JIACG Educational Forum

Federal Interagency Response Plan – Hurricane
FEMA National Hurricane Program Preparations
Interagency Operational Plan (IOP) Response

April 24, 2012

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Federal Interagency Response Plan

Hurricane

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Planning Scenario

- Although the Plan is applicable to any catastrophic hurricane, scenario details were utilized for the sake of scoping and creation of parameters. A Category 5 hurricane directly impacting Miami, FL was used as the planning scenario for this effort due to factors including:
  - Highly populated, hurricane prone urban area
  - Detailed projected impact data (e.g., physical and economic damage for NISAC reports)
  - Coordination with other Federal planning efforts

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Situation Update

- The Federal Interagency Response Plan (FIRP) - Hurricane is applicable to any tropical storm or hurricane threat to the United States and the island territories. National planning scenario #10 provides the scope and parameters including:
  - Hurricane reaches peak as predicted and makes landfall near a major metropolitan area and coastal resort town
  - 24 hours prior to landfall, evacuations were ordered but routes are overwhelmed and many people are unable to leave the affected area
  - Sustained winds, storm surge, and flooding cause catastrophic damage
  - Shelters are filled to capacity and hundreds of people still in their homes require search and rescue
  - Affected population requires emergency food, water, and temporary housing
  - Critical infrastructure is damaged across the impacted area

Intelligence Estimate

- Hurricanes can cause catastrophic damage to coastal areas resulting in death or injury, loss or damage to property, and negative impacts to local and/or National economic conditions.
- An average hurricane is 400 miles in diameter with an average forward speed of 15 miles per hour. Its size and speed can result in a potential wide range of damage and across highly populated areas.
- The average life span of a hurricane is nine days with a storm track than can vary greatly as it crosses the Atlantic Ocean. Typhoons and tropical cyclones also develop in the Pacific Ocean. Even when the hurricane is identified many days ahead of landfall, the uncertainty in the development and location of landfall can complicate planning.
- Hurricanes can spawn tornadoes and microbursts, create storm surges along the coast, cause extensive damage from heavy rainfall, trigger landslides or mudslides, and cause flooding producing a strain on response resources as it effects areas outside of the coastal area. This may persist for several days or more after the hurricane.

Geographic and Impact Scope

Storm Characteristics

- Category 5
- Maximum sustained winds >150 mph
- Estimated storm surge of 16 feet
- Landfall: Miami, FL
- Major cities most impacted: Miami, Fort Lauderdale, West Palm Beach, Homestead, and Naples (all in FL)

Population within Potential Surge Zones:

> 10 feet surge	450,000
> 5 feet surge	1.1 million
In any surge	1.7 million

- Widespread power outages expected in Miami area, localized outages expected Orlando, Kennedy Space Center, Tampa)
- Estimated Economic Impacts
  - Direct costs for business interruptions $3 - 5 billion
  - Total costs for business interruptions $9 -15 billion

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Mission

When State and local resources are overwhelmed by the effects of a hurricane, or in anticipation of requests for support, the Federal interagency will coordinate and partner with non-governmental organizations, faith-based organizations, volunteer organizations, and the private sector to provide life-saving and life-sustaining assistance to the affected area.

Federal Interagency Intent

The intent of the Federal interagency response is to save lives, alleviate human suffering, ensure the continuity of mission essential functions and services, minimize property damage and set the stage for long-term community recovery and future mitigation.

The Federal interagency will accomplish this by partnering with NGOs, FBOs, and the private sector to provide assistance to the State(s), local and tribal governments, by anticipating, prioritizing, and executing timely and effective Federal response and recovery actions following a hurricane.

The desired end state of the hurricane response is achieved when citizens in the affected area no longer require life-saving or life-sustaining measures from the Federal Government and/or the State(s) no longer requests Federal response assistance.

Whole Community – Core Capabilities

The following core capabilities represent the highest priority essential functions necessary for both saving and sustaining lives, and stabilizing the site and the situation within 72 hours.

Enables Response

- Command, Control, & Coordination
- Critical Communications
- Critical Transportation
- Environmental Health & Safety
- Public Messaging
- Situational Assessment

Survivor Needs

- Fatality Management Services
- On-Scene Security and Protection
- Mass Care Services
- Mass Search and Rescue Operations
- Public Health and Medical Support
- Public & Private Services & Resources
- Stabilize and Repair Essential Infrastructure

The first six "enable" a rapid and effective response, while the remainder explicitly address the needs and priorities of the people and communities impacted by the hurricane.

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Planning Assumptions

- The hurricane results in a Presidential Major Disaster Declaration being issued under the authority of the Stafford Act including concurrent response, recovery, and mitigation activities.
- There is not a concurrent national level incident that has already exceeded Federal response resources and capabilities.
- Federal emergency response capabilities will not be impacted by the hurricane and will be able to respond.
- Department and agencies will coordinate and take action under their own statutory authorities in anticipation of a hurricane.
- Critical transportation routes and infrastructure will be disrupted by the incident itself or by secondary effects such as populace movement and emergency response efforts.
- As competing requests are received from multiple States and regions, mission assignments and resource requests will first be prioritized and adjudicated for life-saving and life-sustaining response activities.
- Private sector partners are qualified and credentialed.

Planning Considerations

- Limited Federal resources may not reach the entire impacted population.
- Tasks that are issued through the mission assignment (MA) process may require multiple MAs so that the overall task can be accomplished.
- Federal departments and agencies may incur a slower response time if they are unable to stand-up and deploy teams until a MA is issued.
- Due to current international operations, the Department of Defense may not have the resources or assets available at the time of incident.
- A coordinated Federal response may take multiple days to deploy because accurate modeling that will inform activation activities does not exist beyond 36 hours of the hurricane eye making landfall (ex. At 96 hours the margin of error is 1000 miles).
- State, local, and tribal mutual aid capabilities are limited and may be impacted by the storm or other incidents.
- Travel restrictions implemented by State, local, and tribal authorities or the private sector before or after landfall of a hurricane may impact Federal interagency operations.
- Unique agency computer and communications systems used in the incident area may include features (e.g., security) that preclude interagency or Federal, State, local, and tribal collaboration.

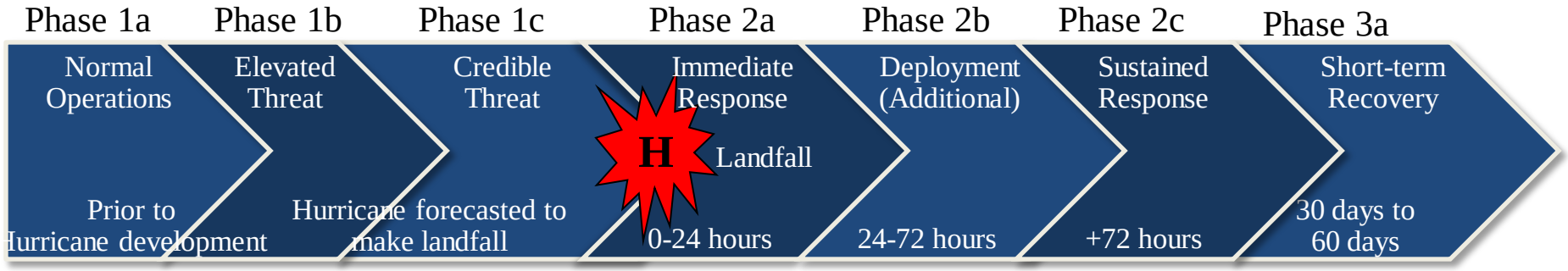
Planning Considerations (continued)

- State and local led evacuations may require Federal assistance and be complicated by citizens who are unable to evacuate due to functional needs or other limitations.
- Reliance on contractor-provided services (e.g., motor coach, ambulance contracts) may be limited by the capacity of the private sector to support contract needs.
- Federal Government requests for Private Sector resources are not prioritized ahead of existing contract supply requirements if the Defense Production Act is not enacted (e.g., Tarps being delivered to local camping and supply stores through existing contract/vendor supply requirements).

Restraints

- Restraints (Things you can't do)
  - Federal responders cannot perform functions without being granted the power to do so within the affected State and local jurisdiction (e.g., Posse Comitatus, health care providers, law enforcement, hazardous waste handlers, transportation licenses, etc.)
  - The Federal Government cannot provide assistance to a State without a formal request

Phased Approach to Response Operations



Phase 1a: Normal operations

Phase 1b: Elevated threat and the development of situational awareness; selected teams are alerted and deployed

Phase 1c: Credible threat of a known hazard; resources are pre-positioned in anticipation of support needed by the State

Phase 2a: Immediate response, gaining situational awareness, activation, and the movement of resources to incident support bases

Phase 2b: Deployment of additional resources to staging areas at the incident site

Phase 2c: Sustained response, employment of resources at the incident site, saving lives, sheltering survivors and restoring critical systems such as power and communications

Phase 3a: Short-term recovery such as debris removal and emergency housing

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FEMA National Hurricane Program

2012 Season Preparations

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FEMA Hurricane Liaison Team

Mission: To support hurricane response operations through the rapid exchange of critical information between the National Hurricane Center and emergency managers.

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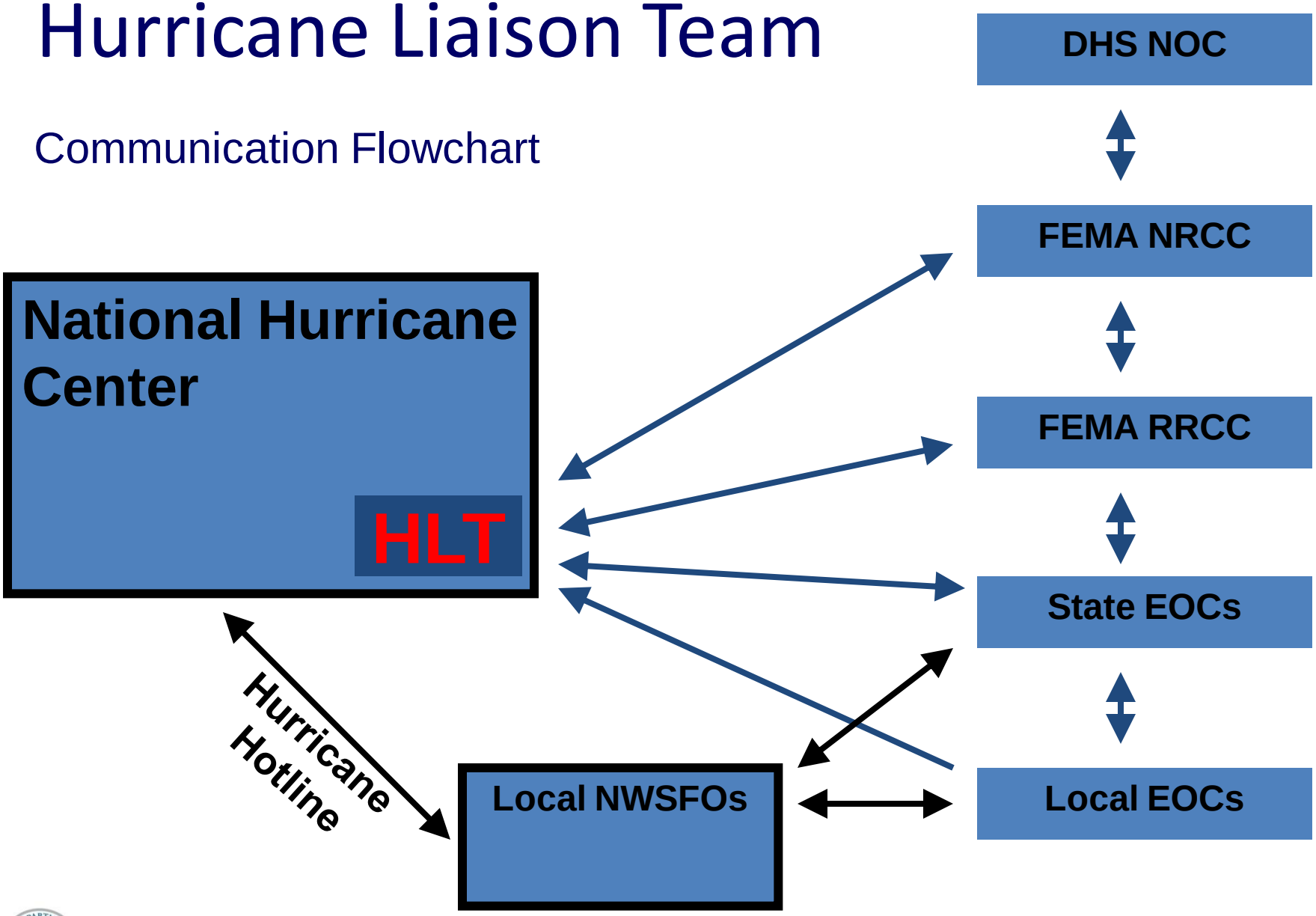
Hurricane Liaison Team

Communication Flowchart



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HLT Responsibilities

- Facilitate video and audio conference to Federal and State agencies
- Direct issues of importance to the NOAA Hurricane Specialists
- Field emergency management calls concerning the storm
- Access: (305) 225 - 4217

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Top Ten Hurricane Evacuation Problem Areas in the United States

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NOT the Ten Worst Evacuation Plans in the Country…

List compiled from all of the clearance time data:

- All clearance time data in HURREVAC
- The most recent Hurricane Evacuation Study (HES)
- From study area experience in the transportation analysis.

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10th Most Difficult Evacuation Area in the U.S.

10. Myrtle Beach, SC *(peak tourist condition)*

- Tremendous permanent / tourist population growth
- Problematic inland bottlenecks

Mitigated by:

- Aggressive traffic control and reverse lane plans
- Sensitive state and local governments / Floyd experience
- Downturn in housing market

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9th Most Difficult Evacuation Area in the U.S.

9. Jacksonville / Northeast Florida

- Large population growth in and near surge areas
- Very little recent direct hurricane impact history
- Out of area / off beach roadway capacity virtually unchanged

Mitigated by:

- Some internal roadway improvements
- I-10 / I-295 interchange ongoing changes
- I-10 reverse lane plans

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8th Most Difficult Evacuation Area in the U.S.

8. Galveston / Houston, TX

- Rapidly growing metro area
- Vulnerable population and industrial development
- Difficult Rita evacuation experience
- Difficult Ike non-evacuation experience

Mitigated by:

- New zip code zone based evacuation zones
- Recent planning efforts
- Robust urban roadways

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7th Most Difficult Evacuation Area in the U.S.

7. New Orleans, LA

- Profound surge vulnerability in major hurricanes
- Disadvantaged groups needing public transport / sheltering

Mitigated by:

- Reduced population post Katrina
- Evacuation traffic control / reverse lane planning
- Storm awareness
- Federal, state, and local planning specialized efforts

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6th Most Difficult Evacuation Area in the U.S.

6. Hampton Roads, VA / Outer Banks, NC

- Significant storm surge / wind vulnerability
- Population prone to late / non-evacuation
- Very limited evacuation roadway network for population size
- Need for additional public shelter space if public does participate

Mitigated by:

- I-64 reverse lane plan
- Robust ITS infrastructure for traffic management
- New catastrophic planning efforts

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5th Most Difficult Evacuation Area in the U.S.

5. Southeast Florida

- Lack of major regional evacuation since 1992 (Andrew)
- Lack of out-of-region roadway capacity for large four county evacuation
- Stated times in decision tools may be on low side
- Conflicts with other regions of state

Mitigated by:

- Belief that they cannot get out of the area
- FDOT / FHP reverse lane plans

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4th Most Difficult Evacuation Area in the U.S.

4. New York City / New Jersey Coast

- Large surge footprint encompassing huge urban population
- Vulnerable transportation infrastructure
- Roadway capacity congested by major background traffic
- New Jersey tourist populations
- Forward speed of storms
- NYC Irene concerns

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4th Most Difficult Evacuation Area in the U.S.

4. New York City / New Jersey Coast *(continued)*

Mitigated by:

- Strong emergency management / police proactive planning
- Irene successes / lessons learned
- New Jersey reverse lane and traffic control
- NYC OEM targeted efforts for evacuation and sheltering
- Meaningful role of public transportation providers
- New study products

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3rd Most Difficult Evacuation Area in the U.S.

3. Delmarva Peninsula *(peak tourist condition)*

- Delaware, Maryland, Virginia eastern shore confluence of traffic
- Extremely limited inland roadway capacity / sheltering
- Lack of experience by tourists

Mitigated by:

- Specialized planning efforts

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2nd Most Difficult Evacuation Area in the U.S.

2. Tampa Bay, FL

- Large surge footprint encompassing huge urban population
- Lack of direct hit / public complacency
- Elderly population / special needs
- I-75 bottleneck between Tampa and Wildwood
- Southwest Florida evacuee traffic mix
- Storm track lead times

Mitigated by:

- I-4 roadway improvements
- FDOT / FHP reverse lane plan

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2nd Most Difficult Evacuation Area in the U.S.

2. Tampa Bay, FL *(continued)*

Mitigated by:

- I-4 roadway improvements
- FDOT / FHP reverse lane planning

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Most Difficult Evacuation Area in the U.S.

1. Southwest Florida

- Large surge and mobile home populations
- Very limited roadway egress capacity
- Limited in-county sheltering for major storms
- Elderly population
- Mix with Tampa Bay / Southeast Florida
- Storm track lead times

Mitigated by:

- Proactive growth management / local planning
- FDOT / FHP reverse lane / shoulder use planning

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Additional Hurricane Evacuation Problem Areas:

- Charleston, SC
- Savannah, GA
- Pensacola, FL / Mobile, AL
- Mississippi Coast
- Corpus Christi, TX
- Brownsville, TX
- Honolulu / Waikiki, HI
- Cape Cod, MA

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10 Most Difficult Evacuation Areas in the U.S.

1. Southwest Florida
2. Tampa Bay, FL
3. Delmarva Peninsula
4. New York City / New Jersey Coast
5. Southeast Florida
6. Hampton Roads, VA / Outer Banks, NC
7. New Orleans, LA
8. Galveston / Houston, TX
9. Jacksonville / Northeast Florida
10. Myrtle Beach, SC

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Major Cities Most Overdue for a Hurricane Strike:

- 5th most overdue: Tampa, FL
- 4th most overdue: Savannah, GA
- 3rd most overdue: New York City, NY
- 2nd most overdue: San Diego, CA
- 1st most overdue: Honolulu, HI

(Vulnerable cities that have gone the longest without a direct hit from the core of a significant hurricane. *Dr. Rick Knabb --The Weather Channel, 6/1/2011)*

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Interagency Operational Plan

Response

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Background

- Presidential Policy Directive (PPD) 8

  Detailed concept of operations, description of critical tasks and responsibilities; detailed resource, personnel, and sourcing requirements; and specific provisions for the rapid integration of resources and personnel as defined.

- Implementation Plan for PPD8: National Preparedness

  Describe the Interagency Concept of Operations for integrating and synchronizing national level Federal capabilities to support Federal, State, local, tribal, and territorial plans.

- National Preparedness Goal

  Inclusion of Core Capabilities and preliminary performance targets.

- *Draft* National Planning System, December 2011

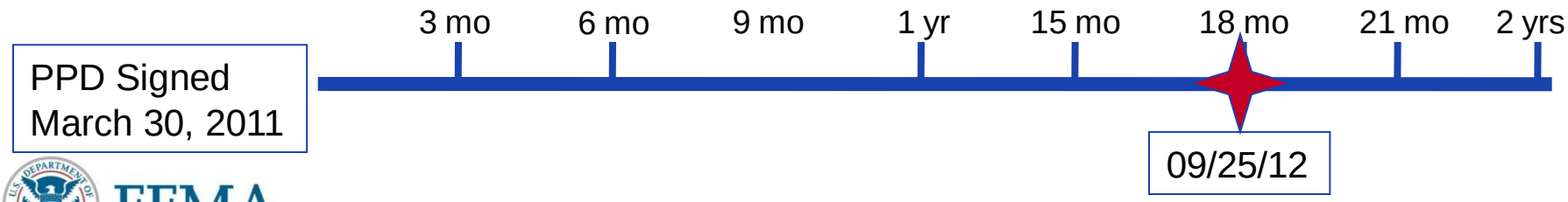
  Operationalize the guidance contained in the frameworks by providing a concept of operations that integrates and synchronizes the delivery of the mission area's core capabilities.

  Interoperable with the remaining four mission areas and clarify how mission areas relate to each other operationally.

  Describe the applicable authorities and resources that may be brought to bear and how those authorities and resources will be applied across departments and agencies in support of each other or to meet State, territorial, tribal, and local needs.

Background

- Developed where needed to guide the execution of each of the five frameworks-
  - Integrating Factors
    - Risk
    - Command, Control, and Communication
    - Shared Resources
- A more detailed concept of operations
- For integrating and synchronizing existing national-level federal capabilities to support F/S/L/T/T plans
- Description of critical tasks and responsibilities to include resource, personnel and sourcing requirements
- Specific provisions for the rapid integration of resources & personnel
- Consistent with CPG-101 where practical



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Scope of the Plan

The Interagency Operational Plan (IOP)-Response describes how the Federal government will save lives, protect property and the environment, and meet basic human needs in not only the anticipation of requests for assistance, but also in coordination with the States, locals, territories, and tribes.

Specifically, the IOP-Response will address the critical tasks, responsibilities, resourcing, personnel, and sourcing requirements to accomplish Federal response objectives across Federal departments and agencies, States and local agencies, Non-Governmental Organizations (NGOs), Faith-Based Organizations (FBOs), volunteer organizations and the private sector.

Mission

In support of State, local, tribal, and territorial governments, the Federal interagency will partner with the Whole Community to effectively respond to all types of incidents that require the capabilities of the Nation.

Emphasis of support by the Federal interagency during a response will be on those capabilities necessary to save lives; protect property and the environment; meet basic human needs; stabilize the incident; restore basic services and community functionality; establish a safe and secure environment; and support the transition to long-term recovery.

Senior Leader Intent

The intent of the IOP-Response is to - save lives; alleviate human suffering; ensure the continuity of mission-essential functions and services; minimize property damage, protect the environment; maintain the public trust and confidence in government - and stabilize the event within 72 hours to set the stage for long-term community recovery and future mitigation.

The Federal interagency will accomplish this by partnering with the Whole Community and anticipating, adjudicating, and prioritizing, and Federal resources and assets.

The desired end state of the Federal incident response is achieved when citizens in the affected area no longer require life-saving or life-sustaining measures from the Federal Government; when the States, tribes, or territories no longer request Federal response assistance, thereby allowing for the seamless transition to long-term recovery.

Initial Planning Factors

- Within a geographic area of 25,000 contiguous square miles, a no-notice event impacts approximately 7 million people to include children, those with access and functional needs and disabilities, and those with limited English proficiency.

- The projected number of fatalities is 195,000 during the initial hours of the event; an additional 265,000 survivors will require emergency medical attention.

- At least 1,750,000 people, approximately 25% of the impacted population, will require mass care, emergency sheltering and housing.

IOP-Response Draft Planning Factors

Overview:

- No-notice incident impacts 7 million people across 25,000 contiguous square miles.
- Location agnostic
- 195,000 projected fatalities.
- 265,000 survivors require emergency care.
- 1,750,000 survivors require mass care support (feeding, hydration, and/or shelter)
- Incident occurred at 3pm local time.

Political Factors:

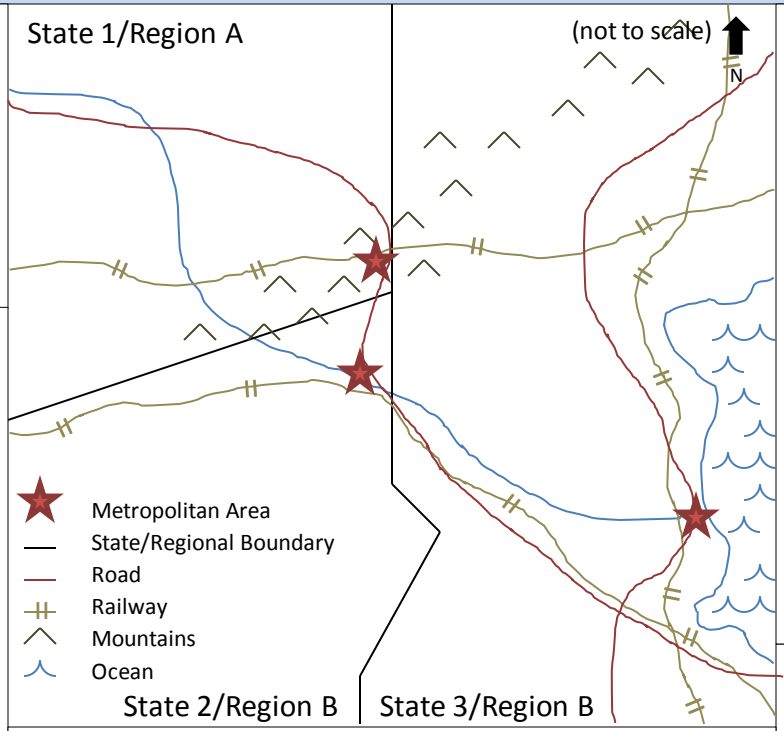
- Impacted area includes three states and two FEMA Regions.
- Within each affected state, a large city of 1.75 million people was impacted (5.25 million urban dwellers).
- Remaining 1.75 million people are located in rural areas across the affected states.
- Government functions are severely impacted; local government cannot organize effective post-incident response in the first 12 hours after the incident.
- Local first responders are overwhelmed.
- Tribal government leaders are requesting Federal assistance.

Technical Factors:

- Cellular telephone, TV, and radio networks are severely degraded.
- Emergency instructions are being delivered through radio/TV stations and loudspeaker systems.

Social Factors:

- 90% of casualties and those requiring mass care, emergency sheltering, and housing are located in the major metropolitan areas.
- Minor looting has begun.
- Resilience is high within the impacted area.



Environmental Factors (Natural & Man-Made):

- 125 miles of the impacted area is bound by ocean.
- A major river flows through two of the cities, with a metropolitan port where its headwaters empty into the ocean.
- One city lies in a mountainous region 5,000 feet above sea level.
- Infrastructure has suffered widespread damage.
- Power and water limitations affect 90% of the impacted area.
- Power outages are expected to continue for the next four to fourteen days.
- Environmental response efforts required for hazmat incidents.

Economic Factors:

- Local economies are at a standstill.
- Banks and financial institutions are closed.
- Wide-spread temporary business closures may lead to long-term closures.

Logistics:

- Primary needs: evacuation support, shelter supplies, and debris removal.
- EMAC is activated but cannot fulfill needs.
- Materials will be delivered primary via road; alternative transportation is available.
- Two each, four-lane Interstate highways (one north/south direction, one east/west) are impacted.
- Three major bridge collapses have severely restricted traffic in the three cities.
- Each state has multiple two-lane State highways at least partially blocked by debris.
- Six known washout locations exist.
- Two communities of approximately 6,000 people each are inaccessible via road.
- Damages have left both international airports unable to handle air traffic for at least the next 72 hours.

Legal Factors:

- A Stafford Act Declaration is granted.
- Federal departments and agencies are operating under individual statutory authority.
- Waivers, exemptions, and exceptions are being granted for activities not required during immediate response.
- National Guard members are operating within authorities under State control.

Administrative Factors:

- Mission assignments will be used to track requested and authorized expenditures.
- Personnel will be activated through department and agency standard operating procedures.

Assumptions (1 of 2)

1. A catastrophic incident or attack will occur with little or no warning.
2. There is not an additional catastrophic incident(s) occurring.
3. Resources will not reach the entire impacted population.
4. Inter- and Intra-State, local, tribal, and territorial mutual aid capabilities will be exhausted.
5. An incident response will require specialized equipment and adjustments to processes and procedures, as appropriate to the operational environment.
6. Departments and agencies will coordinate and take action under their own statutory authorities and/or under the Stafford Act as appropriate.

Assumptions (2 of 2)

1. Existing Federal department's and agency's responsibilities will impact the timeliness or capacity of Federal resources.
2. Situational awareness of the operational environment will be incomplete.
3. Critical transportation routes and infrastructure will be disrupted by the incident itself or by secondary effects such as populace movement and emergency response efforts.
4. Minimal Federal community-based resources within the impacted area will be able to respond.
5. Deployment-dependent Federal response resources will be unable to arrive and provide significant life-saving or life-sustaining capabilities until 12 to 24 hours after the event.
6. Deployment-dependent Federal responders will be self-sustaining for 72 hours.
7. Federal or State contractor-provided services are limited by the capacity of the private sector to support contract needs.

Limiting Factors

- Operational environment and a specific community demographics are undefined, limiting information analysis and situational understanding.
- Regional planning efforts are incomplete lending to an incomplete picture of existing capabilities at the State, local, tribal, and territorial levels.
- The National Response Framework (NRF) is being developed simultaneously with the Interagency Operations Plan (IOP) Response.
- The National Planning System and processes are being developed simultaneously with the IOP.
- Multiple planning efforts are ongoing across the Interagency in support of PPD8 requirements and hazard specific plans.
- Interagency understanding and information to support delivery of PPD8 products and deliverables.
- Condensed timeline for IOP-Response development.

Response Core Capabilities

Distinct critical elements necessary to achieve the National Preparedness Goal.

Enables Response

1. Situational Assessment
2. Planning
3. Operational Coordination
4. Public Information and Warning
5. Critical Transportation
6. Operational Communications
7. Environmental Response/Health and Safety

Survivor Needs

1. On-Scene Security and Protection
2. Mass Search and Rescue Operations
3. Mass Care Services
4. Public and Private Services and Resources
5. Public Health and Medical Services
6. Infrastructure Systems
7. Fatality Management Services

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