



July 15, 2021

## National Level Exercises: History, Authorities, and Congressional Considerations

Every two years, the Federal Emergency Management Agency (FEMA) conducts a National Level Exercise (NLE) to evaluate the nation's progress towards preparedness for catastrophic events. These exercises have multiple components, and culminate in a large, full-scale exercise with thousands of participants from multiple federal agencies, state, local, tribal, and territorial (SLTT) governments, industry partners, and nongovernmental organizations. The next NLE, scheduled for 2022, is to test the nation's ability to respond to a simulated earthquake along the Cascadia Subduction Zone in the Pacific Northwest, as well as subsequent aftershocks, tsunamis, and a Spill of National Significance.

### History and Authorities

In 1988, much federal attention was paid to the ability of the nation to respond to and recover from emergencies and major disasters. Congress passed the Robert T. Stafford Disaster Relief and Emergency Assistance Act (P.L. 100-707), and President Ronald Reagan issued Executive Order 12656, which established a national security emergency exercise program and directed FEMA to coordinate the planning, conduct, and evaluation of these activities. The order did not mandate exercises of national scope or broad participation by federal agencies.

In 1996, due to increasing concern about the proliferation of weapons of mass destruction following the collapse of the Soviet Union, Congress passed the Defense Against Weapons of Mass Destruction Act of 1996 (P.L. 104-201). The law directed the Secretary of Defense to “develop and carry out a program for testing and improving the responses of Federal, State, and local agencies to emergencies involving biological weapons and related materials and emergencies involving chemical weapons and related materials” (50 U.S.C. §2315). It also mandated a five-year series of annual exercises to be conducted in coordination with the Secretary of Energy, the Director of the Federal Bureau of Investigation, and the FEMA Administrator, as well as state and local officials.

Congress further addressed the need for an exercise of national scope in 1998. The Senate Committee on Appropriations, noted that “few of the top officials of agencies have ever fully participated” in ongoing preparedness exercises, and directed “that an exercise be conducted in fiscal year 1999 with the participation of all key personnel who would participate in the consequence management of ... an actual terrorist event.” The result was the Top Officials (TOPOFF) exercise, the first of what became a series of four full-scale exercises conducted between 2000 and 2007. The series was held biennially to “assess the nation's crisis and consequence management

capacity under extraordinary conditions” and leveraged scenarios of national scope. Each exercise focused on terrorist attacks with weapons of mass destruction. During this time period, the September 11, 2001, attacks and anthrax attacks amplified the need for domestic preparedness. Congress passed the Homeland Security Act of 2002 (P.L. 107-296) and assigned the responsibility for exercises to various positions within the newly formed Department of Homeland Security; no additional direction was provided regarding the quantity, quality, or scope of preparedness exercises. In 2003, President George W. Bush issued Homeland Security Presidential Directive 8 (HSPD-8) which directed the Secretary of Homeland Security to “develop a multi-year national homeland security preparedness-related exercise plan” and submit it to the Homeland Security Council (HSC) for review and approval. HSPD-8 did not provide additional guidance on the nature or frequency of national level exercises.

Despite having had two TOPOFF exercises, federal agencies and other government partners were considered largely unprepared to respond to the catastrophic events of Hurricane Katrina, as documented by S.Rept. 109-322. In response, Congress passed the Post-Katrina Emergency Management Reform Act in 2006 (P.L. 109-295) and required the Administrator of FEMA “to test and evaluate the capability of federal, state, territorial, local, and tribal governments to detect, disrupt, and prevent threatened or actual catastrophic acts of terrorism, especially those involving weapons of mass destruction ... and to test and evaluate the readiness of Federal, State, territorial, local, and tribal governments to respond and recover in a coordinated and unified manner to catastrophic incidents” at least every two years. The law required tests and evaluations of readiness for catastrophic incidents to assure preparedness for major natural hazards as well as weapons of mass destruction. It also shifted the focus of participation from top federal officials to whole-of-nation stakeholders. In 2009, TOPOFF exercises were renamed “Tier 1 National Level Exercises” and continued under this name until 2012.

In 2011, President Barack Obama issued Presidential Policy Directive 8 (PPD-8) to further clarify the federal government's approach to preparedness. PPD-8 established that “the national preparedness system shall include guidance for planning, organization, equipment, training, and exercises to build and maintain domestic capabilities. It shall provide an all-of-Nation approach for building and sustaining a cycle of preparedness activities over time.” NLEs were renamed “Capstone Exercises” to represent their placement in the broader scheme of federal and SLTT exercises. In 2018, FEMA returned to the NLE naming convention.

## Recent National Level Exercises

National Level Exercises alternate between scenarios focused on adversaries and natural disasters every two years. Reports on the results of these exercises are not publicly available.

- NLE 2020 focused on cybersecurity. The scenario involved a complex attack causing significant impacts to critical infrastructure and community lifelines. The majority of the exercise was cancelled by the FEMA Administrator due to the demand of COVID-19 response activities on the agency.
- NLE 2018 tested the ability of federal agencies, SLTT governments, private sector partners and nongovernmental organizations to prepare for, respond to, and recover from a major Mid-Atlantic hurricane. It provided an opportunity for participating agencies to examine lessons learned from Hurricanes Harvey, Irma, and Maria.
- Capstone 2016 assessed the nation’s “ability to prevent terrorist acts against the homeland, coordinate the response to a catastrophic incident, communicate to the American people, and continue performing essential government functions during a disaster.” The exercise involved five discrete exercises focused on international threats that created the need for domestic response.
- Capstone 2014 was designed to prepare government, industry, and nongovernment partners for complex, large-scale disasters and emergencies. It commemorated the 1964 Great Alaskan Earthquake by focusing on an earthquake and subsequent tsunami in the Pacific Northwest.
- NLE 2012 addressed cyberattacks against the United States. It focused on testing the draft version of the National Cyber Incident Response Plan (NCIRP), the ability of governmental entities to coordinate response activities, information sharing between key stakeholders, and decision making.

## Considerations for Congress

Given the response and recovery challenges revealed by recent incidents such as the Coronavirus Disease 2019 (COVID-19) pandemic and the Solar Winds cyberattack, Congress may consider examining NLEs and how they help the nation prepare for complex, large-scale incidents.

### Focus and Objectives of NLEs

While FEMA administers NLEs on behalf of the federal government as a whole, it does not select the focus of these exercises directly. The design and development of NLEs is guided by the strategic priorities set by the Principals Committee of the National Security Council and builds on real-world incidents. The priorities for 2021-2022 include continuity of essential functions, cybersecurity, economic recovery and resilience, national security emergencies and catastrophic incidents, operational coordination, public health and healthcare emergencies, shelter and housing solutions, and stabilization and restoration of community lifelines. Should Congress desire to shift the focus,

frequency, or scope of NLEs, it may consider more prescriptive legislative language or rulemaking.

### Capturing the Benefits of NLEs

According to guidance published by FEMA, every exercise should produce a number of lessons learned, corrective actions, and an improvement plan for the participating stakeholders. These documents provide a roadmap for closing gaps in core prevention, protection, response, recovery, and mitigation capabilities. In a May 2020 report, the Government Accountability Office (GAO) asserted that FEMA “lacks a formal mechanism to document and track best practices, lessons learned, and corrective actions.” The outputs and benefits of NLEs may potentially be lost without greater accountability for recording and implementing the results. GAO recommended that DHS develop a better means of tracking exercise outputs, and DHS officials concurred and planned to address them before March 31, 2022. Congress may consider oversight activities to ensure that the findings of NLEs are properly leveraged to improve national capabilities.

### Coordination with Other Federal Exercises

FEMA is not the only agency conducting nationally-scoped preparedness exercises with broad stakeholder participation. For instance, the Department of Energy’s Office of Cybersecurity, Energy Security, and Emergency Response (CESER) and the Department of Health and Human Services’ Office of the Assistant Secretary for Preparedness and Response (ASPR) both conduct major exercises involving multiple federal agencies, SLTT partners, private industry, and nongovernmental participation. These exercises are not required to be coordinated with the NLE and their results and recommendations may not be integrated with those from the NLE. GAO has also reported that the exercise programs within CESER and ASPR are deficient. Congress may consider mandates for better interagency coordination of nationally-scoped exercises as well as a more unified strategy for tracking outcomes. Congress may also conduct oversight activities or mandate reporting on the results of these preparedness-building activities.

### NLEs and Pandemic Preparedness

FEMA has never led an NLE that focused on a pandemic, although some TOPOFF exercises explored national coordination for response to some types of public health emergencies, such as attacks with chemical and biological weapons. In 2019, the Department of Health and Human Services hosted a major pandemic exercise (dubbed “Crimson Contagion”) and involved 12 federal departments/agencies (including FEMA), 132 SLTT governments, 87 hospitals, and more than 100 private sector partners. This exercise built on previous exercises, as well as experiences with the H1N1 influenza pandemic of 2009. It is unclear how it contributed to preparedness for the COVID-19 pandemic, or if NLE structure and coordination would have improved results. Congress may consider requiring a report describing how this exercise did or did not contribute to preparedness for the COVID-19 pandemic.

---

**Lauren R. Stienstra**, Section Research Manager

## Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.