



**MissionCriticalPartners**

Because the Mission Matters

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## Continuity of Operations and Disaster Recovery

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# Introductions

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# OAS

More rights for more people

## Public Safety Preparedness

Communities place a high level of trust in 911 systems and the ability of public safety agencies to deliver services regardless of emergency circumstances

Public safety 911 and communications infrastructure are susceptible to a wide-range of physical and digital threats

Emergency service providers must be prepared to maintain mission critical communication systems at all times





# Assessing and Controlling Risk



## Risk Exposure

Risk is the potential for an unwanted outcome resulting from an incident, event, or occurrence, as determined by its likelihood and the associated consequences

Resiliency is the ability to adapt to changing conditions and prepare for, withstand, and rapidly recover from a disruption

Continuity planning is intended to help identify and mitigate risks



## Hazards and Threats

### **Natural Hazards:**

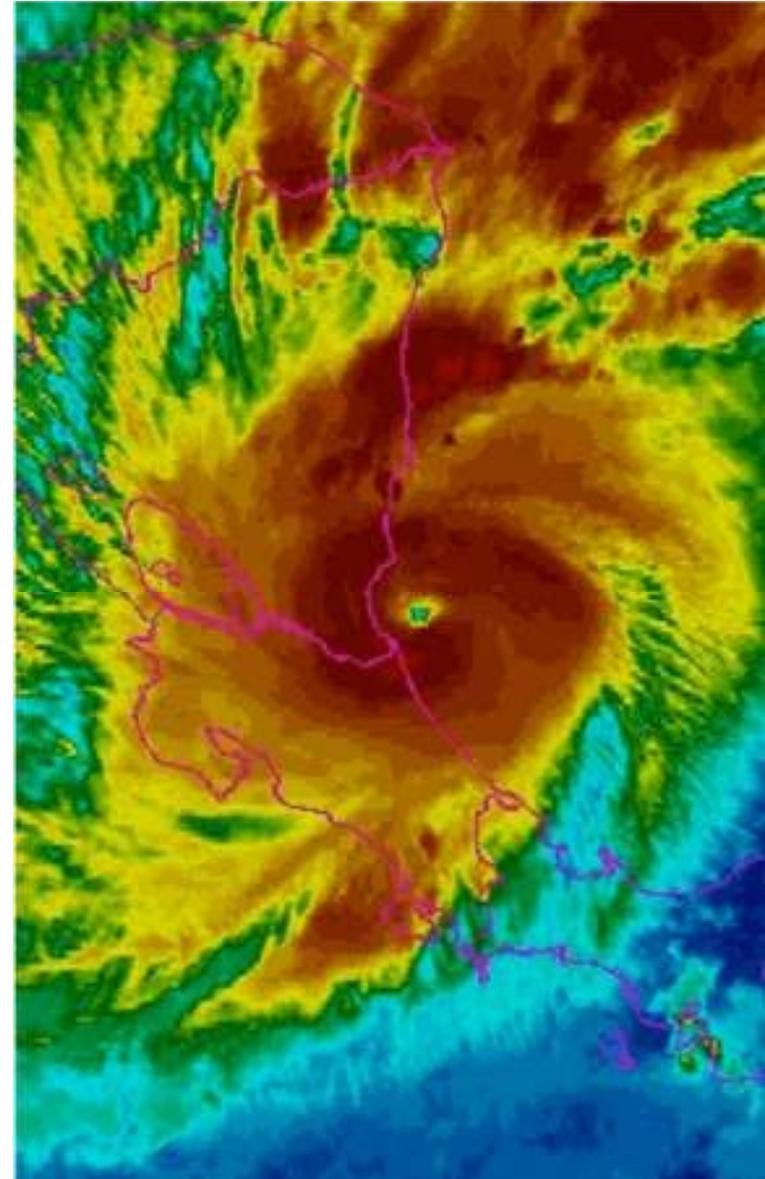
Hurricanes, earthquakes, floods, tsunamis, wildfires, pandemic diseases, volcanoes

### **Technological Hazards:**

Utility failures, hazardous materials incidents, transportation incidents, dam failures, structure fires, network outages

### **Human-caused (Intentional acts):**

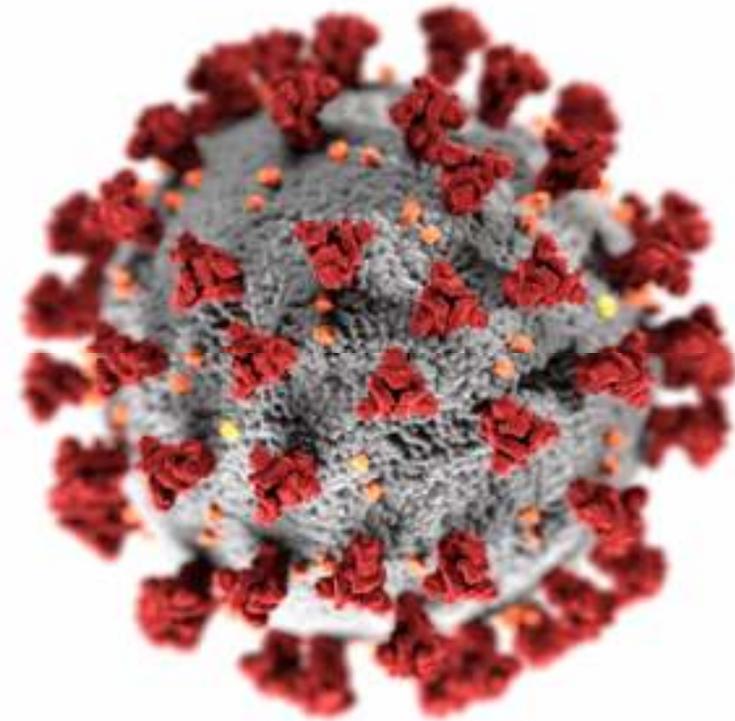
Cyber attacks, sabotage, civil unrest, terrorism



## COVID-19 Impacts

The current COVID-19 pandemic has impacted public safety communication centers

- Having to institute social distancing
- Moving locations because of exposure
- Increased call volume
- Increased questioning of callers
- Employee screenings
- Employee quarantines
- Increased cleaning of workspace



## Risk Determination

Risk exposure is assessed based upon probability of loss or damage and is a function of four variables:

- **Threat:** natural or man-made occurrence, individual, entity, or action that has or indicates the potential to harm life, information, operations, the environment, and/or property
- **Criticality:** importance to a mission or function, or continuity of operations
- **Vulnerability:** qualitative or quantitative expression of the level to which an entity, asset, system, network, or geographic area is susceptible to harm when it experiences a hazard
- **Recoverability** - the time and effort required to restore operational capacity

## Risk Controls

- Vulnerability is reduced through the implementation of prevention measures or controls
- Prevention measures may be in the form of physical devices, policies, or procedures
  - **Physical controls** - typically involve environmental features
    - Access control, surveillance systems, fencing, identification badges
  - **Procedural controls** - behavioral-based in nature
    - Background checks, password management, network access rights



What is a Continuity of Operations Plan?



## Elements of a COOP Program

- A COOP program manages a continuous process that is responsive to evolving risks, emergency events, mitigation of impacts, and guided recovery
- The jurisdiction's emergency operations plan (EOP) is intended to support the needs of the community during an disaster
- The COOP plan is a separate document that is intended to support the internal operations of organizations during an emergency or disaster
- Continuity of operations planning utilizes a standard methodology and is conducted in compliance with applicable regulations, rules, or guidelines
- An individual is typically assigned to lead the COOP efforts who has the desire and training to direct a successful program

# Continuity of Operations (COOP)

## COOP Planning Goals:

- Ensuring uninterrupted delivery of essential services during an emergency
- Protecting personnel, facilities, equipment, systems, data, records, and other assets
- Preventing or limiting disruptions to operations
- Achieving timely and orderly recovery from an emergency and resumption of normal service levels for the community

### **CONTINUITY OF OPERATIONS**

AN EFFORT TO ENSURE THE STABILITY OF CRITICAL GOVERNMENT FUNCTIONS DURING A WIDE RANGE OF POTENTIAL EMERGENCIES OR DISRUPTIVE EVENTS



# The Continuity of Operations Planning Process



# The Continuity Planning Cycle

- **Prevention** – Measures intended to avert or minimize probability of occurrence and related impacts
- **Preparedness** – Activities intended to enhance organization’s capacity to protect itself from the effects of an emergency incident
- **Response** – Actions initiated to mitigate the immediate effects on emergency services through use of planned procedures and resources
- **Recovery** – Short and long-term actions that are intended to restore operational capacity



## The COOP Planning Process

- The COOP planning process is a valuable educational exercise for organizations
- COOP planning is intended to aid the organization by:
  - Identifying hazards and threats that could impact the operational capacity of the organization
  - Developing mitigation strategies, or controls, to prevent or lessen the impact that a disruptive event may have on operations
  - Promoting an orderly and timely recovery and resumption of normal service levels



# Developing a COOP Plan



# COOP Planning Considerations

Assure that an organization maintains the capability to carry out mission essential functions during a disruptive event

- What are the mission essential functions of your organization?
- What positions are critical carrying out those functions?
- What resources are necessary to support staff for each function?
- What facilities and infrastructure are necessary to support functions?
- How would the function be maintained with the loss of personnel, resources, or facilities?



An organization's resiliency is directly related to its continuity capability

# Developing a COOP Plan

## Elements of the COOP Plan

- The front portion of the plan is foundational educational
- Describes the purpose, planning methodology, hazards and threats, protective measures, plan maintenance, testing, etc.
- The actionable elements of the plan are found in the Appendices including:
  - Staff succession and delegation of authorities
  - Mission essential functions
  - Incident action plan (IAP) and pre-defined tasks
  - Evacuation and Relocation procedures
  - Pandemic disease plan
  - Telework Procedures

## Key Steps in COOP Planning

- Identify mission essential functions based upon the organization's mission
- Identify mission essential positions and define their roles, responsibilities, and tasks
- Identify dependencies between functions and tasks (internal and external)
- Develop a staff succession plan and delegation of authority policies
- Identify vendor/contractor services and determine their readiness to provide support during a disruptive event

## Key Steps in COOP Planning Cont.

- Conduct a risk assessment to identify hazards and threats that represent risk to the organization
- Develop of prevention and protection controls to mitigate risks (physical and procedural)
- Develop of recovery procedures for functions and all systems (hardware, applications, data)
- Adopt an incident management methodology
- Develop and adopt crisis communication procedures (internal and external)
- Identify alternate work sites (AWS), facilities, and infrastructure

## Key Steps in COOP Planning Cont.

- Develop and adopt devolution of control and command procedures
- Develop reconstitution procedures to restore workforce capacity
- Train staff in COOP procedures
- Test and assess the plan annually using exercises



# Information Technology & Disaster Recovery



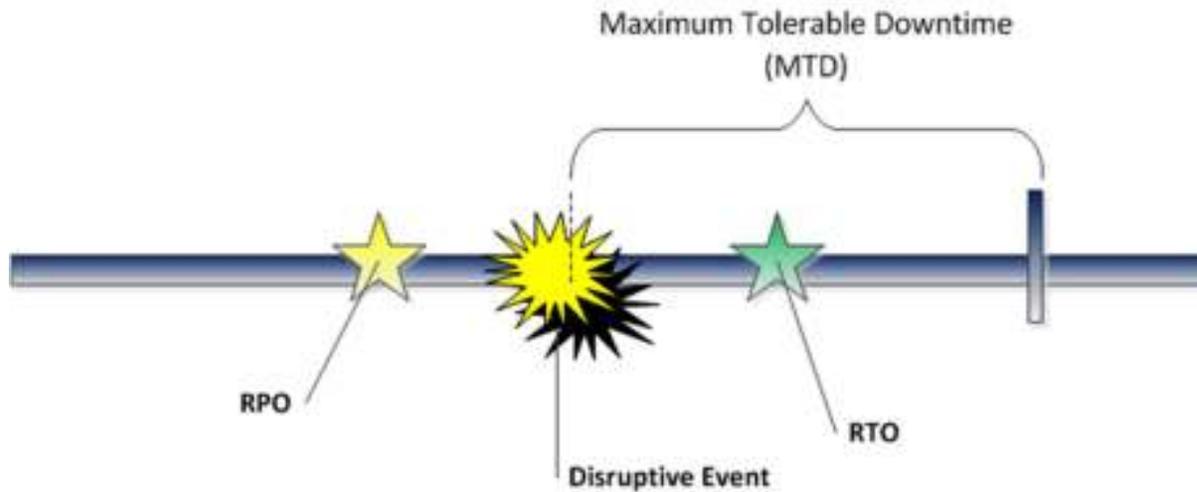
## Information Technology

### Systems security, resilience, and recovery assessment

- Identify critical systems, hardware, databases, and network infrastructure
- Physical and policy-based protective controls
- Primary and redundant communications systems
- Essential software applications and interfaces
- Identify and categorize vital records and data
- Adopt data and record preservation methods and procedures (i.e. backup, restoration, and archival procedures)



# Disaster Recovery



- 1) Determine Maximum Tolerable Downtime (MTD) for each application
- 2) Define Recovery Point Objectives (RPO)
- 3) Define Recovery Time Objectives (RTO)



# COVID-19 Lessons Learned



## COVID-19 Lessons Learned

- Having a well developed and practice continuity of operations plan
- Have more than one location you can operate out of
- Develop a schedule that minimizes the number of people in the communications room at one time
- Have a third plan in place in case the first two get tested or don't work out
- Increase and practice using technology that would allow for remote working conditions



# Resources



# Project Methodology and References

## COOP/DR References

- NFPA 1600 Standard on Disaster/Emergency Management and Business Continuity Programs
- NFPA 1221 Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems
- NENA 53-001 Communication Center/PSAP Disaster and Contingency Plans
- NENA 53-501 Hazard and Vulnerability Analysis
- NENA 04-503 Network/System Access Security
- APCO/NENA ANS 1.102.2-2010 PSAP Services Capability Criteria Rating Scale
- NIST 800-184 Guide For Cybersecurity Event Recovery

# National 911 Program

# COVID Task Force: 911 Stakeholders

- Association of Public Safety Communications Officials (APCO)
- National Association of State 911 Administrators
- National Emergency Number Association
  
- APCO Institute
- International Academies of Emergency Dispatch
- Power Phone
  
- US Marine Corps
- Defense Information Systems Agency

**Coronavirus/COVID-19 Resources**

News/Project - Coronavirus/COVID-19 Resources

On the frontlines of the healthcare system, telecommunicators and EMS clinicians are often the first to recognize a person potentially infected with the novel coronavirus. Telecommunicators are facing a surge in 911 calls from people who have questions about the virus, think they may have the virus or need other emergency assistance.

To help ensure 911 personnel can appropriately and safely serve the public during the evolving pandemic, the National 911 program is working closely with other federal agencies and national associations to provide up-to-date, accurate information.

**Webinar: What EMS and 911 Need to Know About COVID-19**  
The following webinar, led by the NHTSA Office of EMS, originally aired on February 24, 2020 and provides the latest guidance for first responders who may take 911 calls or treat patients with potential COVID-19 infections.

What EMS and 911 need to know about...  
Interim Guidance for EMS and 911

Below are links to resources available from the U.S. Government and non-government organizations featuring important information on COVID-19, including interim guidance.

Last Updated: May 26, 2020

Preparing/Managing Pandemic Response

Sample State & Local Policies

Additional COVID Resources

## ***“COVID-19 Pandemic Continuity of Operations Plan for Resurgence”***

- Outline
- Word format
- Intended to be altered/tailored
  
- COVID planning assumptions:
  - Resurgence
  - Concurrent incidents
  
- Contents are:
  - Technical
  - Operational
  - Administrative

