

Lessons from the North Carolina National Guard's Hurricane Response



Foreword

The United States military plays a critical role in supporting civilian authorities during times of crisis, providing essential assistance and resources to affected communities. Defense Support to Civil Authorities (DSCA) operations, as outlined in Joint Publication 3-28, enable federal military forces to respond to domestic emergencies, including natural disasters, cyber incidents, and other catastrophic events. In recent years, the National Guard has been at the forefront of DSCA efforts, leveraging its unique capabilities and expertise to support state and local authorities in responding to and recovering from disasters. One notable example of the National Guard's DSCA efforts is its response to Hurricane Helene, which struck North Carolina in 2024. This article examines the lessons learned from the North Carolina National Guard's response to Hurricane Helene, with a focus on the innovative approaches and strategies employed by the Incident Awareness and Assessment Cell (IAAC) to support DSCA operations. By exploring the IAAC's successes and challenges, this article aims to provide valuable insights and recommendations for improving future DSCA efforts, and to demonstrate the importance of adaptability, collaboration, and data-driven decision-making in responding to complex and dynamic disasters.

The North Carolina National Guard's response to Hurricane Helene demonstrated the value of leveraging established military processes, such as the Army's Target Working Group (TWG), Army Targeting Methodologies (Decide, Detect, Deliver, and Asses-D3A), and targeting products such as a Target Sync Matrix (TSM).

Pre-Disaster Preparedness

Before Hurricane Helene made it to North Carolina, North Carolina Governor Roy Cooper activated the NCNG, allowing resources and personnel to position themselves for immediate and decisive post-storm relief efforts. Western North Carolina experienced historic rainfall and flooding. Upon assessment of the hurricane's devastation, NCNG's state active-duty leadership identified several operational gaps, including manpower, equipment, and supplies for affected citizens.

Another significant void was the absence of a centralized team to aggregate and analyze data related to isolated areas and coordinate relief efforts. This gap was compounded by the overwhelming influx of information from multiple federal, state, and private entities. This assessment and analysis gap demonstrated the need for a dedicated cell to streamline information, address misinformation, and provide actionable insights to senior leaders.

Formation of the Incident Awareness and Assessment Cell (IAAC)

To address this gap, NCNG leadership established the Incident Awareness and Assessment Cell (IAAC). Modeled after a field artillery TWG, the IAAC brought together experts in intelligence collection, resource management, and staff support. Using the Army's targeting methodology (D3A), the IAAC:

Collected and analyzed data.

- Developed actionable products for the state emergency management Future Operations (FUOPS) cell and NCNG Domestic Operations (DOMOPS) cell.
- Created a shared understanding for command leadership.
- Established lessons learned to emphasize the importance of data visualization and aggregation in disaster response.

This adaptability exemplifies how military processes can be effectively repurposed for unconventional problem sets, demonstrating that the TWG's iterative methodology—nested within the Military Decision-Making Process (MDMP) can achieve success in DSCA operations.

Team Composition

The IAAC's success was driven by the expertise of its eight members, overseen by a senior officer (O-6) acting as NCNG's Assistant Chief of Operations. Day-to-day operations were led by another O-6 and an O-5 (Field Artillery Officers, 13A). In addition to the members listed below, the IAAC coordinated with J2, J3, J4, and J5. The team included:

- Three Field Artillery Targeting Technicians (131A)
- Two Geospatial Engineering Technicians (125D)
- One Special Forces Liaison Officer (SF LNO, 18A)
- One Communications Aviation Liaison Officer (AVN LNO, 25A)

Follow on team members, as the operation transitioned from search and rescue to recovery and redeployment, included:

- Replacement IAAC Chief (O-5, 13A)
- Operations Officers (O-2/O-3, 13A)

Role of 131As in IAAC

Field Artillery Warrant Officers (131A) brought invaluable expertise in Army and joint targeting methodologies, the Fires Warfighting Function (WFF), and staff operations. Unlike other warrant officers tied to specific technologies, 131As focus on processes, making them adaptable to dynamic operational environments. Their integration of the D3A methodology into disaster response operations proved critical. An example of how this was utilized follows:

The 131A's led the D3A targeting cycle in the IAAC starting with the decide function. This was used for tasks such as locating isolated communities. FM 3-60 states, "The end state is to ensure the proper capabilities are integrated and synchronized in the proper geographic locations, at the right time to create desired effects." The decide function also included a list of high priority communities for support (like a high payoff target list or HPTL). The IAAC integrated an information collection sync matrix to answer PIR's from the task force commander. Upon completion of the decide function, the IAAC would perform detect to seek the fulfilment of the collection plan. Detecting in this effort

was aimed to gain positive identification of the affected community in need. The collection asset utilized included open-source information, ground reconnaissance, and aviation assets. Once positive identification of the affected community was completed, the IAAC transitioned into the deliver phase. During this phase the IAAC would coordinate efforts and pass all information to the operational branch with resources to shape efforts in the affected community. To conclude, the IAAC would conduct an assessment to measure the effectiveness of the decide, detect, and deliver portions (measures of performance or MOPs, and measures of effectiveness or MOEs).

Key Functions of the IAAC

During the initial standup of the IAAC, the IAAC Chief began collaboration with the state emergency management FUOPS to gain shared understanding of processes and identify emerging concerns in the affected area. Once NCNG mobilized the identified staff, the IAAC established daily synchronization meetings with the state FUOPS and a daily battle rhythm. Through these collaborations with the state emergency management, the IAAC gained perspective on how to assess each county using the FEMA lifeline model.

The IAAC started direct coordination with county and regional liaison (LNO) teams to increase information flow. Using feedback from county LNO teams and gathering information from community news sites, the IAAC developed an assessment matrix in Excel and began sharing this product daily with civilian and National Guard leadership. As Title 10 forces entered the Joint Operational Area (JOA), the IAAC coordinated with the LNO team, requested assessments from specific areas, and included their LNO team in the daily product distribution. These initial steps decreased the information gaps and moved the Joint Task Force (JTF) toward predictive analysis. The 131A's developed the assessment matrix in Excel basing the "red/amber/green/black" rating on Army doctrine.

The assessment was quantified using data from open-source databases from civilian entities and direct information from civilian and military LNOs. Rather than subjectively evaluating the FEMA lifelines, each color rating represented percentages based on discrete data. Additionally, while the state emergency management evaluated the FEMA lifelines for the combined affected area, the IAAC rated each county which allowed the JTF command to make decisions on types and levels of force packages, logistics, and redeployment of T10 forces.

Leveraging information technology was key to product development and data visualization. In addition to the IAAC matrix, the team employed geospatial engineer technicians to develop a Common Operating Picture (COP) in ArcGIS using data sources from state and federal agencies. The technicians developed the COP on the North Carolina emergency management (NCEM) server for interoperability with civilian agencies.

One additional function of the IAAC involved misinformation and disinformation. The IAAC collaborated with the NCNG Public Affairs Office to develop ArcGIS surveys for Soldiers to provide geolocated spot reports. The IAAC assisted the NCNG PAO in confirming information being used in media and posted on social media. This helped to

ensure that the public was being properly informed and assisted with correcting misinformation.

Products and Tools – IAAC Matrix

In understanding the role of all available parties in the disaster response and NCEM, the IAAC was able to lead and aggregate data points from all departments to start building "draw down" criteria in order to drive the mission to completion. Like a fire support effect matrix (FSEM) for a staff during a TWG or TCB, being able to deliver pertinent and relevant information to those making the decisions and crafting commanders guidance for any mission set is crucial. The IAAC started simple with a crude version of this with manual input from all data sources and grew it to a more automated and professional picture to create streamlined decision-making points for multiple lifelines for disaster relief.

Figure 1 shows the IAAC Matrix that was used. This product was formed using a TSM as a shell. The IAAC matrix was derived from products to achieve a desired effect. While keeping the process aligned with D3A and consistently assessing, we were able to understand if we were measuring the right things correctly, as well as recommend effects (response packages) for communities in need. While originally thinking of a Target Selection Standards (TSS) product, we ultimately utilized a Target Sync Matrix (TSM) style of product for our IAAC Matrix. In finding out which communities had needs (food, water, communication, medical, etc.) we were able to create a product that identified areas to target for a response package, and then restarted the D3A process of Decide, Detect, Deliver and Assess so we could achieve the desired effects.

To keep our process grounded in doctrine, while staying flexible for the unique situation, we utilized AR 700-138, and the "measures of sustainability" to give an assessment on different lifelines in the affected communities. While it was not a perfect marriage with some lifelines not having quantifiable ratings, we were able to still utilize local LNOs and NCEM firsthand experience to give effective recommendations.

Figure1, IAAC Matrix

Incidence Awareness Assessment Cell Matrix								
DTG: 1813300CT2024	Key=	No assigned LNO	LNO no longer needed	>90% or fully supported	70-89% or supported with limitations	60-69% or supported with severe constraints	0-59% or extreme constraints	
Overall County Lifeline Update								
County Name	Safety&Security	Food/Hydration/Shelter	Health&Medical	Energy (Power & Fuel)	Communication	Transportation	Hazardous Materials	Water Systems
Alleghany								
Ashe								
Avery								
Buncombe								
Burke								
Haywood								
Henderson								
Jackson								
Madison								
McDowell								
Mitchell								
Polk								
Rutherford								
Transylvania								
Watauga								
Yancey								



Key Lessons Learned

- Adaptation of Military Processes: The IAAC's successes reaffirmed that established Army methodologies, such as the TWG and D3A, can be adapted for non-traditional missions.
- 2. Data Integration and Visualization: Centralizing and visualizing data enabled efficient decision-making and coordination among multiple stakeholders.
- 3. Expertise-Driven Success: The IAAC's effectiveness hinged on the unique expertise of its members, particularly the 131As' mastery of targeting processes and operational adaptability.
- Collaboration and Communication: Effective disaster response required seamless integration of efforts across all warfighting functions and coordination with civil authorities.
- 5. Rapid deployment of IAAC as a DSCA Force Package: The IAAC establishment occurred 4 days post Hurricane Helene. Due to information gaps, the command directed the establishment of an assessment cell. The J5 identified required personnel and began working with the appropriate chains of command to mobilize these personnel. The IAAC Chief started initial collaboration with the state future operations personnel. For Hurricane Helene, there was a one-week lag in producing valuable assessment and analysis for the command team and

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- BG Morrison, JTF Commander

civilian leadership. For future domestic responses, the IAAC should be mobilized prior to the event to reduce the lag in assessment and analysis.

Conclusion and Takeaway

The North Carolina National Guard's response to Hurricane Helene demonstrated the value of leveraging established military processes, such as the TWG and D3A methodology, in DSCA operations. The use of tools such as the TSM was excellent in aggregating data and leveraging insight into ground operations for key decision makers. Adapting the target working group model, targeting methodologies, and products for non-traditional methods should always be considered for use in DSCA. These processes are proven to work in many different operational environments. DSCA, is no different and these processes offer an option for planners to utilize to achieve mission success.

The IAAC's formation and success highlighted innovation and adaptability of Army processes to unconventional problem sets, as well as the critical importance of expertise, teamwork, and data-driven decision-making. As Brigadier General Morrison, JTF Commander, stated, 'I can't emphasize the importance of what you all have done with this- very good product and allowing us to bring other agencies together and help them defeat stove pipes of excellence. Thank you!" By integrating these lessons into future disaster response efforts and adopting the TWG/IAAC, the National Guard and other organizations can enhance their preparedness and effectiveness, ensuring a more resilient and unified approach to emergencies.

References

- 1. Joint Publication (JP) 3-28, Defense Support of Civil Authorities (2022)
- 2. Field Manual (FM) 3-0, Operations (2023)
- 3. Field Manual (FM) 3-60, *Targeting* (2023)



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