

National Preparedness Science and Technology (NPST) Task Force
Report on *Identifying Science and Technology Opportunities for National Preparedness*
Briefing to CENRS Subcommittee on Disaster Reduction (SDR)

Thursday, January 5, 2017

The Subcommittee on Disaster Reduction formed the National Preparedness Science and Technology (NPST) Task Force to support collaboration between the Federal science and technology (S&T) and the preparedness communities. This collaboration represents a new approach to joint planning to ensure science and technology outcomes are relevant to the needs of emergency managers and decision makers. On December 20, 2016, the Task Force released a report, *Identifying Science and Technology Opportunities for National Preparedness*¹. This report and the process implemented in its design fulfills the Task Force’s charter functions to assess the current status of Federal S&T investments, and design a structured process to identify and prioritize efforts between the Federal interagency S&T and national preparedness communities.

To assess S&T opportunities for enhanced preparedness, the Task Force assembled six teams of subject matter experts from across the Federal Government to focus on biological hazards, chemical hazards, radiological and nuclear hazards, geological hazards, meteorological hazards, and space hazards (incl. space weather and near-Earth objects). These interagency teams identified current S&T programs, gaps, and research opportunities to support national preparedness. The Task Force analyzed the products of the six teams and identified a set of cross-cutting S&T development areas for national preparedness capabilities, that were common to all six hazard types studied:

1. Improve Public Communication of Warnings and Advisories
2. Enhance Fundamental Understanding of Hazards
3. Improve Event Characterization and Risk Assessment
4. Enhance Observations, Modeling, and Data Management
5. Develop Technology for Safer, Effective, and Timely Response and Recovery
6. Integrate Science into Preparedness Decisions

The analysis of the six teams’ identified S&T gaps and research opportunities describes near, mid, and long-term research opportunities to support these six cross-cutting S&T development areas for each class of hazards. The work of the Task Force further describes how these research opportunities could be grouped into the organizational taxonomy of core capability mission areas, as described by the National Preparedness Goal.

The National Preparedness System aims to ensure that preparedness capabilities are developed at every level of government, the private sector, and non-profit sector, so that each is prepared to carry out its roles and responsibilities. Toward this end, future collaborative activities to identify and develop important S&T capabilities should expand to include dialogue with external stakeholders, including the private sector, local, state, and tribal governments, and academia. The Task Force anticipates that continued collaboration will lead to long-term improvements in the Nation’s ability to protect lives and property, and increase resilience to all types of hazards.

¹ The report is available at https://www.whitehouse.gov/sites/default/files/microsites/ostp/NSTC/npst_sandt_opportunities_report_final.pdf. An NSTC-internal version of the document will be made available on the SDR website.