

# PREPARED

EMERGENCY MANAGEMENT NEWS

Colorado

Office  
of

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MANAGEMENT

EMERGENCY  
MANAGEMENT  
ASSOCIATION

Bill OWENS  
GOVERNOR

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## EMERGENCY PREPAREDNESS Is Your Community Ready?

by Tommy Grier, Director, Colorado OEM

**T**he September 11, 2001, attacks on the World Trade Center and the Pentagon have certainly demonstrated the vulnerability of this country to terrorism. This has raised a number of questions among local elected officials regarding responsibility, and what actions they might need to take to enhance community readiness. This article is intended to provoke thought regarding how elected officials and administrators might assess their capacity to deal with a disaster emergency.

First of all, CRS 24-32-2107 requires that:

- Each county shall maintain a disaster agency,
- With, at a minimum, a director or coordinator governed by the chief executive officer or governing body, and that
- Each county shall prepare and maintain a current disaster emergency plan.

Given the attacks of 9/11, and the events since, a review of local community preparedness would appear prudent. Following is a list of questions which probably need to be addressed as you make your assessment:

- Does your community have a current emergency operations plan which assigns functional responsibility, and addresses how local departments will respond to a disaster emergency?
- Do you have a contact list for key personnel (phone, cell, pager)? Is it updated regularly?
- Have all of your key personnel (elected and appointed) been trained in how to respond to and recover from a disaster emergency?
- Have you identified the critical sites/facilities within your community which might be potential high value targets for terrorism?

- Has someone conducted a vulnerability assessment of those critical sites/facilities and proposed actions which would reduce those vulnerabilities?
- Is there a management structure in place for both the response and recovery phases of a disaster emergency?
- Have you identified local resources which would be needed for response and recovery?
- Are mutual aid agreements in place and have they been exercised?
- Do you understand TABOR Reserve issues?
- Do you understand of disaster declaration process and what type of state or federal assistance you might expect?
- Do your local emergency manager and local health representative have the necessary contact information for local and state agencies?

Information which might assist local officials and citizens can be found on the Colorado Office of Emergency Management website at [www.dola.state.co.us/oem/oemindex.htm](http://www.dola.state.co.us/oem/oemindex.htm) or the Colorado Department of Public Health and Environment website at [www.cdphe.state.co.us](http://www.cdphe.state.co.us).

CDPHE also has an anthrax information line for citizen questions and concerns at (303) 692-2799.

## SAVE A LIFE...YOURS!

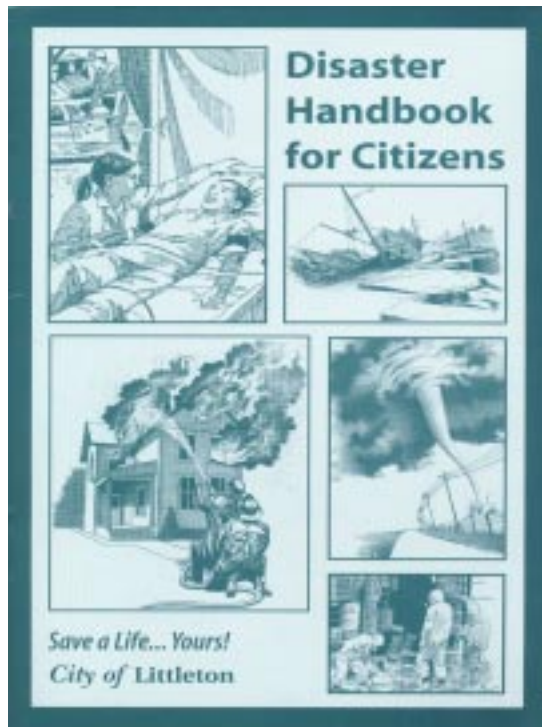
# LITTLETON DISTRIBUTES DISASTER HANDBOOK FOR CITIZENS

*by Stan G. Bush*

*Director of the Littleton Emergency Planning Department*

**B**ack in 1981, the City of Littleton produced a half-fold (8 1/2 x 5 1/2) handbook on the planning each citizen could take for emergencies. It was printed in quantity and hand delivered to all of the residences and businesses in the city by the Boy Scouts of Troop 444. Now, twenty years later, it has been updated and reprinted. It was distributed throughout the city in October through inserts in the Littleton Report - a bi-monthly publication of the city manager's office.

The content does not specifically address terrorism, but the information can be applied in that it instructs citizens on how to prepare for any emergency with specific



information on such incidents as accidents, blizzards, bomb threats, collapsed buildings, decontamination, earthquakes, fire, flooding, high wind, lightning, lost persons, power failures, and tornados.

Specific instructions are provided on such planning activities as evacuation checklists, home surveys, evacuation plans, emergency supplies, relocation sites, etc.

It has been well received by the citizens. Emergency managers who would like a copy may send a mailing address to [sbsbush@aol.com](mailto:sbsbush@aol.com). The handbook is not available in quantity outside the city, but may be copied if credit is given to the City of Littleton.

## JAMES RAYMOND ACCEPTS HIS CERTIFIED EMERGENCY MANAGER CERTIFICATE

**O**n Tuesday night, the Colorado contingent at the IAEM conference enjoyed seeing Jim Raymond, Coordinator for the Douglas County Emergency Preparedness Office, receive his CEM certificate. The requirements for the CEM are real! As a candidate Jim had to complete over 100 hours of emergency management training and 25 hours of general management course work. He was required to demonstrate at least six distinct contributions to the profession and he needed three letters of recommendation. In addition, he had to have an undergraduate degree and complete a written essay on an emergency management topic.



**CONGRATULATIONS JIM !**

# REPORT FROM GROUND ZERO

by Jon R. Wallace, Divisional Director, Service Extension and Disaster Services, The Salvation Army, Denver

It was payback time. My chance to payback a favor, the gift of so many emergency services personnel from New York City who had come to Oklahoma City in 1995 to help my former state and I recover from the bombing of the Alfred P. Murrah Federal Building. I had the privilege of serving in New York City for three weeks beginning September 19 through October 11, 2001 as Chief Liaison Officer representing The Salvation Army at the Pier 92 New York City Office of Emergency Management Emergency Operations Center (EOC).

The phone call from Salvation Army national headquarters came on September 19th at 11:30 that morning. By 7:00pm I was on a direct flight to LaGuardia Airport from Denver. I had not been in New York City since the early 70s and as we flew towards lower Manhattan the pilot suggested we look out the window at the World Trade Center (WTC) site. Ground zero lay below bathed in an eerie glow of light. As I quietly gasped "oh my God," the couple with their search and rescue dog in the row in front of me cried openly. A microcosm of what was to come.

Day one saw me at Territorial Headquarters in West Nyack becoming familiar with donations management issues. The Salvation Army was asked by the State of New York to manage the Bayonne Marine Terminal across the bay in New Jersey. Three hundred thousand square feet of space was made available for unsolicited donated goods. One hundred thousand feet alone would be needed to store donated water, as ninety semi-tractor trucks waited in the suburbs to unload. The "second disaster" of unsolicited donated goods was already in full swing. Thank God for Adventist Disaster Relief that made available personnel and a software system to keep track of donations at two additional warehouses. The Salvation Army utilized its own system and later obtained warehouse space at JFK airport for solicited donations. These were managed and organized for the first two weeks with the assistance of donated staff from the Wal\*Mart Corporation. So typical of our great country, perfect strangers were pulling together from all over to help their fellow Americans in a variety of ways.



From September 21 to October 11 my primary duty station was at the Emergency Operations Center at Pier 92 on the Hudson River. The Pier 92 EOC was set up because Mayor Guiliani's EOC bunker on the 23<sup>rd</sup> floor of WTC Building 7 was destroyed when the building caught fire and collapsed on September 11th.

At Pier 92, The Salvation Army joined representatives of the American Red Cross, Church World Services, Adventist Disaster Relief Agency, New York Cares Volunteer Bureau, Southern Baptist Disaster Relief, United Methodist Committee on Relief, New York Department of Human Resources (City Human Services), EMAC donations management desk, City Harvest Food Bank, and other non-profit and faith-based organizations. Each was assigned a workstation and these were tied in together with all other agencies and organizations working in the EOC through the

Mayor's Office of Emergency Management (OEM) using the "E-team" software package.

My role at the EOC became multi-faceted very quickly. While principal duties included initial organization of external liaison efforts, I also represented The Salvation Army in coordinating local, state, and federal agencies, and with voluntary and other non-governmental organizations. The role also involved considerable problem solving as well. A sample of my responsibilities included arranging Salvation Army VIP visits to ground zero, obtaining security clearance and badge approval for SA personnel in the restricted zone, compiling a daily statistical report for OEM and FEMA, and securing significant material resources, including thousands of gallons of diesel fuel and gasoline in support of Salvation Army operations.

There were numerous meetings to attend including those involving the ESF-11 team that coordinated canteen and hydration service, the OEM Human Services leadership team, OEM/FDNY forward logistics meetings, donations management conference calls, NYC-VOAD, and long-term recovery committee meetings.

*(Continued on page 4)*

# REPORT FROM GROUND ZERO

*(Continued from page 3)*

The ESF-11 team was very interesting. This was a small group consisting of representatives of The Salvation Army, American Red Cross, NYC OEM, General Counsel of the Mayor's Office, FEMA, and City Harvest Food Bank. The ESF-11 team helped establish two respite centers in the restricted zone which were managed by the Red Cross. My visit to the Marriott was memorable. The electricity was off as it had been since September 11th. Upon climbing the darkened stairs to the second floor we found conference rooms frozen in time where coffee service, AV equipment, and lunch preparation had suddenly stopped. In one conference room we found personal possessions left behind as people bolted for exit doors.

Another meeting concerning OEM/FDNY forward logistics was held at Public School 89, one block from the remains of the WTC. It was here that city employees fitted me with a face mask and helmet. It was also where an FDNY Deputy Chief asked me if The Salvation Army could provide four hydration stations, one for each sector in the restricted zone. Without hesitation we agreed and by 5:00pm the next day we had in place four stations under the direct control of FDNY incident commanders for West, Liberty, Vesey, and Church Sectors at ground zero. The stations supplemented the seven Salvation Army canteens then in operation. At the height of our relief efforts, some 21 emergency canteens were utilized including three in New Jersey. To support these efforts, Tyson's Chicken dispatched its mobile kitchen to prepare thousands of pounds of hot chicken that was distributed through Salvation Army units.

My duties would have been next to impossible without the assistance of local volunteers from New York Cares and also from the Social Security Administration, which dispatched my friend Mr. Lou Wilcoxson from its Tulsa, Oklahoma office. Mr. Wilcoxson, a public information officer with SSA, served in an anchor capacity at the EOC. His 20 years in federal service came in very handy as a multitude of government agencies were represented at Pier 92 and The Salvation Army was working with them and serving most of their personnel in the restricted zone.

Neither typed nor spoken words will adequately explain all that I saw and what I felt working at the Pier 92 EOC and at ground zero but here are a few memories I hope will capture some of my experiences for you:

- Seeing the complete and utter devastation of the World Trade Center.
- Being driven around in a gator, careful to wear a helmet, and walking at ground zero.
- Climbing to the roof of "Tenhouse" FDNY fire station across the street from WTC 2. Stopping for a word of prayer with SA comrades as we viewed the sight before us.
- Seeing on the floor of the firehouse the only remnant of Engine 10; a drivers side door bent at an angle, scratched terribly, with a large "10" on it.
- The looks on the faces of the firefighters, police, and emergency services personnel.
- Riding my normal mode of transportation to ground zero: NY Sheriff's Patrol car, while seeing people along West Street cheering with signs saying "THANK YOU!"
- Working at the Pier 92 EOC where we were guarded by police and soldiers armed with automatic weapons.
- Escorting to ground zero friends who worked closely with me following the Oklahoma City bombing. Their assessment: "It's the same, but worse."
- Riding with FEMA to an appointment via the Holland Tunnel and being the only vehicle anywhere in the tunnel (normally bumper to bumper traffic).
- Dinner and a quick moment to take a break on the US Hospital Ship Comfort.
- Meeting New York Mayor Rudy Giuliani, Elton John, journalist Harry Smith and former President Bill Clinton.
- Cabbies who refused to take cab fare when they saw my Salvation Army jacket.
- The food vendor on the corner who refused to take my money for the same reason.
- Working closely and cooperatively with some of the finest American Red Cross and emergency management personnel with whom I have ever had the privilege of working.

*(Continued on page 5)*



# EARTHQUAKE Activity in THE TRINIDAD AREA

by Bill Cordova, COEM Southeast Regional Planner

The National Earthquake Information Center (NEIC) of the US Geological Survey has undertaken more intensive study of earthquake activity in the Trinidad area. Within an approximate two-week period of time, eleven quakes measuring greater than 3.0 on the Richter Scale, the largest being measured at 4.5, occurred in an area about ten miles southwest of Trinidad. Dozens of smaller magnitude quakes have also been detected.

Following the occurrence of the initial half dozen quakes, NEIC personnel set up several portable seismographs in the vicinity of the suspected locations of the quakes in an effort to more accurately determine the epicenters for more definitive analysis. Additionally, more sensitive instrumentation was put in place to detect lesser magnitude quakes, of which there have been many.

As a consequence of the uncertainty in the earthquakes' epicenters, the quakes have not yet been attributed to any specific geologic fault. The analysis of seismograms indicates that the quakes originated in the uppermost ten miles of the earth's crust.

Both as a precautionary move and also to help allay local concerns, officials from the US Army Corps of Engineers Office in Albuquerque, NM, dispatched a team of engineers to inspect the workings of Trinidad Reservoir (located just two miles west of the city) to determine that no damage had been sustained from the quakes. Monitoring for quakes in the Trinidad area will continue for the foreseeable future in an effort to confirm their cause.

The most recent quakes have decreased in magnitude and frequency so locals are interpreting this as a positive sign. Historically, the most significant quake in the Trinidad area occurred in 1966 and had a magnitude of 4.6, producing very minor damage.

Overall, Colorado is considered to be a region of minor earthquake activity, although there are many uncertainties because of the relatively short time period for which historical data is available.

The USGS believes that earthquake-generating stresses in Colorado are probably a consequence of the topography and structure that developed in the North American plate as a result of its interactions with plates to the west.

## REPORT FROM GROUND ZERO

(Continued from page 4)

- Seeing and greeting at the EOC fellow Coloradans and friends from the United Methodist Committee on Relief and Southern Baptist Convention who came from around the country to help.
- Seeing the generosity and goodness of the American people evidenced in a thousand acts of kindness through donations of time, finances, material goods, and prayer support.
- Meeting Colorado Congressman Bob Schaffer at the NYC-EOC where he presented me with a copy of *The Declaration of Independence and the Constitution of the United States of America*. His inscription inside: "Thanks for defending these!"

You can be proud of the service The Salvation Army has provided in New York City. You may not see us on TV that much but you need to know that we are right there at ground zero and at the Pier 94 and 141 Worth family assistance centers providing financial assistance to families. We are also at the medical examiners offices with grief counseling teams. We'll be there with the emergency services personnel, with the families, with the survivors, and with all those affected for a very long time to come. God bless.

**"When I despair, I remember that all through history the way of truth and love has always won. There have been tyrants and murderers and for a time they seem invincible but in the end, they always fall—Think of it, ALWAYS."**

— Mahatma Gandhi

# **COLORADO EMERGENCY MANAGERS LISTEN TO TERRORISM EXPERT AT THE INTERNATIONAL ASSOCIATION OF EMERGENCY MANAGERS CONFERENCE**

*by Michael Michalek, Denver Office of Emergency Management*

**T**he annual IAEM conference was held in Riverside, California this year. In attendance from Colorado were Jim Mesite (El Paso County), Roger Hoffner (Arapahoe County), James Lancy (City of Aurora), Mike Michalek (City and County of Denver), and Jim Raymond (Douglas County).

The conference featured speakers on a variety of topics. Some of the workshops included: saving lives with community education, disasters on college campuses, and recovering from disasters. The topic of terrorism was addressed in a variety of breakout sessions.

My favorite presentation was entitled "Biological and Chemical Terrorism Preparedness" by Amy Smithson, Ph.D., Director of the Chemical and Biological Weapons Nonproliferation Project at the Henry L. Stimson Center.

She chairs a project started in January 1993 to serve as an information clearinghouse, watchdog, and problem-solver regarding chemical and biological weapons issues. Her research bridges the technical and policy communities to create problem-solving recommendations that both communities can feasibly execute. She has been published widely in journals, testified before Congress, and is frequently consulted by the media. Her two-hour presentation had over 200 attendees.

To quickly summarize her presentation would be difficult, but I will attempt to provide you an overview of what I got out of her presentation:

- She emphasized the distinction between the potential terrorist acts and operational reality. It is much more difficult to cause mass casualties with a chemical or biological agent than is often being claimed by many so-called experts. There are a lot of technical hurdles they would have to overcome. While a million lethal doses of nerve agent can fit into a quart-sized jar, that is only true if 1 million people obediently line up to take their microscopic dose.

- Realistically, we emergency managers must be aware of the threat of terrorism but keep in perspective the true likelihood of it happening in our communities.
- Lots of first responders have received training, and cities have received some equipment. However, a great deal could be done to improve the federal programs. She noted that of the estimated \$9.7 billion allocated towards fighting terrorism, just \$311 million made its way to local governments.
- She discussed certain legislative "pet projects." A prime example would be the National Guard's Civil Support Teams, which may not arrive at the scene in time to make a life-saving difference.
- She reviewed comments from local governments involved in joint federal, state, and local terrorism activities. The advice local governments are giving and she agrees with: no new federal teams, institutional terrorism related training, and planning grants to hospitals.

The presentation was well received by the IAEM membership.



*IAEM Conference Recipients of the Certified Emergency Manager Certificate. There's Jim!*

# KEEP YOUR WINDOWS CLOSED!

## A Counter-Terrorism Editorial

by Clyde Anderson, Moffat County OEM

**N**ow that terrorist organizations have our full attention, what's next for emergency managers? Let's face the facts. We have all talked about these types of crimes before (yes, these are criminals we are dealing with), but how many people were paying attention? Did the majority of our Nation think that September 11th would actually happen? I think not, but our nation has now united in a new war against global terrorism.

One favorable factor we can count on is that criminal behavior is generally consistent. Sure, many violent crimes are acted out on impulse with little or no planning. Many of these are crimes of desperation committed by people who are not thinking clearly for some reason or are caught up in the heat of passion. Planning crimes like those committed on September 11th, however, take time, and the patterns are similar: *Move in and mingle among unsuspecting victims. Get to know the victims and their routines. Don't draw attention to yourself. Watch for windows of opportunity that are left open. Watch for patterns of carelessness that will enable you to act. Obtain the right equipment and know-ledge. Consider the alternatives, risks and possible consequences of your planned actions. Wait for the right moment, create a diversion and act quickly when nobody is suspicious or when everyone is preoccupied with other matters.*

All of these crime-planning patterns are common and predictable, but there is one new and extremely important consideration that we must now add to this list: *Die for the cause.* A Homeland Security article in the January edition of Popular Mechanics magazine quotes a spokesman for the Al Qaeda terrorist network, speaking about the followers of their organization and those who carried out their deadly missions on September 11th: "There are thousands more young followers who look forward to death like the Americans look forward to living."

This statement shines a new light on fighting this type of crime. New methods, technology and more personnel are needed immediately. The price tag will be high, but I believe that America is willing to sign a blank check, if that's what it takes. Every citizen in every community, regardless of size or location, must now remain on a high state of alert at all times. We must not hesitate to report suspicious activity to our authorities.

We need to remember that events like September 11th take an emotional toll on many people.

People who are already unstable can be pushed over the edge by events that frighten them. There are also people who are waiting to jump on the terrorism bandwagon because they dislike the government or have a grudge against some organization. As proof of this being possible in any community at any time, and of the need to change public perception of the risk, I offer the following headlines: (From the AP newswire, dated December 27 & 28, 2001): "Three Teens Accused In Plot To Bomb [Moffat County] School, Courthouse."... "Teens Planning To Bomb School Had Ability For Serious Damage." From the Craig Daily Press, (December 28, 2001): "Students Arrested For Bomb Threat, Three [Moffat County High School] Students Detained On Charges Of Conspiracy To Commit Murder, Terrorist Acts." The reaction from some residents and the parents? "The Police Overreacted." "This is the town of Craig, nothing ever happens here." (By the way, my thanks to the Craig Police Department for "overreacting." If arresting people who are plotting to blow up buildings and murder innocent people amounts to overreacting, I certainly hope they continue to "overreact" to any future events.)

It is a certainty that there are more followers of these terrorist organizations that have already arrived on our shores and are living among us right now, looking forward to the day that they too can act out their crimes upon our citizens and die for the cause, as their brothers did on September 11th. We, as emergency managers, are going to have our hands full for some time to come. We should count on increasing expectations, demands, and workloads being placed upon our agencies to address public education and preparedness issues, as well as planning, training and equipment needs for this new war. We should be prepared to offer support to our communities and to our community leaders, who will be looking to emergency management agencies for advice and leadership. We must also be highly committed to work closely with our new Homeland Security offices.

Every person, in every community needs to watch for these windows of opportunity that have been left open. We need to find 'em and slam 'em shut. Winning the war against terror is going to require sacrifices and will be inconvenient for all of us, but we must learn to live with it, because it is now part of our daily routines. As a nation, we must remain united in our effort to overcome terrorism. If we are not willing to make sacrifices to become a part of the solution, we become part of the problem.

# First Responder Handling of Suspected Anthrax Threats

by 2LT D.S. McCune, Survey Team Leader, 8th WMD-CST

Chances are that if you had not read guidelines for handling suspicious letters with powders before the recent Anthrax scare, you have certainly read them since. The Center for Disease Control, the FBI, and the United States Postal Service have all published guidelines for the handling of suspicious envelopes and packages. However, the link between those initial guidelines and the resolution of the situation is ambiguous. Most experience with anthrax through the mail is fresh. The procedures or guidelines are fundamental but adequate. This article gives a bigger picture view of CDC guidelines for first responders, the FBI requirements for threat evaluation of a mysterious powder, and the subsequent actions for identification of a suspicious powder.

Sending a threat through the mail is relatively low-tech terrorism. However the ensuing panic and hysteria give a terrorist a lot of bang for very few bucks. The recent Anthrax attacks and hoaxes probably caused more terror than was ever imagined. The entire nation has watched in horror as these events unfolded. Intentional hoaxes and random spillage of a benign powder have wasted first responder man-hours and resources and an uninformed public gasps in fear. Here we are with a new mission for first responders.

The emphasis used to be on *immediate* containment and *employment* of all available capabilities. In the event of a suspicious powder situation, calm and prudent response should trump overwhelming capability response. What at first might be seen as a mission for HAZMAT technicians and Emergency Response Teams is actually initiated by a limited but thorough investigation by law enforcement. If local law enforcement, and if applicable the FBI, deem the threat to be valid, the response still will not necessarily involve more local responders. In addition to existing HAZMAT capabilities, the state has available to local responders a well-equipped biological response team with field analysis capability.

In the past, a sample of the substance would be gathered and taken to a laboratory for identification. It could take days to get a positive ruling. With the implementation of the National Guard's Weapons of Mass Destruction-Civil Support Team, there is a capability for immediate analysis that is not otherwise available. Upon arrival a sampling team can gather a sample and prepare it for analysis.

Confirmation of a biological agent can then be achieved immediately on scene with the CST's Mobile Analysis Laboratory (MAL).

The Federal Bureau of Investigation has posted its guidelines and advice for handling suspicious packages on its website (<http://www.fbi.gov/pressrel/pressrel01/mail3.pdf>). The end-state of the FBI guidelines (which mirror USPS and CDC guidelines) gives the on scene agent(s) the tools to determine the employment of the Colorado National Guard's CST (a phone call away). If the sample and/or the scene has been properly preserved, the CST has the necessary tools to perform its mission.

If there is an up side to this type of terrorist attack, it is that Anthrax has an incubation period. The incubation period for *Bacillus Anthracis* is nearly 6-7 days. That should be ample time for identification and treatment of the infected persons even if the antibiotics have to be flown in from the National Stockpile. Anthrax is not contagious and cannot be spread from person to person. If identified early, treatment has been proven to be very effective.

Therefore, should a white powder fall from an envelope, the most immediate danger to the victim is *panic*. The most immediate victory for the terrorist is the same — *panic* — and it is compounded should first responders also *panic* and take measures that hinder the identification procedures.

In the common scenario of white powder in an envelope, the immediate reaction *should* be:

- Carefully bag and isolate the letter, taking care not to spread the powder or disturb it.
- Immediately wash with water and soap. **Do not** use bleach or detergent.
- Call 911 (Police) and contact local FBI
- Quarantine the immediately effected rooms. Maintain accountability of all persons who may have come in contact with the letter.
- Most importantly DO NOT PANIC.

The above is a summation of the Center for Disease Control and FBI guidelines (for a more complete list go to <http://www.usfa.fema.gov/hazmat/bioagents.htm>).

(Continued on page 9)



# Handling Anthrax Threats

*...for first responders...*

*(Continued from page 8)*

**H**AZMAT technicians have dowsed powder filled envelopes with bleach making analysis impossible.

People have been unnecessarily quarantined and traumatized. Much of the first responder community has been run down, unintentionally, from accidental spillage and mistaken identification. Determined terrorists who want to affect large-scale panic can attempt to exhaust first responders by creating diversionary hoaxes. The difference then between terrorist success and failure is education for the public and the technicians that respond to these situations.

We have fought hard. Now we are fighting smart. Overwhelming the "attack" with responders turns out to be less productive than countering with minimal but specific resources. If we are careful and calm and react with efficiency, the effects of an act of terrorism could be minimized. Offices can go back to normal the very next day and people can rest assured that they were not infected. Most importantly, communities can be assured they have the resources and competency to defeat terrorism and they do not have to be victims. After all combating terrorism will be more important than reacting to terrorism.

*LT Scott McCune can be reached at 303.677-6891; email: [david.mccune@cobuck.ang.af.mil](mailto:david.mccune@cobuck.ang.af.mil).*

# Disaster Trivia Contest



**Try to guess the disaster and win big!**

**T**his city had a population of about 30,000 prior to a disaster striking. The town's entire police force was killed by the event. Although some victims were never found, the generally accepted death toll for this disaster is 2,209. Ninety-nine entire families were wiped out completely.

Three hundred and ninety-six children under the age of 10 were killed. Ninety-eight children were orphaned. One hundred and twenty-four women lost their husbands. One hundred and ninety-eight men lost their wives. It took 48 hours for the first outside relief workers to arrive in the area. The Red Cross distributed \$500,000 worth of blankets, clothes, food and cash. Relief funds in the form of cash contributions totaled \$3,742,818. This amount did not include the value of relief supplies such as food, clothing, and building materials. Temporary hospitals were set up and operated in the town for the next five months. An incident command system was used to appoint someone to act as Incident Commander, or Mayor. Teams were organized and put in place to oversee the following functions:

- Emergency Morgues / Victim ID / Burial
- Debris Removal
- Animal Control / Carcass Disposal
- Triage / Medical
- Logistics
- Sanitation
- Finance
- Law Enforcement

Nobody was assigned to deal with the media, and reports of this disaster were greatly exaggerated in many instances. This disaster left in its wake not only tragic destruction, but a scandal that outraged the nation.

Three prizes will be awarded for correct answers. To win, you must name **all** of the following correctly:

- The **type** of disaster (earthquake, tornado, etc.).
- The **location** of the disaster, including city **and** state.
- The **year** the disaster occurred.

Email your answer to Polly White ([polly.white@state.co.us](mailto:polly.white@state.co.us)) no later than **March 30, 2002**.

In the event that more than 3 correct answers are received, a random drawing will be held. Winners will be notified via email and they, and the correct answer, will be announced in the COEM Weekly Information Report.

Watch for the next issue of *Prepared* for a full story on this disaster.

**A very special *thank you* to Clyde Anderson, Moffat County OEM, for coming up with this whole idea. Clyde has supplied the disaster information....the follow up story....AND the prizes. Now, the prizes may not include a trip to Tahiti, but we guarantee something useful.**

# Chemical Safety In Schools: The Chemis Program

by Jack Rowe, Ouray County

Ten years ago a group of fire chiefs and science teachers in Missouri decided it was time to improve school chemical safety. This was prompted by the fact that hundreds of preventable and unnecessary chemical related incidents occur in our schools in the United States each year.

With initial support from the Federal Emergency Management Agency (FEMA), the group formed the Pan-Educational Institute, based in Independence, Missouri. The resulting educational program for schools was named CHEMIS (Chemical Health & Environmental Management in Schools). The program has been presented in a number of states, including Colorado. Details are on the web at [www.pei.edu](http://www.pei.edu). The email contact is [pei@pei.edu](mailto:pei@pei.edu).

The program presents a simple and logical approach to school chemical safety. Commitment by school personnel is mandatory to achieve success. CHEMIS defines and delineates five key areas of control - acquisition, storage, inventory, use, and disposal.

The CHEMIS training and operation manual, which is available to schools throughout the country, summarizes the **schools' roles** in the introduction as follows:

"When considering the whole area of hazardous substance management - acquisition, storage, inventory, use and disposal - schools are immediately placed in a predicament. Schools have the responsibility to manage, protect, and educate. In addition, they are exposed to considerable liability.

Schools are responsible to ensure staff and students are properly trained and supervised when using and handling hazardous substances. The school is also responsible to provide for the safety of the students and staff with proper safeguards in day-to-day operations and adequate contingency plans for emergencies.

At the same time, schools assume liability by the very act they are an institution of education. Parents entrust the schools with that role and expect the schools to provide adequate and competent instruction. The parents expect the schools to take adequate and competent measures to protect the students.

It is reasonable to expect that school districts store and handle large quantities of some hazardous substances such as gas and oil for buses and maintenance equipment and cleaning solutions for janitorial needs. But the smaller amounts of chemicals and substances used in laboratory instruction, vocation education, and extra curricular activities are no less important. All hazardous substances pose definite risks, **especially** in a classroom setting where students learn about chemicals and have an increased potential of handling them.

Workers in industries that use hazardous substances receive extensive training and education so they can competently handle those substances. Responsible corporations take great pains to protect their workers by explaining potential hazards and implementing prudent practices in working with the hazardous substances.

**Schools are exposed to the same potential for harm and injury when dealing with hazardous substances, and the same care is as essential in schools as in industry."**

It should be added that schools are also expected to be aware of the regulatory framework imposed by OSHA, EPA and DOT in the handling of chemical substances. Material Safety Data Sheets must be obtained, reviewed and filed on all hazardous substances.

Specific areas of concern in purchasing, using, storing and disposing of chemicals can be found in any or all of the following locations:

## **Chemistry and Biology Laboratories**

Many of these chemicals are volatile and have incendiary potential if exposed to air. Others become dangerous with age and can detonate with friction. Included are a variety of substances that can be toxic, flammable, corrosive and carcinogenic.

## **Transportation Centers**

Gasoline, oil, grease, degreasing fluids, welding supplies. Oily rags can autoignite if stored in closed containers.

## **Kitchens**

Detergents, natural gas, propane, grease, solvents

*(Continued on page 11)*

# Chemical Safety In Schools

(Continued from page 10)

## Photo Labs

Chemicals with strong oxidation/reduction potential

## Maintenance

Paint, paint thinners and other solvents

## Custodians

Waxes, cleaning compounds, ice melters, gasoline, herbicides, pesticides

## Art Rooms

Solvents, paints, thinners

## Vocational/shops

Solvents, glues, coatings, lubricants

## Pools

Chlorine and other disinfectants. Acids.

The bottom line, as presented in detail by the CHEMIS manual, is that schools must treat their exposure to chemical substances with the same care as the most professional of their industrial counterparts. This includes dedication to safe inventory control, storage, use and disposal practices. Failure to do so invites disastrous results. The CHEMIS manual, if followed in a conscientious manner, provides a strong base to achieve the objective of a safe school environment.

# 911...

*From the BULLETIN of  
the Arapahoe Rescue  
Patrol, Inc.*

**M**illions of words and pictures - hours watching the news - the shock of the first plane impacting - total disbelief as the towers collapsed - death and destruction in America we haven't seen in our life-time. For some of us deja vu as we relive Pearl Harbor. We are numb - unable to comprehend the magnitude of the event.

And yet, we must talk about it. We need the catharsis of sharing our thoughts with others. And, as we realize the vast scope of these massive acts and realize they were intentionally inflicted on America our grief turns to anger, no, massive rage.

And, then, a call. A two-year-old child is missing at 5977 S. Platte Canyon and we are jolted back to Littleton. We are responding as he is found all right. We realize we cannot help back east. Help is pouring in there. But, accidents happen, houses burn and people get lost - in town and in the back country.

We slowly adjust and actually find comfort in the pressure of our daily lives. But, we will never forget.

This fall we begin our 45th year providing search, rescue and emergency services to the citizens of Littleton, the Front Range and the State of Colorado. It all started in the fall of 1957 when a group of students from Littleton High School - the only high school in the area at that time - had an organizational meeting at the Littleton YMCA. They wanted to help lost and injured people but didn't want to be just a search team. Since there was no way to predict when someone would get lost they felt that - to keep the members involved - they should also help fire and law enforcement agencies. Thus, the name "Arapahoe Rescue Patrol" instead of "Arapahoe Search and Rescue."

## Anticipating Hazardous Weather & Community Risk Course

**T**he "Anticipating Hazardous Weather and Community Risk" course is a computer-based course available to emergency managers and is designed to give a solid background in understanding hazardous weather and community risks so you can communicate effectively with your local National Weather Service (NWS) office and your community. This course provides an overview of these topics, while the onsite course, "Hazardous Weather and Flooding Preparedness" course (G271), builds on the lessons learned and addresses local hazards, issues, and concerns. The "Anticipating Hazardous Weather and Community Risk" course can be taken from a CD, or on-line at <http://www.meted.ucar.edu/hazwx/index.htm>. Your local NWS office has copies of the CD.

The Final Exam link will take you to the test you must pass (minimum score of 75%) to receive FEMA's Independent Study certificate of completion. You can register for the course (IS-271) and submit your answers to the exam electronically using the forms available from the Independent Study Web site, or print the answer sheet found with the exam, complete it, and mail it to:

Office of Independent Study  
Emergency Management Institute  
16825 South Seton Avenue  
Emmitsburg, MD 21727

More information on FEMA Independent Study Courses can be found at <http://www.fema.gov/emi/ishome.htm>.

# Wildfire in Northeast Colorado

*by Kevin Kuretich, Northeast Regional Planner*

The Northeast Colorado community of Sterling was home to more than 500 firefighters during the week of January 9-13th, 2002. The students traveled to the plains from as far away as Australia, including 21 states and Puerto Rico. The wildfire college offers 22 nationally standardized wild land firefighting and management courses, as well as trainee opportunities, in a "fire camp" setting.



The event is one of two training schools held annually by the Colorado Wildfire Academy, in conjunction with the U.S. Forest Service. The summer academy is traditionally held in a mountain community, while the winter college has been held in various eastern Colorado locations, most recently in Fort Morgan.

According to Incident Commander Marc Mullenix, the wildfire college combines knowledge and experience of natural resource agencies at all levels of government to train wild land firefighters. "The main goal of the Great Plains Wildfire College," Mullenix says, "is to put firefighters through realistic experiences where they can gain knowledge for handling actual events."

More than 150 of the firefighters put their new skills to the test during a live fire exercise at the state wildlife area north of Sterling. Wildfire instructors started an 18-acre burn, as firefighters in training practiced their skills in engine operations, fire line construction and other techniques used to manage a wildfire.

# Colorado Mitigation & Wildfire Conference

[www.coloradowildfire.org](http://www.coloradowildfire.org)

September 27-29th, 2002

Raintree Plaza Hotel in Longmont, CO

Join us for Colorado's 6th Annual Mitigation & Wildfire Conference.

This conference focuses on managing and preparing for issues in the wildland/urban interface.

Firefighters, planners, policy makers, public groups, and private industry discuss and develop ideas to help reduce the loss of life, property, and natural resources in these areas.

Last year's conference brought over 300 participants from around Colorado and over 15 states and included a diverse mix of county commissioners, planning officials, homeowner associations, insurance companies, citizens, sheriffs, emergency managers, and firefighters.

Visit our website as the 2002 conference takes shape. Brochures, registration and financial aid will be available later in the year.

[www.wildfirecolorado.org](http://www.wildfirecolorado.org)





# FOOT AND MOUTH DISEASE PLANNING

by Greg Moser, COEM, Counter Terrorism Planner

One of the challenges of emergency management is to maintain an awareness and perspective on all potential hazards to our communities. Approximately one year ago, the United Kingdom got a rude reminder of how an old nemesis can suddenly re-emerge and inflict major damage on our communities. Foot and Mouth Disease or FMD, (which is not to be confused with Mad Cow Disease) is a highly contagious disease of cloven hoofed animals such as cattle, sheep, hogs, deer, and elk. FMD is a very stable organism which can be carried by wind over long distances depending on the weather conditions (it prefers cool damp weather). Although FMD poses no threat to human health, it would be potentially devastating to the approximately 4.5 million head of livestock and untold numbers of wildlife in Colorado. An outbreak of FMD would require a rapid, coordinated, and prolonged multi-agency response. In recognition of this potential threat, the State Veterinarian's Office and the Colorado Office of Emergency Management have been co-facilitating a planning effort of state and local agencies to develop a multi-agency response plan.

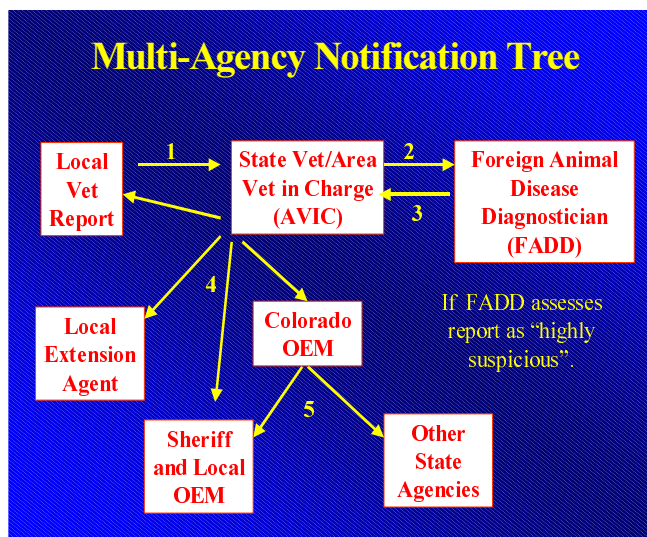


What this response will mean at the local level is a cooperative effort of the livestock producers, the veterinarian community, and local law enforcement to implement a one-mile animal quarantine around the affected location. The veterinarian community may also need assistance with rapid transportation. The next 24-36 hours will be a very tense and important time in our response. We need to prepare for the worst, but not create undue concern. If the answer comes back positive, we will need to be able to accurately assess the most likely pattern of the disease spread, be ready to implement Phase Two as quickly as possible, and have a clear coherent media message to educate the public.

After several meetings, this planning group has developed a three-phase response protocol that will build on the all-hazards plans of the local, state, and federal agencies. Phase One response begins with the identification of a suspicious vesicular (blistering) disease in a vulnerable animal population. The initial assessment will be a coordinated effort of local, state and federal veterinarians in Colorado. If this group determines there is a possibility or likelihood of FMD, they will immediately collect a sample and transport it to the USDA lab in Plum Island, New York. Plum Island is the only lab in the nation authorized to handle FMD and make an assessment.

Phase Two will begin only if we receive a positive report of FMD from Plum Island. If this occurs, the animal quarantine will be quickly extended to a 5-mile ring inside a 15-mile containment zone. Our goal will be the immediate appraisal, culling, and burial of susceptible animals inside the 5-mile ring. The animals in the 15-mile containment ring will be inoculated to help contain the spread of the disease until they can be appraised and destroyed or processed where possible. The scale of this problem will vary significantly depending on the affected animal population, weather, jurisdictional lines, lines of communications, and other site-specific variables.

Although the veterinarians and animal owners will bear the bulk of the burden for destroying or inoculating the animals, they will need assistance with logistics, security, transportation, decontamination, and coordination to name a few of the areas requiring multi-agency response. The non-veterinarian agencies will rely on the state and federal veterinarians to establish needs and direct our support efforts.



(Continued on page 14)

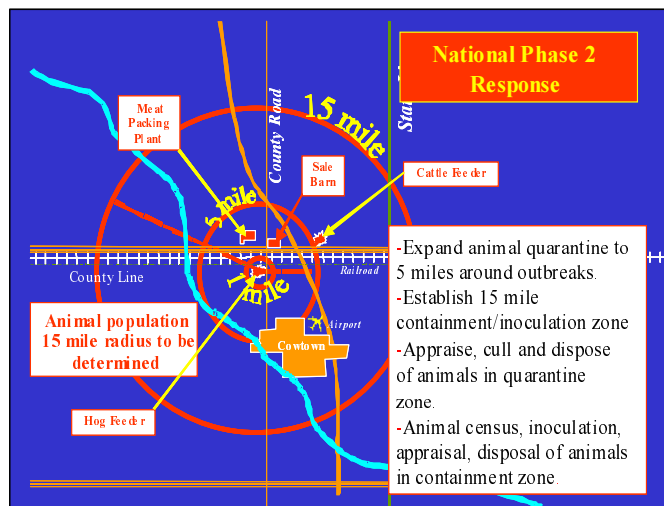


# Foot & Mouth Disease Planning

(Continued from page 13)

An aggressive public information program will be needed to reassure the public that they and their food supplies are safe and to educate them on how they can help stop the spread of the disease. Phase-Two may require a long and sustained multi-agency effort.

Phase Three, restoration and recovery, will begin as soon as all susceptible animals have been removed from the affected area.



The economic impact on agriculture, tourism, and related industries will have to be assessed. Mental health will be a concern, especially among those most affected by the FMD outbreak. Thirty days after all susceptible animals have been removed, sentinel animals can be re-introduced into the area of the outbreak. Cattle are among the most susceptible and would be a likely choice. If the sentinel animals remain healthy after 30 days in the quarantine area, the State Veterinarian may release the quarantine. Recovery will require a very long time and the combined efforts of local, state, and federal agencies.

The next step in our efforts to help prepare communities for FMD (or any other foreign animal disease) is a series of workshops and exercises. The state planning group recently held an initial tabletop exercise to evaluate the protocols outlined above. We are in the process of refining the protocols, the workshop, and the exercise.



We plan to offer a series of FMD response workshops in the next few months. The schedule has not been set, but watch the *COEM Information Report* for updates.

FMD is not something many of us have spent much time on. However, as the 2001 outbreak in the United Kingdom clearly demonstrated, it is a disaster that can happen. If it does, the veterinarian community will have the lead, but they and our communities are going to need a lot of help in many different areas from the entire emergency response community.

Our planning and training efforts are ongoing. If you have questions about FMD response, contact Greg Moser at COEM, (303) 273-1640, or at [greg.moser@state.co.us](mailto:greg.moser@state.co.us), or Ron Ackerman, State Veterinarian's Office, (303) 239-4168.

## DEAR Dad...

\$chool i\$ really great. I am making lot\$ of friend\$ and \$tudying very hard. With all my \$tuff, I \$imply can't think of anything I need, \$o if you would like, you can ju\$t \$end me a card, a\$ I would love to hear from you.

Love,  
Your \$on



### The Reply:

Dear \$on,  
I kNOW that astroNOmy, ecoNOmics, and oceaNOgraphy are eNOugh to keep even an hoNOr student busy. Do NOT forget that the pursuit of kNOWledge is a NOble task, and you can never study eNOugh.  
Love Dad

# News from the Front Range

*by Bob Wold, Plans, Training, & Local Programs, COEM*

Commenting on the effectiveness of response operations at the Pentagon following the September 11 attack, the Assistant Operations Chief from Arlington County, Virginia credited the following factors for limiting further loss of life and property:

- a unified command structure
- preexisting, automatic and mutual aid agreements
- interoperability of radio communications
- a supporting EOC focused on purchasing and resource support, and
- effective local-state-federal coordination, developed through joint training and exercise activities.

That these factors contributed to the successful management of a complex incident will come as no surprise to Colorado's emergency management community, nor is their importance peculiar to responding to terrorism. The determining factors at the Pentagon were the same ones that make or break the response to all emergency events, regardless of the hazard.

Standardized incident management techniques, communications systems interoperability, inter-jurisdictional cooperation and effective EOC support represent the basic elements of a comprehensive, all-hazard emergency management program, together with modern public warning systems and programs for educating citizens and mitigating hazards.

Despite widespread agreement on the components that make up an effective emergency management system, varying levels of capability exist across the state and few communities have been able to maintain an across-the board capacity in all categories. Among the obstacles to sustainability are uncertainties over future state and federal funding, competing demands for local services, infrequent disaster occurrence, and a historical disinclination to regional planning and cooperation.



Opportunistic Denver officials are again taking advantage of the demolition of a local landmark to provide public safety personnel with a unique training and exercise experience.

*(Continued on page 16)*

Yet, due to the perseverance of local emergency managers and their pragmatic approach to overcoming these obstacles, incremental but deliberate progress can be measured on each of these important issues.

Toward that end, a number of notable efforts are underway to enhance local capabilities and to improve inter-jurisdictional coordination. The **Metro Mayors Caucus**, a regional organization of 31 mayors from the Denver metro area, is spearheading a cooperative planning effort intended to improve metrowide preparedness for terrorist incidents and other types of emergency and disaster events. A coordinating committee of county and municipal emergency managers has identified four priority issues to work on in 2002: (1) determining the adequacy of existing mutual aid agreements and streamlining regional resource-sharing arrangements, (2) furthering the use of ICS regionally and statewide, (3) creating a regionwide training and exercising program, and (4) identifying ways to consolidate the various and related preparedness initiatives, including state mandates that may lead to duplication of efforts at the local level.

Multi-jurisdictional training and exercise activities are routinely sponsored by several other regional associations in the area, including the **Arapahoe County Emergency Managers** group, the **Front Range Emergency Management Forum**, and the **North Region Incident Management Group**, which includes public safety agencies from Broomfield, Jefferson and Boulder Counties.

The **Foothills Regional Trauma Advisory Council** (RETAC), in cooperation with local and state emergency management and public safety offices, is sponsoring a full-scale exercise of a mass casualty incident at the east portal of the Moffat Tunnel in May 2002. The Foothills RETAC is made up of Clear Creek, Gilpin, Jefferson, Boulder and Grand Counties. The exercise will provide responders with an extraordinary opportunity to practice search, rescue and extrication actions under difficult conditions and also give EMS personnel the chance to evaluate plans for the triage, treatment and transport of casualties in a remote mountain setting.

# News from the Front Range

(Continued from page 15)

Just as the McNichols Arena demolition project offered fire departments a rare chance to practice heavy rescue operations, the last days of Mile High Stadium provide a three-part opportunity to sharpen skills and update plans. Urban search and rescue drills, a chemical incident response exercise, and an EOC recovery exercise are all scheduled for a three-day period in late February.

Up to 10 regional domestic preparedness workshops are in the works for the spring and summer months of 2002. The workshops are jointly planned and sponsored by Colorado OEM, Colorado Department of Public Health and Environment, Colorado Division of Fire Safety, and the new state Office of Preparedness and Security. The objectives of the workshops are to introduce Incident Command System concepts and principles to the public health community and then to engage public health officials and emergency managers in a tabletop exercise of a simulated terrorist incident.

A multitude of training opportunities are offered in the area over the coming months, in addition to the courses delivered at the Emergency Management Institute and at other out-of-state locations. Stay tuned to state and local emergency management websites for the latest information.



During the 6th Century, it was customary to congratulate people who sneezed because it was thought that they were expelling evil from their bodies. During the great plague of Europe, the Pope passed a law to say "God bless you" to one who sneezed.

# Bio Readiness & the CSEPP Program

EDITORIAL from  
*The Pueblo Chieftain - January 14th, 2002*

One of the positive side effects from plans to deal with emergencies in the destruction of chemical munitions at Pueblo Chemical Depot is that the community is ahead of the curve in its preparedness for bioterrorism.

Both of Pueblo's private hospitals had submitted written plans for dealing with biological attacks long before the deadline at the first of the year imposed by the state. The City-County Health Department and local law enforcement and safety officials likewise had their plans in place.

Some of that early planning came as a result of federal funding for the Chemical Stockpile Emergency Preparedness Program (CSEPP), required in all communities where chemical weapons are stored. Both general hospitals have been involved with many local agencies that have coordinated individual plans as participants in the CSEPP process.

These agencies conduct yearly mock disasters that test their plans and point out both their strong points and their weaknesses in meeting potential needs. The September 11 attacks and subsequent mailings of anthrax spores drive home the point that all the work that has gone into planning and practicing has not been wasted.

Of course, we all hope that the day that someone tries to spread poisons throughout Pueblo never comes. But, in the event it did, Pueblo officials seem to be ready to handle the situation.

**A combined total of 98 federal, state, and local courses were presented to 1,894 CSEPP students in 2001.**

# Automated Intrusions



by Thomas Shepherd, COEM Network Administrator

The response plan to a virus alert is often developed separately from the response plan to a computer intrusion alert. Viruses are largely considered to be automated attacks on computer systems, and intrusions are considered to be active directed attacks by an individual on computer systems. The differences between viruses and intrusions are disappearing. Attackers are turning to viruses to do the traditional grunt work of reconnaissance on networks, including the distribution of rogue code known as trojan programs, and security experts are seeing more intrusion exploits used in virus code. As these viruses become more "hacker" like in nature, security experts are dealing with them in the same manner that they do more traditional intrusions.

When the Melissa virus hit the Internet community many security people were confident that they were going to be able to deal with this virus the same way that they had dealt with the hundreds if not thousands of viruses that had come before it. The traditional attack methods for a virus were monitored and protected by anti-virus software and by the vigilance of IT professionals who had trained their users to not open unknown or executable email attachments. Melissa, however, spread through new attack methods that hadn't been considered before. This was the first large-scale virus epidemic that began to use attack mechanisms that resembled the use of intrusion methods.

Most of the security community learned from Melissa that the new generation of viruses would be more deadly, more complex, and would propagate more quickly throughout the Internet. When Code Red was discovered the Internet community was quick to react with analysis of the attack and security patches which would not just clean up the machine after the attack but that would prevent the attack in the first place. The fight against Code Red showed that it was possible to track and defend against viruses using an Intrusion Detection System.

When Nimda was first discovered, the virus was quickly analyzed and an alert was sent out. No one ever dreamed that a virus could spread as quickly as Nimda did, but this was due to the fact that Nimda combined many previously used attack methods in order to propagate itself. Due to the multiple attack methods and types of targets, many different methods of combating the spread of Nimda were employed.

In its spread across the Internet, the Nimda virus exploited up to 16 previously published vulnerabilities. The spread of Nimda saw widespread use of Intrusion Detection Systems to not only detect the spread of the worm but to combat its spread through the use of security modifications enacted by IDS alerts. Some companies though, were seeing so much traffic caused by Nimda that they elected to shut down routers and firewalls in order to curtail the spread.

If Melissa was a wake-up call and Code Red was a call to arms, Nimda was a declaration of war. Most network administrators and security companies realize that the security battle is being fought on many different fronts and until security can be consolidated and coordinated, attackers will be able to find and exploit the many holes in a network's defense systems. In order to make this coordination happen, security suites have begun to be developed. These suites combine many individual security packages into a comprehensive and integrated security solution.

It used to be that the announcement of a new virus meant that virus signature updates were soon to follow. Now the announcement of a new virus is taking on the same ramifications as a precursor to a more directed intrusion. Attackers are using viruses as means to map vulnerable systems or to automatically deploy rogue code through the use of "Trojan Dropper" viruses. With the new tools being offered by the security suites, however, a system administrator will be alerted to any changes in the system and can more readily identify those changes that may be a problem. Open security vulnerabilities or rogue code that is left by a virus will be much easier to detect, and much more information will be at the disposal of the system or security administrator.

Computer viruses are not a new threat, but the response to them is merging with the response to more traditional forms of intrusion. The definitions of a virus, a worm, and a trojan program are blending into a single definition of an 'Automated Intrusion.' As this definition approaches the more traditional definition of an attack or intrusion on a network or system, the employment of more coordinated and connected security suites or improved incident handling procedures is taking place. Attacks, whether they are an 'Automated Intrusion' or a direct intrusion, are beginning to be treated the same and are being handled with the same procedures.



# Emergency Operations Plan and the EOC

*by Frank Cavaliere, Fire Marshal for the Cortez Fire Protection District*

**H**ow long has it been since you have updated your City/County Emergency Operations Plan? When was the last time (if ever) your Emergency Operations Center (EOC) was activated? Is your EOC fully equipped and able to be functional in a moment's notice? Are the people who first implemented your plan or set up your EOP still around?

## Emergency Operations Plan

Although these seem like trivial issues on our ever-growing list of day-to-day priorities, these are important issues that need to be addressed on an annual basis. With the possibility of extreme weather conditions and the increasing threat of terrorist acts on our communities, being prepared in areas we don't often address is becoming more important than ever.

I recently attended an Emergency Operations Center course sponsored by Colorado OEM. This was a great refresher and also addressed issues we don't normally hear about in our standard fire/EMS based training. Updating an Emergency Operations Plan is no great task—getting started is the hard part. Writing a plan in communities that do not have one is a different story. I'm not going to sit here and tell you it isn't a labor-intensive job. But remember, you don't have to reinvent the wheel! There are many professionals in our vast network of emergency service providers who have written and implemented plans and are more than willing to assist. Colorado OEM also has people available to assist and has many formats of emergency plans which can be tailored to meet your community's needs.

People come and go in any organization and none of us are irreplaceable. I recently heard from one emergency planner that "*our county emergency plan is in my head!*" Where is this plan when this gentleman is on vacation? Each department head should be well versed on all aspects of the plan so that if they are called to be part of the emergency management team they understand their responsibilities. Training is key to making a mediocre plan turn out to be a good workable plan. The plan does not have to be elaborate, as each department head should have a resource list pertaining to his/her place in the specific emergency.

The overall plan should be a guide for getting a handle on the emergency and setting the flow of planning in motion to stay ahead of the emergency and not to let the emergency take control.

Another reason to keep your plan updated is that other agencies have plans that are dependent of each other. Health Departments and hospitals emergency plans are related to county and city emergency plans. Private and public utilities have emergency plans that directly affect governments. Do we invite these people to our table when we are in the planning, implementing, or updating stages?

One basic format for an emergency operations plan that is based on the Federal Emergency Management Agency model includes:

- Letter of Promulgation
- Distribution List
- Record of Change
- Forward/Mission
- Body of the Basic Plan
- Detailed Hazard Analysis
- Definitions and Acronyms
- Functional Annexes:
  - Warning
  - Communications
  - Direction and Control
  - Public Information
  - Damage Assessment/Emergency Declaration
  - Health and Medical
- Hazard Specific Annexes: Natural Hazards & Human-Caused Hazards
- Key Emergency Personnel Contact Information

Once your plan is finished or updated, schedule some tabletop exercises to get people comfortable with navigating through it. We have to remember that most people are not used to working in a stressful emergency situation and training is the best tool to get them introduced to an unfamiliar setting.

## Emergency Operations (Coordination) Center

A lot of smaller communities share emergency operations centers with their counties. These people need to communicate on an ongoing basis to make sure the flow of information is kept up.

An EOC is a functional planning room where key decisions are relayed to incident commanders in the field. There are various ways to organize your EOC and different methods can be incorporated to meet your needs.

*(Continued on page 19)*



# Emergency Operations Plan and the EOC

*(Continued from page 18)*

**A** good way to start is to form a management team of key people who will staff your EOC during an emergency. These people (and alternates from their departments) can come up with an organizational chart to best fit the needs of the EOC.

Most communities don't have the luxury of dedicating space solely for the purpose of an emergency operations center. Our city's police department briefing/training room doubles as our EOC. There is good and bad in this concept. Good — people are familiar with this room. It is secure and it has an uninterrupted power supply. Some not so good — our county's dispatch center is in the same building. Patrol officers are still using the building for their normal function. People tend to gravitate to high profile areas which can cause interruptions. Other reasons for a combined location are:

- Less expensive
- Daily use provides for accessibility/familiarity
- Can be easily convertible
- Joint exercises

Physical considerations should include:

- Staffing (sq. ft. per person, separate space for planning, briefing area)
- Equipment (desks, televisions, computers, display boards, message screens)
- Americans with Disabilities Act (ADA)
- Life support systems (power, HVAC, eating and sleeping areas)
- Communications (phone, fax, radios, internet)
- Survivability and operability (secure, accessibility, located outside of known hazard areas, redundant capability)

The one word that best describes a successful EOC (and also a good incident command system) is "discipline." Everyone should know their function and concentrate on filling that function to the best of their ability. If people start to freelance, as in protracted incidents, other areas become curious and people want to find out more about what is going on. Training is paramount in stressing the importance of people functioning where they are placed.

Setting up an EOC is no easy task and there never seems to be a good time to start. Do your homework, delegate specific areas to those with that expertise, implement, and practice.

*Frank Cavaliere has been the Fire Marshal for the Cortez Fire Protection District since March 2000 where he assists with emergency planning for the city. He retired in February 2000 as a Battalion Chief with the Farmington, New Mexico FD after 23 years. He has an Associates Degree in Fire Protection from San Juan College. Frank is also an active member of the Region 9 Local Emergency Planning Committee.*

## The Emergency Managers Resolution

*by Kevin Kuretich, Northeast Colorado Regional Planner*

**T**he new year is here, the last of the confetti has fallen, the helium-filled balloons have been grounded and the final strains of "Daddy, come here" have drifted away.

2002 has arrived — ready or not — and with it the chance to begin many things anew. Sounds like a planner, huh? There's something about starting a new year that brings with it an opportunity to "clear the shelves," reorganize that first response kit, take another look at our responsibilities as emergency managers and how we operate generally, and see if we can't build in some improvements here and there.

It's also the time when many of us make those long anticipated (and quickly forgotten) New Year's resolutions — all of which are aimed at improving ourselves, our work, and our relationships with our communities.

We make these resolutions with all the resolve we can assemble, and we assure ourselves that this year is going to be different; we'll keep those resolutions day after day and week after week. Our intentions are always the best, but it's in carrying them out where we find ourselves in a bit of a struggle — and we're lucky if some of those resolutions are still intact even a few days into January.

At the same time, there are always some carryover effects. If we resolved to revisit our local emergency plans or design that tabletop exercise, but our attempts fall by the wayside, there will be any number of times during the year when we remember the resolution and therefore, decline that unnecessary meeting or trip out of town.

*(Continued on page 20)*

# The Emergency Managers Resolution

*(Continued from page 19)*

If we resolved to be more efficient as emergency managers, it might not hold on a regular basis, but we'll continue to be aware of the *need* and there will be improvement.

Making the New Year's resolutions will always have some carryover benefits — even if we do break them all too soon after the start of the year. At least we recognized the need for the improvement which will remain with us as the year goes along.

The new year and the resolutions trigger a kind of self-analysis, a look at ourselves and responsibilities, and how we might improve — if only in the smallest and briefest of ways. By doing this we acknowledge some shortcomings and recognize the need for change. Whether we carry them out in a big way or not, the need remains in the back of our minds, and who knows, we might make some of those changes unconsciously, in the most subtle of ways. However positive change comes about, even subtle change, the end result is always good.

Resolutions don't have to be made only on the 1st of January. They can be made anytime during the year. And if we're not successful in our follow through, it doesn't mean the same resolutions can't be made again — in February, or June, or October.

We need to give our resolve our best shot and if that doesn't work, try again. It'll help us make conscientious improvements in ourselves and in the communities around us.

## NOAA Places Interactive Snowfall Maps & Data Online

Thanks largely to a network of more than 11,000 volunteer weather observers across the country, the Commerce Department's National Oceanic and Atmospheric Administration (NOAA) has placed interactive daily snowfall maps and data online.

Maps of the nation and each state show snowfall for the most recent one-, two-, three- and seven-day period, as well as current snow depth maps of the states and the nation. Users can also access maps showing snowfall for the month to date and the season to date.

"Snow data on the Web site are easily accessible, and the site is extremely user-friendly," said Jay Lawrimore, who heads the Climate Monitoring Branch at NOAA's National Climatic Data Center (NCDC) in Asheville, N.C. "Even a novice computer user can have an unprecedented wealth of daily, monthly and season-to-date snowfall information at his fingertips in a matter of seconds."

The snow data are made available from Cooperative Observers across the United States who call in their observations to the National Weather Service (NWS) each morning. Their observations are taken at non-airport locations, including sites representative of where people live, work, play and grow their food. Locations include national parks, mountain-top resorts, urban and suburban neighborhoods, and rural farm sites. These volunteers donate more than one million hours each year to collect the weather data that become our national climate records. The data, some dating back to the 1890s, are housed at NCDC's Asheville center. The site is available at: <http://lwf.ncdc.noaa.gov/oa/climate/research/snow/snow.html>.

## Gunnison County Gets Dedicated EOC

Gunnison County officials have approved and are preparing a dedicated Emergency Operations Center (EOC). The center will adjoin the Gunnison Communications Center in the basement of the Courthouse.

There is also a separate room designated for elected officials and another room for media to gather in the event of an emergency incident. Gunnison County is also in the process of signing the contract with Intrado for Reverse 911 service to automatically notify communities of emergency situations. Other counties working with this contract will be Montrose, Delta, San Miguel and Ouray. The Communications Center serves both Gunnison and Hinsdale counties.

# The National Weather Service Announces a New Wind Chill Table

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

This winter, the National Weather Service has unveiled a new wind chill table (see Wind Chill Chart). This was developed through a combined effort of the United States, Canada and several research universities in order to have a consistent, more accurate index for all of North America. It makes use of advances in science, technology, medicine and computer modeling. It employs modern heat transfer theory, is based on a human face model, and was tested by wind tunnel studies on adult volunteers.

The development of the new chart resulted in a significant change in wind chill temperatures, and has also resulted in a change in criteria for wind chill warnings.

In Colorado, with a minimum wind speed of 10 mph, the new criteria for wind chill warnings will be -25 on the plains, and -35 in the mountains.

Notice that the Wind Chill Chart shows the effective wind chill temperature for given temperature and wind speeds. It is also shaded to indicate times to frostbite. What are wind chill and frostbite? Wind chill is the temperature it feels like on your exposed skin. As the wind increases, heat is carried away from the body at an accelerated rate, driving down the skin temperature, and eventually the internal body temperature. If the temperature is 0 degrees Fahrenheit (F) and the wind is blowing at 15 mph, the wind chill according to the chart is -19 degrees F. At this wind chill temperature, exposed skin can freeze in 30 minutes. When body tissue freezes, frostbite occurs, damaging the skin. The most susceptible parts of the body are the fingers, toes, ear lobes or the tip of the nose.

Symptoms include a loss of feeling in the extremity and a white or pale appearance. Medical attention is needed immediately for frostbite, and the area should be slowly rewarmed.

Why the change? It is important to have an accurate wind chill calculation. The older index has been in place since World War II, was much less accurate than the new chart that was developed using modern science and tested on human volunteers. A comparison of the two tables is shown on the next page.

**New Wind Chill Chart**  
Wind (mph)

	Calm	5	10	15	20	25	30	35	40	45	50	55	60
40	36	34	32	30	29	28	28	27	26	26	25	25	25
35	31	27	25	24	23	22	21	20	19	19	18	17	17
30	25	21	19	17	16	15	14	13	12	12	11	10	10
25	19	15	13	11	9	8	7	6	5	4	4	3	3
20	13	9	6	4	3	1	0	-1	-2	-3	-3	-4	-4
15	7	3	0	-2	-4	-5	-7	-8	-9	-10	-11	-11	-11
10	1	-4	-7	-9	-11	-12	-14	-15	-16	-17	-18	-19	-19
5	-5	-10	-13	-15	-17	-19	-21	-22	-23	-24	-25	-26	-26
0	-11	-16	-19	-22	-24	-26	-27	-29	-30	-31	-32	-33	-33
-5	-16	-22	-26	-29	-31	-33	-34	-36	-37	-38	-39	-40	-40
-10	-22	-28	-32	-35	-37	-39	-41	-43	-44	-45	-46	-48	-48
-15	-28	-35	-39	-42	-44	-46	-48	-50	-51	-52	-54	-55	-55
-20	-34	-41	-45	-48	-51	-53	-55	-57	-58	-60	-61	-62	-62
-25	-40	-47	-51	-55	-58	-60	-62	-64	-65	-67	-68	-69	-69
-30	-46	-53	-58	-61	-64	-67	-69	-71	-72	-74	-75	-76	-76
-35	-52	-59	-64	-68	-71	-73	-76	-78	-79	-81	-82	-84	-84
-40	-57	-66	-71	-74	-78	-80	-82	-84	-86	-88	-89	-91	-91
-45	-63	-72	-77	-81	-84	-87	-89	-91	-93	-95	-97	-98	-98

**Frostbite occurs in 15 minutes or less**

**Wind Chill (°F) = 35.74 + 0.6215T - 35.75(V<sup>0.16</sup>) + 0.4275T(V<sup>0.16</sup>)**  
 Where, T = Air Temperature (°F)  
 V = Wind Speed (mph)

The chart on the next page shows a comparison of the old and new wind chill factors at 5 degrees F. On the plains a wind chill warning would be issued for the following conditions:

- zero degrees F. and 35 mph.
- 5 degrees F. and 15 mph.

(Continued on page 22)

# New Wind Chill Table

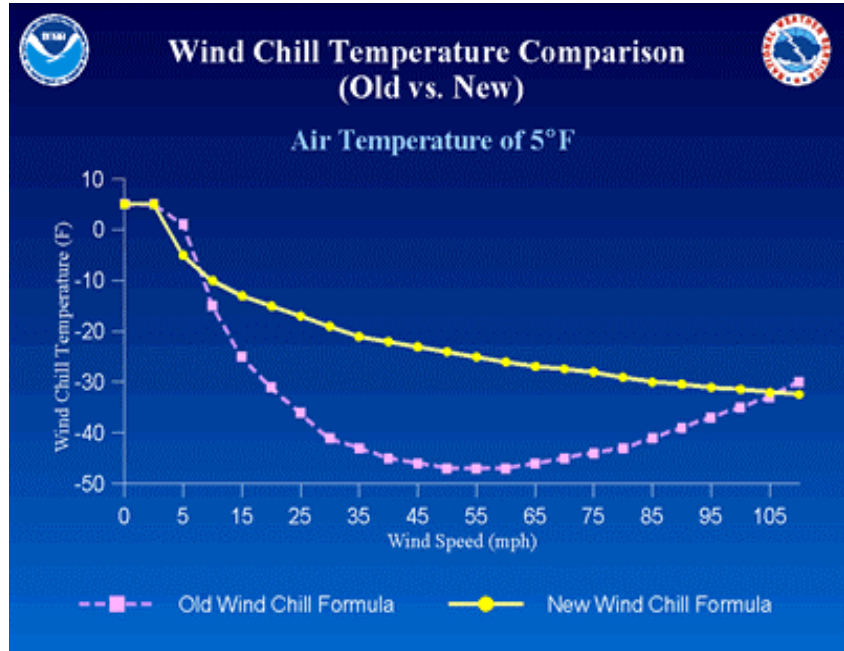
(Continued from page 21)

Wind chill warnings will be issued in the mountains of Colorado at

- 5 degrees F. and 40 mph
- 10 degrees F. and 20 mph

Wind chill warnings would not normally be issued if blizzard warnings or winter storm warnings are in effect for the same period.

The latest wind chill values are broadcast on NOAA Weather Radio outlets across the state, and can be found at the following websites:  
[www.crh.noaa.gov/den](http://www.crh.noaa.gov/den);  
[www.crh.noaa.gov/pub](http://www.crh.noaa.gov/pub);  
[www.crh.noaa.gov/gjt](http://www.crh.noaa.gov/gjt);  
[www.crh.noaa.gov/gld](http://www.crh.noaa.gov/gld). More information on wind chill can be found at: [www/nws.noaa.gov/om/windchill](http://www/nws.noaa.gov/om/windchill).



## Weather Impact on the U.S. Economy

**E**ach year weather events have major economic impacts on the U.S. economy. Estimates vary, but up to 2.2 trillion dollars of the economy are believed to be affected annually by weather and climate events. These include agriculture, forestry, fishing (\$125B); energy resource extraction (\$89B); public utilities (\$2.7B); finance and insurance (\$260B); construction (\$373B); retail trade (\$782B); hotel and recreation (\$147B); and transportation (\$218B). (B=billion)

During the 21st century, unprecedented situations will arise where weather, water and climate events could significantly challenge the way Americans live or cause dramatic changes in the economy. The U.S. sustained 49 weather-related disasters over the past 21 years, each of which caused overall damages and costs of \$1 billion or more, with total damages and costs exceeding \$185 billion. Seven occurred during 1998 alone—the most for any year on record. Tropical Storm Allison in June 2001 was a \$5 billion disaster.

Not only does weather have direct and indirect economic impacts, but information about the weather has become an integral part of the nation's economic infrastructure.

The innovative use of weather, water and climate information will increase our safety and productivity and improve the nation's competitiveness to enhance our standard of living. A recent study found that the long-range predictions issued by NOAA's Climate Prediction Center for the 1997-98 El Niño led California to conduct major mitigation efforts leading to a reduction in losses of about \$1 billion. Perhaps the best recent example of a business opportunity created by increased availability of weather and climate information is weather risk management which has mushroomed into an \$8 billion economic sector. —from NOAA *Weather Magazine*, 11/1/01



# Responding to Major Disasters

*by Justin Dombroski*

**T**here will be much learned from the responses to the September 11<sup>th</sup> attacks. For New York's strong political climate, the complexity of the situation was compounded. For responders called to help another community, many problems can be minimized by some simple thoughts. Flexibility, understanding local needs and facing the long-term needs are critical to effective cooperation and coordination.

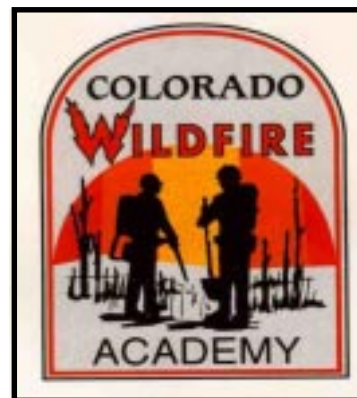
While so many different agencies responded to the World Trade Center, each came with a different set of guidelines, rules and expectations. Because of the extreme situation, flexibility in expectations is paramount, especially when bringing different agencies from all levels together for a large disaster. New guidelines were made daily and new rules were created as the hours ticked on. Identification badges often changed, safety standards evolved and the needs to help manage the situation grew with each new problem. Responders and responding organizations have to maintain some flexibility to adequately help and work together.

When federal, state and local agencies are called to help another community, it is usually because the local community needs more or specialized resources they cannot provide. When responders help a community and leave, the situation is left back to the locals. In New York, the city managed much of the situation such as the New York Fire Department leading the rescue and recovery efforts at ground zero. When other groups come to help, they come to help survivors or victims in New York's home. Respecting the local community's needs helps the community cope and respect your efforts.

What happened on September 11th will take a long time to recover from. Recovery and clean-up efforts are far from over and so are the emotional needs. The road is long, such as the survival guilt that many will have. The restocking of supplies, the financial assistance, the rebuilding efforts will take time, money and other valuable resources. Responders from other areas not only need to understand the community's long road to recovery but also the effects it can have personally back at home and with family and friends.

With major emergencies, most communities do not have enough resources to handle them on their own. When responders come in to help, the needs can be different with each new disaster. Flexibility, maintaining a desire to help and understanding the long road to recovery will help.

*Justin Dombrowski is the Wildland Fire Management Officer for the City of Boulder Fire Department and helped FEMA in New York for three weeks. He also helps on major wildfires and other disasters around the country.*



[www.cowildfireacademy.com](http://www.cowildfireacademy.com)

Since 1994, this annual event has provided training for thousands of agency wildland firefighters, municipal and volunteer fire departments and Incident Management Team (IMT) members.

**June 3-9, 2002**

**Adams State College, Alamosa, CO**

**Costs**

Student Registration - \$40/day.  
After 4/1 it's \$50/day.

Incident Management Team Trainees - \$25/day.  
After 4/1 it is \$35/day.

Registration fees include lunch and all course materials. All nominations are due by March 31, 2002.

Contact information: Wendy Fischer,  
1590 12th Street, Alamosa, CO 81101  
(719) 378-2113 or [info@cowildfireacademy.com](mailto:info@cowildfireacademy.com)





## We'd like to hear from you...

We'd like to hear from you if you have items of interest appropriate for our newsletter. Articles, comments, meeting news, web sites, stories, etc., should be addressed to:

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COEM Web Address:  
<http://www.dola.state.co.us/oem/oemindex.htm>

## Mark your calendars...



**Severe Weather Awareness Week**  
April 7 - 13, 2002

**Lightning & Wildfire Awareness Week**  
April 28 - May 4, 2002

**"Politics has become so expensive that it takes a lot of money to even be defeated."**

**— Will Rogers**

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