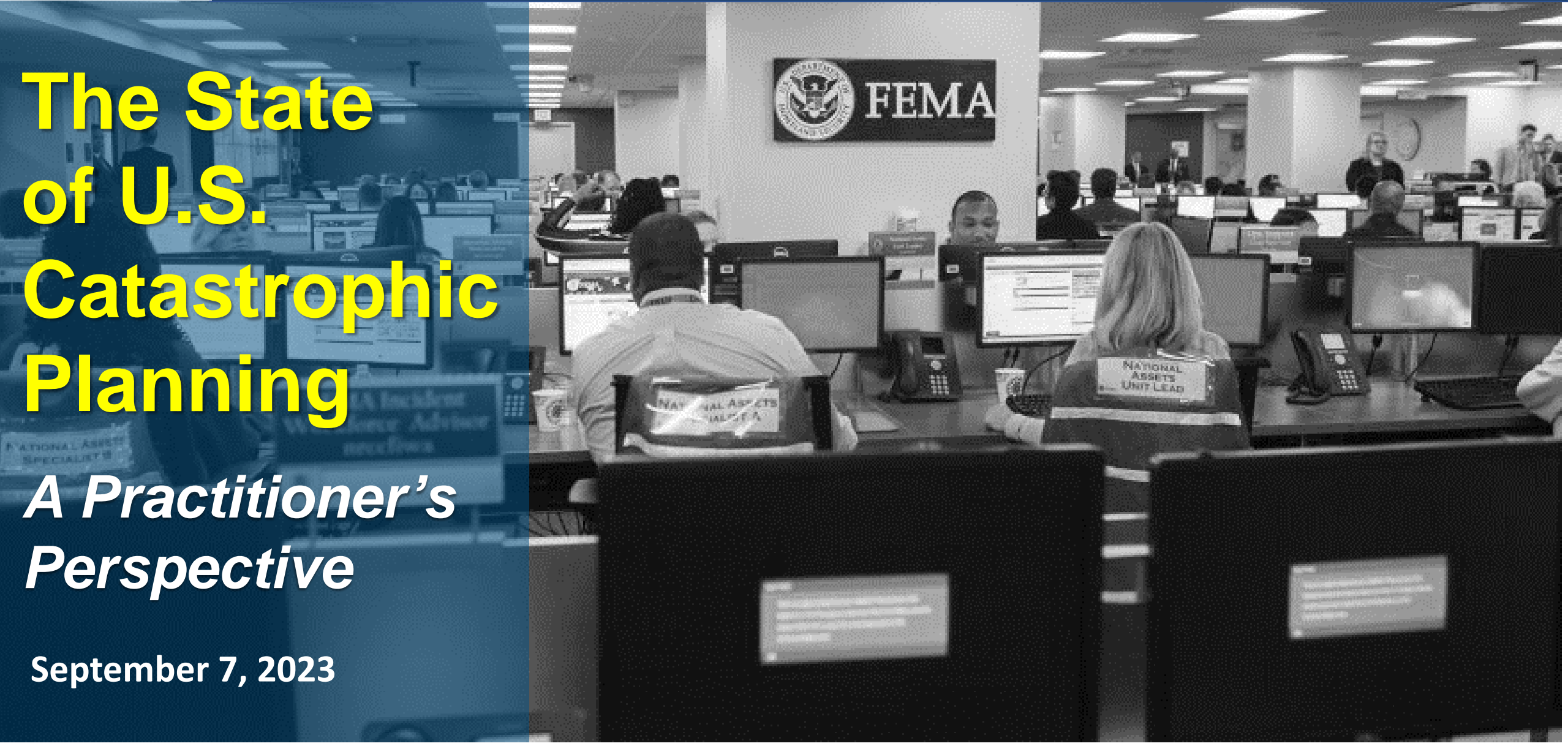


# The State of U.S. Catastrophic Planning

*A Practitioner's  
Perspective*

September 7, 2023



# Focus of Today's Presentation

*Though there are numerous issues concerning U.S. efforts to plan for a future catastrophe that we could explore:*

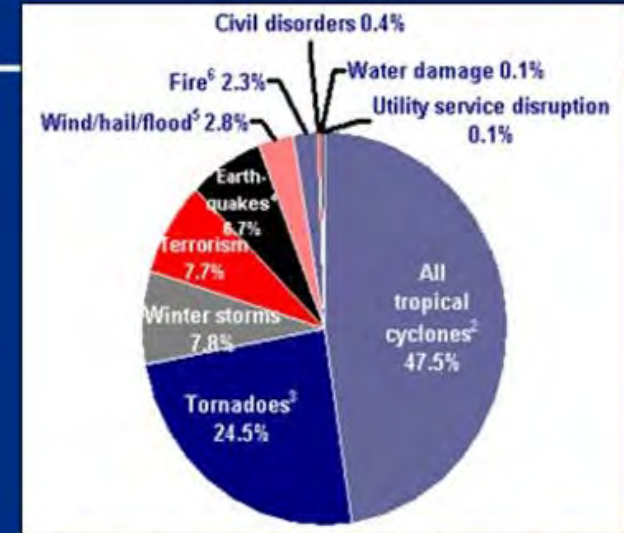
***Today, we will focus how to best approach planning for future U.S. catastrophic events***

*The views expressed are those of the presenter and not those of the U.S. federal government or any other entity or organization.*

# The Frequency and Severity of Major Disruptive Events in the U.S. is Only Heading in One Direction.... UP!

## Domestic Catastrophic Events

- ▶ All 20 of the world's costliest disasters occurred since 1987.
- ▶ 19 were natural disasters; the other, the world's worst terrorist attack.
- ▶ The U.S. was impacted by *13 of the 20* and *8 of the 10* costliest.
- ▶ Disaster severity and the global war on terror *are likely to intensify.*



Inflation-adjusted U.S. Catastrophe Losses By Cause Of Loss, 1986-2005 (Insurance Information Institute).



In the last century about 170 hurricanes have struck the United States.



FEMA

# The Debate: How Best to Prepare for a Catastrophe

The debate continues, within the U.S. emergency management community, as to how best to prepare for a future catastrophic event

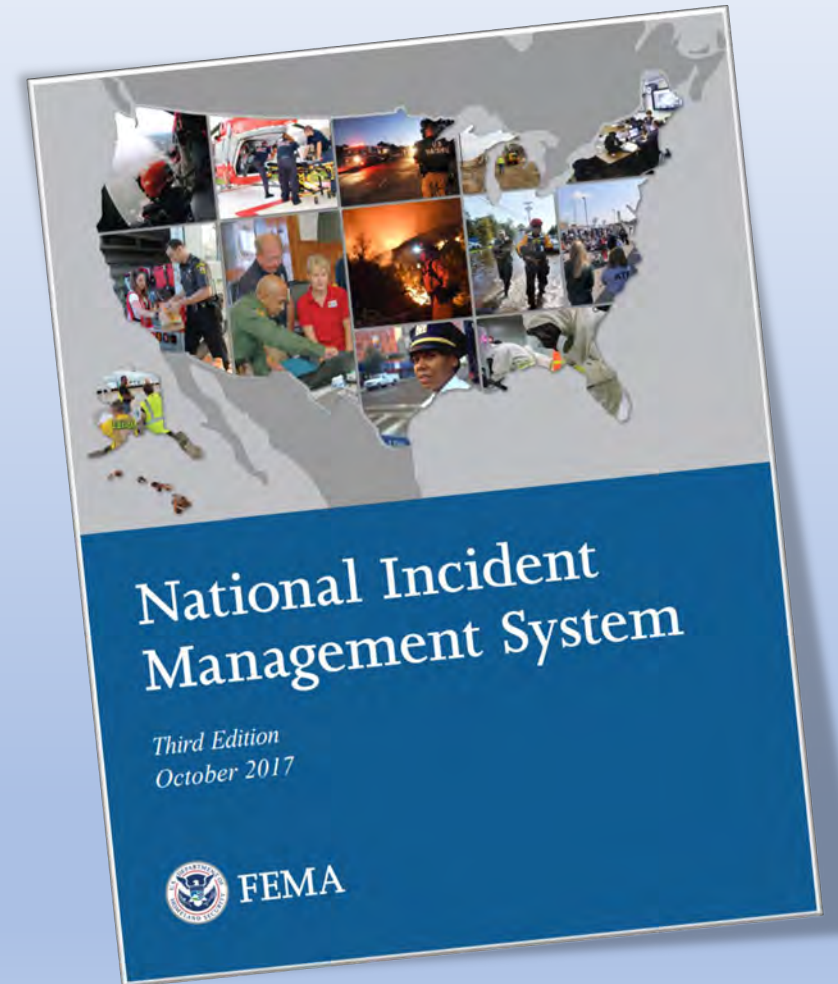
- **Issue 1:** “All-hazards” versus location/hazard specific response and recovery planning
- **Issue 2:** Developing catastrophic response and recovery “plans” versus “frameworks”

# Role of FEMA

- “The primary mission of FEMA is to **reduce the loss** of life and property and protect the Nation from **all hazards**, including natural disasters, acts of terrorism, and other man-made disasters, by leading and supporting the Nation in a **risk-based, comprehensive emergency management system** of preparedness, protection, response, recovery, and mitigation”.
- **Post-[Hurricane] Katrina Emergency Management Reform Act of 2006 (PKEMRA)**
  - Requires U.S. Dept. of Homeland Security/FEMA to maintain a **Catastrophic Incident Annex** to the National Response Framework (NRF)
  - Requires **States** to have a **similar annex**
  - Requires FEMA to maintain a **National Exercise Program** based on catastrophic incidents
  - Requires FEMA to **report to Congress** annually on catastrophic incident readiness
  - Requires FEMA to maintain the **National Emergency Communications Plan** that accounts to catastrophic incidents

# U.S. Federal Definitions

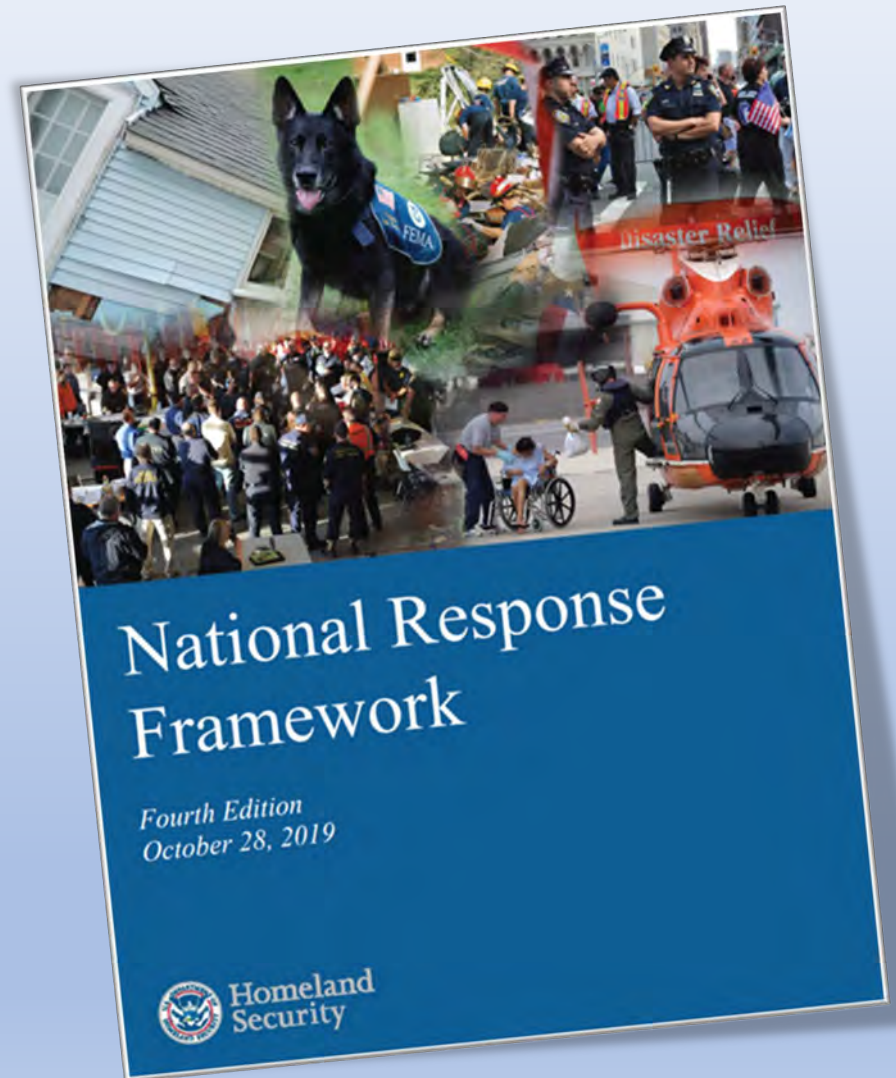
- **NIMS** - The **National Incident Management System (NIMS)** guides all levels of government, nongovernmental organizations and the private sector to **work together** to prevent, protect against, mitigate, respond to and recover from incidents.
- NIMS provides a **shared vocabulary, systems and processes** to successfully deliver the capabilities described in the **National Preparedness System**. NIMS defines operational systems that guide how personnel work together during incidents.



# U.S. Federal Definitions

- **NRF** - The **National Response Framework (NRF)** is a guide to how the nation responds to all types of disasters and emergencies. It is built on **scalable, flexible, and adaptable** concepts identified in the NIMS to align key roles and responsibilities.

The NRF is structured to help jurisdictions, citizens, nongovernmental organizations and businesses develop whole community plans; **integrate** continuity plans; **build capabilities** to respond to cascading failures among businesses, supply chains, and infrastructure sectors; **collaborate to stabilize lifelines and restore services**



# Questions Regarding Current Government Catastrophe Plans

- **Federal System**

- Does the current federal system provide a basis for federal, state and local planning initiatives that are sufficient for a large-scale event, such as catastrophe?

- **State Emergency Response Plans**

- Are States' current all-hazards disaster plans planned, which are developed under the encouragement of the federal government, sufficient for a large-scale event, such as catastrophe? Are state authorities sufficient to meet the challenge?

- **Local Government Emergency Response Plans**

- Most states have homeland security and emergency management laws that require local governments to prepare some form of disaster plans. These plans may be sufficient for localized disasters, but rarely address inherent differences between catastrophic and disaster preparedness planning. How should this issue be addressed?



# All-Hazards Versus Scenario-Based Catastrophic Planning

- Based on the challenges in responding to several large landfalling hurricanes and the 9/11/2001 terrorist attacks, the U.S. federal government **changed the focus of catastrophic planning from All-Hazards planning to geographic-specific scenario-specific** (usually one hazard or threat in one location) event planning
- **All-Hazards planning** assumes that the response and recovery to all disasters is basically the same (same resources, approach, and personnel)
- Catastrophic **scenario-based planning** uses a specific event (usually in a specific location) to establish a framework for modeling hypercomplex disaster effects and then leading the response to and recovery from those effects.

# Scenario-Based Catastrophic Planning

- Integrates planning and exercise phases
- Includes operations and planning
- Incorporates site-specific scenarios
- Builds on scenario-driven workshops
- Produces functional plans ready for immediate use
- Addresses jurisdictional conflicts
- Can be exercised rapidly after development
- Promotes a unified response
  - Approach integrates private sector, critical infrastructure, and emergency management communities into a single, coordinated response with Federal, State, Tribal and other governmental entities

# Approaches to Catastrophic Planning

Though there are numerous approaches to catastrophic planning, we will examine the following three:

- **Integrated Planning System (IPS)**
- ***Northatlantic Hypercomplexity* approach**
- **Catastrophic Planning Program (CPP)**

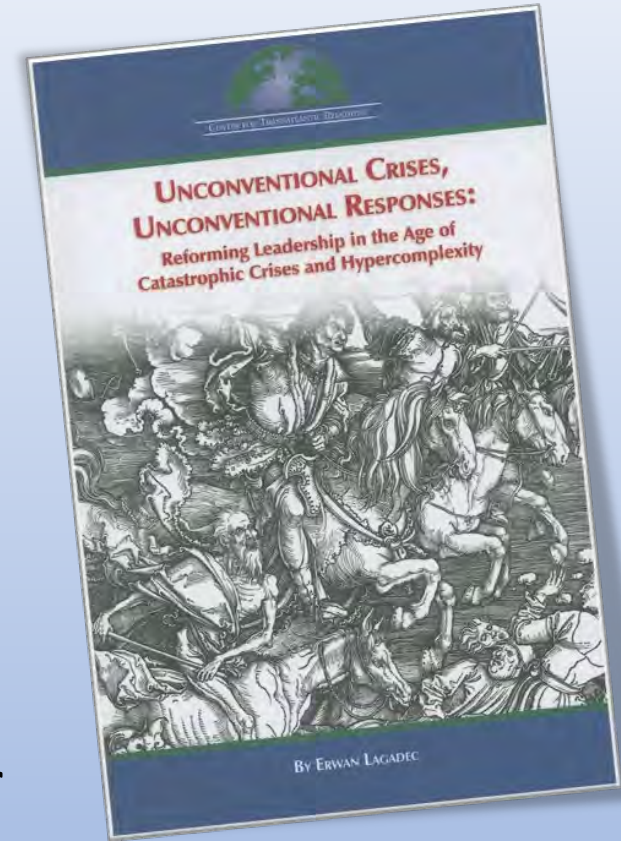
# Integrated Planning System (IPS)

**Purpose: Terrorism centric** – integrates law enforcement with emergency response

- Created by government professionals to address terrorism jurisdictional issues
- Is more **traditional**
- Mostly a **top-down** approach
- **Strengths**
  - Access to **classified information**
  - Involved **many governmental levels** and departments
  - Fits into **traditional** U.S. Incident Command System (**ICS**)
  - Is **scenario and exercise based**
- **Weaknesses**
  - **Federal in orientation** (driven by federal role in a terrorist attack)
  - **Limited** in scope and detail
  - **Uses scenario** outlines making it easy
  - Does **not easily integrate** lessons learned from exercises

# Northatlantic Hypercomplexity

- This project sets up a **cross-sector**, international platform for leaders and experts.
- Based on the results of a **seminar** convened in 2007
- **Book** offers innovative **diagnosis of deficiencies** in crisis-management concepts and lays out **proposals for reform**.
- Believes catastrophes are “hypercomplex” due to extremely high degree of **interdependent linkages** in the production and **delivery of basics**, such as food, water, electricity, natural gas, oil and communications.
- Focus of **decision-making not** limited to a single **control** center
- The **effects extend** to other jurisdictions, often other countries and continents, as well as to other aspects of human life, such as health, economics, and security.



Erwan Lagadec PhD., Center  
for Transatlantic Relations,  
2007

# Northatlantic Hypercomplexity

- **Strengths**

- Is **international**
- Focused on **entire systems**
- Considers the possibility of **real time interventions**
- Uses a **decentralized** decision-making structure

- **Weaknesses**

- Is very **young**, theoretical and conceptual in nature
- Does **not have benchmarks** from which to document progress

# Catastrophic Planning Program (CPP)

- This is what is currently in **use by FEMA** for U.S. catastrophic planning.
- Two parts to the program:
  - **National Level Exercise (NLE)**
  - **Regional Catastrophic Preparedness Grant Program (RCPGP)**
- Uses an extensive **bottom-up** regional focus, based on a **single scenario**<sup>1</sup>. The approach is:
  - Focused on **capability** and required **resources**
  - Based-on **collaboration** and **partnerships** and is **holistic** in nature.
- Adopts some aspects of *Northatlantic Hypercomplexity* approach.

<sup>1</sup>One or multiple interrelated hazards or threats

# Catastrophic Planning Program (CPP)

- **Strengths**

- **National** in orientation
- Plan will be **integrative** and **synchronized** at all levels of government
- Encourages **local ownership** of plan
- Is **realistic** and detailed
- **On-going** Process
- Is **inclusive**

- **Weaknesses**

- Plans **limited to response** operations
- Is **expensive** and **time consuming**
- Is **scenario** and **site specific**
- **Complicated** process
- **Lack of single response plan** may be **confusing**



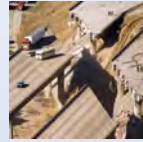
# National Level Exercise Program

- The **National Level Exercise (NLE)** program is congressionally mandated in PKEMRA, which requires FEMA to periodically, but not less than **biennially, perform a national exercise** to test and evaluate the capability of Federal, State, Local and Tribal governments to respond to a catastrophic event.

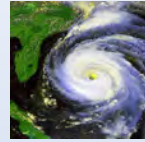


# National Planning Scenarios

## Natural Disaster



Earthquake



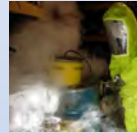
Hurricane

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## Chemical Attack



Blister



Toxic Industrial



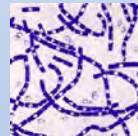
Nerve Agent



Chlorine

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## Biological Disease



Anthrax



Pandemic



Plague



Food



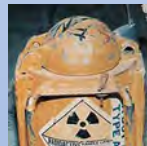
Animal

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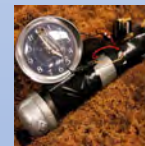
## Radiological/ Nuclear/ Explosive Attack



Radiological  
Attack (RDD)



Nuclear  
Detonation



Explosives  
Attack (IED)

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## Cyber Attack



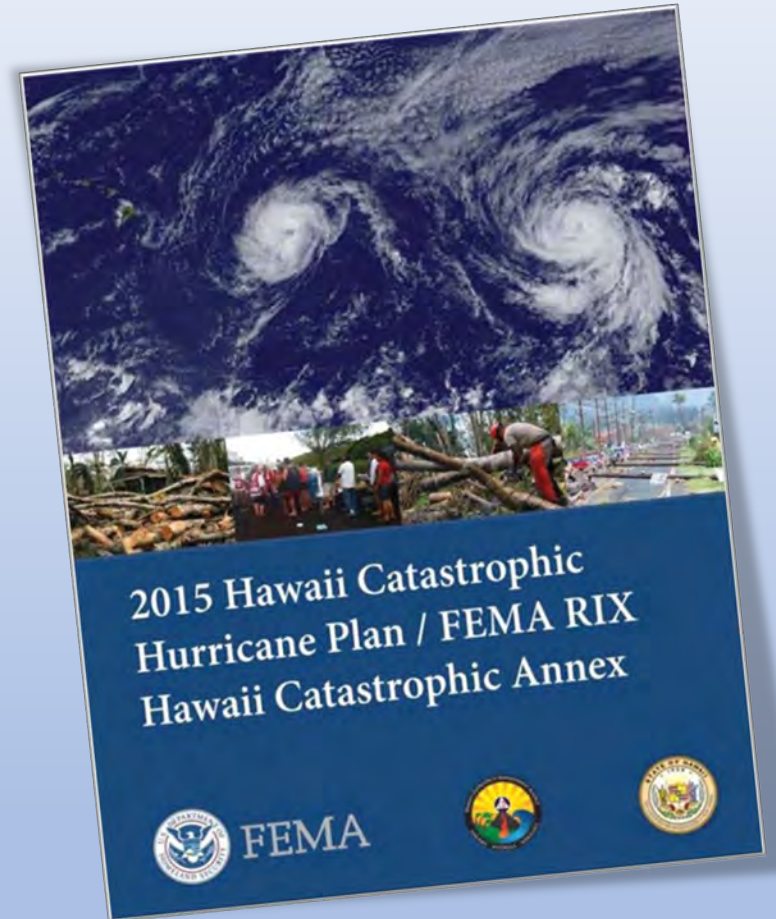
Cyber

# History of National Level Exercises

<b>Year</b>	<b>Hazard/Threat</b>	<b>Location Focus</b>
<b>2024</b>	<b>Climate Change (Upcoming)</b>	<b>California, Hawaii, and Guam</b>
<b>2022</b>	<b>Earthquake Cascadia Subduction Zone</b>	<b>California, Oregon, State of Washington</b>
<b>2020</b>	<b>Cybersecurity</b>	<b>Nationwide</b>
<b>2018</b>	<b>Mid-Atlantic Hurricane</b>	<b>Atlantic coastal states</b>
<b>2016</b>	<b>Terrorist Act</b>	<b>Nationwide Capstone Exercise</b>
<b>2014</b>	<b>Alaskan Earthquake, earthquake and a tsunami impacting the greater Pacific Northwest</b>	<b>Alaska, Oregon, State of Washington</b>

# Regional Preparedness Approach

- The **Regional Catastrophic Preparedness Grant Program (RCPGP)** plays an important part of the **U.S. National Preparedness System**
- Accomplished by providing resources that **close known capability gaps** in Housing and Logistics and Supply Chain Management
- Encouraging **innovative regional solutions**
- Attempts to **build on** existing regional planning efforts.
- FEMA has four **strategic priorities** for FY 2023 RCPGP (\$12 million USD): *housing, equity, climate resilience, and readiness*, with an emphasis on the needs of disadvantaged communities.



# Some Final Thoughts



# Direction of Catastrophic Planning

- **New** decision-making tools
- Change in focus **from all-hazards** approach used in disaster planning **to scenario-specific** catastrophic planning
- Incorporate **predictive modeling** techniques and analysis

# Preparing for Catastrophe

- It's **never too early** to prepare
- **Warrior Ethos:** Train as you fight, fight as you train
- Leadership starts with a with a **self-assessment**
- Need to conduct an **organizational assessment**
  - Focus on human resources and their readiness
  - Do they clearly understand the vision/values?
  - How do you demonstrate that you care?
- Take a **Systems View**
  - Community Assessment; Intra/Inter-agency assessment

# Post-Event Recovery

- Remember, you are in a **marathon**, not a sprint
- Focus on **mental health**, remember, it's a marathon
- Post-event **recovery** from a catastrophe is a **long road**, often a decade or longer
- Keep in mind, some institutions **never recover**, look for opportunities to **create new ones**
- **Continuous assessment** of progress is necessary, along with constant recalibration of tactics and strategies
- Enlist of the **support of others**, avoid the temptation to go it on you own because it is easier than dealing with people
- Involve everyone in opportunities to **apply "lessons learned"** to future event planning






# Thank You

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