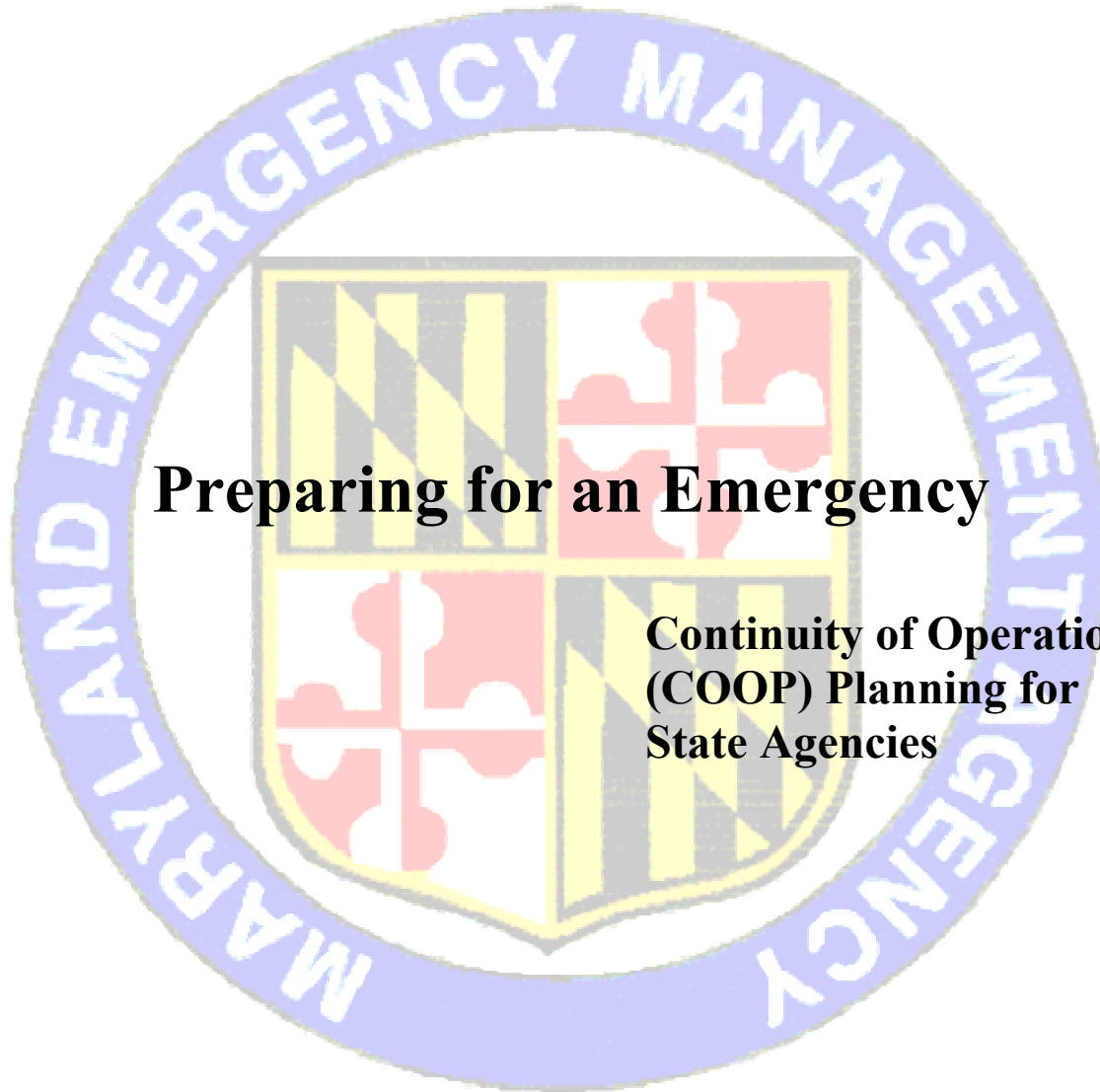


**MARYLAND STATE AGENCIES
CONTINUITY OF OPERATIONS PLANNING MANUAL**



Preparing for an Emergency

**Continuity of Operations
(COOP) Planning for
State Agencies**

January 2004

**Robert L. Ehrlich, Jr., Governor
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Preparing for an Emergency: COOP Planning for State Agencies



This manual was prepared with the assistance of the Center for Health and Homeland Security at the University of Maryland, Baltimore.

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Foreword

The State of Maryland's goal is to implement a comprehensive and effective program to ensure continuity of operations of state and local government under all circumstances. As part of this effort, the Maryland Emergency Management Agency (MEMA) is encouraging all State agencies to have in place a viable plan that ensures continuity of operations through a full range of potential emergencies.

MEMA, in association with the University of Maryland, Center for Health and Homeland Security, has developed this "how-to" manual to assist state agencies in enhancing their continuity of operations planning.

This manual covers the following areas:

- Starting continuity of operations planning;
- Identifying critical and essential activities and functions of the agency;
- Determining vital records, systems, and equipment and a process to safeguard and update these items;
- Evaluating needs and selecting an alternate work site;
- Developing an effective communications plan; and
- Testing and executing the continuity of operations plan and revising it periodically as necessary.

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Introduction to Continuity of Operations Planning

Consider the following scenario: a letter addressed to the director of your agency arrives at agency headquarters. Upon opening, the administrative assistant finds an anonymous note that has a powdery feel and strange scent. The administrative assistant throws the note away after concluding it is a hoax. The next day, he reports to work with a cough that gets increasingly worse, and ultimately, goes home sick. Two days later, custodial workers call in sick with similar symptoms. Testing of the administrative assistant’s waste basket shows traces of anthrax. Upon receipt of the results, the agency head immediately orders closure of the building until it can be tested and decontaminated. In such a scenario, would your agency be able to continue operating and how would it do that?

The answer to this question is continuity of operations (COOP) planning. COOP planning is the effort to ensure the continued performance of essential government functions during a wide range of potential emergencies. Whether the hazard is the result of a natural or human-induced event, an “all hazards” approach assures that, regardless of the emergency, essential functions will continue.

COOP planning results in the development of a COOP plan. COOP plans should be designed to be applicable in a wide variety of emergencies. Threats can vary from naturally occurring events to man-made incidents and telecommunication or power failures. While bombs and fires capture the headlines, almost 90% of emergencies are “quiet catastrophes.” These seemingly low profile disasters have as great a potential to disrupt the agency and cause problems as do the high visibility cataclysmic events. The following table lists the many potential threats.

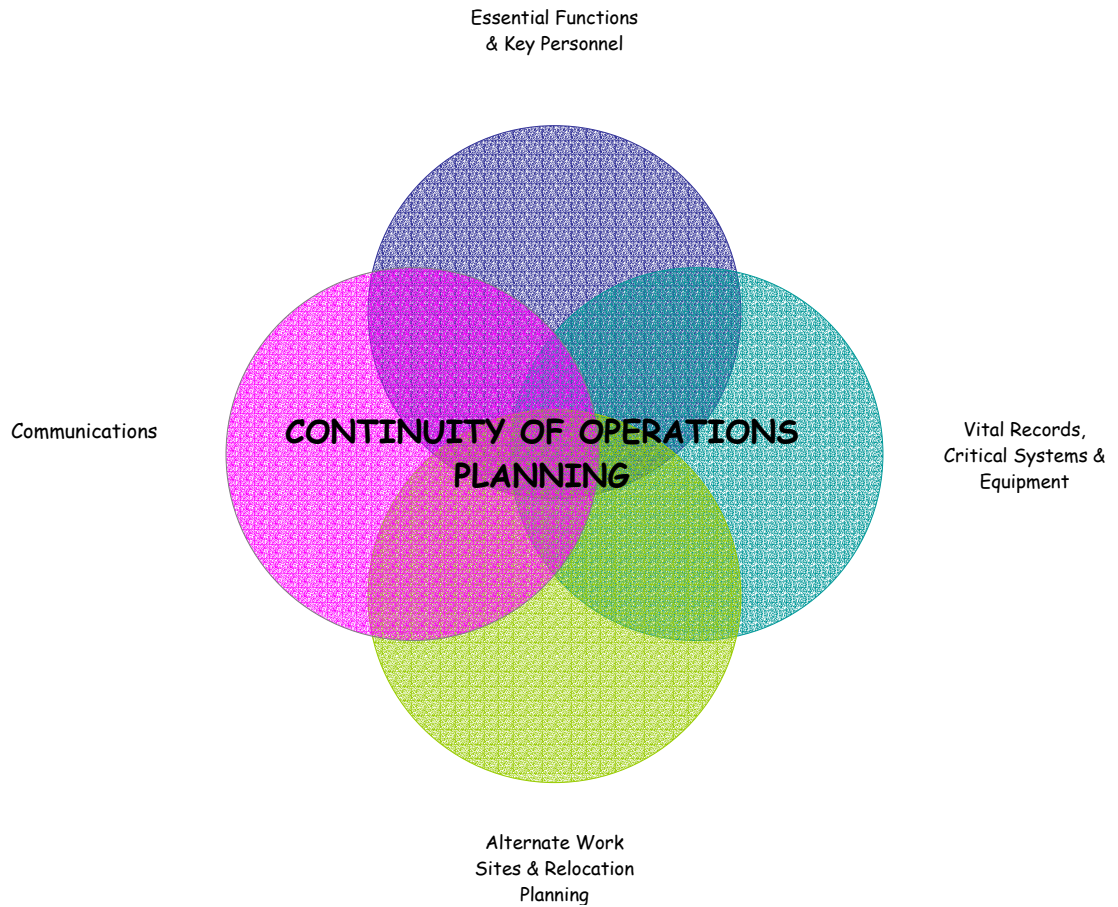
Naturally Occurring	Human-Induced	
	Intentional	Unintentional
<ul style="list-style-type: none"> • Tornados • High Winds • Electrical Storms • Ice Storms • Snowstorms and Blizzards • Floods • Earthquakes • Epidemics • Major Landslides • Hurricanes and Typhoons • Tropical Storms • Wildfires • Droughts 	<ul style="list-style-type: none"> • Misuse of Resources • Security Breaches • Theft • Fraud/Embezzlement • Fire/Arson • Vandalism • Sabotage: External and Internal Actors • Workplace Violence • Bomb Threats • Bioterrorism • Physical Terrorist Assaults • Labor Disputes/Strikes • Disruption of Supply Sources • Transportation System Disruption or Shutdown • Riot/Civil Disorder • War 	<ul style="list-style-type: none"> • Voice & Data Telecommunications Failures or Malfunctions • Software/Hardware Failures or Malfunctions • Unavailability of Key Personnel • Human Errors • Power Outages: External or Internal • Water Outages • Gas Outages • HVAC System Failures or Malfunctions • Accidental Damage to or Destruction of Physical Plant and Assets

Continuity of Operations Plan: A document which outlines a plan assuring the capability to continue essential agency functions across a wide range of potential emergencies.

There are four basic elements in a COOP Plan:

- 1) Essential Functions and Key Personnel;
- 2) Vital Records, Systems and Equipment;
- 3) Alternate Work Site(s) / Relocation; and
- 4) Communications.

These elements overlap. Often while devising a plan to cover one of these elements, ideas may arise which will change or augment the plan for another element.



A. Why COOP Planning?

The image is hard to erase in even the most cynical of minds. Two planes evaporate into the two tallest buildings in New York City. Black smoke billows into a cloudless September sky. The towers collapse, and with them, fathers, mothers, husbands, wives, brothers, sisters, and children are lost in the burning dust. A city and a country are paralyzed with fear and grief. How could such a thing happen in the United States, if at all? This question may never be satisfactorily answered, but the sad fact remains: terrorism is part of the American landscape today. Indeed, soon after September 11, 2001, Senate and other federal government buildings were contaminated with anthrax. Traces of the biological agent shut down the Hart Senate Office building for over three months.

Today, government faces a challenge unlike any before. In addition to terrorism, disasters from many causes are on the rise, not only in frequency, but also in severity. Some of the most recent examples include the largest power outage in over 30 years that struck entire states from Ohio to Connecticut to Canada for several days in August 2003. In Maryland, flooding from Hurricane Isabel in September 2003 destroyed many towns along the Chesapeake Bay and submerged downtown Baltimore and Annapolis in eight feet of water. Additionally, wildfires, earthquakes, transportation accidents and strikes, tornadoes, blizzards, plant explosions, computer viruses and technology failures have wreaked havoc and caused major disruptions to both public and private operations throughout the nation in recent years.

The fundamental mission of every Maryland state agency is reliability. Agencies provide vital services to the people of Maryland and cessation of these services can have a devastating effect on individuals. In the absence of a COOP plan, an agency cannot fulfill its mission should a crisis on any scale disrupt essential agency operations.

Simply put, COOP planning is “good business practice.” For years, such planning had been an individual agency responsibility that focused primarily on responding to emergencies within the confines of the organization. The content and structure of these plans, operational standards, and interagency coordination, if any, were left to the discretion of the agency. However, recent natural catastrophes and acts of terrorism have given government a better understanding of agency inter-relatedness, and consequently shifted awareness to the need for ensuring continuity of essential government functions across the State.

B. What Are The Goals Of COOP Planning?

COOP planning has five main goals:

- 1) Ensure continuous performance of essential agency functions and operations during an emergency;
- 2) Protect essential facilities, equipment, records, and other assets;
- 3) Reduce or mitigate disruptions to operations;
- 4) Minimize loss of life, injury, and property damage; and
- 5) Achieve a timely and orderly recovery from an emergency and resumption of full service to customers.

The key purpose of COOP planning is to reduce the consequences of a disaster to acceptable levels. Although when and how a disaster will occur is not known, the fact that future disasters will happen is certain. How well (or poorly) a COOP plan is designed and implemented will determine *response, resumption, recovery, and restoration*.

RESPONSE ➡ RESUMPTION ➡ RECOVERY ➡ RESTORATION

A comprehensive COOP plan provides a framework that establishes operating procedures to sustain essential functions when normal procedures are not possible and provides a guide for the restoration of normal agency operations and building functions.

In accordance with MEMA’s guidelines for COOP capability (see Appendix F: COOP Planning Guidance), state agency COOP plans:

- Must be maintained at a high level of readiness;
- Must be capable of execution both with and without warning;
- Must be operational no later than twelve hours after activation;
- Must maintain sustained operations for at least fourteen days; and
- Should take maximum advantage of existing agency field infrastructures.

COOP Considerations	
✓	Alternative modes of operation under conditions of uncertainty
✓	Vital systems and equipment
✓	Hardware/software requirements
✓	Communications requirements
✓	Advance preparations of the alternate facility so COOP can be activated
✓	Primary and alternate facility occupancy and resumption plans
✓	Internal reporting requirements
✓	Agreements with other state agencies
✓	Goal of providing essential functions for fourteen days

The first step in devising a COOP plan is defining agency resources, i.e. personnel and budget, among others. Based on this assessment, the agency can then determine its short and long term COOP planning goals and lay out a process for designing, developing and revising its COOP plan(s).

Defining agency resources corresponds to Phase I of the COOP Planning Model, explained below.



When devising a COOP plan, an agency must consider the assumptions underlying the plan. These assumptions include what threats will affect an agency’s ability to carry out its mission; the expected impact on the agency for each potential threat; the probability that each potential threat will occur; whether personnel or resources from other state agencies, municipalities, or organizations not affected will be available; that the agency will implement a plan within twelve hours after the event; and that the plan will provide for the ability to continue operations for at least fourteen days after the emergency.

COOP Assumptions

- ✓ Emergencies or threatened emergencies can adversely impact the agency's ability to continue to support essential functions and provide support to the operations of clients and external agencies.
- ✓ Emergencies and threatened emergencies differ in priority and impact.
- ✓ The vulnerability of the agency depends on the probability of an event occurring and the impact that event could have on operations.
- ✓ Agency and non-agency personnel and resources located outside the area affected by the emergency or threat will be available as necessary to continue essential functions.
- ✓ When a COOP event is declared, the agency will implement a predetermined plan using trained and equipped personnel.
- ✓ The agency will provide operational capability within twelve hours of the event and be able to continue essential operations for fourteen days or until termination of the event, whichever is earlier.

C. Who Is Responsible For COOP Planning?

Responsibility for COOP planning belongs not to a single division of an agency, such as the information technology department, but to agency management itself.

The head of each agency has several responsibilities:

1. Appointing an agency COOP coordinator or point of contact ("POC");
2. Developing a COOP Multi-Year Strategy and Program Management Plan;
3. Developing, approving and maintaining agency COOP plans for headquarters and all subordinate divisions of the agency;
4. Coordinating intra-agency COOP planning efforts and initiatives with policies, plans, and activities related to critical infrastructure protection;
5. Training of agency staff;
6. Participating in periodic interagency COOP exercises to ensure effective interagency coordination and mutual support; and
7. Notifying MEMA and other appropriate arms of State government upon execution of COOP plans. (See page i for MEMA contact information.)

Although the agency's director may delegate these tasks, the head of each agency should regularly monitor and be apprised of COOP team efforts. Moreover, there should be close coordination between agency management and the team responsible for COOP planning, regardless of its make-up.

MEMA is not responsible for developing individual agency COOP plans, but MEMA does play an important role as a coordinator of COOP activities across the State and as a provider of guidance to agencies and local governments. MEMA's duties include coordinating Executive

Branch agencies' COOP activities; providing guidance to agencies in the development of COOP plans; chairing a COOP Working Group (CWG), which serves as the principal interagency forum for discussion of COOP matters and for dissemination of information to agencies; coordinating interagency COOP exercises; and conducting periodic assessments of statewide COOP capabilities and reporting the results to the Governor.

D. How Does an Agency Start COOP Planning?

1. Business Continuity Planning

Business Continuity Planning (BCP) is the standard method by which businesses plan for COOP in an emergency. BCP involves several steps, which include performing a Business Impact Analysis (BIA) and a Risk Assessment (RA) (also referred to as Risk Analysis). It is impossible to properly plan for a disaster if the likely impacts of various disruptions on an organization are unknown.

A BIA is a means of systematically assessing the potential impacts of various events on operations. It allows an organization to understand the degree of loss that could occur from each potential disruption.

Business Impact Analysis: An evaluation of the strengths and weaknesses of an agency's disaster preparedness and the qualitative and quantitative impact an interruption would have on a business's operations.

A BIA has four basic components:

1. Asset Identification;
2. Hazard Identification and Profiling;
3. Vulnerability Assessment; and
4. Impact Analysis.

The first step in conducting a BIA is identifying the organizational assets that are required to perform the organization's core mission. The second step involves identifying the potential hazards or threats to these assets. The third step requires determining the susceptibility of the agency to the effects of each hazard or threat. The fourth and final step requires determining the impact each threat has on the organization. Assessing the impact of an event includes not only estimating the quantitative or economic losses but also the qualitative impact on the organization's ability to operate, i.e., psychological effects on employees and effect on the reputation of the agency.

Once the assets critical to an agency's operations and the potential threats to these assets have been identified in the BIA, the RA will establish the probability of an event causing disruption to an organization's operations. With this information, the RA then outlines a set of objectives and strategies for the prevention of, mitigation of, and recovery from loss.

Risk Assessment/Analysis: An evaluation of the probability that certain disruptions will occur and the controls to reduce organizational exposure to such risk.

Although the BIA and RA are two separate inquiries, they are closely related and essential steps in BCP; thus, they are often performed together and the terms are used interchangeably. Often, the RA is performed together with the vulnerability assessment in a BIA.

2. COOP Program Model

Looking to BCP and project management models employed by business, COOP experts have developed a model for the COOP planning process. A COOP program consists of seven phases:

- I. COOP Program Initiation;
- II. Identification of Functional Requirements;
- III. COOP Plan Design and Development;
- IV. COOP Program Implementation;
- V. COOP Training and COOP Plan Testing and Drills;
- VI. COOP Plan Revision and Updating; and
- VII. COOP Plan Execution.

a. Phase I: Project Initiation

The project initiation phase consists of the appointment of a COOP coordinator; organization of a COOP team and definition of roles and responsibilities during COOP planning and COOP plan execution; identification of resources for the COOP program; establishment of objectives, milestones, deliverables, and timelines; and determination of procedures for information gathering and decision making.

The first step in the COOP planning process is selecting a COOP coordinator, known as a POC, for the COOP planning process. As mentioned above, the agency head is responsible for the development and maintenance of a COOP plan for the agency. Although the head may act as the POC, it is often best for the agency head to designate another high level agency official as the POC.

The POC, with the agency head's careful input, assembles a COOP team to complete the plan and execute it when necessary. The size and membership of the team will depend upon the size of the agency, but regardless, team members should be able to work effectively under pressure. It is helpful if team members have had some experience in contingency planning or crisis management, but it is not necessary.

An effective COOP team has a good mix of agency professionals and includes members from all levels of agency management and staff. It also consists of members from various divisions of the agency, including those not directly related to the agency mission, such as human resources, accounting, and information technology. The team members can then act as COOP coordinators for their respective functions, elements or divisions. By having representatives from all the divisions within an agency, the agency can better develop and implement a comprehensive COOP plan and train all employees on its execution.

The COOP team should meet regularly not only throughout the process of developing a COOP plan, but also after a COOP plan is completed to revise and update the plan accordingly.

b. Phase II: Identification of Functional Requirements

After project initiation, COOP planning begins with an assessment of the agency's essential functions — those functions that are essential to achieving the agency's mission. (See Section I

of this document.) The ultimate goal of the COOP plan is to provide for the continuance of such essential operations in a coordinated fashion. (See Appendix F: COOP Planning Guidance.) This necessitates understanding what the agency needs to get done, even in an emergency, and what resources, i.e., personnel, records, systems, equipment, etc., are required to continue essential agency functions.

The functional requirements phase also includes the equivalent of a business impact analysis and risk assessment. After assessing the essential functions of the agency, the COOP team should examine the potential threats to the critical processes and resources that support agency essential functions. This exercise is crucial for the preparation of a thorough COOP plan.

c. Phase III: Plan Design and Development

In the COOP plan design and development phase, the COOP team should first decide on whether the plan should consist of one large plan with the four elements outlined above (Essential Functions and Key Personnel; Vital Records, Systems, and Equipment; Alternate Work Sites and Relocation; Communications) or of a series of smaller COOP plans, one for each major division of the agency. Whether the overall agency COOP plan consists of a single comprehensive plan covering all levels or components of an agency or of the individual COOP plans for each department or division of an agency depends on the structure of the agency, the complexity of its mission, and its available resources for planning. For example, an agency with few divisions and a narrow mission may opt for a single comprehensive COOP plan, while an agency with many divisions organized according to the agency's essential functions may construct a plan that links individual COOP plans for each division.

Maryland Department of Transportation (MDOT): MDOT's mission is to ensure that Maryland's transportation network meets the needs of our citizens and supports economic development throughout the State. To achieve its mission, MDOT has several essential functions:

- 1) Operation of mass transit, i.e. buses and trains;
- 2) Construction, maintenance and improvement of highways;
- 3) Operation of toll roads and bridges;
- 4) Operation and maintenance of ports;
- 5) Regulation of motor vehicles; and
- 6) Regulation of air transportation.

To carry out its essential functions, MDOT is organized into six modals:

- 1) Maryland Transit Administration,
- 2) State Highway Administration,
- 3) Maryland Transportation Authority,
- 4) Maryland Port Administration,
- 5) Motor Vehicle Administration, and
- 6) Maryland Aviation Administration.

Because MDOT has numerous operations, completion of a COOP plan for each modal would be appropriate. The overall MDOT COOP plan would identify these essential functions and then incorporate by reference the individual modals' plans.

An agency or division of an agency can use existing standard operating procedures (SOPs) and emergency operations plans (EOPs) as building blocks for development of a COOP plan. These plans typically include procedures for use in the event of an emergency, such as building evacuation plans; plans for notifying the public of new office or service center locations and phone numbers; plans for developing site-support procedures, including security for alternate facilities; and methods for acquiring resources necessary to sustain operations for up to fourteen days. Year 2000 (Y2K) plans are also good foundations for developing division COOP plans.

<p>Standard Operating Procedures: Procedures for the conduct of normal operations.</p> <p>Emergency Operations Plans: Plans for the conduct of operations during an emergency.</p>
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It is important to note, however, that SOPs and EOPs are not substitutes for COOP plans at any level. Each agency or division must thoroughly examine its operations in light of COOP concerns and use these procedures and plans only to assist in developing the COOP plan.

d. Phases IV – VI: COOP Program Implementation; Testing, Training and Drills; and COOP Plan Revision and Updating

The COOP Program Implementation phase involves the publication of the COOP plan. This phase overlaps with the subsequent phase: Training, Testing and Drills. (See Section V of this document.) Publication and distribution of the COOP plan(s) alone will not ensure the smooth execution of the plan when a disruption occurs. All agency staff must be educated on their role in COOP plan execution. Drills that simulate various disruptions and practice COOP plan execution must be conducted, and backup systems and processes must be tested for effectiveness. Likewise, COOP Plan Revision and Updating overlaps with the previous two phases, because the agency will identify problems and gaps in the COOP plan as a result of the training, testing and drills.

e. Phase VII: COOP Plan Execution

A final phase of a COOP program is the execution of a COOP plan during an actual disruption. This phase will be considered during plan development, because all COOP plans should contain strategies for resumption and recovery of operations that include procedures for emergency response; plan activation; communication; evacuation; and data preservation, salvage, and restoration.

E. USING THIS MANUAL

This manual provides guidance for the preparation and implementation of a COOP plan. The two main tools are the worksheets accompanying this manual and the sample COOP plan outline. (See Appendices B and C.) Completing the worksheets will assist an agency in assembling the information necessary to develop the critical components of a COOP plan. However, should your agency have any questions, please call MEMA for assistance.

Because every agency has a different mission, each agency's COOP plan will be unique. Therefore, merely filling in blanks on the worksheets is not a substitute for a plan that allows for

the continuance of agency operations in the event of a major disruption. The outline provides a bare-bones structure for the plan itself. This, along with the information gathered through use of the worksheets, will assist an agency in completing a cohesive and comprehensive COOP plan specific to that agency's mission and needs.

This manual will help answer the following questions:

- ❖ What are the agency's essential functions and key personnel?
- ❖ How can an agency's facilities, vital records, equipment, and other assets be protected?
- ❖ How can disruption to agency operations be reduced?
- ❖ How can damages and loss of life be minimized?
- ❖ Is it possible through planning to achieve timely and orderly recovery from an emergency, resuming full service to customers?

Tasks

This manual divides the data collection into tasks, and one or more worksheets are associated with each task. The completion of each worksheet leads to the completion of a task, and every task completed is another step toward completing the COOP plan.

Worksheets

The worksheets that correspond to each task provide the necessary directions and guidance for completion of the task. These worksheets should be photocopied as necessary and used to gather data for the COOP plan. They may also be used as templates for the agency's own spreadsheets and other applications. All of the worksheets can also be found in Appendix C.

Outline

The outline is essentially a table of contents for a COOP plan. By using the outline, an agency can develop a complete COOP plan with the basic COOP elements: essential functions and key personnel; vital records, systems, and equipment; alternate facilities; and communications. The outline is included as Appendix B.

Basics and Assumptions Boxes

These boxes provide information to clarify the main point of a section or task. The information given is merely a simplified version of the accompanying manual text.

Definition Boxes

The text boxes throughout the manual contain terms and concepts that warrant further explanation. These and other terms and phrases commonly used in COOP planning are defined in the Glossary found in Appendix A.

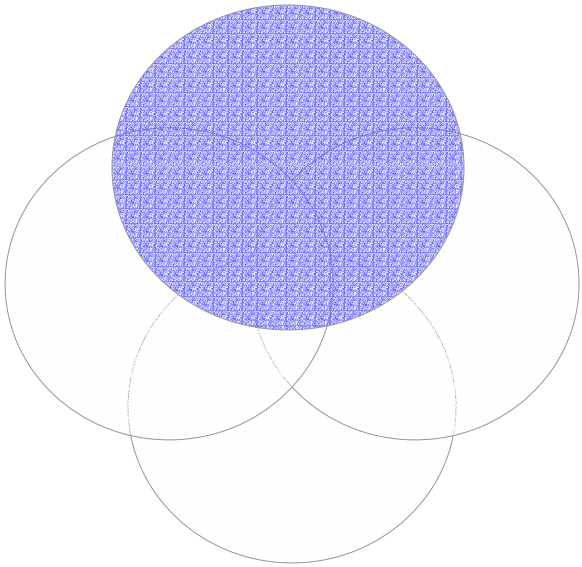
Example Boxes

The example boxes illustrate points that may need further clarification.

Appendices

The Appendices include state and federal resources useful in developing an agency COOP plan.

**SECTION I: ESSENTIAL FUNCTIONS AND
KEY PERSONNEL**



Section I: Essential Functions and Key Personnel

After organizing the COOP team and identifying resources for COOP planning, the first step in developing a COOP plan is identifying the agency's essential functions; their associated key personnel; and supporting critical systems/processes that must be sustained for at least fourteen days following a disruption. Essential functions encompass those critical areas of business that must continue even in the event of an emergency. In other words, they are those functions that must be performed to achieve the agency's mission. Each essential function, in turn, is supported by critical processes or services that are provided to the public, other divisions within the agency, or other state and federal agencies.

Section I corresponds to Phase II of the COOP Planning Model.



Essential Functions: Those functions that enable State agencies to provide vital services, exercise civil authority, maintain the safety and well being of the citizens, and sustain the industrial and economic base in an emergency.

Identifying an agency's essential functions requires an intimate understanding of all the agency's operations. Although many functions are important, not every activity the agency performs is an *essential* function that must be sustained in an emergency for fourteen days. Thus, the key to identifying essential functions is the agency mission.

A. Procedures and Techniques for Identification

There is no one way to identify an agency's essential functions. However, the asset identification step of a BIA offers one approach, which focuses on the organization's functions and their criticality. This can be modified for the governmental context into a four-step approach.

- 1) Identify all agency functions;
- 2) Identify essential functions;
- 3) Prioritize those functions; and
- 4) Determine essential function resource requirements.

1. Task A: Identify All Agency Functions

Use Worksheet 1, Agency Functions, to complete this task.

The agency's mission clearly outlines the basic purpose of the agency and is the first place to look to determine agency functions. Statements of an agency's mission are often in the legislation that created the agency. However, other sources, such as regulations promulgated by the agency, may also contain information on agency functions. Existing SOPs, EOPs and reports on agency operations usually offer a good starting point for identifying various agency functions.

Additionally, current and former agency employees are excellent sources of information on an agency's functions. Keep in mind, however, that an agency's mission may have changed over the years and the functions it was originally designed to perform may now be obsolete.

2. Task B: Identify Essential Functions

Use Worksheets 1, Agency Functions, and 2, Functions Questionnaire, to complete this task.

Once all the functions of the agency are identified for COOP planning purposes, narrow the list to only the essential functions. This can be accomplished by referring back to the agency's mission and considering the beneficiaries of the function. For example, if other agencies are dependent on a particular function to continue their operations, then the function is probably an essential function. EOPs may also give clues as to what agency functions are essential.

3. Task C: Identify Critical Processes and Services

Use Worksheet 3, Resource Requirements for Critical Processes and Services Supporting Essential Functions, in conjunction with Worksheet 2, Functions Questionnaire, to complete this task.

After the essential functions are determined, examine the processes and services that support them. Essential functions and their supporting processes and services are intricately connected. Each essential function has unique characteristics and resource requirements, without which the function could not be sustained. Those processes and services that are necessary to assure continuance of an essential function are considered critical.

Often, critical processes and services vary depending upon the emergency or if they have a time or calendar component. For example, a blizzard would make snow removal a critical service, while a hurricane would not. Likewise, snow removal is a critical service in the winter, but not in the summer.

Maryland Institute for Emergency Medical Services Systems (MIEMSS): More than half of the emergency medical activity in Maryland is concentrated in the Baltimore metropolitan area. Accordingly, MIEMSS operates a critical communications center to assist with the heavy demand for emergency medical services. The Emergency Medical Resources Center (EMRC) coordinates medical consultation between medic units and hospital physicians. EMRC facilitates simultaneous communication between the emergency medical technician handling multiple victims and several receiving hospitals, which saves time when minutes can make the difference between life and death. This communication function is considered an essential function for MIEMSS that has little to no allowable downtime.

Worksheet 1

Agency Functions

Task A. List All Agency Functions.

1. Examine agency legislative and regulatory mission.
2. Review existing SOPs and EOPs.
3. Talk to experts and former employees familiar with the agency.
4. In the first column of the table below, list all agency functions identified.

Task B. Identify Essential Functions.

1. Reexamine agency mission.
2. Examine the services the agency provides to other agencies and the public.
3. Identify supporting critical processes and services in column 2.
4. Indicate in column 3 which functions are “essential” after considering their relationship to the agency mission and their supporting critical processes and services.

The first two rows provide examples of essential and non-essential functions.

All Functions	Supporting Critical Processes & Services	Essential Function?
<i>Department of General Services; Procurement & Contracting</i>	<i>Emergency Procurement of Goods & Services for State Government</i>	<i>Yes</i>
<i>Automobile Registration and Titling</i>	<i>MVA Satellite Office Services</i>	<i>No</i>

Worksheet 2

Functions Questionnaire

This worksheet builds on Task B from Worksheet 1, Agency Functions. The objective of this worksheet is to determine essential agency functions and develop measures to minimize loss in the event of a disaster. If, at any point, the function is determined NOT to be essential, it is not necessary to complete the questionnaire for that function.

Function: _____

Services This Function Provides:

Other Agency Functions and Other Agencies that Depend upon this Function:

(Use reverse side if additional space is needed)

1. The loss of this function would have the following effect on the agency:
 - A. Catastrophic effect on the agency or some divisions
 - B. Catastrophic effect on one division
 - C. Moderate effect on the agency
 - D. Moderate effect on some divisions
 - E. Minor effect on the agency or some divisions

2. How long can this agency function continue without its usual information systems support? Assume that loss of support occurs during your busiest, or peak, period. Check one only.

Hours	_____	Up to 2 days	_____
Up to 1 day	_____	Up to 1 week	_____
Up to 3 days	_____	Other (please specify)	_____
Up to 1 month	_____		

Indicate the peak time(s) of year and/or a peak day(s) of the week and/or peak or most critical time of the day, if any, for this function or its associated applications.

(Month)	Ja	F	Mr	Ap	My	Jn	Jl	Au	S	O	N	D
(Day)	Su	M	T	W	Th	F	Sa					
(Hour)	1	2	3	4	5	6	7	8	9	10	11	12
	13	14	15	16	17	18	19	20	21	22	23	24

3. Are there any other peak load or stress considerations? _____

4. Have you developed/established any backup procedures (manual or otherwise) to be employed to continue agency functions in the event that the associated applications are not available? _____

If yes, how often have those procedures been tested? _____

5. The loss of this function would have the following legal ramifications due to regulatory statutes, contractual agreements, or law: (Specify the area of exposure)

6. The loss of this function would have the following negative impact on personnel in this agency: _____

7. The loss of this function would keep us from supplying the following services to the public and other state entities: _____

8. Specify any other factors that should be considered when evaluating the impact of the loss of the function: _____

9. Are there ANY other dependencies (staff, partner, vendor, software, unique resources, etc.) not already identified above? _____

10. Does an analysis of the responses to the above questions indicate that this function should be considered "essential" to the agency? If yes, indicate below when such label is appropriate:

Always _____
During the following period of the year: _____
During the following time of the month: _____
During the following time of the week: _____
Other time period. Specify: _____

Worksheet 3

Resource Requirements for Critical Processes and Services Supporting Essential Functions

Complete a separate worksheet for each essential function. First, list critical processes and services that support that function in the first column. Next, determine the personnel needed to perform that service, and in the last columns list all records, equipment, and systems needed to make that essential function operable.

Essential Function: _____

Critical Process or Service	Personnel	Records	Equipment and Systems

4. Task D: Prioritize Essential Functions

Use Worksheets 4, *Priority of Critical Processes and Services Supporting Essential Functions*, and 5, *Priority of Essential Functions*, to complete this task.

Once all essential functions and their supporting critical processes and services have been identified, prioritize the functions according to those activities that are pivotal to resuming operations when a catastrophic event occurs. Prioritization requires determination of the following:

- Time criticality of each essential function; and
- Sequence for recovery of essential functions and their critical processes.

An essential function's time criticality is related to the amount of time that function can be suspended before it adversely affects the agency's core mission. Time criticality can be measured by either recovery time or recovery point objectives. These are terms of art borrowed from Information Technology (IT) disaster recovery planning, but they can be used in the broader context of COOP planning. A recovery time objective (RTO) is the period of time within which systems, processes, services, or functions must be recovered after an outage. A recovery point objective (RPO) is more specific to information systems. It is the amount of data that can be lost measured by a time index. Thus, an RPO of one hour means that the last hour of data before the failure will not be recovered. Not all processes have RPOs, and some processes can have both a RPO and a RTO.

Recovery Time Objective: The amount of time that is allowable before the system comes back on line.

Recovery Point Objective: The amount of data that can be lost measured by a time index.

Deciding which essential function should be restored first in a crisis would be impossible without also considering their related critical processes and services. Critical processes or services are those that must be resumed soon after a disruption, generally within 24 hours. By contrast, secondary processes or services do not need to be resumed as quickly after a disruption.

Critical Process or Service: A process or service that must be resumed quickly, e.g., less than 24 hours after a disruption.

To determine time criticality for an essential function, it is necessary to determine the RTOs or RPOs, if applicable, for the critical processes or services that support it. On Worksheet 4, *Priority of Critical Processes and Services Supporting Essential Functions*, list those processes and services for each essential function that were identified previously. Then list the RTO and/or RPO for each process or service. Agency IT Disaster Recovery

Plans (DRP) usually have RTOs and RPOs for vital systems, and these can be used in estimating the RTO for an associated critical process or service. Also think about the operational dependence of other processes or services upon those under consideration. If a critical process or service is necessary to keep another operating, then it deserves a short RTO. Once the RTOs and RPOs, if applicable, have been determined for each critical process or service, order them according to RTO/RPO, putting those with the smaller figures first. The RTO for an essential

function is the smallest RTO/RPO on the list for critical processes or services that support that function.

After determining the time criticality of each essential function, prioritize them according to those that need to be recovered first. Those essential functions that have short RTOs should generally be recovered first. However, those functions upon which others depend should also receive a high priority in the sequence of recovery.

Maryland State Police: The mission of the Maryland State Police (MSP) is “to fulfill its role as the State’s lead coordinating law enforcement organization” and “to achieve public safety by improving the quality of life for the citizens of Maryland.” An essential function of the MSP is to work with local law enforcement authorities in the investigation of crime and apprehension of offenders. A critical system that supports this function is its radio dispatch system. In the event of an emergency, the RTO for this system would be very short — on the scale of minutes. It would also need to be recovered first, if it were to be disrupted. Given this high time criticality, the MSP’s essential function of crime investigation and apprehension would have a short RTO and, thus, a high priority in the MSP’s COOP plan.

Worksheet 4

Priority of Critical Processes and Services Supporting Essential Functions

Complete a worksheet for each essential function. In the first column, list the critical processes or services identified in Worksheet 3, Resource Requirements for Critical Processes and Services Supporting Essential Functions. In the second column, estimate the RTO and/or RPO, if applicable, for that process or service.

Essential Function: _____

Critical Process or Service	RTO	RPO	Priority
<i>Radio Dispatch</i>	<i>0 minutes</i>		

Worksheet 5

Priority of Essential Functions

Using the information in the previous worksheets, prioritize *essential functions*. In column 1 list all essential functions. Next, consider the RTO/RPOs for the supporting processes and services and estimate the RTO or RPO for the essential function. Indicate the RTO/RPO for each essential function in column 2. After determining the RTO/RPO for each essential function, assign a priority number in column 3, giving lower numbers to those functions with the shorter RTOs or RPOs and/or upon which other functions depend.

Essential Function	RTO/RPO	Priority

B. Key Personnel and Continuity of Government

Every employee is important to the achievement of the agency's mission. However, like critical processes and services, each essential function has associated key personnel and positions that are necessary to the continuity of agency operations. They represent strategically vital points in agency management and authority and underscore the essential functions of the agency that must be carried out. If these positions are left unattended, the agency will not be able to meet customer needs or fulfill its essential functions. That is why a comprehensive COOP plan always includes a succession planning and management component in the event these key positions suddenly become vacant. Succession planning and management ensures the continued effective performance of an agency by making provisions for the replacement of people in key positions.

Continuity of Government:
The continued functioning of constitutional government under all circumstances.

Succession planning and management is part of Continuity of Government (COG) planning, which seeks to maintain leadership in the event of an emergency. It consists of two components: delegation of authority and orders of succession.

1. Delegation of Authority

Delegation of authority in COOP planning ensures rapid response to an emergency situation that requires COOP plan activation.

Delegation of authority planning involves the following tasks:

- Identify which authorities can and should be delegated;
- Describe the circumstances under which the authority would be exercised, including when they would become effective and terminate;
- Identify limitations of the delegation;
- Document to whom authority should be delegated; and
- Ensure officials are trained to perform their emergency duties.

Delegation of Authority:
Pre-delegated authority for making policy determinations and decisions at headquarters, field levels, and other organizational locations, as appropriate.

a. Task E: Identify Authority to be Delegated

Use Worksheet 6, Authority to be Delegated, to complete this task.

There are two categories of authority that should be addressed in a delegation of authority plan: emergency authority and administrative authority. Emergency authority refers to the ability to make decisions related to an emergency, such as deciding whether to activate a COOP plan, deciding whether to evacuate a building, or determining which personnel should report for their duties. In an emergency requiring COOP plan activation, COOP team members are often the natural choice for assuming emergency authority. However, COOP team members are not the only candidates for such authority.

Administrative authority refers to the ability to make decisions that have effects beyond the duration of the emergency. Unlike emergency authority, administrative authority does not have

a built-in expiration date. Such decisions involve policy determinations and include hiring and dismissal of employees and allocation of fiscal and non-monetary resources. Statutory or constitutional law may limit the delegation of this kind of authority, and agency counsel may need to be consulted when determining this type of delegation of authority.

b. Task F: Establish Rules and Procedures for Delegation of Authority

Use Worksheet 6, Authority to be Delegated, and Worksheet 7, Delegation of Authority: Rules, Procedures and Limitations, to complete this task.

Vacancies in key positions can occur for a variety of reasons, and many times, vacancies are the result of non-emergencies, such as illnesses, leave of absences, and temporary assignments. Thus, the delegation of authority component to a COOP plan requires a list of conditions or events that will trigger the delegation of authority for that key position. Activation of any delegation of authority should be tied to the level of threat or category of emergency. (See Section V, Training, Testing, Drills, Execution and Certification, for Level of Emergencies.) The plan should also detail how the designee will assume authority and how agency staff will be notified of the delegation.

c. Task G: Identify Limitations on Authority to be Delegated

Use Worksheet 7, Delegation of Authority: Rules, Procedures and Limitations, to complete this task.

After identification of the authority to be delegated and establishment of rules and procedures, the next step is to identify limitations on the delegation. These limitations are often restrictions on the duration, extent or scope of the authority. The type of authority to be delegated will have inherent limitations. For example, emergency authority generally only lasts as long as the emergency exists. An individual with emergency authority may only make decisions regarding a single division or geographic area, or the designee may only make decisions necessitated by the emergency.

When delegating emergency authority, an agency ought to consider delegating authority among the key personnel in such a way to ensure that each has equitable shares of the duly established leadership. An agency should also provide training to officials on performance of their emergency duties. When delegating administrative authority, an agency also needs to examine laws and regulations governing the agency. Delegation of administrative authority is generally limited to upper management, but may be extended to middle management and non-management as necessary and allowed by law. Consult agency counsel for advice on delegation of administrative authority.

Delegation of Authority Basics	
✓	Identify which authorities should be delegated.
✓	Establish rules and procedures addressing: <ul style="list-style-type: none">▪ Conditions for succession▪ Method of notification
✓	Identify limitations of delegations.
✓	Identify to whom authorities should be delegated.
✓	Train potential successors on their duties in an emergency.

Worksheet 6

Authority to be Delegated

In this task, using the sample lines as a model, identify and describe the authority, and list those conditions that will trigger delegation of authority.

Authority	Type of Authority	Position Holding Authority	Triggering Conditions
<i>Close the office(s)</i>	<i>Emergency authority</i>	<i>Office Manager</i>	<i>When conditions make coming to or remaining in the office unsafe for staff and customers (Level III or above emergency).</i>
<i>Authorize emergency expenditures</i>	<i>Emergency Authority</i>	<i>Comptroller; Agency Head</i>	<i>When the agency head or designated official has declared an official emergency (Level III or above emergency)</i>
<i>Make budgetary proposals or amendments</i>	<i>Administrative Authority</i>	<i>Agency Head; Comptroller</i>	<i>When the agency head and comptroller are not available (Level V emergency).</i>

Worksheet 7

Delegation of Authority: Rules, Procedures and Limitations

Complete this worksheet for each position identified in the third column of Worksheet 6, Authority to be Delegated. Indicate the position on the line below and then list any rules for the delegation that may exist, outline procedures for the delegation including notification of relevant staff of the transfer of power, and limitations on the duration, extent and scope of the delegation.

Position: _____

Rules	Procedures	Limitations
<i>Must get approval by Governor.</i>	<i>Governor declares emergency and activates delegation plan; successor and then relevant staff are notified of delegation.</i>	<i>Successor remains in position until a new appointee is named and approved by the Maryland Senate.</i>

2. Order of Succession

Developing orders of succession for key positions is intertwined with determining delegation of authority in an emergency. In fact, one of the steps in delegation of authority planning outlined previously, “document to whom authorities should be delegated,” is essentially development of orders of succession.

Order of Succession: A formula that specifies who will automatically fill a position if it is vacated.

A comprehensive COOP plan will include an order of succession for *each key position*. Although orders of succession for key leadership and management positions within the organization, both at headquarters and in satellite facilities, are necessary for a comprehensive COOP plan, orders of succession are not limited solely to management positions. All organizations have non-management personnel who, because of their function in the organization, are critical to the accomplishing the organization’s goals.

It is preferable to identify key positions by the position title and not by the name of the person currently in the position, because different individuals may move through a single position, while positions tend to stay the same. Consequently, the orders of succession by key positions will need fewer revisions over time. Nevertheless, there may be a few individuals who have very specific knowledge, skills, and/or experience that makes them key players in the organization; thus, they may have to be named specifically.

- Order of Succession Considerations**
- ❖ Geographic Proximity
 - ❖ Organizational Proximity
 - ❖ Skills
 - ❖ Experience
 - ❖ Knowledge & Training
 - ❖ Personality

When identifying successors, COOP planners should consider the organizational and geographic proximity of the potential successor to the key position. A potential successor who is part of the same department or division (organizational proximity) is a good choice, because they already have an understanding of the key position. However, make sure that there is at least one successor in the order of succession, who is not located in the same office or facility in case the vacancy is due to a catastrophic event in a particular geographic location.

While the focus should be upon the skills, experience, knowledge, and training necessary for holding a specific key position, personality, such as a particular individual’s ability to work under pressure, may also be considered. An order of succession also requires sufficient depth. In other words, there may very well need to be more than one or two named successors in most circumstances.

To achieve the best results, all key positions should first be identified. The authority to be delegated, identified in the previous two worksheets, should already give some idea of which positions and personnel are key positions and personnel. However, there may be some key positions or personnel that have not been identified by looking solely at delegation of authority. Each of the following tasks represents a different technique for identifying key positions and personnel. After performing these tasks and gathering data with their associated worksheets, you will link the key positions identified to their essential functions on Worksheet 12, Essential

Functions and Key Positions, and then outline an order of succession for each key position in Worksheet 13, Order of Succession.

a. Task H: Prepare a Current Organization Chart

Use Worksheet 8, Current Organization Chart, to complete this task.

The first step in devising an order of succession is assessing the current organizational structure. This necessitates preparing a current organization chart by position and function, i.e., administrator, deputy administrator, consumer affairs division, etc. The chart may include the names of individuals in these positions, but should focus on the position, not the individual in the position at the current time. Under each function, the chart should list the key positions. When assessing the functions and key positions for each function, ask these questions:

- 1) What does this function uniquely contribute to the agency's mission?
- 2) Could this function operate effectively if this position were vacant?

The first question should be answered in terms of the inputs and outputs of that function relative to the agency's mission. The answer to the second question yields information on key positions. If the answer to this second question is "no", then ask, "*Why is that position so important?*" Is it because that person possesses specialized knowledge or carries out specialized duties? If so, then it is a key position. When assessing a leadership position for a function, ask, "*Does the staff working on that function lack the ability to perform without a leader?*" If the answer is "no", then ask, "*Why is the function able to operate without a leader?*" If other personnel are critical to this function, then the leader is not in a key position for this function. Tying key positions to essential functions in this manner makes evident any gaps between a function and a person performing part or all of that function.

b. Task I: Examine the Consequences Resulting from a Vacancy

Use Worksheet 9, Consequences Resulting from a Past or Existing Vacancy, to complete this task.

When the agency is missing a person who is in a key position, it is obvious. Decisions cannot be made, needs cannot be satisfied, orders cannot be shipped, etc. Basically, if there is an absence in a key position, essential agency functions are not being fully met. By examining agency organization in this manner, key positions are recognized by the consequences of a vacancy or anticipated vacancy.

c. Task J: Identify Key Positions By Questioning

Use Worksheet 10, Key Positions By Questioning, to complete this task.

Another method is to question agency management and staff. Agency managers generally have a strong grasp of their areas of responsibility. Ask them questions such as, "*What positions in your areas of responsibility are so important that if they suddenly became vacant, your part of the agency would face major problems in achieving your essential functions?*" Another approach would be to ask staff, "*In an emergency, would it be necessary for you to be present at the agency facility to perform your job?*" As with all delegations of authority questions, focus on position titles, as opposed to the names of persons in these positions.

d. Task K: Identify Key Positions By Historical Evidence

Use Worksheet 11, Key Positions by Historical Evidence, to complete this task.

Has the agency experienced a crisis in the past that resulted in an unexpected departure by key position incumbents? If so, use evidence of this past event as an indication of where key positions are located. Contact those supervisors who were present during the vacancy to find out which departures posed the greatest problem and why they posed such a problem.

Once key positions have been identified, an agency needs to maintain information about these positions. For example,

1. Who occupies those key positions now? What are their qualifications/backgrounds?
2. What are the work requirements for key positions?
3. Where are the key positions located in the agency?

Maryland Department of Natural Resources (MDNR): The MDNR “preserves, protects, enhances and restores Maryland’s natural resources for the wise use and enjoyment of all citizens.” In line with its mission, the MDNR is organized into four divisions:

- Management Services;
- Land and Water Conservation;
- Forests, Parks, Fish, and Wildlife; and
- Chesapeake Bay Programs

These divisions are further divided into various programs and services. For instance, the Natural Resources Police are within the Management Services Division. The Natural Resources Police provide a variety of services in addition to conservation and boating law enforcement duties throughout the State of Maryland. These services include search and rescue, emergency medical services, education, information and communications services on a round-the-clock basis. Given their function, a key position would be the colonel who heads the police force. Likewise the head of the State Forest and Park Service under the Forests, Parks, Fish and Wildlife Division would be a key position, particularly in an emergency involving State natural resources, such as a wildfire.

e. Task L: Determine Orders of Succession for Each Key Position

Use Worksheets 12, Essential Functions and Key Positions, and 13, Order of Succession, to complete this task.

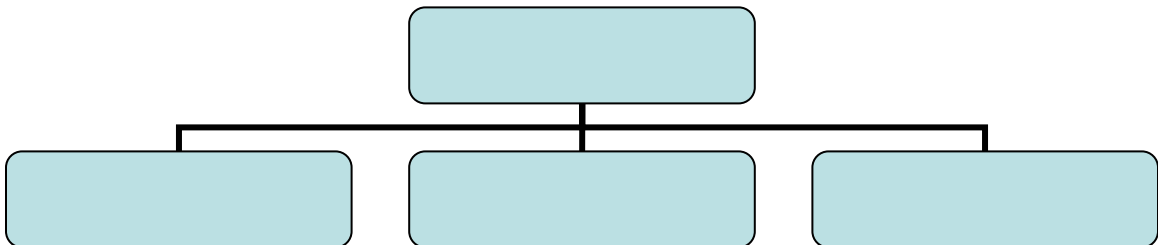
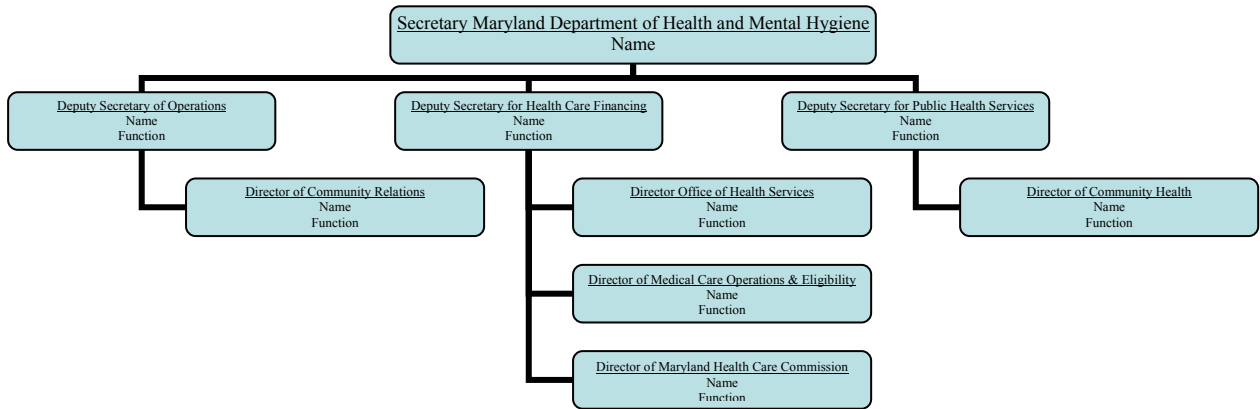
After determining the authority that should be delegated; studying the agency’s organization chart; examining the consequences resulting from a current or past vacancy; questioning current and former agency employees; and examining historical evidence; identify key positions for each essential function in the agency in Worksheet 12, Essential Functions and Key Positions.

Once key positions and personnel have been identified by essential function, determine the positions in Worksheet 13, Order of Succession, which would assume the authority of the key position if it became vacant unexpectedly. Consider the qualifications necessary to perform in the key position and the qualifications of the successor positions, as well as organizational and geographical proximity. The same successors may be named for different key positions, but avoid designating the same successor as the first successor to several key positions.

Worksheet 8

Current Organization Chart

Using the example organization chart below, complete an organization chart for your agency.



Worksheet 9
Consequences Resulting from a
Past or Existing Vacancy

For this task, list positions that have been vacant in the past and the consequences of those vacancies. If a position vacancy in the past caused major problems and disruptions in the provision of agency services, the position could be considered a key position.

Position Vacancy	Consequences

Worksheet 10
Key Positions by Questioning

For this task, ask agency personnel about their positions and management what they regard as key positions within the agency. Complete the table, identifying the positions (preferably not individuals) that are critical to agency operations and the problems the agency may face if the position was vacant.

Position	Problems Faced if Vacant

Worksheet 11

Key Positions by Historical Evidence

For this task, examine past agency emergency events. What positions were most important during the emergency? What skill set or educational requirements made that position key? Where is that position located within the agency? Location refers both to the office or division as well as the physical location, i.e. city/county.

Fill out the table below using this information. Be as detailed as possible. This task will not only help identify key positions, but also certain qualifications to look for to create orders of succession and determine delegation of authority.

Position	Qualifications	Location

Worksheet 12

Essential Functions and Key Positions

With the information gathered in the previous six worksheets, identify key positions for each essential function in the agency. The first row provides an example.

Essential Function	Key Positions
<i>Women, Infants, and Children Nutrition Program</i>	<i>1. Director 2. Database Manager 3. Regional Coordinators 4. WIC Center Managers</i>

Worksheet 13

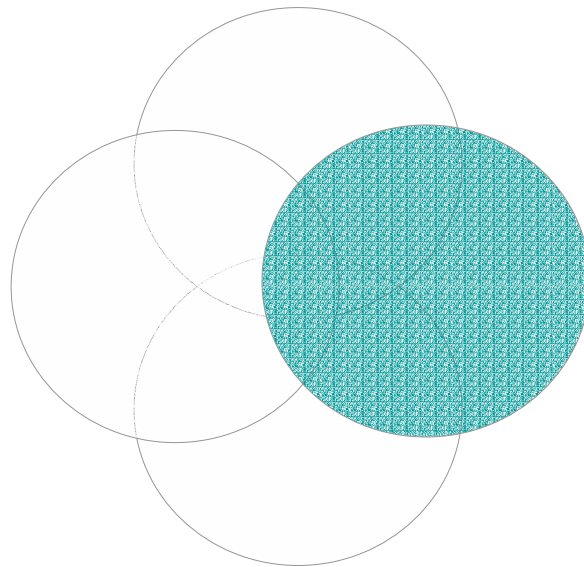
Order of Succession

Complete a worksheet for each essential function. In the first column below, list the key positions identified in Worksheet 12, Essential Functions and Key Positions. Then in the remaining columns, list the positions that would assume the authority of the key position if it became vacant unexpectedly, i.e., illness, injury, special assignment, termination of employment, etc. Consider the qualifications necessary to perform in the key position and the qualifications of the successor positions, as well as organizational and geographical proximity. The same successors may be named for different key positions, but avoid designating the same position/person as the first successor to several key positions.

Essential Function: _____.

Key Position	Successor 1	Successor 2	Successor 3	Successor 4

Section II: Vital Records, Systems, and Equipment



Section II: Vital Records, Systems, and Equipment

Section II corresponds to Phase III of the COOP Planning Model, Plan Design and Development.



A successful COOP plan provides for the protection, accessibility, and recovery of the agency's vital records, systems, and equipment. These are the records, systems, and equipment that if irretrievable, lost, or damaged will materially impair the agency's ability to conduct business and carry out essential functions.

Every agency should have a maintenance program in place for the preservation and quality assurance of data and systems. Such a program should take into account the cost of protecting or reconstructing records weighed against the necessity of the information to achieving the agency mission. COOP planning takes advantage of the maintenance programs already in place and may improve upon them to achieve optimal readiness for disruptions to an agency's essential functions.

A. Vital Records

In COOP planning, vital records are those records to which agency personnel must have access to carry out essential functions. This should not be confused with the general meaning of the term "vital records" – birth, marriage, and death records. The term has a broader definition in the COOP context. (See Appendix D: Federal Preparedness Circular 65 at D-8.) They are typically in one of three forms: paper, electronic, or microfilm.

Vital Records: Records or documents, regardless of media, which, if damaged or destroyed, would disrupt agency operations and information flow, cause considerable inconvenience and require replacement or re-creation at considerable expense.

A COOP plan should address not only a system for protection and recovery of vital records in an emergency, but also a vital records program for normal operations. Every agency should have a vital records program. COOP planning for vital records includes assessment of any vital records programs in place and the improvement or development of a program to provide for the optimal protection, duplication, and preservation of records. This maintenance program, as well as procedures for the recovery and restoration of records, forms the basis of a vital records program.

There are five major tasks in COOP planning for vital records:

Assessment Sub-plan: A plan that examines the current vital records program, if any, and identifies the strengths and weaknesses of the program in terms of record preservation and recovery.

- 1) Write an assessment sub-plan.
 - If a vital records program is in place in the agency, the plan should lay out the steps for reviewing the current status of the program.
 - If there is no program in place, the plan should outline how the program will be developed and administered.

- 2) Develop forms for gathering information.
- Create a questionnaire to assist offices in identifying vital records.
 - Use Worksheet 3, Resource Requirements for Critical Processes and Services Supporting Essential Functions, or create a form listing essential functions and all records supporting those functions.

Disaster Recovery: The methodical restoration and reconstitution of operations after a disruptive event that destroys or damages an organization's facilities, equipment, systems, data, records, and other assets.

Tip: Disaster recovery companies may have forms that can be adapted for this purpose. Consider consulting them before designing forms on your own. The Maryland State Archives (MSA) can provide lists of disaster recovery companies.

- 3) Identify vital records.
- Vital records may include part or all of a series or group of records.
 - These records usually include personnel records and system documentation.
- 4) Review protection needs for each vital record and compare with current program.
- 5) Develop a restoration and recovery sub-plan.

Vital Records Program Basics

- ✓ Assign responsibility for program implementation and execution.
- ✓ Ensure vital records are evaluated on the basis of their necessity in carrying out essential functions.
- ✓ Ensure that emergency operating records vital to the continuity of essential functions during an emergency will be available at alternate work sites in the event that these sites are activated.
- ✓ Safeguard legal and financial records essential to the preservation of legal rights and interests of individual citizens and the government.
- ✓ Ensure vital records are easily retrievable and maintainable.
- ✓ Ensure that current inventory of vital records is readily accessible.
- ✓ Outline procedures for, and prioritize the recovery of, vital records during an emergency.
- ✓ Ensure damage to vital records during an emergency is minimized.
- ✓ Provide procedures for recovery of damaged records.

1. Task M: Identify Vital Records

Use Worksheet 14, Vital Records, to complete this task.

The key to identification of vital records is looking to the agency's essential functions and their supporting critical processes and services. In Worksheet 3, Resource Requirements for Critical Processes and Services Supporting Essential Functions, you have already identified the records needed to perform essential functions. With that worksheet, determine those records that are necessary for emergency operations and/or the recovery or the continuation of agency essential functions for at least fourteen days and list them in Worksheet 14, Vital Records. Also indicate whether these records are time-critical, that is they are needed within 72 hours of the disruption.

Identifying vital records is somewhat like identifying agency essential functions. The agency may perform many functions, but not all are essential. The same can be said about records, all may be important, but not all are vital. For this task remember the following maxims:

- Only a small percentage of the agency records are vital, that is, essential to emergency operations and to the agency's continuance, or that are difficult or impossible to replace.
- Although records designated as permanent are often vital, the length of time a record is retained does not necessarily mean the record is vital, nor does a record once designated as such remain so forever.
- Vital records may be in any format or medium. Original records are not necessary. It is the information, not the medium that is most important.
- If the information is contained in a medium other than paper, consideration must be given to the technology required to access the information and the availability of that technology in the event of an emergency. For example, if the record is on microfilm only, the COOP plan should include provision of film readers in an emergency.

Maryland State Archives (MSA): The MSA is the very model of records management. The MSA is responsible for the "management of public records and for the collection, custody, and preservation of the official records, documents, and publications of the State." This includes maintenance of databases for other State agencies. Thus, many MSA records would qualify as vital records in the COOP sense.

Maryland Family Health Administration (MFHA): An example that reflects the situation of most agencies is the MFHA under the Department of Health and Mental Hygiene. The MFHA administers the Women, Infants and Children Program, a federally funded program that provides healthy supplemental foods and nutrition counseling for pregnant women, new mothers, infants and children under age five. The records of beneficiaries, such as eligibility and benefits received, would be vital to continued operation of the supplemental food program during a disruption. However, the nutritional counseling may not be a critical service during an emergency, and thus, their associated records may not be vital.

2. Task N: Identify, Select and Arrange for Protection Methods

Use Worksheet 15, Vital Records Protection Methods, to complete this task.

The next step after identification of vital records is determination and selection of protection methods. This necessitates first looking at the current methods of protection and preservation. The routine maintenance program for the records in question may be sufficient for the protection of information in the event of a disruption to an agency's critical processes and services. However, the effectiveness of the protection method should always be evaluated in light of COOP concerns. The COOP team should look at the current backup and retention schedules for each vital record and ask if the files should be backed up more often or retained for greater periods. Another measure to consider is the replication of an agency's server in an alternate facility or scanning paper records. The team should also consider storing duplicate files off-site, if they are not currently so stored, or upgrading the current storage facilities to provide greater protection from fire, water, thermal damage, theft, or sabotage. Another form of protection is limiting access to records through various security systems and procedures.

Providing an off-site storage facility where duplicated vital records and documentation may be stored for use during disaster recovery is an important tool. Records that need to be duplicated and stored off-site should be identified along with the type of duplication. Further, those records that need to be stored in fire resistant equipment *on-site* along with those records requiring special consideration need to be identified. Agency facilities immediately able to accommodate electronic records, including programs for running the systems and system documentation must also be identified, as well as sites that could be readied to accommodate these functions if an emergency arose. (See Section III: Alternate Work Sites and Relocation Planning.)

Regular back up and transfer of files to an alternate location is a very effective form of protection for vital records. It eliminates the need for extensive recovery; however, it becomes more expensive the more often it is performed. The MSA has the statutory responsibility for government records management and is a repository of permanent electronic and paper records for State agencies. Consider consulting MSA for assistance in assessing your agency's records management program. The Records Management Division of the Department of General Services also offers off-site storage of disposable records. (See the information box for contact information for these two resources.)

Maryland State Archives

(800) 235-4045
(410) 260-6400

350 Rowe Boulevard
Annapolis, MD 21401

www.mdarchives.state.md.us

archives@mdarchives.state.md.us

**Records Management Division
Department of General Services**

(410) 799-1930

3. Task O: Identify Restoration and Recovery Resources

For this task, use Worksheet 16, Restoration and Recovery Resources.

It is said that prevention is the best cure; however, there may be situations where the protection methods employed fail. In such a circumstance, an agency must turn to its vital records recovery sub-plan. Because vital records are often part of vital systems and equipment, a single disaster recovery plan often addresses both records and systems/equipment. The information technology (IT) department should have a disaster recovery plan in place for IT systems and equipment. Accordingly, COOP teams should consult with their respective IT staff for assistance in COOP planning for recovery of vital electronic records. However, the inquiry does not stop at the IT department door. COOP teams should also identify restoration and recovery resources for non-electronic records.

The MSA has a Conservation Department that specializes in the assessment and mitigation of damaged paper records and can advise other agencies on restoration and recovery planning. The MSA also maintains a list of recovery companies that agencies can contact for assistance. It is a good idea to contact potential contractors and assess their capabilities before an emergency resulting in loss of or damage to vital records. In that way, agencies will not waste time during an emergency figuring out who to call and vital records can be restored more quickly when the need arises.

Worksheet 14
Vital Records

Using the information gathered in Worksheet 3, Resource Requirements for Critical Processes and Services Supporting Essential Functions, list those records that are absolutely necessary for the continued operation of critical processes or services for fourteen days. Do not include records that may be useful but are not essential to performing the service. Also indicate whether these records are time-critical – needed within 72 hours of an emergency.

Vital Record	Description	Associated Critical Service or Process	Form of Record	Type of Record	Time Critical?
<i>Emergency Operation Plan</i>	<i>Plans that outline procedures for the division during an emergency.</i>	<i>Toll Bridge and Tunnel Operations</i>	<i>Paper and Electronic</i>	<i>Emergency</i>	<i>Yes</i>
<i>Payroll</i>	<i>Information on salaries and earnings of employees</i>	<i>Supports all essential functions.</i>	<i>Electronic</i>	<i>Financial</i>	<i>No</i>

Worksheet 15

Vital Records Protection Methods

For each vital record identified in Worksheet 14, Vital Records, list where the records are kept; how often they are backed up or revised; and any particular methods of protection, including security measures. Those vital records that have no protection other than backup or duplicate copies may be candidates for additional protection measures. In those cases, consider and recommend additional protection methods in the last column.

Vital Record	Storage Location	Maintenance Frequency	Current Protection Method(s)	Additional Protection Method(s)
<i>Emergency Operation Plan</i>	<i>Microfilm copies at headquarters; hard copies in offices of management personnel.</i>	<i>Review and Revision Annually</i>		
<i>Payroll Records</i>	<i>Off-site storage facility in Annapolis area</i>	<i>Backed up weekly on Mondays</i>	<i>Second Database maintained in separate system at a secured site.</i>	

Worksheet 16

Restoration and Recovery Resources

List all record recovery and restoration resources, contact information and services available below. Include evening, holiday, and emergency/alternate contact information, as well as contact information for regular business hours.

Company Name	Contact Name	Address / Phone	Services
<i>Maryland State Archives</i>	<i>Conservation Dept.</i>	<i>350 Rowe Boulevard Annapolis, MD 21401 (800) 235-4045 (410) 260-6400</i>	<i>Consulting; limited damage assessment and restoration of paper records.</i>

B. Critical Systems and Equipment

A system or piece of equipment is critical if it is essential to emergency operations and/or to the agency's continuance of critical processes and services during a crisis for a minimum of fourteen days. COOP planning for critical systems and equipment should proceed in the same way as planning for vital records. The first step is to identify critical systems and equipment and the second step is to select and arrange protection methods for them.

Many of the critical processes supporting essential agency functions include or consist entirely of IT systems and applications. For this reason, the IT component of any agency plays a vital role in COOP planning. However, the IT component is not ultimately responsible for developing COOP plans. COOP planning is the responsibility of the agency head and the designated POC and COOP team, not of the agency's IT department. Many IT departments already have recovery plans in place, such as disaster recovery plans (DRPs) or EOPs, which can be incorporated into an agency's COOP plan. (See Appendix G: IT and COOP Readiness Survey.) However, these plans are not the same as and cannot be substitutes for COOP plans, because they are usually only limited to the IT systems' recovery in the event of an emergency.

Information Technology (IT):
Systems and applications, generally computer-based, which assist in the collection, storage, analysis, and communication or transfer of data and information to other systems and/or individuals.

As discussed above, many systems and equipment are computer based and are handled by the IT department. However, there are other procedures or equipment that may not be electronic, i.e., transportation and phone systems, and a COOP team should not rely solely on the IT staff to provide for backup, protection, and recovery of all vital systems and equipment.

For vital systems to remain operational in the event of an emergency, an agency should aim to generate a COOP plan sufficiently detailed so that even a non-technical employee could recover the basic systems in an emergency. This entails establishing a clear RTO and RPO (see Section I, A. 4. Task D. Prioritize Essential Functions and Appendix A: Glossary) and priority for resumption of each essential function and its supporting vital systems and equipment.

1. Task P: Identify Vital Systems and Equipment

Use Worksheet 17, Vital Systems and Equipment, to complete this task.

As with vital records, identify those systems and equipment that are essential to the functioning of the agency and the continuance of the agency's mission. Bear in mind that not every system or piece of equipment is vital, even if it is important. The timing of a system's or piece of equipment's use may also bear on whether it is vital or not. For example, the DOT's snow plows are vital during and immediately after a blizzard, but are not vital during the summer.

Maryland Office of the Comptroller (MOC): The MOC provides IT services critical to the daily operation of most state agencies. Acting as Maryland's chief accountant, the comptroller pays the state's bills, maintains its books, prepares financial reports, and pays state employees. The MOC's financial systems are vital to not only the achievement of MOC's mission, but also to the continued operation of every agency in the State of Maryland.

Maryland Institute for Emergency Medical Services Systems (MIEMSS): MIEMSS is the lead organization responsible for coordinating Maryland's statewide emergency medical services (EMS) system. A vital system is its dispatch system that coordinates provision of emergency medical transport services. Vital equipment includes emergency vehicles such as ambulances and helicopters.

2. Task Q: Select and Arrange Protection Methods for Critical Systems and Equipment

Use Worksheet 18, Critical Systems and Equipment Protection Methods, to complete this task.

Review the list of vital systems and equipment and assess the best method of protection. The assessment will depend on the nature of the system or equipment, but a protection plan for systems and equipment should include maintenance programs that regularly test these systems and equipment and the associated protective measures for optimal performance. For instance, backup power generators should be checked regularly.

3. Task R: Prioritize Recovery of Critical Systems and Equipment

Use Worksheet 19, Critical Systems and Equipment Priority, to complete this task.

After identification of critical systems and equipment and determination of protection measures for each, prioritize how systems and equipment should be recovered in the event of a disruption. When prioritizing, consider the recovery time or recovery point objectives (RTOs/RPOs) for the critical processes and services that these systems support. This information was gathered in Worksheet 4, Priority of Critical Processes and Services Supporting Essential Functions. Also, review the IT disaster recovery plan or any EOPs in place, which generally include such information.

It is also important to consider if a system or piece of equipment is dependant upon another particular system or piece of equipment to be operable. For example, computer systems are dependant upon an electrical supply to be operable. Therefore, resumption of power would have to occur before the computer system could be up and running. As with critical processes and services, there might also be a calendar component, such as a disruption to the electronic tax return filing system would be a greater problem in April than in August.

Worksheet 17

Critical Systems and Equipment

Using the information gathered in Worksheet 3, Resource Requirements for Critical Processes and Services Supporting Essential Functions, list those systems and equipment that are absolutely necessary for the continued operation of critical processes or services for fourteen days. Do not include systems or equipment that may be useful but are not essential to performing the service.

Vital System or Equipment	Description	Type of System	Associated Critical Process or Service
<i>MVA Vehicle Registration and License Database</i>	<i>Contains information on all automobiles registered in the State of Maryland</i>	<i>Computer system linked to a national database.</i>	<i>Instantaneous registration verification system for law enforcement.</i>

Worksheet 18

Critical Systems and Equipment Protection Methods

For each vital system or equipment identified in Worksheet 17, Critical Systems and Equipment, list the location(s) of the system/equipment, maintenance frequency, and any particular methods of protection. If there are no protection methods in place or those in place do not seem sufficient, suggest additional methods in the last column.

Vital System or Equipment	Location	Maintenance Frequency	Current Protection Method(s)	Additional Protection Method(s)

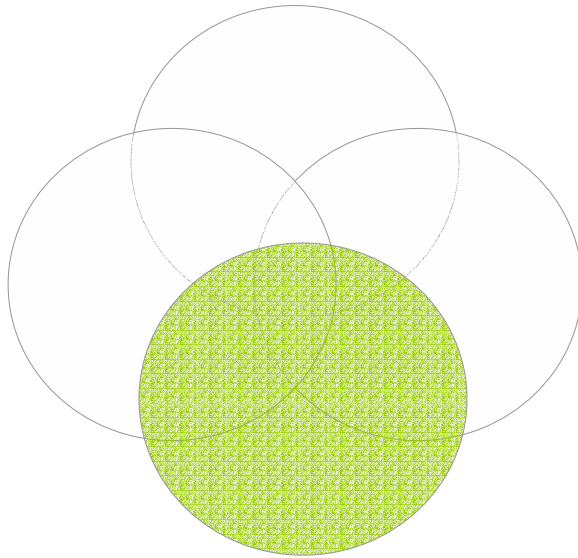
Worksheet 19

Critical Systems and Equipment Priority

List each vital system and piece of equipment identified in Worksheets 17, Critical Systems and Equipment, and 18, Critical Systems and Equipment Protection Methods. With the information gathered in Worksheet 4, Priority of Critical Processes and Services Supporting Essential Functions, indicate the RTO or RPO, whichever is applicable, for that piece of equipment. Also indicate if there are any systems that depend upon that system to be operable. Then, based on the information obtained, determine the order in which each system or piece of equipment should be recovered in the last column.

Critical System or Equipment	Associated Critical Process(es) or Service(s)	RTO or RPO (if applicable)	Dependant Processes or Systems	Priority

Section III: Alternate Work Sites and Relocation Planning



Section III: Alternate Work Sites and Relocation Planning

Section III corresponds to Phase III of the COOP Planning Model.

Another important element of a COOP plan is the designation of alternate work sites and a relocation sub-plan. In some emergency scenarios, activation and execution of a COOP plan may not necessitate relocation to an alternate facility, i.e., the agency will not be forced to abandon the primary work site. However, should leaving the primary work site be necessary, there is a three-step process to relocation: (1) Activation and Relocation; (2) Alternate Facility Operations; and (3) Reconstitution.



The first step occurs in the first twelve hours after a disruption to agency operations requiring abandonment of the primary facility. This step relies heavily upon communication, not only between the POC/COOP team and affected agency personnel, but also between the agency and vendors, who will be providing services for the move to temporary quarters, and the public. The second step involves the conduct of operations in an alternate work site and lasts until the agency director has declared an end to the emergency. Generally, operations in the alternate facility should be limited to only the essential functions of the agency. All alternate facilities must have the capability to sustain essential functions for fourteen days. The third step involves the return to regular agency quarters and resumption of normal agency operations.

Step	Time Frame	Activity
Step I- Activation and Relocation	0-12 Hours	<ul style="list-style-type: none"> • Notify alternate facility manager of impending activation and relocation requirements. • Notify MEMA. • Activate plans to transfer to alternate facility. • Notify key personnel to relocate. • Instruct all personnel on duties. • Assemble documents/equipment required for essential functions at alternate facility. • Order needed equipment/supplies. • Transport documents and designated communications. • Secure original facility. • Continue essential functions at regular facility, if available, until alternate facility is ready. • Advise alternate facility on status.
Step II- Alternate Facility/Work Site Operations	12 Hours to Termination of Emergency	<ul style="list-style-type: none"> • Provide guidance to non-essential employees and information to the public. • Identify replacements for missing personnel (delegation of authority and orders of succession). • Commence full execution of operations supporting essential functions at the alternate facility.
Step III- Reconstitution	Termination and Return to Normal Operations	<ul style="list-style-type: none"> • Inform all personnel that the threat no longer exists. • Supervise return to normal operating facility. • Conduct a review of COOP plan execution and effectiveness.

A. Alternate Work Sites

In the event that an emergency forces a work area, such as a mailroom, or an entire building to be evacuated, key agency personnel should relocate to an alternate work site, which allows the agency to carry out its essential functions and meet the needs of emergency personnel.

Alternate Work Site: A location where the agency can carry out essential functions when the critical facilities are inaccessible.

Because the need to relocate may occur without warning, agencies should make every effort to pre-position, maintain, or provide for minimum essential equipment for continued operations of essential functions at the alternate operating facilities for a minimum of fourteen days.

There are several types of alternate work sites and all have different capacity levels. The type of work sites chosen may depend on agency needs, budgetary concerns, or the level of the emergency (see Section V, COOP Training, Testing, and Drills; COOP Plan Execution and Certification, below). An agency should not limit itself to one alternate work site. Several can be chosen. For instance, an agency can have one type of alternate site available for lower level and short term emergency operations and a larger and more equipped site set up for use in higher level emergencies.

Hot Site	A hot site is an alternate facility that already has in place the computer, telecommunications, and environmental infrastructure necessary to recover the agency's essential functions.
Warm Site	A warm site is an alternate work site equipped with some hardware and communications interfaces, as well as electrical and environmental conditioning that are capable of providing backup after additional software or customization is performed and/or additional equipment is temporarily obtained.
Cold Site	A cold site is an alternate facility that has in place the environmental infrastructure necessary to recover essential functions or information systems, but does not have preinstalled computer hardware, telecommunications equipment, etc. Arrangements for computer and telecommunications support must be made at the time of the move to the cold site.

An agency can opt to set up an independent facility for emergency use only. In selecting an alternate work site, the criteria for selection should include the following factors:

- Size of potential alternate facility and space requirements for agency essential functions;
- Design of the potential alternate facility and its adaptability for agency operations;
- Security requirements;

- Communication requirements of the agency’s essential functions;
- Location of potential alternate facility relative to the primary facility;
- Ability to obtain outside services at the potential alternate work site;
- Availability of mass transit to the alternate facility;
- Contractual obligations presently in place;
- Budget constraints; and
- Level of emergency.

Another option for an alternate work site is a pre-existing facility already in use by the agency. A tornado may destroy one of the agency spaces, but leave another building or work area untouched. Those agencies with multiple facilities may find it easier to move into buildings or work areas not damaged. In determining alternate facility locations, consider the geographic impact of the disruption and use the following guidelines:

- Localized Event: 0-60 mile radius from current location
- Widespread Event: 60-150 mile radius from current location

Often, due to fiscal constraint, operating and maintaining a separate alternate work site is not within the means of an agency. If this is the case for your agency, consider entering into cooperative or mutual aid agreements, and using virtual office technologies. With a cooperative agreement, an agency can contract for use of another agency’s facility in an emergency. Or the arrangement can be less formal as in a mutual aid agreement. A mutual aid agreement involves two agencies agreeing to help each other in the event of an emergency. Several agencies may also opt to contract together with an outside vendor for use of an emergency facility. A word of caution: in making these agreements, be sure to assess whether the potential cooperative/mutual aid partner has similar agreements with other agencies in place and if these might conflict with the agreement at hand. A large-scale disaster could affect many agencies that have contracted with each other or for use of the same space in an emergency.

Cooperative Agreement: Any formal, legally-binding contract between two or more parties where the parties agree to share an alternate facility.

Mutual Aid Agreement: As between two or more entities, public and/or private, the pre-arranged rendering of services in terms of human and material resources when essential resources of one party are not adequate to meet the needs of a disaster or other emergency.

1. Task S: Identify Requirements for Alternate Work Sites

Use Worksheet 20, Requirements for Alternate Work Sites, to complete this task.

Before identifying options for alternate work sites, first identify the work site needs of the agency by essential function.

2. Task T: Identify Various Options for Alternate Work Sites

Use Worksheet 21, Alternate Work Site Options, to complete this task.

Current facilities owned or used by the agency should be considered first as options for alternate work sites. These are good candidates for hot, warm, or at least cold sites. If an agency does not have suitable additional facilities or none of those are deemed appropriate as potential sites, the COOP team should consider entering into a mutual aid agreement with another agency to use their facilities or an agreement to share an alternate work site. Mutual aid agreements can be made for hot, warm or cold sites.

When identifying possible alternate facilities, bear in mind that an alternate facility, at a minimum, should be capable of accommodating the following features:

- 1) Immediate capability to perform essential functions under various threat conditions;
- 2) Sufficient space and equipment to sustain the relocating agency;
- 3) Ability to communicate with all identified essential internal and external organizations, customers, and the public (see Section IV, Communications);
- 4) Reliable logistical support, services, and infrastructure systems, including water, electrical power, heating and air conditioning, etc.;
- 5) Ability to sustain essential functions for fourteen days;
- 6) Appropriate physical security and access controls; and
- 7) Consideration for the health, safety, and emotional well-being of relocated employees and customers, i.e., number of wash rooms, parking, accessibility for the disabled, etc.

Finally, assess whether the potential alternate work site may be susceptible to some risk, such as flooding. If the potential alternate site is located in a flood zone or faces some elevated risk of physical damage, it may not be an ideal alternate work site.

B. Relocation Planning

Identification of alternate work sites is of little use if there is no plan for relocating personnel and resources suddenly because of an emergency. Relocation planning focuses on several issues:

- Communications between agency management, agency personnel, emergency personnel, other agencies, agency customers and the general public (see Section IV, Communications, below);
- Logistics; and
- Provision for the needs of staff both at the primary, if operational, and alternate facilities.

1. Task U: Provide for Transportation, Lodging and Food

Use Worksheet 22, Transportation, Lodging, and Food, to complete this task.

In the event that the agency has to move to an alternate facility, the needs of staff operating at the facility must be met. This includes provision for logistical support and lodging through arrangement with vendors for transportation, hotels, catering, etc. Be sure to address the needs of employees with disabilities as required by the federal Americans with Disabilities Act.

In addition to the physical needs of agency personnel, the COOP plan should also address their emotional needs. Regardless of their origin, disasters affect the motivation and morale of employees, which affects their productivity. Furthermore, employees will experience greater stress levels, even if the COOP plan is implemented flawlessly. A COOP plan may include provisions for counseling and plan for readjustments of work assignments for those who are incapacitated by the emotional impact of a disaster such as a terrorist attack (*e.g.*, death of a family member). These concerns should be tailored to the type and duration of the disruption.

2. Task V: Provide for Security and Access

Use Worksheet 23, Security and Access, to complete this task.

Not only does the alternate work site need to be identified and the care of staff arranged, but the security and access to both the primary and the alternate facilities during emergency and non-emergency situations need to be arranged. The security procedures should be able to accommodate all hazards and include provisions for identifying access restrictions.

Worksheet 20

Requirements for Alternate Work Sites

For this task, identify the requirements for the alternate work site by essential function. Requirements include personnel, special needs, power, communication, and space. The example given in line one of the table is a general guide for the type of information that should be provided.

Essential Function	Number of Personnel	Human Needs (special)	Power	Communication	Space Requirements
<i>Administration</i>	<i>4 employees</i>	<i>Food & Lodging</i>	<i>Standard</i>	<i>4 telephones, long distance, one satellite dish</i>	<i>400 sq. feet</i>

Worksheet 21
Alternate Work Site Options

This task serves several purposes. Not only will it help identify a variety of alternate work sites, the worksheet may also be used to track memoranda of understanding (MOU), leases, occupancy and cooperative agreements, and contracts with other entities for facility use.

Facility	Agreement	Date Executed	Annual Cost	Special Notes
<i>Calvert Street</i>	<i>MOU with Finance Office for 400 sq. feet</i>	<i>8/20/03</i>	<i>0</i>	<i>Desks will be provided</i>

Worksheet 22

Transportation, Lodging, and Food

Complete the table while identifying the personnel needed for each essential function and keeping in mind that not all personnel will need to be present at all times.

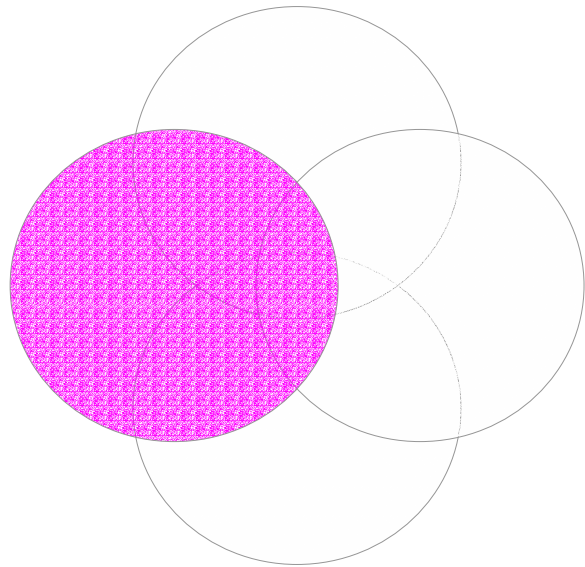
Essential Function	Number of Personnel	Sleeping	Food	Transportation	Vendor Agreements
<i>Administration</i>	<i>20</i>	<i>4 single beds</i>	<i>Food Service for 25</i>	<i>From primary to alternate work site or from personnel home/center location to work site.</i>	<i>Contract with Cots 'R Us dated 8/20/03 Contract with Food 2 Go dated 8/20/03; Contract with Purple Bus for Shuttle Services.</i>

Worksheet 23
Security and Access

Each essential function may need a different level of security and secure storage. List the alternate facility for each essential function (could be the same for several essential functions) and determine security needs for each.

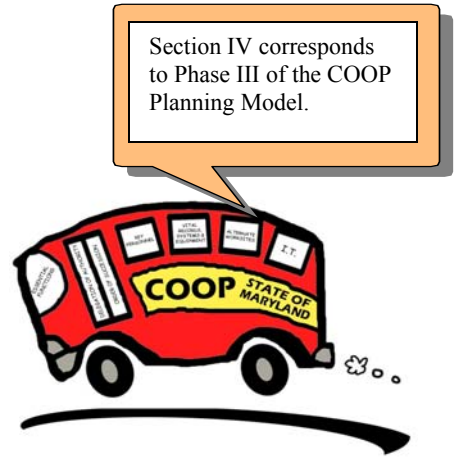
Essential Function	Alternate Facility Address	Number of Personnel	Security	Secure Storage Available?
<i>Administration</i>	<i>100 N. Calvert St.; Baltimore</i>	<i>4 employees</i>	<i>Normal</i>	<i>Yes</i>

Section IV: Communications



Section IV: Communications

Communications planning, the final part of phase three of the COOP planning model, is central to the COOP plan. Without effective and reliable methods for communication in an emergency, all the planning would be meaningless and the situation would quickly erode to chaos. The communications component of a COOP plan requires well-defined chains of communication with alternative means of communicating should the primary telecommunications systems, i.e., telephones, faxes, internet, not be functioning.



Communications Planning Goals

- ✓ Capability commensurate with agency's essential functions and activities.
- ✓ Ability to communicate with the COOP team, management and other agency components.
- ✓ Ability to communicate with agencies, to which services are provided, as well as emergency personnel.

Agencies should strive to maintain communications capabilities commensurate with the agency's essential functions at all times. The COOP plan should facilitate communication between the POC/COOP team, management and agency staff and should provide for communication with other agencies, as well as emergency personnel. The plan should also provide a means for notifying customers of agency relocation and procedures for contacting the agency and conducting business in an emergency.

The first step in communications planning is to assess those communications systems supporting each essential function. The second step is to identify controls that could prevent interruption of primary communication channels and alternative modes of communication in case the primary modes of communication are not available. The final step is to create a chain of communication for emergency situations.

A. Communication Systems Supporting Essential Functions

Task W: Identify Communication Systems Supporting Essential Functions

Use Worksheet 24, Communication Systems Supporting Essential Functions, to complete this task.

As with previous tasks, the key to identifying communications systems is reviewing the critical processes and services that support the agency's essential functions.

In most organizations today, business is conducted primarily through telecommunications, i.e., telephone or email. These telecommunications systems generally support the entire agency and are not specific to a particular function. Nevertheless, some agency functions have communication methods that are peculiar to that function. For example, the Maryland Department of Natural Resources police have a radio communication system.

Telecommunications: Digital, electronic or automated systems used in transmitting messages between remote locations. Examples include telephone, cable, radio, television, email and internet service.

When identifying communication systems, do not forget intra-agency communication systems that link various divisions and functions within an agency. There may also be interagency systems — integrated systems tying the communication systems of two or more agencies together. For example, the Department of Budget and Management monitors the financing and expenditures of other State agencies.

Maryland Department of Budget and Management, Division of Telecommunications: The Division of Telecommunications coordinates the development, procurement, management and operation of telecommunications equipment, systems, and services by State government; provides radio frequency coordination for state and local agencies in accordance with Federal Communications Commission regulations; and administers the Telecommunications Access of Maryland (TAM) program to provide dual party telephone relay service to Maryland's hearing and speech disabled citizens. These communications services are vital to state's operations, because other agencies and local governments depend upon the Division of Telecommunications.

B. Preventative Controls and Alternative Modes of Communication

1. Task X: Identify and Implement Preventative Controls

Use Worksheet 25, Preventative Controls for Communication Systems, to complete this task.

As with vital records, preventative controls are necessary in mitigating risks to those communication systems that support essential functions, both at the primary and alternate work sites. Examples of preventative controls include the following:

- Uninterruptible power supplies to provide short-term backup power to system components;
- Air-conditioning systems with adequate excess capacity that, despite failure of certain components, allow continued functioning of the entire system;
- Fire and smoke detectors;
- Water sensors in the ceiling and floor for computer and telecommunications rooms;
- Gasoline or diesel powered generators to provide long-term backup power;
- Fire suppression systems;

Preventative Controls: Preventive controls attempt to avoid the occurrence of unwanted disruptions such as data loss through power outages, equipment malfunction and destruction.

- Emergency master system shutdown switch; and
- Technical security controls.

An agency should assess those preventative controls that are best for each particular mode of communication and then compare those controls to the protective measures now in place at both the primary work site(s) and at any alternate work sites.

2. Task Y: Identify Alternative Modes of Communication

Use Worksheet 26, Alternative Modes of Communication, to complete this task.

When preventative controls fail, an agency should have alternative providers and/or modes of communication in place to fill the gap. This can be handled by having a separate emergency communication system set up or by using communication systems already in place. For example, cellular phones could be an alternative mode of communication for voice lines.

Service providers offer special services for emergencies, such as telecommunications services priority (TSP). This service gives an agency’s telecommunications circuits priority allowing communications to get through when all circuits are busy. Check with your agency’s service providers for information on any emergency communications services. Worksheet 24, Communication Systems Supporting Essential Functions, provides space to list any available emergency services. Consider also providing radios, satellite phones or other special communication devices to COOP team members for use in an emergency.

3. Interoperability

Because of the need to coordinate efforts with the federal, state, and local governments, i.e. fire and police, agencies with first responder roles, such as MEMA, have special communications considerations. Interoperable communications systems (i.e., systems that can be used to communicate between departments of a single jurisdiction or different jurisdictions) are critical in allowing emergency personnel to communicate with each other.

Interoperability: The ability of a system or a product to work with other systems or products without special effort on the part of the user.

Unfortunately, one agency’s radios often cannot be used to communicate with another agency. Also, encryption/privacy protocols can be different and thereby interfere with incident management. They must be “turned off” to allow communication across departments and jurisdictions. If your agency plays a “first responder” role as one of its critical functions, you should give serious consideration to interoperability issues.

First Responder: Persons that arrive first on the scene in an emergency; typically ambulance, fire department, and police.

Another consideration is communication between systems at the alternate work site(s) and the primary facility. There may be situations where the data systems at the primary facility are still functional, but the primary work site is inaccessible to humans, e.g., contamination of building with a biological or chemical agent. The plan should try to ensure that systems at alternate facilities can communicate with systems at the primary facility.

Worksheet 24

Communication Systems Supporting Essential Functions

Complete a separate worksheet for each essential function. Review information already gathered on vital systems and equipment for clues on communication systems that support critical processes and services and, in turn, their associated essential functions. In this chart, list the current vendor and its contact information; the services the vendor is currently providing the agency; and any special emergency services the vendor has to offer.

Essential Function: _____

Communication Mode	Current Provider	Services Provided	Special Services Available
Voice Lines			
Fax Lines			
Data Lines			
Cellular Phones			
Pagers			
E-mail			
Internet Access			
Instant Messenger Services			
Blackberry and Other Personal Digital Assistants (PDAs)			
Radio Communication Systems			
Other			

Worksheet 25

Preventative Controls for Communication Systems

Complete a worksheet for each facility and indicate whether the facility is a primary or alternate work site. Identify all the optimal preventative controls for each communication system and then list the preventative controls currently in place for that mode of communication.

Work Site: _____ **Primary or Alternate?** _____

Communication System	Optimal Preventative Controls	Preventative Controls Currently In Place
Voice Lines		
Fax Lines		
Data Lines		
Cellular Phones		
Pagers		
E-mail		
Internet Access		
Instant Messenger Services		
Blackberry and Other Personal Digital Assistants (PDA)		
Radio Communication Systems		
Other		

Worksheet 26

Alternative Modes of Communication

Copy the information gathered in Worksheet 24, Communication Systems Supporting Essential Functions, into this table and identify alternative providers and/or modes of communication. Communication systems already in place can be named as alternative modes for other modes of communication. For example, radios could be an alternative mode of communication for voice lines.

Communication System	Current Provider	Alternative Provider	Alternative Mode #1	Alternative Mode #2
Voice Lines				
Fax Lines				
Data Lines				
Cellular Phones				
Pagers				
E-mail				
Internet Access				
Instant Messenger Services				
Blackberry and Other Personal Digital Assistants (PDAs)				
Radio Communication Systems				
Other				

C. Media Relations

Another critical consideration in COOP planning is the media. The media play an important role in disseminating information to the public; however, great care must be taken in managing contacts with the media to avoid the spread of misinformation and unfounded rumors. Agencies should consider having a representative from media relations on the COOP team. If that is not possible, at a minimum an agency should designate a contact person for the media in its COOP plan. This person will be responsible for preparing press releases and regularly speaking with the media regarding the agency's response to the crisis.

D. Chain of Communication

Task Z: Create a Personnel Contact List (Rapid Recall List)

Use Worksheet 27, Personnel Contact List (Rapid Recall List), to complete this task.

An emergency or disaster could strike at any time, not just during work hours or off hours during the work week. A clear and organized plan for communication between key personnel, general agency staff and the public is necessary to ensure efficient implementation of a COOP plan.

The centerpiece of a communications plan is a rapid recall list (RRL). An RRL is a cascading list of first responders, i.e., police, fire department, EMS, and key agency personnel, such as the POC, COOP team members, emergency personnel within the agency, and agency management, in order of notification. In other words, the first person on the list, generally the agency director, is the first to be contacted by the POC in the event of an emergency. That person in turn is responsible for contacting next person below his or her name on the list. If the next person on the list is not available, the person should contact the person below that person on the list and so on until he or she is able to speak with someone.

Rapid Recall List:
Cascading list in order of notification of key agency personnel and outside emergency personnel

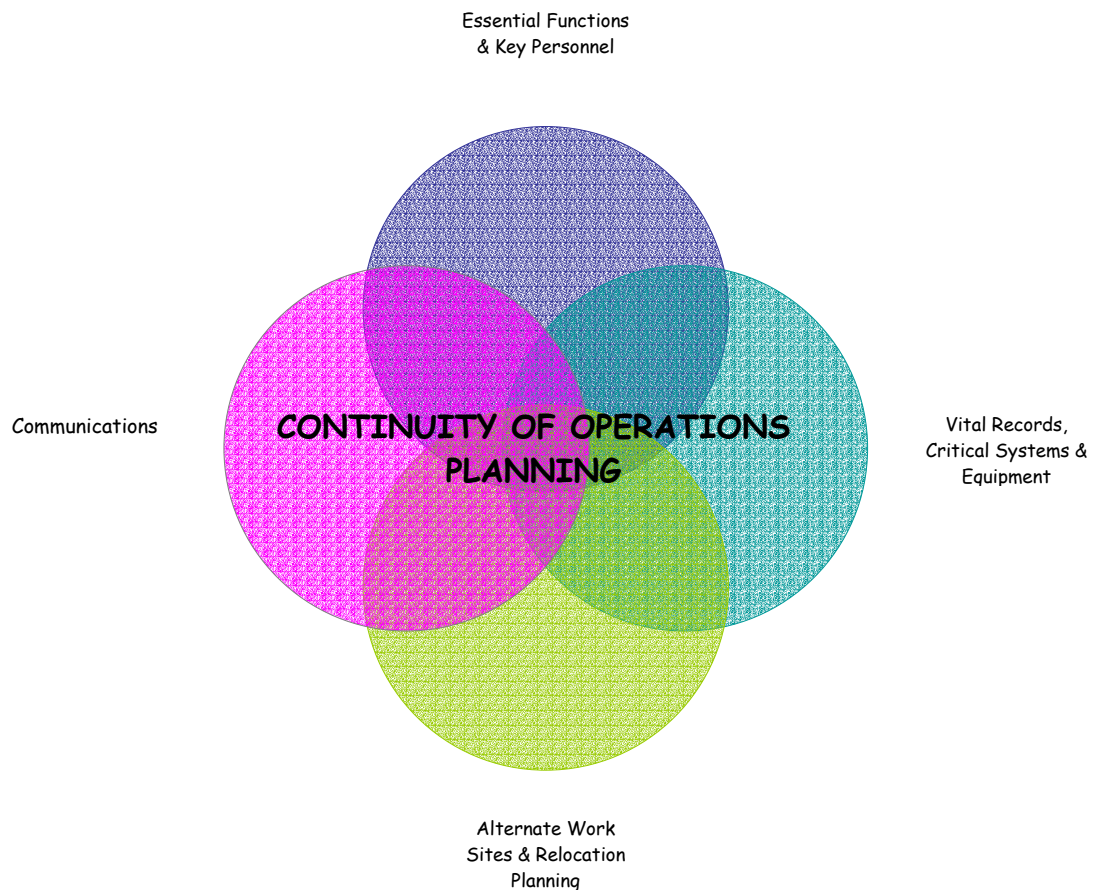
The list should contain the business, home, pager, and cellular numbers for each individual, and any alternate means of communication, i.e., email or two way radios, should the phone lines be incapacitated. Members of agency management on the list will also be responsible for communicating to the staff in their department.

Worksheet 27
Personnel Contact List
(Rapid Recall List)

The Personnel Contact List is a short document with a cascade call list and other critical phone numbers. The cascade list should include COOP team members, key personnel, agency management and emergency personnel, both inside and outside the agency. The POC will activate the list and initiate the first contact with the agency head and COOP Team.

Employee Cascade List	Email Address	Work #	Home #	Cellular or Pager #
Agency Head				
COOP Team				
• Employee A				
• Employee B				
• Employee C				
• Employee D				
• Employee E				
• Employee F				
• Employee H				
Key Personnel & Management				
• Employee I				
• Employee J				
• Employee K				
• Employee L				
• Employee M				
Emergency Personnel	Phone Number(s)			
Fire Department				
Police Department				
Ambulance/Emergency Medical Services				
MEMA Emergency Operating Center				
Employee Emergency Hotline				
Alternate Facility Contacts				

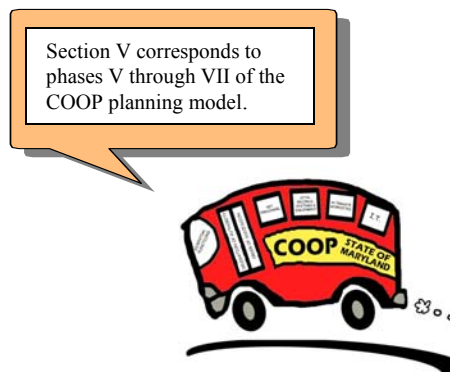
Section V: COOP Training, Testing, and Drills; COOP Plan Execution and Certification



Section V: COOP Training, Testing, and Drills; COOP Plan Execution and Certification

A. Training, Testing, and Drills

If an agency is to have an effective COOP plan, agency employees need to have more than a general awareness of COOP requirements. Each agency employee plays an important part in the agency's COOP readiness, and each division must know how to execute its portion of the COOP plan and how it relates to the COOP plan for the agency. In short, every agency employee needs to "own" the process.



To achieve this, an agency needs to train all personnel on COOP planning and conduct COOP drills, where personnel will use a COOP plan in response to a mock disaster. COOP plans should be adaptable to various scenarios that range from partial or short term to complete disruptions. The COOP team also needs to test its plans, backup and recovery systems regularly. It is through such testing that gaps can be identified and revisions can be made to the plan.

Finally, an agency should review and update its plans regularly. The work of the POC and COOP team does not end with the development and implementation of a COOP program. Indeed, development and implementation are just the beginning. An effective COOP plan will not remain viable without regular review and revision.

B. COOP Plan Execution

As discussed in the introduction to this manual, there are many threats that can disrupt agency operations. Moreover, these threats vary in magnitude and extent. A single tornado, for instance, could destroy one agency's building while leaving the neighboring buildings untouched. A biological terrorist strike could render entire sections of a city uninhabitable. A bomb or fire could destroy only a portion of a facility, leaving the rest of the facility usable. The damage from an event could be repairable in a short time, e.g., matter of days or weeks, or it could be so extensive, it will take months to years to return to normal operations at the facility.

A COOP plan can be activated in part or in whole depending upon the disruption or threat. An event may demand that employees evacuate a single facility for a day or two, in which case execution of only communications component of the COOP plan and IT recovery of data and systems may be necessary. On the other hand, an agency's headquarters could be destroyed at the height of the business day, which necessitates full execution of a COOP plan, including the deliberate and pre-planned movement of key personnel to an alternate work site that is capable of sustaining essential functions for fourteen days.

An effective COOP plan will outline an executive decision process for the quick and accurate assessment of the situation and determination of the best course of action for response and recovery in that case. It is helpful to develop a decision matrix or flow chart that ties the agency's reaction to the class or level of emergency. There are no standardized classification

systems for emergencies, but the following model may be useful. Bear in mind, however, that for essential functions and critical processes and services with a time criticality of zero, no disruption is acceptable, and therefore, this classification system may not fit.

Class/Level of Emergency	Impact on Agency
I	<ul style="list-style-type: none"> ▪ Disruption of up to 12 hours, with little effect on services or impact to essential functions or critical systems. ▪ No COOP activation required, depending on individual agency requirements.
II	<ul style="list-style-type: none"> ▪ Disruption of 12 to 72 hours, with minor impact on essential functions. ▪ Limited COOP activation, depending on individual agency requirements.
III	<ul style="list-style-type: none"> ▪ Disruption to one or two essential functions or to a vital system for no more than three days ▪ May require movement of some personnel to an alternate work site or location in the primary facility for less than a week
IV	<ul style="list-style-type: none"> ▪ Disruption to one or two essential functions or to the entire agency with potential of lasting for more than three days but less than fourteen days ▪ May require activation of orders of succession for some key personnel ▪ May require movement of some personnel to an alternate work site or location in the primary facility for more than a week
V	<ul style="list-style-type: none"> ▪ Disruption to the entire agency with a potential for lasting at least fourteen days ▪ Requires activation of orders of succession for some key personnel ▪ Requires movement of many, if not all personnel, to an alternate work site for more than fourteen days.

The plan should also lay out emergency roles of the COOP team. This may have already been discussed in the early phases of COOP planning. However they should be reiterated here to avoid confusion when an actual emergency arises.

C. COOP Plan Certification

Because an agency's top executive is ultimately responsible for the COOP plan, he or she should certify it. An agency director should determine the viability of the agency's COOP capability as set forth in the COOP plan before certifying it. The agency director can use Worksheet 27, Certification Checklist, which comprises all the required elements of a COOP plan, in making this determination. An agency director can also certify the plan in stages, such as certifying the essential functions before proceeding with development of the plan. After the agency head signs off on the COOP Plan, the agency should submit it to MEMA for certification.

Task AA: Certification of the COOP Plan

Use Worksheet 27, Certification Checklist, to complete this task.

Worksheet 28
Certification Checklist

- Is there a COOP program point of contact (POC) and COOP team designated?
- Have all key elements of the agency (program managers, facilities, information resource management, security, telecommunications, records management, public affairs, emergency response organizations, and senior management) been involved in the planning process?
- Have the agency's essential functions been clearly identified?
- Is the delegation of authority outlined sufficient to ensure continuance of agency operations?
- Is there a clear and documented order of succession for key management positions and appropriate authority for key officials, so that there is adequate command and control in an emergency?
- Have all the personnel named as successors or as holders of emergency responsibilities been briefed or trained on their responsibilities? Is contingency staffing available to perform essential functions?
- Is there sufficient capability to conduct procurement actions, keep financial records, record time and attendance, and perform other essential administrative support functions?
- Is there a vital records program?
- Is there a plan for protection and recovery of vital systems and equipment?
- Have alternate worksites been identified?
- Are there sufficient resources at alternate worksites to ensure that essential functions can be performed? If not, have arrangements made to obtain the necessary resources?
- Does the relocation plan provide for security, transportation, food and lodging of all personnel who may need to operate out of that facility?
- Does the plan ensure support for employees and their families in the event of an emergency?

- Is there a detailed communication plan that identifies preventative controls for communications equipment and alternative modes of communication, addresses interoperability issues as necessary, and lays out a chain of communication?
- Is there sufficient detailed information in the plan to ensure that the plan can be implemented (e.g., phone numbers, addresses, names, locations, equipment)?
- Is there a program for training agency personnel on COOP plan implementation?
- Is there a program to test the plan with exercises or drills?
- Is there a schedule of regular review and revision of the COOP plan?

APPENDICES