



ASA HUTCHINSON
GOVERNOR

**STATE OF ARKANSAS
DEPARTMENT OF EMERGENCY MANAGEMENT**



DAVID MAXWELL
DIRECTOR

October 28, 2015

The Honorable Bill Sample, State Senator
The Honorable David Branscum, State Representative
Co-Chairs, Arkansas Legislative Council
c/o Bureau of Legislative Research
Room 315, State Capitol Building
Little Rock, AR 72201

Dear Sirs:

Enclosed is the annual Arkansas Earthquake Program report as required per ACA 12-77-107. This report is being provided in an electronic version; a print version may be provided upon request.

Please do not hesitate to contact me if I or my staff may be of further assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "David Maxwell".

David Maxwell
Director and State Homeland Security Advisor

To the Co-chairs of the Legislative Council:

In accordance with the House Bill 2032 amending Act 711 the Arkansas Department of Emergency Management (ADEM) hereby reports the following activities of the Arkansas Earthquake Program as they relate to specific requirements of the bill:

A. Continued assessment from proper scientific authorities of the seismic risk to the state:

In 2015 ADEM maintained its relationship with the Arkansas Geological Survey (AGS), Arkansas Archeological Survey (AAS), and State Fire Marshall, through meetings, email and phone correspondence.

- State officials from all of the above listed agencies attended the Arkansas Governor's Earthquake Advisory Council (ARGEAC) meetings in January and July 2015.
- The Arkansas Department of Emergency Management and Arkansas Geological Survey have conducted two joint meetings to discuss current seismic related issues in October and July 2015.

B. Training and education of the state and local government officials, employees, and citizens of Arkansas regarding preparation and protective measures that can be taken before, during, and after an earthquake:

In 2015 ADEM hosted a variety of courses focused on pre and post seismic issues. Below is a complete list of classes offered by the state to all citizens, government officials and employees.

- October 10, 2014 – Hosted an ATC 20, Post-Earthquake Building Assessment course in Little Rock, AR at Arkansas Electric Cooperatives Corporation.
- January 15, 2015 – Hosted an ATC 20, Post-Earthquake Building Assessment course in Jonesboro, AR at the Jonesboro Fire Station.
- February 9, 2015 - Hosted an ATC 20, Post-Earthquake Building Assessment course in Russellville, AR at Arkansas Tech University.
- February 20, 2015 - Hosted an ATC 20, Post-Earthquake Building Assessment course in Pine Bluff, AR at the Pine Bluff Fire Training Facility.
- March 12, 2015 – Hosted a FEMA P767 – Mitigation for Hospitals course at North East Arkansas Baptist Hospital in Jonesboro, AR.
- March 20, 2015 - Hosted an ATC 20, Post-Earthquake Building Assessment course in Jacksonville, AR at the Jacksonville Fire Training Center.
- April 23, 2015 – Hosted a FEMA 154 – Rapid Visual Inspection of Buildings for Potential Seismic Hazards Course in North Little Rock, AR at the Arkansas Department of Emergency Management.

- May 28, 2015 – Hosted a Train the Trainer course for ATC 20 – Post-Earthquake Building Assessment course in Rogers, AR at John Brown University Rogers Center.
- June 12, 2015 - Hosted an ATC 20, Post-Earthquake Building Assessment course in Monticello, AR at Drew Memorial Hospital.
- August 15, 2015 – Hosted a FEMA 154 Rapid Visual Inspection of Buildings for Potential Seismic Hazards Course in Paragould, AR at Paragould Fire Station.

C. Planning coordination, guidance, and assistance to all state and local government officials in preparation for, response to, and recovery from earthquakes:

INSPARK (INSPECT ARKansas)

In October of 2014 the earthquake program began working on a program to better utilize building inspectors after a catastrophic earthquake. This included the creation of a new database, the execution of multiple classes to help certify building inspectors and creation of concept of operations plans for how to identify and deploy teams of inspectors after an earthquake. A board of directors was identified for the program. This program successfully tested their call down and notification system as well as personnel accountability standards in March of 2015.

In 2015, Arkansas purchased supplies to provide “Go-Kits” for building inspectors to take into the field on deployment that contained necessary supplies to complete and track building inspections in a catastrophic event. Arkansas currently is working with other states to identify best-practice approaches to integrate GIS capabilities into the building inspection program. The Arkansas Department of Emergency Management has fifteen GPS units available for use at this time, which is consistent with Missouri and FEMA’s GIS programs currently in use.

INSPARK is currently serving as a model program for other member states of the Central United State Earthquake Consortium (CUSEC) to develop their programs. The Arkansas Department of Emergency Management participated with the Missouri SAVE Coalition in a collaborative exercise in October 2014 to help promote building inspection programs in the Central United States. Since then, Arkansas has served on planning committees and as an informational point of contact to other states, such as Mississippi and Kentucky, who are working to build their own programs.

In July 2015, the Arkansas Department of Emergency Management in conjunction with FEMA and CUSEC developed and disseminated a survey to all states to identify which states currently have a similar functional program. Identifying similar programs will allow states to enter resources as a Mission Ready Package (MRP) into the Mutual Aid Support System (MASS) to provide a database of national resources geo-located throughout the United

States. These resources can be deployed from state to state through the Emergency Management Assistance Compact (EMAC).

Arkansas Aviation Operations Plan Revision

ADEM's Technical Planner conducted a full review and revision of the Arkansas Aviation Operations Plan. To gain situational awareness following a catastrophic earthquake, the response community will rely heavily on aviation reconnaissance. This revision includes a series of meetings with associated aviation partners throughout the state to ensure a common operating picture and standard operating procedures during emergency air operations. Memorandums of Understanding (MOU) were developed with airports around the state to use their facilities in the event of a catastrophic earthquake. Listed below are the airports which have current signed MOU's with the Arkansas Department of Emergency Management:

- Walnut Ridge
- Baxter County
- Batesville Regional
- Fort Smith Regional
- Little Rock National
- Stuttgart Municipal
- Memorial Field (Hot Springs)
- Northwest Arkansas Regional
- Boone County Regional
- Blytheville International
- Newport Municipal
- Russellville Regional
- Drake Field (Fayetteville)
- Searcy Municipal
- Jonesboro Municipal

Arkansas Voluntary Organizations Active in Disaster (VOAD) Mass Feeding and Sheltering Plan Revisions

The Natural Hazards Planner at ADEM partnered with VOAD to establish two separate task forces regarding mass feeding and sheltering plans after a catastrophic earthquake. These task forces were created based on lessons learned in the VOAD community following the most recent multi-state earthquake exercise, Capstone 14. The task forces are still working to create a functional template for the plans. In October 2015 a meeting was held to discuss progress of the plans and identify work direction and priorities for the remainder of the project.

D. Coordination of earthquake program activities with comparable agencies of the federal government and other states:

Mutual Aid Support System/Mission Ready Packages

ADEM worked with other CUSEC states on the Mutual Aid Support System (MASS) tracking of Mission Ready Packages (MRP). MASS was developed by the state of Kentucky to track MRP's specific to different response and recovery operations. MRP's are organized, developed, trained and exercised prior to an emergency or disaster. They are developed by resource owners or providers and coordinated through state emergency management agencies. MASS will provide emergency management agencies with real-time tracking of resource inventory and allow states to utilize other states' inventory systems. Arkansas is working to identify auto-triggers for the deployment of these packages which will allow resources to be automatically dispatched to ensure timely delivery and adequate resource support at the disaster site.

Recently, Kentucky was able to incorporate MASS into the larger Emergency Management Assistance Compact (EMAC) software. This also provided an opportunity to introduce changes to the software to allow for easier tracking among resource requestors and providers.

Arkansas is currently holding workshops to identify resources around the state that can become Mission Ready Packages. As these resources are identified, they are being placed into the MASS system for other states to use.

Essential Elements of Information

In October 2015, several employees from the Arkansas Department of Emergency Management were trained to use the Essential Elements of Information (EEI) Board. The EEI Board is a tool, designed by our partners in Tennessee who are also threatened by catastrophic earthquake, to provide a common operating picture across multiple agencies, jurisdictions, and levels of government. It resides in the Emergency Management software used by Arkansas and neighboring jurisdictions and it was tested in the Capstone 14 exercise. The EEI Board consolidates information about power outages, road closures, human impacts, compromised infrastructure, etc. It also has a Geographic Information System (GIS) capability to map the data it holds. Visibility of all this information in a well organized, user-friendly format will promote effective coordination of an earthquake response that will undoubtedly have thousands of moving parts.

Private Sector Coordination

Arkansas has worked diligently over the past year to create a relationship with key stakeholders within the private sector. Through this relationship building, we have

partnered with industries, like Wal-Mart, to identify what types of resources could be provided to the State of Arkansas during a catastrophic earthquake response. Private sector partners have gained visibility in the State Emergency Operations Center (SEOC); representatives from the private sector community have the opportunity to exercise their capabilities virtually and provide feedback to our emergency operations center.

Arkansas Governors Earthquake Advisory Council

In 2015 the Arkansas Governor's Earthquake Advisory Council (ARGEAC) met for their bi-annual meetings:

- January 16, 2015 in Jonesboro, Arkansas
 - Sandy Ebersole from the Alabama Geological Survey provided a presentation regarding geological survey and emergency management roles in GIS in Alabama.
 - Tony Brooks from the Arkansas Educational Television Network (AETN) provided a presentation on the AETN First Responder Program.
 - ARGEAC separated into 4 working groups to help address issues within safety, mitigation/engineering, education and response areas of the earthquake hazard.
- July 24, 2015 in Jacksonville, Arkansas
 - The United States Army Corps of Engineers (USACE) provided a presentation regarding dam response and safety in the event of a New Madrid event.
 - Dr. Wendi Williams provided a presentation regarding the updated math and science standards for the State of Arkansas which will affect how earthquakes are presented in the classroom for k-12 schools.
 - Kelly Gottsponer provided a presentation regarding the future of public safety communications
 - Veronica Villalobos-Pogue provided a presentation on updates to the flood plains in Arkansas.
 - ARGEAC separated into 4 working groups to help address issues within safety, mitigation/engineering, education and response areas of the earthquake hazard.

National Earthquake Program Manager's Meeting

The Arkansas Department of Emergency Management participated in the National Earthquake Program Manager's (NEPM) Meeting held May 4-8, 2015 in Charleston, South Carolina. In December 2014, the Arkansas Earthquake Program Manager was named the National Earthquake Program Chairperson. The role of this chairperson position is to plan and coordinate the efforts of this meeting, to serve as the voice of all Earthquake Program

Managers across the United States, and promote innovative ideas and practices which can be implemented as national programs.

As a result of this meeting, the Arkansas Earthquake Program Manager (EQPM) was selected to serve on the Executive Planning Board for the National Earthquake Conference which is slated to take place in Long Beach, California on May 6-8, 2016. Additionally, the EQPM is serving on a committee to assist with the revision of the legislation which provides funding to states through the National Earthquake Hazards Reduction Program (NEHRP). Legislation for this program has not passed since 2009, which has greatly decreased the ability of states around the nation to sustain effective earthquake programs.

Emergency Management Assistance Compact

Arkansas Department of Emergency Management participated in utilizing the Emergency Management Assistance Compact (EMAC) during Capstone 14. EMAC is a program that streamlines the process for states to fill the resource requests of their neighboring states quickly. From March 2014 until March 2015, Arkansas served as the National Coordinating State for all EMAC requests. In March 2015, Arkansas became the Secondary National Coordinating State for EMAC. In May 2015, Arkansas had the privilege of assisting Texas during the Spring Flooding Event of 2015.

In 2014, Arkansas participated in multiple EMAC related exercises. The first was held in Sherwood, Arkansas and had participants from around the state. This exercise tested the in-processing function of EMAC personnel. Volunteer personnel were given identification badges, briefed, given specific mission orders, and debriefed by Arkansas personnel. In addition to these exercises, Arkansas also assisted with the National Coordinating State Transition by participating in exercises that gave Louisiana the opportunity to formally respond to EMAC requests.

Other exercises were conducted by Louisiana and Missouri, which tested their capabilities, identifying how each state would obtain resources from the State of Arkansas. Louisiana and Missouri filed paperwork and submitted it to Arkansas requesting resources, at which time, Arkansas processed the paperwork and simulated deployment of the requested resources. Both exercises were highly educational and provided an opportunity for personnel to become familiar with the EMAC software and paperwork format.

Interstate Emergency Response Support Plan

Over the past year Arkansas has worked with Oklahoma to build an Oklahoma capability to support the Arkansas State Emergency Operations Center (SEOC) with personnel. This project began with an exercise in October 2013 which involved bringing staff from Oklahoma's Department of Emergency Management to shadow ADEM employees. After this exercise Oklahoma's Department of Emergency Management employees will be able to support Arkansas' State Emergency Operations Center in the event of a catastrophic

earthquake through mutual aid. There continues to be a working relationship between the Emergency Operations Centers (EOC) to ensure reciprocal support in large scale disasters.

Over the course of the year, Arkansas met with several other states, including New Mexico, Texas, and Louisiana to determine each state's needs within their emergency operations centers. Visits were done to each emergency operations center and training was done on the standard processes each state uses. There is continued planning to share staff among emergency operations centers and each state is working to hold an exercise to train personnel for this purpose.

ShakeOut

The Arkansas Earthquake Program participated in the Central United States ShakeOut in 2015. This drill allows people in homes, schools, businesses, and other organizations to practice what to do during an earthquake and improve preparedness using the "Drop, Cover and Hold On" methodology. This year the exercise was held on October 15th at 10:15 am. We had 79,764 participants in the state of Arkansas which fell into the following categories:

- 85 individuals and families
- 951 childcare centers and pre-schools
- 71,508 K-12 students
- 1,000 College or University Students
- 739 local government workers
- 2,239 state government workers
- 50 federal government workers, including military
- 706 businesses
- 1,535 healthcare workers
- 512 non-profit organization workers
- 215 preparedness workers/organizations
- 79 museums, libraries, parks, etc.
- 52 youth organizations
- 7 animal shelters
- 30 media organizations

This year, the Arkansas Department of Emergency Management participated in different preparedness presentations and outreach methods to connect with a wider array of people throughout the state. As a result of the additional preparedness presentations and new outreach methods, the 2015 ShakeOut has surpassed the participation levels of the 2014 drill. Planning for the 2016 ShakeOut has begun and the Arkansas Department of Emergency Management hopes to continue to gain community involvement.

Additional Coordination Activities

ADEM participated in several other meetings in regard to interstate coordination. Below is a list of notable conference calls, presentations, and meetings.

- December 8-10, 2014 – Participated in the Central United States Earthquake Program Manager’s meeting in Prattville, AL.
- May 4-8, 2015 – Participated in the National Earthquake Program Manager’s Meeting in Charleston, SC.
- July 7-8, 2015 – Participated in the Central United State Earthquake Consortium (CUSEC) Working Group Meeting with state geologists, emergency management agencies, and building inspection programs in Memphis, TN.
- 2015 –Earthquake Program Manager (EQPM) participated in monthly CUSEC conference calls.
- 2015 – EQPM participated on monthly FEMA Region VI conference calls
- 2015 – EQPM worked with CUSEC and Public Information Officers to participate in the Central United States ShakeOut Exercise on October 15, 2015.

E. The dissemination of information to the public pertaining to earthquake hazards, especially to Arkansans living near the New Madrid Fault, protective measures, seismic resistance in building construction, and appropriate actions to be taken before, during and after an earthquake and other matters the Arkansas Department of Emergency Management shall determine to be necessary or appropriate to educate, inform, and equip citizens in this state to deal with any earthquake:

- October 11, 2014 – Hosted a booth at the Arkansas State University - Jonesboro Science Fair
- February 23, 2015 – Interviewed on KABF FM Radio for “The Morning Brew” radio show.
- May 1, 2015 – Presented during “The Summit” on earthquake preparedness in Little Rock, AR.
- June 4, 2015 – Hosted a booth at the Wal-mart Share Holders meeting in Fayetteville, AR.
- 2015 – EQPM updated the Arkansas Department of Emergency Management Earthquake Webpage to reflect current trainings happening around the state regarding earthquakes.

Recommendation for Improvement

Due in large part to the efforts put forward by the manager of the Arkansas Earthquake Program, in conjunction with the Central United States Earthquake Consortium and the Federal Emergency Management Agency, many Arkansas citizens have become aware of the potential threat posed by the New Madrid Fault System. However, there is still room for improvement. The recommendation of the

Arkansas Department of Emergency Management is to continue to provide public outreach to gain citizen involvement and awareness in relation to the New Madrid Fault System.