

After Action Report

NAME/DATE OF INCIDENT: Holiday Blizzard, Dec 2006

SITUATION: On December 19th, 2006 the National Weather Service issued several snow advisories indicating that a majority of the State was to be covered with 18-24 inches of snow between the morning of December 20th and late afternoon of December 21st.

By mid-evening, December 19th, the northeast region began receiving snowfall, which was followed by mid-morning, December 20th, in the Denver metropolitan area. By that evening, government, school, business and highway closures occurred due to the intensity of the storm.



Source: Channel 9

(December 20, 2006)

Throughout the event, the following state and federal highways were closed: I-70 / E-470 (Denver) to Kansas border; I-25 (Castle Rock) to New Mexico Border except Walsenburg to Pueblo; I-76 from Denver to Nebraska border; from Eads, Colorado Hwy 96 and Hwy 287; Hwy 86 to Limon, most mountain passes, many other local highways.

Actions within the State Emergency Operations Center (SEOC) which contributed to this operation included the presence of the State GIS officer who provided GIS tools to effectively assist in the operations. This was supplemented by the SEOC staff initiating calls to the affected jurisdictions clarifying situation status, gauging resource needs, and coordination between jurisdictions. The affected jurisdictions also actively provided updates to the SEOC on their activities. The use of a variety of Internet sites to access weather and traffic information proved useful in accurate and real-time information that was very valuable. This became especially critical when coordinating the multi-jurisdictional response on U.S. 36 between Westminster, Broomfield, Boulder County, RTD, Colorado State Patrol, and CDOT.

Snow fall amounts:

(as of Dec 23rd)

Boulder	32.0 inches	Golden	34.5 inches
Centennial	25.5 inches	Longmont	35.0 inches
DIA	19.0 inches	Parker	37.0 inches
Evergreen	40.0 inches		

The following state/non-governmental agencies had representatives within the SEOC:

1. American Red Cross
2. Colorado Department of Military & Veteran Affairs
3. Colorado State Patrol
4. Division of Emergency Management
5. Division of Fire Safety

Local Emergency Operation Centers (EOC) activated: Adams County EOC, Arapahoe County EOC, Aurora EOC, Baca County EOC, Bent County EOC, Brighton OEM, Broomfield City and County EOC, Colorado Springs EOC, Commerce City OEM, Crowley County EOC, Denver City and County EOC, Douglas County EOC, El Paso County EOC, Huerfano County EOC, Joint Operations Center (CoNG), Kiowa County EOC, Larimer County EOC, Logan County EOC, Loveland, Pueblo County EOC, Colorado RACES, Teller County EOC, Weld County EOC, Westminster EOC.

Shelters (which were reported open, adhoc shelters were established at several hospital as well):

Adams County, Sheriff's Substation, 4201 E. 72nd Ave.,
Alameda High School,
Auraria Campus,
Baca County / Springfield @ Methodist Church 901 Colorado St.,
Broomfield Station 61 (1275 Midway),
Broomfield Station 66 (160th NW Parkway/ Huron),
Chaparral High School - 15655 Brookstone Drive, Parker,
City Park Recreation Center - 10455 Sheridan Blvd, Westminster,
Crowley County, Ordway Fire Hall,
Denver International Airport,
Douglas County - Kirk Hall, 500 Fairgrounds Road, Castle Rock,
Fort Morgan Ft. Morgan High School, 709 E. Riverview,
Keenesburg Intersection of South Elm and Gandy,
Kiowa County / Eads @ First Christian Church,
Las Animas County / Trinidad @ Trinidad Community Center.
Longmont, Weld County Southwest Substation, 4209 WCR 24 ½, North of Del Camino on frontage road,
Prospect Valley Station (Fire Department) Intersection of Hwy 52 and Hwy 79,
Smoky Hill High School,
Sterling First English Lutheran Church, 701 Fairhurst St.,
Strasburg, Strasburg Community Church, 56155 Sunset Avenue, Strasburg,
Wellington, Wellington Junior High School, 4100 Wilson Ave.,

TIMELINE OF EVENTS:

December 20

- | | |
|-------|--|
| 10:00 | State Emergency Operations Center activated |
| 14:50 | Governor verbally declares statewide emergency |
| 15:20 | First DMVA mission approved (transport Red Cross equipment to DIA) |

15:22 First reports of stranded motorists
17:35 Highways starting to close due to blowing snow

December 22

12:00 State Emergency Operations Deactivated

LESSONS LEARNED:

1. ITEM: Communications

DISCUSSION: Although communications between jurisdictions were generally good, several problems were identified. Telephone, e-mail and WebEOC were used to communicate both within the SEOC and between the SEOC and local EOCs and officials. The SEOC has a wide array of radio capabilities. Amateur radio operators were at the SEOC and at several local EOC's as backup in case of primary communications system failures. The SEOC has been transitioning from an e-mail system (Colorado-eoc@state.co.us) to WebEOC. The potential for gaps and bottlenecks in communication existed because of the transition.

RECOMMENDATION:

- a. Email system: DEM IT staff will add all DEM personnel to the Colorado-EOC email address to reduce the potential for bottleneck. DEM's Groupwise also has a bottleneck when the system identifies bad email addresses when pushing out a message to a large group. DEM IT staff to follow-up.
- b. Division of Fire Safety email system has limited capabilities to interface with DEM and others. This limits the ability of Fire Safety personnel to assist with SEOC operations. A potential solution would be an MOU between DEM and OPSFS for IT services.
- c. Phones: IT staff will investigate "phantom busy" signals reported by persons trying to call DEM phones. IT staff will research phone transfer problems and provide training or system fixes. IT staff will work with DOIT staff to find a solution to the problem encountered with inability to access voicemail messages left on EOC phones.
- d. WebEOC: A committee consisting of Damian MacLoughlin, Elizabeth Owensby, Jack Cobb, Kerry Kimble, Tony Reidell, Dick Vnuk, Polly White, and George Epp will meet to identify problems and propose solutions to better effect the implementation of WebEOC. The committee will look at training, procedures, system design and modification, integration of multiple agencies, integrating multiple incidents, message switching, reporting, and incident monitoring.

2. ITEM: Resource Issues

DISCUSSION: Improvements are needed in the tracking and coordination of volunteer contacts for four wheel drive and snowmobile resources in a few jurisdictions. Transportation was needed for persons with medical needs and for transporting staff for hospitals. This issue was identified during blizzards in 2003 and 1997 and steps were taken to improve coordination. When resource lists were not used or updated for several

years, they became stale. Resources were not listed in the Resource Ordering and Status System (ROSS), Colorado Search and Rescue Board contacts did not have access to the resources that were needed.

RECOMMENDATION:

- a. Counties, DEM and Fire Safety should research ways to keep volunteer resource lists fresh. Use of amateur radio groups, Citizen Corp, or other local mechanisms should be considered as well as links to volunteer organizations through the USFS or BLM.. Critical facilities and volunteer groups should establish plans to be self-sufficient for transportation during severe storms. DEM staff and Fire Safety will work with local jurisdictions as needed on this issue.
- b. Division of Fire Safety Director Kevin Klein will follow-up on issues with training and access to the ROSS resource database.

3. **ITEM:** Purchase cards

DISCUSSION: DEM fiscal procedures constrain the ability to keep the SEOC operating. The DOLA controller allows DEM to have only one credit card which is in an individual employee's name. When that employee is not present the ability to provide and other needs for SEOC operation are inadequate.

RECOMMENDATION: P-Cards have now been acquired for several members of the staff.

4. **ITEM:** Support facilities to the SEOC

DISCUSSION: No sleeping facilities are available at the SEOC. While there are hotels in the area, hotel use is in impractical and expensive solution. During the blizzard, the hotel immediately across the street was completely full and unavailable. Rooms were available at the Drury Inn, several blocks away, but the trip of several blocks took an hour or more because of heavy drifting snow. SEOC staff needing to get an hour or two of sleep ended up sleeping on the floor.

RECOMMENDATION: Follow-up: DEM will obtain cots and blankets for staff during prolonged SEOC activations as well as a small supply of personal toiletries and non-perishable food.

5. **ITEM:** Outside agency support to the SEOC

DISCUSSION:

- a. Liaisons from the Colorado State Patrol, National Guard, Division of Fire Safety, and Red Cross came to the state EOC. The presence of these representatives considerably enhanced communications and coordination of storm related efforts.

- b. A CDOT representative is needed at the SEOC. DEM should remember to contact CDOT and request their presence, CDOT should initiate the request if they think they are needed and have not been asked.
- c. The RTD emergency operations center moved to the Denver EOC during the incident. Because the blizzard and RTD jurisdiction covered many other cities and counties this caused some coordination problems.

RECOMMENDATION:

- a. Presence of a CDOT representative would have improved coordination between State Patrol and the National Guard.
- b. Kerry Kimble followed up with Dave Genova at RTD and suggested that in similar future circumstances RTD move to the state EOC.

6. ITEM: SEOC Operations

DISCUSSION: The Operations function was overwhelmed during the Wednesday evening portion of the event, resulting in a lapse in documentation. At times some roles in the EOC were not clear.

RECOMMENDATION: SEOC staff will more closely monitor workloads and assign additional personnel as needed. Staffing assignments will be posted on the whiteboard in the room.

7. ITEM: WebEOC

DISCUSSION: WebEOC emergency management software was used to track events throughout the incident such as reports of stranded motorists, National Guard missions, shelter status, etc. Use of WebEOC improved communications overall, but improvements are needed.

RECOMMENDATION: Additional design of the system's capabilities should be conducted, followed by staff training.

ATTACHMENTS

1. Division of Emergency Management Situation Reports
2. CDEM Duty Officer Position Log, December 20-22, 2006