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Colorado Division of Emergency Management & Emergency Management Association

Bill Ritter, Jr.
Governor

INSIDE

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Emergency Management News

It Takes Cooperation to Keep Colorado Safe

By George Epp, Former Director, Colorado Division of Emergency Management

The Great Seal of the State of Colorado is seen everywhere. The seal is the center of most badges worn by peace officers and firefighters, often part of shoulder patches, and incorporated into other insignia of state and local agencies. If you went to grade school in Colorado you probably learned about the symbols that make up the seal. Regardless of where you went to school, it's good to think about those symbols, to be reminded of the wisdom of those who came before us, and to reflect on the implications of those symbols today.

One of the key elements of our state seal, just below the triangle radiating the eye of God, is the bundle of rods bound together with thongs. Wrapped in the middle of the rods is a battle axe. The bundle represents the strength that comes from binding the rods together, which is much greater than the strength of any one rod by itself. The axe in the middle of the bundle represents authority and leadership.

Another concept we are all familiar with, one a little more basic to our nature, is "them and us." We have a tendency to lump other people into groups —those who are with us and those who are not. We like us and we don't like them.

It is important to have pride in the organization to which you belong. But does the public benefit when emergency managers, police departments, and sheriff's offices compete with one another? What is the appropriate balance between a healthy pride in an organization and destructive or wasteful competition?

In sports and commerce competition is the name of the game, but the role of competition should be different in government service, and especially in public safety and emergency management. Public safety organizations exist not to serve themselves, but to serve the public.

After the Sept. 11, 2001 terrorist attacks we experienced a surge in cooperation among public safety agencies as we pulled together to face the grave threat of terrorism. The level of cooperation rose to a high I had not seen during the prior 30 years. I think this happened because many people were able to see that cooperation was needed to face a common enemy. In the five years since 9/11, much of that cooperative spirit has been sustained, and some has faded. The loss of cooperation has happened because time has diminished some of the impact of the terrorists' attack, and I believe some of the loss of cooperation is simply because cooperation takes more time and effort.

Often the conflict between agencies occurs because of "mission creep," a perception that someone is poaching in your territory. While some of this is inevitable, we all know there is more than enough work to go around. Using a formal approach to clarify roles helps reduce these conflicts with an end result of increased service to the public.

So how do we sustain and improve the level of cooperation needed to keep our state safe?

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It Takes Cooperation to Keep Colorado Safe

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Look back at that symbol in the state seal. In the middle of that bundle of rods is a battle axe. The axe symbolizes leadership and authority. In order to sustain the cooperation we need to be strong, we must have leaders who recognize that our real strength comes from working together, not working apart. Leaders must look not for the chance to outmaneuver their neighbors for the federal grant money, but for the chance to develop partnerships and collaboration that leverage the plentiful resources which are all around us. Leaders must recognize that power is something which diminishes when you try to grab it and increases when you give it away.

Building Partnerships through Training

By Jim Lancy, EMC
City of Arvada and the Arvada Fire Protection District

Partnership n. A relationship of individuals or groups marked by mutual cooperation and responsibility. (American Heritage College Dictionary)

The theme of this year's Governor's Conference on Emergency Management was "Building Partnerships." Partnerships are supposed to be built long before exchanging business cards in the Incident Command Post at the BIG ONE. Mutual cooperation and responsibility happen when people have had the opportunity to get to know each other. It has been my experience that some of the best relationships are built while learning together.

The Governor's Conference is co-hosted by the Colorado Emergency Management Association (CEMA) and the Colorado Division of Emergency Management (CDEM). This year, a New Emergency Manager's Workshop was presented prior to the conference with the intent to help new emergency managers acquire a broad overview of their new profession and learn how we all work together.

The new workshop was intended for new emergency managers (two years or less in this business), emergency management staff, elected officials, and others who want to learn a lot about our profession in a brief amount of time. It was taught by local emergency management professionals and introduced the participants to their local, county, and state partners.

The CDEM Training Officer, Robyn Knappe, has embarked on an aggressive training program to bring to Colorado's emergency managers the courses they have asked for. The delivery of these courses will be regional, so as many as possible will be able to attend. Robyn is also working to make the Advanced Professional Development Series (PDS) available to emergency managers throughout the state. The basic PDS should be taken online and is a requirement for certification with CEMA. Seasoned emergency managers look for more advanced training and these efforts should help to provide it.

They say learning should be a life long journey. It is our hope that during your journey you learn about your neighbors and colleagues in the emergency management community, and build the relationships that truly make each and every one of us partners in preparedness. The training efforts of CEMA and CDEM are designed to assist ALL Colorado emergency managers by reaching out to the newest, as well as the more seasoned emergency managers in our beautiful state. Talk about a partnership!

And the top 10 earthquake states are ...

If you live in Alaska or California, you're at the top of the list—the earthquake list, that is. According to John Anderson and Yuichiro Miyata of the University of Nevada, Reno, on LiveScience.com, the following are the top 10 states for earthquakes when it comes to magnitude achieved per year:

- Alaska—6.70
- California—6.02
- Nevada—5.11
- Hawaii—5.00
- Washington—4.97
- Wyoming—4.67
- Idaho—4.57
- Montana—4.47
- Utah—4.29
- Oregon—4.24

Note: The researchers say they came up with the list to motivate people to be better prepared.

CDPHE & Colorado DMAT Partner

By Mike Moreland, Coordinator
Colorado Public Health & Medical Volunteer System
Colorado Department of Public Health & Environment

The Colorado Department of Public Health and Environment (CDPHE) has contracted with the Disaster Medical Assistance Team of Colorado, also known as the Colorado DMAT, to manage a statewide volunteer database called the Colorado Public Health and Medical Volunteer System. Colorado DMAT will provide required training for participating medical professionals and non-medical personnel so that they are able to respond safely and effectively to disasters.

The Colorado DMAT will begin recruiting soon for this training. Licensed medical professionals that could be called upon during a public health emergency, mass casualty incident or even a planned, local event are eligible for the free training. In addition, non-medical volunteers needed to support the health care staff will be eligible for the training.

Local and state public health and the DMAT will be directing potential volunteers to an online registration tool, which should be available soon. More detailed information and registration tools can be found at www.coloradodmat.com. Contact the Colorado DMAT at 303-286-7002, or toll-free at 888-260-6330.

Responding to an emergency that affects the entire community requires people with diverse skills and backgrounds. Both medical and non-medical personnel are needed, such as:

- Medical Volunteers
    - Physicians and nurses
    - Physician assistants, pharmacists and dentists
    - Behavioral health professionals
    - Emergency medical technicians (EMTs) and paramedics
    - Respiratory therapists and respiratory therapy technicians
    - Cardiovascular technologists and technicians
    - Radiologic technologists and technicians
    - Surgical technologists
    - Medical and clinical laboratory technologists and technicians (includes phlebotomists)
    - Diagnostic medical sonographers
    - Veterinarians and veterinarian technicians
- Non-Medical Personnel
    - Logistic and warehouse personnel
    - Administrative support personnel

There are five different options to choose from once the potential volunteer has logged onto the registration site. Detailed information on each of these options can be found at www.coloradodmat.com:

- Community Support Volunteer
- Statewide, Deployable Volunteer
- Medical Reserve Corps
- National Disaster Medical System (NDMS)
- American Red Cross

After the system goes live, the DMAT will begin the required deployable volunteer training, which will include Web-based training and an interactive, “hands-on” segment. This training will be offered twice in each of the nine all-hazards regions over the next year. Other training opportunities will be offered throughout the year as well.

Public health regional planners will be contacting local emergency managers to initiate dialog regarding the volunteer management issue at the local level. Both parties will be sent more information regarding the system activation and the review of the draft policy and procedures guide developed by CDPHE.

Legal counsel should be involved in reviewing policies and procedures for liability and workers compensation as well as organization and management of volunteers during planned events and emergencies.

System administrator training will be available as needed. The administrator training has been developed in the form of a train-the-trainer class for those choosing to use the system as a tool to manage public health and medical volunteers.

Opportunities for training will be announced through CDPHE and CDEM staff, and on the Colorado DMAT Web site in the near future.

Email your specific questions about the DMAT website or volunteering in Colorado to info@coloradodmat.com.

For more information about the project, please contact Mike Moreland at the Colorado Department of Public Health and Environment at mike.moreland@state.co.us or 303-692-3026.

“I didn’t fail the test,
I just found 100 ways to do it wrong.”

—Benjamin Franklin

Poudre School District – Crisis Response Team Training

By Mike Gavin
OEM Director, Fort Collins, CO

Poudre School District held their annual Crisis Response Team Training last September 26th in Fort Collins. The focus this year was on crisis response and management. Areas that were covered in the one-day training conference included mitigation, preparedness, response, and recovery. This program was developed under an Emergency Response and Crisis Management grant from the Department of Education.

Keynote presentations included school district current crisis response efforts, an overview of emergency management for schools, and a presentation titled "Katrina: The Disaster that Wouldn't Follow the Plan."

Numerous "breakout" sessions had Subject Matter Experts speaking on suicide, bullying, emergency communications, interventions for grieving youth, gang awareness, bomb awareness, internet safety and recovering from a crisis.

During this day-long training, the school district rolled out its new Crisis Response and Management Plan. Along with the new plan is a "Quick Guide" that is used as a quick reference in a crisis situation. The plan and reference guide were developed in accordance with NIMS guidelines.

Poudre School District is a key player in emergency management in Fort Collins and Larimer County. This year's participants numbered over 200 with the potential for increasing attendance in future years. For more information on Poudre School District Crisis Response Team issues, visit the PSD web site at www.psdschools.org.

Mass Fatalities Training Hosted in Fort Collins

By Stephen Blois, City of Greeley Emergency Manager

How do you plan for the incomprehensible? Multiple casualty and fatality incidents do occur, and the proper planning for them consists of gathering all the stakeholders together to examine and review what history as taught us.

This is what took place at the Poudre Fire Authority Training Campus in Fort Collins this year. The FEMA class G386, Mass Fatalities Incident Response, was provided by the Colorado Division of Emergency Management from October 10 - 12, 2006.

The instructor, Lt. Stewart Anderson of Wyoming's Natrona County Office of Emergency Management, provided leadership in this difficult subject area. His knowledge of the material combined with first hand experience of the Indonesian tsunami and the Egypt Air flight incident granted him credibility. His friendly, easygoing manner also aided in the delivery of this material.

The investigating, documentation, and collection of mass fatality victims and personnel effects takes a high level of professionalism. A diverse group of subject matter experts is needed to participate as a team in an Incident Command System (ICS) structure.

The organization required for an efficient mass fatality response has been developed and refined after numerous commercial aircraft disasters and will be applied to any large scale fatality incident.

The class participants came from nine Colorado counties and represented police, fire, emergency management, public health, cemetery management, and coroners' offices. The class culminated two days of classroom studies with a field exercise. Post course verbal evaluations from the participants brought to light the following:

1. Very few jurisdictions have plans or Standard Operating Procedures (SOPs) addressing mass fatalities incidents.

2. Comprehensive evidence collection and documentation is required in the course of a criminal act or NTSB investigation.

3. A respectful documentation and collection of remains and personal effects serves everyone best.

4. Victims families should be treated with the highest level of courtesy. Their needs, in this time of distress, must be recognized and addressed.

All the class participants were positive about the educational experience and came away with plans to better prepare their own communities for this low probability, high impact event.

Multi-County CERT Training

...as aired on KCFR/1340 AM

On July 8th, Elbert, Arapahoe, and Adams Counties held a CERT (Citizen Emergency Response Team) Training Exercise at the Elizabeth High School in Elizabeth Colorado, as the final test to qualify new CERT Team members.

The training exercise was followed entirely by KCFR/1340 AM Radio as part of a segment aired Monday morning September 11 at 7:50 a.m.

The exercise scenario was a tornado touchdown that damaged the high school, included explosions from a local propane bulk plant and numerous injured victims. The team members were to establish incident command, search and rescue teams for victims, and triage the patients until emergency responders arrived.

The Elbert County Office of Emergency Management has a registered local Citizen Corps Council and is also part of the North Central All Hazards Regional Citizen Corps which includes 10 surrounding metropolitan counties.

Under the Citizen Corps Council within Elbert County, there are three volunteer programs: 1) a Citizen Emergency Response Team/CERT, 2) a County Animal Response Team/CART, and a 3) a Volunteer in Police Services/VIPS group.

The Office of Emergency Management also offers a CERT Lite program for local citizens on basic emergency response and preparedness to include CPR/1st aid, preparedness for fire safety and evacuation, and community response to terrorism and hazardous materials. Citizens learn how to create family emergency and neighborhood plans.

When an emergency or disaster occurs, people want to help. Depending on the emergency or disaster, the actual first responder may be a citizen at the incident location. Citizens can be huge resource when trained on how to be safe and provide basic emergency skills until trained first responders arrive. Citizens can help save lives!

Exercising for Disaster

By Sarah Crisman, City of Colorado Springs Office of Emergency Management

A bomb explodes in the midst of several officials as they enter a local power plant. Within twenty minutes, a second explosion occurs near one of the plant's chemical tanks. The explosions create a plume of smoke that drifts across Interstate 25 and causes a chain reaction traffic accident. Several critical injuries and fatalities are reported. Responders and hospitals are quickly overwhelmed. But throughout all this chaos, something positive emerges. None of the events are real…so far.

On the morning of June 9th last year, the Colorado Springs Office of Emergency Management brought together over 30 local agencies for the Operation Power Plant Full-Scale Exercise. The exercise simulated a domestic terrorist event at a Colorado Springs Utilities Power Plant. It was designed to test the plans, communications and actions of emergency responders and critical infrastructure personnel.

Local government leaders were on scene to watch the events unfold. They had the unique opportunity to observe from the frontline emergency responders at work.

Multiple levels of response activities were tested including security, mass casualty, hazardous material release, evacuation and sheltering, air operations, medical transport, and hospital surge.

The Office of Emergency Management held an After Action Meeting in July to capture recommendations and lessons learned from the exercise.

"We will work with each individual agency to implement their recommendations, track their progress and in turn improve the City's overall response process," stated Bret Waters, Director of the Office of Emergency Management.

A Brief History of Logan County & Interview with Emergency Manager, Jon Rosenlund

By Kevin Kuretich, Northeast Regional Manager

A while back, I caught up with Logan County's Emergency Manager, Jon Rosenlund, who doubles as the Communication Director. As busy as Jon is, he was able to accommodate me and sit down for a visit. First, some background on Logan County.

Logan County was formed by an act of the Colorado State Legislature on February 25, 1887. Incorporated municipalities in Logan County include the City of Sterling and the Towns of Merino, Crook, Fleming, Peetz, and Iliff. The area population is 21,000 according to the 2003 Census Estimate.

Logan County covers 1,839 square miles with 11.2 persons per square mile. The county seat is Sterling, with a population of approximately 14,000 and an elevation of 3,939 feet. The South Platte River and Pawnee Creek run through the county and there are two reservoirs—the North Sterling Reservoir and the Prewitt Reservoir. The South Platte River Valley runs from Southwest to Northeast. Prairie,farm, and ranch land form the majority of land area.

The area is best known for its history and recreation, specifically North Sterling State Park, Overland Trail Museum, Overland Trail Recreation Area, and a wide assortment of parks in the City of Sterling. Sterling also features the Sterling Correctional Facility and the largest retail opportunities in Northeastern Colorado.

The greatest hazard threats in the jurisdiction are weather hazards such as floods, severe winter storms, and severe summer storms, including tornadoes. Transportation incidents — interstate and rail. Hazards most likely to occur in Logan County are both severe winter and summer storms, including tornadoes. Hazardous materials incidents by transportation also pose a threat.

Jon Rosenlund came to Sterling, Colorado, from Utah in March of 2003. He is married to Becky Madsen Rosenlund, and has four children (two girls, two boys). Jon serves his local church congregation and is active as Assistant Scoutmaster for Sterling BSA Troop 17.

Before moving to Colorado and accepting the Logan County Emergency Manager position, Jon was an Emergency Dispatcher for the Brigham Young University Police Department, Springville, Utah Police Department, and the Utah Valley State College Police Department.

In addition to his position as the Emergency Management Coordinator, Jon is the director of the Sterling Emergency Communications Center, the Public Safety Answering Points or PSAP for Logan County, which consumes a significant amount of his time.

Jon notes an increased awareness of emergency management among the public since a 2004 tornado. A severe storm and two tornados swept across the City of Sterling on June 9, 2004. Classified an F2 and a strong F1 by the National Weather Service, the tornadoes crossed the heart of the City, causing damage to approximately 150 structures.

The storm affected 29 square blocks and 45% of Xcel customers in Sterling, or approximately 2500 - 3000 customers. Over 100 tons of debris were removed in the first week after the storm. An estimated $1-2 million in structure damage alone was reported, and there was an estimate of $5-7 million in total economic impact, including damage, repair, loss of economy, debris management, and emergency and utility response.

Jon helps the county, municipalities, businesses, and the public prepare for emergencies and disasters, and coordinates response and recovery efforts following an incident. He is responsible for assisting various agencies and government entities in preparation efforts, exercises, planning, and defining resources. He meets with businesses, associations, and volunteer groups to educate them in ways to mitigate their own dangers, prepare themselves for a disaster, and provide opportunities for volunteering through the Citizen Corps.

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Interview with Emergency Manager, Jon Rosenlund

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Jon also manages a large number of program grants that fund planning, training, and exercises in the county.

Jon sees the main strength of an emergency management program as the ability to bridge gaps between agencies and disciplines. The main weakness he sees is the general inability to enforce or directly produce change. He believes the greatest challenge for emergency managers is the ever-increasing number of mandates for all-hazards activities coupled with the new, emerging Homeland Security requirements. Jon feels we may loose sight of all-hazards efforts and spend inordinate amounts of time, effort, and funds on less-likely events.

We recently learned Jon is moving on to greener pastures and we wish him the best of luck in his new endeavors. A few of his accomplishments in his tenure with Logan County include establishing a Local Emergency Planning Committee (LEPC), the Citizen Corps, Citizen Emergency Response Teams (CERT), a Colorado Animal Response Team (CART), a City/ County Emergency Operations Plan (EOP), Phase II E-911, upgrades to equipment and renovations in the Communications Center, a "Business Ready" campaign for the City of Sterling, StormReady recognition for Logan County, and successfully developed and exercised the first State CERT Olympics competition between the Northeast and North Central regions.

Jon Rosenlund touched many lives in the county and he will be missed.

Playing hurt, dead in fake plane crash

By J.K.Perry - Vail Daily - August 27, 2006

EAGLE - The wind suddenly changed from a headwind to a tailwind, knocking the Boeing 757 carrying 182 passengers into the patchy grass beside the Eagle County Airport runway.

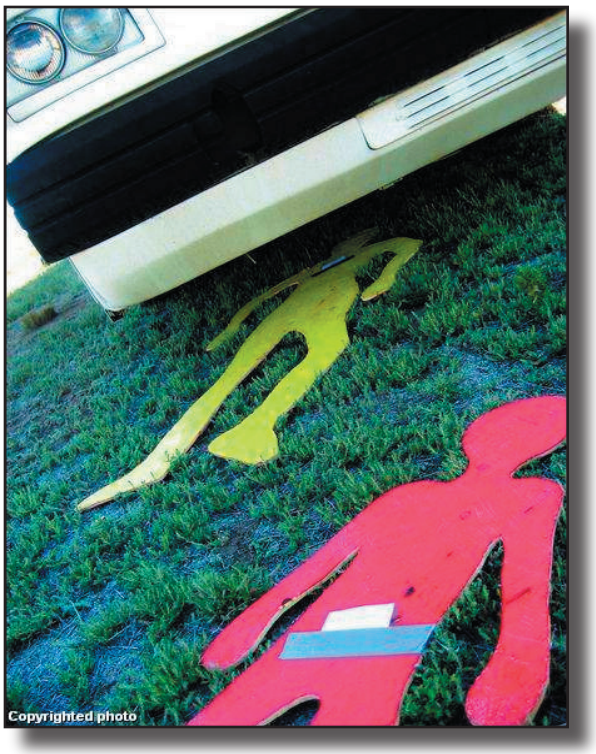
The plane, traveling from Austria via Toronto, split in two during impact. Some of the 4,700 pounds of fuel onboard exploded into flames.

Within minutes, airport firefighters sprayed down the two fiery halves, drenching the outside then attacking the fire in the cabin where I sat with 15 injured passengers.

The majority of the other passengers sat in the other half of the plane or were ejected in the crash. The ejected people lay in the grass and under the plane, some suffering massive head wounds, broken bones and others dead.

It was a crash drill designed by airport officials to test the preparedness of over 100 emergency personnel throughout the valley. The airport is required by the Federal Aviation Administration to test every three years.

The havoc continues as a firefighter enters our cabin - actually an old bus - to the screams of the passengers. The man in the oxygen mask got to me first.



Airport officials simulate a plane crash at the Eagle County Airport to test the preparedness of more than 100 emergency personnel for such an event. Wood cutouts represent bodies tossed from the plane, which is actually an old bus

"What's wrong with you?" the firefighter asked.

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Playing hurt, dead in fake plane crash

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Before the drill began, I'd been given a card with symptoms to act out. The card read "Large facial laceration, severe neck and back pain, shortness of breath, fractured leg."

"Ahhhh," I moaned in pain. "Blood in my eyes. Back and neck really hurt. My leg might be broken."

He pulls me from the gnarled metal that used to be a plane and sets me on the tarmac beside the wreckage. A young woman soon follows, howling in agony as contractions wrack her womb three months early.

Each passenger's wounds were assessed and prioritized. Colored tags - green, yellow, red and black - symbolizing the severity of injuries were hung from each person's neck. Black essentially means death.

"If you're the one doing triage, you're playing god," a man tagging people said. "You decide who lives and who dies."

The pregnant woman, actually Kaylee Brennand and not actually pregnant, cried for herself and her baby, whom she decided to name Tarmac after sitting on the asphalt for so long waiting for help.

Firefighters carried red-tagged passengers to another area for medical care. The firefighters stabilized my injured neck, rolled me on my side, slid a backboard underneath and carefully laid me down.

Then they loaded me onto a four wheeler for a short ride to get medical care. Back on the ground I moaned and complained about my injuries a bit more. A nice woman named Nancy grabbed my hand, consoling me.

I never found out whether I lived or died. I was released from my role of victim before anyone told me my fate.

The victims all seemed to relish their time playing hurt, or dead in some cases.

"It's fun because I get to play," Brennand said. "And it's playing for good cause. I like my emergency personnel to be prepared and this is the only way it will happen."

Staff Writer J.K. Perry can be reached at 748-2928 or jkperry@vaildaily.com.

Red Rocks Community College: Emergency Management & Planning A.A.S Depgree or Certificate: How to get extra course credits

There are two options for getting extra credit toward the Red Rocks Community College Emergency Management and Planning (EMP) Certificate or AAS Degree. The first option is to submit a transcript from an accredited college and the second is to request credit through the Red Rocks "Credit for Prior Learning Program." The two options can include courses taken from accredited colleges or agencies such as FEMA or the Colorado Division of Emergency Management.

1. First, you need to have applied for admission to Red Rocks Community College and been accepted. Few prospective students get turned down. Application for admission to Red Rocks Community College and registration for courses can be accomplished over the INTERNET. To apply to Red Rocks, go to CCCONLINE. org and click on "New Student", then click on "Partner Colleges" and select Red Rocks Community College as your home college, then click on "Admissions."

2. Second, you must list yourself as seeking either a Certificate or AAS Degree and you must have taken at least one course (at least one credit) through Red Rocks. However, the paperwork for getting credits awarded can be started prior to the completion of the course.

3. Completed courses from accredited colleges can be transferred to Red Rocks at no cost, after submitted transcripts are reviewed for applicability toward our Emergency Management and Planning Program. Only a "C" grade or above will be accepted for transfer.

4. When requesting credit for courses for which you have certificates or are from non-accredited institutions such as FEMA or DEM, you need to go through what we call our "Credit for Prior Learning Program." Each credit costs $15 or $45 toward a three credit Red Rocks EMP course. You might want to first call Sylvia Sieverding, at 303-914-6724, to get more information about this process.

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Getting extra credits at Red Rocks in the EMP...

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5. Red Rocks grants three credits for courses taken in a classroom setting. If you have taken FEMA Independent Study courses, we can give one hour of credit per course. Since each of our courses is three credits, we can combine three FEMA IS courses in order to grant credit for one of our EMP core courses. The FEMA IS courses should generally correspond to each of our EMP courses for which credit is requested.

6. To get either the certificate or A.A.S. Degree in Emergency Management and Planning from Red Rocks Community College, at least 15 credits must be taken through Red Rocks. To apply to Red Rocks, go to CCCONLINE.org and click on "New Student," then click on "Partner Colleges" and select Red Rocks Community College as your home college, then click on "Admissions". Additional information is available at CCCONLINE.org. You can also contact Ivo Roospold at the address listed below.

Ivo Roospold
EMP Coordinator
Red Rocks Community College
303-914-6404
ivo.roospold@rrcc.edu

Disaster Drill *October 3, 2006*

Emergency personnel exercise includes 'gunman' firing shots inside school

By Steve Grazier, Cortez Journal Staff Writer

Manaugh Elementary School (Cortez, Colorado) was the site selected Saturday morning for a real-world emergency exercise aimed toward training area responders in case of a terrorist catastrophe.

Planning for the approximately $6,000 exercise took nearly six months. The Montezuma County Emergency Management Office sponsored and organized the event in cooperation with Colorado Division of Emergency Management and the U.S. Department of Homeland Security.

Coincidentally, the scenario of the exercise was similar to the actual hostage event that occurred last September in Bailey.

The Bailey tragedy saw six girls from Platte Canyon High School held captive, four of them released and one of them killed by a gunman, who was later identified as 53-year-old Duane Morrison, of Denver.

Cindy Ramsey, emergency management service coordinator for Saturday's exercise, said there was discussion on altering the event in consideration of what happened in Bailey, but time did not allow for any serious, major adjustments.

"We could have changed things around, but you still have to practice," said Ramsey, an EMT for the Dolores Volunteer Fire Department and secretary for the Montezuma County Fire Chiefs Association. "You need to have fire drills and response exercises, or people die."

Lori Johnson, emergency manager for Montezuma County, agreed.

"Bailey proves in small towns things can happen, and we need to be prepared for it," Johnson said.

Photo: Cortez Journal/Bob Fitzgerald

Saturday's simulation involved an angry parent, "Abul Gheit," responding violently after his son, "Alexander Bell," was being taunted by other Manaugh students for wearing a turban to school.

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Disaster Drill

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Following an outrage in demanding religious rights for his son, "Gheit" apparently stole some kerosene from a local refinery and snuck the liquid into the school during a Saturday morning open-house event.

A violent situation involving an individual with strong ties to al Qaeda was selected for the Manaugh exercise because it fits into Homeland Security's definition of terrorism and was a model from a Homeland Security script, Johnson said. An unlawful act to change political views and coerce people to believe in a certain religion was also an example that fit into the right criteria, she said.

Johnson said that in selecting the scenario, emergency management officials were not profiling any single race or religion. In order to garner the $6,000 for the exercise, they had to choose from a Homeland Security example.

"Gheit" also toted a gun to the school and fired several shots as part of the exercise.

"Think of a distraught parent out to get even," Ramsey told the 80 to 100 response players of the simulation prior to the event's kick off.

At 10:03 a.m., Cortez dispatch reported "explosions and popping noises" at Manaugh, which prompted the emergency scenario's start. The practice session lasted until 11:15 a.m. and was followed by a debriefing meeting inside a nearby church.

"These exercises are designed to test certain functions - such as (incident command systems), public information and pre-hospital treatment - all things that come together during response," said Patricia Gavelda, regional field manager for the Colorado Division of Emergency Management office in Durango. "You look at the overall strengths and gaps."

Gavelda cited communication to the public in a real-world event or exercise as a typical challenge. She suggested that the various agencies working together during an emergency mission is generally a strength.

Participating agencies from Saturday included the Cortez Police Department, Montezuma County Sheriff's Office, Ute Mountain Ute Tribe ambulance, Cortez Special Response team, Southwest Memorial Hospital ambulance, the county HAZMAT (hazardous material) squad and fire departments from Cortez, Lewis-Arriola and Dolores.

Among the simulated tasks medics conducted were treating gunshot and shrapnel injuries, smoke inhalation and decontamination precautions. Medics simulated carting out individuals with various wounds and cuts.

Medical professionals were also tested on providing effective medical care and their ability to conduct triage, treatment and transport operations.

Firefighters set up a ventilation system to suck out smoke from the school. They also prepared a charged line of water and a water pump, which are always part of response during an exercise or real-world event, Ramsey said.

Overall, their main task is to implement victim, personnel, equipment and facility decontamination in a mass-casualty incident.

Law enforcement officials blocked off access roads to Manaugh and secured the location. SWAT team members rescued up to 10 hostages, apprehended the suspect and transported him out of the school. Volunteers, acting as Manaugh faculty members, appeared confused and disoriented as a barrage of firefighters and rescue workers as they entered the school to conduct rescue operations.

A plus from Saturday's practice included the performance of the HAZMAT unit, which took on the decontamination aspect of the incident, Johnson said.

Things to improve on are the incident command structure, said Johnson, who added that agency leaders need to come together to make group decisions instead of being in separate spots during an incident.

"Getting people to think toward a unified command is what we want," Johnson said.

Overall, Johnson rated the exercise as going "very well," while noting that groups did participate well as a cohesive unit.

"We learned some on communicating between agencies ... from inside the building back out," she explained. "In drills, it reinforces teamwork, and that was in our favor."

Reach Steve Grazier at steveg@cortezjournal.com

"The trouble with the gene pool is that there is no lifeguard."

—Steven Wright

North Cheyenne Canyon Fuel Mitigation Project

By Christina Randall, Wildland Risk Manager
Colorado Springs Fire Department

The North Cheyenne Canyon Fuels Mitigation project is funded through FEMA and CDEM for $71,754 with matching funds from the Colorado Springs Fire Department for $23,922.

Goal: to reduce the risk of wildfire to the adjacent neighborhoods

Objectives: to reduce the fuel loading by creating a shaded fuel break to reduce the dead and diseased standing trees and brush.

The contractor is Front Range Arborist and the target acreage is between 25-30 acres. Sixty-eight days were budgeted for a 4-person fuels crew to do hand thinning only. No mechanized equipment was used and no clear cutting was done. The vegetation is mixed Conifer in the southwest part of the project area and
Ponderosa Pine and Gambel Oak in the rest.

The biomass was chipped and removed within 100 feet of any roads or visual corridors and the interior part of the project was chipped and scattered on site to a depth of no greater than 4 inches.

This project was possible through successful collaboration between FEMA, the Colorado Division of Emergency Management, and the Colorado Springs Fire Department. Support was expressed by the surrounding neighborhoods. Most of the initial comments from neighbors were, “when can you

Thinking Outside the Old Box...

By Steve Douglas–Director, Pueblo County Department of Emergency Management & Pueblo Emergency Response Team’s – Search & Rescue Team Leader

One of the goals of forming the Colorado All-Hazards Emergency Management Regions in 2003 was to establish one regional map for the state which identified contiguous regions with as many all hazards emergency management commonalities as possible. There was no perfect solution and compromise was essential.

Pueblo County is part of the South Region, along with its neighbors in Fremont, Custer, Huerfano, and Las Animas Counties. One thing four of our five counties have in common is the Wet Mountains. They give us common concerns regarding the watershed, forest health, wildland fire, communications (radio tower sites), search & rescue, access, and more. The following will focus primarily on search & rescue, but there are more universal applications as well.

At 12,347 feet above sea level, Greenhorn Mountain represents the highest point in the Wet Mountains and Pueblo County. The Pueblo – Huerfano County boundary is marked by it, and the three-way boundary between Pueblo, Huerfano and Custer Counties is approximately three miles northwest of the peak. Access to the area is relatively easy using Forest Service roads from late spring through mid-fall. In the winter and spring months, the same road is used as a snowmobile route. It is not uncommon for us to conduct lost person searches in that area, routinely utilizing mutual aid from South Region and other search & rescue teams from across Colorado, with coordination through the Colorado Search and Rescue Board (CSRB).

Emergency management has provided search and rescue (SAR) services to Pueblo County with its volunteers for nearly thirty years—first through the Pueblo County Civil Defense Agency and for the past eighteen years, through its Department of Emergency Management. It has been my honor to be the leader of that team for the past seventeen years. One would think after all these years, there would be nothing significantly new to do. If we worked in a static environment that might be true, but happily, that is not the case. Over time, we have access to new tools, new volunteers, and new ideas. Those come against a backdrop of new challenges.

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Thinking Outside the Old Box...

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Those challenges generally result in calls for mutual aid, but we had only rarely organized training events with those agencies we responded with through mutual aid; ergo, the "old box."

During the weekend of August 19-20, 2006, Pueblo County hosted the first annual Quad County Search & Rescue (SAR) Training and Exercise. It involved Fremont, Custer, Huerfano, and Pueblo County SAR teams, as well as Search & Rescue Dogs of Colorado (SARDOC) and the Civil Air Patrol. As with most good ideas, this one did not just pop into our heads one day and it did not just involve one person's ideas. It was the culmination of several years of different ideas from at least five people.

For instance, one volunteer (Joe Sorenson) suggested we conduct a lost person search exercise with a team member as the search subject. This idea was borrowed from another team. Likewise, Pueblo County has been conducting winter overnight trainings near Greenhorn Mountain for several years, but never a summer overnight training. We scheduled one such training for the summer of 2005, but the Mason Gulch Fire forced us to cancel it.

As we were developing our 2006 SAR training calendar for Pueblo County, Ryan Moore, one of our volunteers, came to the department with a request to do a practicum as part of his degree program at USC-Pueblo. This opened the door to a more aggressive plan to extend the summer overnight training to neighboring counties, with training on day one and a mock lost person search on day two. Under the practicum, his responsibilities encompassed contacting SAR teams in Fremont, Custer, and Huerfano Counties; joining them at some of their meetings/trainings; and identifying their interest levels, resources and scheduling conflicts. He also made contacts with SARDOC and Civil Air Patrol (CAP) to determine their level of interest and resources.

Although we routinely participate in SAR responses with El Paso SAR, we made a conscious decision not to ask them to participate in this joint training. They are an excellent team and offer a wide range of resources. SAR teams in the South Region do not have the same depth of experience and resources as El Paso SAR, and we wanted to develop a two-day event challenging all participating South Region SAR teams to step up and take assignments, rather than defer to our good neighbors to the north.

Organizing a two-day training to fit all the players' schedules was a challenge. We found a good fit, but not a perfect one.

I have mentioned new ideas. New capabilities also played a role in the Quad County SAR Training and Exercise. For instance, the South Region put the acquisition of a new mobile command vehicle at the top of its priority list for 2004 State Homeland Security Grant money. Our intent was to make the vehicle available for all-hazards response across the South Region, including SAR.

We took delivery of the vehicle in March 2006, and have been putting finishing touches on the unit's technology and learning to use it ever since. Mark Gonzales from Pueblo County Information Technology, and Chris Markuson from Pueblo County Geographic Information System have provided invaluable assistance with the training process.

The Wet Mountain site selected for the training and incident command post is 8.2 miles up Ophir Creek Road (a gravel road) at an elevation of 10,600 feet. (See photo.) This site is not accessible with the mobile command vehicle for much of the year because of snow conditions, but it is accessible for the time of year in which we receive the majority of our SAR calls for service in the area. We had pledged to provide access and training with the vehicle to the rest of the region, and this was an excellent opportunity to deliver on that promise.

We had become aware of two other new capabilities while attending the 2006 Search & Rescue Conference in Gunnison last July. One is improved mapping software (Terrain Navigator Pro) widely used by other SAR teams in Colorado. We acquired a copy for the mobile command just prior to the exercise. Chris Larson, a member of Fremont County SAR, was proficient in the new mapping software. He volunteered to be our Plans Section Chief and did an excellent job. The other new resource is a combination of high quality digital camera, laptop computer, and satellite phone now available on three of the fixed wing aircraft used by the Civil Air Patrol (CAP) in Colorado. The local CAP wing had already planned a three-day exercise of their own, which overlapped our exercise date.

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One of their aircraft would have the new camera capability and they were interested in participating. Things were rapidly coming together!

All teams participating in the Quad County SAR Training and Exercise were scheduled to muster at the site selected for the command post at 10:00 am on Saturday, August 19. They brought all the resources committed to the training and the exercise. In spite of some challenges, the training went off without a hitch. It began with a basic overview of the Incident Command System (ICS). That was followed by lunch, after which we moved on two training tracks. One track involved forming an incident management team (IMT) whose tasks included assigning roles, developing an Incident Action Plan for the exercise, and then managing the mock search exercise. The agreement was that each of the four counties would provide at least one person to be on the IMT and the management roles would not necessarily be assigned to the most experienced person available. The second track involved a series of trainings including man-tracking, use of SAR dog resources, use of horses for mounted SAR, and use of All Terrain Vehicles (ATVs). One of our real world challenges involved man-tracking. Our trainer had just come off a successful three-day search for an escaped prisoner in Fremont County and he was tired. He conducted a fine class and then went home for a well deserved rest.

Following those afternoon sessions, we all broke for a group dinner. Following that, the two lost person volunteers left the group, drove to the pre-established "Point-Last-Seen" (PLS), worked to lay down a set of confusing tracks, and then proceeded to a designated point to make camp and await discovery by searchers the next day. I developed the script in private and only shared it with the mock victims before they left camp.

For safety reasons, I shared the designated camp location with the Plans Section Chief Saturday evening. The back up plan in the event the victims were not found in a timely fashion, was for me to give the IMT the victim's location no later than noon, playing the part of CAP.

Everyone else had to figure out where the mock victims were on Sunday. I picked a campsite in a small clearing surrounded by aspen trees and instructed the "victims" to put their tent in the clearing. It was two miles from the PLS in a drainage visible from mobile command. The clearing and tent were visible from the air, but not from mobile command or any area road. Several folks accused me of selecting a route of travel for the mock victims that was counter intuitive, to which I smiled and countered that many searches are like that. It's a good thing I was among friends.

Weather provided a real world challenge. We had a heavy cloud cover and scattered rain all day Saturday with a spot weather forecast from the National Weather Service for Sunday that was not much better. There was a real chance we would not be able to get a CAP plane in the air over our location Sunday. We had already lost our SARDOG resources for Sunday's exercise due to prior commitments. Things were starting to look like a real world search, in which you do not get all the resources you would like and the weather doesn't respect your plans.

While the mock victims were going to their designated site and most of the rest of the crew was enjoying the evening, the IMT went back to work in mobile command, developing the Incident Action Plan (IAP). Real world intervened again. Two climbers (one injured) needed help in the Sangre de Cristo range and high angle rescue technicians from Custer and Fremont SAR, as well as the Custer County team leader, left our location to assist in the mission. As they were packing up their gear to go, we contacted the National Weather Service and secured a spot weather forecast for the rescue site.

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We then reorganized our IMT, having just lost our Incident Commander, and went back to the task of developing the IAP for Sunday's exercise. With the real world delays and challenges of working as a new IMT, we did not finish the IAP until 2:00 am. Search team briefings were scheduled for 7:00 am. It was starting to feel like a real search, fatigue and all. The good news was that working in the new mobile command was like a dream come true. We had light, heat, space, excellent tools, and a good coffee pot!

In spite of all the challenges leading up to it, the exercise August 20 went well. We had 41 participants, including a ground search team from CAP we were not expecting. The man-tracking team struggled with following tracks on hard packed earth along the road. We really missed the air scenting SAR dog resources. The weather held and CAP was able to get a plane in the air for us. At about 11:30 am, they sited our victim's tent in the clearing, took digital photographs, and radioed coordinates. We worked through some challenges about how you read coordinates over the radio, but that got sorted out too. One of our mock victims was simulating a fractured ankle and needed first aid and transport out. I had picked a site where access from the nearest road was blocked by a marshy stream bed. (Yes, some of the things said about me were true. I believe the polite word was "devious.") Training on Saturday included discussion about horseback transport of victims with certain injuries, so the mounted team was called in to provide transport. We exercised the CAP digital photo capability emailing photos to mobile command via satellite. (See photo of the command post on the previous page.)

Once everyone was back at the command post, we conducted a critique of the training and exercise, collected lessons learned, went through a formal demobilization process, packed up our equipment, made sure the site was clean, and all went back to our respective jurisdictions. An overall measure of how the first annual Quad County SAR Training and Exercise went is reflected in the unanimous decision by all teams to have a Second Annual event in 2007, hosted by a different county in the region and built around challenges specific to that county's geography. In this case, thinking outside the old box made sense to all.

On a final note, the search and rescue mission in the Sangre de Cristos was completed Sunday with a positive outcome. That was the number one priority, as real world events must always be.

Planning for the Utilization of Air Medical Resources for Large Scale Incidents

By Mike Judy, AirLife of Denver

It would be remiss of the emergency response community to overlook the necessity for air medical resources in the event of a large-scale natural or technological disaster. In this modern era of potential destructive threats to national security, it is essential emergency response teams fully recognize the need for helicopters and the fundamental functionality they provide.

The benefit of having air medical response resources during large-scale incidents is monumental in comparison to ground based EMS transport entities. These resources can not only complete rapid response and transport requirements, but can also provide on site triage and treatment teams, in addition to the shuttle of on-scene field surgical groups.

To begin our journey along the path of preplanning, several aspects must be addressed. As a starting point to support a regional outlook, one needs to identify every air medical response program within a 150 nautical mile radius of a specific jurisdiction.

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Planning for the Utilization of Air Medical Resources for Large Scale Incidents

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By contacting your State Emergency Management Office, military air response resources can also be identified, which should be included within your disaster plan. Certain initial questions must be answered to provide you with a detailed outlook regarding the development of your air medical response plan. After identifying each air response program within your 150 nautical mile radius, contact each flight program to ascertain the following:

- Number of helicopters
- Specific response radius
- Helicopter type and weight
- Patient transport capabilities
- Landing Zone requirements
- Available first responder training
- 24-hour emergency contact numbers

Every flight program in the country has established a response radius for each of their aircraft. In most cases, this response radius is a fluid number and can be lengthened for extenuating circumstances. This initial radius identifies the outer-most destination that a specific helicopter can fly to, pick up a patient, and transport to its destination without refueling. Most helicopters have a response radius from 120 to 200 nautical miles, with larger aircraft boasting a radius of well over 250 nautical miles. Each flight program within your area must be contacted to verify its specific aircraft radius. This information can then be plotted, to be referenced during your potential activation and/or preplan.

When identifying your regional flight resources, it is important to identify their specific transport capacity. These capabilities can range from single patient transport abilities, to multiple patient means of transport. This carrying propensity is specific to aircraft type and medical staffing.

In addition to the patient transport amount, the helicopter's weight needs to taken into consideration. Rooftop hospital helipads are specifically weight rated which identifies the amount of weight allowed to land upon it. Your transport officer should have a list of area helipad weight ratings, in addition to area flight program helicopter weights, these should be cross-referenced prior to making a patient transport destination decision.

While most helicopters are capable of landing in small spaces, the preferred landing zone dimension is usually 100' x 100', free and clear of all obstacles and hazards such as poles, wires, vehicles and people. While each flight program across the country has specific dimensions required for landing its helicopters, the main concept here is safety. Think of it as large, free and flat… a large area, free of obstacles and a level surface.

Before allowing field responders to work around helicopters, certain safety precautions must be considered. Basic helicopter operations and helicopter safety training must be provided to ensure all safety requirements are met, and all scene personnel are properly trained to safely function around these vehicles. Flight programs are more than willing to provide this essential training to area first responders, if requested.

Emergency response companies around the globe have developed an array of patient tracking forms, checklists and computer programs, available to assist your transport officer with patient tracking. These resources encompass generalized accountability regarding arrival locations, transporting entities and destination facilities. Regardless of which method is used, a comprehensive patient tracking system must be in place to facilitate coordinated movement and accountability.

In addition to providing rapid transport capabilities, air medical programs can also deliver essential medical supplies directly to the scene of a mass casualty or large-scale incident to supplement on-scene efforts to incidents that completely overwhelm local response supplies.

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Planning for the Utilization of Air Medical Resources for Large Scale Incidents

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Some air medical programs have established Critical Incident Dispatchers that are capable of flying to the scene with the medical crew and assisting the Incident Commander with controlling multiple incoming aircraft. These specialized air medical dispatchers can be heavily relied upon to coordinate and control a large scale air medical response, in addition to providing on-scene communication assistance.

At times, severe weather prevents the use of air medical operations. In these instances, ground based Critical Care resources can often be utilized to facilitate patient transport movements. The concept takes the medical team (from the helicopter) and places them into an ambulance, creating a ground-based critical care response asset. Considering these response assets as a mini emergency room on wheels, their capabilities are similar (if not identical) to those available on the helicopter. Remember to allow additional activation times when requesting these resources.

In conclusion, the air medical industry has much to offer. By utilizing proper preplanning measures, the resulting outcome will only enhance your response efforts.

Cost Effective Training

By Mike Gavin, Director, Office of Emergency Management, Fort Collins, Colorado

During the last year, I have noticed a lot of offerings of training related to terrorism, WMD and mass casualty incidents. Unfortunately I am also seeing some high dollar costs for these courses. I would hope that our hard-earned funding is not being spent in areas where we can receive the same or better quality of training for a lot less cost.

What am I speaking about? There is a group called the National Domestic Training Consortium, funded through the Department of Homeland Security, whose membership includes the Center for Domestic Preparedness, National Center for Biomedical Research and Training, National Energetic Materials Research Testing Center, National Center for Exercise Excellence, and the National Emergency Response and Recovery Training Center. These members provide the highest level of current training available through subject matter experts who are continually evaluated by DHS. By no means is this a “low bid” operation.

The Center for Domestic Preparedness is located in Anniston, Alabama. This training facility is actually located within the grounds of Fort McClellan Military Base. Current offerings include: WMD Hazmat Technician, WMD Incident Command, and WMD Technical Emergency Response. Most courses are offered at CDP, however, some may be offered locally.

The National Center for Bio-medical Research and Training is located and affiliated with Louisiana State University. Their offerings include: Law Enforcement Response to WMD Incidents and Emergency Response to Biological Incidents. These courses are normally offered locally.

The National Energetic Materials Research Testing Center main campus is located in Socorro, New Mexico, and also hosts a site in Playa, New Mexico. Response courses offered by this agency include Incident to Terrorist Bombings and Incident Response to Suicide Bombings. These courses are offered only on site. This agency does offer an Awareness course for both of the above courses than can be delivered locally. EMRTC is affiliated with New Mexico Institute of Mining and Technology.

The National Center for Exercise Excellence is located in Mercury, Nevada, and is affiliated with the U.S. Department of Energy-Nevada Test Site. Courses offered include Exercise Training and Radiological Nuclear Agents. Most courses are only offered on site.

And lastly, the National Emergency Response and Rescue Training Center is located in College Station, Texas. This training center is a part of the Texas Engineering Extension Service which is part of Texas A & M University.

Courses offered include: Threat and Risk Assessment for WMD, Incident Management/Unified Command, Emergency Medical Services Operations and Planning for WMD, Public Works: Preparing for and Responding to a WMD/CBRNE Incident. Most of these courses are delivered locally.

Many of these institutions offer additional courses that are not included in the National Domestic Training Consortium Program.

So, what is so cost effective about this training? The only cost for the “on site” courses is your time away from work.

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Cost Effective Training

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Costs are covered by the training center through federal support. Airfare, lodging, registration, texts, meals and rental cars (if necessary) are all included. And if your agency hosts a "local" course, it means providing only students, audio-visual equipment and a classroom. This is very cost effective.

Perhaps you are wondering about the quality of training provided by these members. Well, as a testimonial, I have attended courses at all of these facilities and my agency has hosted many of the "local" deliveries. As an organization, we will continue to send students to these courses and continue to host "local" deliveries.

For more information on the curriculum offered and a schedule of offerings, contact the agency directly, or our DEM Training Coordinator: Robyn Knappe 720-852-6617; email: robyn.knappe@state.co.us

Aurora Visits EMI

By Deanne Criswell, Aurora Office of Emergency Management

Nestled away in the foggy mountains of northern Maryland, seventy-four members of Aurora government and the private sector participated in the Integrated Emergency Management Course sponsored by the Emergency Management Institute (EMI) in October. This course seeks to inform and challenge jurisdictions on how they deal with a disaster.

The group received multiple presentations on a variety of emergency management concepts as well as response discipline capabilities. These presentations were provided by subject matter experts from across the country who brought a wealth of practical experience to the participants. In conjunction with the presentations, participants were also subjected to three exercises of ever increasing complexity.

The first exercise dealt with a special needs population facility fire. The Aurora staff surprised the EMI instructors by actually contacting the facility and asking what their relocation contingency plan entailed. The Aurora Office of Emergency Management has recently been working with the nursing homes in their jurisdiction; therefore, the facility had an up-to-date plan and was very cooperative in their participation, even if it was peripheral. Additionally, a lumber yard fire coincided with a touchdown of a tornado resulting in multiple casualties and the destruction of approximately 120 private residences, commercial entities, and government infrastructure. Participants worked through their decision-making process for declaring a local disaster and providing sufficient information to the Governor in the hope that a state-level disaster declaration would be issued. (For exercise purposes, this was granted, as was a Presidential disaster declaration.) EMI also included several calls that could occur during a normal duty day, including a hostage situation and several EMS calls that added to the reality of the exercise.

The final scenario focused on the recovery aspects of the tornado. As the response agencies continued to focus on gathering data, the City's policy group and Emergency Operations Center wrestled with such subjects as reassuring the public, establishing priorities for cleaning up the city, and bringing together all of the available resources to take care of their citizens. These groups were also challenged in addressing the needs of the community's first responders, who had to balance their professional responsibilities with those of their families, who may have been in the path of the tornado.

As with every exercise, there were some artificialities that did not accurately reflect reality for Colorado; however, they were necessary to achieve the course objectives.

Besides the typical response disciplines, other Aurora attendees included City Council members, City Managers Office, Public Works, Water Department, IT, Finance, City Attorney, Human Resources, Development Services, Neighborhood Services, Parks and Open Space, and Library, Recreation and Cultural Services. In addition, several private sector organizations were represented, including County Offices of Emergency Management, Xcel Energy, Coalition of Faith, two school districts, volunteer organizations, area hospitals and Buckley Air Force Base.

The exercise was an overall success. It provided an opportunity to include disciplines not normally considered first response, as well as an environment to work together and solve the problems that confronted us. The Aurora Office of Emergency Management will build upon this training and enhance the training and exercise program locally to ensure the highest level of preparedness for our community.

National Preparedness Leadership Initiative

Teaching Meta-Leadership to Emergency Management Professionals

By James A. Lancy, MA, CEM, Emergency Management Coordinator, City of Arvada, CO and the Arvada Fire Protection District

Following the 9/11 and anthrax attacks of 2001, the Centers for Disease Control and Prevention (CDC) recognized that advanced training for its staff and the emergency management community they interface with was lacking. Working with the Kennedy School of Government, the Harvard School of Business, and the Harvard School of Medicine, the National Preparedness Leadership Initiative (NPLI) was created. Initial funding for this initiative was through a grant from the CDC to Harvard that resulted in development of the Meta-Leadership program.

The intent of this initiative is not only to teach meta-leadership to federal managers, but to teach these skills to local emergency management professionals as well. The program instructors related that this goal is being accomplished.

Sixteen of the forty-seven participants (34%) to this third NPLI course represented non-federal or military agencies. Of the other students, 26% were from the CDC and the rest (40%) were federal employees or with the military. All participants had emergency preparedness responsibilities.

Meta-Leadership

The term "meta" is used to describe the multiple connections preparedness leaders must establish to accomplish their tasks. Just as "meta-analysis" refers to a statistical method used for connecting various ideas or positions that were previously separate, but related, meta-leadership refers to influence and connectivity across organization and agency lines.

Meta-leadership is a view of leadership that is composed of five components:

1. The Person – emergency preparedness subject matter expert
2. The Situation – situation or event you confront
3. Leading Your Silo – influencing, motivating, and working with those you are directly involved with
4. Leading Up - influencing your boss(es), to include elected officials
5. Connectivity – building relationships and enhancing communications with all involved in preparedness, mitigation, prevention, response, and recovery outside of your silo

The training emphasized the difference between traditional organizational leadership and meta-leadership. Organization leaders derive the ability to influence through their authority and position in an organization. Meta-leaders often have no authority over the various organizations they must pull together and often work with agencies and jurisdictions with rival interests.

Case studies were presented as examples of meta-leadership or the need for meta-leadership. Case studies included: suicide bombers, the WTO riots in Seattle, Three-Mile Island, and New York Mayor Rudy Giuliani. Other subjects included ethics, stress management, risk management, and conflict resolution.

This was great training of the type often missing in the emergency management community – high level emergency management training for preparedness professionals, especially leadership training. I would encourage other emergency management professionals to take advantage of this training. The job of an emergency manager takes very special people with very special leadership skills.

More Information

To read more about meta-leadership visit: http://www.ksg.harvard.edu/leadership/Pdf/MarcusDornHendersonWorkingPaper.pdf.

More information about the National Preparedness Leadership Initiative can be found at: http://ksgexecprogram.harvard.edu/program/npli/overview.aspx .

"I have noticed that the people who are late are often jollier than the people who have to wait for them."

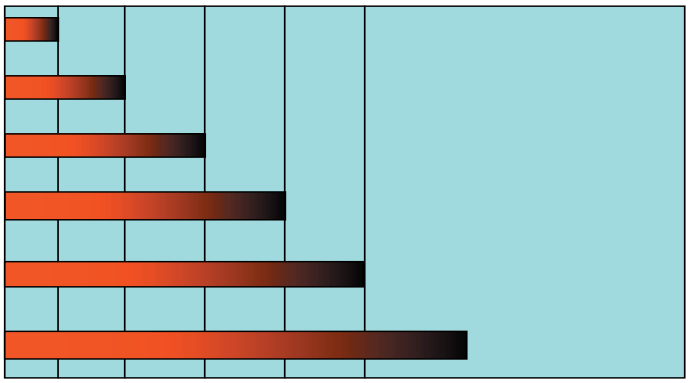
—E.V. Lucas

Out With The Old And In With The New!
The Enhanced Fujita Scale Will Be Used This Season to Rate Damage From Tornadoes

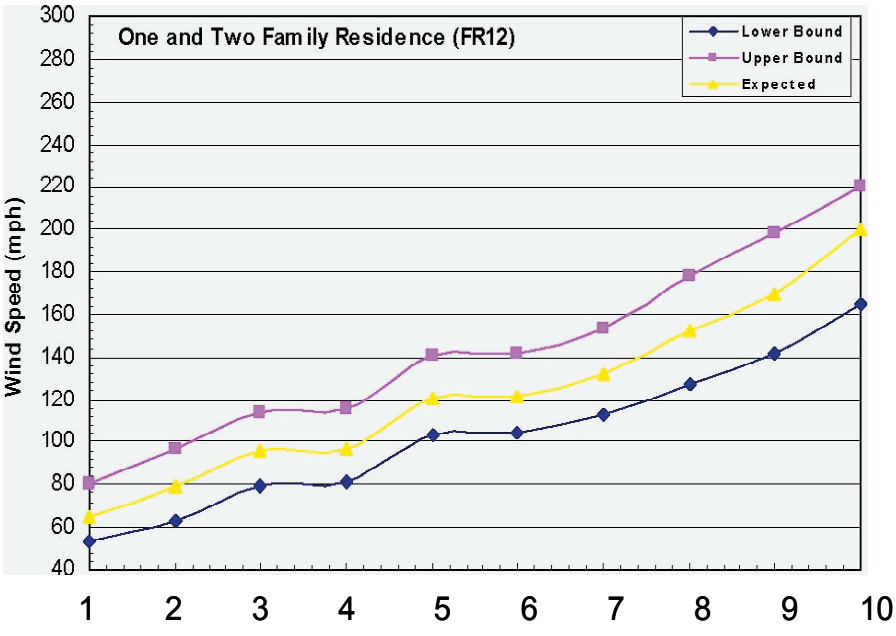
By Bob Glancy, Warning Coordination Meteorologist, National Weather Service, Boulder, CO

The venerable Fujita Scale has been retired. You remember the scale, which ranked tornadoes by damage from F0 (minimal damage) to F5 (incredible damage). It was developed by Dr. Ted Fujita in 1972 and has served as a valuable resource for many years. However, it was limited. The damage scale only referred to damage to one type of structure and the quality of construction was not considered. The scale was subject to bias, was difficult to apply consistently, and the winds in the Fujita Scale were overestimated for the more powerful tornadoes.

A team of experts has worked diligently the past several years assessing many factors to develop the Enhanced Fujita Scale, and this scale became official February 1, 2007. The experts included National Weather Service meteorologists, wind engineers, and college professors. The Enhanced Fujita Scale includes damage indicators for many more structures, including 5 different residential structures, 9 types of commercial retail structures, 2 types of schools, 4 types of professional buildings, 3 types of metal buildings, 3 types of towers and poles, and 2 types of trees. This results in a total of 28 separate damage indicators.



Data has been collected on damage to these structures, and scales were developed showing the degree of damage to each structure, from minor damage to total destruction.



Wind speeds were associated with each damage level—an expected wind speed, an upper bound for a well constructed building, and a lower bound for a poorly constructed building. An example is seen in Figure 2, showing the range of winds that could Produce DOD 10 damage and totally destroy a one and two family structure. The winds range from 161 mph for a poorly built structure to 220 mph for a well built structure.

Fig 2 Relationship of wind speed to Degree of Damage for one and two family residences.

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Out With The Old And In With The New! The Enhanced Fujita Scale Will Be Used This Season to Rate Damage From Tornadoes

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Wind speeds determined from these graphs are used to rank the damage on the Enhanced Fujita Scale. A comparison of the old Fujita scale to the Enhanced Fujita Scale is shown in Figure 3 below. There is an important relationship between the two scales for historical consistency. The expected winds which cause various levels of damage are lower in the Enhanced Fujita Scale. This has been determined by several studies and wind tunnel experiments.

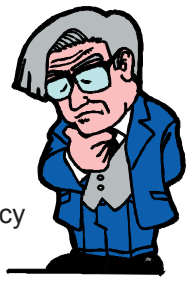
Fujita Scale			EF Scale	
Fujita Scale	Fastest 1/4/-mile Wind Speeds, mph	3-Second Gust Speed, mph	EF Scale	3-Second Gust Speed, mph
F0	40 - 72	45 - 78	EF0	65 - 85
F1	73 - 112	79 - 117	EF1	86 – 110
F2	113 - 157	118 - 161	EF2	111 – 135
F3	158 - 207	162 - 209	EF3	136 – 165
F4	208 - 260	210 - 261	EF4	166 – 200
F5	261 - 318	262 - 317	EF5	>200

Figure 3: A comparison of the Fujita Scale to the Enhanced Fujita Scale.

More information on the Enhanced Fujita Scale is available at this Web site:
http://www.spc.noaa.gov/efscale/

The complete document describing the Enhanced Fujita Scale can be accessed at:
http://www.wind.ttu.edu/EFScale.pdf

Disaster Trivia



We had quite a few correct answers for the Disaster Trivia contest in the last newsletter. **Erik Nilsson,** Larimer County Emergency Manager, submits a winning entry for each contest, so he graciously allowed more folks a chance. The winners were **Richard G. "Rick" Johnson** - Region VIII REPLO Team, **Dale Lyman** - Union Colony Fire Rescue Authority, and **John Hall** - Erie Police Department. Each received useful prizes for their correct answers.

The 'hint' for the last contest was: This disaster killed around 1,700 people and received little media attention because other events at the time took precedence. From a National Geographic news article on the disaster, "In a nation desensitized to death, 1,700 more did not seem such an enormous tragedy that it does today."

The answer was the explosion and sinking of the Sultana in 1865. Following is an excerpt from an article which appeared in American Heritage, October, 1955. Reprinted here from: http://www.rootsweb.com/~genepool/sultana.htm.

The most terrible steamboat disaster in history was probably the loss of the Sultana in 1865. Some 1,700 returning Union Veterans died... yet the tragedy got very few headlines. Late in April of 1865, the Mississippi stood at flood stage. Four years of war had ruined many levees and dikes, and in the lower reaches of the river the foaming water was over the banks for miles. But in the towns and cities of the lower valley the high water was only an incident, and the dominant feeling was one of relief, for the Civil War at last was ended.

There would be no more fighting, no more destruction. War-time bitterness and sadness might linger, but at least there was peace. And the war-weary Union soldiers in the South had but one thought.

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Disaster Trivia

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Union Prisoners of War... just released from the horrors of prison compounds like Andersonville, waiting in Vicksburg for transportation to their northern homes.

Prison camps were hard places. Many men died of camp diseases, bad housing, or malnutrition. Most of the survivors were little better than semi-invalids. Their minds had little room for anything but a feverish desire to get North to their mid-western homes, where they could see their families. Most would go by river and a huge contingent was slated to travel on the Sultana.

The Sultana was a typical side-wheeler built at Cincinnati in 1863 for the lower Mississippi cotton trade. She was registered at 1,719 tons and carried a crew of 85, and for two years she had been on a regular run between New Orleans and St. Louis.

The Sultana left New Orleans on April 21, 1865, on what looked like a regular run. She had from 75 to 100 cabin passengers, and a cargo which included a hundred hogsheads of sugar and a hundred head of assorted livestock. By law, she could carry 376 persons including her crew. She was commanded by Captain J.C. Mason of St. Louis, who had a reputation as a good, careful riverman. On the evening of April 24, the Sultana made her regular stop at Vicksburg to take on passengers and cargo. After she had tied up, an engineer made a disturbing discovery; the boilers were leaking badly. It was determined to lay up briefly, draw fires, and repair boilers and machinery before going up river. The repair gang got to work and the job was done more quickly than anticipated.

Meanwhile, the Sultana was taking on a large number of repatriated Union prisoners of war to go North and the men were so desperately eager to start that the authorities decided not to make out the muster rolls in advance. Instead the rolls would be made out onboard after the vessel had left Vicksburg.

Boarding the vessel for the voyage home seemed to put new life into the ex-prisoners. Weak as most of them were, they were shouting, singing, and jesting as they came aboard, as lighthearted a crowd as ever came up a gangplank. They came in unmanageable numbers, far beyond the Sultana's rated capacity. Army reports don't give the exact number, but apparently it was somewhere between 1,800 and 2,000. In addition, two companies of soldiers under arms came aboard. Altogether, there were probably some 2,300 people on the steamer when the lines were cast off.

The boat was unbelievably crowded. They packed the steamer from top to bottom hull. The steamer could not have carried another human being.

Captain Mason seemed to be a bit worried and cautioned the men not to crowd to one side of the boat when a landing was made. For 48 hours after casting off the Vicksburg Wharf, the Sultana went on without trouble, making a few scheduled stops and on the evening of April 26, 1865, docking at Memphis.

Here, some of the passengers disembarked. The hogsheads of sugar were unloaded and some of the stronger ex-prisoners helped in the work to earn a bit of pocket money. Some soldiers went ashore to see the sights and some of these, not knowing how lucky they were, saw so many sights that they did not get back by sailing time. While the Sultana was at Memphis, a leaky boiler was again repaired.

It was close to midnight when the packet let go her mooring lines and crossed the river to take on coal. After this was loaded the Sultana went on up the river, bound for Cairo. Most of the servicemen aboard were to disembark there.The current was strong and the Sultana was overloaded, with six times as many passengers as she had been designed to carry.

By two in the morning, she was just a few miles north of Memphis. She was making progress, but progress was slow; the current was powerful, the boilers were tired, the load was much greater than usual. The Sultana swung 'round a bend and began to labor her way past a cluster of islands known as the "Hen and Chickens."

Then it happened. The leaky boilers gave up. They really gave up! They quit holding the heavy pressure of steam and suddenly exploded with a tremendous crash that was heard all the way back to Memphis. The explosion sent an orange-colored flame boiling up into the black sky.

A sudden stabbing pillar of fire that lit up the black, swirling river and was visible for miles. Back at Memphis, the watch on U.S.S. Grosbeak, a river gunboat saw the light and heard the noise. The skipper was called, and he had them cast off the mooring lines and the Grosbeak went pounding up the river. Other steamers on the Memphis waterfront did likewise, hurrying against the strong current to give any help they could give.

It was a losing race. The Sultana had been half blown apart by the terrific force of the explosion. Hundreds of sleeping soldiers were blown into the river.

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Disaster Trivia

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With them went great chunks of twisted machinery, a shower of red-hot coals that hissed and spurted as they hit the black water, and great fragments of wood, cabin furniture, railings, deck beams, half of the steamboat had simply disintegrated.

Three men were blown clear of the ship, a big piece of the afterdeck under them. Deck and men made a square landing seventy five feet from the wrecked vessel; dazed and still no more than half awake, the men clung to the wreckage until it had floated down to Memphis where rescue boats saved them.

Few of the returning prisoners fared that well. The water was icy-cold, many could not swim, and there was little wreckage to cling to. Men died by the hundreds in the water near the wreck. They had been half-starved for months and were in no physical shape to swim even if they had known how.

One man recalled afterward; “When I got about three hundred yards away from the boat clinging to a heavy plank, the whole heavens seemed to be lighted up by the conflagration. Hundreds of my comrades were fastened down by the timbers of the decks and had to burn while the water seemed to be one solid mass of human beings struggling with the waves.”

Fire followed the explosion. The blast scattered hot coals from the furnaces all over the midships section of the steamer and in moments the disabled vessel was on fire. The upper works were all collapsed and there was a huge, gaping hole in the middle of the hurricane deck and the flames were taking hold everywhere. To stay aboard could be worse than to be in the river. Men who had not been knocked into the water went there of their own accord, willing to face anything rather than the spreading flames. One man who clung to the wrecked upper deck wrote afterward: “On looking down and out into the river, I would see men jumping from all parts of the boat into the water until it seemed black with men, their heads bobbing up and down like corks, and then disappearing beneath the turbulent waters, never to appear again.”

The Sultana, of course, was totally out of control by now and was drifting helplessly downstream. The deck supporting the main rank of passenger cabins where the officers were housed, collapsed at one end, forming a horrible steep ramp down which into the hottest fire, slid screaming men and a tangle of wreckage.

The huge twin smokestacks, hallmark of every Mississippi packet boat, tottered uncertainly and then came crashing down, pinning men under them and holding them for the flames. The superstructure was falling in and the whole midships section was nothing better than a floating bed of coals. Survivors clung desperately to the bow and stern sections, which the fire had not yet reached and among them panic born, there started the cry: “The boat’s sinking!” Many voices took up the cry as if it were a death chant and men who were as yet unhurt began to throw themselves into the water, thrashing about frantically for some bit of wreckage that might help them stay afloat.

Somewhere aboard the Sultana was a ten foot alligator in a stout wooden cage... a man-eater... according to soldier gossip. One soldier bayoneted the reptile, rolled the wooden crate over the side, jumped in after it, and hung onto it until a passing boat rescued him. Hundreds of horribly burned and scalded men remained aboard the drafting hulk. Some had the strength and presence of mind to wrench doors or window blinds from their hinged, toss them overboard and jump in after them. Others simply huddled in the diminishing spaces that the flames had not yet reached and shouted, prayed or screamed helplessly for aid.

EXPLOSION OF THE STEAMER "SULTANA," APRIL 28, 1865.

Most of the men preferred drowning to being burned alive and leaped into the water. One man remembered, “The men who were afraid to take to the water could be seen clinging to the sides of the bow of the boat until they were singed off like flies. Shrieks and cries for mercy were all that could be heard; and that awful morning reminded me of the stories of doomsday of my childhood.”

At last the boat struck a small island. Twenty or thirty men managed to fabricate a makeshift raft from broken timbers, and cut loose just in time.

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Disaster Trivia

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Slowly, the worst of the flames died down, and finally with the mooring ropes still holding what was left of the Sultana gave up the hopeless struggle and sank, with a great noise of hissing and a huge pillar of smoke and steam rising toward the sky.

When the cold dawn light came, survivors dotted the river all the way to Memphis, clung to logs, rafts, spars, barrels, sections of railing and other bits of wood. All the rescue craft in Memphis put out to do what they could... hauling half-dead men out of the cold river. One former Confederate soldier in a small boat is said to have rescued fifteen Union soldiers single-handedly.

Hundreds of men were found on both shores of the Mississippi, cling to trees of driftwood, many of them badly burned and without clothing. Altogether between 500 and 600 men were taken to the Memphis hospitals. Some 200 of these died soon afterward, either from burns or exposure and general debility. For many days after the disaster, a barge was sent out each morning to pick up dead bodies and each night it would come back to Memphis with its gruesome cargo.

So the Sultana was gone, and it remained to count the dead and to try to find out just why the disaster had happened. Estimates of the number killed ranged from 1,500 to 1,900.

There were many rumors about the cause of the explosion... including a story that some vengeful ex-Confederate had put explosives in the coal. A high-ranking officer of the Army, in a report on the disaster, made this observation:

"What is usually understood as the explosion of the boiler is caused by the sudden development of an intense steam by the water coming in contact with red-hot iron, which produces an effect like the firing of gunpowder in a mine, and the destruction of the boilers and the boat that carries them is the consequence."

All of which tells little enough. What is known is that a fearfully overloaded ship, struggling against abnormally strong currents and with defective boilers, exploded. The wrecked ship then took fire, and most of the men aboard were killed.

Queerly enough, this overwhelming catastrophe got only a moderate amount of newspaper attention at the time. The nation's mind was fixed on the closing scenes of the Civil War. Lee had surrendered. General Joseph E. Johnston was surrendering on the day before the disaster.

The country had a new President (Lincoln had been dead 11 days when this happened) and was beginning to sorry about the problem of rebuilding the sadly shattered Union.

The Army naturally, was not anxious to publicize the accident, and anyway, the country's most influential papers were published in the East and the Sultana's victims were all from the Middle West, far away and across the mountains.

There was an official inquiry producing a mass of documents to which nobody in particular paid very much attention... and there, the affair ended... one of the worst marine disasters in history, but one which has a hard time finding its way into the history books. One can hardly help wondering what the hand full of shore-going soldiers who missed their boat at Memphis thought about it afterward.

Another Trivia Quiz

This disaster was the result of a combination of legal, technological, organizational, and human errors.

Thousands of people were killed (estimates ranging as high as 4,000) in their sleep or as they fled in terror, and hundreds of thousands remain injured or affected (estimates range as high as 400,000) to this day.

If you'd like to take a shot a guessing what this disaster was, you must name all of the following correctly:
The **type** of disaster.
The **location** of the disaster.
The **year** the disaster occurred.

Email your answer to Polly White (polly.white@state.co.us) no later than **July 31, 2007**. Again, three prizes will be awarded for the correct answers. In the event that more than three correct answers are received, a random drawing will be held. Winners will be notified via email.

"The notes I handle no better than many pianists. But the pauses between the notes—ah, that is where the art resides."

—Artur Schnabel (1882-1951)

Website of Interest

PERI Presidential Declarations
www.peripresdecusa.org/mainframe.htm
This page of the Public Entity Risk Institute's Web site features a searchable list of presidentially declared disasters and emergencies in the United States, information about the number and type of declarations made by each of the last 10 presidents, data on requests for disaster declarations that were denied, and links to related publications and other information.

The site also allows users to compile a customized summary table of disaster declarations, by jurisdiction, hazard, costs, or year.

CDEM Web Address:
http://dola.colorado.gov/dem/

READYColorado

READYColorado is a public awareness campaign supported by public and private partners concerned with homeland security and all-hazards preparedness. Its goal is to raise awareness about the importance of disaster preparedness among Colorado citizens. To achieve this, READYColorado is reaching out to individuals, families, neighborhoods and businesses to provide them with the tools and information they need to respond to and recover from any disaster.

READYColorado is funded by the Urban Area Security Initiative (UASI), the North Central All Hazards Region of Colorado (which includes Boulder, Gilpin, Clear Creek, Broomfield, Denver, Adams, Jefferson, Douglas, Elbert and Arapahoe counties), the Colorado Department of Local Affairs, and Citizen Corps.

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