Work Session
Mutual Aid and Crisis Management
Technology & Policy Challenges and Solutions

December 4, 2018
National Geospatial Preparedness Summit
Agenda

• Round Robin Introductions
• Work Session Goals and Objectives
• Incident Vignette
• Open Discussion
• Current and Future of Mutual Aid Policy and Technology
• Open Group Discussion
• Key Take-Aways and Next Steps
Goal and Objectives

Define the future state of resource management and mutual aid technology aligned with local and national policy

Objectives:

• Validate the greatest challenges in resource management information sharing and mutual aid
• Identify common policy limitations impacting effective resource management and mutual aid operations
• Gain insight into the current and future of mutual aid technology
• Provide insight and inform the direction of mutual aid technology and policy across all levels of government
What is a GOOD mutual aid response?

• Daily Automatic Aid
• Larger-Scale Mutual Aid
• Interstate Mutual Aid in a Governor-Declared State of Emergency
Incident Vignette

TJ Lyon, Florida Fire Chiefs Association
Open Discussion

• How does your agency currently **inventory and manage resources**?

• How does your region **share resource information** across agencies, outside of your PSAP/CAD?

• What has been your experience in mutual aid operations locally and regionally?

• What **policy and organization structure(s)** exist in your area that **govern how mutual aid** is carried out?
  • Are these local policies and SOPs?
  • Statewide?
  • Are they up-to-date and aligned with how you operate today?

• What **challenges have you experienced** gaining awareness of available resources, and requesting and receiving resources?
Current and Future of Mutual Aid Policy and Technology
National Mutual Aid Policy Today

- Public Law 104-321 – Emergency Management Assistance Compact
- National Response Framework
- National Incident Management System

https://www.fema.gov/national-incident-management-system
State and Local Mutual Aid Policy Today

- **80-90%** Local daily automatic aid agreements
  - Already GOOD

- **20-30%** Local/County/Tribal - regional agreements or compacts
  - Intrastate regional - compacts with contiguous jurisdictions in a single state
  - Mutual aid “regions” - compacts with contiguous jurisdictions/tribes across state borders

- **15-20%** Statewide agreements or compacts

- **5-10%** State-to-State agreements or compacts
  - Simple one state to one state
  - Regional agreements among multiple states

- **2-5%** Emergency Management Assistance Compact (EMAC)
Where We Need to Focus

- **80-90%** Local daily automatic aid agreements
- **20-30%** Local/County/Tribal - regional agreements or compacts
- **15-20%** Statewide agreements or compacts
- **5-10%** State-to-State agreements or compacts
- **2-5%** Emergency Management Assistance Compact (EMAC)
Where We Need to Focus

• 80-90%  Local daily automatic aid agreements
• 20-30%  Local/County/Tribal - regional agreements or compacts
• 15-20%  Statewide agreements or compacts
• 5-10%   State-to-State agreements or compacts
• 2-5%    Emergency Management Assistance Compact (EMAC)

As incidents scale in size and complexity, additional levels of mutual aid are required.
SPEED IS LIFE
Challenge

- Mutual aid is critical for effective unified response to and recovery from emergencies and planned events.

- While many mutual aid technology systems in-use today, there is no clear national standard or framework by which these systems can be integrated to support operational workflows.
Breakout Discussions – Part 1

• What are the **top 3 challenges** facing mutual aid operations today?

• What local, state, and/or national **policy changes** are needed overcome each of those challenges?
Core Information Requirements for Mutual Aid

What information do you need for effective decision making in an event requiring mutual aid?

• Situational Awareness Information
• Resource Information

• Necessary to define time-bound information requirements, prior to determining which EEIs at a data and attribute levels can be used to fill information requirements
Basic Framework for Resource Information

- **C - Capability** (what you need it to do)
- **S - Size** (physical size descriptor)
- **A - Amount** (how many you need)
- **L - Location** (where it will be delivered)
- **T - Type** (NIMS Type or what it is)
- **T - Time** (when do you need it and for how long)

**Time Thresholds**
- Intrastate Mutual Aid: 0-12 hours
- Interstate Mutual Aid: 24+ hours
- National Mutual Aid: 48+ hours
Geo-Enabled Resource Management

Guidance on Resource Management Dashboards

3. Pathway to Decision Making
4. Basics of Resource Management Dashboards
5. Information Needs for RM Dashboards
6. Metrics for RM Dashboards
7. Steps to Build a RM Dashboard
8. Explore a Model RM Dashboard
9. Technical Tutorial on RM Dashboard Development

https://arcg.is/rmyyyH
Public safety needs access to innovative and standardized technology solutions for daily operations that can automatically scale to support large-scale disasters, involving more complex resource management and mutual aid.
National Mutual Aid System

Jeff Dulin
Strategic Adviser
International Association of Fire Chiefs
NMAS Vision

Increase First Responder Safety & Loss of Civilian Life and Property By:

Building a Stronger Mutual Aid System that supports State Response while strengthening National Response. Utilize state of the art technology to Request, Locate and Deploy the closest and most appropriate Resource.

Improving outcomes by enhanced decision making with geo-enabled analysis tools for use in every phase of mutual aid planning and response.
The IAFC’s Vision is to advance Mutual Aid

Today WebGIS and Crisis Management Technologies provide the First Responders the capability to support all their Mutual Aid needs.

What's missing is:
- Leadership
- Governance
- SOP Development

The IAFC is building NMAS to provide all of these.
Intrastate Mutual Aid System

• Following Hurricane Katrina 2006-2009
• IAFC and DHS NIC Support to States to Develop Mutual Aid Plans
• Mutual Aid Net Developed
Building NMAS

• Leveraged IAFC’s experience over multiple decades in intrastate mutual aid policy and technology
• Searched for the right technology partners
  • Proven track record in crisis management
  • Experience in working with Local, State, and Federal partners
  • Ability to look into and invest in future needs
  • Willingness to partner in development of a Vision
Geo-Enable Mutual Aid
NMAS Basics

• Cloud-based solution to Request, Locate, and Deploy Mutual Aid resources
• Requires only a standard web browser, internet connection, and log-in credentials
• Provides a geo-enabled view of where resources in real-time
• Allows resource owners to enter and update their resources as needed.
• Resources are categorized using NIMS typing and State specific resources can also be entered.
NMAS Capabilities

• Applies existing information sharing capabilities from the WebEOC and ESRI platforms to share information across other systems.

• Uses WebEOC technology as the foundation and is capable of running independent from or integrated with WebEOC depending on a state/jurisdictions needs.

• Uses the IAFC’s ArcGIS AGOL Platform for location-enabled tools and functionality, including the real-time tracking of status on resources.

• Designed to support mutual aid from the preparedness & planning phase to the demobilization of resources.

• Pre-planning for Mutual Aid has for any years been over looked.
  - NMAS will provide a tool to capitalize on Pre-planning efforts for communities.
Current Status

- NMAS Tools used in response to 2018 Hurricanes

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<tr>
<th>Hurricane Florence</th>
<th>Hurricane Michael</th>
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<tr>
<td>60 Search &amp; Rescue Teams from 10 States</td>
<td>126 SAR Teams from 11+ States</td>
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<tr>
<td>2,600 Field Forms Submitted</td>
<td>51,532 Field Forms Submitted</td>
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<tr>
<td>340 Users</td>
<td>400+ Users</td>
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- 6 States conducted beta testing of NMAS capabilities with support from Emergency Management agencies

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Example

https://arcg.is/1zaby4
Resources will be inventoried in NMAS based on NIMS Tier 1 Resource Typing Definitions and NQS Position Qualification Sheets.
Resources are approved to deploy, with driving directions provided by NMAS and ESRI Workforce App.
Situational Awareness and Data Analytics are part of the management tools for NMAS
Contact: Jeff Dulin
Contact: jdulin@iafc.org
Learn more at IAFC.org/NMAS
• What **role can technology** play in helping to overcome those challenges?

• How can capabilities (like those through NMAS) be designed and deployed locally, statewide, and/or nationally to **improve mutual aid operations**?