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Congress of the United States House of Representatives

Washington, DC 20515-0301

March 13, 2020

COMMITTEE ON NATURAL RESOURCES SUBCOMMITTEES CHAIRMAN, ENERGY AND MINERAL RESOURCES WATER, POWER AND OCEANS

> COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM SUBCOMMITTEES VICE CHAIRMAN, INTERIOR NATIONAL SECURITY

CONGRESSIONAL WESTERN CAUCUS CHAIRMAN

The Honorable Rosa L. DeLauro Chairwoman Subcommittee on Labor, Health and Human Services, Education, and Related Agencies Committee on Appropriations Washington, DC 20515

The Honorable Tom Cole Ranking Member Subcommittee on Labor, Health and Human Services, Education, and Related Agencies Committee on Appropriations Washington, DC 20515

Dear Chairwoman DeLauro and Ranking Member Cole:

As you prepare the FY2021 Labor, Health and Human Services, Education, and Related Agencies appropriations bill, we urge you to ensure sufficient funding for data infrastructure for disaster and epidemic response operations within Pandemic and All-Hazards Preparedness at the Department of Health and Human Services (HHS).

Despite advances in infrastructure resilience and early warning systems, reducing the impact of disasters and their potential cascading effects is a herculean task. Experts agree that transformative impact in planning and response will arise only through timely information-driven decision making and interventions in the presence of shifting demands and resources. Artificial Intelligence (AI) assisted coordination between partner organizations can help reduce growing complexity in disaster relief, mitigate uncertainty in chaotic situations, and facilitate cooperation. Thus, data-enabled situational awareness and AI based technologies are critical in all four phases of disaster management: prevention, preparedness, response, and recovery. The current state of technology is an adverse constraint on response decision making and resource allocations choices. This realization became a Call to Action for units within ASU's Center for Emergency Management and Homeland Security, the ASU Center for Assured and Scalable Data Engineering (CASCADE) and the Blockchain Research Laboratory.

There is an urgent need to advance and develop technologies to enhance the understanding of the complex relationships that characterize natural and human-based systems, with a particular focus on disaster preparedness and response, to help improve performance and thus enhance resilience. This objective envisions forming science-based, data driven, and AI-enabled strategies for expanding and optimizing the coordination and operations of physical and emergency infrastructures to improve the mission of the National Response Framework. The goal of the strategy is to help save lives, protect property, safeguard the environment, stabilize the incident, restore basic services and community functionality, and establish a

platform that supports core capabilities, including planning, critical transportation, public information, warnings, and public health services.

This request is designed to enable research funding to develop, combine, and implement IT systems, business processes, data, and algorithms to implement in field operations a robust data and artificial intelligence infrastructure. This new infrastructure will drive solutions informed by a deep understanding and integration of stakeholder needs at every stage of an emergency, which will result in novel approaches to science, technology, infrastructure, and policies supporting resilient health and human services in the all-hazards environment. These tools are applicable for response and recovery operations under the broader National Response Framework and National Disaster Recovery Framework and more specialized strategic documents that inform operations such as the National Pandemic Strategy and the Federal Emergency Management Agency's Whole Community Approach to Emergency Management.

Proposed Bill Language:

"Research Development, Additional Topic – The Committee recommendation includes \$25 million to leverage ongoing relationships between Federal, State, local, tribal, and other key nongovernmental community partners within the context of the National Response Framework, to co-develop Data Infrastructures and Artificial Intelligence based technologies for optimizing the response of life saving resources to large scale disasters, epidemics or pandemics, and other related hazards incidents. Processes that provide the transitioning from manual to automated selection of resources will ensure that established inventories of critical emergency services can be leveraged for pairing to emergent needs, from local jurisdictions to a mega region scale. Leveraging Smart Devices and Blockchain technologies to verify the location of resources will assist the selection, tracking, and management of these resources to the specific geolocation of need. These processes and the massive amounts of data they create will become the building blocks of algorithms and Artificial Intelligence (AI) for efficient nationwide deployment of resources. It will additionally offer unprecedented record of government activity to facilitate accountability through more accurate auditing and compensation practices.

This innovation will create a new Critical Infrastructure designed to sustain the health and survivability of a nation during wide-spread disasters, including those from natural, technological, or public health hazards. This new Resource to Emergency or R2E Critical Infrastructure, will bring order and actionable information to every emergent need for federal, state, local, or tribally managed emergencies."

Thank you for your consideration of this important request.

Sincerely,

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Paul A. Gosar, D.D.S. Member of Congress