

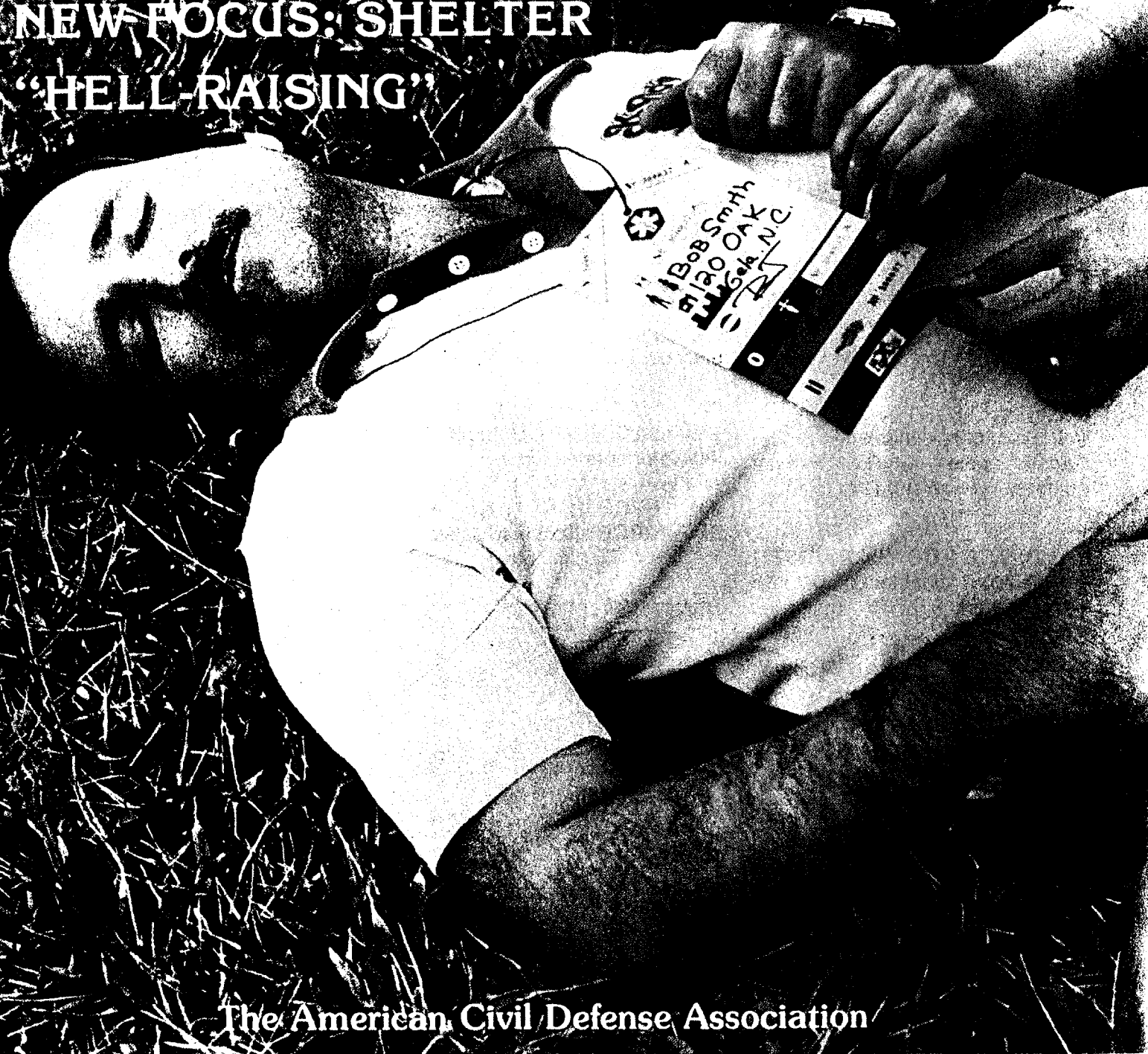
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VOLUME XIII — NUMBER 2

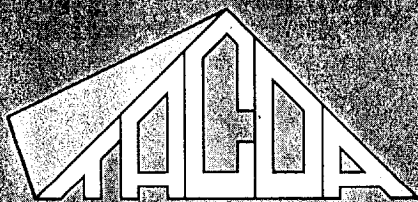
# Journal of Civil Defense

PREPAREDNESS TODAY —  
PEACE TOMORROW

NEW FOCUS: SHELTER  
“HELL-RAISING”



The American Civil Defense Association



**The American Civil Defense Association**

# Journal of Civil Defense

Presenting the Views of Industry, Technology,  
Emergency Government and Concerned Citizens

**APRIL 1980**

**VOLUME XIII — NUMBER 2**

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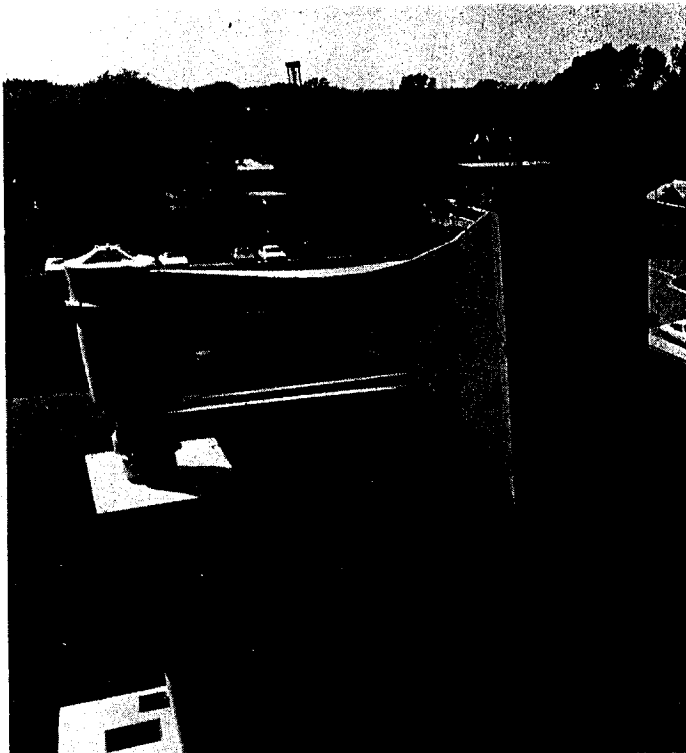
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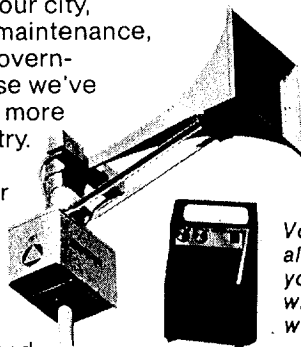
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## FOR THE U.S.— A JONESTOWN SYNDROME?

The risk of death in any given year from vehicular traffic in U. S. is one in 4,000. (Over 50,000 a year!) Pretty high. The risk of being killed in a tornado or a hurricane is one in 1,250,000. Pretty low. The risk of being killed due to a reactor malfunction is one in 5,000,000,000. Still lower. But the risk of being killed in a nuclear attack in any given year is one in 50!

It is peculiar that we have become alarmed about the one in 500,000,000 risk to the extent of firing up a national campaign to scrap the nuclear industry, while we have turned our backs on the one in 50 risk.

Now, in 1980, with the threat of war a reality and our neglect to prepare for it a scandal, the odds in one in 50 get even worse. If we assume that a nuclear attack will take place this year they become one in 2. Half of us would die. And that is on the optimistic side.

Well, we hope that this doesn't happen. Of course. But the fact remains that if we had taken seriously the one in 50 odds we could have, through a meaningful civil defense program, reduced them to one in 1,000.

A hundred million corpses! It's hard enough, distasteful enough, shocking enough, horrible enough to contemplate pictures of several hundred dead at Jonestown. FEMA Director John Macy was quoted in the *Journal's* October 1979 issue as saying: "I think we have an obligation to develop a program which is realistic and that will provide the degree of protection to the American people so that we *don't assume* that there is going to be a massive elimination of population in virtually a Jonestown kind of atmosphere."

Well put. BUT WHAT ARE WE DOING ABOUT IT? When the chips are down will John Macy's "obligation" have been something more than rhetoric? —

Translated into hard-nosed planning and action John Macy's words would mean that the "normal" one in 50 chance would be changed to the one in 1,000 chance through a civil defense program developed with the same attention and consideration (not at the same per capita cost) as the program to protect leadership. It has happened in other countries. It bears directly on the credibility of confrontations anywhere in the world.

And the truth is that we could improve survival odds even further. As Frank Williams pointed out in the *Journal's* January issue ("Civil Defense: Perspective and Challenge for the 1980s") the Soviets may just about have a particle beam weapon, i.e. a weapon to KNOCK DOWN incoming missiles. We, too, know about the particle beam. And laser technology. And our scrapped anti-ballistic missile program. And that attention to these and other technologies would balloon the one in 1,000 fatality odds. Would you believe one in 10,000? One in 20,000? Under these conditions what aggressor would be stupid enough to launch a nuclear attack? We would see nuclear warfare become as obsolete a military strategy as the cross bow.

✕ Right now it's for John Macy to live up to his reputation of being a bare-knuckled realist, to put his macho where his mouth is. It's up to Carter or a new president to wake up and plan for constituent safety as well as VIP safety, to follow through on P.D. 41. Is that possible?

FEMA

Walter Murphey

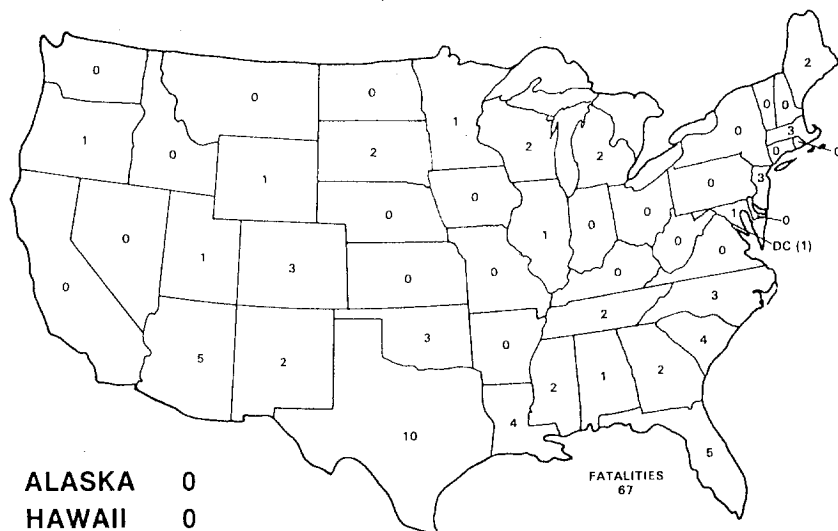
### FATALITY ODDS FOR U. S. PUBLIC (Per Year)

Automobile accident .....	1 in 4,000
Tornado or hurricane .....	1 in 1.25 mil.
Reactor accident .....	1 in 500 mil.

Nuclear attack:	
Without good CD (today) .....	1 in 50
With good CD (as in Russia) .....	1 in 1,000
With good CD plus defense technology (ABM, particle beam, laser, etc.) .....	1 in 20,000

Lightning strikes downtown Tampa. (Photo by *The Tampa Tribune*.)

Lightning strikes downtown Tampa. (Photo by *The Tampa Tribune*.)



Lightning does not often make national headlines. In fact, because casualties from a lightning strike usually number one or two people, it rarely even makes local front page news.

But in 1979, lightning created significant disasters. Two events involved oil tanker explosions in the Houston and Beaumont, Texas ship channels (see Table 1). A third event, in Plainview, Texas, tragically demonstrated the value of being *inside* an enclosed metal vehicle during an electrical storm. Four persons riding in the back of a pick-up truck were struck by lightning. Three other family members riding in the cab were not hurt. Collectively, these three events accounted for at least 7 deaths and 26 injuries.



Lightning continued to strike familiar places. Eight Gulf Coast and southeast states (North and South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas) accounted for 46 percent of the lightning deaths (Figure 1) and 42 percent of the injuries nationwide. Males continued to dominate the casualty statistics, accounting for at least 80 percent of the reported fatalities and at least 77 percent of the reported injuries. Outdoor activities led the casualty statistics (Table 3).

Lightning continued to strike the same place more than once, too. A home in Tennessee was destroyed by a lightning-caused fire. This was the third time lightning struck the home since it was built in 1970. At a church in Austin, Texas, three firemen were injured by lightning while fighting a lightning-caused fire.

Energy became a lightning victim last year, as well. There were at least four significant lightning-caused petroleum storage tank fires and tanker explosions in 1979. More than six and a half million gallons of oil and gasoline went up in smoke (Table 1). Lightning also shut down a Michigan nuclear power plant temporarily, when a bolt hit a nearby power line.

The trend of decreasing lightning fatalities continued in 1979. The published number of reported lightning deaths . . . 67 . . . was the lowest annual figure since lightning records began in the 1940's. However, lightning injuries remained in the general range reported throughout the 1970's.

One possible reason for the low fatality figures in 1979 could involve the June weather pattern. The southeast U.S. had cooler than normal temperatures and less rain, while the central plains through Texas had several significant severe weather and heavy rainfall events. A large "high" controlled the weather over much of the eastern U.S. from June 8 to 15. General afternoon thunderstorm activity which catches many people "unaware" was at a minimum during June. Except for a single incident in which 45 Michigan National Guardsmen were injured, there were only 4 reported deaths and 33 reported injuries in June. The injuries for June were only slightly below the average for the 1959-78 period. Deaths were significantly lower than the average of 23 reported during the same period. □

\*Statistics from Storm Data and selected newspaper clippings for January-October period.

**Table 1**

**OIL AND GAS LOSSES CAUSED BY LIGHTNING (1979)**

Location		Event
Nederland, TX	April 19	A Greek tanker exploded and sank when hit by lightning. Two crewmen were killed and 16 injured. An undetermined amount of oil was lost.
LaPorte, TX	July 17	100,000 gallons of gasoline burned after lightning struck a storage tank.
Toledo, OH	August 5	210,000 gallons of gas were destroyed after lightning hit a refinery storage tank.
Texas City, TX	August 7	2,000,000 gallons of gas ignited after lightning struck a storage tank.
Houston, TX	August 31	2,100,000 gallons lost after lightning struck another storage tank.
Houston, TX	Sept. 1	2,100,000 gallons of oil burned when lightning hit a tanker in the Houston Ship Channel. Three crewmen killed and 9 injured.

**Table 2**

**GROUPS STRUCK BY LIGHTNING (1979)**

Date	Location	Deaths	Injuries	Activity
April 19	Nederland, TX	2	16	Oil tanker struck
April 29	Dobbin, TX	2	3	Horseback riding
May 21	Boulder, CO	0	4	Mountain climbing
May 29	Dallas, TX	0	5	Construction site
June 20	Camp Grayling, MI	0	45	Training exercise
July 2	New Johnsonville, TN	1	4	Construction of a river barge
July 12	Talland, MS	0	12	Girl Scout camp
July 29	Livingston, IL	0	9	Family reunion
July 30	Plainview, TX	3	1	Riding in back of a pickup truck
August 31	Cleveland, AL	1	6	Football practice
Sept. 1	Houston, TX	3	9	Oil tanker struck

**Table 3**

**ACTIVITIES OF THOSE STRUCK BY LIGHTNING (1979)\***

	Deaths	Injuries
Telephone	2	5
Radio, Stereo, in-home, etc.	2	15
Outdoor Recreation		
Water related	10 (1)	12 (5)
Golf	4 (2)	14 (5)
Camping, hiking, picnicing, horse riding, biking	8	30 (12)
Athletics	4	11 (1)
Trees	13 (2)	34 (20)
Business related, farming, construction	19 (1)	108 (14)
Other Outdoor Events	5	31
Unspecified	3	43
<b>TOTAL</b>	<b>67</b>	<b>273</b>

\*The numbers in parenthesis indicate events included under 2 activities. For example, a golfer standing under a tree was counted under both activities. The number of deaths/injuries add up to more than 67/273 because some were counted twice.

## TACDA 1980 SEMINAR THEME: "PREPAREDNESS TODAY— PEACE TOMORROW"

Anaheim, California—now recognized as one of the five top convention sites in the United States—will welcome to its legendary facilities members and guests of The American Civil Defense Association (TACDA) for their 1980 seminar-conference October 22-24.

(In addition to being the home of Disneyland, the Los Angeles Rams and the California Angels, Anaheim has become renowned for its luxury hotels and abundant gourmet restaurants.)

The theme for the seminar, selected by the TACDA Executive Committee, is:

### PREPAREDNESS TODAY —PEACE TOMORROW

"This theme is the bottom line of the rough bargain that now confronts us," states TACDA President Frank Williams. "Either we realize now, as have the Soviets for years past, that a hard-core, realistic civil defense is the cornerstone of any serious approach to national survival and we implement it without further pussyfooting—or we voluntarily continue to give our adversaries 150 million hostages. Only these adversaries can rejoice in our threat to commit unilateral suicide. We addressed this problem in Kansas City last year. Our efforts combined with those of other organizations have done some little good—but *not nearly enough*, and not nearly fast enough. Our job of accelerated public education is clearly cut out for us as of right now, and the Anaheim conference fits into this 'hurry up' pattern. I just wish it were taking place tomorrow."

Mutually Assured Protection is based on the simplest of concepts: self defense and damage limitation. The path to this assurance will not be easy nor cheap. However, the path must be followed for the sake of humanity, and for the sake of freedom.

—Harrison Schmitt Reports to NM

## THE AMERICAN CIVIL DEFENSE ASSN. (TACDA) 1980 SEMINAR-CONFERENCE

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## CIVIL DEFENSE AUXILIARY PUBLISHES TWO CD MANUALS

Civil Defense Auxiliary (CDA), a promising new CD organization based in Washington, D. C., makes its impressive debut with the current publication and distribution of two manuals. First is a Disaster Planning Guide for U. S. industry. Second is the rebirth of the "Your Chance To Live" manual for schools (grades 8 through 10). The industrial guide will be given nationwide distribution, and the school manual will initially be distributed in West Virginia.

CDA is working closely with FEMA, the Advanced International Studies Institute and The American Civil Defense Association in new promotional programs.

(CDA's address: Dulles International Airport, P. O. Box 17108, Washington, D. C. 20041.)

## NFPA OFFERS EMERGENCY COURSES

With mounting concern over radioactive materials incidents and LP gas/LN gas emergencies the National Fire Protection Association (NFPA) is offering one-day courses in combatting them.

The 1980 schedule for these courses (each course given on each of the two days in each locality) is:

Apr 11-12	Sheraton-Plaza, Chicago
Apr 25-26	Biltmore, Los Angeles
May 2-3	Stadium Hilton Inn, Philadelphia
May 9-10	Ohio Fire Academy, Reynoldsburg
Jun 13-14	Radisson-Cadillac, Detroit
Sep 12-13	Jack Tar Hotel, San Francisco
Sep 26-27	Stouffer's Denver Inn, Denver
Oct 31- Nov 1	Harley Hotel, Springfield, MA
Nov 14-15	Nassau County Fire Academy, Long Island, N. Y.
Dec 5-6	Century Center Hotel, Atlanta

(Registration: one course \$60, two courses \$110, discounts for NFPA members.)

For further information contact:

National Fire Protection Association  
NFPA Seminars  
Continuing Education  
Division  
470 Atlantic Ave.  
Boston, MA 02210

In addition to the two courses described above two half-day arson courses will also be given.

The Federal Emergency Management Agency (FEMA) is charged to provide for the protection of the civilian population and industry of the Nation. Its primary mission is safeguarding the Nation's resources of life, property, and industry from enemy attack. . . .

—Standards for Fallout Shelters  
(FEMA, Sept. 1979)



# GRASS ROOTS GRAFFITI

## REGION VII POSITION PAPER

In a February 11th note to membership United States Civil Defense Council President William E. Thornton commented on position papers developed by organizational segments on the deterioration of American civil defense. "I recommend," said Thornton, "that each region develop a position paper addressing those issues you deem most important, and submit it to the National Office to be bound and hand-delivered to FEMA National Headquarters."

Thornton referred in particular to the Region VII position paper, which reads in part:

On January 11 and 12, 1980, members of Civil Defense Directors Associations from Nebraska, Iowa, Missouri and Kansas (FEMA, Region VII) met at St. Joseph, Missouri for the purpose of drawing up a Position Paper concerning the shortcomings of the current Disaster Preparedness policies and programs at the Federal Level. Events leading up to this meeting consisted of numerous meetings where local directors have expressed their concern over recent changes in Federal Government and in the National policy concerning all areas of Emergency Management...

The present Federal program is rapidly deteriorating in many aspects. It is not adequately funded. The people who administer the program are not properly briefed on all elements of Civil Defense, which reflects an inadequate Personnel Training Program on the Federal level. We feel that the current problems are due to the lack of adequate Federal Funding in many program areas. We also feel there is a lack of communication between Federal, State and Local Governments which brings about the problem of a lack of recognition on many levels of government... On the local level, we are forced to reduce or eliminate many of the present necessary programs, such as Warning, Equipment Maintenance, Training of Shelter Management, RADEF, Medical Self Help, etc. ...

In summary, we feel the following points are imperative:

1. A public statement by President Carter letting the general public know that he means what he said in his Presidential Declaration #41.
2. A "FIVE YEAR PROGRAM" for Emergency Management, including commitment and appropriation, to enhance the capability to cope with all kinds of disasters...

Park L. Sullivan, President  
IOWA Civil Defense Directors Assn.

Wm. P. Blair, President  
MISSOURI Civil Defense Directors Assn.

H. L. Whitfield, President  
KANSAS Civil Defense Directors Assn.

Howard A. Harris, President  
NEBRASKA Civil Defense  
Directors Assn.

On January 24th *The Kansas City Star* published a report on the Region VII Position Paper by Virginia Stollings. Entitled "Civil Defense Officials Create a Storm" it read in part:

Officially adopted by Uncle Sam in the Federal Civil Defense Act of 1950, local emergency planners have quietly licked their wounds over each federal cut in civil defense spending. They silently accepted periodic reshuffling that has pigeonholed them under five different federal names in 30 years.

Now their era of silent resignation is ending. Planners from Missouri, Kansas, Iowa and Nebraska are joining voices in a demanding squall in hopes of gaining paternal attention from Uncle Sam.

Their outrage is expressed in a position paper adopted Jan. 12 in St. Joseph and signed by presidents of the Civil Defense Directors Associations...

An official of the Federal Emergency Management Agency's Kansas City regional office said he shares local officials' financial concerns.

"Yes, I bleed for these local people," said James E. Holland, director of the Plans and Preparedness Division for the four-state region. "I know them. I know the program is not progressing the way it should due to lack of funds.

"I keep reminding local civil defense people of this fact: No matter how much I would like to provide funds, all I can do here is administer the funds allocated to us."

Holland said approval of a bill before Congress, seeking approval

of a five-year emergency preparedness plan supported by \$1.9 billion in federal money, would put local programs on their feet.

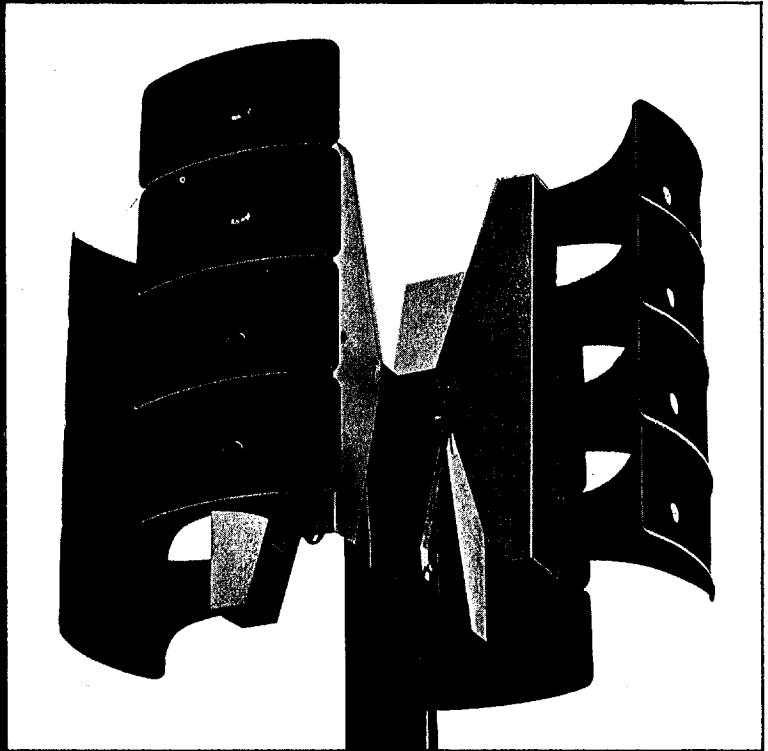
"We hear comment to the effect that people don't care about civil defense," Holland said. "I challenge that. Civil Defense is one of those things people think their government is taking care of."...

To correct the problems the local directors recommended adoption of a five-year program for emergency management, including more funds.

The directors said \$500 million a year, about five times the current federal appropriation, is needed to beef up local civil defense programs.

If indeed, as U. S. Civil Defense Council President Thornton indicates, the preparation and submission of regional position papers is to be encouraged the question remains as to the propriety and advisability of a similar action by the more powerful national organization.

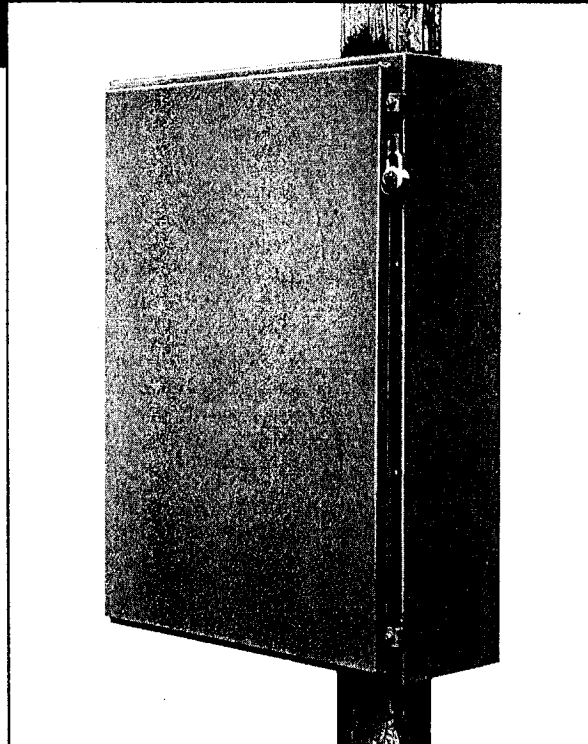
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Predictably, political and public apathy and contempt for civil defense fades with international tensions. Overnight civil defense staffs find themselves saddled with a real-world responsibility for civil defense—a responsibility which has been diluted and discredited over the years with increasing emphasis on lesser disasters and more loosely related duties. With the threat of war in 1980 we are back to square one. Protective measures heretofore provided for key leadership elements and key industrial elements must now be—as they have been for many years in countries alert to the pattern of modern warfare—provided for the people. It is painfully late, but in spite of the demoralizing history of civil defense put down the responsibility must be accepted with renewed and escalated determination. And the principal civil defense requirement—by no means the only one—is, of course, shelter. This article is a brief introduction to that subject.

## SHELTER: THE PROBLEM, THE PROJECT, THE REWARD

(First of a series of five articles on nuclear attack protective measures.)

### —A Journal of Civil Defense Staff Study

Shelter?  
What's that?

Suddenly a growing number of Americans want to know. Where can information be obtained? What contractors deal in shelter construction? How about shelter plans?

Like President Carter, who suddenly to his great astonishment discovers that the Soviets are not the fellow-patsies he thought they were, the individual who suddenly discovers that shelters are not the joke he had been led to assume they were is rudely shocked out of his long-comfortable complacency.

He is no longer snickering.

He needs information. He needs it now. His previous indifference is gone.\* Still difficult to deal with, however, is the leadership vacuum, the cavalier shelving of a sticky problem by a "give-away" oriented government.

The concept of shelter is not very complicated. Situations in which Americans now feel that they are in or in danger of being in can be set forth as follows:

*\*In the late 60s the Journal asked Swedish CD Director Ake Sundelin how Sweden had mustered citizen support for its civil defense. Sundelin replied that Swedes could care less about CD. Swedish leadership accepted its responsibility, acted, and the man-in-the-street followed. No questions.*

SITUATION #1: Attack has occurred.

SITUATION #2: Attack is on the way.

SITUATION #3: Attack is imminent.

SITUATION #4: International tensions make war likely.

What can be done in the way of protective measures in each of these "situations"? We can open up the subject—no more—like this:

SITUATION #1: Attack has occurred. There's an old saw that says in this case find the nearest mirror and kiss yourself goodbye (variant of a more colorful and less printable version). While this indicates the seriousness of the situation there are actions that quickly taken could save many of those with time enough to hunt for a mirror. In the May-June 1969 issue of the *Journal* (protection techniques have changed little since then) an article by Wm. Cornelius Hall and Carsten M. Haaland—"In the Shadow of Ground Zero"—pointed out that "at a distance of two miles or more from a surface burst of one megaton yield it is even possible, with luck and alacrity, to survive *without* the benefit of a special structure." This involves ducking into or behind something in the *immediate* vicinity such as a culvert, a ditch or an embankment—a pretty desperate situation—then, if luck is still with you, after the blast and heat are over, finding a place to shield you from fallout a little later.

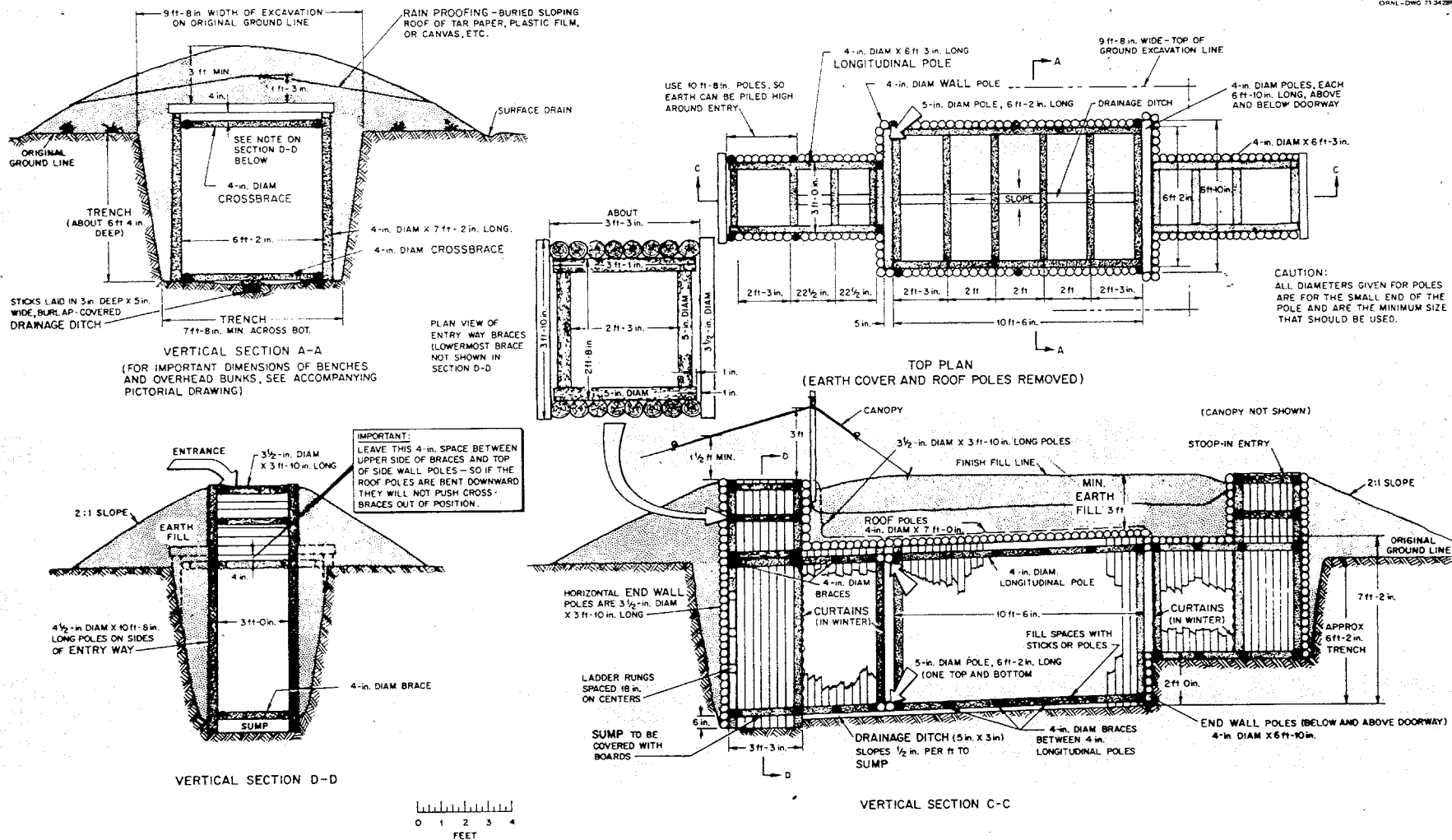
A somewhat less desperate situation is that outside the area of direct effects (blast, heat, prompt nuclear radiation). Here only fallout is a concern. With a half hour or more to work with, a

number of expedient means can usually be exploited to fashion shelter quickly. The basic idea is to get as much mass (weight) of any kind between those to be protected and the outside where fallout is to be expected. Table 1 gives some fallout protection factor\* values for sample horizontal and overhead masses. One example of an improvised shelter is a basement table area (i.e. *underneath* the table) with the table top loaded with books, blocks or other materials and the floor above with appliances, furniture, etc. centered over the table area. A modification of this idea can be used in an above-ground location with a buildup of extra horizontal mass with appliances, furniture, blocks, banked dirt outside house, etc. (See Chapter 4 of DCPA Publication HR-20, *Protection in the Nuclear Age*.)

SITUATION #2: Attack is on the way. People in target areas have substantially more time (but still very little, maybe five minutes) to find protection. It could even be that a designated blast shelter is available for use if the location is known. For those outside the blast areas Situation #2 is similar to Situation #1. In cases where there is doubt as to whether one is in a blast area or not it is safer to assume that one is.

*continued on page 14*

*\*Fallout protection factor: ratio of value of outside radioactivity to value of radioactivity inside a protected space (shelter).*



PLAN AND ELEVATION OF SMALL-POLE SHELTER.

# INSTRUCTIONS— SMALL-POLE SHELTER (FALLOUT/BLAST)

(Limited space here requires abbreviated instructions. Use more detailed instructions if at all possible—e.g., ORNL-5037)

(a) Study carefully drawings and instructions at every step.

(b) Assemble required materials. Use green poles per table below.

Pole Length	Min. diameter —small end**	No. of Poles	Width to be Covered #
6'-2"	5"	2	-
3'-1"	5"	12	-
2'-4"	5"	12	-
10'-8"	5"	11-17	7'
8'-8"	5"	11-17	7'
10'-6"	4"	4	-
7'-2"	4"	94-141	47'
5'-6"	4"	12	-
6'-10"	4"	6-9	3'
6'-3"	4"	8	-
2'-6"	4"	16	-
2'-3"	4"	4	-
5'-2"	3½"	19-30	8'
3'-10"	3½"	83-134	36'
10'-0"	2"	12	-

(c) Have on hand adequate rainproofing materials (improvise if necessary) at least 7 pounds of 16-penny nails or better. Boards for benches and bunks and other available lumber will come in handy. Tools, of course, are needed (recommended as a minimum: 2 long-handle axes, a good crosscut saw, pick, long-handle shovel, claw hammer, file, steel tapes, hatchet).

(d) If possible slope of land should be so that entrance end is about 12" lower than other end.

(e) Carefully stake out and excavate shelter trench. Double check work and alignment. Clear brush to 10' in all directions. Use measuring stakes. Pile dirt away from excavation.

(f) Organize, plan, use teamwork.

(g) Carefully build floor frame on level ground to required measurements, place on excavation floor, then build frame of main room. Use temporary bracing for corner poles.

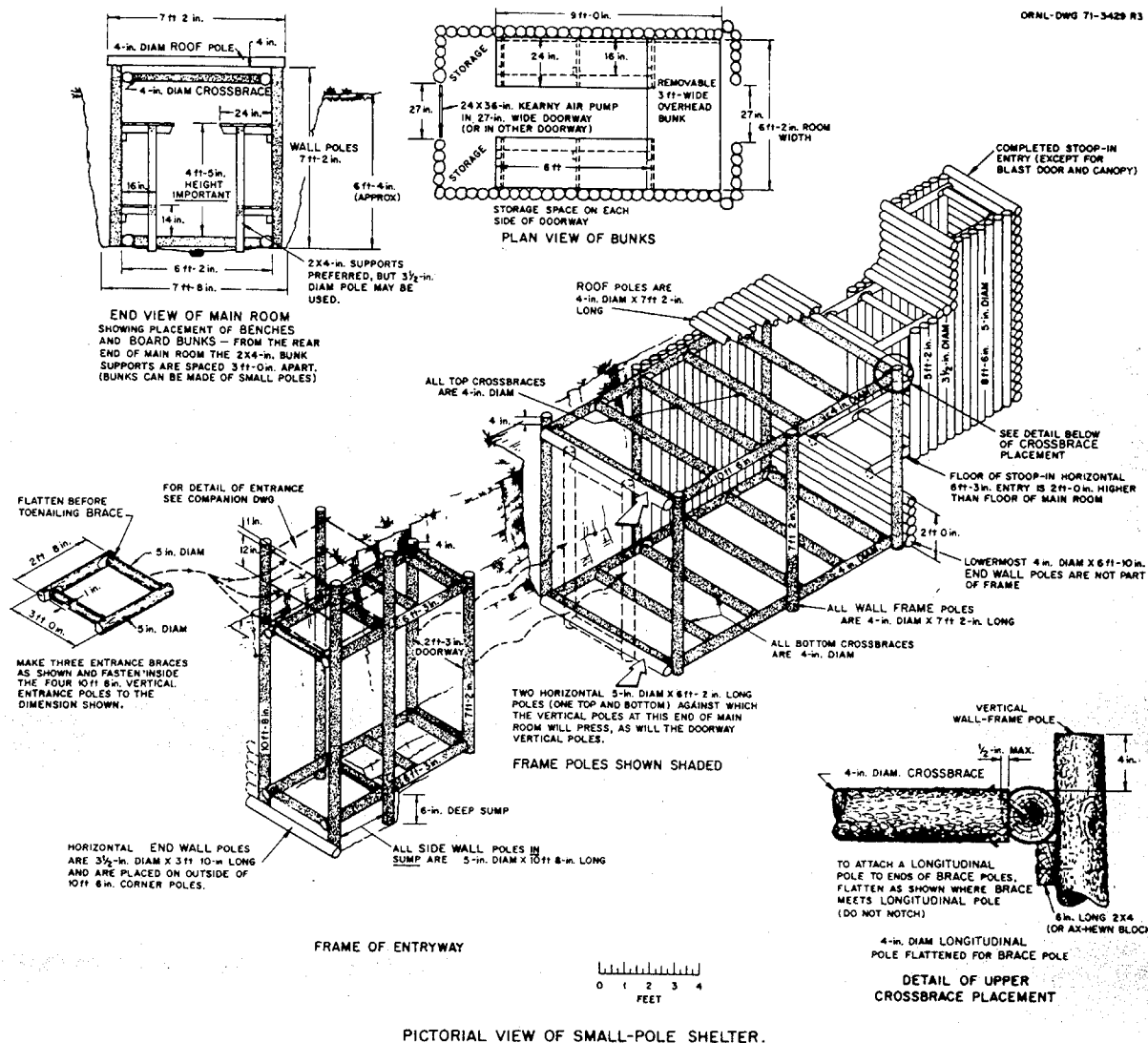
continued on page 14

## Instruction Key:

\*To be shortened to fit for crossbraces.

\*\*Wall and roof pole top diameters should be no more than half again as large as the minimums.

#Width equals distance measured across single layer of poles when a sufficient number of poles is laid on ground side by side and touching to cover a rectangular area.



continued from page 13

(h) To prevent earth from coming through cracks between wall poles cover walls with cloth, plastic, rugs, roofing or even cardboard. If none of these is available use sticks, twigs or grass to cover the wider cracks. (Follow drawings carefully.)

(i) When all bracing and vertical wall poles are in place carefully backfill.

(j) Put roof on. Use materials to stop cracks between poles, *but do not rainproof at this time.*

(k) Mound earth over roof to about 15". Smooth out. Put rainproofing materials over mound as generously as practical. Place more dirt over rainproofing—at least 2½".

(l) Carefully finish off interior.

(m) Cover entrance. If blast protection is needed then sturdy blast doors are necessary. ORNL-5347, *Blast Tests of Expedient Shelters*, etc. (1978) reads on pp 9-10:

"Both entrances of the Small-Pole Shelter were protected by expedient blast doors. Each door measured 48" x 42" and each was made of five thicknesses of 3/4" exterior plywood. The plywood sheets were glued together with waterproof resin and nailed together from both sides, on a rectangular spacing of 4" in each direction, with No. 16 (4") coated nails. Expedient hinges made of strips cut from the worn treads of automobile tires were nailed to the door and to vertical poles of the entry (hinged on side nearest ground zero)."

ORNL 5347 gives further valuable information.

(n) Other problems also need close attention, including: ventilation, sanitation, food, water, bedding, medicines, and light. Shelter improvements should be a continuing effort.

**(Caution: Above is an abbreviated and incomplete guide only. More thorough and more detailed instructions should be used if possible—e.g. 5037)** □

continued from page 11

SITUATION #3: Attack is imminent. People in assumed target areas can relocate outside the target areas or can quickly build expedient blast shelter. Oak Ridge National Laboratory publications give excellent examples of expedient blast shelters that will withstand fairly close-in blast and heat.

One report on actual testing (ORNL-5347) states: "Well-constructed expedient shelters will permit their occupants to survive at least 7 psi . . . expedient shelters, if their walls are skillfully shored and their entrances equipped with expedient blast doors,

can readily be built so as to protect occupants against all blast effects at peak overpressure ranges several times as high as 7 psi."

People outside assumed target areas (including those who relocate from target areas) have a little more time to construct good expedient fallout shelters, and Oak Ridge National Laboratory publications are also valuable references for expedient shelter.

SITUATION #4: International tensions make war likely. Here consideration should be given to the possibility of having to deal with one of the first three situations. An expedient shelter, for instance, is an excellent standby facility for a family desiring available protection while going about the construction of a permanent facility. For a permanent-type private blast shelter in the peripheral area of a likely target a good contractor is advisable. One good private blast shelter plan is the "shaped design" described by engineer Herbert A. Sawyer's article "Economy Blast Shelter—Family Style" in the July-August 1969 issue of the *Journal of Civil Defense*. Another appears in the May-June 1975 issue of the *Journal*. For shelter against fallout only the Feds have some good designs. H-12-A, for instance, describes a basement fallout shelter, and H-12-2 gives information on an above-ground fallout shelter separate from the home. A 1962 federal booklet, *Family Shelter Designs* (H-7) has a number of home shelter ideas with sketches and guides for construction.

As the accompanying bibliography shows there has been no dearth in shelter planning publications, and some of them are still available. There has also been no dearth in official studies and exercises to show what the benefits of shelter would be in terms of lives saved.\*

The granddaddy of them all is the 1963 *Project Harbor* wherein a team of 63 leading scientists and engineers

*\*In a nuclear attack, shelter is the chief concern. Other requirements are also vital. These include: proper ventilation, water, food, sanitation and medical supplies.*

spent six weeks under government contract to the National Academy of Sciences studying "the likely effects of enemy attacks on the United States, and the problems of civil defense of the country now and in the future." Dr. Eugene Wigner directed it. Conclusions of the study called for a steep upgrading of shelters and "substantially greater federal involvement." Political leadership was also stressed.

A notable exercise was PONASt (Post Nuclear Attack Study) II held in 1971. A simulated 6,800-megaton nuclear attack on the U. S. resulted in 53.8% survivors, and calculations showed that with blast and fallout shelter 94.3% would have survived.

Wherever we turn in federal civil defense studies shelter is recommended and called for. Wherever we turn in federal exercises statistics prove that the urgent call for shelter is absolutely correct.

These studies and these exercises have given the Federal Government a clear mandate for shelter construction for the people for over 25 years. Yet our government has done little else than bear witness to the civil defense preparedness measures of its potential adversaries and a number of non-aligned nations. Why?

But even without effective leadership action for population protection the individual, the family, the group, the community can take action to contend with the threat. Admittedly, nothing as ambitious as a Mt. Weather-type shelter (one of the government bunkers outside Washington) is feasible, but other types are entirely practical as indicated above.

For rough plans for a very simple expedient shelter see pages 12-13. With flexibility, ingenuity, imagination, materials substitutions where necessary, and a good bit of sweat such a shelter can be constructed in less than two days. Then, if desired, a permanent, more comfortable (and more expensive) multi-purpose shelter can be planned and built. □

*(The June issue of the Journal of Civil Defense will contain a 4-page study of expedient shelter designs.)*

The following series of shelter pamphlets was published by OCD/DCPA and pertain to basement *fallout* shelters only:

- H-12-A—Home Fallout Shelter, Modified Ceiling (Basement) 1975
- H-12-B—Home Fallout Shelter, Modified Ceiling (Basement) 1966
- H-12-C—Home Fallout Shelter, Concrete Block (Basement) 1966
- H-12-D—Home Fallout Shelter, Snack Bar (Block—Basement) 1978
- H-12-E—Home Fallout Shelter, Storage Unit (Basement) 1966
- H-12-F—Home Fallout Shelter, Lean-To (Basement) 1966

(Note: Above is an incomplete list. Many other publications exist, and others may be published in a later issue.)



## BIBLIOGRAPHY—SHELTER PUBLICATIONS

Following is a limited bibliography of selected civil defense publications and articles. It would be normal and desirable to indicate where these materials can be found. However, with years of flagging interest in civil defense that is not currently practical. In most cases, with imagination and perseverance, a desired publication—or a suitable substitute therefor—may be located at a local, state or regional civil defense (or FEMA) office, a library or other source. (Once we at the *Journal of Civil Defense* started looking we were much surprised by the number of documents we found.)

Publication or article	Description	Remarks
Project Harbor Summary Report (Civil Defense), 1964, National Academy of Sciences	Gov't commissioned CD study by 63 scientists. Scope: general. 39 pp. \$1.25	Eugene Wigner's classic CD study of threat & needs.
Little Harbor Report (Civil Defense), 1968, National Academy of Sciences report to AAC	Sequel to the above. Addresses shelter problems. No charge from AEC	Stresses shelter against blast. Scope: general.
<b>EXPEDIENT SHELTERS</b>		
Antiradiation Shelters in Rural Areas (ORNL-TR-2745), 1973	Translation of Soviet manual	Describes basic rural shelter
Expedient Shelter Survey (ORNL-4860) Cristy, 1973.		Technical information.
Blast Tests of Expedient Shelters (ORNL-5347) 1978. Cresson Kearny-Conrad Chester	Gives results of blast experiments on expedient shelter types.	Includes blast tests of shelter shown on pp. 12-13.
Expedient Shelter Handbook (ORNL 4941). 1974.		Limited distribution
Feasibility of Citizen Construction of Expedient Fallout Shelter (ORNL-5368)	Written by newly-indoctrinated researchers in civil defense and shelter technology.	Illustrates practicability of fanning out information.
Nuclear War Survival Skills (ORNL-5037), Cresson Kearny 1979.	Comprehensive expedient shelter manual. Gives needed information for survival. Covers blast problems.	Reprinting by American Security Council Education Foundation about May 1, 1980
Protection in the Nuclear Age (DCPA) H-20, Feb. 1977.	Improvised and expedient shelter information.	Reasonably available from CD sources.
In Time of Emergency (DCPA) H-14. 1977	Improvised and expedient shelter information.	Predecessor to above, limited stocks.
<b>PERMANENT SHELTERS—HOME</b>		
Architectural Design and Construction of the Survival Home (Course 3 of 3-part series). Survival Homes, Inc., PO Box 163, Provo, Utah 84601. \$40.	In-depth study of survival requirements. Gives details of all-around measures to be taken in disaster situations.	Based on principle that every family needs a survival plan, war or no war.
Family Blast Shelters (30 psi) Emergency Measures Organization, Canada	Shelters for urban-located families.	One of several pamphlets in a series.
Disaster Survival Handbook, by Alton L. Thygerson, BYU Press, \$7.95.	Analyzes disasters and means to cope with them.	Survival techniques required for shelter living also covered.
Home Blast Shelter (DCPA) 1978	Pamphlet	
Shelters in New Homes (DCPA) 1969. TR-60.	Fallout shelter—adaptable to blast.	Reprint from Oct. '69 issue of <i>Homebuilding</i> .
A Low-Cost Home Shelter From Nuclear Blasts, by Herbert A. Sawyer, Jr.—Jul-Aug 1969 issue of <i>Survive</i>	"Shaped" shelter built by engineer for family. Gives plan and specifications.	Demonstrates practicality of "back-yard" urban shelter.
Above Ground Home Fallout Shelter (OCD). H-12-2, 1969	Pamphlet.	Shows above-ground possibilities.
Housing with Shelter (HUD) 1970. 65¢. Sup. of Doc., DC	Covers single and multiple family housing units.	
Canadian Fiberglass Blast Shelter Trials, by J. P. Nielsen. <i>Survive</i> , May-Jun '72.	New type of blast shelter withstands tests.	Fiberglass introduced as possible shelter material.

# REVIEWS

## AMERICA IN HOSTAGE (Soviet Civil Defense and United States Security)

Color film, 42½ or 30 min. TV Cassettes: \$50 (or borrow against \$50 deposit). Produced by Advanced International Studies Institute (contact: Susan Kulchar, 4330 East-West Highway (Suite 1122), Washington, D. C. 20014. (Phone: 301/951-0818))

Reviewed by Walter Murphey

"America in Hostage"—a gripping, factual, timely, compelling expose of Soviet and U. S. preparedness—dramatizes the ominous inferiority of U. S. defenses.

Convincingly narrated, "America in Hostage" calls upon world expert opinion and solid evidence in zeroing in on the immediate need for action. Primary message: the current pushover posture of U. S. home defense must go.

Without this turnaround, the film makes clear, America's fate will be "abject submission or extinction."

In handy, economical cassette form, the film is available in the following types:

- (1) Half-inch video tape, VHS format
- (2) Half inch tape, beta format
- (3) Industry-standard three-quarter inch format

(Specify type—also preferred time length—when ordering)

"America in Hostage" is a shocker, medicine we've long needed. No viewer can doubt that the dangers of non-survival are for real.

At the top of the "must see" list. Don't miss it.

## NUCLEAR WAR SURVIVAL SKILLS

### ANNOUNCEMENT

Plans now call for publication of *Nuclear War Survival Skills* (Cresson H. Kearny's Oak Ridge National Laboratory study) by the American Security Council Education Foundation—Boston, Virginia 22713—about May 1, 1980.

Price will be in the neighborhood of \$10. Details will be announced by the *Journal of Civil Defense* and the *TACDA Alert* as they become available.

## ENVIRONMENTAL IMPACT ANALYSIS HANDBOOK, Edited by John G. Ram and David G. Wooten. Published by McGraw Hill Book Co., 624 pages. \$36.50. 1980.

Reviewed by Robert Baffin

As a reference for the professional environmentalist, the industrialist, and the serious student of socioeconomic impacts the *Environmental Impact Analysis Handbook* is invaluable.

As a professional guide for a community where environmental quality is considered important this book needs to be on the desk of that community's engineers—and exploited by them.

"This reference handbook," say Ram and Wooten in their preface, "is designed to provide environmental planners, analysts, and decision-makers with specific techniques and tools that can be used to assess and predict the environmental impact of projects such as residential, commercial, and industrial developments, new communities, urban renewal or redevelopment, park and recreational facility development, dams and flood control projects, wastewater and sewer treatment plants, new airport construction, and power generating stations . . ."

"Each chapter is designed to be self-contained to provide the reader with a concise and complete summary of applicable tools and techniques in each of the chapter areas . . ."

The rewards of a serious approach to environmental control include improved health, prolonged life and better life quality.

That can mean a lot to a community, a family, an individual.

## OCCUPATIONAL RADIATION DOSE LIMITS FOR NUCLEAR FACILITIES. (4 pp, Feb. 1980)

(Policy Statement of the American Nuclear Society, 555 N. Kensington Ave., La Grange Park, IL 60525.)

Excellent authoritative information that gives answers to many questions relating to indicated subjects. 15¢ per copy + self-addressed stamped envelope to above address.

## NATIONAL PERSPECTIVES ON CIVIL DEFENSE: 1978, by Jiri Nehnevajsa, Published for Defense Civil Preparedness Agency, Contract: DCPA01-78-C-0218, Work Unit: 4815-B, 49 Pages. 1979.

Reviewed by Lt. Col. Quentin T. Till

This report defines credibility problems along four lines.

1. Credibility of threat
2. Credibility of response
3. Credibility that the response would actually be put to use
4. Spin-off credibility

The study finds the threat credibility to be fairly high and that many Americans think that a nuclear war might be likely. Many Americans feel that their area would be a target or exposed to significant fallout—and further that other nuclear threats such as power plant accidents, terrorist takeovers of nuclear facilities are also of much concern. The study also indicates that civil defense programs are seen as effective. Polls show that the people feel that blast shelters are a person's best bet for survivability followed by fallout shelters, and a distant third, evacuation. The study further shows high expectations to comply with a presidentially ordered or urged evacuation and a rather high expectation of helpfulness on the part of the possible host areas of the nation. Many people feel though that time availability is a major concern in that there would probably not be enough time to be warned about an impending threat and further not enough time to evacuate.

The study also indicates that Americans are willing to share their basements, homes and will assist others and will volunteer their services for civil defense efforts should they be needed.

## SHALL AMERICA BE DEFENDED? SALT II AND BEYOND, by Lt. Gen. (Ret.) Daniel O. Graham. 267 pages. \$10.95. Published by Arlington House (164 Huguenot St., New Rochelle, N. Y. 10801.)

Reviewed by Robert Baffin

As those who have heard General Graham speak would expect, his book *Shall America Be Defended?* is

*continued on page 19*

## CD EDUCATION! CD COMPETITION!

Our most recent reports from the Soviet civil defense front are articles written at or near the end of their 1979 training year. There were numerous CD competitions being held during this period, and many of the writers had great praise for the performances of the various teams and formations taking part in these contests. Such competitions were reportedly held:

1. for medical aid teams of the Russian Federation [RSFSR]<sup>1</sup> (a 2-day affair);
2. for medical aid teams of Kiev's Pecherskiy Rayon [county];<sup>2</sup>
3. for medical aid teams of a road machinery shop in Orel;<sup>3</sup>
4. for medical aid teams in Podmoskov'ye;<sup>4</sup>
5. at Chernovtsy<sup>5</sup> (over 30 teams participated here);
6. for the best facility civil defense program (Uzbek, SSR)<sup>6</sup> (First place, 1979, was won by the Pap Rayon Association, M. Dalimov, CD Chief); and
7. for fire-fighting formations in the Vitebsk area.<sup>7</sup>

The Soviets have great confidence in creating a spirit of competitiveness among people in order to improve their performance. This approach is used in sports, in production work, in the military, as well as in civil defense.

It is also reported that special attention is being focused on improving civil defense training in schools with emphasis being given to the creation of "model civil defense schools." These particular institutions are to be highly publicized so that others may follow their example. It is stated<sup>8</sup> that

"... a school designated a model school has to be one

Research sponsored by the U.S. Department of Energy under contract W-7405-eng-26 with the Union Carbide Corporation.

in which the instructional staff has to its credit concrete success in teaching this subject and organizing civil defense activities within its own facility.

"School No. 43 in Moscow is successfully achieving two basic goals. The first is an internal goal: to achieve what could be considered a model civil defense status within its own facility. The second is an external goal: on the basis of its own practical experience to provide instruction to instructors from other schools in the rayon, school CD staffs, the military instructors and 2nd-grade and 5th-grade classroom instructors in means of achieving practical solutions to civil defense programs."

This idea of establishing "model CD schools" is just beginning to be implemented and seems to be a very serious effort to get information on preparations for defense to the younger generation (and thence to their families). According to this same article,<sup>8</sup>

"the director [of this Moscow school], his assistant for training and indoctrination, the military instructor, and 2nd-grade and 5th-grade classroom instructors have all had civil defense training, as a result of which they have increased their own mastery of methods and techniques."

Five specific schools are mentioned as being involved in this "model CD schools" program in L'vov, one in Baku, one in Poltava, and "many others as well."

The advancement of these schools was apparently the subject

of much attention at a conference on science and practice held in Moscow this past fall.<sup>9</sup>

"... this conference devoted itself to the matter of further improving the training of students against weapons of mass destruction. The main public education administration and Moscow's CD staff arranged participation in the conference on the part of school directors, directors and methods specialists from rayon public education offices and rayon CD staff and instructional personnel.

"... Notable advances have been made in the establishment of general educational schools offering standard (model) civil defense training programs. But in a number of places this task is unfortunately not being undertaken with the requisite sense of urgency, despite the fact that it is to be completed this year. This is why during the coming training year we need to do everything necessary not only to identify the model schools in each urban and rural rayon but also to equip them and provide them with all necessities.

"... Civil defense is a subject of study in all schools without exception... But what we are referring to here is not the run-of-the-mill schools, but rather the model schools, the guideline schools. And after we have created these schools, we cannot limit ourselves to a simple report: let us accomplish our tasks!"

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8. *Moscow Voyennyye Znaniya* in Russian, No. 8, Aug. 1979, pp. 16-17, *ibid*, p. 24.

9. *Moscow Voyennyye Znaniya* in Russian, No. 8, Aug. 1979, pp. 8-9, *ibid*, pp. 1-2.

# LETTERS

## HRC—MIDWEST

**Editor, *Journal of Civil Defense*:**

We want you to join the Kansas City group in a new project called HRC (hell raising campaign). It is essential that we strike while the iron is hot. People are asking questions about the location of shelters and they are now showing concern for their own survival.

Yesterday, some of your TACDA members started a campaign to have people call the local offices of the U.S. Senators and Congressmen about the shelters and the food stocking program. The articles in the *Journal of Civil Defense*, December 1979 gave us the ammo to educate people. The people want to know what the Senators and Congressmen are going to do about the deplorable situation—it is obvious that they have failed to carry out the constitutional mandate to "provide for the common defense" so we are asking the people to raise hell with them. Most people will make a telephone call, but they won't take the time to write a letter.

Perhaps you can get things started on a national scale. All the large cities have offices for the Senators and Congressmen. Thus the calls can be made for nothing and the caller can ask for a written reply from them as to what they intend to do about the civil defense situation in the U.S.

National survival is at stake and the people once they learn the facts, should be angry. So get them into the HRC as quickly as you can.

**John J. Nolan,  
Kansas City**

### PS:

The situation has not changed one iota on America's civil defense posture. FEMA has done nothing and it is doubtful if anything will ever be done by the Federal government to improve the chances of survival of the citizens of the U.S. Our people are being held hostage by the Russians because we cannot now shelter and feed them.

It is time to put the pressure on FEMA and the Federal government. Five months after the crisis became apparent to the public, little has

been done to beef up our military and nothing has been done to take care of our weaknesses in civil defense.

There is a serious communications barrier and you provide one of the few lights in the darkness which surrounds our uninformed citizens. The circulation of the *Journal* and the TACDA newsletter have to be increased on a major scale—the hour is late. Probably it could be said that it is now 25 minutes past midnight for the U.S.

Keep up your good work.

**Mr. John Macy, Director  
Federal Emergency Management  
Agency**

**Dear Sir:**

At this time it appears to me that FEMA is just another way of burying Civil Defense in this country. If the present world situation isn't enough to jar the complacency of this country and to strengthen the Civil Defense Program, then God help us.

I realize Mr. Macy that you are new to this newly formed agency and most likely you are not allotted enough dollars; but if this is the case, then I feel it is your responsibility to go to the President and Congress and request or demand, whichever is necessary, more money for the Civil Defense Program. I need not inform you that these are critical times, and that the Russian Civil Defense capabilities far exceed those in the United States.

**D. O. Johnson,  
C/D Director,  
Watertown, S.D.**

**Frank Williams,  
TACDA President**

The December 1979 issue of the *Journal of Civil Defense* was an excellent and timely one. Your "Spittle or Spunk" article on the reverse cover was among the fine ones.

It is a long hard road but I hope you and your associates keep up the fight.

As you will note, I've changed jobs but still respect the spade work done by local Civil Defense. I do find

the job challenging and interesting.

Prior to my arrival, the office was subscribing for copies for each of the state's nine district offices. It was a good feeling to find a Civil Defense concern existing here.

**Philip J. Bailey,  
Emergency Planning Coordinator,  
Illinois Department of  
Transportation**

Despite a crisis that has been over three months in evolving, I hear little or no discussion within our profession regarding the present dismal state of nuclear preparedness.

We are all aware of the speed with which public opinion forms and dissolves. We see this in the lack of public concern for any type disaster threat until the threat is upon us. Flood warnings are useless until the water rises. Potential explosions cannot be dealt with until the fire threatens the storage tanks. Civil Defense is "invisible" until the sabres start rattling. And right now the sabres are loudly rattling . . .

But we in Civil Defense can be considered incompetent at best, and criminally negligent at worst, if we do not immediately begin to provide a realistic assessment of the current state of Civil Defense . . .

It would seem this fact should concern us all. If it concerns you, how about communicating that concern to Mr. Macy at FEMA, Mr. Carter at the White House, and your Congressional Delegation.

You might also do everything possible to give your own citizens a realistic appraisal of their chances in your particular community.

It would "panic" them, you are told? It would seem a panic at this point while we can still do something is preferable to the panic we all face when we seek shelter that does not exist.

FEMA has offered no guidance. Maybe it's time we guide them a little.

**William E. Murray,  
USCDC Region Eight V. Pres.,  
Great Falls, MT**

## HRC—SOUTHWEST

Honorable Jimmy Carter

Dear President Carter:

Here is your latest statement on civil defense:

"The U.S. Civil Defense program should enhance deterrence and stability, and contribute to perceptions of the overall U.S./Soviet strategic balance and to crisis stability, and also reduce the possibility that the Soviets could coerce us in times of increased tension."

You have stated all the reasons for an adequate civil defense program, but there are two things that disturb me. The first is that you have made similar statements as above, but you have done nothing to initiate any constructive civil defense action to alleviate the problems. The civil defense budget, under your administration, has been lowest of any administration since the establishment of the civil defense agency in 1950-51.

Second, statements like the above indicate the problem is being solved or eliminated which is not the case. This results in a false sense of security and this could be catastrophic.

You have summarized the problems, but it is absolutely essential that corrective action be initiated immediately. Your 1981 total defense budget is truly a step in the right direction; however, any effort to assure an effective military defense is in vain if civil defense preparations are not made to avoid loss of the lives that we are trying to save. It follows then that money spent for military defense is politically justifiable only if a well organized civil defense does exist.

**George T. Glacken,  
Civil Defense Director,  
Las Cruces, N.M.**

**Mr. Harold Brown,  
Secretary of Defense**

Dear Secretary Brown:

Enclosed is a copy of my letter to President Carter. In my opinion, you are mostly responsible for the Carter Administration's fatalistic do-

nothing approach to our National Civil Defense problems with your outdated Mutual Assured Destruction (MAD) philosophy.

Even with your travel experiences of late, you still do not seem to comprehend the seriousness of our situation or the part your errors have contributed to our present difficulties.

When will you comprehend the world situation and when will you advocate an adequate civil defense program as a defensive weapon and a strategic deterrent? With our present national civil defense program and you at the head of the Department of Defense (DOD), I'm telling everyone to develop their own DOD—Dig or Die.

**George T. Glacken,  
Civil Defense Director,  
Las Cruces, N.M.**

**Mr. John W. Macy, Jr., Director  
Federal Emergency Management  
Agency**

Dear Mr. Macy:

There is every indication that our National Civil Defense Program under FEMA is being handled as just another government job. When Baryl Tirana took over DCPA, he wondered what he would do with the extra money Congress was going to appropriate to Civil Defense. He quickly changed his mind and got behind an increased civil defense program. Baryl was foiled by Harold Brown, Secretary of Defense with his Mutual Assured Destruction philosophy. Brown's action aroused support by local civil defense directors and others to have civil defense placed under your new agency. With your small 1981 budget request, it now appears we are going through another learning cycle.

It is imperative that improvements be made while there is still time to prepare a National Civil Defense.

The American people should not be asked to wait while its federal disaster agency is being organized. We just lost last year while we waited for this re-organization and a new director.

**George T. Glacken,  
Civil Defense Director,  
Las Cruces, N.M.**

**TO: All P&A Participants  
[South Dakota]**

We have taken every avenue to secure additional funding for the P&A Program, however, it seems that all of our pleas fall on deaf ears. Therefore, if you are so inclined, we would suggest some direct contact with your congressional representatives regarding the needed funding for our emergency and disaster organization. I feel some type of direct contact with congressional representatives regarding the needed funding would have some impact on future funding and allocation to our State.

**Richard A. Trankle, Coordinator  
Division of Emergency  
and Disaster Service  
State of South Dakota**

*continued from page 16*

a lucid, bare-knuckled, incisive exposé of people and events and policies that have made it necessary that the question posed by the book's title be addressed. Graham, never at a loss for deservingly caustic expression, gives us the background, development and failure of a succession of strategic planners. He has this to say on civil defense:

"Civil defense was alive and well in the USSR in the late 1960s even if it had virtually disappeared from the U.S. perception of the Soviet strategic posture . . . In 1979 the Soviets published a civil-defense manual which claimed that the Soviet civil-defense program could reduce Soviet casualties from a U.S. attack from 90 to 5-8 percent of the Soviet population . . . Soviet civil defense attracted little attention in the U. S. until the mid-1970s. During the heyday of the U. S. declaratory policy of "assured destruction" of Soviet population in the 1960s, Soviet civil defense was systematically excluded from U. S. official analyses . . ."

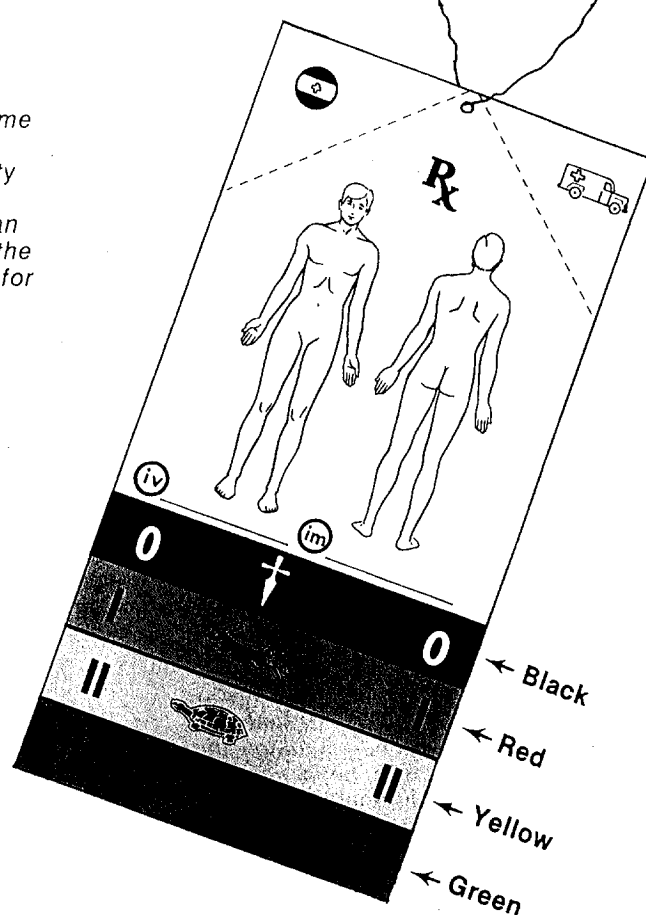
And, in conclusion:

"Some of the things that America needs are clearly within America's grasp. The United States needs an honest-to-goodness military strategy to protect itself in case of war and to replace the bodycount mentality that has affected the Pentagon for so long . . ."

"Is this the right number (904/964-5397) for METTAG? Can you send me samples and descriptive literature? Can I order METTAGs by phone? Will they be shipped right away? Can you quote me METTAG quantity prices? Will instructions come with METTAGs? Is it true that new improvements have been made to METTAG? Can you ship by air? Can I order the airport option? Can we get multiple invoice copies? Has the Winter Olympic Committee really adopted METTAG as its triage tag for the 1980 Winter Olympics?"\*

The answer to all these queries is "Yes." This article probes the METTAG matter a little further.

**METTAG = Medical Emergency Triage Tag**



## METTAG MARCHES ON!

### What is METTAG?

METTAG stands for "Medical Emergency Triage Tag." Its primary use is as an invaluable tool to aid in the field triage operation of a disaster or major accident where mass casualties need to be sorted according to medical priorities. Its claim is that it saves lives. It does. (Planned action, professional equipment, trained personnel, frequent exercises, disaster analyses, good liaison, security, community support and other factors combine to minimize bugs and promote required teamwork. Put it all together, and the payoffs multiply.)

METTAG is now in use throughout the United States and Canada and in a fast-growing number of foreign locations around the world.

\*In a multi-lingual situation METTAG fits like a glove. METTAG is proud of its selection by the Winter Olympic Committee.

"Triage of casualties should be under a colour code/symbology tagging, sorting, and transportation to hospital concept which is especially suited to multi-lingual applications. . . . Standardized tags should be designed to require only minimal information to be entered thereon, be usable under adverse weather conditions, and be water resistant. An example of such tags is illustrated in Appendix 4. [METTAG] In this tag, Roman numerals, and symbols indicating medical priority are designed to classify casualties . . ."

—Airport Emergency Planning, First edition: 1980. Published by the International Civil Aviation Organization.

The METTAG design is a studied and thoroughly tested combination of

analyses by EMTs, doctors, search and rescue experts, aircraft crash management teams, nurses, civil defense staffers, firemen and other disaster specialists. It is a product of their combined expertise.

An add-on METTAG feature used widely by air rescue personnel is the "airport option." This constitutes an extra grommet and loose-end tie in the medic-marked diagonal tear-off. It permits quick, easy on-the-spot identification of casualty locations (valuable to accident investigating teams). It can also be exploited for other uses, and frequently is. A supplementary charge of 4¢ per METTAG covers the additional materials and labor.

Copy from METTAG's standard mail-out folder best describes its qualities:

"METTAG is designed functionally for the widest possible application and flexibility. It promotes top triage effectiveness by helping to coordinate and expedite the field processing of disaster casualties for appropriate medical care. It works to eliminate confusion and duplication of effort.



"METTAG's four-color code and 4 1/16-inch by 8 3/16-inch size provide maximum visibility, clarity and ease of handling. Simple to use under the widest spectrum of emergency conditions.

"METTAG's individual serial number for each tag (printed on tag proper and on each tear-off) provides interim victim identity even when basic information is not available.

"METTAG's perforated, colored, serial-numbered tear-offs permit immediate visible priority injury designations and avoids time-consuming repetitious casualty checks. They also provide instant ambulance records (no laborious filling out of forms), markers for casualty position locations where needed, identification of personal effects—whatever local circumstances require.

"METTAG's tough cardstock, 30-inch ties and metal grommets will withstand abuse and weather extremes. It retains legibility of entries in adverse conditions of disaster environments.

"METTAGs are put up in handy 'see-through' packets of 50 with instructions for use exposed on top of each packet. Easy to store—indefinite shelf life." [Now programmed for use in the near future are translations of instructions in French, German and Spanish.]

## IMPROVEMENTS AND CHANGES

Established METTAG policy is that any modifications must be carefully reviewed and approved as being in the overall interest of doing a better job of field triage (saving lives). Especially im-

portant is that nothing must be done in changing METTAG for the better that will in any way outdate the METTAGs now in use. METTAG No. 000001 must be just as ready (assuming it has not been used) to do its field triage job as METTAG No. 999999—Z.

In late 1979 members of the International Civil Aviation Organization's (ICAO) Emergency Planning Committee met in Montreal to review the first edition draft of its 1980 manual, *Airport Emergency Planning* (which will use sketches of METTAG to illustrate its triage tag requirements).

One committee recommendation was:

*that on the reverse side of METTAG (the side with body sketches) the two caducei on the diagonal tear-offs at the top be replaced with symbols that related to their probable specific uses. On the left tear-off it was recommended that the medic arm-band symbol be used and on the right tear-off the ambulance symbol.*

These recommendations were adopted by METTAG as the first changes to be made since METTAG's inception in 1976. Those reviewing the proposed changes agreed unanimously that changing the decorative caducei to functional symbols would increase METTAG's usefulness. The review also resulted in three other minor but key improvements to METTAG:

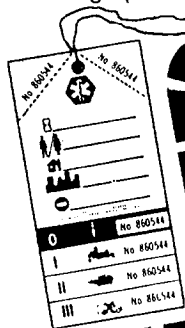
- The addition of the word "METTAG" to the small print lines on the face of the METTAG.

## IMPORTANT: METTAG FAMILIARIZATION

Like a luggage tag, METTAG is easy to fill out. Prior use and familiarity in both cases helps speed up the process. Where lives are at stake this speed-up can be vital. Prior familiarization does this. The use of METTAGs in training exercises is a big help. (In some localities METTAGs are used by rescue crews for daily emergencies. By doing this crews are already on intimate terms with METTAG when a major disaster occurs. No special briefings are necessary. Rescue personnel are on top of the tagging situation automatically and immediately.

- The back-off of all perforations 1/8th inch from all borders, further strengthening the tear-offs.
- The coating of all METTAGs with a special "varnish" solution which improves resistance to adverse weather conditions without affecting legibility or the recording of entries.

"These changes are now in effect," states METTAG business manager Carolyn Hayes, "and all METTAG shipments are being made from this new stock. Our aim with these improvements is to adapt as closely as possible to field triage requirements and to contribute to producing a triage operation that has maximum effectiveness under all conditions." □



## ORDER BLANK

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Starke, FL 32091

Phone: 904/964-5397

—ORDER BY MAIL OR TELEPHONE—

Please ship \_\_\_\_\_ METTAGS to:

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STREET ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

☐ Enclosed is \$ \_\_\_\_\_ to cover cost.

☐ Purchase Order No. \_\_\_\_\_ Payment to follow

(Due to increasing production costs a modest increase in METTAG prices is anticipated for January 1, 1981.)

### PRICE LIST — 1980 (U.S. Dollars)

Quantity	Price per tag	Shipping + Handling	TOTAL PRICE
50	39¢	\$ 1.75	\$ 21.25
100	35¢	2.70	37.70
200	31¢	3.55	65.55
300	28¢	4.25	88.25
400	25¢	4.95	104.95
500	23¢	5.40	120.40
1,000	22¢	10.70	230.70
5,000	21¢	37.95	1,087.95
10,000	20½¢	75.90	2,125.90

Note: Florida orders please supply tax exemption number or add sales tax to net price and include in total cost.

Foreign orders please double shipping cost to allow for increased charges and include in total cost.

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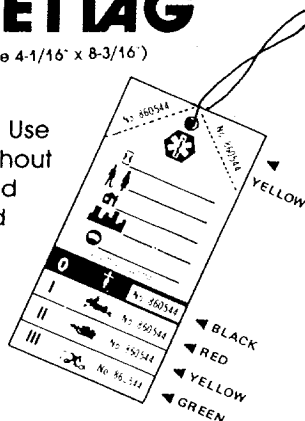
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# MARKET PLACE—

**Classified Ads**

**AIR FORCE NCO** with college degree and five years in Disaster Preparedness seeking full-time position. Will provide resume on request. If interested write to: SSgt. Clinton E. Crackel, P.O. Box 446, APO NY 09193.

**SAVE THE WHALES!** Save the people too! Subscribe to America's foremost civil defense publication—goes around the world. *Journal of Civil Defense*, P.O. Box 910, Starke, FL 32091. One year—\$12. Two years—\$22. Foreign: add 20%. (Bi-monthly.) (904/964-5397).

**KANDO PRODUCTIONS**, 412 N.W. 16th Ave., Gainesville, FL 32601. Public relations, advertising, film production, brochures, layout, promotion. Specialties: safety and civil defense. (904/372-3096).

(Market Place ads: \$1 per 37-space line—ads for position openings first five lines free. Market Place, *Journal of Civil Defense*, P.O. Box 910, Starke, FL 32091.)

# UPCOMING

Apr 8-10	American Nuclear Society Conference on Nuclear Criticality Safety—El Paso, TX
May 5-16	Crash Survival Investigation Course, Int. Ctr. for Safety Ed.—Tempe, AZ
May 19-23	6th Annual Meeting, Int. Tunnelling Assn.—Brussels
May 24-27	Industry/Business Emergency Planning, FEMA Staff College—Battle Creek
May 24-30	21st U. S. Symposium on Rock Mechanics, U of MO-Rolla—Rolla, MO
Jun 8-13	American Nuclear Society Annual Conf.—Las Vegas
Jun 9-13	Aircraft Crash Mgmt. Course, Int. Ctr. for Safety Ed., ASU—Tempe, AZ
Jun 23-27	Rockstore '80 (Subsurface space for Env. Protection, Low Cost Storage & Energy Savings). Off. language: English—Stockholm
Jul 21-25	Career Grad. Seminar, FEMA Staff College—Battle Creek
Sep 17-19	Int. Air-Rescue Congress—Munich
Sep 18-21	12th Annual Nat. Assn. Search and Rescue Conf.—Seattle, WA
Oct 6-9	Annual USCDC Conf.—Milwaukee
Oct 22-24	The American Civil Defense Association (TACDA) Annual Seminar-Conf.—Anaheim, CA
Nov 5-9	Career Grad. Seminar, FEMA Staff College—Battle Creek
Nov 16-21	American Nuclear Society Winter Conf.—Washington, D.C.

# THE OBVIOUS

Now, at last, it is obvious to all—even to President Carter—that the world situation is unstable. At present it is the Middle East that is in turmoil. And we must face the prospect, if we are to be honest with ourselves, that either in the short or in the long run the control of oil in that region is apt to pass over to the Russians. It is also obvious that under these conditions it is wrong for the United States not to be prepared for all eventualities.

Russia knows that we have some military strength. It has a limited deterrent value. But our strength and its value are rapidly diminishing.

Russia also knows very well that we have NO civil defense, and this deplorable fact means that Russia *knows* it can, in a nuclear war, devastate our country and its people at will. It knows that because of this it now holds Americans hostage to Russian military might.

Fortunately, if we want it, there is a way out of this difficulty. We should put our civil defense house in order. And this the Russians will understand and respect because they understand very well that protecting a country's population—as they have done—is honorable, prudent, and necessary. They will not like it

because it will remove a tremendous advantage for them. But they will understand. There can be no objection to simply protecting the population of a country.

If we choose at the same time to add to the strengthened civil defense posture our unique technological capability to develop new methods of active defense, then we shall have an added deterrent, and a most formidable one.

There are three noteworthy advantages of such a course:

- It does not rely on new offensive weapons. Because of this it is humane.
- Compared to the cost of additional military hardware it is reasonable in price.
- It is a convincing preparation for peace.

I know that we can do this. I know that we must do it. And I know it is right to do it. This should be obvious to the man in the White House.

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