

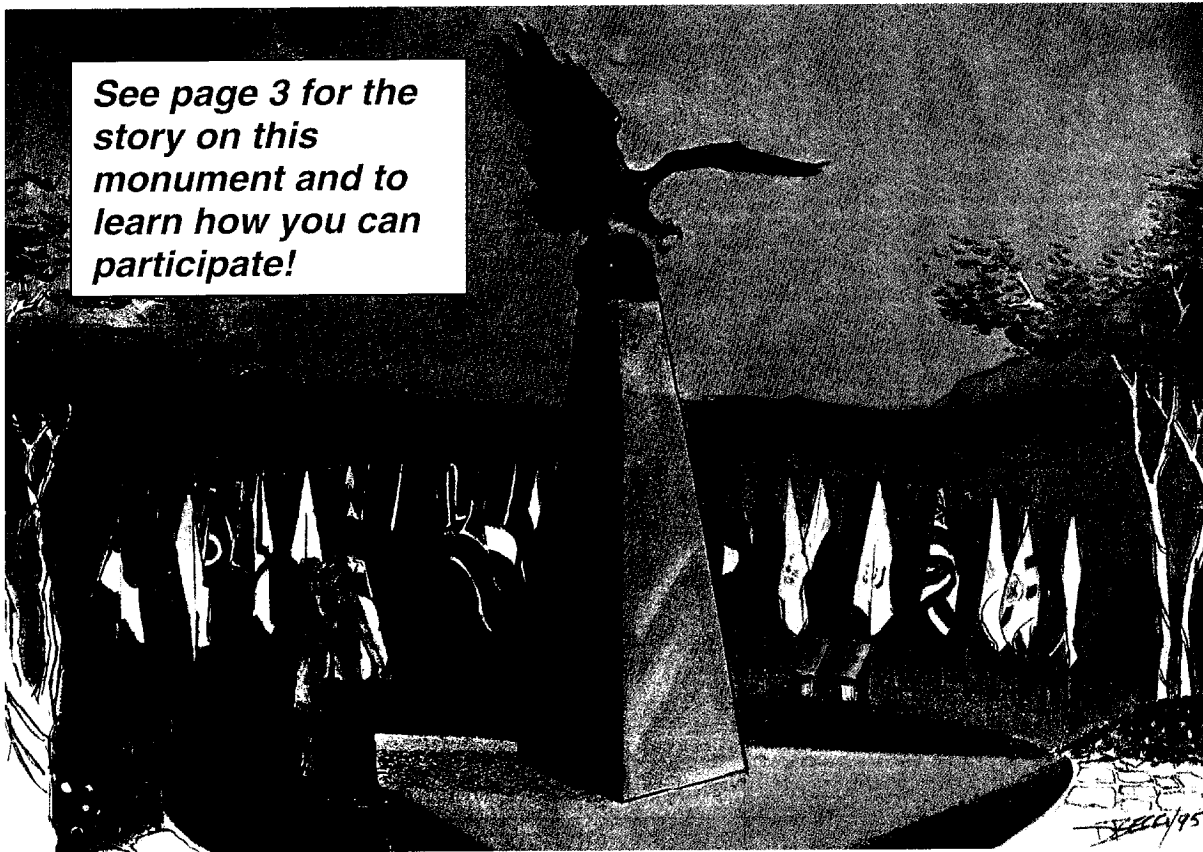
Journal of **Civil Defense**



The American Civil Defense Association (TACDA)
Promoting sensible precautions for disasters since 1962

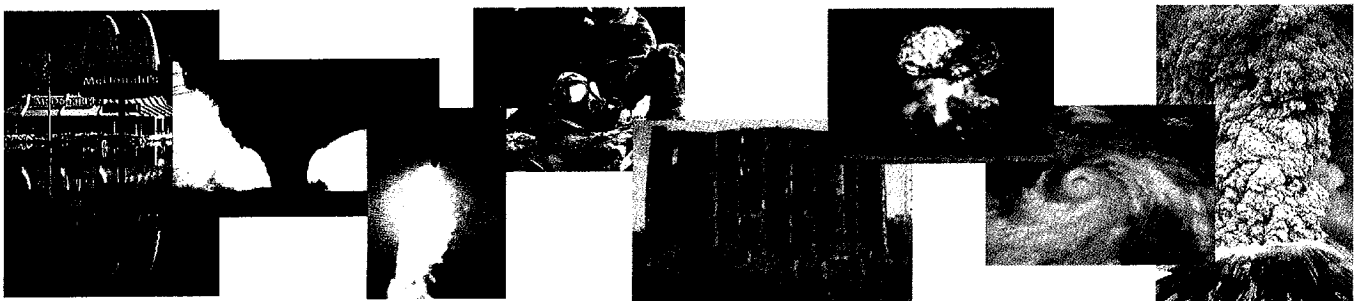
Nov 1999 – Feb 2000 ♦ \$6.50
[Double Issue]

See page 1 inside for detailed contents ...



The National Civil Defense/Emergency Management Memorial

Artistic rendition by nationally renowned artist – Donald J. Begg



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- Single Pocket Carry Case: \$12
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- QuickGloves™ (fit inside the dual pocket carry case): \$15
- Practice Model: \$30
- Instructional Video: \$7 (although free with the purchase of the Quick2 Mask)

You may order the Quick2™ by calling: 1-800-425-5397, METTAG Products.

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To our readers ...

This issue of the *Journal of Civil Defense* leads off with an article about the **National Civil Defense/Emergency Management Monument** that was approved by Congress and the President in recent legislation. It is exciting to see this monument gain widespread political support.

The *Journal* then provides a report on our recent **TACDA Conference** that we had in Denver. It was a truly enjoyable time of renewing and making new friendships as well as sharing the latest information on various manmade and natural disasters.

A special focus of this *Journal* is the area of **avalanche** awareness. Many people have died recently in Colorado and Alaska due to avalanches.

This Journal also provides a reprint of an important article from **Charles Wiley** that looks at the **News Media and Disasters**.

Other articles address such topics as the **CATS** disaster analysis software tool, **flooding** and **winter storms** on the East Coast, **bio-warfare** threats and mitigation, and the DoD **Budget** related to Civil Defense.

If you haven't done so recently, please take a look at the TACDA web site. It includes a Civil Defense Library and many other areas such as the TACDA Store, and extensive links to related sites. (see www.tacda.org)

Thanks for your support!

Kevin Briggs **President, TACDA**

The *Journal of Civil Defense* is the official bimonthly publication of the American Civil Defense Association (TACDA). Kevin Briggs, President; Kathy Eiland, Executive Director. The TACDA Board also includes Ed York, Sharon Packer, Frank L. Williams, Bron Cikotas, Nancy D. Greene, and Regina Frampton. Walter Murphey is the Editor Emeritus.

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Want preparedness without paranoia?

Join TACDA.

We're the American Civil Defense Association (TACDA) – a 37-year-old nonprofit organization that promotes sensible precautions to disasters.

An annual membership includes a year's subscription to the printed version of the *Journal* plus discounts on selected fund raising packages at the TACDA Store, such as on food supplies and water storage tanks.

An annual membership now costs only \$25 for a single family, \$50 for professional organizations, and \$100 for corporations (if you prefer, you can just receive the *Journal* for \$25 and not be entered on our membership list ...note however, that TACDA will not give our membership list to any other organization). Non-US rates are higher due to postage.

Please also consider giving a tax-deductible donation to TACDA if you want to help support our mission of:

- Alerting the public to likely natural and manmade dangers.
- Assisting the public in making reasonable preparations for these dangers.
- Advocating things such as preparations for earthquakes, tornadoes, asteroids, bio-terrorism, and nuclear war.
- Advocating an effective 50-state ballistic and cruise missile defense.
- Advocating a nation-wide sheltering program

Sign up by contacting:

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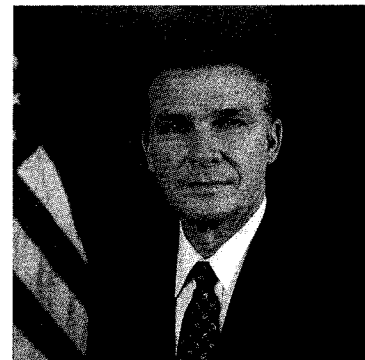
The National Civil Defense/Emergency Management Monument

The purpose of the National Civil Defense/Emergency Management (CD/EM) Monument is to honor the thousands of Civil Defense and Emergency Management professionals and volunteers who have worked hard and faithfully to protect the public from both manmade and natural hazards. Literally thousands of people owe their lives and property to the effective pre-disaster planning and mitigation activities of these dedicated citizens as well as to the whole-hearted efforts of volunteers and professionals who have often risked their lives to help others during disasters. This monument particularly recognizes the numerous military and civilian volunteers and professionals who have gone beyond the normal call of duty to save lives and alleviate suffering in times of crises. The monument will serve as an enduring reminder of the heartfelt thanks that a multitude of people feel whenever they remember those who have selflessly served them or their loved ones in times of great need.

The idea for a National CD/EM Monument began in 1981 during the dedication of a related monument for firefighters on the jointly held grounds of the National Fire Administration Academy and the National Emergency Training Center in Emmitsburg, Maryland (near Gettysburg). At this dedication, Fred Villella, the then Federal Emergency Management Agency (FEMA) Director of Training and Education questioned ‘well, one half of the tenants here is represented in this memoriam, shouldn’t also the other half, emergency management, be so honored?’ From this time, efforts were begun to establish a National Civil Defense/Emergency Management Monument.

President Clinton signed a bill (HR 348/PL106-103) on November 13th, 1999 that grants authority to the National Civil Defense Monument Commission (a private nonprofit organization established in the Commonwealth of Pennsylvania) to construct a monument to: “honor those who have served the nation’s civil defense and emergency management programs.” This law further stipulates that the monument will be built at FEMA’s Emmitsburg, Maryland facility, which is home to the National Emergency Training Center. The Director of FEMA, James Lee Witt, has fully endorsed this project and provided valuable advice and direction.

Many people deserve thanks for getting the commission started. Dr. James Ridgeway, retired Director of Training and Education for FEMA’s predecessor agency, suggested that a commission be established that could sustain the needed fund raising required for this project. John Devaney, Executive Secretary of the American Strategic Defense Association (ASDA) offered assistance through its membership to moving toward the goal. Mr. Devaney also participates as a member of the Commission. On February 8, 1997, the



**James Lee Witt
Director, FEMA**

organization was created as The National Civil Defense Monument Commission. Alexander O. Atzert agreed to serve as Chairman, Linda Hurley as Secretary, and Charles Sullivan, Camp Hill, PA was named Treasurer. Hugh Warner of Frederick, Maryland, an activist in local and national veterans affairs, was named Finance Chairman.

Obtaining the necessary support for the HR 348 bill for the monument required perseverance and help from many. The commission asked Congressman Roscoe Bartlett, whose Maryland District encompasses Emmitsburg for support. He was quite amenable to sponsoring this legislation and introduced HR 348 on January 19, 1999, where in early February it was referred to the Subcommittee on National Parks and Public Lands. There it languished for 8 months.

Congressman Bartlett then obtained nine co-sponsors for the bill: Congressmen Cunningham and Rohrbacher (CA), Congresswomen Karen Thurman (FL) and Cynthia McKinney (GA), Congressmen Skelton (MO), Boehlert (NY), J.C. Watts (OK), Jay Inshee (WA) and long time civil defense/emergency management supporter Bill Goodling (PA). These co-sponsors instructed their staffs to help get the bill moving and bring it to the floor for a vote. After nearly a year of effort, 349 Congressmen voted their approval (with only four objecting) and the vote in the Senate was unanimous. With the President's signature five days later, the result was very gratifying (though the mechanics of getting to that point were less so).



Alexander O. Atzert,
Chairman of the National
CD Monument Commission

Many have worked hard on the initial fundraising for this project. Joe Clark, Coordinator for Adams County Indiana helped to jump-start the project with funding through voluntary contributions. Rosa Timmons then conducted a mail campaign that brought in additional funds. Walter Murphey with The American Civil Defense Association (TACDA) helped with fundraising and advertising as well. Hugh Warner, the current Finance Chairman for the commission has solicited help from private citizens and many organizations and agencies to work toward the ultimate fundraising goal of \$100,000.



Hugh Warner,
Chairman, Finance
Committee

Mr. Warner said, "There are three sides on the pyramid of the monument, and they represent the three levels of government. But look at the base on which the Monument rests. That represents the citizens of our great nation. We need to have a broad appeal to them and if they will contribute their nickels and dimes in any amount, we can complete our goal coin by coin. We only currently have 20% of necessary funding but we feel we can move from the uninformed 'what monument?' and the complacent 'I know **you** can do it' to 'checks are in the mail' stage in this year and have a monument in place very soon."

Mr. Warner's optimism is justified. In the weeks since passage of the Federal Authority for placement there have been some healthy amounts 'in the mail' from the founder of The American Civil Defense Association (TACDA), Frank Williams, from Bob Roman on behalf of the Association of Professional Emergency Planners, and John Devaney, Executive Secretary of the American Strategic Defense Association.

Donald J. Begg, a nationally known artist, created the design of the Monument. The centerpiece of the Monument will be a fifteen-ton block of polished white Vermont granite, shaped as a three-sided pyramid. Each side is representative federal, state, and local government. The triangular base is five feet on each side, rising to fifteen feet in height. The pinnacle of the monument is capped with a large, bronze American eagle, sculpted by the world-renowned sculptor, Oregon-based Lorenzo Ghiglieri. The base is encircled by a stone and concrete plaza with appropriately inscribed bronze state plaques embedded in concrete, surrounded by a circle of state flags. A brick wall rises approximately three feet in height on the back or south side of the plaza. Near the edge of the plaza are two bronze plaques bearing the names of advocates and members of the Monument Commission.

For more information on how you or your state can participate in this memorial, please contact: **Charles Sullivan, Treasurer**
352 Blacksmith Rd., Camp Hill, PA 17011-8421
Phone/Fax: 717-737-5466

Note: All checks should be made out to *The National Civil Defense Monument Commission* and mailed to the address above. Individuals wishing to give stock are requested to add \$50 for each donation to cover the cost of the sale of the stock for cash.

Basis for Support

- \$5,000** A company or corporation may be designated as an **ADVOCATE** on the monument
- \$2500** An individual or organization may become an **ADVOCATE** of the monument
- \$1000** A state name will be added to the monument and its flag will be flown
- \$200-\$1000** The name of anyone who supports the mission will be etched in bronze on a tablet at the monument



**The National Civil
 Defense/Emergency
 Management Monument**

The 1999 TACDA Conference in Denver

By Kevin G. Briggs

We had one of the best TACDA conferences ever in Denver this year and were greatly encouraged by the feedback we received from those who attended. For example, although we continued some presentations much longer into the evening than was originally scheduled on the 2nd day, few participants left. One stated that he'd stay there all night to hear this material in more detail. We also had a few folks who just happened to be staying at the hotel for other reasons, who listened for a while outside the back door and then decided to pay the conference registration fee so that they could hear the remaining speakers. This year's conference was filled with very informative presentations on various aspects of natural and manmade disasters. Conference speakers talked on the subjects shown below and video or audio tapes can be purchased.

[Disclaimer note. These videos contain only limited editing from the actual presentations given at the conference and are not broadcast quality (however, they are an excellent information resource for concerned citizens). TACDA provides them as a public service. All information in these tapes is for general understanding. Before taking any specific personal actions, professional advice should be sought.]

Title – Speaker – Description – Time		Available for purchase: \$17 Call 1-800-425-5397 to order!	↓
“Preparedness in the Year 2000” Kevin Briggs (TACDA President) Covers the threats of key natural and manmade disasters throughout the U.S., to include terrorism and war, and provides insights into issues and mitigation strategies [60 minutes]			Yes
“Surviving Weapons of Mass Destruction” – Sharon Packer (President of Civil Defense Volunteers of Utah, MS in Nuclear Engineering) Covers nuclear, chemical, and biological threats and hazard mitigation strategies as well as a brief explanation of EMP [32 minutes]			Yes
“From MAD (Mutual Assured Destruction) to MASS (Mutual Assured Security & Survival)” – Nancy Greene (V. President of TACDA, former Editor of HUMINT Magazine and a well-known international relations expert) Covers the history of the MAD policy, why the DoD has historically neglected active and passive U.S. population defenses, and recommends a mutual Russian & U.S. missile defense strategy. [36 min.]			Yes
“Historical Swiss and Russian Civil Defenses” – Ed York (international civil defense expert, worked on the Manhattan Project and many civil defense trade-off studies). Covers his first-hand experiences with the Swiss Civil Defenses and his extensive research into Russian Civil Defense based on debriefings of Russian immigrants. [30 minutes]			Yes
“The News Media, Crisis Management, and the War in Kosovo” – Charles Wiley (Accuracy in Media spokesperson, Veteran War Correspondent (jailed by communists on several occasions), International Civil Defense Reporter) Exposes how dangerous this war was and how the media was often manipulated to produce one-sided reporting.			Yes
“US Infrastructure Issues” – Bron Cikotas (former head of the Defense Nuclear Agency's EMP Division; consultant on U.S. infrastructure)			Soon
“A Physician's Response to Modern Threats” – Dr. Jane Orient (President of Doctors for Disaster Preparedness)			Soon
“US Earthquake Hazards and Mitigation” – Waverly Person, US Geological Survey			Soon
“EMP – Issues and Answers” – Bron Cikotas (former head of the Defense Nuclear Agency's EMP Division; consultant on U.S. infrastructure) – Audiotape only.			Soon
“Economic Aspects of Disasters” – David Horton (Constitutional lawyer and economics historian)			Soon
“Needed: A Radical Rebalancing of Our Defenses” – Kevin Briggs (President) Covers the historical development of Civil Defense in the U.S. and explains why we need both active and passive defense for both manmade and natural disasters. Explains why the current National Missile Defense (NMD) program will not be effective against many threats and discusses how a more effective NMD could be fielded.			Soon

TACDA 1999 Conference Pictures



Above: The TACDA Board (from left to right) Ed York, Kathy Eiland (Executive Director), Bron Cikotas, Regina Frampton (Secretary-Treasurer), Nancy Greene (Vice President), Sharon Packer, Frank Williams (former President), Kevin Briggs (President)

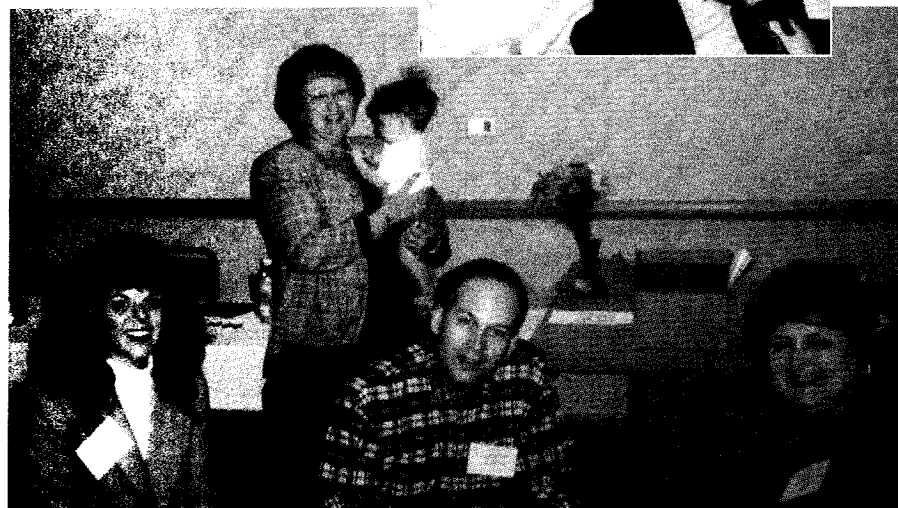


Left: Charles Wiley with Accuracy in Media and **Nancy Greene** (TACDA Vice President)

Below: David Briggs (a young TACDA supporter and Ed York)



Right: (from left to right) Regina Frampton (Secretary-Treasurer, Diane Davis (holding baby Michael Briggs), Steve Turan, and Kathy Eiland (Executive Director).



Civil Defense Related Expenditures in the Department of Defense Budget for Fiscal Year 2001

Editor's note: What follows are edited portions of the 2001 Defense Budget that pertain directly to U.S. population protection programs like National Missile Defense and Anti-Terrorism initiatives.

Secretary of Defense William S. Cohen recently released details of President Clinton's Fiscal Year (FY) 2001 defense budget. The budget requests \$291.1 billion in budget authority and \$277.5 billion in outlays for the Department of Defense (DoD). ... DoD budget authority real growth exceeds 1 percent in FY 2001.

DoD leaders stress that the budget reflects a strong focus on post-Cold War threats like terrorism. It also includes the projected funding needed to deploy a limited national missile defense system by 2005, should the President order such a deployment later this year.

Combating chemical-biological threats. The FY 2001 budget includes \$836 million (Procurement and RDT&E) to continue to improve protection of DoD forces and activities from terrorist or adversary use of chemical-biological agents. Improvements are being made in agent detection, warning, protection, and medical treatment. These investments are key to DoD's overall program for combating terrorism and new threats.

Information Assurance. Reflecting a key QDR recommendation, the Information Assurance program is improving DoD's ability to counter cyber threats and protect its information systems, a capability that will be increasingly critical to the U.S. defense posture. FY 2001 funding (O&M, Procurement, and RDT&E) totals well over \$1 billion. One significant enhancement is for Public Key Infrastructure (PKI), which will ensure that DoD information systems are open only to authorized users and that communications reach only intended recipients.

Ballistic Missile Defense. The FY 2001 budget continues the marshalling of the technology and funding needed to deploy a National Missile Defense (NMD) system to defend all 50 states against a limited ballistic missile attack. Later this year the President will decide whether to deploy such a system based on four criteria: threat, cost, technical feasibility, and overall security implications including arms control. The budget for FY 2001-2005 includes sufficient NMD funding to achieve a 2005 initial capability if deployment is ordered. FY 2001-2005 NMD funding totals \$10.4 billion -- reflecting the addition of \$2.3 billion since last year's request. The budget will allow DoD to upgrade early warning radar facilities, build a radar complex in Alaska, provide 100 ground based interceptors, and fund additional systems testing.

The FY 2001 budget advances plans for reserve component support to civil authorities for response to domestic incidents involving weapons of mass destruction (WMD). With congressional approval, the **FY 2001 budget will enable the Department to support a total of 27 WMD Civil Support (CS) Teams -- formerly called RAID teams.**

Additionally, the budget funds continuation of the Department's Civil Military Programs, including the National Guard ChalleNGe program; renewed support for the DoD STARBASE Program; and the Innovative Readiness Training Program, which provides military training opportunities while simultaneously benefiting America's civilian communities.

Disaster Preparedness and the News Media

By Charles Wiley

(Editor's note: This article is a slightly edited reprint from the "Alert" magazine published by the Institute of Civil Defence and Disaster Studies located in Britain and was made at the DMF/ICDDs Annual Conference. Charles Wiley has many great insights that all of us need to consider and apply.)

My role at this Conference is as a non-expert.

In keeping with the concept of "truth in packaging", I want to make it clear that my background does not include direct experience of disasters —unless you count my sex life before I was married.

I guess they invited me to speak because I've associated with the right crowd. Over 15 years ago, I gave a talk on journalism at my first conference of civil defense experts —AKA: emergency planners, disaster preparedness personnel, et al. I listened to what the real authorities had to say, applauded loudly and told jokes. Most important, I brought my lovely wife, the nicest person in the world. As a result, I have been invited to one conference after another —and listened to more and more experts. In addition, I've been a guest at a number of emergency service organizations throughout the world.

I'm not in your field. I've only observed what you do.

Before I discuss the news media, you might be interested in three basic impressions that stand out after attending conferences like this for nearly two decades. I'm sure you're aware of these things, but a reminder can't hurt.

First, mistakes are repeated over and over. An international conference, held

after a recent earthquake or whatever, will have, as a featured speaker, some chap who had a major role in the response to the disaster. While he reports on things that went wrong, I'm always impressed by so many people furiously taking notes.

Then you go to a conference a year later, shortly after some recent disaster in another place. And they bring in the fellow that was in charge. He describes mistakes — most of them the same as reported the previous year. More notes — and discussion of the problems as if they had just been uncovered. This goes on at conference after conference.

Conclusion: Lessons are not easily learned and the same mistakes are made repeatedly.

A second observation: In most disaster situations, much of the outside aid is very frequently of only marginal help — and sometimes, not even that. And often it comes at a very high price in wasted time, effort and resources to handle the outside non-help. Some of the problem is caused by well meaning, but misdirected attempts to do a good deed. Other motivation is less pure: An excuse to get good publicity or a news story.

A third lesson — and the most significant: Planning is very important. We need good people with the foresight

to anticipate problems, outline what should be done and make good plans. But without good leadership during the emergency, the best plans lose much of their value.

The bottom line is that good planning must include preparation for good leadership — a search for the best people, plus the training needed to match top command personnel to good plans.

Now to the topic of the media — and I offer a word of caution. My experience is mostly with US news operations. Although there are many similarities elsewhere, you may have to allow for differences. Some of what I say may not apply to the press in the UK or other countries represented here.

The big question: How do you deal with the media? The answer is the same as the question: How do porcupines make love? *Very carefully.*

For openers, it is important to keep in mind that your aims are very different from those of journalists. Your priority is to disseminate information. Theirs is to get a good story.

Many in the media excel at emphasizing the problems — and the conflicts. They like to put you on the spot. They adore finger pointing and the blame game. Critics, well meaning or not, who spotlight short sightedness, mistakes, failures, etc., provide grist for the journalistic mill.

Somebody once described a reporter as one who watches the battle from a hilltop, comes down after the fray —and

shoots the survivors.

Not usually true — but keep it in mind when you are dealing with the press.

The media's tendency to sensationalize, as Professor Dynes pointed out, frequently leads to very normal events being presented as "disasters". Reality is distorted. Ongoing problems, like grinding poverty are presented as events that suddenly occurred because of something that just happened.

This kind of media coverage sometimes directs national and international policies.

A few years ago, Americans suddenly discovered that Somalia had starving children, a lawless society run by warlords and a long list of terrible problems. The situation was not new in that poor, suffering nation — and countries to the north and to the south and to the west of Somalia were in the same situation. There was no great difference in a dozen African countries that had the same kind of starvation, the same kind of dreadful leadership and the same endless violence. Many were in even worse shape. But the media and celebrities, for some reason — I'm not sure why — were manipulated into pinpointing Somalia. Heartbreaking pictures, day after day, put this little unknown nation on the world's center stage. Americans responded —and the United States moved troops into the country.

Some on this mercy mission died. The same news media that brought them into Africa, covered their agony with gory pictures — and we left Somalia.

As quickly as the "disaster" had become

page one news, the world all but forgot about the demonized leader who was wanted dead-or-alive, the starving children — and the entire continent of Africa.

My point isn't whether we should have gone to Somalia, or whether we should have departed. **The issue is that news media should not be the guiding force in making policy and taking action. But, in reality, the press often has that power. It is very important that those who deal with the media keep this in mind.**

Sir Neil Thorne spotlighted a major problem when he pointed out that less and less people in government have served in the military. The picture is similar among journalists, few of whom have backgrounds in any occupations that stress strong organization and discipline. They seldom have much affinity with those who must take charge in an emergency. Many are anti-military, anti-law enforcement, anti-authority and anti-business. This can make relations more difficult between journalists and those who are trying to respond to a crisis. The emotion that often accompanies an emergency sparks second-guessing and a hunt for scapegoats. Some reporters, who started with bias, can now criticize people that they didn't much like to begin with.

We need to get media representatives, including top people, into planning operations and emergency response.

Normally, most of the media coverage is, at best, simply reporting. At worst, there is antagonism. **It is a shame we cannot get more of the press to become part of the team.** That would be extremely

valuable and should be a major goal. Activists, not critics, are needed during emergencies. But, most journalists don't want to take a role. They prefer to stay above it all.

I don't know how much help you get from your media. In the United States there is some cooperation, but not enough. **Media should accept a contributory role — to become part of the solution, not part of the problem.**

We need to get media representatives, including top people, into planning operations and emergency response. For example, it would be very beneficial if some reporters accepted the role of helping information officers during times of crisis. Your job would be easier and the public would be better served.

Much coverage of emergencies and disasters in the United States has been poor. During the big earthquake in San Francisco, they showed the same pictures over and over and over instead of giving useful information. Because my daughter lived near the Bay area, I was anxious to locate the epicenter — but it wasn't reported for hours. They were too busy repeatedly showing a car driving off the end of a broken bridge, a collapsed highway and a couple of other scenes.

I finally learned that the epicenter was a mile from where she lived —and the information didn't come from the media. I received a call from a stranger who had been reached by radio with the news that my daughter was safe.

Let me add: The damage to my daughter's area was much worse than in San Francisco. But many never found out because the media stayed with the

dramatic pictures, already on hand, instead of covering the news.

None of this changes the fact that you must work with journalists and they with you. Regardless of the problems, neither side has a choice.

You need to educate the public for emergencies and disasters. To make people aware of the preparations they can take, the organized responses planned and the resources available — and to get information to them as quickly as possible during and after an event. Much of it has to be distributed through the media.

Try to work with, not deal with reporters. Make as many friends as possible — even while keeping up your guard. It is best to have press officers that regularly see journalists and can develop long-term relationships. Success will often depend upon their skill in understanding the reporters —and changing antagonists into people who will help. Hone the skills of the best communicators in your organization so they can better work directly with the public as well as with the media.

Keep in mind that the public is not a single audience. It is a variety of audiences. Your messages must reach more and more different types of people — ethnic and cultural groups, those with special problems, etc.

In placing public service stories, don't forget the specialty press, such as the ethnic media and trade journals. Tailor some of your releases for their audiences.

Distributing reprinted articles can often give added credibility to your message.

And, it is also helpful in developing good relations with the publications involved.

Use your public education efforts as a means of solidifying your relationships with journalists and as a recruiting tool. Sell them on the great value to the community of your activities —and the important role that they can play.

Some of the new technology can be very helpful. You can now give your story without having to depend completely on the media to report what you want the public to know.

Tap whatever resources are available to establish your own news service —and use it before, during and after an event.

Whatever the means of delivery, the public educational message is usually best put across with a mix of two kinds of people: High profile personalities to introduce and support the need for being prepared in an emergency — and experts to explain. Entertainment and sports figures are especially useful. You can appeal to their civic duty as well as offering them good publicity. The latter is especially attractive to those who have been out of the limelight and can use exposure.

Timing is very important, especially as the concentration span of the general public gets shorter and shorter. Because of the diminished ability of many American youth to focus, the old roundelay, sung by students for a century, *One Hundred Bottles of Beer on the Wall* has been cut back to *One Bottle of Beer on the Wall*.

Be ready to move when there is a chance to get the public interested in

preparedness. Piggyback on widespread coverage of a disaster. The tremendous interest will die quickly — probably when the next big sports event or sex scandal breaks — so you should be ready to push your story immediately. While organizations are responsive, offer speakers and schedule their appearances. Wait, even a few days, and they may be more interested in booking a speech on “Checkers games I have watched”.

Of course, the bottom line on a great many things that we talk about is: Where do you get the money to pay for them? This has been mentioned over and over — and over — at every conference I’ve attended. A lack of funding is the big universal problem.

Human nature, and the characteristics of politics, are against you. No surprise that it is very difficult to get politicians, or even average citizens, to spend money for something that will happen sometime in the dim future — or it may not happen at all.

The private sector can fill some of the gap. Businesses can benefit in more ways than just preparing to cope with a disaster. It’s good corporate image to be involved in activities which save lives and keep the water and electricity flowing. Not enough is done to tap this resource.

An even more important source of support is seldom given the attention it deserves. There is a great need to establish a constituency — people with a vested interest in your cause. And a vested interest doesn’t have to be personal profit.

Compounding your other disadvantages

is the absence of a strong lobby. You need the ability to bring public pressure into the political arena.

Seemingly, endless causes compete for limited funds — and those with the most clout usually get a bigger piece of the pie. Unions, business associations, ethnic groups, parents, motorists, etc. have the votes and power. When they demand attention from the politicians and government, they cannot be ignored. Obviously, there is a good chance that, at least, some money will go in their direction.

There is not much of a ready-made lobby to push for your requirements. No one disputes that your causes are of great potential value to everybody — but there are few with vested interests. You need to build a constituency that supports putting more money into preparedness.

All kinds of groups can be recruited. Senior citizens, students, computer junkies, war garnerers and many others are potential supporters. Get them involved.

Let them use their free time and hobbies for a cause that will interest them. Give them jobs to do; models and maps to make; problems to solve. Get them involved.

Recruit teachers to include preparedness training and projects in their citizenship courses.

You can develop a constituency — people who are involved.

When I ran for Congress, I was sent to a campaign school. One valuable fact I learned was that there is a rule in politics that getting someone to contribute a

single dollar to your cause assures you of one vote — or more. The donor is involved in your campaign, so will go to the poll on Election Day. He will probably also urge family and friends to vote for you — because he's involved. No matter how small the investment, people are more likely to follow through with support — and are more likely to become activists.

The things I've suggested will create your dollar donors. They will support your cause. Once they have made a map or carried out the smallest task, they will be your constituency. Once involved, they will help to move the politicians into your camp.

As a bonus, you'll have a pool of new volunteers who can carry out projects that are of value.

There may even be another gain. Recruiting activists could help straighten out some in society who are on the wrong road. While we have our share of outstanding young people in the United States, many among our youth have little, if any, interest in anything beyond their own circle and selfish personal gratification. They have isolated themselves from their community — and are hostile to authority. Involving them in our kind of projects would be a big step in turning them around.

I regularly speak at high schools and universities throughout the United States and can report that many drifters and troubled students are looking for real values. They would welcome projects that would involve them in activities that would serve a good cause.

Finally, reaching out to the public would

tap our most valuable asset: the collective wisdom of a free people. When well informed, working together for a common good and involved in the decision making loop, they can solve any problem.

Charles Wiley has reported from 100 countries and regularly continues his world travels - three or four trips abroad every year. (Five trips to China since 1979.) His in-depth search for facts led to his arrest eight times by secret police throughout the globe, including the KGB, and imprisonment in a Cuban dungeon while he was a correspondent for New York City radio station WOR.

Wiley has covered 11 wars, including reporting for NBC, UPI, the London Express and numerous other U.S. and foreign news media. He reported on the Tet offensive and during three other war years in Vietnam.

A graduate of New York University, Wiley's freelance articles and photographs have appeared in numerous publications, including the New York Times, U.S. News & World Report, Newsweek and Time.

A well-known radio/TV talk show personality and commentator, he has appeared on hundreds of network and local programs throughout the country - including many times on CNN Crossfire and C-Span.

Wiley lived briefly in Russia while lecturing at Leningrad University (now St. Petersburg). Subsequently, he gave a series of lectures at Moscow State University while living on campus, and had a 5 1/2 hour meeting with the former head of the KGB.

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Alaskan Avalanche Updates

by Alaska's Department of Military and Veterans Affairs and FEMA

Ticking Time Bombs on Alaska Mountains

Avalanche threat to continue; all Alaskans encouraged to use caution when traveling

CAMP DENALI, Alaska --- "The Kenai Peninsula still has some ticking time bombs. Natural releases are still occurring and the definite threat to human life continues," said Doug Fesler of the Alaska Mountain Safety Center.

"Typically in backcountry accidents, 96% of avalanche victims trigger the avalanche that catches them," continued Fesler. "Avalanches happen for particular reasons and backcountry travelers need to learn how to assess the stability of the snow pack. When in doubt, stay on low angled slopes of 30 degrees or less, as long as those slopes are not connected to steeper terrain."

"The threat of avalanches in backcountry areas and the on the road system could linger until summer. Weather patterns such as rain, heavy snow and wind can change avalanche conditions rapidly," said Fesler.

Alaska Mountain Safety Center offers several classes on avalanches. For more information on the class, contact the Alaska Mountain Safety Center at 907-345-7736.

Current information about the avalanche situation can be found at the Division of Emergency (DES) website: www.ak-prepared.com or by calling the DES

Joint Information Center toll free: 1-877-428-6031. DES will continue to operate the State Emergency Coordination Center for the duration of the avalanche activity.

Citizen Soldiers Provide Avalanche Aid to Alaska

Army National Guard provides emergency assistance from the skies

CAMP DENALI, Alaska --- Like the postman, neither sleet, rain, nor dark of night can keep the Citizen Soldier from his appointed rounds. Between rescues, delivery of emergency supplies and doing reconnaissance flights, the Alaska Army National Guard has been everywhere they've been needed.

"Our pilots and aircrew are among the best in the world," said Lieutenant Colonel Jerry Kidrick, Army Aviation Support Facility Commander. "Being in the National Guard means being a part of our Alaskan community and we will fly anywhere in the state and do what it takes to help people during this weather crisis."

On the first day of the storm, Army Guard aviators flew a Sleetmute child suffering from convulsions to the Bethel hospital for treatment. The very next day a UH-60 Blackhawk helicopter from Nome attempted to fly through a blizzard to St. Marys to bring out a wounded man.

While all this was happening, the crew in Anchorage ferried out 10 people and one canine trapped in between avalanches on the Seward Highway south of Girdwood.

The Alaska Army Guard's Aviation Battalion is about more than performing headline-grabbing rescues. They've also been the workhorses of Southcentral's avalanche disaster. At the height of the storm, they managed to fly an emergency medical shipment to the nearby cut-off community of Girdwood, as well as hauling fuel and generators to the village of Hope where they hadn't had electricity in over a week.

Roaring snowslides had also knocked out the State Trooper repeater site at Portage. The Army Guard flew in and picked up repairmen to fix the equipment. In addition, they provided reconnaissance flights over the mountains and through inclement weather checking out dangerous slide areas.

All in all, the citizen soldiers of the Alaska Army National Guard's Aviation Battalion have earned their wings on all fronts during the Avalanche 2000 crisis.

FEMA's Role in Assisting with the Alaskan Avalanche Disaster

Washington February 7, 2000 - Alaskan state officials have requested FEMA assist with joint Federal-State Preliminary Damage Assessments (PDAs) for damage associated with recent avalanches and severe weather in the Kenai Peninsula and Prince William Sound region over the past few days.

The Governor of Alaska has already declared a state disaster and the State Emergency Operation Center has been operating on a 24-hour basis since February 1.

State officials report the Seward Highway, the major link between Anchorage and the Kenai Peninsula was closed again about 20 miles south of Anchorage by a avalanche early yesterday morning. The roadway was expected to be open by this morning.

Other roadways in the area have been closed by avalanches or heavy drifting snow. As a result, a number of communities have been isolated. The communities include Whittier, Portage, Valdez and the entire Kenai Peninsula.

There have been at least two confirmed fatalities and several injuries reported.

Several community shelters are opened. Cordova reports nine people sheltered by the American Red Cross.

Medical supplies and other vital commodities are being flown into isolated communities by helicopters. Scattered power outages continue to plague the region as avalanches and heavy winds down power lines.

Commercial cellular phone outages exist in numerous communities along with some landline communication.

The Alaska State Troopers and some emergency medical services in Moose Pass, Cooper Landing, Glennallen and Valdez are experiencing communication problems due to downed or damaged radio towers.

Common Myths and Questions about Avalanches

by Bruce Tremper, Director of the Utah Avalanche Forecast Center

"Loud noises trigger avalanches"

Only in the movies. In 20 years as an avalanche professional I have never once seen an avalanche triggered by, say, a shout, even a sonic boom or a low flying helicopter. It's just not enough force. It needs to be a really loud noise like a bomb going off at close range. In almost all avalanche fatalities, the avalanche is triggered by the victim, or someone in the victim's party.

"An Avalanche is a bunch of loose snow sliding down the mountain"

Avalanche professionals call these "sluffs." Loose snow avalanches account for only a very small percentage of deaths and property damage. What we normally call avalanches are "slabs" or cohesive plates of snow. Picture a magazine sliding off the table, with the victim standing on the middle of the magazine.

Avalanches "strike without warning"

I often hear this phrase used in the popular media. Stock market crashes, meteor impacts and lost love may strike without warning, but avalanches almost always have obvious signs. Second, avalanches don't "strike". They happen at particular times and in particular places for particular reasons. I'll say it again, because it's so important: In 95 percent of all avalanche accidents, the avalanche is triggered by the victim, or someone in the victim's party. Natural avalanches occur because new or windblown snow overloads weak-layers or because of rapid warming, but there's almost always obvious signs of instability by the time avalanches come down on their own.

"If you see an avalanche coming, get out of the way"

Well, at least you can try. An average-sized dry avalanche travels around 80 mph and it's nearly impossible for someone to outrun an avalanche or even have time to get out of the way. A fast snowmobile has some chance but everyone else has a slim chance at best. Also, avalanches that descend from above kill very few people. Do I sound like a broken record here; the vast majority of avalanche incidents are triggered by the victim or someone in the victim's party.

"All the avalanche experts are dead."

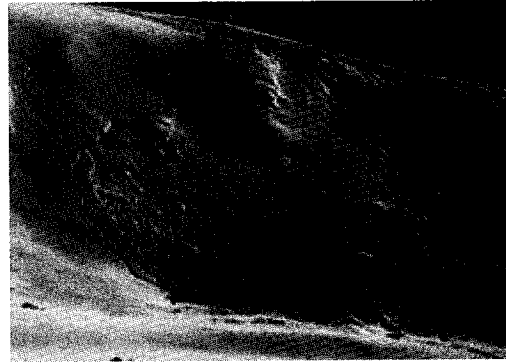
I'm happy to report just the opposite. Skilled avalanche professionals enjoy a very low avalanche fatality rate compared to other groups. Less than half of one percent of all avalanche fatalities involve avalanche professionals.

How fast do avalanches go?

Dry slab avalanches typically travel 60-80 miles per hour. They reach these speeds within about 5 seconds after they fracture. Wet avalanches usually travel much slower, around 20 miles per hour.

What kind of avalanche is most dangerous?

Dry slab avalanches account for almost all avalanche fatalities. A slab avalanche is like a dinner plate sliding off the table. A cohesive plate of snow slides as a unit on top of weaker snow. The slab shatters like a pane of glass with the victim in the middle of the slab and usually there's no escape.



What kind of weather produces avalanches?

Most of the time, slab avalanches occur because the weight of new or wind blown snow overloads the strength of the buried weak-layer. Slab avalanches are a relatively stronger layer of snow on top of a relatively weaker layer of snow. The weak layer fractures and the slab becomes the avalanche. The weak layer fractures when stress equals strength. Snow can only withstand a certain amount of stress at a certain rate. If the amount of stress is too great or the rate is too high, then the snow fractures.

Wind is the most common cause of avalanches. Wind can deposit snow 10 times faster than snow falling from storms. Wind erodes snow from the upwind side of obstacles and deposits snow on the downwind (lee sides). We call this "wind loading".



The added weight from snow storms also causes avalanches. If the weight of new snow is added faster than the buried weak-layer can adjust to its load, then it fractures and forms an avalanche.

Rapid warming or rapid melting of snow can also cause avalanches. For instance, rain on new snow almost instantly causes avalanches. Strong sun or warm temperatures can also cause rapid melting of the snow and creates wet avalanches.

But wind, snow or rapid warming do not always produce avalanches. It depends on the condition of the pre-existing snow and the conditions during the storm. With very stable snow pre-existing snow, even heavy, new snow with wind can bond well and be perfectly safe in the right conditions. Stability analysis is a complicated process and it requires much study and experience to develop good stability analysis skills.

"Who gets killed in avalanches?"



Since the 1950's avalanche victims have been almost exclusively recreationists. The demographics of recreationists, however, have changed significantly through the years. And as usual, each time a new recreational group comes along, they have to learn about avalanches the hard way:

50's and 60's...

First, it was ski areas. When their customers were killed in avalanches they had to find ways to control the avalanches with explosives. Nowadays ski areas and highway personnel do such a stellar job of avalanche forecasting and control that less than one percent of avalanche fatalities involve general public on open runs at ski areas or on highways. The avalanche teams knock the avalanches down each morning with explosives before the public arrives. Because of this, almost all avalanche deaths occur in the backcountry, or areas outside the boundaries of ski areas.

70's and 80's...

Starting in the late '60's and early '70's backcountry skiers, out-of-bounds lift skiers and climbers began to account for most of the fatalities. To combat this trend, dozens of avalanche schools have sprung up all over the country and the Forest Service has funded regional public backcountry avalanche bulletins which accurately describe the avalanche conditions for people traveling into backcountry avalanche terrain. These programs have been phenomenally popular and successful.

The late 90's...

The new kids on the block are snowmobilers and snowboarders. In the last half of the 90's the numbers have risen at an alarming rate, especially snowmobilers, to the point where snowmobilers account for nearly twice the death toll as the next recreation group. And no wonder. With recent quantum improvements in power, weight and traction, snowmobiles can go virtually any place a skier can go and they can cover 100 times the amount of terrain a skier can in a day. High performance stock machines allow virtually anyone to access dangerous avalanche terrain regardless of their physical conditioning or avalanche training.

Moreover, very few snowmobilers have even the most basic avalanche training, mostly because until recently, for the most part they didn't need any. The machines of the 1980's were only rarely capable of accessing steep avalanche terrain right after or during a storm when most avalanches occur. They used to have to wait until a few days after the storm when the snow had hardened, by which time the avalanche conditions had stabilized. But suddenly the modern

machines can negotiate nearly any kind of snow condition, no matter how deep, no matter how steep. And snowmobilers suddenly find themselves dying in avalanches at an alarming rate.

Some cultural barriers also exist between snowmobilers and established avalanche communities. Since avalanche knowledge and technology has traditionally been developed by European skiers and climbers, snowmobile dealers find themselves scrambling to obtain avalanche rescue beacons and shovels manufactured mostly in Europe by people who have never even seen a snowmobile, which are not allowed in the Alps except for judicious use at ski resorts by workers.

Avalanche educators also have to re-design their courses to accommodate snowmobilers and snowboarders. As of this writing, we have seen a huge response from both communities. They have begun to take avalanche classes and most snowmobile and snowboard dealers in the mountainous areas of North America now sell avalanche rescue equipment.

"Is there a typical avalanche victim?"

The typical avalanche victim is a recreationist male, between the ages of 18 and 35, educated and very skilled at their sport, but their avalanche skills almost invariably lag behind the skills in their sport by a wide margin. They are almost always killed in the backcountry and they, or someone in their party, almost always trigger the avalanche that kills them.

Avalanche fatality percentages by group (from 1993-98):	
Snowmobiler	35%
Climber	23%
Backcountry skier	15%
Snowboarder	10%
Miscellaneous Recreation	8%
Residents	2%
Worker	2%
Patrollers	1.7%
Motorist	.85%

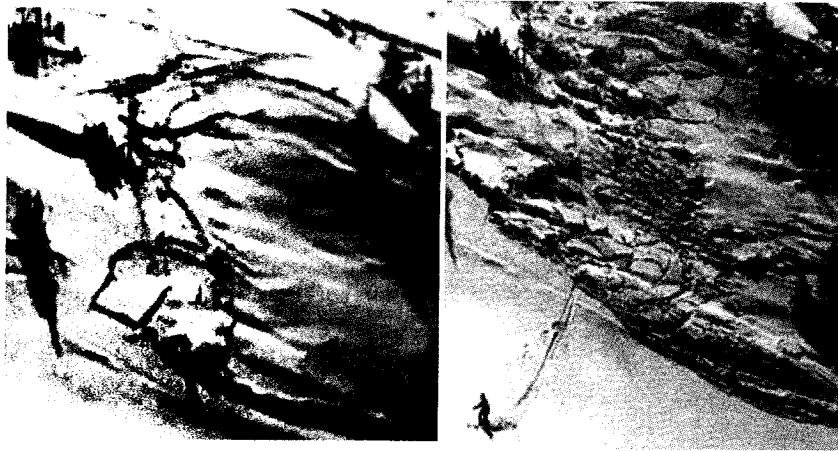
They also tend to be:

- Male (99 percent)
- Between the ages of 18 and 35
- Intelligent and educated
- Very skilled at their sport
- Skill in their sport outpaces their avalanche skills by a wide margin
- From 1994 — 1999 there were 152 total fatalities from avalanches in the U.S.

How do people get caught in avalanches?

In 95 percent of avalanche incidents, the VICTIM or someone in the victim's party triggers the avalanche.

What do I do if I get caught in an avalanche?



Your first job is to GET OFF THE SLAB, which as you might imagine, is hard to do, making it almost impossible to escape off the slab. If you're descending on skis or snowboard, try heading straight down hill to build up some speed, then angle off to the side off the moving slab. If you're ascending when the avalanche breaks, there's really not much you can do. If you're close enough to the crown, you can try running uphill to get off the slab, or running off to the side. If you're on a snowmobile you have the advantage of power. Grab some throttle and use your power to get you off the slab. If you're headed uphill, continue uphill. If you're headed across the slope, continue across to safe snow. If you're headed downhill, your only hope is to try and outrun the avalanche. Sometimes it works, but usually it doesn't.

If you can't escape off the slab, try grabbing a tree. But you have to do it very quickly because avalanches quickly pick up speed. If you can't grab a tree quickly, then your best friend suddenly turns into your worst enemy. After about 4 seconds they can easily be traveling at 40 miles per hour, and you can imagine what a tree feels like at 40 mph. (Almost a third of avalanche victims die from trauma from hitting trees and rocks on the way down.)

If you can't escape off the slab or grab a tree, then you need to swim hard. A human body is about three times as dense than avalanche debris and it tends to sink like a rock unless it's swimming hard. As the avalanche finally slows down and just before it comes to rest,

1. Try and clear an air space in front of your mouth. This helps delay the formation of an ice mask, which allows you to breathe longer under the snow.
2. Push a hand upward. Visual clues allow your friends to find you faster. You may not know which way is up, but take your best guess.
3. After the avalanche comes to a stop, the debris will instantly set up like concrete. So any actions you take must occur BEFORE it comes to a stop. Unless you are very near the surface or have a hand sticking up out of the snow, it's almost impossible to dig yourself out of an avalanche.

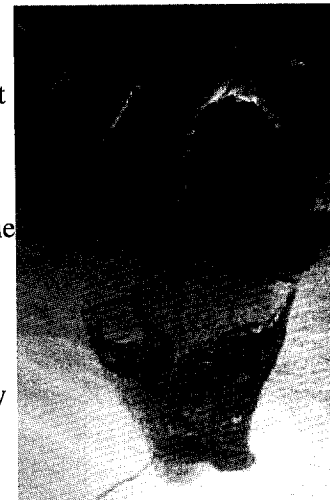
How do I judge the danger of avalanche terrain?

1. Steepness. Most avalanches occur on slopes between 35 and 45 degrees. Slopes less than 30 degrees seldom produce avalanches and slopes steeper than about 50 degrees sluff so often that they tend not to build up into slabs. So it's the intermediate slope steepness that produces most of the avalanches. But the bad news is that exactly the kind of slopes we like to ski, snowboard or snowmobile usually produce most of the avalanches. A black diamond slope at a ski resort is usually around 35 degrees--prime steepness for producing avalanches.
2. Anchors. Trees and rocks that stick up through the snowpack can help to hold the snowpack in place. But the anchors need to be quite thick to be effective. For instance a thick, mature grove of evergreen trees anchor the slab quite effectively while a sparse grove of aspen trees have very little effect.
3. Aspect with respect to wind. Recently wind-loaded, steep slopes are almost always very dangerous while recently wind-eroded slopes are usually fairly safe.
4. Aspect with respect to sun. In the Northern Hemisphere as temperate latitudes, the direction a slope faces (aspect) is very important. For instance, north facing (shady) slopes usually produce more avalanches and more persistent avalanche hazard in mid winter. On the other hand, in the spring when wet avalanches occur from strong sun, south facing slopes produce more wet avalanches. At equatorial or Arctic latitudes, the aspect with respect to the sun has very little effect.
5. Consequences. What will happen to you if the slope slides? It's very difficult to survive an avalanche if it strains you through thick trees or dumps you over a large cliff or deposits you into a crevasse or dumps you into a narrow gully (creating a very deep burial). On the other hand you have a fairly good chance of survival on a small avalanche path, without obstacles and a gentle run-out.

How do I judge snow stability?

Look for obvious clues:

- The best sign of avalanches are other avalanches. You can't get much more obvious than that. But it's surprising how often people miss this clue.
- Collapsing snow. When you hear the snowpack collapse catastrophically with a giant "whoomph", that's the sound of the snowpack screaming in your ear that it's extremely unstable. Stay off of steep slopes and stay out from underneath steep slopes.
- Cracking snow. Recent wind loading, especially, creates cracking snow. The longer the crack, the more dangerous. Stay off of steep slopes.
- Avalanche weather. Just like people, avalanches do not like RAPID changes.
 - Recent rapid loading of new or windblown snow
 - Recent rapid warming
 - Recent rapid melting
 - Rain on new snow



Active Tests:

- Use test slopes. Find a small, safe, steep slope and go jump on it to see how it responds. You can do this on a snowmobile, snowboard, on skis or on foot.
- Cornice tests. Find a refrigerator-sized cornice and tumble it down the slope. Hint: ALWAYS wear a belay rope and use a snow saw or thin avalanche cord to cut the cornice.
- Dig snow pits in representative slopes. You will need to take a reputable multi-day avalanche class to learn how to effectively do snowpit tests.

Safe Travel Techniques

- One at a time. There always needs to be someone left behind to do the rescue. Someone always needs to remain in a safe place while their friend(s) are on the dangerous part of the slope. Never put everyone on the slope at once. With large groups, split them in half and stay in visual and voice contact.
- Have an escape route planned. Always think avalanche. What will you do if the slope slides. Have a plan first.
- Use slope cuts. Keep your speed up and cut across the starting zone, so that if the slope slides, your momentum can carry you off the moving slab into safer terrain. You can do this on skis, snowboards or on snowmobiles.
- Watch out for cornices. They always break farther back than you think. Always give them a wide berth. NEVER, NEVER walk out to the edge of a drop-off without first checking it out. Many people have died this way.
- If it looks too dangerous, find a safer alternative. Use terrain to your advantage. Follow ridges, thick trees and slopes with safer consequences. You can almost always go back the way you came. The route got you there, it will most likely get you back as well.
- If there's no other choice, go underground. You can almost always weather out a bad storm or bad avalanche conditions by digging a snow cave or seeking the shelter of a crevasse. You may be uncomfortable but you will be alive.

**If you see your friend get caught in an avalanche...**

1. Watch them closely. Mentally fix the last seen area and closely watch to see where they end up. This will greatly reduce the search times if you have a good idea where to begin the search.
2. Should you go for help? NO! First, they may not need help and you would needlessly endanger the lives of rescuers. Second, they only have a precious few minutes to breathe under the snow, so every minute counts. If you go for help they most likely will not be alive when you return with a rescue team. Spend about a half hour or an hour searching before you go for help.
3. Is it safe to go in? Yes, usually it's safe. But if your friend is buried in a place with multiple avalanche starting zones looming above and it's snowing hard or blowing hard or there's rapid melting, then there's also a good chance of another avalanche coming down on top of the search area. It's a hard call. If you think it's too dangerous then it probably is. If it's too dangerous then you should go for help. It's a job for professionals.

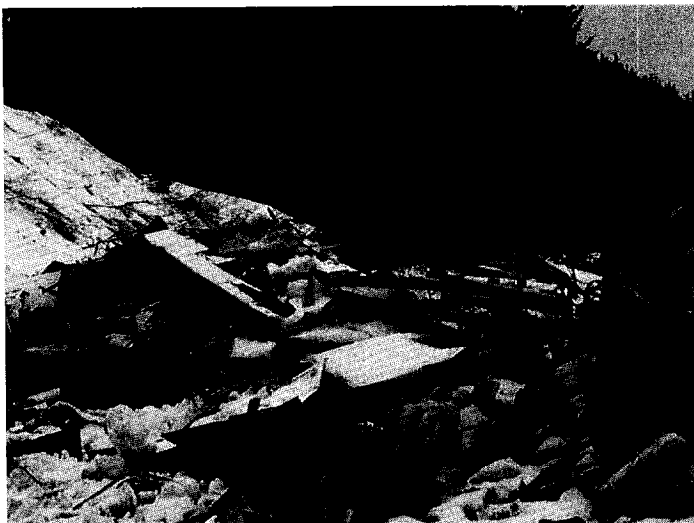
4. Find a safe route to the avalanche debris. Often you can descend down the avalanche path or come up from the bottom onto the debris.
5. If the victim is wearing a beacon, turn yours to receive and make SURE everyone in your party is turned to receive. Go fast and cover a lot of ground. Look carefully for clues, hands sticking out of the snow, snowmobiles, skis, gloves. In most snowmobile burials, the victim is usually just uphill of their snowmobile.
6. If the victim does not have a beacon then it's a needle-in-a-haystack situation. You have no choice but to look for visual clues and probe. Move quickly. Use a ski pole, collapsible probe or tree branch to randomly probe. Concentrate on debris piled above trees or on benches or any other area with debris accumulation. Probing is difficult, tiring and time consuming, so don't get discouraged. If you don't have any success in the first hour or so, then you need to think about going for help.
7. With multiple burials, go for the shallow burials first. Get them breathing but don't take the time to get them completely dug out, just keep moving and find the next victim and get them breathing, and so on. Get as many people breathing as possible before returning to treat the injured.

How long can you live buried in avalanche debris?

The good news is that even dense avalanche debris is about 60-70 percent air, and you can breathe that air--at least for a few minutes. The bad news is that your breath forms an "ice mask" over your mouth--a thin layer of ice that forms an impermeable barrier. The latest statistics show that 93 percent of avalanche victims that survive the ride are still alive after 15 minutes, but then the numbers drop catastrophically. After 45 minutes, only eight percent are still alive. In other words, you don't have much time.

Where do most avalanche fatalities occur?

Almost all avalanche fatalities occur in the "backcountry" areas outside ski area boundaries where no avalanche control is done. Ski patrollers knock down the avalanches each morning with explosives before the public arrives. They type of avalanche hazard mitigation is so successful that only a half of a percent of avalanche fatalities occur inside of ski area boundaries. Similarly, few fatalities occur on highways or in buildings. Almost all occur in the backcountry. Almost all are recreationists and in 95 percent of the fatalities, the avalanche is triggered by the victim, or someone in the victim's party.



Debris from a home destroyed by a recent avalanche in Alaska near the Copper River Highway Milepost 5

What's it like to be caught in an Avalanche?

by Bruce Tremper, Director of the Utah Avalanche Forecast Center

"Unfortunately, I know firsthand. It happened to me for the first time, I believe, in November of 1978. I was a cocky ex-ski racer, 24 years old, fresh out of college, and because I needed the money I was building chairlifts at Bridger Bowl Ski Area in Montana. In the ignorance and vigor of youth, I had naturally enough considered myself to be an avalanche expert since I had grown up in the mountains of western Montana, had spent many days skiing backcountry avalanche terrain without incident and I had read and understood the Forest Service Avalanche Handbook. In other words, I was a typical avalanche victim."

"I was skiing alone, tightening the bolts at the base of each chairlift tower with a torque wrench. Even in my relative ignorance, I could see that it was hardly a subtle situation. Over a foot of new snow had fallen the night before and it was blowing hard, loading up the steep slopes beneath the upper section of the chairlift with thick slabs of wind drifted snow."

"When I was finished with tower 14, the one at the top of the avalanche paths, I started to walk up the slope so I could gain the ridge and circle around to the tower on the other side of the avalanche paths. But since I didn't bring my backcountry skis or climbing skins, what was an easy ski down was an exhausting pig wallow back up and the cliffs were too scary to climb in my slippery plastic boots. So I couldn't help but notice that there was only a 15-foot wide couloir that separated me from the safe slopes on the other side. And naturally enough, I thought that a good skier like myself should be able to get my speed up and zip across it before anything too bad happened."

"I did my ski cut according to the book. I built my speed up and I crossed the slope at about a 45-degree angle, so that in theory, my momentum would carry me off the moving slab in case it did break on me. Since I had never been caught in an avalanche before, I had no idea how quickly the slab can pick up speed after it shatters like a pane of glass. I heard a deep, muffled thunk as it fractured. Then it was like someone pulled the rug out from under me and I instantly flopped down onto the snow losing all the speed I had built up."

"So like a startled cow, I sat there on my butt and watched soft slab instantly shatter into little blocks and the blanket of snow rocketed down the slope as if sucked downward by extra heavy gravity."

"I jumped to my feet and tried to build up my speed again so I could jet off to the side. But the blocks were moving all around me, like skiing on tumbling cardboard boxes, and nothing seemed to work. It was only two or three seconds after it broke and the avalanche, with its unintended passenger, was already moving a good 20 miles per hour. Looking downhill, I saw a line of small trees coming toward me at a frightening speed, looking from my vantage point like a line of periscopes slicing through the water toward me, like an old war movie on TV. I tried to maneuver to grab one of them. But the avalanche, as I discovered, pretty much has its way with you, and choice is one of those things you think you might have before you're caught in an avalanche, but never afterward. Luckily it took me directly into the smallest tree and I slammed it hard and grabbed on with all my strength. The snow pounded me, like standing

under a huge waterfall and it felt like my neck would snap as each block of wind slab smashed into my head. But the tree snapped off, and I quickly rocketed down the slope again."

"Then the tumbling started, over and over like being stuck in a giant washing machine filled with snow. My hat and mittens were quickly ripped off along with both my skis. Snow went everywhere, down my neck, up my sleeves, down my underwear, even under my eyelids, something I would have never imagined. Every time I took a breath, I sucked in a mixture of snow and air that instantly formed a plug in my mouth and down into my larynx. I coughed it out but the next breath just started the process all over again. Just when I needed to breathe the most, I couldn't. The irony was not lost on me, that there I was drowning to death, high in the mountains, in the middle of winter and miles from the nearest water."

"But after a long while, after I was about to pass out from lack of air, the avalanche began to slow down and the tumbling finally stopped. I was on the surface and I could breathe again. But as I bobbed along on the soft, moving blanket of snow, which had slowed from about 60 miles per hour to around 40, I discovered that my body was quite a bit denser than avalanche debris. I sank like a rock if I didn't swim hard."

"I swam hard to stay on the surface, but something was pulling one of my legs down. This was in the days before ski brakes and I had safety straps attaching my skis to my boots. One had already torn free somehow but the other one felt like a boat anchor tied to my leg. The ski was beneath me in the slower moving debris and as the surface debris moved faster, it tipped me forward, shoving my face in the snow again and I struggled hard to pull that ski up through the debris with my furious swimming. Eventually, the swimming worked, and when the avalanche finally came to a stop I found myself buried only to my waist, breathing hard, very wet and very cold."

"I remembered from the avalanche books that debris instantly sets up like concrete as soon as it comes to a stop but its one of those facts that you don't entirely believe. But sure enough, everything below the snow surface was like a body cast. Barehanded, I chipped away at the rock-hard snow with my shovel for a good 5 minutes before I could finally work my legs free. On one foot, the heelpiece of the binding hung from the safety strap with a six-inch section of the top-skin of the ski still attached to the screws. It had pulled completely off the ski. On my other foot, the ski was still intact but both the tip and the tail were broken. It has always been a mystery to me how it could have broken both skis, yet none of my bones."

"I decided that day that, no, I wasn't an avalanche expert, not even close, and that was the real beginning of my avalanche education. Within a month I landed a job on the ski patrol doing avalanche control, and I've been studying controlling, and forecasting avalanches ever since. One of these days, I may even become an expert. All I know is that it's impossible to watch all the snow on a mountainside shatter like a pane of glass and roar to the bottom at 60 mph, ripping out trees, without it changing your life, especially if you triggered the avalanche, and more especially if you rode it down and survived. Avalanches bit me in the butt and they haven't let me go yet. And I have no regrets."

CATS for Emergency Response

From ArcNews, Volume 21 No. 3 and Russ Johnson (ESRI)

With the onslaught of natural disasters that have recently struck the United States and with President Clinton asking Congress for \$2.8 billion to guard against terrorist attack, the need for real-time disaster analysis and emergency response today has never been greater.

The Science Applications International Corporation (SAIC) of Newport, Rhode Island (an ESRI business partner), has been meeting this demand with its world-class Consequences Assessment Tool Set (CATS) software, which provides powerful disaster analysis in real time with a rich set of information integrated from a number of sources.

“CATS was first used in 1993 for Hurricane Emily,” says Jay Creutz, program manager, SAIC. “At that time it was running on workstation ArcInfo with UNIX. In 1996 when ArcView GIS 3.0 was released, we were able to port CATS to the PC and ArcView GIS and that’s where it sits today.”

Today’s CATS uses ArcView GIS and ArcView Spatial Analyst as the software front end. With the new look and feel of ArcView GIS, CATS software will be used by a number of organizations in federal and local government, fire, law enforcement, and health.

CATS emergency response software combines advanced computer models, databases, and GIS software.

“If a bioterrorist attack happens, what you want to be able to do is to accurately assess the immediate risks to the



population as well as to predict the likely spread of the biologic agent, track where the attack took place, who is affected, how the attack might be spreading, and how to reduce exposure to populations as fast as possible,” says Bill Davenhall, health industry solutions manager, ESRI. “To do this, a wealth of information is needed as soon as possible, and CATS fulfills these requirements in an unprecedented manner by coupling real-time wind speed and direction data off the Web with ArcView GIS and the ArcView Spatial Analyst extension supplying powerful data integration, analysis, and visualization tools.”



Developed under the guidance of the Defense Threat Reduction Agency (DTRA) and the Federal Emergency Management Agency (FEMA), CATS is

deployable for actual emergencies with capabilities including contingency and logistical planning and consequences management.

Organizations using the software include FEMA's Mapping and Analysis Center, DTRA, the Directorate of Military Support, the FBI, the Army Corps of Engineers, U.S. Pacific Command, numerous National Guard/State EOCs, Camp Lejeune (U.S. Marine Corps), the National Ground Intelligence Center, the Pentagon, the U.S. Southern Command, and more.

integral component of the day-to-day operations of public health and public safety organizations."

CATS has already been used in many natural disaster situations, including pre- or post-disaster planning and/or responses to more than 20 hurricanes since Hurricane Emily in 1993 as well as the 1994 Los Angeles Northridge earthquake. In addition, CATS was used at the Atlanta Olympics (1996), the G8 Summit in Denver, Colorado (1997), and the presidential inauguration.

Utilizing ArcView GIS and ArcView Spatial Analyst, CATS comes with a

10Kt Nuclear Weapon on a City

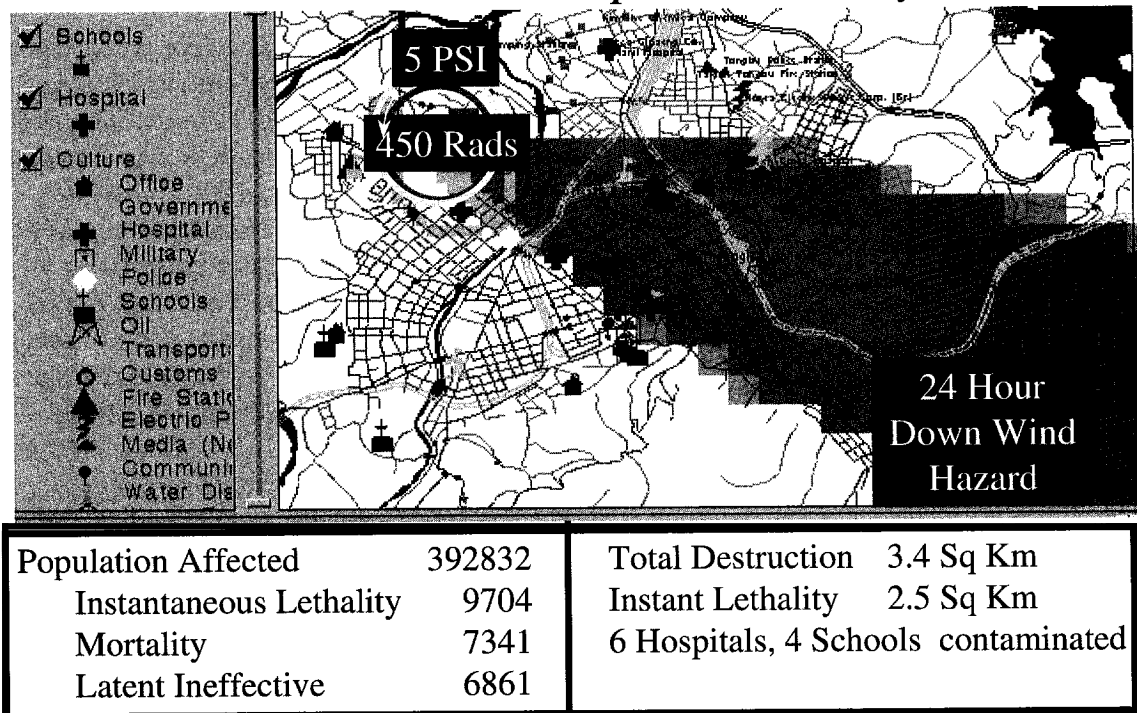


Figure 1: CATS displays the result of a 10 kiloton nuclear weapon burst

"Preparing communities to respond to bioterrorist threats or events is a top priority in our country right now," says Davenhall. "With GIS as a core component to this solution, the immediate impact will be to make GIS an

wide range of georeferenced land, demographic, and infrastructure information accessed via the Internet from a number of diverse database sources. Information on schools, hospitals, telecommunications assets, roads and highways, utility infrastructure,

*Cargo Threat Scenario:
Anthrax Spray Release from a Moving Ship*



1E+05 spores/ml (Purity=0.0001) in 90 liters are released by sprayer in three hours over a distance of approximately 17 miles. The release occurs on a Spring evening as a ship approaches Houston.

42,150 deaths in an unwarned population with no medical intervention.

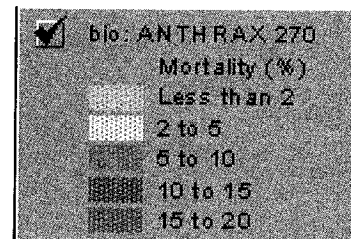


Figure 2: Example of CATS Output for Biological Attack

population information, and more is accessible with CATS.

The latest version of CATS is being well received by organizations. The Chino Fire Department will acquire the software to meet several diverse needs.

“There are many different kinds of emergencies that fire departments have to respond to,” says Kevin Smith, Chino Fire Department. “CATS allows users to model events such as explosions, toxic releases, or other emergency situations. Users can analyze how those events affect surrounding people and how to best respond to these events.”

According to Smith, this type of work, without CATS, would have been less precise and based mostly on worker experience. In cases where information

could be processed to derive the best case scenarios for mitigation, the time involved in number crunching and hand calculations would take a far greater amount of time. “Because the interface is intuitive, with just a few clicks of a mouse you have what you need,” says Smith.

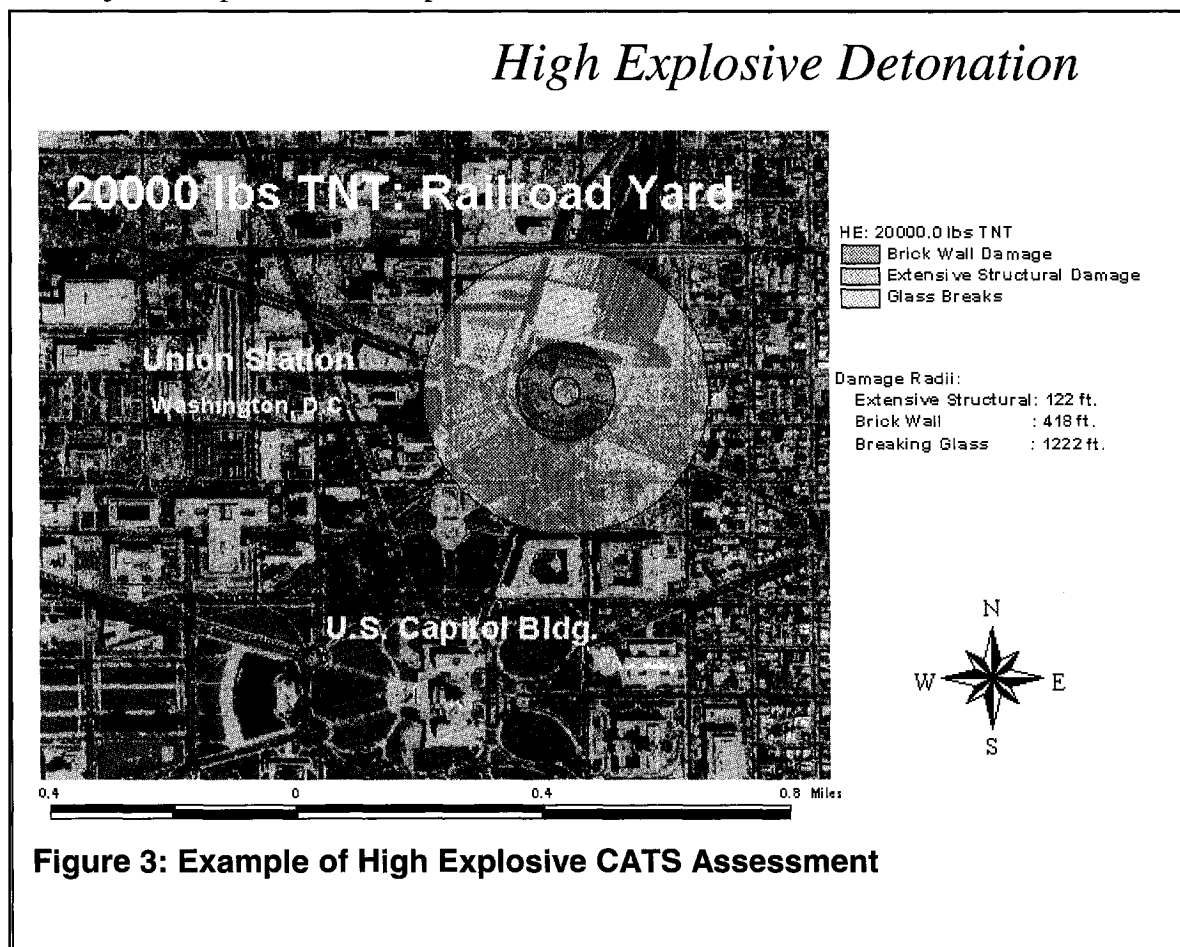
Law enforcement will use the software as well. “In many emergency response situations, you are going to have a combined governmental response,” says Lew Nelson, law enforcement solutions manager, ESRI. “With CATS, law enforcement officials can establish a perimeter to an emergency situation and then coordinate their efforts with other agencies as well.”

Police can use the software for crowd control, area closure, investigative response, and other law enforcement tasks. "The mapping element gives users the ability to use data visualization as a decision making tool and to easily share this data among cooperating agencies," Nelson says.

In addition, recent initiatives to combat bioterrorism have led to an even greater need for software like CATS. The Department of Health and Human Services, through the Center for Disease Control and Prevention, made funds available to upgrade the capacity for national public health organizations to counter bioterrorism. The CDC initiated a cooperative agreement program for state and major local public health departments

to acquire advanced technology to better prepare for and respond to bioterrorism. Fueled by Clinton's proposal that would double the spending for protection against chemical and biological weapons defense over two years, more and more public organizations will likely acquire CATS.

For more information, contact Jay Creutz, program manager, SAIC (tel.: 858-826-6022) or Bill Davenhall, ESRI health industry solutions manager (tel.: 909-793-2853, ext. 1-1714) or Lew Nelson, ESRI law enforcement solutions manager (tel.: 909-793-2853, ext. 1-1690) or Russ Johnson, ESRI public safety solutions manager (tel.: 909-793-2853, ext. 1-1836).



Flood Insurance Can Ease Recovery In Future Disasters

Courtesy of the Federal Emergency Management Agency (FEMA)

North Carolinians who have recently experienced the economic and personal disruptions of Hurricane Floyd and the 1999 floods may ease their anxiety about the next natural calamity by seeking coverage from the National Flood Insurance Program (NFIP).

Residents of more than 400, or 70%, of the state's communities are eligible to buy flood insurance, and more local governments are considering enrolling in the program as a consequence of the property destruction caused by Floyd.

Over 5,500 victims of the most recent disaster have already received \$122.2 million in NFIP claims to rebuild and repair their property. The move toward recovery would have been slower for many if they had recourse only to home loans or individual and family grants from the Federal Emergency Management Agency (FEMA).

Flood insurance is available to anyone in any community which participates in NFIP. Those communities must agree to enact and enforce floodplain ordinances which restrict and limit growth in flood-prone areas. But it is not necessary to live in the floodplain to purchase the insurance.

Flood insurance is not expensive, costing approximately \$300 for every \$100,000 of coverage depending on the hazard area; and it may be purchased through a person's regular insurance agent.

Federal Coordinating Officer Carlos Mitchell encourages homeowners and renters to buy flood insurance.

"Insurance provides a real safety net for all natural disasters, large and small," he said. "If you suffer flood damages, you won't have to wait for the President to declare your county a disaster area, and you won't need to be dependent on federal/state assistance programs. You merely file your insurance claim and get on with your recovery."

People living in North Carolina's 66 disaster-declared counties, whether they have flood insurance or not, still have until February 17 to register for disaster assistance. Call FEMA's recovery Hotline at 1-800-462-9029 or TTY 1-800-462-7585. Lines are open from 8 a.m. to 6 p.m. Monday through Saturday.

North Carolina Flood Recovery at \$948 Million as State Digs Out of Record Snow

Courtesy of the Federal Emergency Management Agency (FEMA)

As North Carolina began to emerge from its worst snowstorm in history, people who suffered losses in the tragic hurricanes and floods of 1999 were still applying for and receiving assistance.

Figures released from FEMA summed up federal and state recovery assistance for Hurricanes Floyd and Irene at \$948 million.

Nearly 83,000 people have registered for flood assistance since the FEMA recovery Hotline began taking calls in September. The lines are still open at 1-800-462-9029 or TTY 1-800-462-7585 from 8 a.m. to 6 p.m., Monday through Saturday. The deadline for registration is February 17.

The latest totals for federal/state assistance:

- Small Business Administration (SBA) home loans: \$277 million
- SBA business real property and economic loss loans: \$122.7 million
- Disaster housing assistance: \$70.8 million
- Individual and family grants: \$75.2 million
- Missions assigned by FEMA to other federal and state agencies tasked to help in recovery operations: \$30 million
- Money approved for local governments and eligible private, nonprofit agencies for repair and restoration of public facilities and other disaster expenses: \$211 million
- National Flood Insurance Programs approved: \$122.7 million
- Crisis counseling: \$868,000
- Disaster unemployment assistance: \$4.5 million
- Site preparation and purchase of mobile homes: \$33.2

Tax Time May Bring Relief ? !

Income tax time may turn into a limited blessing for North Carolina flood victims, who need all the help they can get to recover from the Hurricanes Dennis, Floyd and Irene.

People suffering casualty losses in a federally-declared disaster area, such as the 66 North Carolina counties so designated following last year's storms, may receive assistance from the Internal Revenue Service (IRS) in the form of free income tax information and tax return preparation. And they may deduct casualty losses, defined as damage, destruction, or loss of property resulting from a catastrophic event, on the federal income tax return for the year in which the casualty actually occurred or on the return for the preceding tax period.

Taxpayer/disaster victims may amend their 1998 returns, filed in April 1999, to reflect all or part of their losses, or they may include the losses in the 1999 returns to be filed this year.

Deductible items include homes and personal property, such as furnishings, appliances, vehicles, and clothing. Claiming casualty losses can provide money for rebuilding or replacing damaged goods. The IRS recommends writing "HURRICANE FLOYD" on any return, amendment or other correspondence relating to this relief.

FEMA's inspectors' inventories serve to document losses and may be attached to your tax form in lieu of making a new list.

To receive Form 4684, the Casualties and Thefts Form and instructions or for more information, taxpayers are urged to call the IRS at 1-800-829-1040 or visit these offices in or near the disaster areas.

Guard soldiers help East Coast dig out from blizzard

by Master Sgt. Bob Haskell – Army News Service

WASHINGTON -- Seven states and the District of Columbia called out more than 1,000 National Guard troops ... when a nor'easter ambushed the East Coast with up to 20 inches of snow, freezing temperatures and drifting winds.

Guard troops from Alabama to New York helped transport police and medical personnel, evacuated patients from hospitals, helped clear roads and rigged up generators to provide emergency electrical power.

North Carolina, where hurricanes are far more common than blizzards, had 566 Guardsmen on duty clearing streets and rescuing stranded motorists after Gov. Jim Hunt declared a state of emergency.

"My Humvee has gone everywhere I have put it, through two and a half feet of snow that was crusted with ice just this morning. It just keeps on going," marveled Master Sgt. Tommy Coats who had been driving for 13 hours.

Citizen-soldiers and airmen were also on duty in Alabama, South Carolina, Virginia, Maryland, New Jersey and New York, according to reports from the Army National Guard's Readiness Center in Arlington, Va.

North Carolina Guard soldiers were operating 122 Humvees as well as cargo and dump trucks, reported Col. Baron Hignite, a spokesman for the state's adjutant general.

The fourth and most severe winter storm within a week buried Montgomery County with two feet of snow and covered the Raleigh-Durham International Airport with a record 18.2 inches.

"We are seeing hurricane-like damage," reported a Carolina Power & Light Company official, who witnessed plenty of property loss from back-to-back hurricanes last fall.

National Guard troops transported critical-care patients from Johnston County Memorial Hospital to Duke Medical Center and set up a shelter at the Henderson Armory.

Two-member teams of military police were deployed to assist the state highway patrol in Vance, Richmond and Montgomery counties, and others were dispatched to Wake and Durham counties. Highway patrol officers rode with Humvee drivers in some cases, Hignite said.

Guardsmen found the Humvees, nicknamed "camouflaged taxis," were the best way to get around, because the big, wide tires will carry them through snow and just about anywhere they need to go.

Guard officials were also expecting more requests for power generators, transportation and public shelters.

Nearly 100 District of Columbia troops were put on storm duty, said Lt. Col. Phyllis Phipps-Barnes, and 18 of those were sent in their Humvees to drive Metropolitan Police officers around the nation's capital. Troops also stood by to carry medical personnel from their homes to work.

New Jersey Guard members evacuated elderly residents from the Shady Nursing Home outside Atlantic City because wind-blown tidal water flooded the facility, said Col. John Dwyer.

Humvees may have become the Guard's indispensable means of getting over unplowed roads, but the old quarter-ton Jeeps were not forgotten.

Dwyer, the New Jersey Guard's public affairs spokesman, said he could not drive his four-wheel-drive commercial vehicle the 42 miles through a foot of snow from his Clinton home to his Trenton office. So he fired up the Army Jeep that he has purchased and restored and charged to work through the storm.

"Those old quarter-tons will still get you there," he remarked.

(Editor's note: Master Sgt. Bob Haskell is a staff member of the National Guard Bureau Public Affairs Office.)

Blizzard of 2000

Provided by the Federal Emergency Management Agency (FEMA)

Washington (January 27, 2000) -- State officials in North Carolina, Virginia, Washington, DC and Maryland declared states of emergency due to a Nor'easter that moved up the East Coast. The National Weather Service reports more than two feet of snow fell over areas of North Carolina and more than a foot of snow over parts of Virginia north to New England.

The same storm system earlier affected the southeast US, prompting the governors of Alabama and Georgia to issue states of emergency.

The storm, now being called the Blizzard of 2000, closed airports, schools, local governments and the Federal government in Washington, DC. It also halted traffic and knocked out power along the Eastern Seaboard.

However, hardest hit was North Carolina. The Blizzard of 2000 was one of the most powerful winter storms to hit the state in 72 years.

FEMA's regional office in Atlanta (Region IV) has activated its Emergency Response Operations Cell in Thomasville, Ga. Regional officials have contacted all states in the region and report:

North Carolina

- North Carolina was hardest hit state. More than 25 inches of snow and icy conditions are reported across western and central portions of the state, prompting the governor to declare a state of emergency.
- One state meteorologist considered the storm to be a one hundred-year event. There have been no reports of fatalities or injuries associated with the storm to date. Heavy snow downed trees and power lines.
- At the height of the storm more than 399,000 North Carolina customers were without power. As of yesterday, there were still 163,000 customers without power; most of these are located in the Sandhills region in towns such as Southern Pines, Aberdeen, Rockingham and Troy. Power crews continue working to restore the power.
- The American Red Cross (ARC) opened 13 shelters to house residents without power and stranded motorists. Five of the shelters have closed and the ARC is currently operating eight shelters, housing approximately 160 people. Two non-ARC shelters are open housing about 200 people.
- Schools are closed across affected areas. Numerous travelers have been stranded on the highways and about 350 National Guard personnel have been assisting in rescue operations, as well as providing power generation at critical facilities.
- The Raleigh-Durham International Airport was closed yesterday and crews were trying to clear runways in anticipation of opening the airport this morning.
- The State Emergency Operations Center (EOC) was activated on Monday and continues to operate 24

hours/day. State officials are reporting all state counties have been affected by this. FEMA's regional office in Atlanta (Region IV) and its Thomasville Emergency Operations Cell remains in contact with the state and is prepared to deploy personnel if requested.

South Carolina

- South Carolina was experienced snow and icy road conditions. No state of emergency was declared, but an executive order was issued to authorize the use of National Guard assets and personnel and other State agencies as necessary. Three traffic fatalities in South Carolina have been attributed to the storm.
- At the height of the storm, there were nine shelters open, housing about 76 people. Seven of these shelters have closed and as of this morning, the ARC is operating two shelters.
- As of Tuesday, there were more than 130,000 customers without power with most of these in Richland County. Other South Carolina counties affected include Lancaster, Anderson, Aiken, Cherokee, Chester, Chesterfield, Darlington, Greenville, Greenwood, Laurens, Lee, Sumter, Union and Williamsburg.

Georgia

- On Sunday, the storm hit Georgia, knocking out power to numerous residents. As of Wednesday, more than 10,000 customers were without power. Telephone crews are addressing scattered outages and debris removal operations are continuing.

- The governor declared a state of emergency and the State EOC was activated. State officials conducted preliminary damage assessments yesterday in 15 counties. As a result, officials indicated they would request a federal emergency.

Alabama

- Alabama was also affected by the storm on Sunday. Numerous power outages were reported across the state. The governor declared a state of emergency on Sunday and the State EOC was activated.

The FEMA regional office in Philadelphia (Region III) has been in contact with the impacted states in the region. Maryland, Virginia and Washington, DC, received more than a foot of snow across portions of coastal areas with lesser amounts of six to 10 inches reported over inland areas.

There have been no reports of injuries or fatalities to date. The region reports only minor power outages.

The snow did force government and school closures across the area and made travel conditions dangerous for two days. Most roads have been cleared or are considered passable in Maryland, Virginia and Washington, DC and all airports are reported open.

The governors of Maryland and Virginia and the mayor of Washington, DC all declared states of emergency and activated their EOCs.

Fighting Back Against The Cold

Courtesy of FEMA

Bone-chilling, record-breaking cold weather hit many parts of the U.S. in the first blast of winter for the New Year. Remember that dressing in layers is important when the temperatures drop. Experts recommend wearing several layers of loose-fitting, lightweight, warm clothing rather than one layer of heavy clothing. Outer garments should be tightly woven and water-repellent.

Mittens are warmer than gloves and wear a hat. It's also recommended that you cover your mouth with a scarf to protect your lungs from extremely cold air. Wear sturdy, waterproof boots in snow or flooding conditions. And remember that if you lose your power and are using kerosene heaters make sure you maintain ventilation to avoid a build-up of toxic fumes. Keep heaters at least three feet from flammable objects and refuel kerosene heaters outside.

Driving is also more dangerous when the weather turns cold. Make sure you have the correct supplies in your family car. In your trunk, you should have extra blankets, warm clothing, booster cables and tools, bottled water, canned fruits and nuts, a first aid kit, fire extinguisher, flashlight and batteries, traction mats or chains, a shovel and ice scrapers. It's also a good idea to have a colorful scarf or piece of bright cloth to tie to your radio antennae to signal that you need help.

If you are caught in a storm or blizzard and your car becomes stuck, it is important to stay in the car and await rescue. Only leave the car and walk for

help if you can see a definite safe-haven - like a house or a school - within a reasonable distance. When you are waiting in your car, turn on the engine for brief periods to provide heat, but always leave a down-wind window open slightly to avoid deadly carbon monoxide poisoning. Also, make sure the exhaust pipe is clear of snow. Leave the dome light on at night to signal rescuers, and exercise occasionally by clapping hands or moving around.

WINTER DRIVING

The leading cause of death during winter storms is transportation accidents. Preparing your vehicle for the winter season and knowing how to react if stranded or lost on the road are the keys to safe winter driving.

BEFORE

Have a mechanic check the following items on your car.

- Battery
- Antifreeze
- Wipers and windshield washer fluid
- Ignition system
- Thermostat
- Lights
- Flashing hazard lights
- Exhaust system
- Heater
- Brakes
- Defroster
- Oil level (if necessary, replace existing oil with a winter grade oil)

or the SAE 10w/30 weight variety)

Install good winter tires.

Make sure the tires have adequate tread. All-weather radials are usually adequate for most winter conditions. However, some jurisdictions require that to drive on their roads, vehicles must be equipped with chains or snow tires with studs.

Keep a windshield scraper and small broom for ice and snow removal.

Maintain at least a half tank of gas during the winter season.

Plan long trips carefully.

Listen to the radio or call the state highway patrol for the latest road conditions. Always travel during daylight and, if possible, take at least one other person.

If you must go out during a winter storm, use public transportation.

Dress warmly.

Wear layers of loose-fitting, layered, lightweight clothing.

Carry food and water.

Store a supply of high energy "munchies" and several bottles of water.

Contact your local emergency management office or American Red Cross chapter for more information on winter driving.

Winter Car Kit

Keep these items in your car:

- Flashlights with extra batteries
- First aid kit with pocket knife
- Necessary medications

- Several blankets
- Sleeping bags
- Extra newspapers for insulation
- Plastic bags (for sanitation)
- Matches
- Extra set of mittens, socks, and a wool cap
- Rain gear and extra clothes
- Small sack of sand for generating traction under wheels
- Small shovel
- Small tools (pliers, wrench, screwdriver)
- Booster cables
- Set of tire chains or traction mats
- Cards, games, and puzzles
- Brightly colored cloth to use as a flag
- Canned fruit and nuts
- Nonelectric can opener
- Bottled water

DURING

IF TRAPPED IN CAR DURING A BLIZZARD

Stay in the car.

Do not leave the car to search for assistance unless help is visible within 100 yards. You may become disoriented and lost in blowing and drifting snow.

Display a trouble sign.

Hang a brightly colored cloth on the radio antenna and raise the hood.

Occasionally run engine to keep warm.

Turn on the car's engine for about 10 minutes each hour. Run the heater when the car is running. Also, turn on the car's dome light when the car is running.

Beware of carbon monoxide poisoning.

Keep the exhaust pipe clear of snow, and

open a downwind window slightly for ventilation.

Watch for signs of frostbite and hypothermia.

Do minor exercises to keep up circulation.

Clap hands and move arms and legs occasionally. Try not to stay in one position for too long. If more than one person is in the car, take turns sleeping.

For warmth, huddle together.

Use newspapers, maps, and even the removable car mats for added insulation.

Avoid overexertion.

Cold weather puts an added strain on the heart. Unaccustomed exercise such as shoveling snow or pushing a car can bring on a heart attack or make other medical conditions worse. Be aware of symptoms of dehydration.

Wind Chill

"Wind chill" is a calculation of how cold it feels outside when the effects of temperature and wind speed are combined. A strong wind combined with a temperature of just below freezing can have the same effect as a still air temperature about 35 degrees colder.

Winter Storm Watches and Warnings

A winter storm watch indicates that severe winter weather may affect your area. A winter storm warning indicates that severe winter weather conditions are definitely on the way.

A blizzard warning means that large amounts of falling or blowing snow and sustained winds of at least 35 miles per hour are expected for several hours.

Frostbite and Hypothermia

Frostbite is a severe reaction to cold exposure that can permanently damage its victims. A loss of feeling and a white or pale appearance in fingers, toes, or nose and ear lobes are symptoms of frostbite.

Hypothermia is a condition brought on when the body temperature drops to less than 90 degrees Fahrenheit. Symptoms of hypothermia include uncontrollable shivering, slow speech, memory lapses, frequent stumbling, drowsiness, and exhaustion.

If frostbite or hypothermia is suspected, begin warming the person slowly and seek immediate medical assistance. Warm the person's trunk first. Use your own body heat to help. Arms and legs should be warmed last because stimulation of the limbs can drive cold blood toward the heart and lead to heart failure.

Put person in dry clothing and wrap their entire body in a blanket.

Never give a frostbite or hypothermia victim something with caffeine in it (like coffee or tea) or alcohol. Caffeine, a stimulant, can cause the heart to beat faster and hasten the effects the cold has on the body. Alcohol, a depressant, can slow the heart and also hasten the ill effects of cold body temperatures.

Former Soviets' Bio-War Expert Details Threat

*By Linda D. Kozaryn
American Forces Press Service*

WASHINGTON -- Anthrax, plague, smallpox -- the former Soviet Union had them all and was fully prepared to use them, a one-time leader of a secret Soviet biological weapons program told Congress recently.

Dr. Ken Alibek, former deputy director of Biopreparat, the civilian arm of the former Soviets' biological weapons program, appeared in October before a joint meeting of the House subcommittees on military procurement and military research and development. Alibek moved to the United States in 1992 and has since written a book, "Biohazard: The Chilling True Story of the Largest Covert Biological Weapons Program in the World."

Representatives called on Alibek, DoD and other civilian and military experts to clarify the capabilities of chemical and biological weapons. They also wanted perspectives on the threat the weapons pose to the United States and U.S. forces, especially if used by terrorists or rogue nations.

Following Alibek's testimony, DoD officials briefed committee members on the department's ongoing efforts to counter the threat. Since the Gulf War, DoD has beefed up funding to accelerate fielding detection equipment and to develop improved defenses.

Alibek told committee members the Soviets launched their biological weapons program in 1928 and by the late 1980s had "the most powerful and sophisticated program of biological weapons in the world." Biopreparat, the defense and health ministries and even the KGB were developing biological agents that could

destroy people, livestock, agricultural crops, equipment and fuel, he said.

Alibek said the Soviet Union established a huge production capability to manufacture biological weapons, and Russia still has four top-secret production facilities. One facility is capable of producing 1,000 tons of anthrax a year; another can make 50 tons a year, he said. Other facilities can produce hundreds of tons of plague and other biological agents such as tularemia and glanders obgrislosis, he added.

Alibek said Soviet military doctrine included the use of smallpox and plague as strategic biological weapons and anthrax, Q-fever and Marburg infection as operational ones. The Soviets were also developing delivery systems such as medium-range bombers with spray tanks, cluster bombs and missiles; and strategic bombers and ballistic missiles with single or multiple warheads.

According to Soviet military doctrine, Alibek said, biological weapons would have been used in massive amounts to significantly destroy any military resistance during war. The KGB also had a sophisticated program to develop biological weapons for assassination, he added.

He asserted the Soviets used biological weapons against German troops during World War II and in Afghanistan in 1982. Anyone who doubts the effectiveness of these weapons is wrong, he stressed -- a small, accidental outbreak of anthrax in the city of Sverdlovsk in 1979 killed hundreds.

"We still don't know how many people were killed, but we know that this biological weapon unfortunately ... worked perfectly," Alibek said.

With the Cold War's end, Russia downsized its biological weapons program and ordered its stockpiles destroyed, Alibek said. He believes only about 10 to 20 percent of the former Soviet capability remains today, "but believe me, it's enough to develop sophisticated biological weapons," he said.

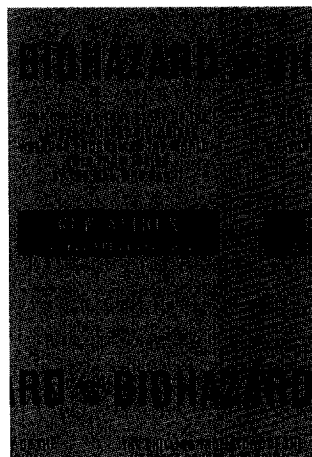
Proliferation of Russian knowledge and expertise in this field is evident as Russia continues publishing research and development work conducted in the 1980s and 1990s, Alibek said. He said he's convinced that the knowledge has spread to many countries and terrorist organizations.

Many publications produced in the last seven years contain instructions on how to manufacture biological agents, Alibek said. Two or three years ago, he said, he found a flyer offering new techniques to genetically alter tularemia bacteria for increased lethality. Rogue nations can get this information for "the cost of a translator," he said.

Up to 70,000 scientists were involved in Soviet Cold War biological weapons research, development and manufacturing, Alibek said. Some moved to the United States and other Western nations when the Soviet Union collapsed, but others went to Iraq, Iran and other countries and may be proliferating biological weapons.

"A lot of Russian scientists are now underpaid or they have no pay," he said. "It's quite attractive for some of them [if] they got good offers to start working for somebody else."

Alibek noted that while the Soviet Union had about 2,000 scientists developing offensive anthrax weapons and defenses, the United States today has only about a dozen scientists working on developing medical defenses against biological weapons. He stressed the need to develop prevention, pretreatment and treatment techniques as well as new detection systems.



TACDA Book Recommendation

Biohazard provides very sobering details about historical Russian programs for biological warfare. Alibek, who at one time oversaw much of the Soviet Union's biological weapons program, describes such things as how a single ICBM tipped with anthrax bomblets "could wipe out the population of a city as large as New York." This book is available from many sources and sells for \$18.17 at Amazon.com, hardcover, 319 pages (see www.amazon.com to order). **Ω JCD**

DoD Works to Counter Chemical-Biological Threats

*By Linda D. Kozaryn
American Forces Press Service*

WASHINGTON -- When silent, invisible toxins fill the air, service members will need to know, and they must be protected, defense officials recently told Congress.

"You have to know that you're under attack and you have to know what you have to do to respond to that," Hans Mark, director of Defense Research and Engineering, told House representatives in late October. Mark and several other civilian officials and military leaders appeared before a joint meeting of the House subcommittees on military procurement and military research and development.

Mark appeared with Army Maj. Gen. John Doesburg, commander, U.S. Army Biological and Chemical Defense Command; Rear Adm. James D. McArthur Jr., deputy director for Joint Staff strategy and policy (J-5); and Rear Adm. Richard A. Mayo, deputy director for Joint Staff medical readiness (J-4).

Effective defense against chemical and biological attack will take more than individual protective suits and masks, the DoD officials said. They pointed to improved detection equipment being developed to protect fielded forces as well as ships and ports, aircraft and airfields.

The three flag officers submitted written testimony stating that the fiscal 1998 budget plus-up of nearly a billion dollars accelerated the procurement and fielding of critical protective equipment. They said developing and fielding biological detection and identification capabilities is one of the most important requirements of the unified commands.

In mid-October, they noted, the Army activated a second biological detection unit, thereby doubling the Army's capability from a few years ago. "These two biological detection companies, coupled with the continued fielding of the Portal Shield fixed-site biological detection systems and the Navy's Interim Biological Agent Detector Systems, greatly enhance our ability to defend our forces from a biological attack," they stated.

The U.S. Army Chemical School, supported by the Joint Staff, is developing revised joint doctrine for operations in nuclear, biological and chemical environments, the three said. The doctrine will cover fundamentals of nuclear, biological and chemical defense, force protection measures, rear area decontamination, logistical and medical support and other areas. They said they expect the revised doctrine to be published early next year.

Earlier this year, the Joint Staff initiated a health surveillance and readiness policy to monitor and track potential health issues in areas where U.S. troops deploy. The policy links individual health records with environmental and occupational health assessments to identify hazards at the earliest possible moment.

The military's mandatory anthrax vaccination program, along with protective suits and masks, collective protection systems and decontaminants will help ensure U.S. forces can survive and continue to operate should an adversary use these weapons, the chiefs stated.

Mark then testified on DoD's research efforts, noting that detection is the first priority of DoD's Chemical Biological Defense program, followed by protection and immunization.

Today's detection, Mark stated in written testimony, is limited to point detection for fielded forces, key air fields, sea ports, logistics staging areas and standoff detection of aerosols. The program is focused on fielding improved early warning and point detection with better sensitivity and improved agent identification.

The chemical detection program is focused on fielding improved point and stand-off detection systems to provide full coverage for service members, ships and aircraft, he said. Defense officials aim to provide more reliable, sensitive, equipment with more agent detection capability. Future improvements will include detection of low-levels of chemical agents, detection of a larger number of chemicals, and reduced size and weight to allow for a greater variety of applications.

The military's current reporting and warning system is limited to manual systems with no integration into existing command, control and communication systems, Mark stated. There is limited battlefield awareness software for timely, accurate incident display. DoD has

launched an innovative program to provided digitized and automated warning and reporting capabilities, he stated.

Mark noted that one of the military's most significant improvements since Operation Desert Storm in 1991 was the fielding of improved individual protective clothing that reduces heat and mobility burdens on the warfighter. "Future protective clothing ensembles will provide lighter weight and more durable and launderable clothing that ultimately can be integrated into the standard duty uniform to provide continuous protection," he stated.

On immunization, Mark told committee members, anthrax is the most likely weapon to be used and the vaccine works. "We have been immunizing people for 150 years," he said. "We know that it works. There are side effects. They can be dealt with."



U.S. Air Force Flight Surgeon Maj. Timothy Ballard (right) administers the final shot in the six-dose series of anthrax inoculations to Secretary of Defense William S. Cohen (left) as Chairman of the Joint Chiefs of Staff Gen. Henry Shelton (center), U.S. Army, waits his turn in the Pentagon on Sept. 24, 1999. Following this shot, a once-a-year booster is all that will be required to maintain resistance to anthrax. Ballard is attached to the 11th Medical Group. DoD photo by R. D. Ward.

Guard Teams to Combat Weapons of Mass Destruction

*By Jim Garamone
American Forces Press Service*

WASHINGTON -- DoD announced plans Jan. 13 to form 17 more Weapons of Mass Destruction Civil Support Teams, bringing the total nationwide to 27.

The teams, originally called Rapid Assessment and Detection teams, would deploy and assist civil first responders in the event of a weapons of mass destruction incident, said Charles Cragin, principal deputy assistant secretary of defense for reserve affairs.

The federal government will train, equip and develop doctrine for the teams, Cragin said. The teams will always work in support of civilian agencies and unless federalized will remain under the control of the governors of the host state.

The new teams will be based in Alaska, Arizona, Arkansas, California, Florida, Hawaii, Idaho, Iowa, Kentucky, Louisiana, Maine, Minnesota, New Mexico, Ohio, Oklahoma, South Carolina and Virginia. They will come on line in 2001 between March and July.

The first 10 designated teams are completing training and are scheduled to come on line in April 2000 in Colorado, Georgia, Illinois, California, Massachusetts, Missouri, New York, Pennsylvania, Texas and Washington.

The teams "work collaboratively with local and state first providers," Cragin said. "The teams consist of 22 full-time members of the Army or Air National Guard. The personnel selected for these

additional teams will undergo 15 months of rigorous individual and unit training and then will be evaluated for operational certification."

This is the second phase of an initiative started in fiscal 1998. "[Defense Secretary William Cohen] was apprised by first responders in many communities that one bit of expertise they needed was the technical expertise to identify and assess particular chemical or biological agents that may be the instrument of a terrorist attack," Cragin said. These teams give local officials that capability.

The units have two major pieces of equipment: a mobile analytical lab and a mobile communications facility. The first allows the teams to identify chemical and biological agents in the field. The second allows the team to coordinate communications among the first responders and all other areas.

"If they need information from a medical laboratory, they can connect from the van," Cragin said. The team's communications capability also allows all local, state and federal authorities to speak to each other.

While the 27 teams will be based in 26 states -- California will have two teams-- local agreements will allow the teams to work across state lines. So, for example, the New York team could answer a call in Connecticut and the Illinois team could work in Wisconsin.

Missile Defense Would Counter Nuclear Blackmail

*By Jim Garamone
American Forces Press Service*

MUNICH, Germany, Feb. 7, 2000 -- The National Missile Defense program would allow the United States to defend against rogue states threatening international blackmail, Defense Secretary William S. Cohen said here Feb. 5.

Cohen, speaking at an international defense conference, said the United States doesn't want to be in a position where a rogue nation or group might threaten Western cities.

Cohen postulated what would have happened to Kuwait and Saudi Arabia had Saddam Hussein had a limited number of ICBMs. He could have threatened to launch those missiles if the allied coalition tried to move against him.

"[If Hussein had said] 'If you try to expel me from Kuwait, I'll put one in Berlin, one in Munich, one in New York, Washington, Rome, Los Angeles, etc.,'" Cohen said. "How many [countries] would have been quite so eager to support deployment of some 500,000 troops to expel him from Kuwait?" A limited national missile defense would allow the United States to resist that type of blackmail, he said.

Cohen said the threats of limited attacks by rogue nations or terrorist groups are growing. He listed North Korea, Iraq, Iran and Libya as countries actively seeking missile technology. "We know that Iraq, in fact, came very close to having an intercontinental missile capability, and we know for a fact that

they have developed chemical and biological agents to be deployed in their warheads," he said.

North Korea has tested a multistage rocket and Iran, with the help of other countries, is developing longer-range missiles with "chemical, biological and, if possible, nuclear [capability]."

A limited missile defense would not be effective against a massive assault, Cohen said. Rather, it would defend against a small number of missiles directed at North America. President Clinton has not decided to deploy such a system. Factors affecting his decision include the question, is there a threat? Cohen said yes.

Another factor is whether the United States can build such a system. "We are rapidly developing the technology, and we believe that we will satisfy that requirement," he said. A test of the system is planned for April, and the president will use those results in any decision he makes.

Cost is another factor. The DoD budget request has \$10.4 billion included through fiscal 2005 for the program. If approved, the budget would allow DoD to upgrade early warning facilities, build a radar complex in Alaska, and provide 100 ground-based interceptors and fund additional testing.

Finally, the president will consider the concerns of Russia, China and the European allies, Cohen said. A Russian representative at the conference said the

target of the U.S. missile defense system was Russia and China.

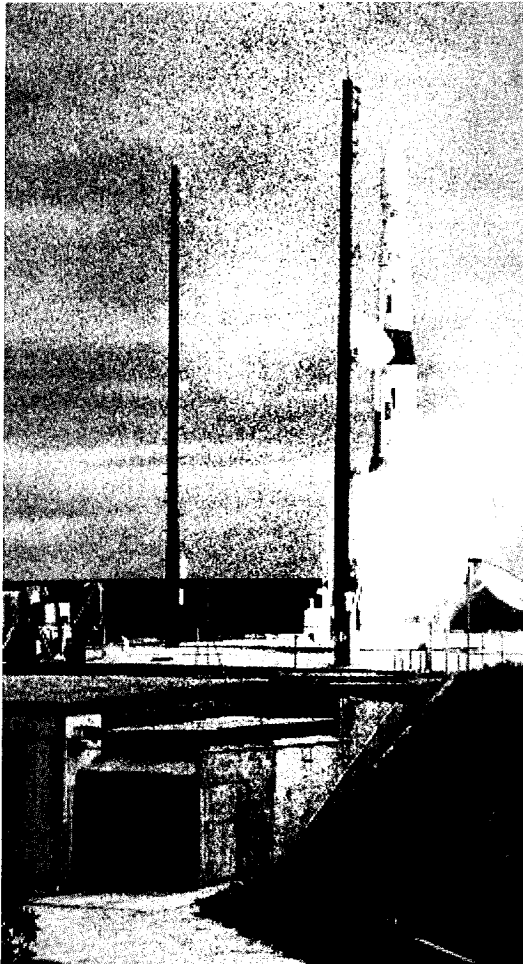
"Nothing could be farther from the truth," Cohen said in response. "Our goal is not in anyway to diminish your strategic capability, which is vast, but rather to protect us against those whom we have less confidence in."

Wang Guangya, vice foreign minister of the Peoples' Republic of China, said during a presentation to the conference that the U.S. would threaten stability if it built the system. The Chinese see any National Missile Defense system as breaking the Anti-ballistic Missile Treaty the United States and Russia

signed in the 1970s.

"The objective of disarmament is to enhance security, but true security has to be based on common security of all countries," Wang said. He said building the missile defense system would upset the strategic balance and "may even trigger a new round of arms race. For this, the international community cannot but express deep apprehension."

Cohen said national missile defense has strong bipartisan support in Congress. He asked conferees to examine the threat and to keep an open mind about the system.



Left: A payload launch vehicle carrying a prototype interceptor is launched from Meck Island in the Kwajalein Missile Range on Jan. 18, 2000, for a planned intercept of a ballistic missile target over the central Pacific Ocean. The target vehicle, a modified Minuteman intercontinental ballistic missile, was launched from Vandenberg Air Force Base, Calif., at 6:19 p.m., PST, and the vehicle carrying the prototype interceptor was launched about 20 minutes later. The intercept was not achieved. The test was performed by the Ballistic Missile Defense Organization's National Missile Defense Joint Program Office. Defense and industry program officials will conduct an extensive review of the test results to determine the reason for not achieving an intercept. DoD photo. (Released)

TACDA Store Catalog



Special offers and fund-raisers

1 Year Healthy Food Supplies	Pg 46	Water Barrels, Pails, etc.	see web
1 Year Value Food Supplies	Pg 47	Aquarain Water Purifiers	see web
4-Month Healthy Food Supply	Pg 48	Potassium Iodate Tablets	see web
3-Month Deluxe Food Supply (RR)	Pg 48	Direct Reading Dosimeters	see web
Please see www.tacda.org for following items:		TACDA Library Books	see web
Sun Ovens	see web	METTAG Triage Tags	(inside front cover)
Aquaflex Water Bags	see web	Quick2 Gas Mask	(inside back cover)

Please visit our more complete on-line store catalog at: www.tacda.org

1 - 2 Year & 4-Month Food Supplies from YRT!!

These food supply fundraising offers are currently shipping within 6 weeks or less. These supplies provide many options for high quality food at low prices. All current members of TACDA can deduct \$25 from the cost of each of these food offers. If you are not a current member but decide to become one, you can purchase these food supplies at the prices shown below, in addition to having a year long TACDA membership, which provides a 1-year subscription to the Journal of Civil Defense as well as future discounts on other purchases from the TACDA Store.

Stock #	Product Description *	Freight & Delivery Times	Member Cost (Less Shipping) *
YRT-1 (see full description below)	<u>One-Year Healthy Food Supply</u> (requires grain mill)	520 Lb. in 120 cans (20 cases), 3 weeks or less	\$1571.00
YRT-3 (see full description on p. 47)	<u>One-Year Value Pack Food Supply</u>	325 Lb. in 66 cans (11 cases), 6 weeks or Less	\$837.00
YRT-6 (see full description on p. 48)	<u>Four-Month Healthy Food Supply</u>	207 Lb. in 48 cans (8 cases), 3 weeks or less	\$670.00

**** New: There is an additional food supply offer for a 3-month supply on Page 48 for \$399.95**

* Note: Prices and shipping times are subject to change without notice. All food products are guaranteed to be fresh at time of shipping. Any food product found to be defective (for example, due to shipping damage) will be exchanged, at no cost to the buyer by Yellowstone River Trading, Inc. at (800) 585-5077. Occasionally, product substitutions of like value and quality and type may be required to avoid shipping delays. Additional volume discount pricing is available. Shipping point is from Bozeman, Montana 59718. All 6-gallon buckets are lined with mylar bags that are then filled with food and then sealed with 2 each D750 oxygen absorbers. **All #10 steel double enameled cans have cooking instructions and hold 7/8ths of a gallon and include an oxygen absorber.**

YRT-1, 1-Year Healthy Food Supply:

Most long-term food storage programs load up with inexpensive beans and wheat. Unfortunately, many people can't tolerate large quantities of whole wheat, and many have difficulty digesting beans. We include unbleached white flour (for wheat intolerant diets), and most of our beans are pre-cooked and powdered. This makes the beans easier to prepare and digest. We also include a more expensive Swiss Whey milk product, as a substitute for the conventional powdered milk, as children tend to like it more. Swiss Whey milk actually tastes good. Here are a few more reasons that the healthy program stands out above more value-oriented programs:

- Roughly 25% of the included food requires no cooking.
- There are no unnatural preservatives.
- Our granola is made without oil to insure maximum shelf life. It is also fruit sweetened, and flavored with blueberries.
- Our pancake mix contains no aluminum baking powder.
- Our tahini (sesame butter) lasts up to 10 years without preservatives.

We avoid:

- Refined sugars. BHA & BHT (included in most cheese & butter powders).

- Hydrogenated oils (shortening & margarine powders).
- Sulfured fruit. MSG & HVP (known to destroy brain cells).
- TVP (textured vegetable protein).

We include:

- Montana Sweet Clover honey.
- Cheese powder (preserve w/Rosemary).
- Pure olive oil.
- Freeze-dried, unsulfured fruit.
- Soup mixes made without additives.
- Real protein; freeze dried chicken and beef.

This unit includes the following:

Fruits: 9 cans

1 can freeze dried Strawberries, 1 can freeze dried Blueberries, 1 can Fruit Galaxy, 1 can Apple Dices (unsulfured), 1 can Apple Sauce Powder, 1 can Low Moisture Raisins, 1 can Date Bits, 2 cans Apple Slices

Vegetables: 14 cans

2 cans Tomato Powder, 2 cans freeze dried Cut Green Beans, 1 can dehydrated Sweet Garden Peas, 1 can Carrot Dices, 1 can Chopped Onions, 2 cans Potato Dices, 1 can Sweet Corn, 3 cans Real Potatoes (mashed), 1 can Broccoli

Dairy and Proteins: 18 cans

6 cans Swiss Whey Milk, 2 cans freeze dried Chicken, 4 cans Whole Egg Powder, 2 cans Cheese Powder, 2 cans freeze dried Beef, 2 cans Sesame Butter (or substitute Peanut Butter Powder)

Grains: 52 cans

4 cans Cornmeal, 6 cans Long Grain White Rice, 12 cans Hard Winter Wheat, 6 cans Rolled Oats, 6 cans Elbow Macaroni, 6 cans Soft White Pastry Wheat, 3 cans Apple Blueberry Granola, 1 can Popcorn, 6 cans Unbleached Flour, 2 cans Multi-grain Pancake Mix

Beans: 8 cans

1 can Powdered Pinto Beans, 1 can Powdered Black Beans, 1 can Kidney Beans, 1 can Powdered Navy Beans, 3 can Lentils, 3 can Split Green Peas

Beverages: 2 cans

1 can Cocoa Mix, 1 can Black Tea

Soups and Gravies: 5 cans

1 can Chicken Soup Base Mix, 1 can Green Pea Soup with Hickory, 1 can Yellow Pea Chowder Soup Mix, 1 can Turkey Gravy Mix, 1 can Powdered Pizza and Pasta Sauce

Adjuncts and Misc.: 10 cans

2 cans Honey, 1 can Salt, 1 can Rumford Baking Powder (non aluminum), 2 cans olive oil, 1 can Unflavored Gelatin, 1 can Cornstarch, 1 can Alfalfa Sprouting Seeds, 1 can with 2 packages (17.64 oz each) of SAF Instant Yeast and 1 16oz. Package of Baking Soda.

Also included are 40 plastic reclosure lids for #10 cans and recipe book "Cooking with Home Storage".

Total: 120 #10-size cans, (20 cases), Net Weight: 520 lbs. of low moisture food providing over 1750 balanced calories per day for one year. All ingredients are low moisture, packaged in an oxygen free atmosphere in #10 double enameled steel cans. Directions for cooking items are included on the cans. **See other details on note to summary table on page 46.**

Price: \$1,571 (plus freight from Montana).

YRT-3, One-Year Value Pack:

The One-Year Value Pack is a program for those who want a conventional long-term food storage program similar to others offered by many other dealers. This is a program with a good assortment of grains, beans and vegetables. Unlike our "Healthy" program, however, it does contain some refined sugar, Textured Vegetable Proteins (T.V.P. – a meat substitute), hydrogenated oils and some items with MSG or other preservatives. It provides 1200 calories and 35 Grams of protein per day, for one year. This unit includes:

Fruits:

1 can Fruit Galaxy, 1 can Strawberry Flavored Apple Flakes, 1 can Date bits, 1 can Apple Sauce Powder, 1 can Peach Flavored Apple Flakes, 1 can Banana Slices

Vegetables:

2 cans Stew Blend, 1 can Garden Peas, 1 can Green Beans, 1 can Carrot Dices, 2 cans Potato Dices, 1 can Hashbrowns, 1 can Sweet Corn, 1 can Tomato Powder, 1 can Chopped Onions, 1 can Real Mashed Potatoes

Dairy and Proteins:

6 cans Regular Powdered Milk, 6 cans Instant Powdered Milk, 1 can Whole Egg Powder, 1 can Cheese Powder, 1 can Beef Bouillon, 1 can Egg Mix, 2 cans Beef TVP, 1 can Taco TVP, 1 can Bacon TVP, 1 can Sausage TVP, 1 can Chicken TVP

Grains:

1 can Cornmeal, 1 can Pearl Barley, 2 cans Rolled Oats, 3 cans Elbow Macaroni, 2 cans Multi-Grain Pancake Mix, 1 can Popcorn, 3 cans White Rice, 1 can Cream of Wheat cereal

Beans:

1 can Red Beans, 1 can Pinto Beans, 1 can Small White Beans

Beverages:

1 can Cocoa Mix, 1 can Peach Drink

Soups & Gravies:

2 cans ABC Soup Mix, 1 can White Cream Sauce

Adjuncts and Misc:

1 can Salt, 1 can Margarine powder, 1 can Cornstarch, 1 can Sugar

Total: 66 #10-size cans, (11 cases), Net Weight: 325 lbs. of low moisture food providing over 1200 balanced calories per day for one year. All ingredients are low moisture, packaged in an oxygen free atmosphere in #10 double enameled steel cans.

Price: \$837 for TACDA members (plus freight from Montana). Shipping is currently at 6 weeks or less.

YRT-6, Four-Month Healthy Food Supply:

This offer provides the same quality of food as our One-Year Healthy Food Supply described above (see YRT-1 on page 46), but with more ample helpings. Hence, there are no preservatives and only the finest quality foods are included. For example, we include unbleached white flour (for wheat intolerant diets) and most of our beans are pre-cooked and powdered. This makes the beans easier to prepare and easier to digest. We also include a more expensive Swiss Whey milk product as a substitute for the conventional powdered milk, as children tend to like it more. Swiss Whey milk actually tastes good. Our pancake mix contains no aluminum baking powder. The four-month package contains the following:

Fruits:

1 can Apple sauce, 1 can Fruit Galaxy, 1 can low moisture raisins

Vegetables:

2 cans Real Mashed Potatoes, 2 cans Cut Green Beans, 1 can Chopped Onions, 1 can Sweet Corn, 1 can Tomato Powder

Dairy and Proteins:

1 can Cheese Powder, 2 cans Whole Egg Powder, 2 cans Swiss Whey Milk Drink, 1 can Sesame Butter (or substitute Peanut Butter), 1 can Freeze Dried Chicken, 1 can Freeze Dried Beef

Grains:

2 cans Unbleached Wheat Flour, 2 cans Multi-grain Pancake Mix, 2 cans Elbow Macaroni, 2 cans White Rice, 1 can popcorn, 1 can Apple Blueberry Granola, 2 cans Corn Meal, 1 can Whole Wheat Flour, 1 can Soft White Pastry Wheat, 2 cans Quick Rolled Oats

Beans:

1 can Powdered Navy Beans, 1 can Powdered Pinto Beans, 1 can Kidney Beans

Beverages:

1 can Cocoa Mix

Soups and Gravies:

2 cans Hickory Flavored Green Pea Soup Mix, 1 can Corn Chowder Soup, 1 can Chicken Soup Base Mix, 2 cans Powdered Pizza and Pasta Sauce

Adjuncts and Misc:

1 can Pure Olive Oil, 1 can Alfalfa Sprouting Seeds, 1 can Montana Sweet Clover Honey, 1 can with SAF Instant Yeast, 3 lbs salt, and 1 package of Baking Powder

Also includes 20 plastic reclosure lids for #10 cans.

Total of 48 #10 cans (8 cases). Net Weight: 207 lbs. of low moisture food providing balanced calories for 4 months. All ingredients are low moisture, packaged in an oxygen free atmosphere in #10 double enameled steel cans.

Price: \$670 for TACDA members (plus freight from Montana). Shipping is currently at 1 week.

3-Month Deluxe Food Supply For One Person [Offered through Ready Reserve Foods]

Specifications: Required storage space is 4.3 cubic feet. Shipping weight is 105 pounds. Provides 1,500 calories and 80 grams of protein per day. Unit contains:

Quantity (#10 Cans)	Product	Quantity (#10 Cans)	Product	Quantity (#10 Cans)	Product	Quantity (#2½ Cans)	Product
1	Fruit cocktail	1	Banana slices	1	Egg solids	1	Beef soup base
3	Regular nonfat milk	1	Potato dices	1	Potato slices	1	Tomato Powder
1	Sweet corn	1	Green garden peas	1	Potato granules	1	Bacon flavored TVP*
1	Cracked wheat cereal	1	Chicken flavored TVP*	1	Beef flavored TVP*	1	Chopped Onions
1	Elbow Macaroni	1	Parboil Rice	1	Split peas	1	Cheese powder
1	Margarine powder	1	Eat-as-is beef jerky flavored TVP*	1	Chicken jerky flavored TVP*		
1	Chocolate pudding mix	1	Apple sauce granules	*TVP = Textured Vegetable Protein #10 cans hold 7/8ths of a gallon each			

Regular Retail: \$464.00 Member Special: \$399.95

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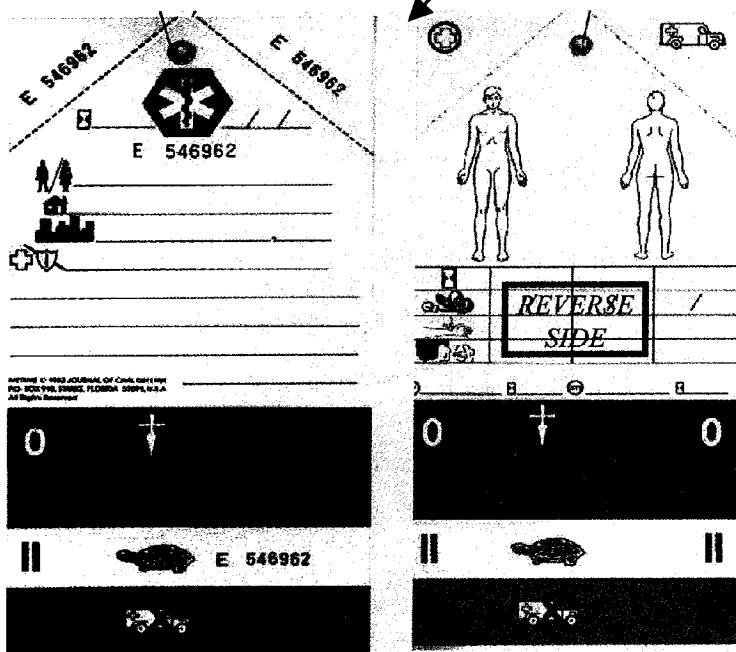
- Oklahoma City Bombing
- Atlanta Olympics Bombing
- World Trade Center Bombing

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METTAG is a precise, fast and easy-to-use triage tool. Nonrepeating serial numbers allow for temporary identification of casualties. Color-coded tear-off tabs clearly indicate the seriousness of each casualty. The tag's symbols can be understood regardless of nationality or education.

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Also available are **ER-TAGs**, **EVAC-TAGs**, **ID-TAGs**, **Airport Option METTAGs**, and Training Materials. **Write or call now for a free catalog of METTAG products:**

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When Lives Count, Count on METTAG!

TACDA's Operating Principles

TACDA is a non-sectarian, non-political, and not-for-profit 501-C(3) organization.

TACDA believes that Preparedness Begins at Home (that is, preparedness is a responsibility of all citizens). All citizens should try to protect and provide for themselves and their families in the event of a natural or manmade disaster. These responsibilities include personal preparations (such as food, water, and emergency supply storage) as well as support to reasonable preparedness programs.

TACDA believes that an uninformed (or misinformed) public is one of the greatest dangers our society faces. Hence, TACDA works to provide reliable disaster related information and to promote public awareness of civil defense issues.

TACDA promotes dual-use preparations wherever possible, so that the cost of preparing for disasters is offset by normal day-to-day utility. In addition, the dual-use concept can extend into the dimension of ensuring that preparations for natural disasters are done in such a way that preparations for war or terrorism are also addressed.

TACDA believes that for a government to hold a population hostage to known dangers, as occurred with policies like Mutual Assured Destruction (MAD), is at best irresponsible and goes against the Constitutional mandate to provide for the common defense.

TACDA believes that the best defense against manmade disasters, such as terrorism and war, is through a credible deterrence combined with the strength to survive.

TACDA believes that a lack of preparedness invites disaster.

Are You Ready?

If Unsure ✓
Check this box.

Join the American Civil Defense Association (TACDA)...

... and help **promote sensible precautions to disasters.**

An annual membership includes a year's subscription to the *Journal of Civil Defense* plus discounts on purchases at the TACDA Store (see back of Journal).

Annual single-family rate: \$ 25

Annual professional rate: \$50

Annual corporate rate: \$100

If you prefer, you can just receive the Journal for \$25 and not be entered on our membership list ... note however, that TACDA will not give our membership list to any other organization.

Please also consider giving a tax-deductible donation to TACDA if you want to help support our mission of:

- Alerting the public to dangers
- Assisting the public in making reasonable preparations
- Advocating things such as preparations for bio-terrorism and an effective 50-state missile defense

Sign up by contacting:

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