Record of Changes
Arkansas Emergency Operations Plan
Basic Plan

Date of Change and Initials	Location and Nature of Change
September 17, 2009 - DMcG	Revised ARVOAD information per Sr. Mary Lou Stubbs
September 17, 2009 - DMcG	Pg. 16: disaster purchases will be made through DFA
February 5, 2010 – DMcG	Pg. 6: text added to describe review, revision, and distribution of the AR EOP.

INTRODUCTION

OVERVIEW

This Basic Plan section of the Arkansas Emergency Operations Plan (also referred to as the EOP or AR EOP) is a guide to how the state conducts all-hazards incident response. It defines the responsibilities of local, state and federal governments, the capabilities of volunteer agencies, and the levels of magnitudes of disasters. It also provides broad guidance to state agencies and outlines the aid and assistance available to local and state government in the event of an emergency. The plan outlines the aid and assistance available to local and state governments, individuals and businesses when a Presidential disaster declaration is issued as well as outlines the actions required of state and local governments to be eligible for federal and/or state assistance under Public Law 93-288, as amended by Public Law 100-707, Arkansas Code Annotated § 12-75-101 et al.

It is built upon flexible, scalable and adaptable coordinating structures to align key roles and responsibilities across the state. It is intended to capture specific authorities and best practices for managing incidents that range from the serious but purely local, to large-scale terrorist attacks or catastrophic natural disasters.

It builds upon the *National Incident Management System (NIMS)*, which provides a consistent national template for managing incidents.

The term “response” as used in the Arkansas EOP includes immediate actions to save lives, protect property and meet basic human needs. Response also includes the execution of emergency operations plans, actions to support short-term recovery and some short-term mitigation activities. The EOP is always in effect and can be implemented as needed on a flexible, scalable basis that can help improve response. This plan supersedes any previous Arkansas Emergency Operations Plans. It details preparedness actions to be taken by state and local governments before the occurrence of a disaster. Response does not include prevention or protection activities.

INTENDED AUDIENCE

The EOP is written and maintained by ADEM for government executives, private sector business and nongovernmental leaders and emergency management practitioners. If the state is to be prepared for terrorist attacks and natural disasters, its leaders must have a baseline familiarity with the concepts and mechanics of the EOP.

Officials are encouraged to recommend improvement or appropriate changes to this plan.

INCIDENT MANAGEMENT: THE *WHO*

An effective response requires layered, mutually supporting capabilities. The EOP seeks to incorporate public sector agencies at all levels, private sector businesses and nongovernmental organizations (NGOs).

Local jurisdictions, States, the Federal Government and the private sector must each understand their respective roles and responsibilities, and complement each other in achieving shared goals. It is important that each level of government adapt and apply the general roles outlined in the EOP.

Even when a local jurisdiction is overwhelmed by an incident, there is still a core, sovereign responsibility to be exercised at this local level, with unique incident response obligations to coordinate with State, Federal and private sector support teams. Each organization or level of government therefore has an imperative to fund and execute its own core emergency management responsibilities.

Below is a brief summary of emergency management roles at the local and State levels, as well as the roles of private sector organizations.

Local jurisdictions**.** Resilient communities begin with prepared individuals and families and the leadership and engagement of local government and the private sector. Individuals, families and caregivers to those with special needs should enhance their awareness of risk and threats, develop family emergency plans that include care for pets and companion animals and prepare emergency supply kits. Individuals can also volunteer in their communities.

Local police, fire, public health and medical providers, emergency management, public works, environmental response professionals and others in the local jurisdiction are often the first to detect a threat or hazard, or respond to an emergency. They also are often the last to leave an incident site or otherwise to cope with the effects of an incident. The local senior elected or appointed official (the County Judge, Mayor, or City Manager) is responsible for ensuring the public safety and welfare of citizens. In today's world, senior officials and their emergency managers build the foundation for an effective response. They organize and integrate their capabilities and resources with neighboring jurisdictions, the State and the private sector. Increasingly, private sector businesses are vital partners within local jurisdictions wherever retail locations, service sites, manufacturing facilities or management offices are located. Local governments are closest to those impacted by natural disasters, and have always had the lead in response and recovery.

State. States are sovereign entities, and the Governor has the primary responsibility for the public safety and welfare of residents.

The State has significant resources, including the State emergency management and homeland security agency, State police, health agencies, transportation agencies and the National Guard. The role of State government in incident response is to supplement local efforts before, during and after incidents. During incident response, the State plays a key role by coordinating resources and capabilities from across the State and obtaining resources and capabilities from other States. If the State anticipates that its resources may become overwhelmed, the Governor can request assistance from the Federal Government or from other States through the Emergency Management Assistance Compact.

Many responses utilizing state resources during emergency/disaster operations will require the expenditure of funds. The Governor has the authority to determine the manner in which such state services will be funded. For the purpose of this EOP, it is assumed that payment for state responses will be as directed by the Governor.

The Federal Government. The Federal Government maintains a wide array of capabilities and resources that can be made available upon request of the Governor. When an incident occurs that exceeds State or local resources, the Federal Government provides resources and capabilities to support the State response.

Overall coordination of Federal incident management activities is the responsibility of DHS. Other Federal departments and agencies carry out their incident management and emergency response authorities and responsibilities within the overarching coordinating mechanisms of the National Response Framework. DHS surges Federal coordination structures at the headquarters, regional and field levels to coordinate Federal support.

The Private Sector. The private sector includes many distinct entities, including for-profit businesses (publicly-traded or privately owned), trade associations and NGOs, not-for-profit enterprises, faith-based organizations and other voluntary organizations. From another perspective, the private sector is comprised not only of organizations, but of individual citizens and families, who have important obligations to be prepared for emergencies.

Private sector businesses play an essential role in protecting critical infrastructure systems and implementing plans for the rapid restoration of normal commercial activities and critical infrastructure operations in the event of disruption. This can mitigate the impact of a disaster or emergency, improve the quality of life of individuals and accelerate the pace of recovery for local jurisdictions and the nation. The private sector, NGOs in particular, contributes to response efforts through engaged partnerships with government to assess potential threats, evaluate risk and take actions as may be needed to mitigate threats.

NGOs also serve a vital role in an effective response by mitigating potential risks and performing essential service missions within local jurisdictions in times of need. They provide mass sheltering, emergency food supplies, counseling services or other support services. Such NGOs bolster and support government efforts at all levels. Businesses and NGOs are encouraged to develop contingency plans and to work with State and local planners to ensure that their plans are consistent with pertinent local and State plans, the *NIMS* and the National Response Framework.

INCIDENT RESPONSE: THE WHAT AND THE HOW

The Arkansas Emergency Operations Plan is capabilities based. The State has developed functional capabilities and identified resources that may be required based on potential events.

The EOP describes what the State does and how the State does things regarding incident response. The Arkansas EOP explains how the State effectively manages the response phase of the all-hazards strategy. The remainder of this Introduction explains the EOP's organization, scope, response principles, and preparedness strategy.

HOW THE ARKANSAS EMERGENCY OPERATIONS PLAN IS ORGANIZED

The Plan has been approved by the Governor of Arkansas who is the Promulgation Authority. That approval is conveyed by the Governor's Letter which is included in the EOP.

The EOP includes the Basic Plan, which describes the principles that guide our response, roles and responsibilities, as well as supplemental documents that provide more detailed information to assist practitioners in implementing the EOP:

• **Emergency Support Function (ESF) Annexes** group State resources and capabilities into fifteen functional areas that are most frequently needed in a state response (e.g., Transportation, Firefighting, Mass Care). Each functional area, or ESF, is coordinated by a department or agency. The ESF Annexes reflect the core expertise of the various State departments and agencies. ESF Annexes describe State resource management functions before, during and after an incident.

• **Support Annexes** describe essential supporting aspects of the State response that are common to most incidents (e.g., Financial Management, Volunteer and Donations Management, Private Sector Coordination). These annexes provide additional detail for the EOP and will need to evolve to reflect the evolution of the Arkansas EOP.

• **Incident Annexes** address the unique aspects of how we respond to several categories or types of incidents (e.g., Biological, Nuclear/Radiological, CSEPP, Earthquake). Specifically, the Incident Annexes describe incident-specific policies and procedures for biological, cyber, food and agriculture and nuclear/radiological incidents, for incidents involving mass evacuation, and for terrorism incident law enforcement and investigation, and for catastrophic incidents.

The State has changed its Emergency Operations Plan in 2008 to Emergency Support Function (ESF) format. This aligns the State's format with the National Response Framework. It is more user friendly than the State's previous format. ESF Format allows for easier and more thorough review and revision. It removes the necessity for some of the repetition that appeared in the EOP before reformatting - reducing the overall length of the document.

The ESFs provide the structure for coordinating State interagency support for a State response to an incident. They are mechanisms for grouping functions most frequently used to provide State support to local jurisdictions. Each function, support, and incident annex has a coordinating agency assigned based on that agency's level of expertise on the subject matter in the annex. The ESF formatted EOP clearly indicates the agencies that have accepted responsibility for the different aspects of the State's response and the agencies that support them.

Some of the support and incident annexes were a part of the Arkansas EOP in its previous format. Other annexes are entirely new such as Financial Management and Private Sector Coordination. All will continue to be updated by ADEM as needed and will be reviewed annually.

Each ESF has a working group whose members offer suggestions for the yearly revision of the Annex. A comment period is offered to the working group and then to a wider audience that includes stakeholders at all levels of government and from the volunteer and private sectors. After any comments are adjudicated, the updated AR EOP is published to the ADEM website at www.adem.arkansas.gov, effectively distributing it to stakeholders, interested parties, and the general public.

SCOPE

The EOP provides structures for implementing state-level policy and operational coordination for incident response. It can be partially or fully implemented in the context of a threat, in anticipation of a significant event, or in response to an incident. Selective implementation allows for a scaled response, delivery of the exact resources needed – and a level of coordination appropriate to each incident.

In this document, incidents include actual or potential emergencies or all-hazard events that range from accidents and natural disasters to actual or potential terrorist attacks.

Examples of hazards common to Arkansas are as follows:

Flooding and tornadoes are the most prevalent weather related hazards; however, winter snow and ice storms occasionally impact the state.

Geologic faults in several counties of the state increase the vulnerability to seismic disturbances. The New Madrid fault presents the highest seismic risk zone in the eastern part of the state. The strongest earthquakes on the North American continent occurred in this area over a three-month period in 1811-1812.

One nuclear-fueled electric generating plant is located on Lake Dardanelle near Russellville. An accident at the plant could cause evacuation of several thousand people in adjacent counties and cause economic and other hardships to Pope and surrounding counties.

Hazardous materials such as chemicals, radiological material, corrosive and explosives are transported and used throughout Arkansas. In addition, their manufacture and storage is concentrated in the urban areas. This increases the probability of the occurrence of a hazardous material incident in or near a populated area.

Droughts are not one of Arkansas' most common disasters but when they occur, they are devastating to water supplies, agriculture and potentially cause an increase in forest and range fires.

Terrorist threats are becoming more common and are usually directed toward public facilities such as schools, government buildings, banks or large department stores.

Animal Disease emergencies are a growing concern and could have extensive economic impact on the State.

Another growing concern is the possibility/probability of a Pandemic Flu outbreak. This hazard is unique in that it will be so widespread that jurisdictions will not be able to aid each other as they do in other disasters.

Further hazard analysis and risk assessment information can be found in Basic Plan Appendix A - Hazard Analysis for Arkansas. Detailed information is in the 2007 State of Arkansas All Hazards Mitigation Plan available from the Arkansas Department of Emergency Management.

The Arkansas EOP is intended to accelerate and make more disciplined the State's capacity to rapidly assess and respond to incidents that require state assistance. In practice, many incidents require virtually reflexive activation of interagency coordination protocols to forestall the incident from becoming worse or to surge more aggressively to contain it. A State department or agency acting on independent authority may be the initial and the primary State responder, but incidents that require more systematic State response efforts are now actively coordinated through the appropriate mechanisms described in this document and in its supporting annexes.

Initial coordination of State incident assessment and response efforts is intended to occur seamlessly, without need for any formal trigger mechanism such as a written declaration by the Governor. This will support a more nimble, scalable and coordinated response by the entire emergency management community.

RESPONSE PRINCIPLES

The overarching objective of response activities centers upon saving lives and protecting property.

Incidents must be managed at the lowest possible jurisdictional level and supported by additional response capabilities when needed. It is not necessary that each level become overwhelmed, or fail, prior to surging resources from another level. Just the contrary, a tiered response will also be a forward-leaning response.

Most incidents begin and end locally and are wholly managed at the local level. Many incidents require additional resources or support from across the jurisdiction, and some require additional support from neighboring jurisdictions or the State. A few require Federal support. State response protocols recognize this and are structured to provide additional, tiered levels of support when there is a need for additional resources or capabilities to support and sustain the response and initial recovery. During large-scale events, all levels will take proactive actions to respond, anticipating resources that may be required.

Effective unified command is indispensable to all incident response activities and requires a clear understanding of the roles and responsibilities of each participating organization. Success requires unity of effort, which respects the chain of command of each participating organization while harnessing seamless coordination across jurisdictions in support of common objectives.

Unified command is an important element across multi-jurisdictional or multi-agency incident management activities. It provides a structure to enable agencies with different

legal, geographic and functional responsibilities to coordinate, plan and interact effectively. As a team effort, unified command allows all agencies with jurisdictional authority or functional responsibility for the incident to provide joint support through mutually developed incident objectives and strategies established at the command level. Each participating agency maintains its own authority, responsibility and accountability. This Arkansas EOP employs the NIMS structures and tools that enable unified command to be effective in incident management.

The "unified command" concept is distinct from the military chain of command. And, as such, military forces do not operate under the command of the Incident Commander or under the unified command structure.

PART OF A BROADER STRATEGY

The Arkansas EOP brings a targeted focus on the preparedness activities that are directly related to an evolving incident or potential incident rather than the steady-state preparedness or readiness activities conducted in the absence of a specific threat or hazard. It does not try to subsume all of these larger efforts; rather it integrates to this larger strategy.

The Basic Plan UNPACKED

The Basic Plan presents overall the key response principles, participants, roles and structures that guide the State's response operations. Following this Introduction, the remainder of the Basic Plan is organized as follows:

Chapter I – Roles and Responsibilities. This chapter sharpens the focus on who is involved with incident response activities at the local and State levels and with private sector businesses and NGOs.

Chapter II – Response Actions. This chapter describes what we as a state collectively do under the Arkansas EOP: prepare, respond and recover.

Chapter III – Incident Management. This chapter explains how the NIMS concepts and structures are applied to achieve incident response objectives.

Chapter IV –Authorities and References.

Chapter I
ROLES AND RESPONSIBILITIES

This chapter provides an overview of the core actors responsible for emergency management at the local and state levels. This includes an important role for private sector businesses and nongovernmental organizations (NGOs). It provides an overview of institutional roles and responsibilities and what must be done to build and maintain essential response capabilities.

LOCAL JURISDICTIONS

The responsibility for responding to emergencies and disasters, both natural and manmade, begins at the local level – with citizens and public officials in the county, city or town affected by the event. Local government should, to the extent possible, assume the responsibility for providing mass care and for coordinating the various agencies and organizations that normally provide assistance to victims and emergency response personnel. Local leaders and emergency managers prepare their jurisdictions to manage incidents locally. For local jurisdictions, the doctrine of unified command plays a key role in helping local leaders to coordinate resources within jurisdictions, among adjacent jurisdictions and with the private sector and NGOs, such as the American Red Cross. This section describes the roles and responsibilities of key leadership elements within local jurisdictions.

Chief Elected or Appointed Official. The County Judge is responsible for ensuring the public safety and welfare of the people of the jurisdiction. Specifically, this official provides strategic guidance and resources during emergency preparedness, response and recovery efforts. Emergency management is a core obligation of local leaders. The chief elected official can declare that a state of emergency exists within the jurisdiction so that state disaster relief can be utilized. A verbal declaration will be sufficient, with a written declaration of emergency to follow. The chief elected official is also the person who will make a decision to evacuate an affected area should the situation require it.

Chief elected or appointed officials must have a clear understanding of their roles and responsibilities for successful emergency management and incident response.

Any incident can have a mix of political, economic, social, environmental, public health and financial implications with potentially serious long-term effects.

Elected and appointed officials help their local jurisdictions prepare for, respond to and recover from potential incidents. Key responsibilities include:

- Establish strong working relationships locally with other jurisdictional leaders and with core private sector business and NGO leaders. The objective is to get to know your colleagues in advance of an incident.

- Lead and encourage local leaders to focus on emergency management preparedness and mutual support.

- Keep a record of manpower and equipment used to cope with a disaster. This information may be requested by the ADEM to help determine state and local contributions in requesting Presidential disaster declaration.

- Support participation in local mitigation efforts within the jurisdiction and, as appropriate, with the private sector.

- Understand and implement laws and regulations that support emergency management and incident response.

- Ensure that local emergency preparedness plans are maintained and take into account the needs of individuals with special needs or those with companion or service animals prior to, during and after an incident. Special facilities plans for schools, nursing homes, jails, hospitals, day cares, etc. should be referenced by local governments in their EOPs.

  Building codes and/or land use matters are regulated by local governments. Disaster plans or actions dealing with these subjects should be coordinated with city and county government.

  The local EOP will describe how resources may be most effectively used to ensure that the citizens are prepared for all contingencies and are able to react promptly when a disaster occurs. The local plan will provide guidance for coping with natural disasters, man-caused disasters and enemy attack. If the situation warrants, local officials will activate the local EOC, coordinate multiple service operations, request outside assistance and initiate local emergency broadcasts as necessary.

Local leaders also work closely with their Members of Congress during emergencies and on an ongoing basis regarding local preparedness capabilities and needs.

Emergency Manager. The local emergency manager has the day-to-day responsibility of overseeing emergency management programs and activities. He or she works with chief elected and appointed officials to ensure that there are unified objectives with regard to the local jurisdiction's emergency response plans and activities. This role entails coordinating all aspects of a jurisdiction's mitigation, preparedness, response and recovery capabilities.

The emergency manager coordinates all components of the emergency management program for the local jurisdiction, to include assessing the availability and readiness of local resources most likely required during an incident and identifying any shortfalls. Other duties of the local emergency manager might include the following:

- Coordinate the planning process and work cooperatively with other local agencies and private sector enterprises.

- Oversee damage assessments during an incident.

- Advise and inform local officials about emergency management activities during an incident.

- Develop and execute public awareness and education programs.

- Involve private sector businesses, NGOs, and relief organizations in planning, training and exercises.

- Serve as a conduit for communications between the public and ADEM. However, if the situation demands there might be alternate methods used (i.e., KARE Center that was created for Hurricane Katrina).

Department and Agency Heads. The local emergency manager is assisted by, and coordinates the efforts of, employees in departments and agencies that perform emergency management functions. Department and agency heads collaborate with the emergency manager during development of the local emergency operations plan and provide key emergency management resources. Participation in the planning process ensures that specific capabilities (i.e., firefighting, law enforcement, emergency medical services and public works) are integrated into a workable plan to safeguard the local jurisdiction.

If a local jurisdiction requires resources beyond those available from the State, local agencies may request certain types of Federal assistance directly. For example, under the Oil Protection Act or the Comprehensive Environmental Response, Compensation, and Liability Act, local governments can request assistance directly from the Environmental Protection Agency and/or the U.S. Coast Guard without having to go through the State. However, only the Governor can request a Presidential declaration under the Stafford Act.

These department and agency heads and their staffs develop and train to internal policies and procedures to meet response and recovery needs. They should also participate in interagency training and exercising to develop and maintain the necessary capabilities.

PRIVATE SECTOR BUSINESSES AND NGOS

Each private agency that has emergency responsibilities is encouraged to appoint an Emergency Management Liaison Officer (EMLO) who will coordinate its emergency response activities with the State EOC.

Businesses. Businesses have an invaluable role to play during emergencies. First, they must provide for and protect their employees in the workplace. In addition, emergency managers must work with businesses that provide water, power, communication networks, transportation, for-profit medical care, security and numerous other services upon which both emergency response and recovery are particularly dependent.

Many private sector organizations are responsible for operating and maintaining portions of the nation's critical infrastructure. Critical infrastructures include those assets, systems, networks and functions – physical or virtual – so vital to the United States that their incapacitation or destruction would have a debilitating impact on security, national

economic security, public health or safety or any combination of those matters. Key resources are publicly or privately controlled resources essential to minimal operation of the economy and the government.

During an incident, key private sector business partners should be integrated in the local crisis decision-making process or at least have a direct link to key local emergency managers.

Nongovernmental Organizations. In the world of emergency management, NGOs play enormously important roles before, during and after an emergency. For example, NGOs provide mass sheltering, emergency food supplies, counseling services and other vital support services to promote the recovery of disaster victims. Oftentimes these groups provide specialized services that help individuals with disabilities.

A key feature of NGOs is their inherent independence and commitment to specific sets of interests and values. These interests and values shape the resources they provide. Such NGOs bolster and support government efforts at all levels for response operations and planning. When planning the allocation of the local emergency management resources and structures, some local, State and Federal organizations have provided direct assistance to NGOs. These groups collaborate with first responders, governments at all levels and other agencies and organizations.

Examples of NGO and voluntary organization contributions include:

- Train and manage volunteer resources.
- Identify shelter locations and needed supplies.
- Provide critical emergency services to those in need, such as cleaning supplies, clothing, food and shelter or assistance with post-emergency cleanup.
- Identify those whose needs have not been met and help coordinate the provision of assistance.

Some private sector organizations and NGOs are officially designated as support elements to state response capabilities.

- Arkansas Voluntary Organizations Active in Disasters (ARVOAD). ARVOAD is a consortium of recognized organizations active in disaster relief. The organizations support response efforts at all levels.
- The American Red Cross. The Red Cross is a supporting agency to the mass care functions of Emergency Support Function #6.

Volunteers and Donations. Responding to disasters and emergencies frequently exceeds the resources of government organizations. Volunteers and donations can support incident response efforts in many ways, and it is essential that governments at all levels plan ahead for incorporation of volunteers and donated goods into their response processes.

STATE

Disaster assistance provided by the state is a supplement to, and not a substitute for, relief that can be provided by local governments.

Governor. As the State's chief executive and commander-in-chief of the Arkansas National Guard, the Governor has the authority, with some exceptions, to fill local and state government vacancies. The Governor is responsible for the public safety and welfare of the people of the State. The Governor has broad powers under Arkansas Code Annotated § 12-75-101 et al. These powers include the authority to declare a state of emergency, direct and allocate resources in the state, and to request federal assistance. The Governor:

- Is responsible for coordinating State resources needed to prevent, prepare for, respond to and recover from emergency incidents of all types.
- May declare a state disaster/ emergency, which gives him the authority to make, amend or suspend certain orders or regulations in support of the incident response. When such a disaster/emergency is declared, state agencies will utilize those services available to cope with the situation.
- Communicates to the public and helps people, businesses and organizations cope with the consequences of any type of emergency including the order and direction of evacuation(s).
- Prepares a comprehensive emergency operations plan for the state, which is compatible with the plans of the federal government and surrounding states.
- Arranges help from other States through the Emergency Management Assistance Compact (EMAC).
- Requests Federal assistance when it becomes clear that State or interstate mutual aid capabilities are insufficient.
- Establishes necessary state agencies and offices, appoints required personnel to include state staff and delegates authority under which such agencies and officials will operate.
- Enters into agreements with private entities to support response.
- Delegates any authority vested under Arkansas Code Annotated § 12-75-101 et al., and provides for sub-delegation of such authority.

In the event of a disaster or catastrophic event, the Governor will declare that a state of emergency exists. Under a state of emergency, the Governor has the following additional authority (Refer to Arkansas Code Annotated § 12-75-101 et al.):

- To enforce all laws, rules and regulations relating to emergency operations and to assume direct operational control of all response organizations.

- To seize, take or condemn property for the protection of the public. This includes:
    - All means of transportation
    - All fuel supplies of whatever type.
    - Food, clothing, equipment, materials, medicines and all necessary supplies
    - Facilities, including buildings and plants
    - To sell, lend, give, or distribute all or any such property to the citizens of the state and to account to the state treasury for any such funds received for the property.
    - To make compensation for the property seized, taken or condemned.
- To perform and exercise such other functions, powers and duties as may be necessary to protect and secure the safety of the civilian population.
- The Governor also ensures that command and control procedures are in place; conducts command and control readiness actions; alerts government personnel and population; and provides for a State EOC staff.
- The Governor is authorized to take steps toward economic stabilization. Economic stabilization is to provide, in concurrence with federal and state policy, interim economic stability controls and emergency measures for the rationing of food, petroleum products and other essential items to consumers and the stabilization of prices, wages, salaries and rents.
- The Governor is commander-in-chief of the State's military forces. To become operational the Governor or his successor must order the Arkansas National Guard to state active duty. In cases of National emergencies, the National Guard may be ordered to active duty in Title 32 status. The request for activation will be forwarded to the State EOC in North Little Rock. The State EOC will immediately evaluate and prioritize the request and forward it to the Governor while alerting the Director of Military Support Arkansas National Guard to the request and the recommendation of the State EOC.

The Governor is the only authority that can commit National Guard personnel and resources except in exigent circumstances whereby The Adjutant General (TAG) or his delegates may authorize use of the National Guard assets as long as the total cost per incident does not exceed $15,000. The Governor may order use of such resources when requested by the County Judge, Sheriff, Mayor, or as recommended by the Adjutant General, Director ADEM or other department/agency directors with state government.

Arkansas Department of Emergency Management (ADEM). The Director and staff ensure that the State is prepared to deal with large-scale emergencies. ADEM is responsible for coordinating the State, Federal, and volunteer response in any major

emergency or disaster. This includes supporting local governments to ensure an effective response to the situation. ADEM will:

- Be the lead state agency for disaster/emergency response planning and response coordination. ADEM is responsible for advising the Governor, government officials and local governments of the nature, magnitude and possible effects of a natural, technological or other type of emergency.

- When an emergency/disaster occurs or is imminent, an Area Coordinator will be dispatched to the scene to evaluate the situation, coordinate state activities with local levels of government and keep the State Emergency Operations Center advised of the situation.

- Render advice and assistance to state and local government agencies in developing and revising emergency operations plans, public information, training programs, funding, exercises and proper administration of local programs.

- Coordinate the response functions of state government. Such coordination will also include liaison with federal and private agencies.

- Maintain all equipment, resource data and rosters necessary to conduct State EOC operations.

- Coordinate, as necessary, planning and response operations with adjoining states.

- Be responsible for maintaining and revising the Arkansas Emergency Operations Plan. Designated organizations with disaster responsibilities will contribute to the EOP and it will be continually reviewed for currency.

- Periodically train ADEM personnel and Emergency Management Liaison Officers (EMLOs) to test and evaluate operating procedures.

- Maintain the State Emergency Operations Center (EOC) in North Little Rock in an operational status twenty-four hours a day by utilizing duty officers and on-call staff duty officers. These personnel utilize Incident Master software which contains checklists that are used to notify on-call personnel in key state, federal and private agencies.

- Maintain the primary National Alert Warning System warning point at the State EOC and will receive warning information.

- Be the primary coordinating agency responsible for public information during most disasters and emergencies utilizing the Joint Information System. Public information is to keep the population informed of the developing situation, give instruction for protection, control rumors and speculation, and to release information needed for the safety and welfare of the state.

- Through the Planning Section of the State EOC, coordinate and operate the emergency operations reporting system during any disaster/emergency situation.

This system is designed to provide for the maximum sharing of essential information by all emergency services at all levels and between jurisdictions. The system will provide information during all operational periods.

- Be responsible for the coordination and direction of the damage assessment and recovery programs. ADEM will compile preliminary damage estimates and record all important data for the State EOC. Data will then be used to compile a complete damage assessment report. ADEM will assist the Governor in requesting a Presidential major disaster or emergency declaration if the situation warrants the action.

- Assist the federal government in the delivery of all available assistance programs if a Presidential disaster is declared. If it is a state declared disaster, ADEM is responsible for establishing and operating Disaster Application Centers as needed and administering the state public assistance program and the temporary housing program.

- Coordinate and promote emergency management training throughout the state. The agency also advises local governments in the development of exercise and training programs. If the local jurisdiction's resources are not adequate, local authorities can seek additional assistance from ADEM. ADEM may dispatch personnel to the scene to assist in the response and recovery effort.

State department/agency heads. Those assigned emergency/disaster responsibilities in accordance with this EOP are responsible for planning and preparing in the pre-emergency period.

As provided in Arkansas Code Annotated § 12-75-101 et al., each state agency will appoint a representative who is the agency Emergency Management Liaison Officer (EMLO). The EMLO must document his/her agency's policies and procedures related to disaster response including how the EMLO intends to operate from the State EOC and Continuity of Operations/Continuity of Government protocols. The EMLO must be empowered to commit agency resources to emergency response efforts as required. The EMLO is also responsible for coordinating his/her agency's capability to operate and maintain continuity of resources twenty-four hours a day for an extended period. As needed, all EMLOs will operate from the State Emergency Operations Center (EOC) in North Little Rock.

Administration and Logistics. The Director, Arkansas Department of Emergency Management, in coordination with the Director, Department of Finance and Administration (DFA), will facilitate logistical support for statewide emergency operations. At both state and local levels, actions will be taken to establish orderly files or directives and forms so that during a disaster this information will be readily available. All state property and supplies will be adequately accounted for and protected.

Any purchases that must be made for disaster will be made through DFA and in accordance with the policies listed in ESF #7 – Resource Support.

Current Memoranda of Understanding and similar agreements with State and volunteer agencies will be filed and readily available at all times.

State and Local governments should ensure that all persons who are accredited emergency services volunteer workers are properly identified and certified for Workmen's Compensation benefits.

State authorities will keep a record of manpower and equipment used to cope with a disaster. ADEM will use this record and the records of local jurisdictions to determine state and local contributions in requesting Presidential disaster declaration.

FEDERAL

When an incident occurs that exceeds local or State resources – or when an incident is managed by Federal departments or agencies acting under their own authorities – the Federal Government uses the National Response Framework to involve all necessary department and agency capabilities, organize the response and ensure coordination with response partners.

The doctrine of unified command is applied at the headquarters, regional and field levels to enable diverse agencies to work together effectively. The Federal Government also works to establish engaged partnership with States, as well as the private sector.

The Federal entities listed below have capabilities as indicated to assist the State following a Presidential declaration of a major disaster.

- Federal Emergency Management Agency (FEMA). FEMA is the federal counterpart of the Arkansas Department of Emergency Management. FEMA may assist with:
    - Debris removal by granting funds or use federal agencies to remove debris in accordance with 44CFR206.224.
    - Repair or restoration of public facilities by providing funds for repair, restoration, reconstruction or replacement of public facilities and contents that have been damaged or destroyed by a major disaster.
    - Repair or restoration of private nonprofit facilities by providing grants to critical private nonprofits.
    - Minimum standards for repair of disaster damage by providing technical assistance to ensure that repair or reconstruction under PL 93-288, as amended by PL 100-707, will meet applicable standards of safety, decency and sanitation.
    - Fire suppression assistance by providing grants or other assistance to a state for suppression of any fire on public or privately owned forest or grassland, which poses a threat of becoming a major disaster.
    - Temporary communications by providing temporary communication assistance.

- Individual or family needs that cannot be met through other programs by providing grants from federal/state matching funds through the Department of Human Services.

- Food, water, clothing and shelter for disaster victims by coordinating with other federal agencies to assist local governments.

- Health, medical and sanitation services in the disaster area by coordinating the furnishing of health, medical and sanitation services to state or local agencies by other federal agencies.

- Legal assistance to low income disaster victims by negotiating agreements.

- Crisis counseling assistance by coordinating professional mental health counseling service to victims.

- Community disaster loans for eligible local governments suffering substantial loss of tax or other revenue because of a major disaster.

- Emergency transportation and other emergency needs.

- Federally subsidized flood insurance which is made available to all persons residing in communities participating in the National Flood Insurance Program.

- Warning through a fully funded a warning net to include National Warning System (NAWAS) (Primary), FEMA Network Access Server (FNAS), and FEMA National Radio System (FNARS) for the state warning point. The funding also includes NAWAS drops at each State Police Troop headquarters plus several other strategic locations in the state.

- Emergency equipment by providing matching funds for approved procurement of emergency communications and warning equipment and other items for use by state or local governments.

- Providing and training emergency service employees by providing 50 percent matching funds to states to help pay salaries and administrative costs of state and local emergency preparedness programs.

- Coordinating civil emergency preparedness for the possibility of nuclear power plant accidents, radiation accidents, national security related emergencies, or in the event of a terrorist threat involving weapons of mass destruction.

- United States Army may assist with:

    - Explosive ordnance disposal through use of an explosive ordnance disposal team from the Pine Bluff Arsenal, which may be called upon to dispose of bombs or other explosives.

- Hazardous materials through use of personnel from The Pine Bluff Arsenal trained in the monitoring and decontamination of hazardous materials.

- Army Corps of Engineers (Little Rock, Memphis, and Vicksburg Districts)
  The Little Rock District is the lead coordinator for Corps assistance in Arkansas. Assistance from the Corps of Engineers is supplemental to state and local efforts in accordance with federal regulations. The Army Corps of Engineers may assist with:

  - Flood containment and control through prior planning, training, stockpiling flood containment materials and maintaining an organization capable of responding quickly to floods. The Corps of Engineers supplements response by state, county and local levee boards and municipalities by coordinating or directing flood containment efforts. The Corps of Engineers may furnish assistance (if requested by the Governor) to preserve life or protect property for up to ten (10) days after a major flood event.

  - Rehabilitation by repairing federally constructed flood control works that were damaged by a flood. All requests are subject to economic analysis and must have been properly maintained.

  - Safe drinking water and drought assistance in coordination with the Arkansas Department of Health (ADH), by providing emergency supplies of clean drinking water to any locality with a contaminated water source, which causes or may cause a substantial threat to the public health and welfare of the inhabitants. The Corps of Engineers may construct wells or transport water for human consumption to farmers, ranchers and political subdivisions within areas determined to be drought distressed.

  - Earthquakes by responding to a catastrophic earthquake along the New Madrid Fault as directed by FEMA under the Federal Response Framework.

  - Hazardous materials by containing and cleaning up any incident caused by the Corps. Other response is limited to imminently serious conditions which threaten Corps property. If the Corps responds the liable party will refund the costs of the response.

  - Radiological incidents by responding to a radiological event at Arkansas Nuclear One (ANO). The Little Rock District will evacuate Arkansas River traffic and assist in evacuation of Corps Parks.

  - FEMA missions through its significant engineering and contracting capabilities that can be applied during a Presidentially declared emergency or disaster when requested by FEMA. Damage surveys, debris removal, temporary roofing, temporary housing, potable water and ice, and emergency power are all post disaster operations capabilities of the Corps.

- United States Air Force (USAF) Little Rock AFB
  Furnishing of requested assistance is dependent on Air Force operational commitments at the time of the request. USAF Little Rock AFB may assist with:

- Emergency communications in cases involving imminent loss of life and property. The State EOC may call Little Rock AFB Command Post 501-987-3200 for emergency assistance.

- Situation and intelligence reporting by passing information pertaining to disasters may be passed between the State EOC and military bases by any communications available.

- Search and rescue using Air Force aircraft for missions involving missing aircraft. Requests for search aircraft will be coordinated through the Air Force Coordination Center, at Langley Air Force Base, VA.

- Emergency medical services requested through the FEMA regional office, or in situations involving human suffering or possible loss of life, aid may be requested directly from the Air Force.

- Debris removal involving immediate threat to human life by removing debris, rescuing trapped individuals, or to allowing passage of emergency vehicles.

- Emergency by providing personnel to assist in debris clearance, fire fighting, emergency repairs, etc. If a Presidential disaster/emergency declaration is made, assistance will be requested through FEMA.

- Explosive ordnance disposal using the Little Rock AFB Explosive Ordnance Disposal Team, but their response is predicated on Air Force Operational commitments at the time.

- Fire fighting during an emergency or disaster near an air base using Air Force fire fighting personnel and equipment requested directly from Little Rock Air Force Base if there is imminent risk of life and/or property.

- United States Coast Guard may assist with:

  - Marine search and rescue by responding to requests for assistance in evacuating flood victims, large accidents on rivers, etc. when requirements to cope with the disaster exceed local capabilities. Coast Guard assistance may be requested through the State EOC. The Coast Guard also has the authority and capability to shut down traffic on navigable waterways if circumstances require such action.

- National Weather Service (NWS) may assist with:

  - Weather warnings by issuing Watches/Warnings of hazardous weather conditions and River Flooding/Flash Flooding for the protection of life and property.

  - Weather dissemination by distributing Watches/Warnings over NOAA Weather Wire Service (NWWS), the NOAA Weather Radio (NWR) and the Arkansas Crime Information Center (ACIC). Information may be used directly by State, Local and Federal agencies, the news media and the public.

Auxiliary dissemination of Watches/Warnings is provided by Ham radio operators, operating as volunteers at the NWS office and in field locations.

- Situation reporting by collecting and relaying severe weather reports from volunteer spotters and observers, State and Local officials, and participating Federal agencies. While most reports are channeled, both directions by a NWS-ADEM-Local path, on occasion, the NWS will contact directly affected local agencies and news media to expedite the warning process.

- Additional support by providing, upon request, meteorological and hydrological information to assist in decision-making in the event of spills of biological agents and hazardous chemicals, radiation hazards, nuclear explosions, earthquakes, and other disasters in which meteorological information is deemed pertinent.

- Dissemination via NWWS/NWR any pre-designated warning message for the protection of life and property upon the request of Arkansas Department of Emergency Management

- Federal Highway Administration may assist with:

  - Federal aid highway repair by providing grants to the State to repair or reconstruct federal aid highways, roads or trails.

  - Damage assessment by providing engineers to help assess damage to federal aid highways when requested.

- Federal Bureau of Investigation (FBI) The FBI is the lead federal investigating agency responding to a terrorist event. FBI provides intelligence sharing through the Arkansas Joint Terrorism Task Force located at FBI Little Rock Headquarters. The FBI may assist local law enforcement agencies in identifying victims of disasters primarily through identification of fingerprints.

Each federal agency that has emergency responsibilities is encouraged to appoint an Emergency Management Liaison Officer who will coordinate its emergency response activities with the State EOC.

CHAPTER II
RESPONSE ACTIONS

This chapter describes the three phases of incident management: *prepare, respond* and *recover*. It also outlines key tasks related to each in order to bring clarity to the actual work of incident management.

The purpose of operational time phases is to indicate the level of readiness or operations at which state government should be conducting operations. The higher the phase, the further along the state should be in readiness actions and/or operations.

The Preparedness Phase is normal readiness and preparedness operations. The Response Phase is actual operations. The Recovery Phase is resumption of normal operations, damage assessment, and repair.

PREPARE

Six tasks form the backbone of the preparedness cycle. Each is described below.

1. PLAN

Deliberate planning makes it possible to manage the entire life-cycle of a potential crisis, determine capability requirements and help stakeholders learn and practice their roles. Planning includes the collection and analysis of intelligence and information, as well as the development of policies, plans, procedures, mutual aid agreements, strategies and other arrangements to perform missions and tasks. Planning also improves effectiveness by clearly defining required capabilities, shortens the time required to gain control of an incident and facilitates the rapid exchange of information about a situation.

2. ORGANIZE

Organizing to support response capabilities includes developing an overall organizational structure, strengthening leadership at each level and assembling well-qualified teams of paid and volunteer staff for essential response and recovery tasks. The National Incident Management System (NIMS) provides standard command and management structures that apply to incident response. This common system enables responders from different jurisdictions and disciplines to work together better to respond to natural disasters and emergencies, including acts of terrorism.

3. TRAIN

Building essential response capabilities statewide requires a systematic program to train individual teams and organizations to meet a common baseline of performance and certification standards.

4. EQUIP

State and local jurisdictions need to establish a common understanding of the capabilities of distinct types of emergency response equipment. This facilitates planning before an incident, and rapid scaling and flexibility in meeting the needs of an incident. A critical component of preparedness is the acquisition of equipment that will perform to established standards, including the capability to be interoperable with equipment used by other jurisdictions and/or participating organizations.

5. EXERCISE

Exercises provide opportunities to test capabilities and improve proficiency in a risk-free environment. Exercises assess and validate policies, plans and procedures. They also clarify and familiarize personnel with roles and responsibilities. Well-designed exercises improve interagency coordination and communications, highlight capability gaps and identify opportunities for improvement. Local and State jurisdictions should exercise their own response capabilities and evaluate their abilities to perform expected responsibilities and tasks. This is a basic responsibility of all entities and is distinct from participation in other interagency exercise programs.

Federal preparedness funding has provided millions of dollars worth of equipment across the state and has inherent exercise requirements. These activities require the implementation of the appropriate exercise and evaluation methodology i.e. Homeland Security Exercise and Evaluation Program (HSEEP), CSEPP Exercise Program, and Radiological Exercise Program.

6. EVALUATE AND IMPROVE

Evaluation and regular, systematic process improvement are cornerstones of effective preparedness exercises. Upon concluding an exercise, jurisdictions should evaluate performance against relevant capability objectives, identify deficits and institute corrective action plans. Improvement planning should develop specific recommendations for changes in practice, timelines for implementation and assignments for completion.

The Homeland Security Exercise and Evaluation Program (HSEEP) will be the methodology recommended by the Arkansas Department of Emergency Management for the design, development, conduct, evaluation, and improvement planning for all required exercises that do not specify an exercise methodology.

RESPOND

Four key response actions typically occur in support of an emergency response mobilization:

1. GAIN AND MAINTAIN SITUATIONAL AWARENESS

Situational awareness requires continuous monitoring of relevant sources of information regarding actual incidents and developing hazards.

State Actions. The State will address the inherent challenges in establishing successful information-sharing networks by:

- Creating intelligence fusion centers that bring together into one central location law enforcement, intelligence, emergency management, public health and other agencies to evaluate together available information and intelligence.

- Collaborating to encourage intelligence and information sharing and including regional, multi-state and Federal systems. The State will utilize standards for information sharing that foster the ability of these systems to exchange data.

- Reporting incident information using established mechanisms. Terrorist threats and actual incidents with a potential or actual terrorist link will immediately be reported to the FBI's Joint Terrorism Task Force Little Rock.

2. ASSESS THE SITUATION, ACTIVATE RESOURCES AND CAPABILITIES

When an incident or potential incident occurs, responders assess the situation, identify and prioritize requirements and activate available resources and capabilities to save lives, protect property and meet basic human needs.

When planning for heightened threats or in anticipation of large-scale incidents, key activities include pre-identifying needs and pre-positioning resources. Based on asset availability, resources should be pre-positioned and response teams and other support resources may be placed on alert or deployed to a staging area. Federal resources arriving at a Federal mobilization center or staging area remain there until requested by State/local incident command authorities, when they are integrated into the incident response effort.

State Actions. In the event of, or in anticipation of, an incident requiring a coordinated response, the State will:

- Identify staff for deployment to the State Emergency Operations Center (EOC). The state EOC has standard procedures and call-down lists and will notify department and agency points of contact.

- Work with emergency managers to take the necessary steps to provide for continuity of operations.

- Activate Specialized Response Teams such as search and rescue teams, crime scene investigators, public works teams, hazardous materials response teams, public health specialists or veterinarians.

3. COORDINATE RESPONSE ACTIONS

Coordination of response activities occurs through incident management and response structures based on pre-assigned roles, responsibilities and reporting protocols. Critical information is provided through pre-established reporting chains to decision-makers. Specific priorities include:

- State governments are responsible for the management of their emergency functions. Such management includes mobilizing the National Guard, pre-positioning assets and supporting its local jurisdictions. Local jurisdictions and

State governments, in conjunction with their voluntary organization partners, are also responsible for implementing plans to ensure the effective management of the flow of volunteers and goods in the affected area.

- Coordinating initial actions. Initial actions are coordinated through the on-scene Incident Command and may include: immediate law enforcement, fire and emergency medical services; emergency flood fighting; evacuations; transportation system detours; and emergency information for the public.

- Coordinating requests for additional support. If additional resources and capabilities are required, the on-scene Incident Command requests the needed support. Additional incident management and response structures and personnel are activated to support the response. Resources and capabilities are activated through ESFs.

- Identifying and integrating resources and capabilities. Resources and capabilities must be marshaled, deployed, received, staged and efficiently integrated into ongoing operations. Systems and venues must be established to receive, stage, track and integrate resources into ongoing operations.

- Coordinating communications. Incident Command may elect to establish a Joint Information Center (JIC). By developing media lists, contact information for relevant stakeholders and coordinated news releases, the JIC facilitates dissemination of accurate, consistent, accessible and timely public information to numerous audiences.

State Actions. The State will provide the vast majority of the external assistance to local jurisdictions. When an incident grows beyond the capability of a local jurisdiction, and responders cannot meet the needs with mutual aid and assistance resources, the local jurisdiction contacts the State. Upon receiving a request for assistance from a local government which has declared a disaster, immediate State response activities may include:

- Coordinating warnings and public information through the activation of the State's public communications strategy and the establishment of a JIC.

- Arranging for provision of various supplies needed to meet the emergency.

- Providing needed technical assistance and support to meet the response and recovery needs of individuals and families.

- Activating State donations management coordination with NGOs and the private sector.

- Less typically, the Governor may suspend existing statutes, rules, ordinances and orders for the duration of the emergency to facilitate performance of disaster response functions.

In addition to these actions, the Governor may elect to activate the Arkansas National Guard. The Governor commands the State military forces (National Guard, when in

State Active Duty or Title 32 status) and can deploy these assets in response to an incident. National Guard forces employed under State Active Duty or Title 32 status are providing support to the Governor of the State and are not part of Federal military response efforts.

When the National Guard is deployed in State Active Duty status, the Governor retains command and control of forces inside the State. State Active Duty is based on State statute and policy, and the State is responsible for all costs relating to the deployment. Title 32 Full-Time National Guard Duty refers to Federal training or other duty, other than inactive duty, performed by a member of the National Guard. Title 32 is not subject to *posse comitatus* restrictions which prohibit federal military personnel and units of the National Guard under federal authority from acting in a law enforcement capacity within the United States. Title 32 allows the Governor, with the approval of the President or the Secretary of Defense, to order a Guard member to duty to:

- Perform training and other operational activities.
- Undertake activities for the military protection of the territory or domestic population of the United States, or of the infrastructure or other assets of the United States determined to be critical to national security, from a threat or aggression against the United States.
- Conduct homeland defense activities that the Secretary of Defense determines to be necessary and appropriate for participation by the National Guard units or members.

In rare circumstances, the President may federalize National Guard forces for domestic duties under Title 10. In such cases, the forces are no longer under the command of the Governor. Instead, the Department of Defense assumes full responsibility for all aspects of the deployment, including command and control over National Guard forces.

State-to-State Assistance. If additional resources are required, the State may request assistance from other States by using the Emergency Management Assistance Compact (EMAC). Administered by the National Emergency Management Association, EMAC is a congressionally ratified organization that provides form and structure to the interstate mutual aid and assistance process.

Requesting Federal Assistance. When an incident overwhelms State resources and available mutual aid resources, the Governor may request Federal assistance. In such cases, the affected jurisdiction(s), the State and the Federal Government will collaborate to provide the necessary assistance.

Robert T. Stafford Disaster Relief and Emergency Assistance Act. When it is clear that State capabilities will be exceeded or exhausted, the Governor can request assistance under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act). The Stafford Act authorizes the President to provide assistance to State and local governments, certain private nonprofit organizations and individuals. Stafford Act assistance is aimed at supporting response, recovery and mitigation efforts following Presidential emergency or disaster declarations.

A Presidential *major disaster declaration* puts into motion long-term Federal recovery programs, some of which are matched by State programs, and designed to help disaster victims, businesses and public entities. An *emergency declaration* is more limited in scope and without the long-term Federal recovery programs of a major disaster declaration. Generally, Federal assistance and funding are provided to meet a specific emergency need or to help prevent a major disaster from occurring.

Requesting a Presidential Declaration. When State and local resources are insufficient, the Governor may ask the President to declare a Federal disaster or emergency. Only the Governor can initiate a request for a Presidential emergency or major disaster declaration. Prior to and during catastrophic events, especially for those which occur without notice, the Federal Government may take proactive measures to mobilize and deploy assets in anticipation of a request from a State.

4. DEMOBILIZE

Demobilization is the orderly, safe and efficient return of an incident resource to its original location and status. Demobilization should begin as soon as possible to facilitate accountability of the resources and be fully coordinated with other incident management and response structures.

State Actions. At the State level, demobilization planning and activities include:

- Steps to ensure personnel safety.
- Provisions to address and validate the safe return of resources to their original locations.
- Processes for tracking resources and ensuring applicable reimbursement.
- Accountability for compliance with mutual aid provisions.

RECOVER

Once immediate lifesaving activities are complete, the focus shifts to assisting individuals, families and businesses in meeting basic needs and returning to self-sufficiency. Recovery is the development, coordination and execution of service- and site-restoration plans for affected jurisdictions, and the resumption of government operations and services through individual, private sector, nongovernmental and public assistance programs.

Short-term recovery is immediate and overlaps with response. It includes such actions as providing essential public health and safety services, restoring interrupted utility and other essential services, reestablishing transportation routes and providing food and shelter for those displaced by the disaster. Although called “short term,” some of these activities may last for weeks.

CHAPTER III
INCIDENT MANAGEMENT

This chapter explains how the State is organized to achieve its incident response objectives.

INTRODUCTION

In March 2004, DHS released the NIMS, which provides a consistent nationwide template to enable all levels of government, the private sector and nongovernmental organizations (NGOs) to work together during an incident. Incident management includes those activities conducted to 1) prevent and disrupt terrorist attacks; 2) protect our people, our critical infrastructure, and key resources; and 3) respond to and recover from incidents that do occur.

Scope of the Arkansas Emergency Operations Plan. The Arkansas EOP provides structures, based upon NIMS, for implementing state-level policy and operational coordination for domestic incident response. It can be partially or fully implemented in the context of a threat, in anticipation of a significant event or in response to an incident. Selective implementation allows for a scaled response, delivery of the exact resources needed – and a level of coordination appropriate to each event.

STATE RESPONSE: STRUCTURES AND STAFFING

State Emergency Operations Center (EOC). The State EOC in North Little Rock is the physical location where State coordination occurs.

The State EOC is activated as necessary to support local EOCs. Therefore, the State EOC is the central location from which off-scene activities supported by the State are coordinated. Chief elected and appointed officials are located at the State EOC, as well as personnel supporting core functions. The key function of State EOC personnel is to ensure that those who are located at the scene have the resources (i.e., personnel, tools and equipment) they need for the response.

During a disaster or emergency the State EOC communicates with the Governor and acts as liaison between local and Federal personnel. When the event requires State assistance, State officials typically take the lead to provide public information about the incident. As soon as possible during an incident, the State ensures that communication lines with the press are open, questions receive prompt responses and false rumors are refuted before they spread. Information about where to receive help is communicated directly to victims and victims' families.

In order to coordinate the release of emergency information and other public affairs functions, the State may establish a Joint Information Center (JIC), a physical location from which external affairs professionals from all the organizations involved in an incident work together.

Requesting and Managing Federal Assistance. When the State requests federal assistance, FEMA will initially send a liaison to the State EOC. The second level of FEMA's response may be deployment of an Incident Management Assist Team (IMAT). IMATs are rapidly deployable, interagency, nationally- and regionally-based incident response teams that will soon replace existing Emergency Response Teams (ERTs) at the national and regional level. They will provide a forward Federal presence to improve response to serious incidents requiring Federal assistance.

Federal incident support to the State is generally coordinated through a Joint Field Office (JFO). The JFO provides the means to integrate diverse Federal resources and engage directly with the State.

State Coordinating Officer (SCO). The SCO plays a critical role in managing the State response and recovery operations following Stafford Act declarations. The Governor appoints the SCO, and lines of authority flow from the Governor to the SCO, following the State's policies and laws. For certain anticipated events in which a Stafford Act declaration is expected, such as an approaching hurricane, the Secretary of Homeland Security or the FEMA Administrator may pre-designate one or more Federal officials to coordinate with the SCO to determine resources and actions that will likely be required, and begin pre-deployment of assets. The specific roles and responsibilities of the SCO include:

- Serve as the primary representative of the Governor with the Regional Response Coordination Center (RRCC) or within the JFO once it is established.
- Work with the Federal Coordinating Officer (FCO) to formulate State requirements, including those that are beyond State capability, and set priorities for employment of Federal resources provided to the State.
- Ensure coordination of resources provided to the State via mutual aid and assistance compacts.
- Provide a linkage to local government.
- Serve in the Unified Coordination Group in the JFO.

Governor's Authorized Representative. As the complexity of the response dictates, the Governor may empower a Governor's Authorized Representative to:

- Execute all necessary documents for disaster assistance on behalf of the State, including certification of applications for public assistance and EMAC documents.
- Represent the Governor of the impacted State in the Unified Coordination Group, when required.
- Coordinate and supervise the State disaster assistance program to include serving as its grant administrator.

- Identify, in coordination with the SCO, the State's critical information needs for incorporation into a list of Essential Elements of Information (critical items of specific information required to plan and execute an operation and to support timely, logical decisions).

Emergency Support Function (ESF) Teams. The State EOC coordinates incident response support from across State Government by calling up, as needed, one or more of the 15 ESF teams. During a response, ESFs are a critical mechanism to coordinate functional capabilities and resources provided by State departments and agencies, along with certain private sector and nonprofit organizations. They represent an effective way to bundle and funnel resources and capabilities to responders. These functions are coordinated by a single agency but may rely on several agencies that provide resources for each functional area. The mission of the ESF is to provide the greatest possible access to capabilities of State Government regardless of which agency has those capabilities.

The ESFs serve as the primary operational-level mechanism to provide assistance in functional areas such as transportation, communications, public works and engineering, firefighting, mass care, housing, human services, public health and medical services, search and rescue, agriculture and energy.

Each ESF is composed of primary and support agencies. The EOP identifies primary agencies on the basis of authorities, resources and capabilities. Support agencies are assigned based on resources and capabilities in a given functional area.

Joint Field Office (JFO). The JFO is the primary Federal incident management field structure. The JFO is a temporary Federal facility that provides a central location for the coordination of Federal, State, and local governments and private sector businesses and NGOs with primary responsibility for response and short-term recovery. The JFO structure is organized, staffed and managed in a manner consistent with *NIMS* principles and is led by the Unified Coordination Group.

Personnel from Federal and State departments and agencies, other jurisdictional entities and private sector businesses and NGOs may be requested to staff various levels of the JFO, depending on the requirements of the incident. The physical location of such a coordination entity depends on the situation.

CHAPTER IV
Authorities and References

State

- Arkansas Code Annotated 12-75-101 et.al.
- Act 408 of 1977
- Act 891 of 1981
- Act 629 of 1985
- Act 687 of 1985
- Act 1049 of 1993
- Act 116 of 1995
- Act 232, Interstate Civil Defense and Disaster Compact

Local

- County court orders and local city ordinances enacted pursuant to requirements of state and federal laws cited herein.

Federal

- Federal Civil Defense Act of 1950, Public Law 81-920, as amended
- Disaster Relief Act of 1970, Public Law 91-606, as amended
- Public Law 103-337 (The Robert T. Stafford Act)
- Disaster Relief Act of 1974, Public Law 93-288, as amended
- 5 and 44 Code of Federal Regulations
- P.L. 95-224 Federal Grant and Cooperative Agreement Act of 1977.
- OMB Circular A-87 Cost Principles for State and Local Governments.
- OMB Circular A-102 Uniform Administrative Requirements for grants and Cooperative agreements with State and Local Government
- Homeland Security Presidential Directives as appropriate.

Volunteer Agencies

- All current members of Arkansas Voluntary Organizations Active in Disaster (ARVOAD) and their related organizations in the National Voluntary Organizations Active in Disaster (NVOAD) http://www.nvoad.org/Members/NationalMembers/tabid/75/Default.aspx
- American Red Cross – United States Congress, Act of January 5, 1905, as amended
- Other Volunteer Agencies – Federal Disaster Relief of 1974, Public Law 93-288, as amended by Public Law 100-707.

HAZARD ANALYSIS FOR ARKANSAS

RISK ASSESSMENT

The Risk Assessment for the State of Arkansas profiles the natural, man-made, and technological hazards that impact the state, determines which jurisdictions and populations are most vulnerable to each hazard, and estimates potential losses of State facilities for each hazard.

The hazards identified include Tornado, Flooding (Riverine, Flash, and Dam Failure), Severe Winter Weather, Earthquakes, Thunderstorm (including Straight-Line Winds), Wildfires, Landslides, Expansive Soils, Drought, Hazardous Materials Event (transported and fixed site), Nuclear Event, Terrorism, and Biological Event.

Tornado

Background: The path width of a single tornado is generally less than 0.6 mile, although some damage path widths are in excess of one mile. The path length of a single tornado can range from a few hundred yards to over 200 miles. The average tornado in North America moves from southwest to northeast, but tornadoes have been known to move in any direction. The average forward speed of a tornado is 30 mph, but may vary from nearly stationary to greater than 70 mph. The lifespan of a tornado is rarely longer than 30 minutes.

Probability: Based on NOAA data between 1950 and 1995, Arkansas ranked 16th in average annual number of tornadoes (19.4 annually), 15th in average annual number of tornadoes per 10,000 square miles (3.7 per 10,000 square mile annually), fifth in average annual number of strong to violent (F2-F5) tornadoes (9 annually), and fourth in average annual number of strong to violent (F2-F5) tornadoes per 10,000 square miles (1.7 per 10,000 square miles annually).

From 1950 through 2007, Arkansas has been affected by 1,659 tornadoes. This more recent tornado data through 2007 indicates that an average of 29.1 tornadoes occur annually in Arkansas. The most tornadoes in a single year in Arkansas were 107 in 1999. The fewest reported tornadoes in a single year were 2 in 1969 and 1987. An average of almost 29 tornadoes annually can therefore be expected in Arkansas, with an annual variation between 2 and 107 tornadoes.

Although tornadoes may occur at any time of the year, peak tornado occurrence in Arkansas is during the spring. Over 57% of all tornadoes occurred during March through May. This is somewhat earlier than the May-June peak tornado occurrence nationally. A secondary tornado maximum occurs in November, December, and January. Tornadoes are least common in August.

Vulnerability: Tornadoes can cause several kinds of damage to buildings. Tornadoes have been known to lift and move objects weighing more than 300 tons a distance of 30

ft, toss homes more than 300 ft from their foundations, and siphon millions of tons of water from water bodies. However, the less spectacular damage is much more common. Houses and other obstructions in the path of the wind cause the wind to change direction. This change in wind direction increases pressure on parts of the building. The combination of increased pressures and fluctuating wind speeds creates stress on the building that frequently causes connections between building components (e.g., roof, siding, windows, etc.) to fail. Tornadoes also generate a tremendous amount of flying debris or "missiles", which often becomes airborne shrapnel that causes additional damage. If wind speeds are high enough, missiles can be thrown at a building with enough force to penetrate windows, roofs, and walls.

Severe Winter Weather

Background: Severe winter weather can include extreme cold, heavy snowfall, ice storms, winter storms, and/or strong winds. Areas where such weather is uncommon, such as Arkansas, are typically disrupted more severely by severe winter weather than are regions that experience this weather more frequently. In addition, winter storms may spawn other hazards such as flooding, severe thunderstorms, tornadoes, and extreme winds that may hamper recovery efforts.

Heavy snow is over four inches in twelve hours or over six inches in 24 hours or less. In states such as Arkansas, where lesser accumulations can cause significant impacts, lower thresholds may be used. A blizzard means that the following conditions prevail for a period of three hours or longer: 1) Sustained wind or frequent gusts to 35 miles an hour or greater; and 2) Considerable falling and/or blowing snow (i.e., reducing visibility to less than 1/4 mile). Sleet is defined as pellets of ice composed of frozen or mostly frozen raindrops or refrozen partially melted snowflakes. These pellets of ice usually bounce after hitting the ground or other hard surfaces. Heavy sleet is a relatively rare event defined as the accumulation of ice pellets covering the ground to a depth of 0.5 inch or more. Freezing rain or freezing drizzle occurs when rain or drizzle freezes on surfaces such as the ground, trees, power lines, vehicles, streets, highways, etc. An ice storm is used to describe occasions when damaging accumulations of ice are expected during freezing rain situations. A combination of severe winter weather types occurring over a wide area is usually called a winter storm. Winter-storm formation requires below freezing temperatures, moisture, and lift, to raise the moist air to form the clouds and cause precipitation.

Probability: Since 1993, Arkansas has experienced 95 severe winter weather events including 32 heavy snow/snowstorm events, 30 ice storm events, and 33 winter storms. These numbers indicate that Arkansas can expect an average of almost 7 severe winter weather events each year, including 2.5 heavy snows, 2.3 ice storms each year, and 2.5 winter storm event in an average year.

It is a virtual certainty that the state will experience severe winter weather events in the future.

Vulnerability: Small accumulations of ice can cause driving and walking difficulties while heavy accumulations produce extremely dangerous and damaging conditions. Significant accumulations of ice pull down trees and utility lines resulting in loss of power and communication. These accumulations of ice make walking and driving extremely dangerous. The occurrence of severe winter weather has a substantial impact on communities, utilities, transportation systems, and agriculture, and often results in loss of life due to accidents or hypothermia. Between 1988 and 1991, a total of 372 deaths, an average of 93 each year, were attributed to severe winter storms nationally.

Severe winter weather poses several types of hazards including snowstorms, ice storms, storms with strong winds, and extreme cold. Heavy snow from a snowstorm can immobilize a region and paralyze a city, stranding commuters, stopping the flow of supplies, and disrupting emergency and medical services. Accumulations of snow can collapse buildings and knock down trees and power lines. In rural areas, homes and farms may be isolated for days, and unprotected livestock may be lost. The cost of snow removal, repairing damages, and loss of business can have large economic impacts on cities and towns. The monetary costs of power and communications losses to businesses are significant but difficult to estimate. Poultry houses in Arkansas are particularly at risk. Additional agricultural revenues are lost because of the time it takes to rebuild the poultry houses. Arkansans are generally unaccustomed to driving on slick roads resulting in an increase in traffic accidents, some of which may result in fatalities.

The cost of the numerous traffic accidents, as well as the costs related to business and school closings that occur due to hazardous travel conditions are difficult to estimate. Prolonged exposure to the cold can cause frostbite or hypothermia and become life threatening.

Flooding (Riverine, Flash, and Dam Failure)

Background: Flooding is defined as the accumulation of water within a water body and the overflow of excess water onto the adjacent floodplain, causing land that is normally dry to be inundated. A riverine flood is a flood caused by precipitation, runoff or snowmelt over a relatively large watershed causing flooding over wide areas and cresting in over 8 hours. A flash flood is a flood caused by heavy precipitation or snowmelt over a limited watershed (typically less than 50 square miles), crests in eight hours or less, and generally occurs in hilly terrain. Flash floods pose more significant safety risks than other riverine floods because of the rapid onset, the high water velocity, the potential for channel scour, and the debris load.

The failure of a dam may also result in a flood event. A dam impounds water in the upstream area, referred to as the reservoir. Two factors influence the potential severity of full or partial dam failure: (1) The amount of water impounded, and (2) The density, type, and value of development downstream.

Probability: The State experienced 841 flood events (23 riverine floods and 818 flash floods) over an 11-year period from January 1993 to December 2003. From January 2004 through December 2006, the state experienced an additional 253 flood events. Over this

entire period from 1993 through 2006, Arkansas has suffered an average of over 84 flood events annually, including approximately 3 major riverine flood events and an average of 81 flash flood events per year. In the past 11 years, every county in Arkansas has experienced a flash flood event. On average, 44 of the State's 75 counties are affected annually. Since 1972, the State of Arkansas has suffered from eighteen Presidential Disaster Declarations that involved flooding. This represents an average of less than one (0.56) declared flood disaster annually (or one federally declared flood disaster event every 1.8 years).

According to data from the Arkansas Natural Resources Commission Dam Safety Program, no failure of a permitted dam has occurred in Arkansas. Permitted dams are those that exceed 25 feet in height and impound at least 50 acre-feet of water. Smaller, non-permitted dams have failed or been overtopped on occasion in Arkansas. These non-permitted dams are generally low hazard dams that lack engineering design but have not caused significant damage in the past. Based on this limited data, failure of permitted dams is not likely to be more frequent than once every 50 years. Failure of smaller non-permitted dams appears not to be more frequent than once every few years.

Vulnerability: Every county in the State can be affected by flooding. Floods are extremely dangerous because they cause damage through inundation and soaking as well as the incredible force of moving water. High volumes of water can move heavy objects and undermine roads and bridges. Floods often occur without local precipitation as a result of precipitation upstream.

Flooding is an on-going certainty with a very high probability of occurrence in the future. However the current flood risk as calculated by NOAA is "Average" with some areas actually below average due to drought conditions.

Flooding can also facilitate other hazards such as landslides, or cause other hazards such as hazardous material events.

Earthquake

Background: An earthquake is the shaking or vibration of the earth caused by the sudden release of energy, usually as a result of rupture and movement of rocks along a fault. If the energy of the seismic waves is strong enough, people and structures along the earth's surface will be affected. The New Madrid Seismic Zone (NMSZ), an area of high seismic activity within the central United States (including northeastern Arkansas), is the most important example of intraplate seismicity in North America. When earthquake zones develop within a rigid tectonic plate the result is intraplate seismicity. Intraplate earthquakes arise from a localized system associated with structural complexities from earlier geological conditions or from variations in the strength of the lithosphere (crust and upper mantle of the earth).

Probability: It is generally accepted that earthquakes can be expected in the future as frequently as they have occurred in the recent past. The USGS and the Center for Earthquake Research and Information of the University of Memphis now estimate that

the probability of a repeat of the 1811 - 1812 earthquakes (magnitude 7.5 to 8.0) in the NMSZ over the next 50 years is 7 to 10%. The probability that a magnitude 6.0 or larger earthquake will occur in the next 50 years is 25 to 40%. The New Madrid Fault is a very active area of seismic events. Every month, Arkansas can expect to have some type of seismic event, although usually low intensity.

Vulnerability: Earthquakes in the approximate range of magnitude 7.5 to 8.0 are capable of causing widespread damage over a large region. Magnitude 6.0 earthquakes can cause serious damage in areas close to the earthquake's location. If the energy of the seismic waves is strong enough, people and structures along the earth's surface will be affected.

Wildfire

Background: A wildfire is an uncontrolled fire spreading through vegetative fuels, exposing and possibly consuming structures. They often begin unnoticed and spread quickly and are usually signaled by dense smoke that fills the area for miles around. Grasses, brush, and trees fuel wildfires. A wildland fire is a wildfire in an area in which development is essentially nonexistent, except for roads, railroads, power lines and similar facilities. A Wildland-Urban Interface Fire is a wildfire in a geographical area where structures and other human development meet or intermingle with wild lands or vegetative fuels. Areas with a large amount of wooded, brush and grassy areas are at highest risk of wildfires. Additionally, areas that have experienced prolonged droughts, or are excessively dry, are also at risk of wildfires. Wildfire behavior is based on three primary factors: fuel, topography, and weather. Almost 44% of fires and nearly 58% of acres burned over the period from 1992 through 2003 were maliciously set. In 2004 there were 1654 reported fires with a total of 22,612 acres burned. In 2005 there were 2674 reported fires with a total of 34,907 acres burned. In 2006 there were 2964 reported fires with a total of 42,042 acres burned.

Probability: Although fires occur at all times of the year in Arkansas, February through April is the peak fire season with March having the largest average number of fires (692). The period of least fire activity is during May and June. It is a virtual certainty that the state will experience a number of fires every year. The National Inter-Agency Fire Center bases high potential for fires on a variety of factors including on-going drought levels, temperature levels, precipitation levels, and fire fuel levels. The State of Arkansas has been in the normal range and the probability of future fire events for the foreseeable future has not been increased due to these variable factors.

Vulnerability: Short-term loss caused by a wildland fire can include the destruction of timber, wildlife habitat, scenic vistas, and watersheds. Vulnerability to flooding increases due to the destruction of watersheds. The removal of vegetation may also increase vulnerability to landslides. Long-term effects include smaller timber harvests, reduced access to affected recreational areas, and destruction of cultural and economic resources and community infrastructure.

Landslide
Background: "Landslide" is a term that encompasses many phenomena-involving lateral and down slope movement of earth materials such as, rock, soil, and/or artificial fill. The term covers a broad category of events, including mudflows, mudslides, debris flows, rock falls, rockslides, debris slides, earth flows, and soil creep. Landslides can occur as sudden, short-lived events or as a slow moving slide mass (such as a particular landslide in California which has moved three feet per year since 1956). All landslides are triggered by similar causes. These can be weaknesses in the rock and soil, earthquake activity, the occurrence of heavy rainfall or snowmelt, or construction activity changing some critical aspect of the geological environment. Landslides may also be involved in or triggered by other natural hazards. Landslides and flooding are closely related because both involve precipitation, runoff, and ground saturation. Landslides are classified by the type of movement that occurs and the type of material involved (Figure 4.2.6-1). The types of movement are slides, flows, lateral spreads, falls and topples. The types of material involved in landslides include bedrock and soil.

Vulnerability: Landslides have occurred in nearly every county in Arkansas. They have destroyed or damaged roads, railroads, bridges, mining facilities, parks and recreational areas, residential and commercial buildings, sewers, dams, reservoirs, forests, fisheries, and farms. Damage caused directly by landslides is largely undocumented or often reported incorrectly. The devastating effects of landslides often are attributed to the triggering event such as a flood, earthquake, or storm.

Probability: The probability of landslides is very difficult to calculate because most landslides are related to other hazards. Based on the historical records, there is a high probability that landslides will occur in the high risk areas along the eastern border and along the Ozark-Ouachita mountainous region in the central western area of the state. Generally, there is a low probability of landslides for the rest of the state; however isolated areas especially with human development may be susceptible to this hazard.

Expansive Soil
Background: Expansive soil (or swelling soil) is soil or soft rock that increases in volume when the moisture content of the soil increases and decreases in volume when moisture content decreases. The clay mineral montmorillonite is nearly always the cause of the volume change. Water molecules are pulled or adsorbed into gaps between the clay plates. As more water is adsorbed, the plates are forced further apart, leading to an expansion of the soil's volume or an increase in soil pressure. The force of expansion is capable of exerting pressures of over 20,000 pounds per square foot.

Vulnerability: Although not well known to the general public, expansive soils are responsible for major economic losses. Various studies estimate that expansive soils result in somewhere between $2 and $11 billion in annual losses in the United States, significantly more than other natural hazards. Other studies have suggested that approximately 10% of the new homes constructed annually in the United States are subjected to significant damage during their useful lives by expansive soils, and an additional 60% of homes sustain minor damage.

Expansive soils cause differential movement and horizontal pressure on structures resulting in cracked driveways, cracked sidewalks and basement floors, heaving of roads and highway structures, and disruption of pipelines and sewer lines. Damage to homes can range from hairline plaster cracks and sticking doors to condemnation or complete destruction. Expansive soils occurring on slopes can also result in slow but damaging down slope movement of material (creep) or even landslides.

Probability: Unlike other natural hazards discussed in this plan, expansive soil is a long-term condition that often causes incremental damage to a structure over a period of many years. Although little noticed, soil expansion and contraction in the State is a high frequency /high probability event as it occurs daily and therefore causes damage to structures on a daily basis. This incremental damage, however, rarely leads to significant damage in Arkansas. The probability of this event occurring in the southern and eastern portion of the state is higher than the central, northern or western region. Also, as the state experiences more issues with water levels along the Mississippi River and the Sparta Aquifer in the southeastern corner, this issue of expansive soil may begin to occur more frequently.

Straight-Line Wind

Background: Straight-line wind is any wind that is not associated with rotation. This term is used mainly to differentiate severe storm winds from tornadic winds. Straight-line winds originate as a downdraft of rain-cooled air, which reaches the ground and spreads out rapidly, producing a potentially damaging gust of wind up to 100 mph. In recent years, there have been several occasions in Arkansas on which winds greater than 100 mph have been measured. Winds of 58 mph (50 knots) or more are considered severe. The horizontal component of near-surface wind phenomena is the most significant aspect of the hazard.

Vulnerability: Trees, power lines, power poles, and radio towers can be blown down. Homes and other buildings can be damaged and/or destroyed. Tractor-trailers are often blown over. High profile structures like grain elevators and silos can be blown over. Often there is secondary or collateral damage such as people killed due to carbon monoxide poisoning from improperly using generators or evacuations due to hazmat container damage.

Probability: The probability of strong storms - and the straight-line winds that occur during these storms - impacting the state is a virtual certainty based on past data. The National Oceanographic and Atmospheric Association's (NOAA) National Severe Storms Laboratory (NSSL) initiated a project to estimate the likelihood of severe weather hazards in the United States. Part of the project calculated the average number of days per year with one or more >58 mph wind events within 25 miles of a given point. Most of Arkansas lies within the 6 to 7 wind days per year interval, with the northeast part of the state in the 4 to 6 wind days per year interval.

Drought
Background: Drought is a normal, recurrent feature of climate. In the most general sense, drought originates from a deficiency of precipitation over an extended period of time, resulting in a water shortage for some activity, group, or environmental sector. Drought is a temporary aberration; it differs from aridity, which is restricted to low rainfall regions and is a permanent feature of climate.

Vulnerability: When drought begins, the agricultural sector is usually the first to be affected because of its heavy dependence on stored soil water. For example, the rice crop wasn't affected much by the drought in 2005, but farmers and cattlemen were worried about the on-going effects for 2006. As precipitation deficiencies continued, people dependent on other sources of water began to feel the effects of the shortage. Those who relied on surface water (i.e., reservoirs and lakes) and subsurface water (i.e., ground water), for example, were, as usual, the last to be affected. Drought also increases the risks and dangers related to fire.

Probability: Eastern and central Arkansas have experienced severe to extreme drought conditions less than 5% of the time. Western, north-central, and south central Arkansas have experienced severe to extreme drought conditions between 5% and 10% of the time. Arkansas experienced severe to extreme drought conditions 23 times over a 265-year period between 1730 and 1995, approximately one drought every 11.5 years. For example, as of April 2007, the southern portion of the state had experienced moderate and severe drought, however the rest of the state had returned to a normal level after the relatively severe conditions in 2006.

Hazardous Materials Event
Background: The United States produces, transports, stores, uses, and disposes of millions of tons of hazardous materials every day. Under normal conditions, these substances are controlled and pose no threat to human life and the environment. But when a release occurs, they can produce disastrous results. A hazardous materials incident can range from a chemical spill on our highways to groundwater contamination by naturally occurring Methane gas. Releases of these hazardous products often occur during their daily shipment and use on Arkansas highways, railroads, pipelines and other transportation methods. Hazardous materials are chemical substances, which if released or misused can pose a threat to the environment or health. These chemicals are found throughout Arkansas. Hazardous materials can come in the form of explosives, flammable and combustible substances, poisons, and radioactive materials.

Probability: A hazardous materials accident can occur virtually anywhere within Arkansas; however hazardous substances are most often released as a result of transportation accidents or because of chemical accidents in plants. Communities located near chemical manufacturing plants are particularly at risk. However, hazardous materials are transported throughout Arkansas via roadways, railways, pipelines, waterways, and air daily, so virtually any area is considered vulnerable to an accident. However, the overlapping of one or more of these modes of transportation within an area increases the risk of a HAZMAT event occurring. About 266 HAZMAT events occur annually in

Arkansas - twice the national average, based on statistics collected through the year 2000. Since 1991, Arkansas averaged around 3.6 HAZMAT events per county per year. Based on the many reported occurrences and the continuing presence of these various hazardous materials, there is a high probability of future HAZMAT related accidents at fixed sites throughout the State of Arkansas.

Vulnerability: Hazardous materials in various forms can cause death, serious injury, long-lasting health effects, and damage to buildings, homes, and other property. As many as 500,000 products pose physical or health hazards and can be defined as "hazardous chemicals." The vulnerability and impacts of a hazardous materials event in Arkansas can differ drastically due to the location of release, surrounding populations, mode of release and other significant scenarios. Highway transported HAZMAT events occur the most frequently; however, in many cases these are smaller events that do not cause a lot of damage or pose a great risk to surrounding populations. Rail events on the other hand have a much lower occurrence rate, but when these events do occur, their results are usually more severe and impact a much broader population.

Natural disasters, particularly earthquakes, can cause HAZMAT releases at fixed sites and can hamper response efforts. Rain, high winds and fires can worsen conditions surrounding HAZMAT events, making it more difficult to contain releases and to mitigate the short- and long-term effects. Fires involving certain types of HAZMAT may generate more toxic gas or smoke than would otherwise normally be observed in a "normal" fire.

Pine Bluff Arsenal

Background: Pine Bluff Arsenal is one of eight Army installations in the U.S. that currently store chemical weapons. The chemical weapons stored at the arsenal consist of ton containers containing HD blister agent. The Army is working in partnership with State and local government agencies, as well as federal agencies like the Environmental Protection Agency and the Centers for Disease Control and Prevention, to safeguard the local community and protect the environment as these chemical weapons are stored and disposed.

Vulnerability: Risk studies show that 3.3 years of disposal operations using incineration is much safer than the risk continued storage poses to the surrounding community. The CDC has found emissions from such incinerators are much cleaner than common urban air concentrations. These facts — along with the Army's 20-plus years of experience with safe, proven and mature incineration technology — underline the Army's promise to provide the utmost protection to the safety and health of installation workers, the public and environment until the stockpile is completely eliminated.

Probability: Based on past historical events, and the frequency at which events occurred since the agent disposal began, there is a minute probability of future events occurring at the Pine Bluff Arsenal. However, as suggested in prior events, it is expected that any future occurrences would be minimal and not affect the surrounding populations.

Methamphetamine Lab
Background: A typical meth lab is a collection of chemical bottles, hoses and pressurized cylinders. The cylinders can take many forms, from modified propane tanks to fire extinguishers, scuba tanks, and soda dispensers. The tanks contain anhydrous ammonia or hydrochloric acid – both highly poisonous and corrosive. Labs are frequently abandoned, and the potentially explosive and very toxic chemicals are left behind. Chemicals may also be burned or dumped in woods or along roads.

Probability: Arkansas State Police were involved in only six methamphetamine labs seizures statewide in 1994. The number jumped to 24 in 1995, 95 the next year, then rocketed to 242 in 1997. In 1998, the number shot to 434 labs and the numbers continue to climb. The Federal Drug Enforcement Administration's top methamphetamine enforcement agent identified Arkansas as one of the top three methamphetamine-producing states in the nation, based on per-capita figures. Based on the high number of past occurrences and the continuing prevalence of this highly addictive substance, there is a very high probability that these types of events will occur in the future.

Vulnerability: Meth Labs present extreme dangers to residents of Arkansas from explosions and exposure to hazardous chemicals. Breathing the fumes and handling substances can cause injury and even death. Drug labs are considered hazardous waste sites and should only be entered by trained and equipped professionals. Meth can cause long-term health effects including cancer, brain damage, birth defects and miscarriages. It also can cause memory loss, heart problems, aggression and violence. Meth causes health problems not just for the users, but also for others who are unintentionally exposed to the chemical. People who enter a drug lab after the police, but before it has been properly cleaned and ventilated, may feel headaches, nausea, dizziness and fatigue. These symptoms usually go away after several hours. People who enter a lab during or immediately after a drug bust may experience shortness of breath, cough, chest pain, dizziness, lack of coordination, burns, and even death.

Highway Transportation Hazmat
Background: Arkansas has a high volume of hazardous materials transported on its highways and interstates each day. Two major interstates run through Arkansas. Interstate 30 and Interstate 40 intersect in Arkansas' largest city and State capital, Little Rock. The main corridor of Interstate 40 runs east and west across Arkansas. Interstate 40 connects the east and west coasts of the U.S. Interstate 30 connects Little Rock, AR and Dallas, TX. Both Interstates are used heavily for hazardous materials transportation.

Probability: Based on past occurrences of highway incidents in Arkansas involving hazardous materials, it is highly likely that future events will continue to occur within the State.

Vulnerability: Wastes are designated as hazardous, by law and/or regulation because they exhibit dangerous characteristics: they are ignitable, corrosive, reactive or toxic.

Railway Event

Background: The volume of HAZMAT moving by rail in the US has more than doubled since 1980, with approximately 1.7 million carloads now moving each year. In 2001, though, only 32 rail accidents resulted in a release of hazardous materials. An astounding 99.996 percent of rail HAZMAT shipments reached their final destination without a release caused by an accident. Overall HAZMAT accident rates have fallen 87 percent since 1980 and 30 percent since 1990. Railroads carry about 1.7 million carloads of hazardous materials annually.

Probability: There is significant mileage of rail throughout the State and an increasing amount of traffic. The industry is continually taking steps to improve the safety of the entire system, but a small number of incidents are likely to occur annually. The probability is high that a major railway event will occur in the next ten years.

Railports are where the rail systems meet trucking, water and pipeline transportation. Hazardous materials may be transported by several modes. When materials are offloaded from one mode onto another, it takes place at an intermodal yard. Containers of materials of all types are transferred from one mode to another. This transfer of modes increases the chances of a hazardous materials event occurring.

Vulnerability: Two types of HAZMAT releases from railroad events are of the most concern: 1) Collisions and derailments that result in large spills or discharges, or air releases during fires; and, 2) Releases from leaks in fittings, seals, or relief valves, and improper closure or defective equipment. These releases account for approximately 70 percent of all railroad-related incidents each year.

Pipeline Hazard

Background: There are over 40,000 miles of hazardous liquid and natural gas pipelines in Arkansas. That figure compares with a national average of 51,765 miles per State. These pipelines include large-diameter lines carrying energy products to population centers, as well as small-diameter lines that may deliver natural gas to businesses and households into suburban neighborhoods

Probability: There are a large number of pipelines crisscrossing the State carrying a variety of substances. The nation's pipelines have a remarkable safety record. Part of the reason for that success is the attention focused by the pipelines on issues of safety, maintenance and damage prevention. There is a high probability that small pipeline events will occur, however the chances of a large scale disaster occurring are relatively small.

Vulnerability: Pipelines are considered by many to be the safest method for transporting energy products. Nevertheless, they can and sometimes do rupture, posing serious risks. Pipelines carrying gas, oil and other liquids provide the heat for our homes and power for the economy throughout our State and nation. Over 65% of the counties (49 counties) in Arkansas have a considerable threat level from a Pipeline incident.

Air and Water Transported Hazmat
Water transported HAZMAT events are an extremely low priority to the State in comparison to other HAZMAT related hazards. Air transported HAZMAT events as the lowest priority to the State of Arkansas in comparison to other HAZMAT related hazards. Detailed sections of air or water transported HAZMAT events in the Mitigation Planning efforts are not included here at this time. The reason for this decision is that historically, Arkansas has virtually no major air or water transported HAZMAT events on record. No accounts have been found of significant loss of life or property. A HAZMAT event by air or water does not pose a risk of vulnerability or impact on the State of Arkansas at this time. If necessary in the future, a section on air or water transported HAZMAT events will be added.

Nuclear Event
Background: A nuclear reactor is a device in which nuclear chain reactions are initiated, controlled, and sustained at a steady rate. Nuclear reactors are used for many purposes, but the most significant current uses are for the generation of electrical power. Nuclear reactors are considered problematic by some for their safety and health risks. Conversely, some consider nuclear power to be a safe and pollution-free method of generating electricity. During the late 60's, construction began on the Southwest Experimental Fast Oxide Reactor (SEFOR) and Arkansas Nuclear One (ANO). The SEFOR facility ceased operation during the 70's leaving ANO as the only active nuclear reactor within the State of Arkansas. Arkansas Nuclear One is a two unit pressurized water reactor nuclear power plant.

Probability: Although the SEFOR site is not operational, a sizeable danger still remains that an event might occur. The continued deterioration of the encapsulation system remains the most likely scenario. Once moisture penetrates the encapsulated materials, the potential for a violent explosion increases greatly.

There is a low probability of an event occurring at Arkansas Nuclear One. This is based on the low rate of nuclear site events that have occurred over time. The firm regulations upheld by the NRC, Entergy and staff at ANO, as well as the Nuclear Regulatory Commissions approach to risk analysis for nuclear reactors and their findings at ANO, ensure its safe operation.

Vulnerability: The potential danger from an accident at a nuclear power plant is exposure to radiation. This exposure could come from the release of radioactive material from the plant into the environment, usually characterized by a plume (cloud-like) formation. The area the radioactive release may affect is determined by the amount released from the plant, wind direction and speed and weather conditions (i.e., rain, snow, etc.) which would quickly drive the radioactive material to the ground, hence causing increased deposition of radionuclides.

Since closure, the SEFOR facility has deteriorated significantly and now poses a serious risk to surrounding populations. The biggest concern at SEFOR is the possibility of an explosion due to sodium residue. The residue is a result of the sodium metal that was

used as the reactor's coolant. Sodium, when combined with water, produces hydrogen which is highly combustible. As the facility and its current encapsulation system deteriorate, the potential for moisture to seep in leads to the possibility of a massive explosion. Such an explosion would likely disperse significant amounts of asbestos, radioactive materials, and trace amounts of mercury and other hazardous chemicals throughout the area. A credible threat exists due to sabotage by trespassers.

Terrorism

Background: Terrorism is defined in the Code of Federal Regulations as "the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives." It is the use of force or violence against persons or property in violation of the criminal laws of the United States for purposes of intimidation, coercion or ransom. Terrorists often use threats to create fear among the public, to try to convince citizens that their government is powerless to prevent terrorism, and to get immediate publicity for their causes. In the United States, most terrorist incidents have involved small extremist groups who use terrorism to achieve a designated objective.

Probability: There is no sure way to predict future terrorism events. Since Arkansas is primarily rural, terrorists could very well gather materials, make plans and carry out those plans undetected. There are several locations in Arkansas that could be very attractive targets to a terrorist.

Vulnerability: Arkansas is considered vulnerable, as are other areas, because the chief objective of the terrorist is to spread fear and create economic damage. The result of a terrorist attack could be mass casualties and long-term contamination. It could wreak havoc to both the state and national economies. A terrorist attack could come in many forms including explosives, infectious diseases, organisms that create toxins, chemical releases or radiological releases.

Weapons of Mass Destruction (WMD)

Background: Weapons of mass destruction are defined as (1) Any destructive device as defined in 18 U.S.C., Section 2332a, that includes any explosive, incendiary, or poison gas, bomb, grenade, rocket having a propellant charge of more than four ounces, missile having an explosive or incendiary charge of more than one quarter ounce, mine or device similar to the above; (2) Poison gas; (3) Any weapon involving a disease organism; or (4) Any weapon that is designed to release radiation or radioactivity at a level dangerous to human life.

Probability: Like terrorism, there is no sure way to predict future WMD events. They may be the same event. The probability of a major terrorist/WMD event in the state of Arkansas is very low, however planning must be done as part of the larger national Homeland Security initiatives.

Vulnerability: Signs and symptoms of radiation exposure depend on the amount of radiation received and the length of exposure. Victims exposed to deadly or extremely high doses of radiation in a short period of time – seconds to minutes – will display burned, reddened skin, nausea, vomiting, diarrhea, hair loss, convulsions and unconsciousness. Exposure to non-deadly doses may produce similar symptoms, but take longer to show up. Exposure to low doses of radiation will take 15 – 20 years for the medical effects such as vision loss and cancer to appear. Radiation also affects people differently depending on their age, gender and overall health. Other health effects include: brain swelling blood chemistry changes internal organ and tissue damage.

Bacteria and viruses cause diseases such as anthrax, smallpox and cholera. Signs and symptoms are different for each agent and each agent will affect people differently. Symptoms may be flu like or they may present as anything contrary to normal bodily functioning.

Most chemical agents, depending on their type, concentration and length of exposure, can be deadly. Some attack the central nervous system like nerve gas and incapacitating agents. Some, such as blood and choking agents, attack the respiratory system. Blistering agents and riot control agents affect the skin, eyes and mucous membranes by direct contact.

Biological

Background: Biological hazards have always been a real and present danger for human civilizations. A large number of diseases have occurred throughout history with devastating effects on populations, economies and cultures. In modern times, this threat has magnified due to the interconnectedness of humanity through improved transportation.

Probability: The Avian Flu is currently spreading in Asia, Africa and even into parts of Europe and is a national priority. While the probability of an epidemic is relatively low, the magnitude of the potential impact cannot be ignored. The probability of a major pandemic occurring is much less likely that the standard dispersion during an average season. However, if the Avian Flu mutates into a human-to-human transmissible virus, a major pandemic is very likely. There is significant concern about potential anthrax attacks in the future. There is a high probability that Arkansas will experience future cases of West Nile Virus in people, birds and mosquitoes. The CDC has announced that the deliberate release of smallpox as an epidemic disease is now regarded as a possibility. The likelihood of a smallpox epidemic in Arkansas is low. In today's highly mobile environment and global agricultural economy, there is a risk of an introduction of Foot and Mouth Disease into the United States. There is a relatively low probability of a case of Bovine Spongiform Encephalopathy (BSE or Mad Cow Disease) affecting the herds of Arkansas.

Vulnerability: Of the various factors related to biological hazards the ones of most concern to the State are Avian Flu (H5N1), Influenza, Anthrax, West Nile Virus, Small

Pox, Foot and Mouth Disease, and Mad Cow Disease. Due to the recent outbreaks of the Avian Flu, the national priority on this issue, and the extremely high economic value of the poultry industry for the state, the Avian Flu is the highest priority. Arkansas considers animal related disease to be a very high priority due to the health and economic issues relating to the cattle and poultry industry. In addition to this list of specific hazards, the mitigation strategies identified for these highest priority bio-hazards will assist in dealing with any specific disease related to bio-terrorism.