IOWA 2008 SUMMER STORMS AFTER-ACTION REPORT

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HANDLING INSTRUCTIONS

This document—the *Iowa 2008 Summer Storms After-Action Report*—is unclassified.

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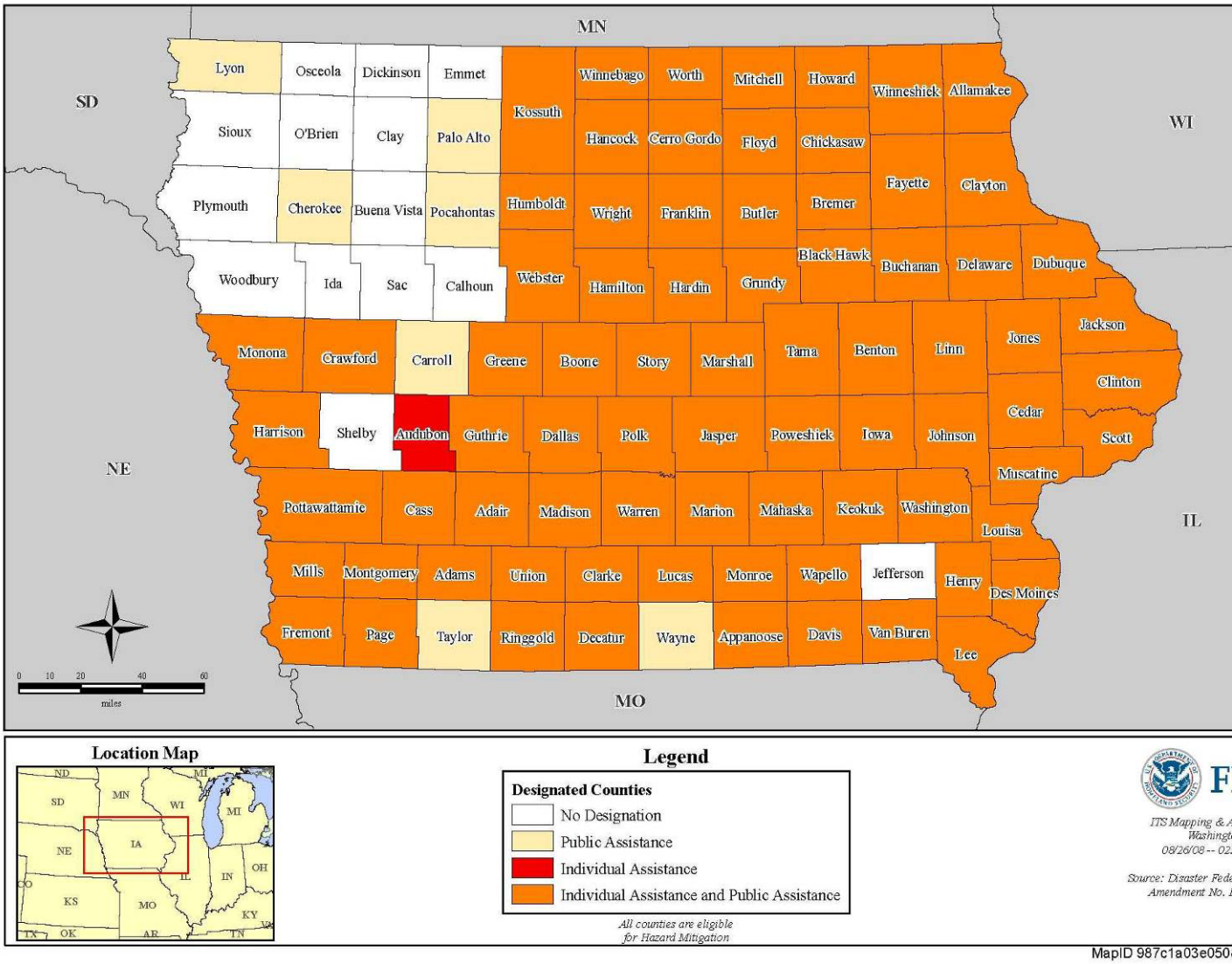

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EXECUTIVE SUMMARY

In the summer of 2008, the state of Iowa suffered from a series of severe storms that produced tornadoes and heavy rainfall, which resulted in widespread flooding. The Summer Storms[1] lasted from late May through mid-August, with the most intense storms occurring over a month-long period from May 25 to June 25. The Summer Storms exacted a major human and economic toll on Iowa, resulting in 18 fatalities and 106 injuries, forcing the evacuation of approximately 38,000 Iowans, and impacting 21,000 housing units.

Iowa's public and private sectors suffered significant monetary damages. Eighty-six of the ninety-nine counties in the state were included in the Governor's disaster declarations. Presidential disaster declarations made residents in 84 counties eligible for Public Assistance and 78 counties for Individual Assistance. The Rebuild Iowa Advisory Commission estimated $798.3 million in damages to publicly owned buildings and infrastructure, including damages of $53 million to public transportation and $342 million to public utilities.

The 2008 Summer Storms presented unique coordination challenges for the Iowa Homeland Security and Emergency Management Division (HSEMD) and the State Emergency Operations Center (SEOC). These challenges arose from three interrelated factors: the large number of local jurisdictions and areas impacted, the prolonged period of time that response operations were conducted, and the increasing complexity of overall response operations. These events caused the SEOC to coordinate response, mitigation, recovery, and preparedness operations simultaneously.

HSEMD and the SEOC implemented a variety of measures to enhance their ability to coordinate operations and assistance to localities. The SEOC expanded its organizational structure, implemented innovative techniques, and incorporated new partners into its activities. These steps enabled HSEMD and SEOC to coordinate operations more effectively, which undoubtedly helped save lives and property, while mitigating the effects of the 2008 Summer Storms.

Research Scope and Process

HSEMD and the Federal Emergency Management Agency (FEMA) Region VII recognized that the lessons learned and other knowledge gleaned from the 2008 Summer Storms would be invaluable for the state of Iowa and its localities as well as for the nation's homeland security professionals. The FEMA National Preparedness Directorate's National Exercise Division offered use of its *Lessons Learned Information Sharing* (*LLIS.gov*) program to assist in the 2008 Summer Storms after-action review. This review focuses on HSEMD and SEOC communications and coordination with affected counties, state agencies, the private sector, and FEMA Region VII. The review concentrates on the period from May 25 through June 25, 2008. This period encompasses response operations and captures the transition to recovery operations.

[1] This after-action report uses "Summer Storms" to describe the storms collectively, although they were actually a series of interrelated incidents that had a cumulative impact on Iowa.

This review does not examine the actions of counties and should not be considered to serve as a substitute for any county or local after-action review effort.

HSEMD, FEMA Region VII, and *LLIS.gov* held an after-action conference on August 18, 2008, to gain insights from federal, state, and local officials involved in preparing for and responding to the 2008 Summer Storms. *LLIS.gov* conducted additional interviews and reviewed available documentation to supplement the after-action conference. These efforts have culminated in this After-Action Report (AAR). This AAR employs the structure and approaches recommended by the Homeland Security Exercise and Evaluation Program.

Findings

This AAR presents detailed findings about SEOC coordination activities related to the Summer Storms. These findings describe both the strengths of and opportunities for improvements to SEOC processes and operations. The AAR is organized according to the following topics:

- SEOC Operations
- Coordination with Incident Sites
- Resource Management
- Information Sharing and Communications
- Public Information
- Mass Care
- Volunteer and Donations Management

Major Strengths

This AAR identifies the following as major strengths that were demonstrated during the 2008 Summer Storms:

- The SEOC activated Logistics and Planning Sections that enabled it to coordinate response operations and support to the affected localities;
- HSEMD and the SEOC effectively utilized the Iowa Incident Management Team (IA-IMT) and other field liaisons to assist localities and to promote situational awareness;
- The SEOC successfully adapted its processes to incorporate an unprecedented number of federal, state, and private sector representatives.

Primary Areas for Improvement

This AAR identifies the following as primary areas for improvement that were demonstrated during the 2008 Summer Storms:

- HSEMD should develop standard operating procedures (SOP) to help guide the role, activation, operations, and deactivation of the Logistics and Planning Sections as well as the Executive Office Support Staff;
- HSEMD should build upon the experience of the Summer Storms to refine, expand, and

institutionalize the IA-IMT and field liaison initiatives;

- HSEMD should establish protocols and SOPs to govern information sharing among SEOC Sections, the Joint Information Center, the Executive Office Support Staff, and other elements during activations.

SECTION 1: BACKGROUND AND DISASTER OVERVIEW

1.1 Iowa Homeland Security and Emergency Management

The Governor of Iowa is responsible for the protection and well-being of the state's citizens. In 2007, Governor Chet Culver appointed Lieutenant Governor Patty Judge to serve as his homeland security advisor and to oversee all Iowa homeland security activities. The state of Iowa Department of Public Defense, comprised of the Homeland Security and Emergency Management Division (HSEMD) and the Iowa National Guard, reports to Lt. Governor Judge in her capacity as the Governor's homeland security advisor.

HSEMD serves as the main coordinating body for homeland security and emergency management throughout the state. The Division supports the Governor's Strategic Plan for the State of Iowa by ensuring that counties and local jurisdictions are prepared for natural disasters or terrorist attacks. The HSEMD Administrator works closely with the Lieutenant Governor's Office on a range of homeland security and emergency management initiatives. The Administrator also ensures that Iowa meets security standards to remain eligible for homeland security funding through national grants.[2]

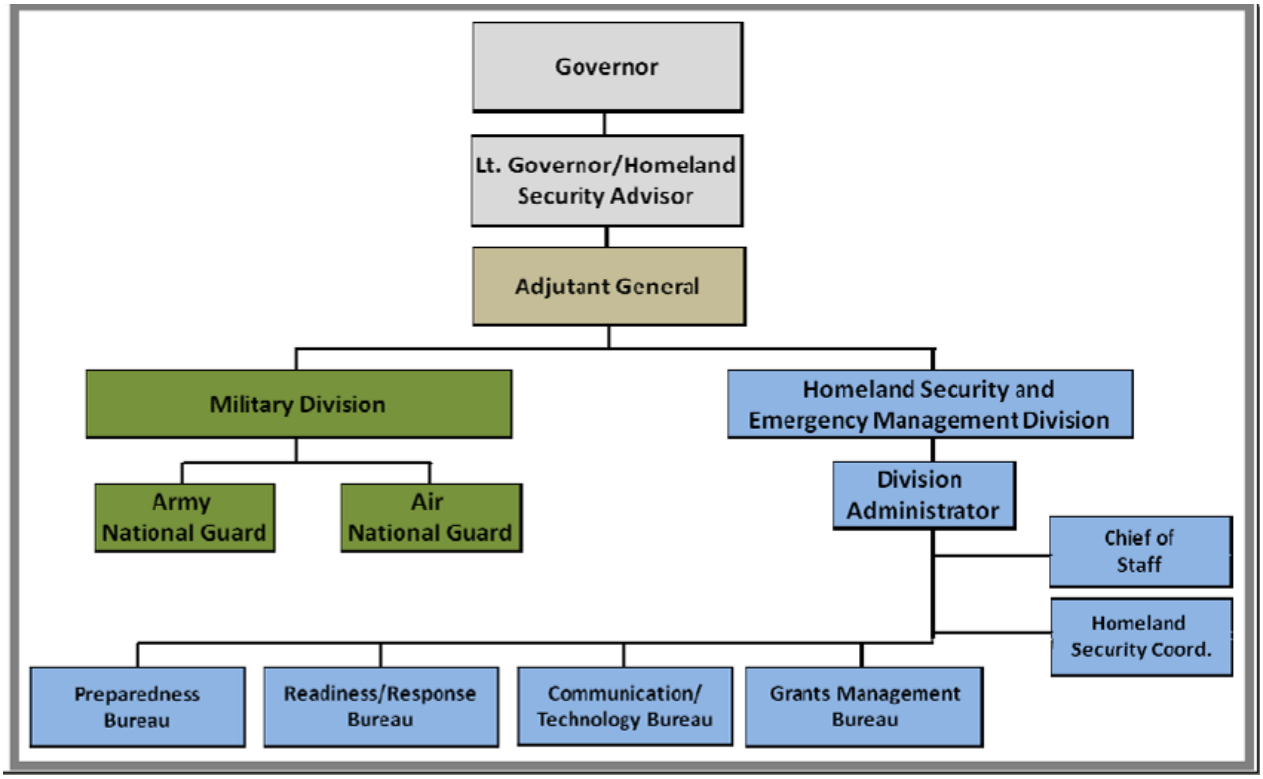

Figure 1 – The Homeland Security Structure in Iowa

[2] Iowa Homeland Security and Emergency Management Division, *State Fiscal Years 2006 – 2007*, 2008, p. 8-9, http://iowahomelandsecurity.org/Portals/0/Newsroom/Publications/HSEMD%20AR%200607.pdf.

HSEMD consists of five bureaus: Homeland Security, Grants Management, Communications and Technology, Preparedness, and Readiness and Response. Each bureau is headed by a chief who reports directly to the HSEMD Chief of Staff. The Chief of Staff and the Homeland Security coordinator report to the Division Administrator. HSEMD partners with state agencies to ensure county and local jurisdictions have sufficient support during natural disasters and other emergencies.

1.2 The State Emergency Operations Center

The State Emergency Operations Center (SEOC) is the state of Iowa's central command center for managing incidents. Representatives from over 45 state and private agencies staff the SEOC to coordinate state response and recovery efforts in support of local incidents. The SEOC is organized in accordance with Incident Command System principles and includes four Sections: Operations, Planning, Logistics, and Finance.

The SEOC employs a tiered system that has five Readiness Levels:

Level I	No incidents being reported; day-to-day business operations occurring; duty officer on-call.
Level II	An incident has been reported, but it is being handled at the local level; no state assistance is being requested.
Level III	Local officials have requested state assistance; however, no SEOC activation is necessary.
Level IV	Incident has escalated; SEOC has activated.
Level V	SEOC is fully operational; significantly more resources are necessary to meet the needs of the affected area. The National Response Framework and/or the Emergency Management Assistance Compact is activated.

HSEMD activates the SEOC at Readiness Level IV. The HSEMD Readiness and Response Bureau is responsible for the readiness of the SEOC.[3] The Executive Office is responsible for staffing the SEOC. During activations, Readiness and Response Bureau personnel serve as the initial staff for the Operations Section to begin coordination of response operations. Additional Sections are activated, as necessary, depending on the requirements of the incident. SEOC activations can last from a few hours for small incidents to several weeks for large-scale incidents.[4] The SEOC has been located at the Camp Dodge Joint Force Headquarters in Johnston, Iowa, since 1994.

[3] Iowa Homeland Security and Emergency Management Division: Structure, http://www.iowahomelandsecurity.org/AboutUs/HSEMD/DivisionStructure/tabid/89/Default.aspx.
[4] Iowa Homeland Security and Emergency Management Division, *State Fiscal Years 2006 – 2007*, 2008, p. 10, http://iowahomelandsecurity.org/Portals/0/Newsroom/Publications/HSEMD%20AR%200607.pdf.

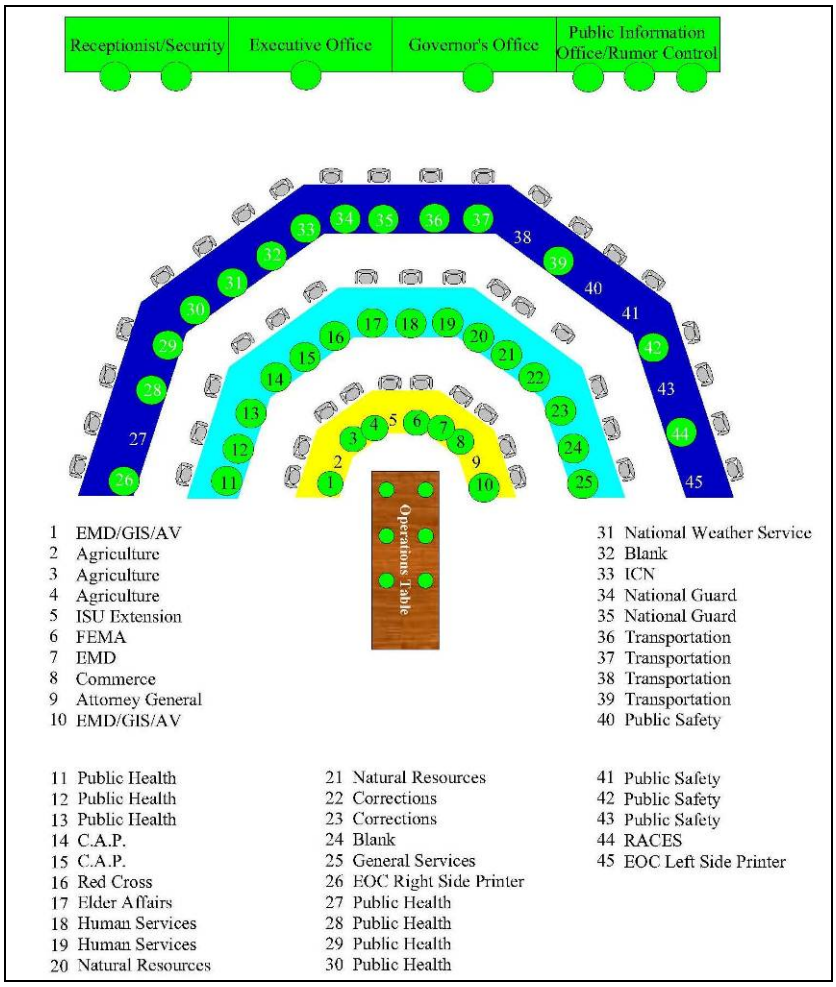

Figure 2 - Iowa SEOC Seating Chart

1.3 Lessons Learned: The 2007 Winter Storms

The state of Iowa experienced two consecutive winter storms of historic severity during a week-long span in late February and early March 2007. The first storm struck Iowa on February 24, bringing freezing rain and sleet to eastern and central parts of the state. The second storm arrived 5 days later, blanketing central and western portions of Iowa with blizzard conditions and record snowfalls in some areas. The storms destroyed electrical lines and caused roads to become ice covered, creating unsafe driving conditions. The amount of ice accumulation necessitated the closure of roads and the re-routing of traffic. Over 134,000 Iowans lost power during the 2 storms. The severe weather also forced hundreds of residents to seek refuge in the 265 emergency shelters or warming centers that were opened during this incident. Overall, the storms caused a combined $65 million in state and federally reimbursed damages, a total that, at the time, was second only to the destruction caused by the floods of 1993.[5]

[5] State of Iowa Response Coordination., *Winter Storm: Ice, Snow & Blizzard After-Action Report,* 2007, p. 40.

The SEOC worked with federal, state, and local agencies to coordinate simultaneous response and recovery operations across the state during the hazardous conditions. Joint operations between public and private entities became the norm as resources and personnel were pushed to their limit to mitigate the storms' impact on Iowa. SEOC operations officers coordinated search and rescue efforts to aid stranded motorists. Public information personnel notified communities affected by road closures. The SEOC also provided communities with shelter supplies to meet the growing number of displaced citizens. The SEOC directed 9-1-1 call centers to disseminate emergency public information after traditional modes failed due to the loss of electricity. The SEOC was activated for the duration of the winter storms from February 24 through March 3.

HSEMD conducted an after-action review to capture lessons learned about SEOC processes from the response to the winter storms.[6] Several of these lessons proved critical for SEOC operations during the 2008 Summer Storms, including:

Comprehensive Planning. The after-action review concluded that no coordinated advanced planning took place between SEOC agencies. SEOC operational forecasts typically addressed short-term issues within a 12 – 24-hour time period. Issues beyond this time frame, particularly beyond a 48-hour time period, would not be included in the forecasts. However, the winter storms demonstrated the need for longer term SEOC planning that spanned 7 days of statewide response operations. The winter storms after-action report (AAR) recommended that HSEMD "develop an interagency planning group inside the SEOC that will hold daily meetings to identify 36 hour+ issues and develop incident objectives for inclusion in upcoming Incident Action Plans."

HSEMD initiated discussions with relevant state agencies to develop a Planning Section concept for long-term SEOC response operations. HSEMD held a 3-hour tabletop exercise with state agencies on March 25, 2008, to establish a template for the Planning Section. Participants included personnel from HSEMD, the Department of Public Health, the Department of Transportation, the Iowa National Guard, and the Department of Public Safety. From this exercise, HSEMD developed a series of action items to formalize the Planning Section concept more fully.

Supporting the SEOC Executive Office. During the 2007 winter storms, Lt. Governor Judge and the HSEMD Administrator staffed the Executive Office at the SEOC. They maintained the on-site executive decision-making roles when Governor Culver was not present. Governor Culver operated at the SEOC as weather permitted and when he was not visiting areas affected by the storms. This enabled the Governor to issue clear mission statements directly to agency administrators and to obtain the necessary information about response operations. The Governor's presence at the SEOC marked a departure from previous governors, who typically visited the SEOC but did not operate from it. The SEOC's winter storm AAR found that the Executive Office required a dedicated staff to help manage the flow of conference calls and briefings and to redirect public information requests. The AAR recommended that the SEOC "provide additional

[6] State of Iowa Response Coordination, *Winter Storm: Ice, Snow & Blizzard After-Action Report*, 2007.

dedicated support to gather and present information necessary for enhancing a common operating picture for the Executive Office."[7]

Situational Awareness. The SEOC had difficulty acquiring the necessary information from localities to maintain situational awareness during the storms. The accumulation of ice disrupted the majority of Iowa's power grid and caused power outages for one-third of the state's electrical customers.[8] Localities and residents opened community buildings or fire stations as unplanned shelters to meet the urgent demand. Some of these facilities proved "less than optimal" as shelters.[9] Further, county emergency managers and the SEOC were often unaware of shelters needing assistance during the storm. Eventually, county coordinators gathered information about shelters in need. The winter storms AAR noted that close coordination with appropriate agencies would be needed to maintain awareness of local developments.

Several natural disasters struck Iowa from March 2007 to May 2008, which resulted in five presidential declarations being issued for various counties:

- Heavy snow affected 30 counties from February 28 to March 2, 2007 (FEMA 3275-EM);
- Severe storms, flooding, and tornadoes affected 19 Iowa counties from May 5 to May 7, 2007 (FEMA 1705-DR);
- Severe storms and flooding affected 17 counties from August 17 to September 5, 2007 (FEMA 1727-DR);
- Severe winter storms and ice affected 30 counties from December 10 to December 11, 2007 (FEMA 1737-DR).

HSEMD adopted many of the lessons learned from these disasters and from the 2007 winter storms. While not all corrective actions had been fully implemented by May 2008, the steps taken by HSEMD enabled it to coordinate operations more effectively, which undoubtedly helped save lives and property, while mitigating the effects of the 2008 Summer Storms.

1.4 Disaster Overview: The 2008 Summer Storms

The Summer Storms began on May 25, 2008, when an Enhanced Fujita (EF)-5 tornado struck the cities of Parkersburg, Dunkerton, and New Hartford, killing 8 people. Parkersburg officials initiated response operations and evacuated the city that evening. The tornado destroyed 296 buildings and caused estimated damages of more than $3 million. The magnitude of the damage led HSEMD to activate the SEOC to coordinate state assistance to the incident response operations. Governor Culver immediately issued a disaster proclamation for Blackhawk, Buchanan, Butler, and Delaware counties. Based upon experience from prior exercises with the Federal Emergency Management Agency (FEMA) Region VII, Governor Culver requested that President George Bush issue an expedited declaration due to the magnitude and severity of the disaster. The Governor did not anticipate the need for direct federal assistance and did not wish

[7] Ibid., p. 18.
[8] Ibid., p. 35.
[9] Ibid., p. 28.

to wait for a joint federal-state preliminary damage assessment to be conducted. On May 27, President Bush issued a Major Disaster Declaration (FEMA-1763-DR) for Butler County. A second EF-2 tornado cell struck the town of Attica in Marion County on May 30, damaging dozens of homes and injuring at least 8 people. Within a week, the tempo of response operations decreased to such a level that the SEOC deactivated on May 31.

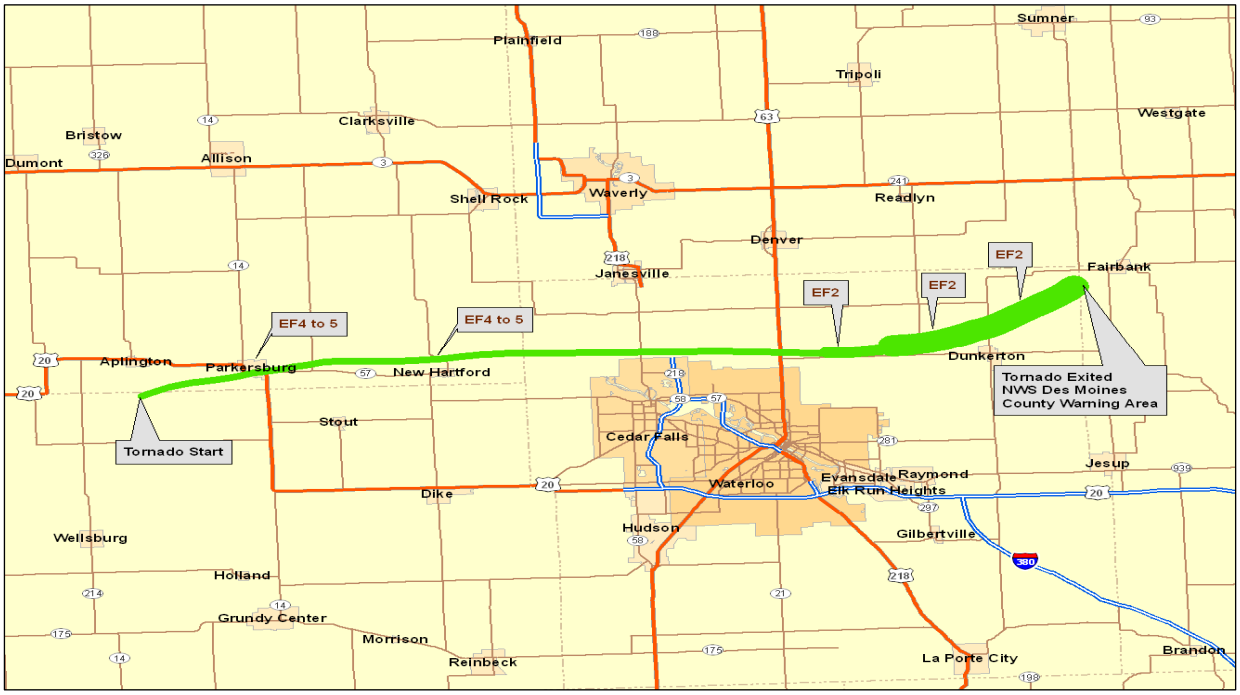

Figure 3 – National Weather Service Storm Map of the Parkersburg Tornado

A series of severe storms began passing through Iowa on May 29, bringing high winds and heavy rain that caused flooding in low-lying areas. HSEMD reactivated the SEOC on June 1 in preparation for additional heavy rainfall. On June 2, the steady precipitation caused flooding in the Raccoon River near Des Moines, which quickly spread to adjacent counties in central and northern Iowa. The National Weather Service issued warnings on June 6 that flood levels might reach levels of the 1993 floods. On June 8, residents of New Hartford and Mason City evacuated as flood waters over-topped local dams and levees. The next day, areas east of Butler County faced similar conditions that necessitated mass evacuations in Blackhawk County. Six inches of rain over-topped an Upper Iowa River levee in the city of Decorah, causing some of the worst damage since the installation of levee system in the late 1940s. By the evening of June 9, Governor Culver had issued disaster proclamations for 43 counties.

Other Iowa cities experienced the threat of severe flooding on June 10 and 11. The Cedar River crested at 24 feet and flooded the city of Vinton; flood waters incapacitated the town's electrical plant and forced the evacuation of the Benton County jail. Flood waters surged through Palo, a town just upstream of Cedar Rapids, and caused changes in communications methods at the state's only nuclear power plant. The flooding continued in Cedar Rapids and Waterloo; at one point, Cedar Rapids nearly became isolated from surface transportation when all bridges across

the Cedar River were closed except for Interstate 380. Flooding spread to the southeast counties of Iowa on June 11.

Timeline of Major Events during the Summer Storms	
May 25	An EF-5 tornado strikes the cities of Parkersburg, Dunkerton, and New Hartford and kills eight people.
May 25	The Iowa SEOC is activated and staffed by HSEMD personnel.
May 27	President George W. Bush issues Major Disaster Declaration DR-1763 for Butler County.
May 29	Heavy rains begin to cause flooding in low-lying areas of Iowa.
May 30	An EF-2 tornado strikes the town of Attica and injures 8 people.
May 30	The Presidential Disaster Declaration is expanded to cover Black Hawk, Buchanan, and Delaware counties.
May 31	Response and recovery operations scale down and the SEOC is deactivated.
June 1	The SEOC is activated in preparation for heavy rains.
June 2	Steady rain causes flooding in Des Moines near the Raccoon River.
June 8	Over-topping of levees cause the evacuation of Mason City and New Hartford.
June 9	Flood waters breach levees around the city of Decorah.
June 9	Iowa Governor Chet Culver issues state disaster proclamation for 43 Iowa counties.
June 10	The Cedar River crests at 24 feet and floods the city of Vinton.
June 10	Flooding in the city of Palo forces the evacuation of its residents and causes changes in communications methods at the state's only nuclear power plant.
June 11	An EF-3 tornado strikes a campsite in the town of Little Sioux and kills 4 Boy Scouts.
June 13	Flood waters cause the evacuation of Des Moines and most of Polk County.
June 13	The Presidential Disaster Declaration is expanded to cover Adams, Page, Marion, Story, Tama, and Union counties, providing Individual Assistance to residents.
June 14	The Presidential Disaster Declaration is expanded to cover Benton, Bremer, Cerro Gordo, Fayette, Floyd, Hardin, Johnson, and Linn counties, providing Individual Assistance to residents.
June 14	Over-topping of levees in southeastern Iowa force the evacuation of towns in Louisa and Des Moines counties.
June 14	Water breaches a levee on the Iowa River and floods the towns of Oakville and Wapello.
June 14	Flood waters converge on Columbus Junction and cause major damage to the city.
June 16	The Presidential Disaster Declaration is expanded to cover Cedar, Jones, Louisa, Muscatine, Polk, and Winneshiek counties, providing Individual Assistance to residents.
June 20	The Presidential Disaster Declaration is expanded to cover Hancock, Kossuth, Lee, Madison, Marshall, and Wapello counties, providing Individual Assistance to residents.
June 21	The Presidential Disaster Declaration is expanded to cover Boone, Franklin, Hamilton, Scott, and Wright counties, providing Individual Assistance to residents.
June 22	The Presidential Disaster Declaration is expanded to cover Webster County, providing Individual Assistance to residents.
June 25	The worst of the flooding and severe storms period ends.

Table 1 – Timeline of Events During the Iowa 2008 Summer Storms

Over the next 11 days, severe storms resulted in a second deadly tornado while flood waters progressed rapidly from the northern to the southern areas of the state. A tornado swept through a Boy Scout camp in the western Iowa town of Little Sioux, killing four Scouts and injuring dozens more. Des Moines officials issued evacuation notices for part of the city and most of Polk County on June 13. Over the next 2 days, over-topping of levees in southeastern Iowa forced evacuations of several towns in Louisa County and Des Moines County. Iowa City officials closed all downtown bridges due to significant flooding, as Johnson County residents undertook extensive mitigation efforts. On June 14, flood waters from the Cedar and Iowa rivers converged around Columbus Junction and caused massive damage to that city as well as Wapello and Oakville before emptying into the Mississippi River. By June 25, the worst of the severe storms and flooding began to recede, although some severe storms periodically occurred until mid-August.

The 2008 Summer Storms exacted a major human and economic toll on Iowa. The storms resulted in 18 fatalities, forced the evacuation of approximately 38,000 Iowans, and impacted 21,000 housing units. The state unemployment rate rose from 3.9% in May 2008 to 4.6% in August 2008. Iowa homeowners were confronted with $946 million dollars in unmet home repair costs.[10] The floods impacted approximately 4,800 non-manufacturing small businesses and 800 intermediate businesses for a net impact of $5.36 billion in assessed damages. The Rebuild Iowa Advisory Commission estimated $798.3 million in damages to publicly owned buildings and infrastructure as of August 11, 2008, including damages of $53 million to public transportation and $342 million to public utilities.[11] Eighty-six of the ninety-nine counties in the state had been included in the Governor's disaster declarations. Presidential disaster declarations made residents in 84 counties eligible for Public Assistance and in 78 counties for Individual Assistance. By October 2008, FEMA had provided over $400 million in Public Assistance to Iowans.[12] Based upon these measures, the 2008 floods were comparable to the 1993 floods as the most destructive natural disasters in Iowa's recent history.[13]

[10] Public Law 110-252, "Utilizing Supplemental CDBG Disaster Recovery Funding from the Supplemental Appropriations Act," *Federal Register*, Vol. 72, No. 13, 2008, p. 1-2, http://www.iowalifechanging.com/community/downloads/Disaster_Recovery_Action_Plan_2_%20Draft.pdf.
[11] Rebuild Iowa Office, *Infrastructure and Transportation Task Force Report*, Aug 2008, http://www.rio.iowa.gov/task_forces/infra-trans/infra-trans_report_08-2008.pdf.
[12] Federal Emergency Management Agency, *Governor Culver, FEMA Announce More Than $400 Million Has Been Granted to Iowa in Public Assistance Aid*, Press Release, 28 Oct 2008, http://www.fema.gov/news/newsrelease.fema?id=46512.
[13] In comparison, the historic 1993 floods resulted in 17 fatalities, the evacuation of over 100,000 residents, $1.45 billion in losses to personal property and income, 21,000 damaged housing units, and the declaration of 99 counties under presidential disaster declarations.

The Iowa 2008 Summer Storms caused severe damage that approached the level of the historic 1993 flood, which had been the most destructive incident in state history. Initial damage statistics include:

- 18 fatalities
- Approximately 38,000 Iowans evacuated
- 86 out of 99 counties included in the Governor's disaster declarations.
- $798.3 million in damages to publicly owned buildings and infrastructure
- $53 million in damages to public transportation
- $342 million in damages to public utilities
- 21,000 housing units impacted
- $946 million in unmet home repair costs
- 4,800 non-manufacturing small businesses and 800 intermediate businesses impacted

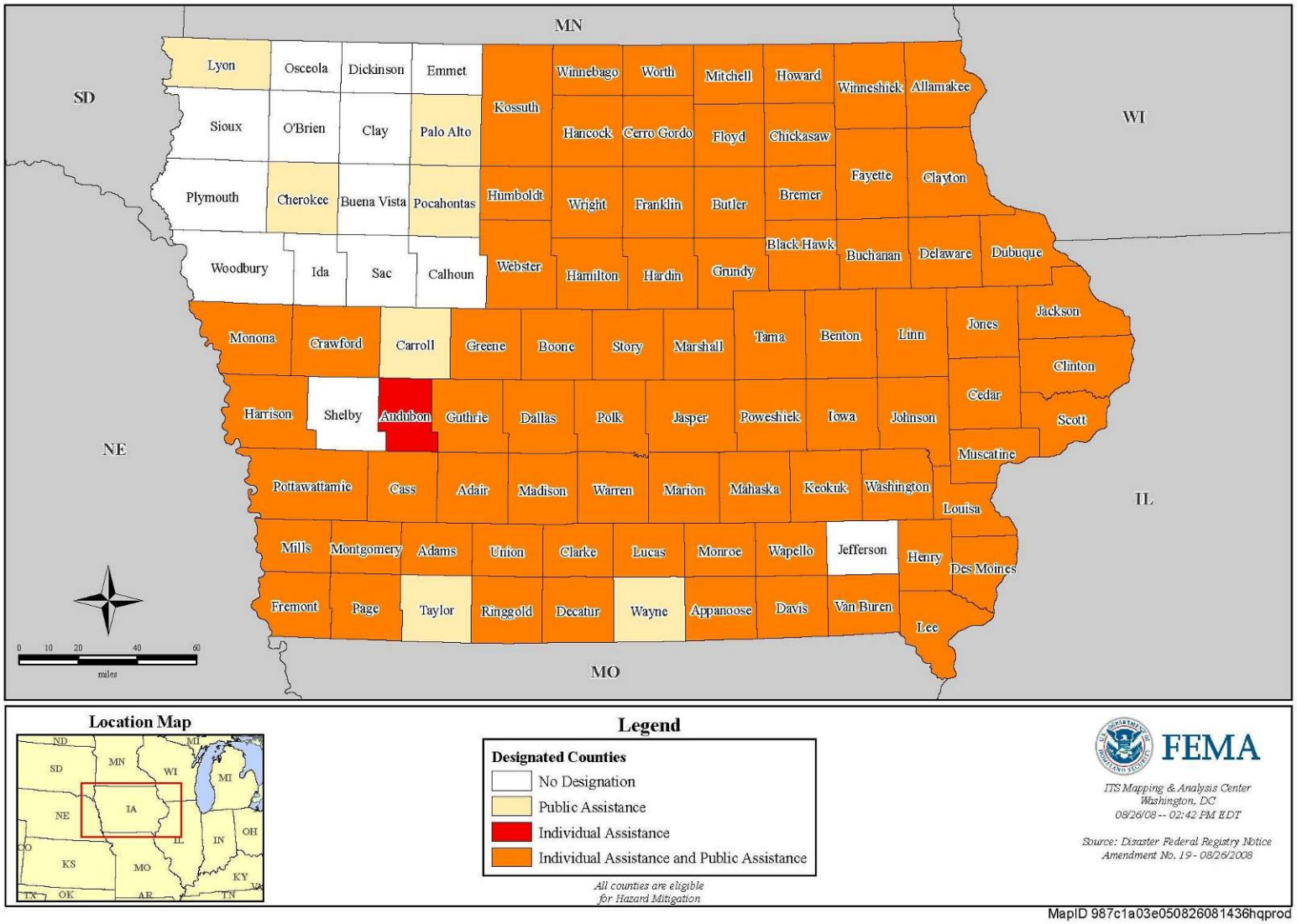

Figure 4 - Map of Counties Covered by FEMA Emergency Declaration 1763

SECTION 2: DETAILED FINDINGS

2.1 Introduction

This section presents detailed findings about the State Emergency Operations Center (SEOC) coordination activities related to the Summer Storms. It focuses on the May 25 to June 25 time period, when response operations were at their peak. These findings describe both the strengths of and opportunities for improvements to SEOC processes and operations.

2.2 State Emergency Operations Center Operations

ASSOCIATED TARGET CAPABILITIES:
Emergency Operations Center Management
Critical Resource Logistics and Distribution
Critical Infrastructure Protection
Communications
Planning

2.2.1 Operations Section

The Chief of Operations has direct responsibility for coordinating the activities of all emergency response functions.[14] The Chief is supported by the Operations Section, which manages all SEOC operations. Iowa Homeland Security and Emergency Management Division (HSEMD) personnel from the Readiness and Response Bureau manage the Operations Section, which functions as the decision-making and coordinating body for the SEOC. The Operations Section tracks mission assignments and acts as a direct liaison for local emergency managers. The Operations Section consists of HSEMD staff and representatives from state agencies and private partners. The Section's decision-making body is located at the Pit Table in the center of the Operations area. State agency representatives and private sector partners support the Operations Section and complete tasks issued by it as necessary.

Figure 5 – Iowa SEOC Pit Table

Observation 2.2.1.1: ***Area for Improvement:*** The Operations Section did not establish objectives for each operational period.

Reference:

1. Target Capabilities List, Emergency Operations Center Management
   a. Activity: Direct Emergency Operations Center's Tactical Operations

[14] Iowa Homeland Security and Emergency Management Division, *Part A; Iowa Emergency Response Plan, Annex A: Direction, Control, Coordination,* 28 Mar 2003, p. A-6.

i. Task: Establish organization/operation of emergency operations center (EOC)/Multi-Agency Coordination Center (MACC)/Initial Operating Facility (IOF) (ResB1c 3.1)

Analysis: The Operations Section focused only on immediate response for approximately the first 10 days of SEOC operations. The Operations Section responded to resource requests as they came in by phone and WebEOC. Objectives established by the Operations Section's day shift differed from those established by the Section's night shift. This occurred, in part, due to the reduced staff available for the night shift.

Recommendation:

1. Ensure that objectives are developed for each operational period and that shifts coordinate their respective objectives.

Observation 2.2.1.2: *Area for Improvement:* The Operations Section received questions about recovery issues while response operations were still underway.

Reference:

1. Target Capabilities List, Emergency Operations Center Management
   a. Activity: Direct Emergency Operations Center's Tactical Operations
      i. Task: Transition from response to recovery (Res.B1c 3.7)

Analysis: In previous disasters, the Operations Section has not usually addressed recovery questions. During the 2008 Summer Storms, the progression of the incidents, especially the flooding, necessitated that response and recovery operations were conducted simultaneously. Several SEOC staff observed that the initiation of recovery operations and the overlap with response operations did not occur in the most efficient manner possible. For example, the Operations Section began receiving questions about county eligibility for Individual Assistance (IA) and Public Assistance (PA) as it was still coordinating response operations. Issues related to program eligibility are not the role of the Operations Section and should have been referred to the appropriate recovery personnel for handling.

Recommendations:

1. Develop standard operating procedures (SOP) for expanding Operations Section participation during unique or extended duration incidents, including recovery operations.
2. Develop processes for redirecting recovery inquiries to recovery personnel.
3. Evaluate whether a recovery Operations liaison should be incorporated into the Operations Section staffing pattern.
4. Promote awareness among county and local emergency managers about SEOC recovery operations procedures.

2.2.2 Planning Section

SEOC officials identified the need for a Planning Section following the 2007 winter storms (See Section 1.3, Lessons Learned: The 2007 Winter Storms). HSEMD conducted a Planning Section tabletop exercise (TTX) on March 25, 2008, which provided an opportunity for numerous state agencies to contribute to the Planning Section concept. However, HSEMD had not fully developed Planning Section protocols and plans when the 2008 Summer Storms began.

The SEOC activated the Planning Section on June 12. The Planning Section included representatives from key agencies, including the Federal Emergency Management Agency (FEMA), the Iowa Department of Public Health (DPH), the Iowa Department of Public Safety (DPS), the Iowa Department of Transportation (DOT), the Iowa Department of Natural Resources (DNR), the Iowa Utilities Board, American Red Cross (ARC), Safeguard Iowa Partnership (SIP) and the Iowa National Guard. Three HSEMD personnel also staffed the Planning Section. Initially, the Section conducted one to two coordination meetings per day.

The Planning Section focused initially on the threat to critical infrastructure in Iowa City. The Section directed its attention to the city's water and sewer plants and the Iowa City boiler plant. A failure of this critical infrastructure would have adversely affected the University of Iowa Hospitals and Clinics and overall living conditions in the city. The Planning Section maintained close contact with the University's Public Safety Department to maintain situational awareness. Once boilers were identified in Illinois, the Section coordinated with the Iowa DOT to determine the best transportation route for the delivery trucks.

The Planning Section then shifted its efforts to cities and facilities downstream from the flooding. SEOC and National Guard field liaisons provided the Planning Section with up-to-date situational information. The Section also coordinated with the Logistics Section to pre-position resources, such as sandbags, to ensure that local jurisdictions were adequately supplied.

Observation 2.2.2.1: *Strength:* The Planning Section provided the SEOC with analyses of issues beyond the current operational period. These analyses enhanced the quality of SEOC decision-making.

References:

1. Iowa Emergency Response Plan, Annex B: Research, Analysis, and Planning
2. National Incident Management System, Incident Command System
3. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Support and Coordinate Response
        i. Task: Support identification and determination of potential hazards and threats including mapping, modeling, and forecasting (Res.B1c 8.2.2)
    b. Activity: Support and Coordinate Response

i. Task: Provide direction, information, and/or support as appropriate to incident command/unified command and/or EOC/MACC/IOF (Res.B1c 8.1.1)

Analysis: The Planning Section allowed multiple agencies to address issues beyond the current operational period and to share assets in a group setting. This forward planning enabled the SEOC to anticipate events as the response to the 2008 Summer Storms unfolded. Additionally, the Section coordinated with the National Guard's planning section, which already had two liaisons in the field reporting back to the SEOC on how communities were preparing for the floods.

The Planning Section also conducted scheduled conference calls with county EOCs to learn about plans they had in place. When county EOCs were able to determine which areas would be flooded, the Planning Section was able to estimate how many people in the area would need sheltering. The Planning Section integrated information from the National Guard liaisons with information from the conference calls to determine response measures when water reached certain critical levels. The Logistics Section used this information to pre-position sandbags and pumps. However, for a time, the Planning Section and the National Guard planning efforts worked independently (see Section 2.5, Information Sharing and Communications).

Recommendation:

1. Maintain multi-agency representation and participation in the Planning Section.

Observation 2.2.2.2: *Area for Improvement:* The Planning Section did not achieve optimum effectiveness due to delayed activation, unclear mission, and limited operational guidance and personnel.

References:

1. Target Capabilities List, Emergency Operations Center Management
   a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
      i. Task: Develop SOPs for activation, operation, and deactivation of EOC (Res.B1c 1.1.1)
   b. Activity: Activate EOC/MACC/IOF
      i. Task: Activate the EOC/MACC/IOF (Res.B1c 4)
2. Target Capabilities List, Planning
   a. Activity: Develop/Revise Operational Plans
      i. Task: Develop emergency operations/response plans that describe how personnel, equipment, and other government, non-governmental, and private resources will support and sustain incident management requirements (ComA 2.4)

Analysis: The SEOC did not activate the Planning Section until June 12, several days after the flooding began. This prevented the SEOC from conducting long-term planning in the initial phases of the Summer Storms. Once activated, the Planning Section had no dedicated staff to conduct its planning tasks. Further, personnel who were familiar with

the Planning Section concept or had participated in the TTX were either unavailable or not assigned to the Section during the Summer Storms. Consequently, some Planning Section personnel were unfamiliar with the role the Section should perform in the SEOC. Agency representatives' inconsistent attendance at scheduled meetings proved to be problematic, particularly just after the Section was activated. Previously established cells, such as the Iowa National Guard's planning staff, worked independently from the SEOC Planning Section at first and hindered the Planning Section's situational awareness. Planning Section staff lacked clear guidance on its mission because a clear purpose and plan for oversight of the Section had not been established prior to the Summer Storms.

Recommendations:

1. Develop Planning Section SOPs and operational guidance that includes activation criteria and mission description.
2. Identify and train SEOC staff members who will serve as members of the Planning Section. These personnel should be dedicated to Planning Section operations during SEOC activations.

Observation 2.2.2.3: ***Area for Improvement:*** The Planning Section encountered challenges in acquiring information about flood levels and critical infrastructure.

References:

1. Iowa Emergency Response Plan, Annex B: Research, Analysis, and Planning
2. Target Capabilities List, Critical Infrastructure Protection
    a. Activity: Identify critical infrastructure (CI)/key resources (KR)
        i. Task: Identify CI/KR within the nation, region, state, or local area (Pro.A1a 4)
3. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Support and Coordinate Response
        i. Task: Support identification and determination of potential hazards and threats including mapping, modeling, and forecasting (Res.B1c 8.2.2)

Analysis: Unpredictable flood patterns, uncertainty regarding the effectiveness of flood mitigation efforts, and the inaccuracy of flood gauge readings presented difficulties for the Planning Section to provide planning support that focused beyond the current operational period. The Planning Section lacked sufficient information about critical infrastructure in the Threat Information and Infrastructure Protection Program's Automated Critical Asset Management System (ACAMS) portal, because that system is new and has not yet been populated with necessary information on critical assets and interdependencies. To compensate for the lack of information in ACAMS, HSEMD's infrastructure protection planner utilized 17 pre-identified sector leads to acquire updated information from utilities, local banks, and other local partners in coordination with the US Department of Homeland Security (DHS) protective security advisor. The National

Guard helped to identify critical infrastructure interdependencies not shown by ACAMS; SIP assisted in collecting information about private sector critical assets.

Recommendation:

1. Continue to gather information related to critical infrastructure from county and local jurisdictions for incorporation into ACAMS.

Figure 6 – Burlington's Generating Station Surrounded by Flood Waters

Observation 2.2.2.4: *Area for Improvement:* The Planning Section had no fixed location. It was forced to work from available locations and to borrow conference rooms for meetings.

References:

1. Iowa Emergency Response Plan, Annex B: Research, Analysis, and Planning
2. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Develop SOPs for activation, operation, and deactivation of EOC (Res.B1c 1.1.1)

Analysis: The Planning Section did not have a fixed location within the SEOC. Instead, the Section had to find temporary space and work from laptops to record planning information. While the Planning Section managed to fulfill its mission, a dedicated work space with communication lines to other sections would be beneficial for the Planning Section in future activations.

Recommendation:

1. Identify a fixed location for the Planning Section in the SEOC.

2.2.3 Logistics Section

The logistics function is a coordinated effort between HSEMD staff and the state agencies involved in transporting and temporarily storing resources necessary for response and recovery missions. This function also interfaces with federal agencies and non-governmental entities as

needed.[15] In previous activations, the SEOC has embedded the logistics function within the Operations Section instead of activating a separate Logistics Section.[16]

The 2008 Summer Storms resulted in a demand for resources from localities that had exhausted their flood mitigation materials and recovery items. The SEOC activated a separate Logistics Section for the first time to track the growing amounts of deployed or requested resources. The Section was located on the first floor cafeteria of the SEOC, separate from the Operations Section, which was located in the basement (for details on challenges caused by this separation see Section 2.5.1, SEOC Internal Information Sharing and Communications). The information technology (IT) staff quickly set up computer work stations with WebEOC capability that enabled Logistics Section personnel to focus on managing resources. By dedicating an expanded staff to logistical issues, the Section successfully managed the flow of resource requests and tracked deployed resources in the field.

The Logistics Section worked closely with other state agencies and partners, particularly DOT, the Department of Administrative Services (DAS), SIP, and private sector trucking companies, to coordinate the distribution of resources around the state (for more details, see Resource Management, Section 2.4 and Volunteer and Donations Management, Section 2.8). The Logistics Section created staging areas, usually DOT garages, to hold resources near areas likely to be flooded. This pre-positioning of resources allowed responders to build flood defenses and to mitigate potential damage. Overall, the Logistics Section was critical to managing the complex resource needs of the extended response and recovery mission. The Section operated very effectively, especially given that it was activated without prior planning or training.

Figure 7 – Volunteers Load Sandbags in Iowa City

Observation 2.2.3.1: *Area for Improvement:* Logistics Section procedures should be formalized.

References:

1. Iowa Emergency Response Plan, Annex E: Logistics
2. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Develop SOPs for activation, operation, and deactivation of EOC (Res.B1c 1.1.1)
3. Target Capabilities List, Critical Resource Logistics and Distribution
    a. Activity: Respond to Needs Assessment and Inventory

[15] Iowa Homeland Security and Emergency Management Division, *Part A; Iowa Emergency Response Plan, Annex E: Logistics*, 28 Mar 2003, p. E-4.
[16] Ibid., p. E-3.

i. Task: Identify and inventory by type and category all resources available to support emergency operations, including facilities, equipment, personnel, and systems (Res.B1d 5.2)

Analysis: The Logistics Section faced challenges in communication, planning, and physical space. This was the first incident that required the activation of a separate Logistics Section. Consequently, SOPs were not in place to guide the Logistics staff. Logistics Section personnel encountered challenges communicating and coordinating with the other SEOC Sections. Further, the Logistics staff members had difficulty in tracking the diverse types of resources required for response operations. The Logistics Section coordinator started tracking pumps in an Excel spreadsheet at the beginning of operations and developed additional spreadsheets as the types of resources expanded. The Logistics Section's functionality and efficiency in future activations can be improved by institutionalizing communications processes between Sections and by developing templates for resource tracking (for detail on information sharing processes, see Section 2.5.1, SEOC Internal Information Sharing and Communications).

Recommendations:

1. Develop Logistics Section SOPs.
2. Develop a Logistics Section Operations Handbook and templates for resource tracking and reporting.

Observation 2.2.3.2: ***Strength:*** The Logistics Section allocated responsibilities to personnel by assigning responsibility for particular commodities to individuals and by designating a "spotter" responsible for monitoring WebEOC.

References:

1. Iowa Emergency Response Plan, Annex E: Logistics
2. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Support and Coordinate Response
        i. Task: Coordinate resource logistics and distribution (Res.B1c 8.3)
3. Target Capabilities List, Critical Resource Logistics and Distribution
    a. Activity: Activate Critical Resource Logistics and Distribution
        i. Task: Implement a resource-tracking system (Res.B1d 4.3)

Analysis: The Logistics Section developed a commodities-based organizational system to facilitate its operations. This included developing an Excel data sheet that tracked all resources by commodity type, amount, and current location. Logistics Section personnel were assigned to manage specific commodities, such as sandbags, water pumps, drinkable water, and electrical generators. One staff person was designated the "spotter" and dedicated to monitoring the WebEOC task log for outstanding mission requests assigned to the Logistics Section. This division of responsibilities and method of tracking resources by commodities proved highly successful.

Recommendation:

1. Formalize allocation of responsibilities in Logistics Section SOPs.

Observation 2.2.3.3: *Strength:* Co-locating FEMA Logistics personnel with the SEOC Logistics Section facilitated communication and helped to clarify resource requests and location of resources.

References:

1. Iowa Emergency Response Plan, Annex E: Logistics
2. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Support and Coordinate Response
        i. Task: Coordinate resource logistics and distribution (Res.B1c 8.3)
3. Target Capabilities List, Critical Resource Logistics and Distribution
    a. Activity: Transport, Track, and Manage Resource
        i. Task: Request federal critical resources (Res.B1d 7.6)

Analysis: The co-location of FEMA's Logistics Section and the SEOC Logistics Section allowed for direct interaction and facilitated the transfer and coordination of assets from the federal government to state agencies. On several occasions, the Logistics Section coordinator required immediate updates on the types of resources FEMA ordered and their location in transit. The Logistics Section coordinator obtained this information from direct contact with the FEMA Section. At other times, the FEMA Section turned over assets directly to the Logistics Section after notifying the coordinator in person. Co-locating the Logistics Sections in close proximity facilitated communication and information gathering. Considering the SEOC Logistic Section's lack of communication lines, the face-to-face interaction between logistical staff proved efficient and appropriate.

Recommendation:

1. Build this operating structure into the Logistics Section SOP or allow provisions in the SOP for co-locating Logistics staff in future events.

2.2.4 Executive Office Support Staff

The Executive Office (Governor, Lt. Governor, and HSEMD Administrator) is supported by Executive Office Support Staff. The staff produces staffing plans, conducts update briefings, and performs administrative duties for the Executive Office. The Executive Office Support Staff is located in a separate room adjacent to the main SEOC area. HSEMD redesigned the room after the 2007 winter storms to include additional monitors, projectors, and work stations to support Executive Office members and Support Staff. The SEOC filled the Executive Office Support Staff positions based upon the lessons learned from the 2007 winter storms.

Observation 2.2.4.1: *Strength:* The Executive Office Support Staff proved an effective means to support the needs of the Executive Office. However, Support Staff position descriptions, job responsibilities, and procedures require formalization.

References:

1. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination
2. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Develop SOPs for activation, operation, and deactivation of EOC (Res.B1c 1.1.1)

Analysis: During the Summer Storms, the Governor's Office representation at the SEOC consisted of the Lieutenant Governor and her senior advisor, the Governor's Office press secretary, and the Governor's public information officer (PIO). HSEMD personnel filled three positions in the Executive Office Support Staff. Two staff members supported the Governor's Office and prepared briefings. The third developed SEOC staffing plans and shift schedules. Shift schedules were posted in an Excel spreadsheet near the Pit Table 2 to 3 hours ahead of when the shifts would start. SEOC personnel noted this was an improvement from previous incidents.

The Executive Office Support Staff successfully fulfilled its mission during the Summer Storms. However, the scope of Support Staff responsibilities, procedures, and guidance remain largely informal. There are no formal job aids or protocols that provide guidelines for staffing the support needs of the Executive Office.

Recommendation:

1. Develop position descriptions, job aids, and protocols to serve as guidelines for the Executive Office Support Staff.

Observation 2.2.4.2: ***Area for Improvement:*** Procedures for supporting the information needs of the Executive Office require further development and formalization.

References:

1. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination
2. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Identify and Address Issues
        i. Task: Identify and elevate needs/issues up the chain of command as needed while tracking status (Res.B1c 6.1.5)

Analysis: The Executive Office Support Staff relied upon Situation Reports (SITREP), WebEOC postings, and input from SEOC personnel to develop briefings for the Executive Office. This information gathering process proved time-consuming but not comprehensive. Executive Office Support Staff observed that the Joint Information Center (JIC) often had more accurate or timely information than the SITREPs or WebEOC (see SEOC Internal Information Sharing and Communications, Section 2.5.1). Both the Executive Office Support Staff and the PIOs staffing the JIC briefed the Executive Office, which was a duplicative effort that limited the efficiency of both entities.

Initially, the Executive Office Support Staff developed PowerPoint briefings for the Executive Office. The Executive Office Support Staff eventually shifted to using an Excel spreadsheet template to meet increasing requests for greater detail. The Support Staff had difficulty preparing these briefs because the Executive Office did not establish critical information requirements at the start of the Summer Storms.

The briefings were originally scheduled to take place at 11:00 a.m. and 4:00 p.m. each day. As the incident progressed, the briefings fell off schedule to accommodate unanticipated information requests from the Executive Office. The briefings pulled Operations Section officers away from their posts and prevented SEOC staff members from planning ahead for the meetings.

It should be noted that formalized processes may lack the fluidity needed to keep the Governor and Lieutenant Governor informed and aware of the most current information. Staff members' time may be driven by information requirements rather than focused on recognizing what information is new and critical for the Executive Office. Staff members may not anticipate what the Governor or Lieutenant Governor may want or need to know. Ultimately, Executive Office Support Staff processes need to be able to capture critical information in a timely update for the Governor and Lieutenant Governor regardless of their locations. This may require that the Executive Office Support Staff maintain an abbreviated briefing that can be updated on short notice (for more on information sharing to support the Executive Office, see Section 2.5.1, SEOC Internal Information Sharing and Communications).

Recommendations:

1. Coordinate with the Executive Office to identify critical information requirements and to develop briefing templates.
2. Coordinate with the Executive Office to establish and maintain a set schedule for briefings during activations.
3. Assign specific agencies/functional areas/personnel the responsibility of reporting specific critical information requirements to Executive Office Support Staff and to the Chief of Operations.
4. Designate someone to coordinate all of the requirements for briefings.

2.2.5 Protocols

The HSEMD Administrator, Chief of Staff, or Readiness and Response Bureau Chief are authorized to activate the SEOC. This decision is based upon information that a duty officer has received from a county coordinator or upon the current Readiness Level. In addition, state agencies may request that the SEOC be activated based upon their need for coordination. HSEMD defines five levels of SEOC readiness (see Section 1.2, The State Emergency Operations Center). The Readiness and Response Bureau is responsible for SEOC readiness and initial staffing. Specific activation procedures are outlined in the SEOC SOP. The HSEMD Administrator or Readiness and Response Bureau Chief informs the Governor's Office of SEOC activation. The Governor's Office has three points of contact who receive this information either

by phone or email. This redundant communication system ensures the Governor is notified of a SEOC activation.

Observation 2.2.5.1: *Area for Improvement:* SEOC activation protocols require greater formalization and redundancy to ensure better situational awareness among state agencies.

Reference:

1. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Develop SOPs for activation, operation, and deactivation of EOC (Res.B1c 1.1.1)
    b. Activity: Activate EOC/MACC/IOF
        i. Task: Activate, alert, and request response from EOC/MACC/IOF personnel (Res.B1c 4.3)

Analysis: The SEOC lacks a formal process for determining which agencies should be represented upon activation. According to the Readiness and Response Bureau Chief, the duty officer begins by contacting eight agencies: HSEMD, the National Guard, and the Departments of Corrections, Human Services, Natural Resources, Public Health, Public Safety, and Transportation. After the initial eight agencies are contacted, other agency representatives receive a notice of SEOC activation when their agency's assistance is required for the incident response and recovery. When the tornado struck Parkersburg on May 25, the SEOC duty officer did not receive a call from a county coordinator. Instead, a DPS dispatch informed the duty officer of the tornado. The duty officer then called HSEMD Readiness and Response Bureau personnel to determine which agency representatives needed to report to the SEOC.

Recommendations:

1. Further develop and refine activation protocols.
2. Establish redundant communication methods for notifying agencies of activations.

Observation 2.2.5.2: *Area for Improvement:* The Operations Section did not conduct a debriefing for SEOC staff members when response operations concluded.

Reference:

1. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Demobilize Emergency Operations Center Management
        i. Task: Facilitate demobilization plans and procedures for preparation of after-action reports (Res.B1c 9.3)
    b. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Develop SOPs for activation, operation, and deactivation of EOC (Res.B1c 1.1.1)

Analysis: The SEOC deactivated without conducting a debriefing. A scheduled debriefing ensures that valuable information for improving operations is identified and retained. A debriefing also provides a channel for staff members to voice concerns.

Recommendation:

1. Establish a protocol for conducting a debriefing before SEOC deactivation and/or transition to recovery operations.

2.2.6 Staffing

The *Iowa Emergency Response Plan* delineates the roles of staff members within functions. The research, analysis, and planning liaison ensures that there are adequate staffing levels for all functions.[17] During the 2008 Summer Storms, the Executive Office Support Staff dedicated one staff member to creating and posting SEOC shift assignments. While SEOC managers utilized staff effectively, the incident offers lessons about staffing assignments and ensuring that staff members receive the necessary support during large-scale incidents of extended duration.

Observation 2.2.6.1: *Area for Improvement:* The scope and duration of the incident strained SEOC staffing resources.

References:

1. Iowa Emergency Response Plan, Annex B: Research, Analysis, and Planning
2. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Direct Emergency Operations Center's Tactical Operation
        i. Task: Ensure appropriate maintenance and rest cycles are included in resource (personnel and equipment) management activities (Res.B1c 3.1.3)

Analysis: The magnitude and intensity of the Summer Storms disrupted normal SEOC shift lengths and transitions. The incidents struck in quick succession, which required staff members to work longer shifts than normal. Staff members often worked more than 12 hours during a shift. The SEOC should consider reviewing techniques and processes for managing shifts, particularly during prolonged activations. This review should include techniques for managing shift lengths, methods for ensuring coordination between shifts, and preventing fatigue or burnout during activations. Further, the SEOC needs to consider options for expanding its staffing pool for large-scale or prolonged activations through tapping into state agency staffs or through the Emergency Management Assistance Compact (EMAC). These options have various strengths and weaknesses. State agency personnel may be unfamiliar with SEOC procedures and may require training before they can contribute to SEOC activities. Similarly, the SEOC could access trained personnel through EMAC, although this option would only be valuable during prolonged activations.

Recommendations:

1. Identify options for expanding the SEOC staffing pool in the event of large-scale or prolonged activations.
2. Conduct a review of shift management techniques and processes.

[17] Iowa Homeland Security and Emergency Management Division, *Part A; Iowa Emergency Response Plan, Annex B: Research, Analysis, & Planning,* 28 Mar 2003, p. B-4.

3. Build a cadre of SEOC-trained personnel in other state agencies.
4. Consider using Incident Management Team (IMT) personnel, EMAC resources, or county coordinators to augment SEOC staffing.

Observation 2.2.6.2: *Area for Improvement:* Assigning two or more critical functions to a single SEOC staff person may create conflicting priorities during large-scale incidents.

References:

1. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Establish and implement an order of command succession or continuity consistent with the National Incident Management System (NIMS) (Res.B1c 1.1.4)
2. Target Capabilities List, Planning
    a. Develop/Revise Operational Plans
        i. Task: Develop emergency operations/response plans that describe how personnel, equipment, and other government, non-governmental, and private resources will support and sustain incident management requirements (ComA 2.4)

Analysis: Many HSEMD personnel hold multiple SEOC roles and responsibilities. These personnel successfully fulfilled each of their dual roles without difficulty during previous activations. However, the 2008 Summer Storms demonstrated potential problems associated with "dual-hatting" critical functions. Two examples illustrate this issue. First, the HSEMD Operations Chief led the Operations Section and assumed the role of volunteer and donations manager during standard SEOC operations. The Operations Chief focused on her operations role and was able to dedicate minimal time to her volunteer and donations management responsibilities. As a result, these responsibilities were turned over to the executive director of SIP. The SIP executive director facilitated donations for both private and non-profit resources (see Volunteer and Donations Management, Section 2.8, for more information). Second, the HSEMD Chief training officer had been integral in the development the Planning Section framework before the Summer Storms. However, he deployed as a field liaison during the first 10 days of the incident period. Consequently, the SEOC did not activate the Planning Section until after the Chief Training Officer returned from the field. This deprived the SEOC of valuable planning during the initial stages of the Summer Storms.

Recommendations:

1. Develop contingency plans for delegating critical functions to a secondary SEOC staff member during large-scale incidents.
2. Cross-train HSEMD staff members in multiple functional areas/sections to allow for absence, illness, fatigue, schedule rotation, etc.

Observation 2.2.6.3: *Area for Improvement:* SEOC staffing processes were complicated by a lack of awareness of personnel skill sets.

References:

1. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Direct Emergency Operations Center's Tactical Operations
        i. Task: Establish organization/operation of EOC/MACC/IOF (Res.B1c.3.1)
2. Target Capabilities List, Planning
    a. Activity: Develop/Revise Operational Plans
        i. Task: Develop emergency operations/response plans that describe how personnel, equipment, and other government, non-governmental, and private resources will support and sustain incident management requirements (ComA 2.4)

Analysis: The Executive Office Support Staff effectively organized and published the shift schedule within the SEOC. However, Section Chiefs did not always have input into the staffing for their Sections, which proved problematic at times. Personnel were assigned to positions without having the proper skills to function effectively. At other times, the Operations Section was either under-staffed or staffed with representatives unfamiliar with SEOC procedures. In some cases, National Guard personnel assigned to the Pit Table were pulled away to do other missions, leaving gaps in coverage.

Recommendation:

1. Compile information on SEOC staff skill sets, and incorporate skills considerations into the staffing process.

Observation 2.2.6.4: *Area for Improvement:* The SEOC should make crisis counseling available for staff members during high-intensity, extended duration activations.

Reference:

1. Target Capabilities List, Emergency Operations Center Management
    a. Direct Emergency Operations Center's Tactical Operation
        i. Task: Ensure appropriate maintenance and rest cycles are included in resource (personnel and equipment) management activities (Res.B1c 3.1.3)

Analysis: The SEOC has existing relationships with crisis counselors and utilized them in the past, such as during the 1993 floods. The intensity and length of the 2008 Summer Storms created a high-stress environment for the SEOC staff. However, crisis counseling was not made available to staff members. Crisis counseling could have helped SEOC staff members cope with the stress of prolonged operations or emotional incidents such as the tornado at the Little Sioux Boy Scout Camp.

Recommendation:

1. Ensure crisis counseling is made available for SEOC personnel who desire such services during high-intensity, extended duration activations.

2.2.7 Systems

IT systems provide the essential information and processes that are necessary to manage incidents effectively. Two IT systems provided critical tools to the SEOC during the 2008 Summer Storms: WebEOC and geographic information systems (GIS). The SEOC has a dedicated IT staff to support the use of these systems during incidents.

2.2.7.1 Information Technology Support

The HSEMD IT staff provides IT support to the SEOC. During the 2008 Summer Storms, four HSEMD IT personnel staffed the SEOC. Each IT support staff member was assigned to provide general IT support, to act as a GIS analyst, or to provide support for WebEOC.

Observation 2.2.7.1.1: ***Area for Improvement:*** The increased demand for IT and systems support strained the SEOC's IT support staff.

References:

1. Target Capability: Emergency Operations Center Management
    a. Activity: Direct Emergency Operations Center's Tactical Operation
        i. Task: Ensure appropriate maintenance and rest cycles are included in resource (personnel and equipment) management activities (Res.B1c 3.1.3)
2. Target Capabilities List, Communications
    a. Activity: Provide Emergency Operations Center Communications Support
        i. Task: Coordinate and provide telecommunications and information technology support to federal, regional, state, tribal, and local officials and the private sector(s) (ComC 5.3.1.2)
3. Target Capabilities List, Planning
    a. Activity: Develop/Revise Operational Plans
        i. Task: Develop emergency operations/response plans that describe how personnel, equipment, and other government, non-governmental, and private resources will support and sustain incident management requirements (ComA 2.4)

Analysis: The 2008 Summer Storms required a greater use of and reliance on IT systems due to both the scope of the incident and the demands of the expanded SEOC staff. The SEOC's technology needs overwhelmed the IT staff. The IT staff had to equip rooms for FEMA and the Army Corps of Engineers while also assisting approximately 200 SEOC personnel with WebEOC and other applications. IT support personnel had to balance their official support assignments with other tasks such as WebEOC, GIS, and

technical support responsibilities. GIS analysts were often asked to provide technical support for WebEOC or to assist with technology tools in the Executive Office in addition to their mapping and modeling duties. Consequently, staff members were frequently pulled away from their primary assigned responsibilities.

SEOC IT staff obtained additional GIS capabilities from the Department of Public Defense and through pre-existing partnerships with other agencies, such as the DNR. The SEOC should explore additional opportunities to enhance its IT capabilities for future operations through additional collaboration with DAS Information Technology Enterprise (ITE) staff. In large-scale or prolonged activations, response partners may need to utilize their own IT staff members to augment and support the HSEMD IT staff in the EOC.

Recommendation:

1. Develop an IT support surge capacity for large-scale or extended duration incidents.
2. Engage the DAS ITE to secure its assistance during prolonged SEOC activations.

2.2.7.2 WebEOC

WebEOC is the Internet-based information management system used by the state of Iowa to communicate and coordinate both internally and with other command centers. WebEOC is a customizable tool that can be configured by the SEOC to make specific modules or sections active or inactive**.** The system allows real-time data to be shared through various information logs**,** such as an Event Log and a Missions/Tasks manager. The state of Iowa utilizes WebEOC to coordinate mission and task assignments and to manage overall operations. The tool also serves as the primary repository for SITREPs, press releases, and other documents. State and county officials can access WebEOC to facilitate information management and to maintain situational awareness.

Iowa emergency managers statewide relied heavily on WebEOC during the 2008 Summer Storms. HSEMD personnel first logged onto the system shortly after the Enhanced Fujita (EF)-5 tornado passed through Parkersburg on May 25. The SEOC and county EOCs posted information to the system to create a real-time chronology of events and activities throughout the Summer Storms. This information included situational awareness such as property and road damage, county EOC activations, shelter operations, and resource requests (for more on WebEOC and information sharing, see Section 2.5.1, SEOC Internal Information Sharing and Communications).

Observation 2.2.7.2.1: *Strength:* WebEOC served as the primary means of information sharing within the SEOC, including playing a critical role in assigning and tracking missions, tasks, and resources.

References:

1. Iowa Emergency Response Plan

2. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Establish operational and redundant communications systems for EOC operation (Res.B1c 1.3)
3. Target Capabilities List, Communications
    a. Activity: Provide Emergency Operations Center Communications Support
        i. Task: Maintain a common operating picture (COP) for real time sharing of information with all the participating entities to ensure all responder agencies are working from the same information (ComC 5.5)

Analysis: WebEOC served as the primary tool for maintaining situational awareness for the state of Iowa. The system acted as the central means for information gathering for the state. WebEOC played a critical role in assigning and tracking missions and tasks throughout the state during the rapidly expanding incident. It became particularly valuable following the decision to locate the Logistics Section a floor above the Operations Section. When a resource request was called in to the Operations Section, the staff member answering the call would assign the request to the Logistics Section through the WebEOC Missions/Tasks manager. The Logistics Section coordinator created a staff position dedicated to monitoring WebEOC for these resource request assignments. WebEOC was also used to assign missions and tasks to response partners. In some cases, the failure to provide updates to missions and tasks assigned to partners on WebEOC forced the Operations Section to follow up with the assigned agency for information (for more on information sharing, see Section 2.5.1, SEOC Internal Information Sharing and Communications).

Recommendations:

1. Maintain current use of WebEOC.
2. Develop SOPs for the use of WebEOC. These should be integrated with other SEOC information sharing SOPs and protocols.

Observation 2.2.7.2.2: ***Area for Improvement:*** While exceptionally useful during the Summer Storms, WebEOC's current configuration lacks functions necessary to best meet users' needs.

References:

1. Iowa Emergency Response Plan
2. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Establish operational and redundant communications systems for EOC operation (Res.B1c 1.3)
3. Target Capabilities List, Communications
    a. Activity: Provide Emergency Operations Center Communications Support

i. Task: Maintain a COP for real-time sharing of information with all the participating entities to ensure all responder agencies are working from the same information (ComC 5.5)

Analysis: Some WebEOC users expressed frustration with various aspects of the system's functionality during the 2008 Summer Storms. For example, there was no way to link tasks to missions, which affected SEOC and other response agencies. This was a common complaint from both state- and county-level users. Some county EOC personnel felt that there was too much information on the system, which cluttered the system's pages. Several county and local EOC users noted that they were unable to assign one person to the duty of monitoring WebEOC. They felt they had to wade through excessive amounts of information before they could get to the entries that concerned them. Conversely, other users liked having visibility into operations in other counties. Based upon this feedback, there is a clear need to adjust the configuration of WebEOC to better meet users' requirements. Finally, further customization is needed to create new WebEOC message boards to separate some information but still allow access to county users. For example, DOT Road Closure information could be removed from the Event Log and entered into a separate DOT Road Closure board.

Recommendation:

1. Gather requirements from all stakeholders and reconfigure WebEOC in accordance with enhancement requests.

Observation 2.2.7.2.3: ***Area for Improvement:*** State and local officials would benefit from additional training to guide their use of WebEOC during incidents.

References:

1. Iowa Emergency Response Plan
2. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Develop and Maintain Training and Exercise Programs
        i. Task: Conduct EOC/MACC/IOF specific training (Res.B1c 2.1)
3. Target Capabilities List, Communications
    a. Activity: Develop and Maintain Training and Exercise Programs
        i. Task: Develop and implement awareness training program for response communications (ComC 2.1.1)

Analysis: There was a high degree of variance in users' familiarity with WebEOC, both within the SEOC and throughout the state. Some personnel were highly proficient with the system, while others did not know how to log in to WebEOC. While state, county, and local personnel had participated in WebEOC training, many required tutorials before they could use the system during the Summer Storms. Many learned the system quickly on the job. However, providing on-the-spot training had several negative consequences for SEOC operations. First, the training distracted those serving as instructors from their immediate responsibilities. Second, the need for WebEOC training meant that some personnel were not able to immediately contribute to SEOC operations.

Recommendations:

1. Provide training for WebEOC use in incidents and exercises.
2. Establish an ongoing training schedule for state and county users.
3. Consider staffing a position dedicated to "on-the-spot" training of WebEOC during SEOC activations for new users as well as a quick refresher for existing users.
4. Emphasize the filtering function during agency training, and standardize input fields to further support the filtering function.
5. Provide further training to SEOC staff members on the resource management tools already available in WebEOC.
6. Consider requiring WebEOC training as part of the course requirements for all county coordinators.
7. Develop an online WebEOC training course.

Observation 2.2.7.2.4: ***Area for Improvement:*** There was widespread confusion at the county level regarding how resources should be requested from the SEOC.

References:

1. Iowa Emergency Response Plan, Annex C: Resource Management
2. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Support and Coordinate Response
        i. Task: Coordinate resource logistics and distribution (Res.B1c 8.3)
3. Target Capabilities List, Critical Resource Logistics and Distribution
    a. Respond to Needs Assessment and Inventory
        i. Task: Request needed resources from EOC/MACC/IOF (Res.B1d 5.3)

Analysis: Many county EOC personnel believed WebEOC was intended as a vehicle to submit resource requests to the SEOC. However, SEOC Operations Section personnel indicated that WebEOC was never intended to function as a resource request tool. They stated that the standard method of requesting resources was by phone. The SEOC did not configure WebEOC to receive resource requests. Consequently, there was no template to ensure that requests entered into the system contained all required information. As a result, Operations and Logistics section personnel had to follow up with officials requesting resources to obtain additional details prior to fulfilling their requests. Further, Operations officers often missed requests submitted only through the WebEOC Event Log because the message board turned over entries faster than they could identify them.

Recommendations:

1. Develop SOPs and templates for requesting resources from the SEOC.
2. Emphasize the proper process for requesting resources during WebEOC training.

2.2.7.3 Geographic Information Systems

The state of Iowa used GIS extensively during the 2008 Summer Storms. HSEMD staffed the SEOC with two GIS specialists during the day, while one was on duty during the night shift. These specialists generated maps containing a vast amount of state and local GIS data by using federal, state, and local population, parcel, and flood datasets. Specialists employed GIS to create maps and services showing disaster declarations by county, flood inundation, tornado paths, damaged homes, and road closures. State GIS products were most frequently distributed to the Operations Section and the Executive Office. Some maps were made available to the entire SEOC through WebEOC. These were posted on the system and taken down daily so as not to overcrowd WebEOC with documents.

Observation 2.2.7.3.1: *Strength:* Close coordination between the SEOC GIS analysts, the DNR GIS team, and local GIS staff was critical for maintaining situational awareness.

References:

1. Iowa Emergency Response Plan, Annex B: Research, Analysis, and Planning
2. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Support and Coordinate Response
        i. Task: Support identification and determination of potential hazards and threats including mapping, modeling, and forecasting (Res.B1c 8.2.2)

Analysis: State agencies openly shared GIS data during the response and recovery phases. HSEMD and DNR GIS analysts regularly shared base data, disaster-related information, and models. HSEMD supplied the DNR with a flood inundation tool that was used by GIS specialists to predict flooding and to anticipate the impacts of river crests. This allowed it to identify at-risk communities based upon FEMA Flood Insurance Rate Maps. DNR also applied its models to pinpoint facilities that would be at risk due to flooding and contacted those facilities to determine the status of site planning and protection efforts. The SEOC printed and posted maps, which kept its staff informed of flood predictions. This coordination provided the SEOC with additional flood inundation predictions by using GIS and is a great example of coordination.

Several counties regularly shared their local GIS information to aid state and federal response efforts. Linn and Johnson counties made virtually all of their GIS data available for response and recovery efforts. This information proved invaluable for assessing the current and potential events during the flooding. It enabled the state to have a detailed perspective on such issues as flood extents, damaged properties, and businesses impacted by the flood.

Recommendation:

1. Continue the relationships between the SEOC GIS analysts and agency analysts.

Observation 2.2.7.3.2: *Area for Improvement:* SEOC staff would benefit from greater familiarity with GIS capabilities and applications.

References:

1. Iowa Emergency Response Plan, Annex B: Research, Analysis, and Planning
2. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Support and Coordinate Response
        i. Task: Support identification and determination of potential hazards and threats including mapping, modeling, and forecasting (Res.B1c 8.2.2)
    b. Activity: Develop and Maintain Training and Exercise Programs
        i. Task: Conduct EOC/MACC/IOF specific training (Res.B1c 2.1)

Analysis: While GIS played a critical role in SEOC planning and response operations, many SEOC staffers were unfamiliar with the tool and its primary applications. Many staff members did not fully understand how GIS can enhance planning and the visualization of impacts during an incident. SEOC staff members often requested basic maps from the GIS analysts, rather than more extensive analytical applications of GIS mapping. Some SEOC agency representatives tended to rely on the SEOC GIS analysts instead of drawing on their own agency's GIS capabilities. The staff members from several departments, particularly DNR and DPH, relied on their agency's GIS staff to assist them in accomplishing their missions.

Recommendation:

1. Ensure that state agency responders utilize their agency GIS resources prior to disasters in order to bolster their understanding of GIS capabilities.

Observation 2.2.7.3.3: *Area for Improvement:* There is a need for statewide GIS data sharing.

References:

1. Iowa Emergency Response Plan, Annex B: Research, Analysis, and Planning
2. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Support and Coordinate Response
        i. Task: Support identification and determination of potential hazards and threats including mapping, modeling, and forecasting (Res.B1c 8.2.2)
3. Target Capabilities List, Communications
    a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Develop interoperable telecommunications and IT systems across governmental departments and agencies (ComC 1.3.1)

Analysis: The 2008 Summer Storms demonstrated the need for greater coordination and sharing of GIS data among state, county, and local governmental agencies. While information could be exchanged through email and other means, there were no formal

channels for transferring data between the state, counties, and cities. SEOC GIS specialists used established relationships with GIS personnel at other state agencies and counties. However, GIS specialists had to wait for formal agreements to be signed before they gained access to the necessary data. A statewide data-sharing framework could help redress this issue in future activations.

Recommendations:

1. Develop a statewide GIS data sharing framework.
2. Coordinate with the ongoing efforts of the Iowa Geographic Information Council and counties.
3. Collaborate with DAS ITE to ensure that it will provide GIS assistance to the SEOC during activations for disasters.

2.3 Coordination with Incident Sites

ASSOCIATED TARGET CAPABILITIES: **On-Site Incident Management**
Emergency Operations Center Management
Volunteer Management and Donations

2.3.1 Incident Management Teams

Iowa Code 29C.8 allows the Governor or the HSEMD Administrator to deploy a sanctioned homeland security emergency response team upon a valid request from the local incident commander through the county emergency management coordinator.[18] Most of the personnel and equipment comprising a sanctioned team are drawn from local emergency responders.

The Iowa Incident Management Team (IA-IMT) is one of Iowa's sanctioned homeland security response teams.[19] The team began training in 2005 and consists of qualified all-hazards specialists who are available for rapid deployment to incidents. The state formed the IA-IMT to provide support to local officials who become overwhelmed during an incident. The team can serve as relief for fatigued personnel and provide technical advice. The IA-IMT possesses the qualifications and experience to manage an incident involving

Figure 8 – Responders at the Parkersburg Incident Command

[18] "Typically, this would first involve a local disaster declaration from one or many jurisdictions experiencing an emergency."
Iowa Homeland Security and Emergency Management Division, *Iowa Homeland Security Response Teams*, Dec 2007, p. 4, http://www.iowahomelandsecurity.org/Portals/0/Newsroom/Publications/ResponseTeams1207.pdf.

[19] Other response teams include Explosive Ordnance Disposal Teams, Weapons of Mass Destruction Special Weapons and Tactics Teams, Veterinary Response Teams, Disaster Medical Assistance Teams, Hazardous Materials Teams, and Urban Search and Rescue Teams.

multiple jurisdictions or large metropolitan areas. The IA-IMT is deployed as a state resource team upon proper declarations and documentation; typically, this would first involve a request from the local incident commander for assistance.[20] The state covers all eligible costs for such IA-IMT deployments.

The 24-member IA-IMT is divided into three separate "teams," comprised of eight members each. The teams are on-call on a monthly deployment rotation schedule. Each team can be deployed for up to 7 days. Other state resources can be used to support IA-IMT deployments by providing equipment or logistical support.[21] The 2008 Summer Storms represented the first activation of the entire team, as all three IA-IMT teams were deployed during the incident.

Observation 2.3.1.1: *Strength:* The IA-IMT, working with the National Guard, played a critical role in establishing incident command at Parkersburg.

References:

1. Iowa Code 29C.8
2. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination, Attachment 1: State Forward Operations Teams
3. NIMS, Incident Command System (ICS)
4. Target Capabilities List, On-Site Incident Management
    a. Activity: Implement On-Site Incident Management
        i. Task: Initiate and implement the ICS (Res.B1a 4.2)

Analysis: During the 2008 Summer Storms, the SEOC deployed the IA-IMT to Parkersburg on Monday, May 26. The IA-IMT would typically establish a point of contact (POC) with local incident command to establish clear lines of command in accordance with ICS principles. At Parkersburg, the IA-IMT understandably encountered a chaotic scene that required additional efforts to establish command relationships. Emergency medical services had completed operations, but all other response entities lacked a joint command structure. A breakdown in communications had occurred between the incident commander and supporting state agencies. The IA-IMT offered guidance for establishing a working ICS.

Recommendations:

1. Continue to emphasize the importance of the ICS structure.
2. Support the continued use of IMTs.

Observation 2.3.1.2: *Strength:* The IA-IMT was tasked with and successfully managed an influx of volunteers in Parkersburg.

[20] Iowa Homeland Security and Emergency Management Division. *Iowa Homeland Security Response Teams*. Dec 2007, p. 4, http://www.iowahomelandsecurity.org/Portals/0/Newsroom/Publications/ResponseTeams1207.pdf.
[21] Ibid.

References:

1. Iowa Code 29C.8
2. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination, Attachment 1: State Forward Operations Teams
3. Target Capabilities List, On-Site Incident Management
    a. Activity: Conduct Resource Management
        i. Task: Direct and coordinate with arriving local, tribal, regional, state, and federal first responders (Res.B1a 4.2.3)
4. Target Capabilities List, Volunteer Management and Donations
    a. Activity: Organize Volunteers and Assign Them to Disaster Relief Efforts
        i. Task: Support response operations using volunteer resources and volunteered technical capabilities (Res.B1e 5.6)

Analysis: Emergency responders, emergency equipment, and volunteers began to arrive in Parkersburg immediately after the tornado to assist with response and recovery operations. The automobiles of over 600 volunteers clogged roads and prevented debris-removal equipment from accessing critical locations. With increasing numbers of volunteers expected to arrive in the coming days, the IA-IMT established a shuttle system to transport volunteers into the Parkersburg area to reduce the number of cars near the incident area. The IA-IMT instructed volunteers to report to a parking lot outside the area where they gave the volunteers a safety briefing and distributed safety equipment. Volunteers were then shuttled to a registration site before being sent to various locations. The registration process also ensured that incident command knew the exact location of the volunteers. These processes enabled the IA-IMT to plan for the next operational period and, thus, to manage successfully the arrival of 1,300 volunteers the next day (for more on volunteers, see Section 2.8, Volunteer and Donations Management).

Figure 9 – Transporting Volunteers to Parkersburg

Recommendation:

1. Establish an SOP for volunteer operations that addresses establishing check-in areas, volunteer training, use of safety gear, operational forecasts, mediation of mission interruptions, and other issues.

Observation 2.3.1.3: *Area for Improvement:* County officials had insufficient understanding of the purpose and capabilities of IMTs, which hampered initial integration.

References:

1. Iowa Code 29C.8
2. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination, Attachment 1: State Forward Operations Teams

3. Target Capabilities List, On-Site Incident Management
    a. Activity: Conduct Resource Management
        i. Task: Direct and coordinate with arriving local, tribal, regional, state, and federal first responders (Res.B1a 4.2.3)
    b. Activity: Establish Full On-Site Incident Command
        i. Task: Coordinate operations with specialized emergency response teams (e.g. Special Weapons and Tactics (SWAT)/tactical, bomb squad/explosives, hazardous materials (HAZMAT), Land-Based Search and Rescue) (Res.B1a 4.2.2)

Analysis: Based upon the extent of the flood threat at Oakville, the IA-IMT was deployed to the area prior to an official request from the county coordinator. The IA-IMT encountered skepticism from the Louisa County coordinator and responders when it arrived in Oakville. County officials quickly came to recognize the value of the IMT. The IMT provided support for the incident commander and developed an email account to streamline communications with other partners. The IA-IMT deployed to Des Moines on Sunday, June 8, before flooding occurred based upon flood predictions from the Army Corps of Engineers. The IA-IMT worked with Polk County Emergency Management, Polk County Health, local response agencies, and private entities to develop an evacuation plan based upon the Polk County emergency response plan and the Des Moines metropolitan emergency planner's downtown evacuation plan. The plan focused on special needs residents located in areas that would be hit the hardest if the levees breached. However, the City of Des Moines developed its own evacuation and response plan. While the two plans were similar, drafting separate plans wasted valuable time that could have been devoted to other tasks. This confused local businesses and those entities that had established prior arrangements for medical care, transportation, and sheltering.

Recommendations:

1. Conduct further outreach to counties on the IA-IMT.
2. Develop IMT activation criteria and triggers.
3. Develop SOPs for informing counties and localities about the state's intent to activate the IMT in their areas.
4. Educate elected officials about the value of participating in a county EOC or a JIC.
5. Educate elected officials about the value of using existing plans that have been coordinated and exercised with other agencies and organizations as well as the use of Incident Action Plans (IAP) to manage incidents and events.

Observation 2.3.1.4: *Strength:* IA-IMT members successfully coordinated with an out-of-state IMT to support response efforts in Louisa County.

References:

1. Iowa Code 29C.8
2. Iowa Code 29C.21

3. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination, Attachment 1: State Forward Operations Teams
4. Target Capabilities List, On-Site Incident Management
    a. Activity: Conduct Resource Management
        i. Task: Direct and coordinate with arriving local, tribal, regional, state, and federal first responders (Res.B1a 4.2.3)
    b. Activity: Establish Full On-Site Incident Command
        i. Task: Coordinate operations with specialized emergency response teams (e.g. SWAT/tactical, bomb squad/explosives, HAZMAT, Land-Based Search and Rescue) (Res.B1a 4.2.2)

Analysis: The SEOC deployed the IA-IMT to Oakville in advance of the extensive flooding moving toward the area. However, because the IA-IMT was already occupied in Cedar Rapids, the SEOC utilized EMAC to request assistance from a Minnesota IMT (MN-IMT). Two IA-IMT members traveled to Oakville and coordinated with the MN-IMT to assist county coordinators with defining the mission and establishing a command structure.

Recommendation:

1. Continue relationship with EMAC and continue to embed IA-IMT members into IMTs accessed through EMAC for maximum situation awareness and response coordination.

Observation 2.3.1.5: *Strength:* The IA-IMT provided critical support to county and local incident commands and EOCs.

References:

1. Iowa Code 29C.8
2. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination, Attachment 1: State Forward Operations Teams
3. Target Capabilities List, On-Site Incident Management
    a. Activity: Conduct Resource Management
        i. Task: Direct and coordinate with arriving local, tribal, regional, state, and federal first responders (Res.B1a 4.2.3)

Analysis: The IA-IMT proved exceptionally valuable during the Summer Storms and provided concrete benefits to county and local officials in Parkersburg, Oakville, and Des Moines. The IA-IMT facilitated the establishment of incident command and supplied critical support in expanding local operations to meet a large-scale, long-term incident. The team also facilitated essential communications links between local jurisdictions and the SEOC.

Recommendations:

1. Provide ongoing educational awareness to county coordinators regarding the teams' capabilities and activation protocols.

2. Ensure early coordination occurs with impacted areas, and discuss potential need for IMT deployment.

2.3.2 Field Liaisons

The SEOC developed and implemented the field liaison concept prior to the 2008 Summer Storms. However, the concept had not been widely or systematically employed in previous incidents. Rather, the SEOC assigned field liaisons based upon the individual's physical location during the onset of the incident and/or their familiarity with the affected region. During the 2008 Summer Storms, many county emergency management coordinators were fully engaged in response operations. This made it difficult to maintain a COP between the SEOC and the county. Consequently, the SEOC used field liaisons to provide a critical bridge between it and the incident areas. On May 26, the SEOC deployed two field liaisons to Parkersburg to serve as its "eyes and ears" at the scene. The SEOC deployed additional field liaisons to Black Hawk and Benton counties soon after flooding began in these areas. Most field liaisons spent several days at an incident site before backup liaisons relieved them.

Observation 2.3.2.1: *Strength:* Field liaisons proved an invaluable resource for the SEOC and the National Guard to gather first-hand information from the affected areas and to help frame missions.

References:

1. Iowa Code 29C.8
2. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination, Attachment 1: State Forward Operations Teams
3. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Gather and Provide Information
        i. Task: Coordinate emergency management efforts among local, county, regional, state, and federal EOC/MACC/IOF (Res.B1c 5.2.2)
4. Target Capabilities List, On-Site Incident Management
    a. Activity: Direct On-Site Incident Management
        i. Task: Direct and coordinate with arriving local, tribal, regional, state, and federal first responders (Res.B1a 4.2.3)

Analysis: Field liaisons provided an essential communications link between the SEOC and county EOCs, local emergency management, and incident command. They also provided additional input for situational awareness at the SEOC. Field liaisons ensured the SEOC received evacuation information, which allowed it to anticipate sheltering and resource requests more effectively. Field liaisons also successfully communicated information from the SEOC to localities. This information enabled local officials to understand more clearly the state resources that could be made available to them. This information helped to minimize the time between identifying the need for state resources and their delivery. One field liaison provided WebEOC access for a jurisdiction, which allowed it to gain a clearer picture of the situation in the rest of the state.

Recommendation:

1. Maintain the use of field liaisons during major incidents.

Observation 2.3.2.2: ***Area for Improvement:*** The field liaison concept needs to be further developed and formalized.

References:

1. Iowa Code 29C.8
2. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination, Attachment 1: State Forward Operations Teams
3. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Gather and Provide Information
        i. Task: Coordinate emergency management efforts among local, county, regional, state, and federal EOC/MACC/IOF (Res.B1c 5.2.2)
4. Target Capabilities List, On-Site Incident Management
    a. Activity: Direct On-Site Incident Management
        i. Task: Direct and coordinate with arriving local, tribal, regional, state, and federal first responders (Res.B1a 4.2.3)

Analysis: SEOC staff members who deployed as field liaisons during the 2008 Summer Storms lacked a clearly defined mission and formal SOPs to guide their efforts. The SEOC has established neither guidelines on qualifications to serve as a field liaison nor clear protocols on field liaison activation, operations, or deactivation. There was little coordination, guidance, or direction between the field liaison teams sent by the National Guard and those sent by HSEMD. Further, there is no indication that HSEMD field liaisons coordinated in a formal and integrated manner with field personnel from other state agencies during their deployments.

Recommendations:

1. Develop SOPs and clear mission guidance for SEOC field liaisons, including critical information requirements, roles, responsibilities, limitations, and restrictions to assistance.
2. Identify and train HSEMD staff members to serve as field liaisons.
3. Conduct an exercise to validate the field liaison SOPs and training.
4. Coordinate the development of the field liaison concept with the National Guard's efforts to develop community liaison teams as well as other relevant state agencies.
5. Explore opportunities to develop a common SOP and training for all state agency field liaisons to ensure optimal effectiveness of state assistance to impacted areas.

Observation 2.3.2.3: ***Area for Improvement:*** HSEMD needs to ensure that county emergency management coordinators have a clear understanding of the field liaisons' purpose and capabilities.

References:

1. Iowa Code 29C.8
2. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination, Attachment 1: State Forward Operations Teams
3. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Gather and Provide Information
        i. Task: Coordinate emergency management efforts among local, county, regional, state, and federal EOC/MACC/IOF (Res.B1c 5.2.2)
4. Target Capabilities List, On-Site Incident Management
    a. Activity: Direct On-Site Incident Management
        i. Task: Direct and coordinate with arriving local, tribal, regional, state, and federal first responders (Res.B1a 4.2.3)

Analysis: Some county emergency management coordinators initially perceived the field liaisons as an indication that the state doubted their response capabilities rather than as an asset to augment their coordination with the SEOC. This initial resistance delayed the integration of field liaisons into some county EOCs. These concerns faded once the field liaisons demonstrated their capacity to assist county operations. Further outreach to counties is needed to clarify the purpose and capabilities of SEOC field liaisons. This will help ensure that field liaisons are effectively integrated with county response operations.

Recommendation:

1. Conduct outreach to county emergency management coordinators to ensure that they understand field liaison purpose and capabilities.

Observation 2.3.2.4: *Strength:* Embedded National Guard community liaison teams provided coordination and established relationships with county officials more than short-deployment Rapid Needs Assessment Teams (RNAT).

Reference:

1. Target Capabilities List, On-Site Incident Management
    a. Activity: Direct On-Site Incident Management
        i. Task: Direct and coordinate with arriving local, tribal, regional, state, and federal first responders (Res.B1a 4.2.3)

Analysis: The National Guard repeatedly received mission requests from county and local officials early in the Summer Storms that failed to describe the mission parameters and justifications adequately. The National Guard deployed RNATs to several communities to help define these missions. RNATs typically function as short-deployment teams, staying in a particular community just long enough to make an initial assessment before moving on. Thus, the RNAT model allowed no time for communities to build relationships with the teams. To better address this issue, the National Guard and HSEMD developed community liaison teams designed to work in a local EOC or

incident command for longer periods of time. Generally, these teams developed better relationships with the communities than the RNATs.

The Polk County EOC collaborated with its National Guard liaisons to develop a process for submitting mission requests through both civilian and military channels. Under this process, the EOC submitted requests to the SEOC through WebEOC and then followed up with a phone call to the SEOC. Meanwhile, the National Guard liaisons provided a "heads-up" through their own command structure at the SEOC. Informing both the SEOC and the National Guard of the request greatly expedited the process and decreased the time needed to fulfill a request for National Guard support. For example, the Polk County EOC requested 40 people for sandbagging duty at a levee; the requested personnel arrived within 1 hour of the request. While this process may have worked well for this event, it should not be viewed as normal operations. During this event, over 4,000 National Guard troops were placed on State Active Duty, making them more readily available.

Recommendation:

1. Assign an Iowa National Guard liaison to operate from the Pit Table.

2.4 Resource Management

ASSOCIATED TARGET CAPABILITIES: **Critical Resource Logistics and Distribution**
Emergency Operations Center Management

The SEOC's resource management function is responsible for the acquisition and allocation of resources to protect human life and critical infrastructure. During the 2008 Summer Storms, the SEOC leadership faced challenges in acquiring, distributing, storing, and tracking resources for four weeks. Resource management required close coordination between the Logistics Section and SEOC purchasing agents. Resource management staff members had to supplement state assets that were becoming stretched thin due to the continuous and simultaneous response operations. Flood mitigation materials such as sandbags, water pumps, and poly-plastics were in especially high-demand and required strategic placement during the floods.

Figure 10 – A Flood Supplies Distribution Site in Mason City

While there were some complications with resource management, the SEOC staff did an exemplary job, considering the amount of resources required by the span and duration of the floods. HSEMD has indicated that it plans to work with state agencies to determine logical pre-staging areas throughout the state and will further develop processes for resource tracking.

Observation 2.4.1: *Strength:* DAS personnel integrated themselves into the SEOC smoothly and had a presence in both the Operations Section and the Logistics Section to maintain awareness of statewide operations.

References:

1. Iowa Emergency Response Plan, Annex C: Resource Management
2. National Incident Management System, Logistics Section
3. Target Capabilities List, Critical Resource Logistics and Distribution
    a. Activity: Activate Critical Resource Logistics and Distribution
        i. Task: Meet ongoing resource needs through appropriate procurement sources from the EOC/MACC/IOF (Res.B1d 3.2.4)
4. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Support and Coordinate Response
        i. Task: Coordinate resource logistics and distribution (Res.B1c 8.3)

Analysis: DAS handled state resource acquisition effectively, even though it does not normally staff the SEOC resource management function. During the first week of June, the HSEMD Administrator requested DAS assistance at the SEOC. DAS agents researched resources needed for response operations and took steps to procure them upon approval from HSEMD. DAS purchasing agents obtained materials to combat the floods, including items such as Hesco Barriers, pumps, and sandbags. DAS also staffed permanent positions in the Operations Section and the Logistics Section to maintain situational awareness across Sections.

Recommendations:

1. Continue this practice in future SEOC activations.
2. Consider implementing provisions into the Logistics Section SOPs for the co-location of the state purchasing agent.

Observation 2.4.2: *Strength:* The use of DOT facilities proved highly effective for resource staging.

References:

1. Iowa Emergency Response Plan, Annex E: Logistics
2. Target Capabilities List, Critical Resource Logistics and Distribution
    a. Activity: Activate Critical Resource Logistics and Distribution
        i. Task: Implement plans and procedures for establishing a logistics staging area for internal and external response personnel, equipment, and supplies (Res.B1d 4.2)
    b. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Develop plans, procedures, and protocols for resource management in accordance with NIMS, and include pre-positioning of resources to efficiently and effectively respond to an event (Res.B1d 1)

3. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Support and Coordinate Response
        i. Task: Coordinate resource logistics and distribution (Res.B1c 8.3)

Analysis: The SEOC could not stage critical materials at a central location due to the heavy flooding and obstruction of many interstate routes. Instead, the SEOC decided to use staging areas to pre-position materials in areas likely to be affected by floods. This effort required coordination among the Planning Section, Logistics Section, the DOT, the DPS, the National Guard, and the SIP. Initially, SEOC personnel had difficulty establishing staging areas, because state agencies lacked facilities to store a large amount of material. DOT offered its garages to serve as staging areas. Some sites lacked equipment such as forklifts, but DOT personnel worked to overcome such issues. In one case, personnel used chains to physically remove heavy sandbags from the distribution site. Overall, using DOT garages as staging areas allowed the SEOC to push resources into regions not yet hit by floods and aided in mitigation efforts. FEMA had established staging areas in Iowa, including a FedEx depot that became a potable water hub during the flood response operations. HSEMD has indicated that it plans to evaluate suitable staging areas and possible warehouses that might be used for this purpose.

Recommendations:

1. Develop a formal agreement for use of DOT facilities as staging areas during incidents.
2. Develop informational sheets on DOT facilities for use in the SEOC.
3. Explore options for identifying, purchasing, and/or leasing warehouses for pre-staging of resources.
4. Explore options for leveraging private sector warehouses that possess the appropriate equipment and resources.

Observation 2.4.3: *Strength:* Cooperation between the SEOC, DOT, SIP, and the private sector proved highly effective for ensuring acquisition and transport of resources.

References:

1. Iowa Emergency Response Plan, Annex E: Logistics
2. Target Capabilities List, Critical Resource Logistics and Distribution
    a. Activity: Transport, Track, and Manage Resources
        i. Task: Deploy and transport resources to appropriate, pre-determined locations (Res.B1d 7.2)

Analysis: DOT was a critical partner in transporting needed resources to impacted areas. The National Guard was highly effective in transporting resources until a shortage of staff caused it to focus on other missions. Several non-state entities provided resource coordination and transportation on behalf of the state. FEMA provided crucial help in obtaining scarce commodities, such as portable generators for regions without power. SIP requested materials and volunteers for resource transportation from the private sector.

SIP also contacted private sector trucking partners who mobilized and assisted in the transport of resources to impacted areas.

Recommendation:

1. Strengthen relationship and procedures with SIP.

Observation 2.4.4: *Strength:* Tracking resources by serial number proved critical to maintaining visibility.

References:

1. Iowa Emergency Response Plan, Annex E: Logistics
2. Target Capabilities List, Critical Resource Logistics and Distribution
    a. Activity: Transport, Track, and Manage Resources
        i. Task: Track the deployment, movement, and transportation of resources prior to and during an incident (Res.B1d 7.3)

Analysis: The 2008 Summer Storms presented opportunities to refine processes for tracking deployed resources. Shortly after flooding began, pump vendors flew to Iowa and briefed the Logistics Section staff about serial numbers and pump types. This enabled the Section staff members to categorize pumps that were deployed to the field more efficiently and specifically. This also facilitated the return of the pumps to the agencies that owned them. Vendors suggested that there should be a way to update the location of materials in transit with Global Positioning System tracking and emphasized the importance of creating a serial number database for resources.

Recommendation:

1. Consider modifying WebEOC to accommodate tracking of commodities by serial number.

Observation 2.4.5: *Area for Improvement:* The SEOC lacks a system and protocol for tracking state resources once they have been provided to localities.

References:

1. Iowa Emergency Response Plan, Annex C: Resource Management
2. Target Capabilities List, Critical Resource Logistics and Distribution
    a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Establish plans and systems for acquiring and ordering resources (Res.B1d 1.2)
    b. Activity: Direct Critical Resource Logistics and Distribution Operations
        i. Task: Identify existing internal, jurisdiction-specific resources available to support response and recovery operations (Res.B1d 3.2.2)

Analysis: During the 2008 Summer Storms, localities sometimes turned to the state for aid before they had exhausted their own resources. In some cases, localities requested state resources that could have been more readily supplied by local distributors. The

SEOC had difficulty tracking these state resources once they had been provided to the counties. In some cases, recoverable resources were lost and not returned to the state. A comprehensive system that could track resources even after they have been provided to localities would help to address this problem. Such a solution would require the development of SOPs and subsequent training for local officials.

Recommendation:

1. Continue to develop training and guidance for county emergency managers on resource request protocols.

2.5 Information Sharing and Communications

ASSOCIATED TARGET CAPABILITIES: **Communications**
Emergency Operations Center Management
On-Site Incident Management

The SEOC encountered a range of information sharing and communications challenges during the 2008 Summer Storms. These can be grouped into two types of challenges. First, the SEOC had difficulty with internal processes and technologies due to the number of Sections and staff members in the expanded SEOC. Second, the SEOC faced challenges communicating with on-site managers, local officials, and SEOC assets in the field. Overall, the magnitude and complexity of the Summer Storms made information sharing and communications more difficult, which hampered the state's ability to maintain situational awareness.

2.5.1 SEOC Internal Information Sharing and Communications

In previous SEOC activations, all key personnel were located in the Operations Section at the Pit Table. By working in the same area, these personnel interacted directly with each other, which minimized potential internal communication and information sharing challenges. It also enabled them to share a COP. However, during the 2008 Summer Storms, these internal information sharing and communication methods proved insufficient to meet the demands presented by the activation of additional SEOC sections, the influx of agency representatives, and the scale of activities.

Observation 2.5.1.1: *Area for Improvement:* SEOC information sharing and communication processes had difficulty accommodating the influx of agency representatives and the activation of Logistics and Planning Sections.

References:

1. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination
2. Target Capabilities List, Communications
    a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Develop supplemental and back-up communications and information technology plans, procedures, and systems (ComC 1.6)

ii. Task: Design reliable, redundant, and robust communications systems for daily operations capable of quickly reconstituting normal operations in the event of disruption or destruction (ComC 1.4)

3. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Establish operational and redundant communications systems for EOC operation (Res.B1c 1.3)

Analysis: The activation of the Planning and Logistics Sections, as well as the influx of additional staff members from federal and state agencies, caused the SEOC to expand beyond the main operations area at the Pit Table. SEOC staff relied on landline phones, Section phones, and entries on WebEOC to address questions they would have previously addressed through face-to-face interactions. These information sharing and communication methods each had disadvantages. Utilizing landline phones to communicate internally tied up phone lines that were otherwise needed for external communications with county and local jurisdictions. Turning to Section phones mitigated this issue, but the core SEOC Operations Section area in the basement of the facility lacked consistent Section phone coverage. While WebEOC was useful for exchanging distinct pieces of information, it is not designed to be used as a direct communications tool to share real-time information or to discuss questions (for more on WebEOC, see Section 2.2.7.2, WebEOC). Further, the SEOC lacked a protocol or SOP that could guide information sharing across the sections. Without a protocol or SOP, there was no systematic manner for sections to identify and share their critical information requirements.

Recommendations:

1. Develop an SEOC information sharing protocol or SOP, which should include processes for identifying and communicating critical information requirements.
2. Conduct training for all HSEMD, agency, and other personnel on the information sharing and communications SOPs and protocols.
3. Conduct a TTX that focuses on information sharing and management processes. TTX participants should include the Executive Office, all SEOC Sections, supporting functions such as the JIC, and other entities likely to send representatives during an activation, such as SIP.
4. Explore the development a redundant system for internal SEOC communications.

Observation 2.5.1.2: ***Area for Improvement:*** The location of the Logistics and Planning Sections presented information sharing and communication challenges that hampered overall situational awareness.

References:

1. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination
2. Target Capabilities List, Communications
    a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems

i. Task: Develop supplemental and back-up communications and information technology plans, procedures, and systems (ComC 1.6)

b. Activity: Provide Emergency Operations Center Communications Support

i. Task: Maintain a COP for real-time sharing of information with all the participating entities to ensure all responder agencies are working from the same information (ComC 5.5)

3. Target Capabilities List, Emergency Operations Center Management

a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems

i. Task: Establish operational and redundant communications systems for EOC operation (Res.B1c 1.3)

b. Activity: Support and Coordinate Response

i. Task: Coordinate resource logistics and distribution (Res.B1c 8.3)

Analysis: As described above (see Section 2.2.2, Planning Section), the Planning Section did not operate from a fixed location, which presented difficulties communicating and sharing information with other Sections. Similarly, the Logistics Section, located a floor above the Operations Section, faced physical barriers to communication, which were not addressed by established SEOC communications systems and processes. The Logistics Section staff members needed to understand the overall situation in the state in order to establish priorities for resource acquisition and distribution. To overcome this problem, the Logistics Section used a runner to communicate with and to relay information from the Operations Section. While useful, this tactic proved to be time-consuming and insufficient for ensuring full situational awareness. On occasion, the Logistics Section coordinator called or visited the Operations Section in person; this also proved to be time-consuming, and internal calls tied up phone lines otherwise used for calls from the field. The Logistics Section also became detached from long-term planning due to a lack of contact with the Planning Section. As the floods progressed toward the southeast, the Planning Section began holding briefings with the Logistics staff. These meetings allowed the Logistics Section to prioritize resources based upon future road closures, counties that were likely to be flooded next, and areas with critical infrastructure.

Recommendations:

1. Ensure that each SEOC Section has a direct line of communication with the other Sections.
2. Ensure that information sharing SOPs and protocols address situations when Sections are not located in same area.

Observation 2.5.1.3: ***Area for Improvement:*** Increased coordination between SEOC Sections and with the JIC is necessary to ensure full situational awareness.

References:

1. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination
2. Target Capabilities List, Communications

a. Activity: Provide Emergency Operations Center Communications Support
    i. Task: Coordinate communications policy and procedure across response entities (ComC 5.4)
    ii. Task: Maintain a COP for real-time sharing of information with all the participating entities to ensure all responder agencies are working from the same information (ComC 5.5)

Analysis: The failure to maintain a COP among SEOC sections contributed to miscommunication and misallocation of time and resources. On one occasion, the Executive Office received information from field reports and determined that the water system in Columbus Junction could not be saved. However, this decision was not communicated to the Operations Section. As a result, Operations Section staff devoted most of an evening and night attempting to save the water system. This incident had a negative effect on morale and diverted manpower from other critical tasks.

In some cases, the JIC had information that the Operation Section did not have. Further, PIOs searched WebEOC and gathered information from SEOC partners as the Executive Office Support Staff looked for the same information as it prepared briefings for the Executive Office. Both the JIC and the Executive Office Support Staff had to brief the Governor and Lieutenant Governor, but they often had different information. Coordination and information sharing is needed between all Sections in the EOC to ensure resources are utilized as effectively as possible.

Recommendations:

1. Ensure that protocols and SOPs address information sharing and communications between the Executive Office and SEOC Sections.
2. Establish processes for coordinating information that is being provided to the Executive Office.
3. Identify the SEOC Section or individuals responsible for providing critical information requirements to the Executive Office.
4. Research alternate means of communications, e.g. radios.

Observation 2.5.1.4: ***Area for Improvement:*** There is a need for improved coordination between the SEOC and the National Guard.

References:

1. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination
2. Target Capabilities List, Communications
    a. Activity: Provide Emergency Operations Center Communications Support
        i. Task: Coordinate communications policy and procedure across response entities (ComC 5.4)
        ii. Task: Maintain a COP for real-time sharing of information with all the participating entities to ensure all responder agencies are working from the same information (ComC 5.5)

3. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Develop and Maintain Training and Exercise Programs
        i. Task: Conduct EOC/MACC/IOF specific training (Res.B1c 2.1)
    b. Activity: Gather and Provide Information
        i. Task: Coordinate emergency management efforts among local, county, regional, state, and federal EOC/MACC/IOF (ResB1c 5.2.2)

Analysis: The Operations Section experienced challenges in joint planning with the National Guard and the Joint Operations Center (JOC). Agencies failed to send personnel to planning meetings scheduled by HSEMD, which prevented them from representing their interests and from sharing information. National Guard staff members did not always pass information to the SEOC Operations Section due to the lack of a dedicated National Guard staff member trained in SEOC protocols. This became especially problematic in mission assignments and fulfillments, as the Operations Section often lacked information about National Guard missions in the field. The National Guard acknowledged the communications gap between the JOC and the Operations Section. It has begun to develop a Military Support of Civil Authorities Section that will be co-located within the SEOC to coordinate with the Operations Section in future incidents.

Recommendations:

1. Ensure that National Guard officers assigned to work with the SEOC have the necessary training to fulfill their coordination roles.
2. Train National Guard operations officers on WebEOC and its capabilities.

Observation 2.5.1.5: *Area for Improvement:* SEOC-wide briefings were not held on a regular schedule, preventing the maintenance of a COP.

References:

1. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination
2. Target Capabilities List, Communications
    a. Activity: Provide Emergency Operations Center Communications Support
        i. Task: Maintain a COP for real-time sharing of information with all the participating entities to ensure all responder agencies are working from the same information (ComC 5.5)
3. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Gather and Provide Information
        i. Task: Coordinate emergency management efforts among local, county, regional, state, and federal EOC/MACC/IOF (ResB1c 5.2.2)
4. Target Capabilities List, On-Site Incident Management
    a. Activity: Execute Plan
        i. Task: Disseminate IAPs to other response organizations through operational briefings.

Analysis: Internal briefings for SEOC staff did not occur on a regular schedule, which prevented staff members from maintaining a situational awareness. The SEOC established a schedule for daily briefings at the start of the Summer Storms. However, the schedule slipped as the incident became more complex and affected more areas. One SEOC officer pointed to the joint field office (JFO) as a model for internal briefings. The JFO held daily 30-minute meetings on a set schedule; these meetings allowed staff members to receive updates on operations in all areas of the recovery effort and on what each section had planned for the day or week. Differences between a JFO and an activated EOC may make it difficult for the SEOC to adopt this model fully. Further, internal updates sometimes did not provide an accurate overview of the situation. In such cases, a quick update on the situation would have been more helpful, along with any quick updates from the state agencies.

Recommendations:

1. Establish and maintain regular SEOC-wide briefings to promote a situational awareness within the SEOC.
2. Identify what should be reported during the briefings.
3. Develop a template on briefing needs to give guidance to state agencies.

2.5.2 Communication with County Emergency Management Coordinators

The SEOC is responsible for maintaining communications with county and local jurisdictions. During small-scale incidents, an SEOC operations officer is assigned to a specific county for the duration so all communications from that county come to a single point of contact. During the 2008 Summer Storms, the SEOC had to coordinate operations involving an unusually high number of field assets and impacted areas. The number of affected counties strained standard communication processes between the SEOC and counties.

Observation 2.5.2.1: *Area for Improvement*: The magnitude and scope of the 2008 Summer Storms hampered SEOC communications with counties and local jurisdictions.

References:

1. Iowa Emergency Response Plan, Annex A: Direction, Control, and Coordination
2. Target Capabilities List, Communications
    a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Develop procedures for the exchange of voice and data with federal, regional, state, local, and tribal agencies, as well as voluntary agencies (ComC 1.2.1)
3. Target Capabilities List, On-Site Incident Management
    a. Activity: Establish Full On-Site Incident Command
        i. Task: Maintain communications with EOC/MACC (Res.B1a 4.2.1.1)
4. Target Capabilities List, Emergency Operations Center Management

a. Activity: Gather and Provide Information
    i. Task: Coordinate emergency management efforts among local, county, regional, state, and federal EOC/MACC/IOF (Res.B1c 5.2.2)

Analysis: During the Summer Storms, communications with local jurisdictions depended on county managers taking the initiative to inform the SEOC of their situations and resource needs. Many county emergency management coordinators could not extricate themselves from response operations long enough to provide periodic situation updates to the SEOC. This produced a lack of situational awareness, including regarding the use and status of resources delivered by the SEOC for flood response and mitigation. The SEOC developed the field liaison concept to address this need. Additional training on WebEOC for county emergency management coordinators would be beneficial (see Systems, Section 2.2.7).

Recommendation:

1. Conduct outreach to county emergency management coordinators on maintaining communications with the SEOC.

Observation 2.5.2.2: ***Area for Improvement:*** There is no established protocol for notifying a county when it has been included in a disaster or emergency declaration.

References:

1. Iowa Code 29C.6
2. Target Capabilities List, Communications
    a. Activity: Provide Emergency Operations Center Communications Support
        i. Task: Maintain a COP for real-time sharing of information with all the participating entities to ensure all responder agencies are working from the same information (ComC 5.5)
3. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Gather and Provide Information
        i. Task: Ensure appropriate notifications are made (Res.B1c 5.2.4)

Analysis: The Governor issued 86 disaster proclamations in response to the 2008 Summer Storms. President Bush issued a Major Disaster Declaration (FEMA-1763-DR), which made residents in 84 counties eligible for PA and in 78 counties for IA. However, there is no established protocol for notifying a county that the Governor has declared a disaster. In fact, many county emergency managers first found out that their county had been covered by a disaster proclamation through media inquiries.

Recommendation:

1. Establish SOPs to ensure that county coordinators will be notified when their counties are included in a disaster or emergency declaration.

2.6 Public Information

ASSOCIATED TARGET CAPABILITY: Emergency Public Information and Warning

The Governor's Office, supported by HSEMD, is primarily responsible for the dissemination of public emergency information through media briefings and press releases. [22] Other organizations, such as the National Weather Service and county-level emergency management agencies, are responsible for public warnings at the local level. Effective public information is essential to provide citizens with information about the incident, the status of response efforts, and protective action guidance for affected communities. The Governor's Office and PIOs coordinate state emergency public information through the JIC. According to the *Iowa Emergency Response Plan*, the state makes every effort to form a single JIC for all state and federal agencies at the SEOC during an incident.[23] HSEMD typically has three full-time PIOs, including the Communications Bureau Chief, who are augmented with other HSEMD staff members to activate and operate the JIC.

Prior to the 2008 Summer Storms, HSEMD revised the Public Information Annex of the *Iowa Emergency Response Plan* to institute three levels of JIC activity. The tiered response is based upon the severity of the incident: Level 1 involves only the HSEMD officers, Level 2 involves HSEMD and state agencies on the executive committee, and Level 3 calls for "all hands on deck" during a major statewide incident. While these activity levels did not exist during the 2007 winter storms, the JIC operated at the equivalent of a Level 1 or 2 activation. JIC PIOs trained for Level 1 activation prior to the 2008 Summer Storms but had not used the activation concept extensively at the time of the storms.

The JIC activated in response to the tornado that devastated the Parkersburg area on May 25. The incident involved eight fatalities, generating national media attention and an intense demand for information during the first few days. The attention from local and regional media continued for the remainder of the week. The JIC increased its activation to Level 3 after the flooding began. FEMA deployed a PIO to support the JIC who capably addressed all FEMA-related questions from the media. The Governor's Office supplied two dedicated staff members to coordinate and approve media releases within the JIC. The JIC successfully operated with five core staff members plus surge support when needed.

Figure 11 – A Media Conference with FEMA Administrator David Paulison

[22] Iowa Homeland Security and Emergency Management Division, *Part A; Iowa Emergency Response Plan, Annex I: Public Information*, 28 Mar 2003, p. I-1.
[23] Ibid., p. I-5.

Observation 2.6.1: *Area for Improvement*: In some cases, the state's response operations were adversely impacted by the absence of trained local PIOs to meet the demands for public information.

References:

1. Iowa Emergency Response Plan, Annex I: Public Information
2. Target Capabilities List, Emergency Public Information and Warning
    a. Activity: Develop and Maintain Training and Exercise Programs
        i. Develop and implement public information, alert/warning, and notification training and exercise programs (Res.B1f 2.2)
    b. Activity: Activate Emergency Public Information, Alert/Warning, and Notification Plans
        i. Task: Assign a PIO (Res.B1f 4.2.1)
    c. Activity: Establish a JIC
        i. Task: Coordinate the provision of timely and accurate emergency public information through the Joint Information System (Res.B1f 5.1.1)
        ii. Task: Coordinate among JICs at all levels of government (Res.B1f 6.2.2)

Analysis: Many localities lacked trained PIOs, which hampered communication with the JIC and prevented full coordination of public messaging. This forced untrained local personnel to step in and fill the gap. In one case, HSEMD sent a state PIO to work with the locality and to help perform the public information mission. HSEMD received funding from DHS to conduct PIO training workshops in rural areas before the 2008 Summer Storms. Extending PIO training in rural areas can help improve local capacity to handle media requests and emergency public information. By strengthening local PIO capacity, the state can help to ensure more effective support to localities during future disasters.

Recommendation:

1. Identify and train a local PIO in every county and major city.

Observation 2.6.2: *Strength*: The SEOC utilized call centers to answer general questions and to receive offers from persons wishing to volunteer.

References:

1. Iowa Emergency Response Plan, Annex I: Public Information
2. Target Capabilities List, Emergency Public Information and Warning
    a. Activity: Develop and Maintain Training and Exercise Programs
        i. Develop and implement public information, alert/warning, and notification training and exercise programs (Res.B1f 2.2)

b. Activity: Activate Emergency Public Information, Alert/Warning, and Notification Plans
    i. Task: Assign a PIO (Res.B1f 4.2.1)

Analysis: In the aftermath of the Parkersburg tornado, citizens from around the state attempted to obtain information about the incident. The SEOC directed calls to the Iowa Concern Hotline, a phone center located in Des Moines which is affiliated with Iowa State University. HSEMD used the call center for disaster information through a memorandum of understanding (MOU) with the university. The Iowa Concern Hotline answered more than 300 phone inquiries in the first 24 hours of operation on May 29. Several weeks later, as flooding intensified, the HSEMD Communications Bureau Chief activated a secondary call center within the State Building complex. The alternative call center was a resource for the Governor's Office and other state agencies to supplement existing staff capability. A HSEMD staff member coordinated this alternative call center, with three other state employees trained in frequently asked questions about the flood recovery.

Recommendations:

1. Continue to utilize the Iowa Concern Hotline, and establish other call centers as needed.
2. Review and formalize MOUs used for activating a call center.

2.7 Mass Care

ASSOCIATED TARGET CAPABILITY: **Mass Care (Sheltering, Feeding, and Related Services)**

Under the *Iowa Emergency Response Plan*, the Iowa Department of Human Services holds primary responsibility for coordinating sheltering operations in Iowa. The ARC is responsible for operating and managing emergency shelters in most communities. The Department of Human Services provides assistance to the ARC and local officials for shelter operations.

Observation 2.7.1: *Area for Improvement:* Existing plans and agreements did not provide the SEOC with adequate visibility into sheltering operations.

References:

1. Iowa Emergency Response Plan, Annex K: Sheltering.
2. Target Capabilities List, Mass Care (Sheltering, Feeding, and Related Services)
    a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Develop plans, policies, and procedures for the provision of mass care services to general populations in coordination with all responsible agencies (Res.C3a 1.3)
        ii. Task: Enter pre-identified shelter facilities into the National Shelter System (NSS) (Res.C3a 1.2.7)
    b. Activity: Direct Mass Care Operations

i. Task: Disseminate accurate, timely, and accessible information to the public, media, support agencies, and vendors about mass care services (Res.C3a 3.8.1)

c. Activity: Establish Shelter Operations

i. Task: Coordinate provision of shelter support services with appropriate agencies (Res.C3a 5.4)

Analysis: Coordination of sheltering operations during the 2008 Summer Storms did not proceed in accordance with the Iowa *Emergency Response Plan*. Prior to the Summer Storms, it was decided that Iowa would use FEMA's NSS, a Web-based program to track information on shelter location, managing agency, capacity, and current population. However, once the Summer Storms began, shelter data was not populated into the NSS. For the two weeks following the Parkersburg tornado, a representative from the state ARC chapter staffed the ARC desk in the SEOC and remained in close contact with Department of Human Services representatives at the SEOC. However, in some instances, neither ARC nor non-ARC shelter operators informed the SEOC of new shelter openings or the status of existing shelters. Some county-level officials posted shelter information on WebEOC. However, this practice did not occur with sufficient frequency to provide situational awareness to the SEOC.

Consequently, the SEOC and the Department of Human Services had extremely limited visibility into both ARC and non-ARC shelter operations throughout the Summer Storms. This resulted from the failure to utilize the NSS as planned as well as a breakdown in communications among the state, local EOCs, local shelter operations, and the ARC. Consequently, the SEOC could neither identify nor mitigate potential resource shortages at non-ARC shelters across the state. At times, the Department of Human Services desk at the SEOC only became informed of a non-ARC shelter's existence when it required emergency assistance from the state. ARC shelters did not request or require state assistance.

Communications between the SEOC and ARC deteriorated after the initial two weeks of operations as personnel from the National ARC replaced the state chapter representative and communicated sheltering information solely through the JFO. This forced the SEOC to rely on Department of Human Services representatives at the JFO to forward information on shelter locations and capacities to the SEOC.

Recommendations:

1. Develop SOPs for gathering sheltering operations plans and information.
2. Review options for alternative shelter providers.
3. Strengthen awareness among all relevant stakeholders of the importance of utilizing the NSS during disasters. This should be reinforced through the development of SOPs for populating data into the NSS.

Observation 2.7.2: *Area for Improvement:* Existing mass care plans and processes do not sufficiently address special needs populations.

References:

1. Iowa Emergency Response Plan, Annex K: Sheltering
2. Target Capabilities List, Mass Care (Sheltering, Feeding, and Related Services)
    a. Activity: Develop and Maintain Plans, Procedures, Programs, and Systems
        i. Task: Develop plans, policies, and procedures to address common issues (e.g. cultural, language, people with disabilities, etc.) as part of the mass care service delivery (Res.C3a 1.3.1)

Analysis: Sheltering operations during the 2008 Summer Storms did not address special needs. Residents with special needs remained in general shelters or transferred to medical shelters. Shelters housing residents with medical needs did not immediately notify the Department of Human Services and DPH, which prevented the state from offering additional support to such shelters. For example, DPH personnel arriving at a Linn County shelter learned that 21 of the 72 people there needed continuous medical care. DPH then deployed medical care to the shelter for 12 days. Iowa would benefit from the development of a functional definition of "special needs" as it revises its plans.

Recommendation:

1. Develop plans that define "special needs" and provide for special needs shelters during incidents.

2.8 Volunteer and Donations Management

ASSOCIATED TARGET CAPABILITIES: **Volunteer Management and Donations Management**

The *Iowa Emergency Response Plan* calls for a designated donations management coordinator and a volunteer management coordinator to conduct needs assessments and to act as the points of contact for all donations and volunteers during an incident. During SEOC activations, the donations and volunteer management positions are usually combined into a single role. The Donations and Volunteer Management function requires frequent interaction with the Resource Management function.[24] This includes cooperation with staff members from the SEOC Planning, Logistics, and Operations Sections.[25] The donations and volunteer manager is also responsible for interfacing with external groups, including the general public, the private sector, and non-governmental organizations such as the Iowa Disaster Human Resource Council (IDHRC), Food Bank Iowa, and the Iowa Concern Hotline.[26]

Observation 2.8.1: *Strength:* Including a representative from SIP in the SEOC proved invaluable for soliciting and coordinating private sector involvement in the response.

[24] Iowa Homeland Security and Emergency Management Division, *Part A; Iowa Emergency Response Plan, Annex C: Resource Management*, 28 Mar 2003.
[25] Safeguard Iowa Partnership, *Iowa Disasters: Tornadoes, Flooding and Other Severe Weather After-Action Report*, 2008, p. 9.
[26] Iowa Homeland Security and Emergency Management Division, *Part A; Iowa Emergency Response Plan, Annex C: Resource Management; Attachment 1: Donations/Volunteer Management*, 28 Mar 2003, p. C-11.

References:

1. Iowa Emergency Response Plan, Annex C: Resource Management
2. Target Capabilities List, Volunteer Management and Donations
    a. Activity: Coordinate Volunteer Management Operations and the Establishment of Warehouses and Materials Handling Equipment
        i. Task: Collaborate with other agencies/organizations/businesses regarding volunteers and donations (Res.B1e 3.5.3)
    b. Activity: Coordinate Distribution of Donations
        i. Task: Manage surge in unsolicited donations and in-kind materials (Res.B1e 8.2)
3. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Direct Emergency Operations Center's Tactical Operations
        i. Task: Include Business Operations Center capability within state EOCs (Res.B1c 3.7.1)
    b. Activity: Gather and Provide Information
        i. Task: Coordinate with non-governmental agencies and/or the private sector to collect/share data on the incident situation (Res.B1c 5.2.3)

Analysis: During the incident, the SEOC combined the responsibilities of the donations management coordinator and the volunteer management coordinator into a single management position. This position was initially filled by an HSEMD staff member who was also the SEOC Operations Chief. However, the scale of the response and recovery operations during the Summer Storms necessitated a dedicated staff position for donations and volunteer management to effectively coordinate aid from the public and private sector entities. As the magnitude and complexity of the incident grew, the SEOC Operations Chief transferred the volunteer and donations management responsibilities to the SIP director.[27] In this capacity, the director coordinated all donation requests from both the private and public sectors (see Staffing, Section 2.2.6). The director worked with the SEOC Operations Chief and the IDHRC to implement the National Donations Management System (NDMS) (i.e. Aidmatrix) and to help train users on the system. Utilizing the NDMS enabled the SEOC to manage successfully the large volume of donations from across the state and nation.

The director utilized her private sector contacts to solicit donations and emergency resources needed for the response efforts. SIP coordinated with national retail chains to acquire forklifts, sand, and poly-plastics at critical times during the response operations. SIP also aided the Logistics Section in its efforts to distribute resources by recruiting private truck companies to transport flood mitigation materials. This provided a valuable supplement to the transportation effort undertaken by the DPS and DOT.

[27] SIP is a private-public coalition that endeavors to strengthen Iowa's capacity to prepare for, respond to, and recover from disasters through the integration of business resources, expertise, and response plans.

HSEMD has recently hired a staff person who will be dedicated to working with volunteer and donations management issues as needed during large-scale events. While the private sector has resources to offer, it will not be tasked with the lead role.

Recommendations:

1. Revise and enhance procedures for coordination of volunteer and donations management efforts.
2. Incorporate private sector partners into volunteer and donations management efforts.

Observation 2.8.2: *Area for Improvement:* The SEOC lacks institutionalized relationships with critical private sector and volunteer organizations.

References:

1. Iowa Emergency Response Plan, Annex C: Resource Management
2. Target Capabilities List, Volunteer Management and Donations
    a. Activity: Coordinate Volunteer Management Operations and the Establishment of Warehouses and Materials Handling Equipment
        i. Task: Collaborate with other agencies/organizations/businesses regarding volunteers and donations (Res.B1e 3.5.3)
3. Target Capabilities List, Emergency Operations Center Management
    a. Activity: Direct Emergency Operations Center's Tactical Operations
        i. Task: Include Business Operations Center capability within state EOCs (Res.B1c 3.7.1)
    b. Activity: Gather and Provide Information
        i. Task: Coordinate with non-governmental agencies and/or the private sector to collect/share data on the incident situation (Res.B1c 5.2.3)

Analysis: Private sector and volunteer organizations provided essential support to SEOC operations, including resource acquisition, resource staging, and sheltering. The SEOC Operations Section maintained close contact with the IDHRC throughout the response period. The IDHRC serves as the state Voluntary Organization Active in Disasters and had a representative at the SEOC for several days. Still, the SEOC lacked institutionalized relationships with many private sector and volunteer organizations. For example, Serve the City provided a staging area in Cedar Rapids to help coordinate the distribution of drinkable water. When the staging area POC turned off his Section phone, the SEOC Logistics Section had no alternative contact number or

Figure 12 – An American Red Cross Volunteer Distributes Water in the Town of Waverly

secondary POC to contact. This effectively cut off the Section from coordinating the activity at that water distribution site when they received an urgent request for supplies. Further, many Iowa businesses relied on SIP as their POC at the SEOC, as they had no designated state or local POCs for donations or resource coordination. This was apparent following the Parkersburg tornado when Iowa Telecom attempted to offer its capabilities to aid the town but, in the absence of a SEOC contact, instead contacted the SIP director.

Recommendations:

1. Develop a list of POCs within volunteer organizations and businesses that support response operations.
2. Conduct outreach to volunteer organizations and businesses on procedures and POCs for coordinating resource requests and donations.
3. Continue to involve IDHRC members in both response and recovery efforts for the coordination of volunteers and donations.
4. Further define the role of IDHRC during response and recovery phases to include SEOC staffing.

SECTION 3: CONCLUSION

The 2008 Summer Storms constituted Iowa's greatest natural disaster in years, equaling or exceeding the damages of the 1993 floods. Iowa emergency management and homeland security officials were confronted with a series of severe storms, tornadoes, and floods that presented an enormously complex incident environment. Iowa's incident managers had to operate on a greater scale and for a longer time than they had in any recent exercises or incidents. At the peak of incident operations, Iowa Homeland Security and Emergency Management Division (HSEMD) and the State Emergency Operations Center (SEOC) staff members were conducting simultaneous response, mitigation, recovery, and preparedness operations.

HSEMD implemented a series of measures during the Summer Storms that enabled the SEOC to manage incident operations, to coordinate with the counties, and to incorporate additional federal, state, and private sector agency representatives into the SEOC. These steps succeeded, in part, because HSEMD had begun to implement the lessons learned from the 2007 winter storms. The use of a Planning Section and an Executive Office Support Staff and the increased situational awareness can be traced to the actions undertaken by HSEMD between the winter and Summer Storms. Other innovations, particularly the Iowa Incident Management Team and field liaisons, demonstrated their contributions to enhancing the SEOC's ability to manage incidents and to support local efforts. Together, these measures saved lives, mitigated damages, and facilitated the transition from response to recovery operations. Behind these measures are the dedicated emergency responders and homeland security personnel who worked selflessly during the incident to help their fellow Iowans.

This after-action report (AAR) has identified a series of recommendations that are designed to formalize and institutionalize the improvements taken by the HSEMD and SEOC. In many respects, these recommendations extend the lessons learned from the 2007 winter storms and can help prepare Iowa to manage future complex incidents. Through these recommendations, the SEOC can continue to refine its plans, standard operating procedures, technologies, and systems.

Finally, other states and localities would benefit from careful consideration of the observations, analysis, and recommendations contained in this AAR. The AAR illustrates the difficulties that will confront jurisdictions during complex incidents. Iowa's experience during the 2008 Summer Storms can make an important contribution to preparedness across the nation.

APPENDIX A: LESSONS LEARNED

The Department of Homeland Security maintains the *Lessons Learned Information Sharing* (*LLIS.gov*) system as a means of sharing lessons learned and innovative practices with the emergency response and homeland security community.

LLIS.gov uses the following categories and definitions for its documents:

- **Lesson Learned:** Knowledge and experience, positive or negative, derived from actual incidents, such as the September 11th attacks and Hurricane Katrina, as well as those derived from observations and historical study of operations, training, and exercises.
- **Best Practice:** Exemplary, peer-validated techniques, procedures, good ideas, or solutions that work and are solidly grounded in actual operations, training, and exercise experience.
- **Good Story:** Exemplary, but non-peer-validated, initiatives (implemented by various jurisdictions) that have shown success in their specific environments and that may provide useful information to other communities and organizations.
- **Practice Note:** A brief description of innovative practices, procedures, methods, programs, or tactics that an organization uses to adapt to changing conditions or to overcome an obstacle or challenge.

The following issues have been identified for inclusion on the *LLIS.gov* network.

Lessons Learned

- Disaster and Emergency Declarations: Establishing Procedures for Informing Affected Localities
- Emergency Communications: Notifying Local Jurisdictions about State Teams before Deployment
- Emergency Operations Centers: Cataloguing Staff Skill Sets
- Emergency Operations Centers: Configuring WebEOC
- Emergency Operations Centers: Delegating Critical Roles during Incidents
- Emergency Operations Centers: Developing a Guidebook for Managing and Tracking Resources
- Emergency Operations Centers: Developing a Surge Capacity for Information Technology Support Staff
- Emergency Operations Centers: Developing Information Sharing Protocols or Standard Operating Procedures
- Emergency Operations Centers: Ensuring Direct Communication among Sections
- Emergency Operations Centers: Maintaining Regular Internal Briefings to Promote Situational Awareness
- Emergency Operations Centers: Managing Shift Lengths during Large-Scale or Prolonged Activations

- Emergency Operations Centers: Planning Section Standard Operating Procedures and Operational Guidance
- Emergency Operations Centers: Posting Shift Assignments
- Emergency Operations Centers: Using Commodity-Based Logistics Management
- Emergency Operations Centers: WebEOC Training
- Mass Care: Developing Standard Operating Procedures for Gathering Shelter Information
- Volunteer Management: Transporting Volunteers from a Staging Area to an Incident Site

Practice Notes

- Emergency Management: Iowa's Development of Incident Management Teams
- Emergency Management: The Iowa Homeland Security and Emergency Management Division Logistics Section's Use of a WebEOC Spotter to Monitor Internal Tasks
- Emergency Management: The Iowa Homeland Security and Emergency Management Division's Deployment of Field Liaisons to Increase Situational Awareness
- Emergency Operations Centers: Iowa State Emergency Operations Center's Executive Office Support Staff
- Emergency Operations Centers: Iowa State Emergency Operations Center's Use of a Planning Section
- Exercise Planning: The State of Iowa's Exercise Working Group
- Public Information: Iowa Department of Transportation's Call Center
- Public Information: Iowa's Weather Radio Program
- Recovery Operations: Iowa Department of Public Safety's Use of Identification Bracelets at Incident Sites
- Resource Management: Iowa Department of Transportation's Staging Areas
- Resource Management: The Iowa State Emergency Operations Center's Coordination of Private Sector Resources

Good Stories

- State of Iowa's Incident Management Teams
- The Safeguard Iowa Partnership

APPENDIX B: ACRONYMS

Acronym	Meaning
AAR	After-Action Report
ACAMS	Automated Critical Asset Management System
ARC	American Red Cross
CI	Critical Infrastructure
COP	Common Operating Picture
DAS	Iowa Department of Administrative Services
DHS	US Department of Homeland Security
DNR	Iowa Department of Natural Resources
DOT	Iowa Department of Transportation
DPH	Iowa Department of Public Health
DPS	Iowa Department of Public Safety
EF	Enhanced Fujita
EMAC	Emergency Management Assistance Compact
EOC	Emergency Operations Center
FEMA	Federal Emergency Management Agency
GIS	Geographic Information Systems
HAZMAT	Hazardous Materials
HSEMD	Iowa Homeland Security and Emergency Management Division
IA	Individual Assistance
IA-IMT	Iowa Incident Management Team
IAP	Incident Action Plan
ICS	Incident Command System
IDHRC	Iowa Disaster Human Resource Council
IMT	Incident Management Team
IOF	Initial Operating Facility
IT	Information Technology
ITE	Information Technology Enterprise
JFO	Joint Field Office
JIC	Joint Information Center
JOC	Joint Operations Center
KR	Key Resources
LLIS.gov	*Lessons Learned Information Sharing*
MACC	Multi-Agency Coordination Center
MN-IMT	Minnesota Incident Management Team
MOU	Memorandum of Understanding
NDMS	National Donations Management System
NIMS	National Incident Management System
NSS	National Shelter System
PA	Public Assistance

PIO	Public Information Officer
POC	Point of Contact
RNAT	Rapid Needs Assessment Team
SEOC	State Emergency Operations Center
SIP	Safeguard Iowa Partnership
SITREP	Situation Report
SOP	Standard Operating Procedure
SWAT	Special Weapons and Tactics
TTX	Tabletop Exercise