing a [public listing](#) of Enterprise-wide service resources, which includes private sector services.
- Developed information describing NWS and Enterprise services supporting Special Events and IDSS to clarify roles for those who request services.
- Initiated development of an internal system to track partners and IDSS activity
- Established procedures where all local offices will identify and document Core Partners who are receiving support from our private sector partners
- Included review of Enterprise partner concerns into NWS procedures for After-Action Reviews, when our actions have been identified as impacting partner operations.

These measures, as well as continued dialogue with our Enterprise partners will continue to improve cross-Enterprise cooperation in the provision of services for the nation.

Appendix - Comments on IDSS SDDv2

- [Weather Industry Coalition Comments](#)
- [TWC-IBM Comments](#)