The Use of Decision Support Tools in Hurricane Planning



Communities, states, and regions susceptible to hurricanes and tropical storms are faced with a new preparedness norm, addressing their abilities to respond not simply to one hurricane event, but the need to prepare for and reconstitute quickly in the face of simultaneous and sequential storms and associated hazards.

Decision Support Tools can be used in planning for hurricanes and associated threats in order to improve preparedness, enhance organizational performance, and mitigate risk to their communities. These Decision Support Tools serve to effectively translate a jurisdiction's hurricane response plan and associated emergency response plans from paper and electrons — to an easily visible, monitored and updated set of tools suitable for use in current operations. Emergency planners should advocate the development and use of "cutting edge" decision support tools (e.g., the Synchronization Matrix, the Decision Support Template, and the Hurricane Campaign Plan) in the conduct of operations to prepare, respond, and recover from hurricanes and other associated hazards. These Decision Support Tools have proven to be of high value in crisis action planning, resulting in timely and informed decisions that harmonize capabilities and contribute to the efficient allocation of resources.

The Synchronization Matrix

The Synchronization Matrix is a graphic representation of planned actions relevant to time and/or events. The Synchronization Matrix is a proven decision support tool which, when used appropriately, can enhance a community's ability to transition from the development of hurricane response plans to the effective implementation and ongoing monitoring of these plans in crisis situations.

The Synchronization Matrix is used to clearly align mission, tasks, and capabilities by jurisdictions, agencies and organizations and Emergency Support Functions. It allows the arrangement of emergency preparedness and response activities by time, space, and purpose in order to maximize the coordinated impact of emergency capabilities. It facilitates the integration of planning and resources and manages the alignment of available capabilities to each task. Application and update of the Synchronization Matrix allows ready reference of the community's committed capabilities and resources. It also ensures that this allocation of effort is recognized across the continuum.

The format of the Synchronization Matrix allows community leaders and decision makers the latitude to both address emergency preparedness and response operations as a whole while adding insight and detail to conduct certain critical phases. It ensures comprehensive planning across all Emergency Support Functions. In accordance with FEMA guidance, it is designed in a phased approach to emergency response. While it initially uses a standard 120-hour hurricane timeline, the Synchronization Matrix is more appropriately linked to events rather than the clock. It may be expanded to address reconstitution and recovery operations. Its use is not

restricted to government agencies but may also be used effectively by critical infrastructure, private business, as well as non-profit and volunteer organizations.

The Decision Support Template

The Decision Support Template is a graphic record of weather data and predictive analysis used to forecast a storm's approach and anticipated environmental conditions. As a decision support tool, the Decision Support Template facilitates informed and timely decisions by jurisdiction leaders during emergency situations. These decisions and subsequent planner actions may involve the: life, safety and well-being of citizens; expenditure of funds; commitment of resources; costs to private businesses, as well as the expenditure of political capital. The Decision Support Template identifies those situational parameters or key events that call for subsequent timely decisions resulting in a defined course of action.

The Decision Support Template is developed from weather data and storm analysis. It integrates a variety of storm prediction and tracking tools developed by the National Weather Service and the Army Corps of Engineers (e.g., HURREVAC, Flood Inundation Mapping, SLOSH, Advanced Hydrological Prediction Services, and Hurricane Evacuation Studies) to enhance the linkage from crisis planning to decision making. The Decision Support Template is a flexible planning tool that allows for modifications to response plans to address multiple hazards and changes in a storm's path, duration and intensity. To ensure that community leaders and decision makers have access to the latest, required information to make an informed and timely decision, a supporting data collection plan is developed.

The Hurricane Campaign Plan

A Hurricane Campaign Plan is designed to ensure communities and regions are adequately positioned and resourced to meet multiple threats and hazards in a single hurricane season. The Hurricane Campaign Plan provides the concept and structure to employ resources and capabilities over time in complex operations to respond and recover from multiple threats. It is the basis to ensure communities and regions maintain their resiliency through multiple major natural and/or manmade emergency events – while planning for the next.

The Hurricane Campaign Plan seeks to enhance and support Response Mission Area Capabilities (e.g., Planning, Public Information and Warning, Operational Coordination, Critical Transportation, Environmental Response/Health and Safety; Fatality Management Services, Infrastructure Systems, and Mass Care Services) to address community disaster response needs for On-Scene Security and Protection, Mass Search and Rescue Operations, Mass Care Services, Public and Private Services & Resources, Public Health and Medical Services, Infrastructure Systems, and Fatality Management Services. It identifies and prioritizes the resources needed to ensure that response and recovery capabilities are reconstituted, and to account for those



activities that must be accomplished for more than one event to ensure they are developed to enable parallel efforts over time.

Campaign Planning employs the National Incident Management System (NIMS) as a doctrinal imperative. It involves: integrated and mutually supporting response plans, regional and community common operating standards; investment in training and education; data collection; interoperable communications; information, warning and community outreach; mutual aid; funding and resourcing; and the creation of stocks and safe havens for the prepositioning of materials and supplies.

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