

**A few things to consider if, from 200 miles up,
someone knocks out your lights, phones, and computers.
In a nuclear age, one organization's approach to longevity.**

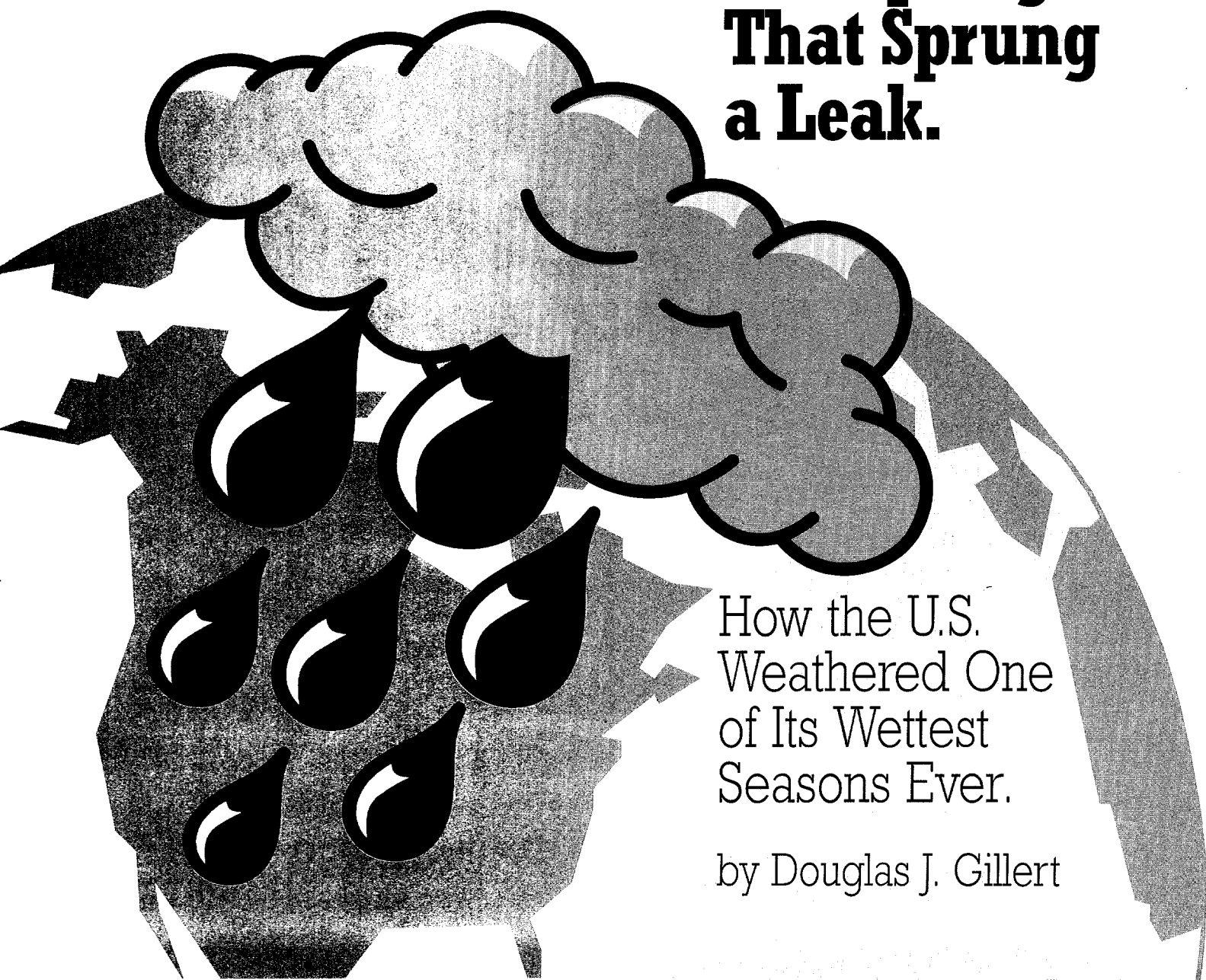
Journal of

Civil Defense

The American Civil Defense Association

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The Spring That Sprung a Leak.



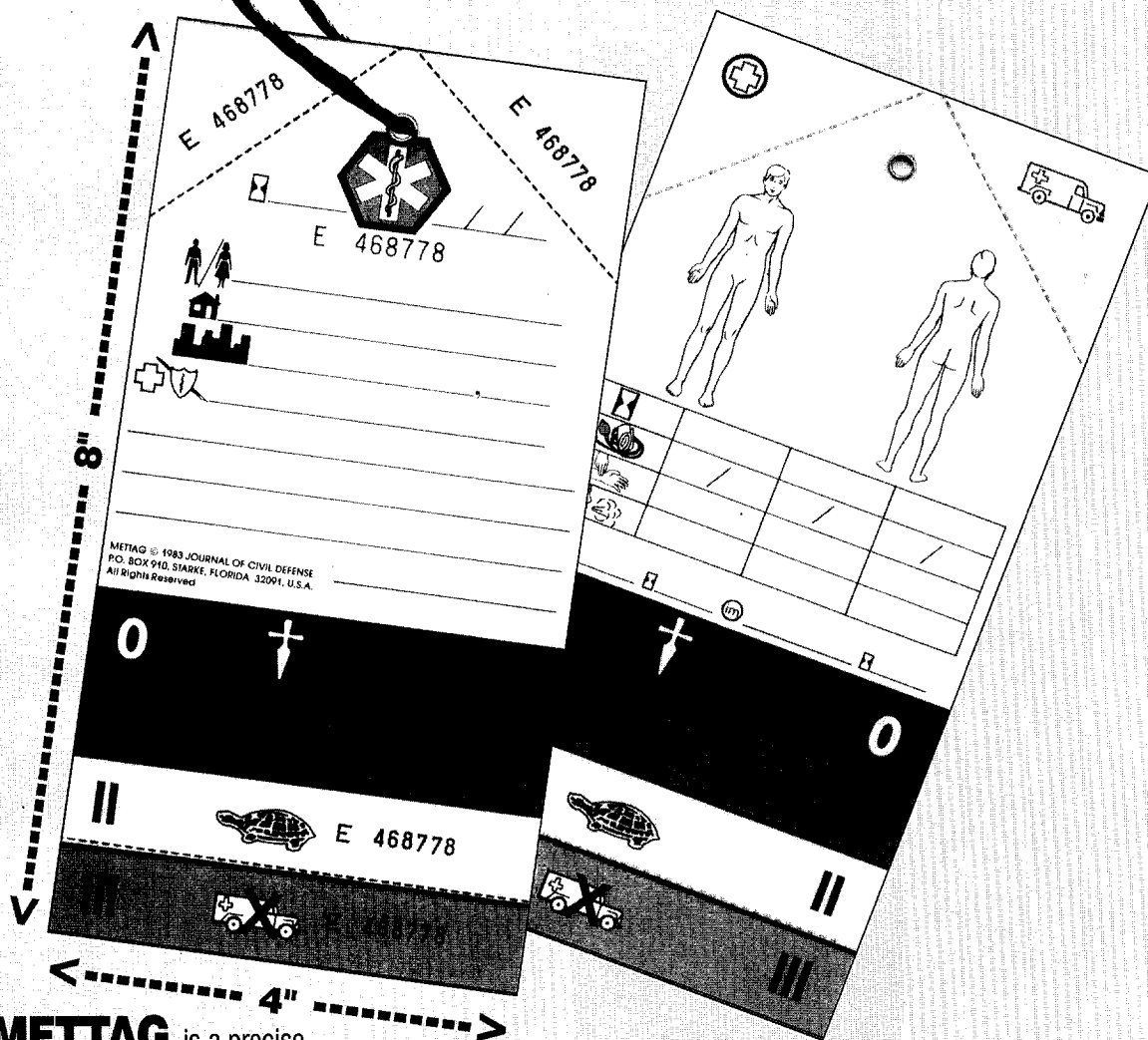
How the U.S.
Weathered One
of Its Wettest
Seasons Ever.

by Douglas J. Gillert

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To our readers...

This year's spring rains caused many Americans to realize, finally, that our nation needs to prepare better for disasters. Starting on page 5, **Douglas J. Gillert** recaps the coast-to-coast impact of "The Spring That Sprung a Leak" and explains how communities and individuals can prepare for future storms.

Judging from **Kevin Briggs'** **Washington Perspective** column on page 3, you won't have any trouble figuring the exact time a high-altitude electromagnetic pulse (HEMP) goes off over our country. Just about every electronic device you own will stop at precisely the time of the pulse.

Preparedness expert **James T. Stevens** explains how to stock up long-term food reserves during routine grocery shopping. Check out his **Prepared Pantry** column on page 14.

Need a spare room? **Sharon Packer** knows how to build one with blast doors. Read about it on page 13.

The **TACDA Store Catalog**, returns to the *Journal's* centerfold this issue. The featured grain mill, which would fit perfectly in Jim Stevens' kitchen and Sharon Packer's shelter, can double as an aerobic upper-body exercise machine during long winters.

Finally, turn to the **Upcoming Events** column on the inside back cover, and check out the many preparedness conferences and training seminars.

The TACDA staff

inside

The rainy season that didn't want to quit.

The Spring That Sprung a Leak.

by Douglas J. Gillert, *page 5*

The Sheltered Life.

Build your own
civil defense organization?
Sharon Packer tells you how.
page 13

That Disconnected Feeling.

Phone hang-ups will be the least of your problems in the event of a "HEMP," reports Kevin Briggs
page 2

TACDA Catalog, *page 8*
The Prepared Pantry, *page 14*
TACDA Letter to Members, *page 16*
Upcoming Events, *inside back cover*

The *Journal of Civil Defense* is the official quarterly of The American Civil Defense Association (TACDA), P.O. Box 910, Starke, Fla. 32091; Kevin Briggs, president; Kathy Eiland, executive director. TACDA urges government and citizens alike to maintain sensible precautions for disasters — natural and man-made.

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Washington Perspective

by Kevin Briggs

What would you do... ...if the lights went out — and stayed out for weeks?

What if your phone and computers went out, too? All this (and more) could happen from a single jolt of HEMP — “high-altitude electromagnetic pulse.”

Over the summer, the House National Security Committee explored how adversaries could use HEMP to zap virtually every electronics-dependent device in the United States — from TVs to cars to ATMs — and potentially bring the country to a standstill.

It wouldn't be hard. Any nation or rogue military group that exploded a single nuclear weapon at an altitude as low as 20 miles could blanket large regions with electronic destruction. Indeed, a 200-mile-high nuclear explosion over the central United States would cover all of the contiguous 48 states with a strong electromagnetic wave that could collapse our entire electronics-dependent infrastructure.

HEMP was first tested in 1962 when, according to testimony at the congressional hearing, a 1.4-megaton nuclear weapon was detonated roughly 250 miles above Johnston Island. The nearest cities, more than 800 miles away in Hawaii, were shocked by electrical system failures.

That was before the “computer information age.” If the test were conducted today, havoc would likely result from widespread electronic failures.

Testimony from Dr. George W. Ullrich, deputy director of the Defense Special Weapons Agency, indicated that when the Russians conducted a test over their landmass, “all protective devices in overhead communi-

cations lines were damaged at distances out to 500 kilometers.”

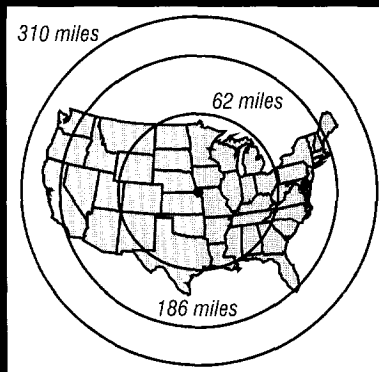
At the same hearing, Dr. Lowell Wood of the Lawrence Livermore Laboratory stated “The EMP robustness of the civilian infrastructure of the United States...is entirely nonexistent.” The country would cease to exist in its present form, he said.

Dr. Wood went on to question “how” or “if” we would strike back if we experienced HEMP from the detonation of an orbiting bomb from China, Russia, India, or even Iran or North Korea.

These are troublesome prospects, but here are some things you can do:

1. Ask your congressional representatives to assure reasonable government defenses against potential orbiting HEMP bombs and missiles as well as a stronger civilian infrastructure against this type of attack (see TACDA Letter on page 16).
2. Prepare for what could be months without power, telephones, etc., by buying nonperishable food supplies and other necessities like water purifiers, medicines, and things that would help if your job, grocery

store, and bank were to be unavailable for an extended period. □



HEMP ground coverage for bursts of various heights above the United States. (Source: U.S. Army)

Kevin Briggs is president of The American Civil Defense Association.

Views expressed in this article are those of the author and do not reflect the official policy or position of the Department of Defense or U.S. government.

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- McVey, Philip M.—**TERRORISM AND LOCAL LAW ENFORCEMENT: A Multidimensional Challenge for the Twenty-First Century.** '97, 188 pp. (7 x 10), 11 il., \$53.95, cloth, \$39.95, paper.

Terrorism presents a clear and present danger to society, its governing institutions and the American way of life. This text deals exclusively with this challenge facing law enforcement professionals, and examines their ability to enhance survivability upon encountering a contemporary guerilla operation in their local jurisdictions. The purpose of this book is fourfold. First, it is to provide local law enforcement with the understanding of terrorism and its relationship to crime, warfare and political violence. Second, it will establish an understanding of the history of terrorism on both the substantive and philosophical levels. Third, it will be necessary to establish the importance of employing a different mind-set in relation to this phenomenon and to demonstrate the crucial nature of proactive measures in countering the activity. Fourth, it will provide an understanding of the current status of terrorism and its potential for evolution into varied manifestations. This should assist the individual officer in recognizing terrorism as it originates by knowing its potential points of social emergence. Also discussed are nuclear, biological, and chemical weapons; hostage negotiations; and target selection, with an in-depth look at the terrorist organizations operating in the United States. The terrorist events that are currently happening throughout the world should be recognized, not in terms of the popular media who generate convenient fictions about the subject (attempting to placate the public) but as a social reality to be used as a structure for preparedness.

- Fitch, Richard D. & Edward A. Porter—**ACCIDENTAL OR INCENDIARY? (2nd Ed.)** '97, 240 pp. (7 x 10), 76 il., 3 tables, \$55.95, cloth, \$42.95, paper.
- Mullins, Wayman C.—**A SOURCEBOOK ON DOMESTIC AND INTERNATIONAL TERRORISM: An Analysis of Issues, Organizations, Tactics and Responses. (2nd Ed.)** '97, 674 pp. (7 x 10), 30 il., 50 tables, \$129.95, cloth, \$99.95, paper.
- Harries, Keith D.—**SERIOUS VIOLENCE: Patterns of Homicide and Assault in America. (2nd Ed.)** '96, 196 pp. (7 x 10), 27 il., 32 tables, \$49.95, cloth, \$34.95, paper.
- DeGeneste, Henry I. & John P. Sullivan—**POLICING TRANSPORTATION FACILITIES.** '94, 172 pp. (7 x 10), 1 il., 13 tables, \$41.95, cloth, \$28.95, paper.
- Kyle, Thomas G. & James Aldridge—**SECURITY CLOSED CIRCUIT TELEVISION HANDBOOK: Applications and Technical.** '92, 228 pp. (7 x 10), 72 il., 4 tables, \$44.95, cloth, \$31.95, paper.

- Sylves, Richard T. & William L. Waugh, Jr.—**DISASTER MANAGEMENT IN THE U.S. AND CANADA: The Politics, Policymaking, Administration and Analysis of Emergency Management. (2nd Ed.)** '96, 422 pp. (7 x 10), 2 il., 15 tables, \$55.95, cloth, \$42.95, paper.

Emergency management has become a vital profession, better able to meet ever-increasing public demands, better able to advance post-disaster cost recovery and relief, and better able to put communities back together after a disaster. This book is designed and intended to help the reader, whether familiar or unfamiliar with the field, better understand the human impacts that emergencies have on us all. It examines laws, policies, regulations, and arrangements of the intergovernmental world of disaster management. *DISASTER MANAGEMENT IN THE U.S. AND CANADA* is a complete overhaul of the first edition. Most chapters are new, and the three which are not were completely rewritten and revised. More chapters are included, more disciplinary perspectives are represented, and more emphasis is given to national, state, and provincial roles in disaster management but without ignoring the continuing centrality of local emergency management. The book is intended as a text for graduate and undergraduate courses that address disaster policy and emergency management, whether in public administration, political science, intergovernmental relations, disaster sociology, organizational studies, or urban studies. It will also be of benefit to anyone in the vast community of emergency management, whether working at the local, state, provincial, or federal level.

- France, Kenneth — **CRISIS INTERVENTION: A Handbook of Immediate Person-to-Person Help. (3rd Ed.)** '96, 310 pp. (7 x 10), 3 il., \$52.95, cloth, \$36.95, paper.
- Brodie, Thomas G.—**BOMBS AND BOMBINGS: A Handbook to Detection, Disposal and Investigation for Police and Fire Departments. (2nd Ed.)** '95, 290 pp. (7 x 10), 209 il., \$60.95, cloth, \$41.95, paper.
- Yereance, Robert A.—**ELECTRICAL FIRE ANALYSIS. (2nd Ed.)** '95, 344 pp. (7 x 10), 22 il., 3 tables, \$72.95, cloth, \$45.95, paper.
- Detienne, C.—**PHYSICAL DEVELOPMENT OF NATURAL AND CRIMINAL FIRES.** '94, 176 pp. (12 x 9), 185 il., 4 tables. \$57.95.
- Furnish, Brendan F. J. & Dwight H. Small — **THE MOUNTING THREAT OF HOME INTRUDERS: Weighing the Moral Option of Armed Self-Defense.** '93, 274 pp. (7 x 10), \$59.95, cloth, \$39.95, paper.
- Chapman, Samuel G.—**POLICE DOGS IN NORTH AMERICA.** '90, 254 pp., 13 tables, \$51.95, cloth, \$35.95, paper.

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Seems like everywhere you stepped, you splashed.
You might have drowned, but somehow, you stayed afloat.
Long enough for help to come. Long enough to start the long road to recovery.
But you'll never forget — and someday you'll tell your grandchildren about —

The Spring That Sprung a Leak

By Douglas J. Gillert

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From Vermont to Washington State, Americans struggled with — and ultimately survived — some of the worst flooding this century. As they slowly recovered, however, few who experienced the worst America's rivers had to offer would soon forget spring 1997.

It could have been worse. What if nobody had helped the farmers and merchants, homeowners and apartment renters, young and old who faced this watery onslaught?

But help arrived — plenty of it — if not as fast as many would have liked.

The help came from Americans outside the flood plains and from a giant orchestration of federal and state agencies whose Herculean efforts virtually willed the waters to recede and life in

the ravaged cities and countryside to begin recovering.

Where the floods were worst — the Dakotas and Minnesota — and later for many additional states — promises of relief came quickly.

Most Americans didn't notice the crisis until the first week in April, when the Red River of the North overflowed its banks and began a rapid waltz across city streets and fallow farmland.

Overnight, the cities of Grand Forks, N.D., and East Grand Forks, Minn., became household names. On the evening news April 22, people across the nation saw a visibly moved Presi-

dent Clinton tour flooded streets and observe burning office buildings caused by ruptured fuel lines and electrical short circuits.

Returning to Washington, Clinton ordered Federal Emergency Management Agency Director James Lee Witt to organize an interagency recovery plan for the affected states. Besides North Dakota and Minnesota, Arkansas, Nebraska and South Dakota would need major assistance. So would states along other river systems — West Virginia, Ohio, Colorado, Washington, and the list grew.

continued on page 6

Left: Law enforcement officers patrol the Sherlock Park area of East Grand Forks, Minn.



continued from page 5

One by one, over the next several weeks, Clinton added each to a growing list of disaster areas eligible for emergency assistance.

Joining FEMA were the Army Corps of Engineers, Small Business Administration, Department of Housing and Urban Development and Department of Commerce Economic Development Administration. Collectively and with key involvement from state agencies, they created a long-term recovery plan to ensure peoples' immediate needs were met and their communities could ultimately rebuild.

Nonetheless, Clinton urged those affected by the floods to shoulder the brunt of the recovery responsibility.

"This plan will be most successful if it supports and does not supplant ef-

forts, resources and decision making at the state and particularly at the local government level," Clinton said.

The plan offered three major thrusts: mitigating flood hazards, assisting with housing and reestablishing community sustainability. The task force had its work cut out.

Mitigating flood hazards

Many communities — particularly Grand Forks and East Grand Forks — remain vulnerable to flooding. Clinton urged them to become more flood resistant to safeguard their people and businesses

"No community should risk the lives of its citizens and its economic vitality

Above: Sandbag crews form a line in Fargo, N.D.

because of a capricious, natural event," he said. "Communities must become resistant to the risks that surround them."

He directed the U.S. Army Corps of Engineers to implement structural and nonstructural flood protection for the sister cities along the Red River of the North.

Looking to the larger area of destruction, Clinton directed:

- FEMA and HUD to join with the affected states in implementing an accelerated program to purchase flood-damaged homes in the most severely devastated areas
- FEMA, HUD, the Economic Development Administration, Corps

of Engineers and SBA to use all tools available to support state and local rebuilding efforts and make the communities disaster resistant.

Clinton also urged flood victims to buy insurance against future flooding.

Housing

Shortly before Clinton's visit to North Dakota, Witt and top officials from HUD, SBA and the Economic Development Administration toured the ravaged areas.

They expedited home repair grants, helped pay for temporary homes, and brought in trailers as temporary residences. Clinton also asked for federal assistance to help Grand Forks create new housing resources, infrastructure funding and low interest rate home and business loans.

Community sustainability

"Any community which has experienced flood devastation of this magnitude has also had its very existence threatened," Clinton said.

Confronting civic leaders, he said, are:

- Preserving historic downtown and residential areas
- Ensuring a clean, safe and healthy environment
- Maintaining a vital work force
- Building and repairing an infrastructure to support development
- Building and repairing housing
- Assuring the community is taking the necessary steps to avoid future flood-related devastation
- Capitalizing business, particularly small business.

continued on page 10

Water, water everywhere

Bad weather, it seems, comes in droves.

What will go down as a record year for adverse weather across the United States actually had its origins in a system of storms and tornadoes that struck with a vengeance last November. More tornadoes would strike in the spring, for example in **Arkansas**, where the Federal Emergency Management Agency deployed scores of emergency workers to help the state recover from up to 20 twisters that left at least 24 people dead and hundreds more injured.

Meanwhile, heavy winter snowfall and ice storms across the northern states sent residents along major river systems scurrying for sandbags and put the U.S. Army Corps of Engineers on permanent overtime. No sooner had they rescued their communities from winter's icy grip, than they were faced with a spring meltdown of the accumulated snow and ice. And, of course, spring rain — in bucketfuls.

By March 3, according to a FEMA update, the damage wrought by these record storms was already extensive:

West Virginia — The American Red Cross opened 13 shelters in 14 counties affected by flooding.

Ohio — The governor declared a state of emergency following flooding in 14 counties. State officials reported 68 single-family homes destroyed and 379 severely damaged. Also lost or damaged: more than 140 mobile homes.

Kentucky — Fifty-two counties affected by flooding, seven casualties reported, thousands of residents

displaced.

Tennessee — Twenty-five bridges and 200 miles of road damaged; five shelters opened.

Texas — Two confirmed dead, seven injured by tornadoes in seven counties.

Heavy rains and tornadoes also hit **Indiana, Mississippi, Illinois, North and South Carolina and Alabama.**

And, of course, there were the north central states of **Minnesota, North Dakota and South Dakota** that experienced a series of weather disasters, culminating with the spring floods.

They survived, of course — those hearty Americans who refused to give in or give up. Oh, it'll take years to recover and rebuild for those along the Ohio and Red River of the North. And, although the worst may be behind them, for others, the eerie prevalence of storms this year was still being felt as the leaves began to turn and the days grew shorter and cooler. Ask the citizens of Corpus Christi, Texas, when the worst rains fell this year, and they'll probably tell you October! With two months left in the year, all anyone in America could really do is take a deep breath and pray for a long dry spell.

— Douglas J. Gillert

Below: The railroad underpass at Washington Street and DeMers in Grand Forks, N.D. The water beneath the railroad underpass is about 24 feet deep.

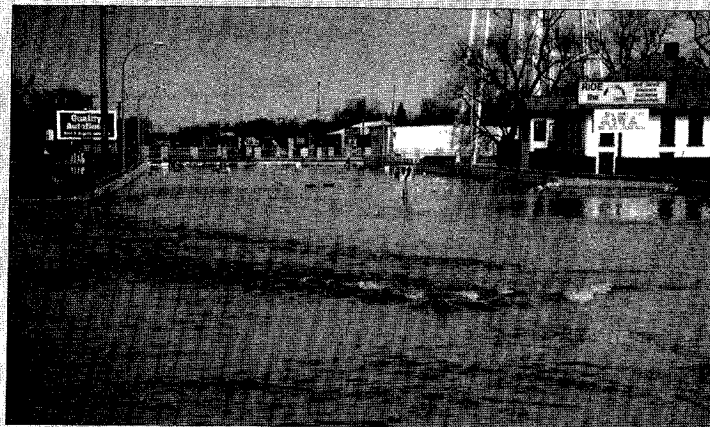
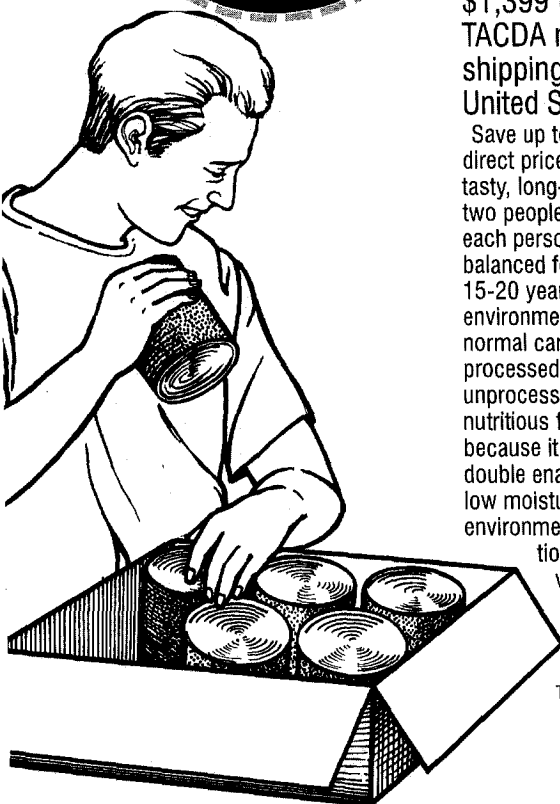


Photo by Phil Cogan, FEMA

TACDA Store Catalog

**Special
offers and
fund-raisers**



Offer 1

One-year food supply for two people (or two-year supply for one person). \$1,399 (higher for non-TACDA members). Free shipping in the continental United States.

Save up to \$400 off the factory-direct price on a one-year supply of tasty, long-storage-capable food for two people. For less than \$2 a day, each person can eat nutritionally balanced foods that store well (up to 15-20 years if stored in a cool, dry environment — much longer than normal canned foods). Unlike processed canned food, this unprocessed food stays fresh and nutritious for numerous years because it is stored in heavy-duty, double enamel lined cans in a very low moisture, nitrogen laden environment. Comes with instructions and/or recipes — and when prepared, the food looks and tastes like it

did originally (prior to the water being removed). Included in this one-year supply for two people are the following [note: numbers in brackets represent how many #10 size (~ gallon size) cans of each item are included]: fruit cocktail [1], applesauce [1], apple and banana slices [2], raisins [1], potato granules [1], corn [1], carrot dices [1], tomato powder [1], chopped onions [1], salt [1], nonfat milk [24], pinto beans [6], elbow macaroni [6], rice [6], whole wheat flour [12], hard red wheat [12], cracked wheat cereal [12], white sugar [6], peas [1], cabbage [1], bacon [1] / beef [3] / chicken [2] flavored TVP, fruit flavored gelatin [1], soup base [1], shortening [2], margarine [2], cheese [1], eggs [2], a sprouting kit with Alaska peas/wheat/ lentils/ sprouting trays & cookbook, 32 lids for #10 cans and 3 lids for #2 cans (lids help maintain freshness after opening).

Recommended water storage for use with this food is 275 gallons.

Offer 2

Three-month food supply for one person. \$340 (higher for non-TACDA members). Free shipping in continental United States.

Save as much as \$100 off the factory direct price (with shipping) on a three-month supply of food for one person. This unit yields more generous servings than Offer #1 on a per-day basis. It is stored in the same containers and can store well for 15-20 years. Included in this three-month supply is the following: #10 size (~ gallon size) cans: fruit cocktail [1], banana slices [1], egg solids [1], regular nonfat milk [3], potato dices [1], sweet corn [1], green peas [1], potato granules [1], cracked wheat cereal [1], chicken [1] / beef [1] flavored TVP, elbow macaroni [1], parboiled rice [1], split peas [1], margarine powder [1], #2 1/2 can size: beef soup base [1], tomato powder [1], bacon flavored TVP [1], chopped onions [1], no bake custard [1], cheese powder [1].

Recommended water storage: 55 gallons.

Offer 3

Only for TACDA members. 30 & 55 Gallon Water Barrels for only \$48 and \$67. Free shipping in continental United States.

Save with direct pricing. These are new, heavy-duty, food grade USDA-approved plastic barrels patterned after steel drums. These thick-walled units will never rust. Each barrel has two large filling openings (bungs) — one threaded with standard course NPT threads the other with a fine threaded bung stopper. Both are fitted with "O" ring seals.

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TACDA Store illustrations by Pamela Thornbloom

Offer 4

Country Living Grain Mill.
\$312 (higher for non-TACDA members). Free shipping in continental United States.

Save as much as \$70 off the direct price (with shipping) on what is perhaps the most popular, heavy duty hand operated grain mill in the country. This mill is made in the USA with high-carbon steel grinding plates (for finer flour than a stone grinder) and is easy to clean. The mill comes with industrial ball bearings which contribute to its 20 year warranty. It's unique fly-wheel has a V-shaped groove for adapting to an electric motor or exercise bike. It requires far less effort to grind grains than lesser quality mills. It grinds all grains into flour with adjustments ranging from fine to coarse grits.



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portable radiography and angiography and can monitor normal background radiation. A metal clip is used to attach the dosimeter to an individual's pocket or to any available object. A reading may be made at any time by merely

looking at a source of light through the eyepiece end of the instrument. Dosimeters may be totally immersed in water without affecting the instrument readings.

Before dosimeters can be used to measure radiation, they must be charged.

This will be done prior to shipping but must be redone periodically (typically every year for the most sensitive models). TACDA would

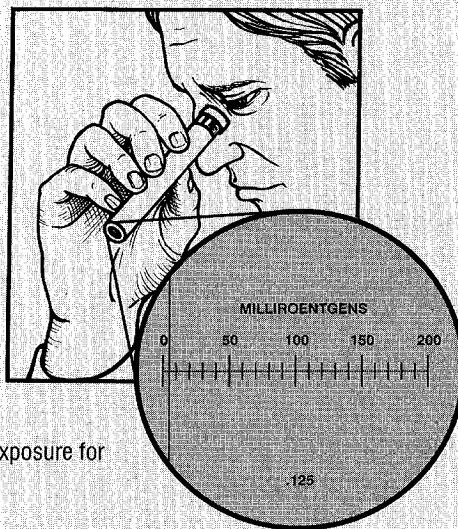
perform this recharging for free for the life of the instrument (other than

for the necessary shipping and handling charges). Most all available dosimeter charging units may be used to charge these models. Because the dosimeter scale is linear, it is possible to determine the total amount of radiation exposure for

any selected period of time. Dosimeters are accurate to within $\pm 10\%$ of true dose. Dosimeters can operate in temperature ranges of -20°C to $+50^{\circ}\text{C}$ and can operate up to altitudes of 50,000 feet and 90+% humidity. Models 742 and 746 would be perfect for fallout emergencies or possible dangerous short-term radiation exposures. Dosimeters come with a two-year limited warranty. Please order by model number.

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730 (0 - 20 R)
742 (0 - 200 R)
746 (0 - 600 R)



Offer 5

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address, ZIP, and phone. Specify items and quantity. Please make any checks to TACDA.

continued from page 7

He ordered HUD, the Economic Development Administration, SBA, Corps of Engineers, Department of Energy, Department of Agriculture and FEMA to provide short- and long-term planning and technical assistance to the communities most heavily impacted. Assistance, he said, should cover economic development, housing, land use, public and private financing, energy efficiency and mitigation.

Later, as Congress withheld approval of the relief package, Clinton took his case to the public. On May 24, during his weekly radio address, the president chided Congress for politicizing the public welfare.

"In North Dakota, I saw not only the devastation of the floods, I saw the de-termination of the people — proud people doing their level best to survive and get on with their lives," Clinton said. "They don't expect free rides and handouts, but they do have a right to expect us to do the right thing by them, as we have by their fellow Americans when they were down and out."

While Congress dawdled over financial aid to flood victims, disaster relief agencies responded in force to the mounting crisis. Even before Witt began assembling his task force, elements of the Department of Defense reacted with manpower, equipment, supplies and shelter. Fifteen miles east of its

namesake, Grand Forks Air Force Base opened its gates and hangars to shelter townspeople fleeing the flood waters. During the height of flooding, the base took in up to 3,000 displaced residents a day.

When authorities ordered Grand Forks' only hospital evacuated, Air Force aircraft ferried them to hospitals in Minneapolis.

What was amazing about the Air Force support was the fact many of the base's airmen were among those the floods drove from downtown homes. At final count, more than 700 airmen and their families faced the same uncertainty and financial strain as Grand Forks' other residents.

Despite the plight of its own people, however, the Air Force continued supporting the community after the flood subsided. Grand Forks high school students held their spring prom in a base hangar.

Meanwhile, the National Guard ordered more than 2,000 members to state active duty in Kentucky, Minnesota, North Dakota and South Dakota.

The guardsmen worked side-by-side with the Army Corps of Engineers. Convinced it faced a record flood, the Corps' St. Paul (Minn.) district office hurried to improve and reinforce levees and provide technical assistance to local governments throughout the Red River Valley and along other rivers and tributaries in the tri-state region. The Corps also helped stricken communities reestablish water and sewer service, provided debris removal and inspected structures. By the end of May, the district had spent nearly \$15 million for emergency operations, and by June 30, another \$19.5 million in FEMA funds for recovery activities. At

continued on page 12

What flood experts tell homeowners

For hundreds of thousands of Americans affected by the spring floods, it's likely too late to avoid high repair and replacement costs for damaged properties.

But now is the time, say state and federal hazard mitigation specialists, to lessen the damage from future floods.

If you're repairing a home or replacing its contents, a few extra steps could pay future dividends. The Federal Emergency Management Agency suggests homeowners answer three questions:

What is my flood risk?

Find out if there's a history of flooding in your area and if your home is located in a flood zone. Community building officials or floodplain managers keep flood maps on file that will provide answers.

What flood protection measures should I take?

If your home was destroyed or severely damaged by the spring floods, consider moving out of the floodplain

or elevating repaired dwellings. Again, local officials may be able to advise which option is best.

Where flood damage is not extreme, FEMA suggests several, relatively inexpensive but effective steps to minimize future damage:

- Anchor a fuel tank
- Install a septic back flow valve
- Put in a floating floor drain plug, or move or raise any electrical box, water heater, heating system or washer and dryer.
- Constructing a flood barrier at vulnerable points on your land.

Do I need flood insurance?

Once you identify your risk and take appropriate flood protection measures, you should protect your financial investment by purchasing flood insurance on your home and its contents.

For information on the National Flood Insurance Program, contact your insurance agent or call the program toll free at (800) 427-4661.

— Douglas J. Gillert

What you should know about federal flood insurance

If you're in a flood and suffer personal property damage or losses, don't automatically think "federal assistance."

In fact, most forms of federal disaster assistance aren't available unless the president declares a major disaster.

This is true for individual and family grants for personal property and the temporary housing program administered by the Federal Emergency Management Agency.

And, according to FEMA, 90 percent of all disasters aren't declared.

Other federal assistance facts

- Most assistance comes as a loan that you must pay back with interest.
- Average individual and family grants total only \$2,500.
- To qualify for home repair assistance, your home must have relatively minor damage that can be repaired quickly.
- You can't qualify for rental assistance unless your home is destroyed or severely damaged.
- True, the Small Business Administration offers disaster home loans, but their average duration is 18.5 years at \$140 a month! The average monthly payment for a \$50,000 SBA home damage loan is \$320 a month.

What about homeowners insurance? Don't such policies cover flood damage?

No. Homeowner policies don't cover flooding.

There has to be a way to prepare for the possibility of future flood damage. And there is. Depending on where you live, you can buy a National Flood Insurance Program policy for an average of \$300 a year.

How NFIP works

FEMA created the NFIP in 1968 to provide affordable flood insurance to people who live in areas with the most

risk of flooding — called special flood hazard areas. People can buy the insurance no matter where they live in an NFIP community except where covered by the Coast Barrier Flood Act of 1982. The act discourages building in fragile coastal areas by prohibiting the sale of flood insurance.

A community can apply to participate in the NFIP if it's interested in flood insurance eligibility or if FEMA notifies it that it contains one or more special flood hazard areas.

FEMA authorizes the sale of flood insurance in the community, up to emergency program limits, ranging from \$35,000 for a single-family home, plus \$10,000 for contents, to \$100,000 for other residential and nonresidential properties.

After assessing the community's degree of flood risk and development potential, FEMA may arrange a study to determine base flood elevations and flood risk zones.

Or, if it finds the community to be at minimal risk of flooding, FEMA may convert the city to the NFIP regular program without a study.

For an at-risk community, FEMA provides a flood insurance rate map outlining base flood elevations and risk zones.

The community then has six months to adopt base flood elevations in its local zoning and building code ordinances and meet other requirements. Once the city adopts more stringent ordinances, FEMA converts the community to the NFIP regular program.

Why seek inclusion in the regular program?

Because it pays more — up to \$250,000 for residences plus \$100,000 for contents, \$500,000 for nonresidential properties and small

businesses plus another \$500,000 for contents.

Communities notified as flood-prone have a year to apply for participation in the National Flood Insurance Program. If they don't apply, they become ineligible for federal financial assistance to buy, build or rebuild in special flood hazard areas.

But FEMA would like to see communities guide development away from high flood risk areas. National flood insurance regulations minimize the impact of structures built in special flood hazard areas by requiring them not to cause obstructions to the natural flow of floodwaters.

As a condition of participating in the NFIP, communities must ensure that structures built within special flood hazard areas adhere to strict floodplain management regulations.

Many homes still at risk

Although the insurance doesn't cost a lot, most Americans still aren't protected against flood loss.

According to the Federal Insurance Administration, of the 10 million households located in special flood hazard areas, no more than a quarter are covered by national flood insurance.

Maybe they don't think they're at risk, but this spring, millions of Americans learned differently. Fortunately, more than 18,000 communities have agreed to stricter zoning and building measures to control floods, according to the Insurance News Network.

Most insurance agents can provide information about national flood insurance. Or you can call the NFIP toll-free number at (800) 427-4661. FEMA recommends making that call now.

— Douglas J. Gillert



continued from page 10

its most basic level of support, the office provided more than 4.5 million sandbags and 235 pumps to state and local emergency operations.

Almost taken for granted, the American Red Cross brought relief to flood victims throughout the crisis. By the end of April, the federal relief organization had opened 26 shelters for 6,200 people in the Dakotas and Minnesota, and served 235,600 meals to flooded families and emergency workers.

Red Cross officials estimated flood relief expenses would reach at least \$13 million for the hardest hit states and another \$38 million-plus for flood relief in the southeast and Ohio Valley.

State by state, the amount of required funds seemed to rise at the same rate as the flood levels. Individual donations sustained the Red Cross effort, and Congress finally released funds to begin federal aid.

By Aug. 1, North Dakota residents and towns received more than \$285 million in federal and state assistance.

In this state hardest hit by the spring floods, more than 36,000 residents applied for assistance after Clinton's April 7 disaster declaration. FEMA approved some 24,000 housing grants totaling \$49.5 million; North Dakota's labor department administered more than 6,300 unemployment claims totaling nearly \$4 million; and the North Dakota emergency management department approved 6,500 households to receive individual and family grants worth nearly \$9 million.

Also in North Dakota, the SBA approved 6,323 low-interest disaster loans totaling \$154.5 million and 771 economic injury development loans worth \$23 million. FEMA obligated more than \$42 million in infrastructure grants to the state to reimburse state agencies, local governments, special

Above: House that floated off its foundation near Arboga, Calif.

districts and nonprofit agencies for damages caused by winter storms and spring floods. FEMA also provided \$30 million to reimburse costs of other federal agencies that provided disaster relief. These included the Forest Service, Transportation Department and Army Corps of Engineers.

Flood relief in Minnesota totaled more than \$110 million by Aug. 18. Other states received less funding, based on costs incurred in those states.

In most cases, flood victims were required to file for federal assistance by early August. But FEMA and other agency officials concede it will take years for the hardest hit to recover their losses. □

Douglas J. Gillert is a freelance writer based in Northern Virginia.

Living (and Preaching) the Sheltered Life.

**One organization's approach to bomb shelters,
community relations and longevity.**

By Sharon Packer

If you're concerned about civil defense and want to promote bomb shelters, here are some suggestions from **Civil Defense Volunteers of Utah**, now starting its 11th year of community service.

- 1. Build your own personal home shelter.** You can't successfully promote shelters otherwise.
- 2. Keep a journal.** Record what you learn. I'm still upgrading my journal and learning from other folks.
- 3. Keep confidences.** Emergency preparedness is a private issue. We keep all names, locations of shelters, equipment, motives, etc., confidential.
- 4. Help others in their construction.** Let others learn from your mistakes. We spend hours working out problems and making sure the shelters are constructed properly.
- 5. Make yourself available by phone.** We try to be as approachable for those here in Utah, as others throughout the nation have been to us.
- 6. Be willing to show and tell.** We show our personal shelters to people who genuinely want to see them.
- 7. Study.** Read everything available on civil defense.

Keep current on national security issues.

- 8. Consult with specialists.** We call all over the United States to find experts to answer our questions.
- 9. Share.** Take every opportunity to talk about civil defense. Lecture to schools. Talk to neighbors, acquaintances, strangers.
- 10. Don't be offensive.** We've found we don't convert people — just educate them. Those that understand the threat will listen and act.
- 11. Learn from your own lectures.** Keep a running list of questions people ask, and hand out these questions at the beginning of your lectures as mind teasers.
- 12. Teach to their capabilities.** Don't overwhelm or try to impress people. Stop when they're tired.
- 13. Find a permanent meeting place.** Don't be afraid to ask for a donated meeting place.
- 14. Have interesting speakers.** Give the people a good show. Seek out knowledgeable, entertaining speakers.
- 15. Stress the multiuse of the shelters.** These shelters would save many

lives in not only nuclear war, but in earthquakes, fires, hurricanes, winter storms, and tornadoes.

- 16. Don't mix agendas.** Our message is civil defense. In our regular meetings we never address religion or politics, nor do we mention firearms or hand-to-hand combat. We stick to nuclear effects and survival after war.
- 17. Enlist the help of others.** Look for people who might have a little extra time. Seek the help of retired couples.
- 18. Encourage group participation.** We invite members to give demonstrations or share interesting articles at meetings.
- 19. Make a shelter display.** We were fortunate to have a full-size shelter display assigned to the State of Utah. We show this display at state, county and preparedness fairs. We have also made small shelter displays to take to lectures. If a picture is worth a thousand words, then a model is worth a thousand pictures.
- 20. Clone yourself.** Encourage members to teach in

their own neighborhoods and civic groups. Video-tape lectures and put them out for loan.

- 21. The organization must work for the people, not the people for the organization.** We do not charge for our lectures. Any money from dues and donations is spent on real expenses and maintaining and moving the shelter display. We take no salaries and make nothing on the shelter construction.

We hope these suggestions will be of help to you. We'd appreciate any feedback, suggestions or help. Reach us at:

**Civil Defense
Volunteers of Utah**

P.O. Box 8171

Midvale, Utah 84047

www.netoriginals.com/uss

Sharon Packer, of Salt Lake City, is the co-founder and president of Civil Defense Volunteers of Utah.

The Prepared Pantry

A column about stocking and enjoying
your own in-home grocery store.

This issue: getting started.

By James T. Stevens

from *Making the Best of Basics — Family Preparedness Handbook*

Almost everyone accepts the concept of being prepared for emergencies. However, when it's time to do the actual planning and acquiring the necessary items, most of us are simply overwhelmed by the enormity of it all.

Here's how to start the process.

First, know the 15 categories of food and nonfood:

1. Water — emergency supplies and purifying system.
2. Wheat, other whole grains, flours, and beans.
3. Powdered milk, dairy products, and eggs — stored as whole dried milk or skim (nonfat).
4. Sweeteners — honey, sugar, and syrup — essential sugars for many food preparations
5. Cooking catalysts — salt, oil, and leaveners essential to food preparation and body development (least expensive category to store).
6. Sprouting seeds and supplies — fresh, green, live whole foods.
7. Medications, and first aid kits.
8. Basic supplements — vitamins, minerals, herbs.
9. Fuels, energy, and camping gear.
10. Personal, family, infant, and pet care essentials.
11. Canned and dried fruits, vegetables and soup.
12. Kitchen staples — condiments and seasonings.

13. Meats and seafoods.

14. Domestic maintenance and preparedness.

15. Pleasure foods—snacks, beverages, sweets, and treats.

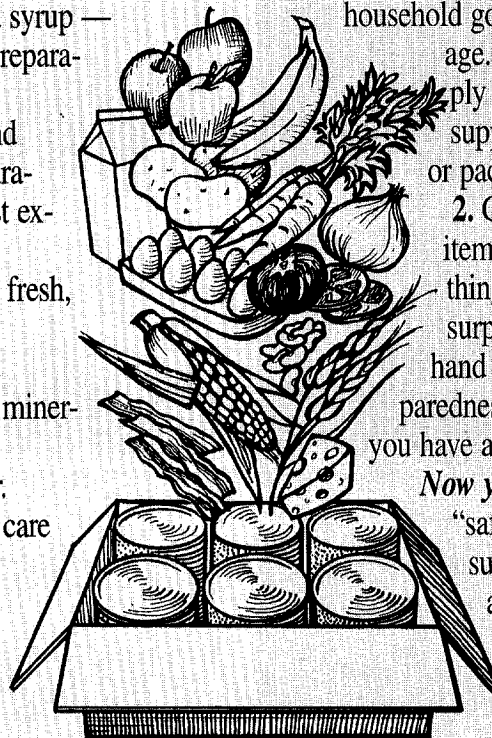
Next, consider these guidelines for stocking your pantry:

1. Walk through your home taking a “fresh” look at your household goods as being supplies for in-home storage. So maybe you don't have a year's supply of food yet, but maybe you have a year's supply of seasonings, lots of canned goods, or packaged food mixes.

2. Get boxes and begin sorting storage items as you find them. Make the best of the things you already have. Most people are surprised to find how much they have on hand already. You'll soon realize that preparedness is really a matter of awareness of what you have at your disposal for potential needs.

Now you're ready to start storing. Begin with “safety net” purchases. These are food and supplies which would sustain life should an emergency occur before your total preparations are completed.

Build your “safety net” through a process called *planned copybuying*.



This means buying extra cans, jars, or packages of food-stuffs, medicines, and household products you routinely purchase.

Safety net purchasing might include either or a combination of the following methods of *planned copybuying*:

- **Dupli-buying:** As you buy food items for immediate use — *buy another for your in-home food storage program*. Do this *every* time you shop. This doesn't include buying perishable and low-priority items, of course.

This method allows you to acquire foods you normally use, while eventually building a reservoir of foodstuffs. Perhaps for the budget-limited, this is the only way to get some foods in the "safety net."

- **Multi-buying:** *Buy a large supply of anything you use when it's on sale*. As seasonal food and product specials are offered by the stores, you'll maximize your purchasing power through bulk buying. This is the preferable way to acquire food storage items more quickly, but it requires a greater financial commitment and resources to accomplish.

In essence, either form of *copybuying* is an easy and simple method to balance your acquisitions.

Finally, as you plan your shopping list, maximize your purchasing power.

- Learn to use coupons effectively when shopping.
- Discover food wholesalers, buying clubs, or establish co-operative grocery clubs with a group of friends — whatever it takes to get lower prices and expand your purchasing dollars.
- Find or establish barter or exchange organizations. If there are no organizations of these types in your area, start one. Consider starting with your

extended family, neighbors, church group, or other organizations with which you are familiar.

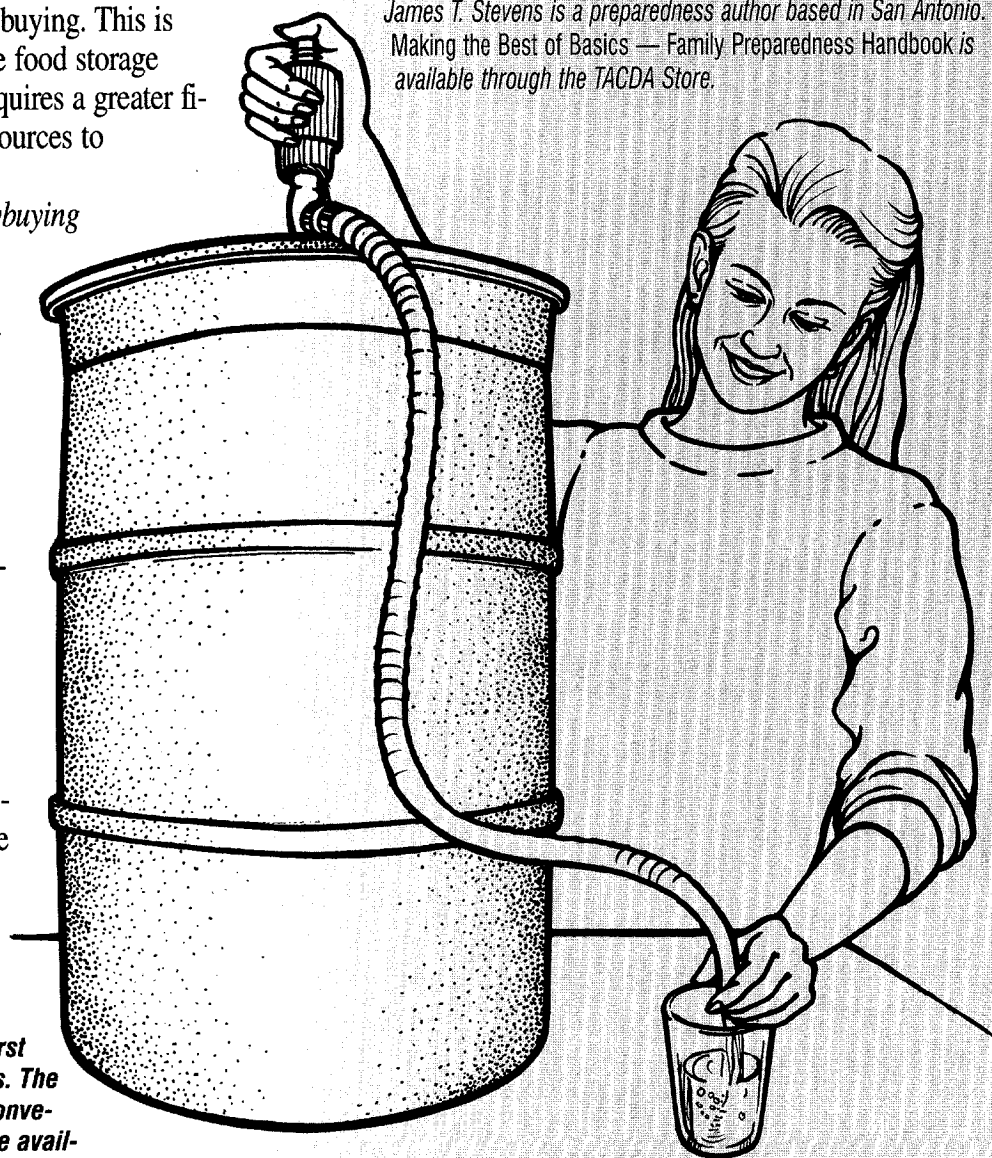
- Join or start a *shared resources* group. Find others who are willing to share the costs and use of expensive equipment, for example. The equipment then is owned collectively and no one family must bear the entire expense of expensive nonfoods items.

- Use mail order for those storage items that you cannot obtain locally or are more costly when bought locally.

Knowing how to organize, maintain and fully utilize a sensible, continuing, workable in-home food storage program becomes a matter of self-education and self-implementation for each family in advance of a natural, man-caused, or personal disaster. □

Next issue: planning a one-year storage supply.

James T. Stevens is a preparedness author based in San Antonio. His Making the Best of Basics — Family Preparedness Handbook is available through the TACDA Store.



Storing fresh water is one of the first steps in preparing for emergencies. The 30-gallon storage container and convenient hand pump shown at right are available through the TACDA Store.

JCD illustrations by Pamela Thornbloom

TACDA Letter

For members of
The American Civil Defense Association
Fall 1997

First off, thanks to all who have written to express their support for the new *Journal* format, etc. We greatly appreciate your encouragement.

Below is an example of what you may want to mail to your congressional representatives about the EMP (electromagnetic pulse) threat highlighted in this issue's Washington Perspective (see page 2).

Dear _____,

I would like to know your thoughts on the vulnerabilities of the United States infrastructure to a single nuclear EMP (electromagnetic pulse) burst above our country. I have read with interest some of the expert witness testimony from the July 16th meeting of the House National Security Subcommittee on EMP chaired by Representative Curt Weldon. What is being done by Congress to mitigate these threats? I am very concerned that these threats not be ignored and that reasonable actions be taken to reduce them and strengthen our infrastructure.

I believe we need to have a national capability to detect and destroy orbiting bombs that might be disguised as satellites. I also believe we need to be able to shoot down an incoming ballistic missile long before it threatens our country with high-altitude EMP. I also believe we need to strengthen our critical power, banking, transportation, communications, and computer infrastructures to rebound rapidly after such an attack. What are you doing about these very real threats? What do you recommend a citizen do at a personal level in our [district or state]? Do you support a rapid deployment of national defenses against potential orbiting bombs and against ballistic missiles in their early boost phase from nuclear capable countries? If not, why not? Do you support a re-establishment of an extended national food reserve that is spread evenly throughout the United States and can be distributed in times of infrastructure breakdown, whether due to EMP or other major disasters? If not, why not? Thanks for answering and addressing these questions.

Signed _____

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1997

December 2-4

Partners for Smart Growth Conference, Baltimore. Info: Urban Land Institute, 1025 Thomas Jefferson Street, N.W., Washington, DC 20007-5201; (800) 321-5011; e-mail: smartgrowth@uli.org; WWW: <http://www.uli.org/educate/education/smartgro.html>. Sponsors: U.S. Environmental Protection Agency and the Urban Land Institute.

December 2-5

Ninth Annual Chemical Emergency Preparedness & Prevention Conference, Pittsburgh. Info: Vtec2, 252 Newton Road, Richboro, Pa. 18954; (888) 429-6289 (toll free), -or- (215) 942-2088, fax: (215) 357-3613. WWW: <http://www.vtec2.com/cepp97.htm>. Sponsor: U.S. Environmental Protection Agency Region III.

December 4

Improving Local Emergency Management, Madison, Wis. Info: Disaster Management Center, c/o Department of Engineering Professional Development, College of Engineering, University of Wisconsin-Madison, 432 North Lake Street, Madison, Wis. 53706; (800) 462-0876; fax: (800) 442-4214; e-mail: custserv@epd.engr.wisc.edu; WWW: <http://epdwww.engr.wisc.edu/>. Offered by: Disaster Management Center, University of Wisconsin.

December 4-5

Third International Conference on the Management of Droughts, Valencia, Spain. Info: the Iberdrola Instituto Tecnológico, Seminario Permanente 'Ciencia y Tecnología de Agua, Edificio Albia-2, 7o E-48001 Bilbao, Spain; tel: 34-4-424.2400; fax: 34-4-424.9648; e-mail: intec@iderdrola.es. Sponsors: Iberdrola Institute of Technology and others.

December 7-10

Society for Risk Analysis (SRA) 1997 Annual Meeting, Washington, D.C. Info: SRA, 1313 Dolley Madison Boulevard, Suite 402, McLean, Va. 22101; (703) 790 1745; WWW: <http://www.sra.org>

December 8-9

Practicum in Emergency Preparedness - Short course, San Francisco. Info: Diane Wolcott, Emergency Preparedness Planning and Management Program, U.C.-Berkeley Extension, 1995 University Avenue, Suite 300 Berkeley, Calif 94704-4704; (510) 642-7537; fax: (510) 643-8290; e-mail: dlw@unx.berkeley.edu; WWW: <http://www.unex.berkeley.edu:4243>. Offered by:

University of California at Berkeley.

December 8-12

Fall Meeting of the American Geophysical Union (AGU), San Francisco. Info: AGU, 2000 Florida Avenue, N.W., Washington, D.C. 20009; (202) 462-6900; WWW: <http://www.agu.org>. The fall AGU meeting includes a Special Session on "Hazard Mitigation: Use of Real-time Information" sponsored by the Subcommittee on Natural Disaster Reduction (SNDR), Committee on Environment and Natural Resources of the National Science and Technology Council. Contact: Peter Ward, U.S. Geological Survey, 345 Middlefield Road, MS 977, Menlo Park, Calif. 94025; (415) 320-4736; e-mail: ward@andreas.wr.usgs.gov. Also see www.agu.org/meetings/fm97top.html for more information and instructions for submitting abstracts.

December 15-17

Sea Rescue Operations Seminar, Singapore. Info: Carol New; tel: (65)540-5216; fax: (65)542-9890; e-mail: saanet@pacific.net.sg.

1998

January 11-16

78th American Meteorological Society (AMS) Meeting, Phoenix, Ariz. Info: AMS, 45 Beacon Street, Boston, Mass. 02108-3693; (617) 227-2425; fax: (617)742-8718; e-mail: amsmtgs@ametsoc.org; WWW: <http://www.ametsoc/AMS/>.

January 12-24

Community Based Approaches to Disaster Management Course, Bangkok. Info: Sanny Jegillos, Senior Manager, Learning and Professional Development, ADPC/AIT, P.O.Box 4, Klong Luang, Pathumthani 12120 Thailand; fax: (66 2) 524 5360; e-mail: sannyj@ait.ac.th -or- lpdadpc@ait.ac.th. Offered by: The Asian Disaster Preparedness Center (ADPC) at the Asian Institute of Technology (AIT).

January 20-23

Corporate/Public Agency Coordination and Interdependence -Short Course, San Francisco. Info: Diane Wolcott, Emergency Preparedness Planning and Management Program, U.C.-Berkeley Extension, 1995 University Avenue, Suite 300 Berkeley, Calif. 94704-4704; (510) 642-7537; fax: (510) 643-8290; e-mail: dlw@unx.berkeley.edu; WWW: <http://www.unex.berkeley.edu:4243>. Offered by: U.C - Berkeley.

January 22-23

Seminar on Seismic Design, Retrofit and Performance of Nonstructural Components, San Francisco. Info: ATC-29-1 Project, Applied Technology Council, 555 Twin Dolphin Drive, Suite 550, Redwood City, Calif. 94065; (415) 595-1542;

fax: (415) 593-2320; e-mail:

atc@atccouncil.org. Offered by: Applied Technology Council (ATC). Abstracts due September 15, 1997.

February 4-8

Earthquake Engineering Research Institute (EERI) 1998 Annual Meeting, San Francisco. Info: EERI, 499 14th Street, Suite 320, Oakland, Calif. 94612-1934; (510) 451-0905; fax: (510) 451-5411; e-mail: eeri@eeri.org; WWW: <http://www.eeri.org>.

February 10-13

Second International Conference on Environmental Management (ICEM2), Wollongong, New South Wales, Australia. Info: Conference Secretary ICEM2, Department of Civil and Mining Engineering, University of Wollongong, Northfields Avenue, Wollongong, NSW 2522, Australia; (61-42-213055; fax: 61- 42- 213238; e-mail: icem2@uow.edu.au; WWW: <http://www.uow.edu.au/eng/conf/icem2.html>. Includes sessions on slope stability and landslide management, risk and decision making, environmental hazards legislation and policy, seismic risk and earthquake resistant design.

February 16-20

29th Annual Conference and Trade Exposition of the International Erosion Control Association (IECA), Reno, Nev. Info: IECA, P.O. Box 774904, Steamboat Springs, Colo. 80477-4904; 1-800-455-4322 or (970) 879-3010; fax: (970) 879-8563; e-mail: ecinfo@ieca.org.

February 18-19

Children's Emergencies in Disasters: A National Workshop, Orlando, Fla. For abstract guidelines see: http://www.fema.gov/fema/c_chdz.htm; or call (202) 884-4927; fax: (301) 650-8045; or e-mail: kallen@emscnrc.com. Presented by the Health Resources and Services Administration, Maternal and Child Health Bureau, the Florida Emergency Medicine Foundation, the National Highway Traffic Safety Administration, the Federal Emergency Management Agency, and the Substance Abuse and Mental Health Services Administration. (Held in conjunction with the 1998 International Disaster Management Conference see below.). Proposals for presentations and papers are due June 30, 1997.

February 19-22

Disaster '98: International Disaster Management Conference: "Assessing Threats to Your Community", Orlando, Fla. Info: Disaster '98 Registrar, Florida Emergency Medicine Foundation, 3717 South Conway Road, Orlando, Fla. 32812-7607; (407) 281-7396 or (800) 766-6335; fax (407) 281-4407.

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