

Journal of Civil Defense

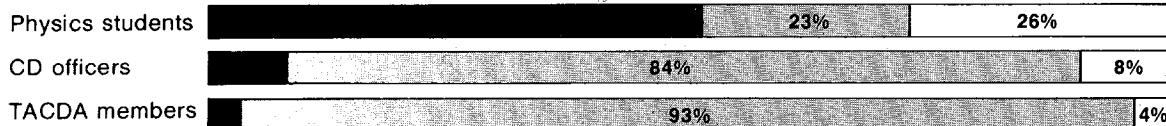
OPINION SPREAD: NUCLEAR ATTACK EFFECTS

(See Dr. Robert Ehrlich's article "Opposition to Civil Defense" — pages 12-15)

Key to colors: Red = YES; Gray = NO; White = UNCERTAIN



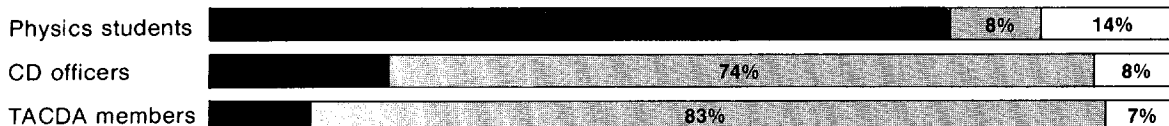
Extinction likely



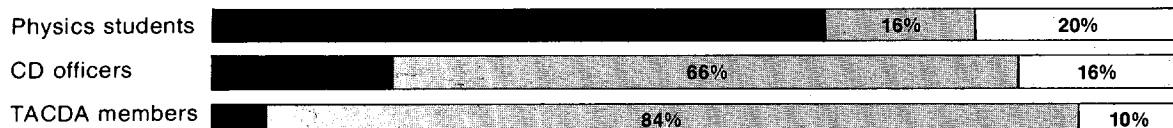
Radiation levels deadly for 1,000 years + in U.S.



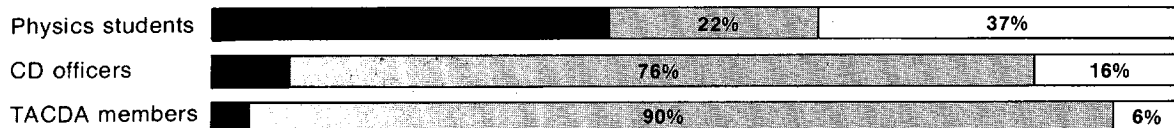
One-megaton blast deadly at 15 miles



Fallout arrives instantly



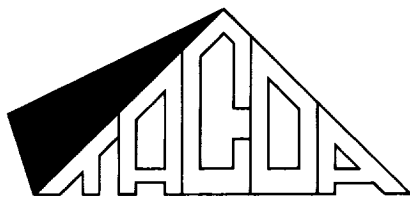
Nuclear winter fatalities would be overwhelming



NUCLEAR
DEFENSE
STRATEGIES

NUCLEAR "ROOTS"
page 16

SHELTER FOR
THE SERIOUS
page 28



TRADEMARK — THE AMERICAN CIVIL DEFENSE ASSOCIATION

Journal of Civil Defense

The American Civil Defense Association

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

VOLUME XXIII — NUMBER 1

LIBRARY OF CONGRESS
ISSN 0740-5537

FEBRUARY 1990

Editor WALTER MURPHEY
Managing Editor JANICE TYLICZKA
Contributing Editors MAX KLINGHOFFER,
VAN E. HALLMAN, WILLIAM A. McCAMPBELL, JR.,
CONRAD V. CHESTER, RICHARD E. SINCERE, JR.
Layout/Production KAROLINE BAKER

Audit BETTY NICE
Public Relations HELEN BAKER
Circulation BRENDA REYNOLDS
Advertising KAROLINE BAKER
Graphic Production CREATIVE GRAPHICS
Printing STORTER PRINTING COMPANY

■ CONTENTS

5 CAPITAL COMMENTARY, by Jerry Strobe
— The FEMA Scene, ??????

6 NUCLEAR WEAPONS: WHO, WHAT, WHEN, WHERE, HOW?, by Carsten M. Haaland — A look at nuclear beginnings.

10 SPOTLIGHT — ROA plugs civil defense; Boy Scout manual also.

11 SEMINAR TAPE ORDER FORM — audio and audio visual 1989 seminar tapes.

12 OPPOSITION TO CIVIL DEFENSE, by Dr. Robert Ehrlich — an incisive analysis of anti-CD sentiments.

16 NDER: EMERGENCY EXECUTIVE MANPOWER — THE FORMATIVE YEARS, by Dr. William H. Tomlinson.

20 CD SCENE — Disaster Preparedness = Disaster Preparedness; In Denmark, a radiation detection system; Marilyn Quayle on FEMA Board; Doubts around Dellums.

21 WHEN LIVES COUNT, COUNT ON METTAG — The expanding METTAG venture.

22 REVIEWS — *Nuclear War Survival*, by Duncan Long; *Safety/Risks*, published by the American Nuclear Society.

23 TOO GOOD TO FILE — SDI Deployment; Rep. Bennett and SDI; Sweden's "neutrality" pay-off; Aircraft Terrorists take to the ground.

24 LETTERS — "Full Spectrum" CD; War or Peace; Unaware of Reality; Problems at the local level.

27 1989 Journal Index to articles.

28 PROTECT YOUR HOME AND YOUR FAMILY, by Dr. Kenley L. Snyder — A look at "private initiative."

30 UPCOMING

31 MARKETPLACE; LATELINE

32 EDITORIAL — "All-Purpose" Protection?

DISPLAY ADVERTISERS

3 CHARLES C. THOMAS, PUBLISHER, 2600 S. 1st St., Springfield, IL 62794-9265

4 TACDA MUG, P.O. Box 1057, Starke, FL 32091

4 LIVE FREE, Box 1743, Harvey, IL 60426

4 TACDA, P.O. Box 1057, Starke, FL 32091

23 KATADYN USA, INC., 3020 N. Scottsdale Rd., Scottsdale, AZ 85251

25 EMERGENCY INFORMATION SYSTEM, 966 Hungerford Dr. — Suite 31, Rockville, MD 20850

26 BLUEPRINTS, BOOKS, TACDA, P.O. Box 1057, Starke, FL 32091

26 DOCTORS FOR DISASTER PREPAREDNESS, P.O. Box 1057, Starke, FL 32091

26 AMERICAN SURVIVAL GUIDE, P.O. Box 15690, Santa Ana, CA 92705-0690

26 METTAG PRODUCTS CATALOG, P.O. Box 910, Starke, FL 32091

27 PRACTICAL PREPAREDNESS VIDEO, TACDA, P.O. Box 1057, Starke, FL 32091

Sponsored by
Doctors for Disaster Preparedness
The American Civil Defense Association

POLICY BOARD

Betty Nice, Chairman
Donoh Hanks
Max Klinghoffer, M.D.
Karl Lundgren
John H. Neiler
J. Howard Proctor
Richard E. Sincere, Jr.
Eugene P. Wigner

ADVISORY BOARD

Neil FitzSimons
Evar P. Peterson
Steuart L. Pittman
Edward Teller

The Journal of Civil Defense Review Board screens all advertising. However, final responsibility for advertising claims, etc., rests with each advertiser. Reader comments and critiques are invited.

Copies of articles from this publication are now available from the UMI Article Clearinghouse. Mail to: University Microfilms International, 300 North Zeeb Road, Box 91, Ann Arbor, MI 48106.

JOURNAL OF CIVIL DEFENSE

BOLD

TIMELY

FACTUAL

ON TARGET

TOP COVERAGE — TOP WRITERS

Your window to CD Action — Only \$18 yr.

JOURNAL OF CIVIL DEFENSE

P.O. Box 910

PH: 904/964-5397

Starke, FL 32091

☐ 1 Yr. \$18

☐ 2 Yrs. \$34

☐ 1 Yr. Foreign \$27

☐ 2 Yrs. Foreign \$50 (Published Bimonthly)

☐ Check Encl.

☐ Please Bill

PLEASE SEND JOURNAL TO:

NAME _____

ADDRESS _____

CITY _____

STATE _____

ZIP _____

(USE SEPARATE SHEET FOR ADDITIONAL INSTRUCTIONS)

The *Journal of Civil Defense* is published bi-monthly by the American Civil Defense Association. Address: Journal of Civil Defense, P.O. Box 910, Starke, FL 32091. Subscription: One Year — \$18 (Foreign \$27), two years — \$34 (Foreign \$50). Phone (904) 964-5397.

The *Journal of Civil Defense* presents authentic information relating to civil defense — to the survival of free government, the United States and peace in the nuclear age. Its aim is public education in this field and service as a forum.

Authors are encouraged to submit manuscripts for consideration by the editorial committee for publication (the *Journal*, as a non-profit organization, pays no fees). Articles, preferably illustrated, should be 500 to 1,200 words in length, slanted to the non-technical reader, and oriented toward the civil defense field. Views expressed in contributions to the *Journal* are those of the authors and do not necessarily reflect *Journal* policy. Material may be reproduced if context is preserved, credit given, and copy sent to the *Journal of Civil Defense*.

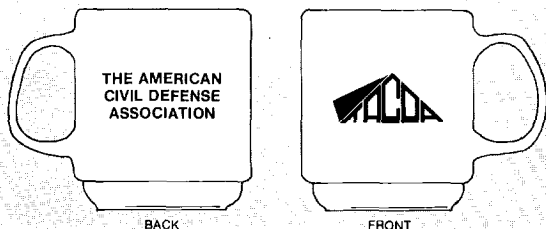
CHARLES C THOMAS • PUBLISHER

- ☐ Sylves, Richard T. and William L. Waugh, Jr.—**CITIES AND DISASTER: North American Studies in Emergency Management.** '90, 302 pp. (7 x 10), About \$48.75.
- ☐ Charles, Michael T. & John Choon K. Kim—**CRISIS MANAGEMENT: A Casebook.** '88, 310 pp. (7 x 10), 8 il., 1 table, \$43.50.
- ☐ Rosenthal, Uriel, Michael T. Charles, & Paul T. Hart—**COPING WITH CRISES: The Management of Disasters, Riots and Terrorism.** '89, 614 pp. (7 x 10), 22 il., about \$84.75.
- ☐ Mullins, Wayman C.—**TERRORIST ORGANIZATIONS IN THE UNITED STATES: An Analysis of Issues, Organizations, Tactics and Responses.** '88, 246 pp. (6¾ x 9¾), 33 il., 19 tables, \$43.75.
- ☐ Brown, John Fiske and Kenneth S. Obenski—**FORENSIC ENGINEERING RECONSTRUCTION OF ACCIDENTS.** '89, 350 pp. (7 x 10), 56 il., About \$59.75.
- ☐ Henderson, George—**A PRACTITIONER'S GUIDE TO UNDERSTANDING INDIGENOUS AND FOREIGN CULTURES: An Analysis of Relationships Between Ethnicity, Social Class and Therapeutic Intervention Strategies With Third World Peoples From Other Countries.** '90, 306 pp. (7 x 10), About \$40.75.
- ☐ Launer, Harold M. & Joseph E. Palenski—**CRIME AND THE NEW IMMIGRANTS.** '89, 140 pp. (7 x 10), 3 tables, \$29.75.
- ☐ Prunckun, Henry W., Jr.—**INFORMATION SECURITY: A Practical Handbook on Business Counterintelligence.** '89, 78 pp. (7 x 10), \$26.75.
- ☐ Lyman, Michael D.—**GANGLAND: Drug Trafficking by Organized Criminals.** '89, 234 pp. (7 x 10), 26 il., \$39.75.
- ☐ Fay, John J.—**THE ALCOHOL/DRUG ABUSE DICTIONARY AND ENCYCLOPEDIA.** '88, 176 pp. (7 x 10), \$17.50.
- ☐ Yereance, Robert A.—**ELECTRICAL FIRE ANALYSIS.** '87, 280 pp. (7 x 10), 1 il., 1 table, \$49.25.
- ☐ Hendricks, James E.—**CRISIS INTERVENTION: Contemporary Issues for On-Site Interveners.** '85, 218 pp. (7 x 10), 5 il., 1 table, \$30.00.
- ☐ Bennett, Wayne W. & Karen Matison Hess—**INVESTIGATING ARSON.** '84, 422 pp. (7 x 10), 89 il., 28 tables, \$54.25.
- ☐ Carroll, John R.—**PHYSICAL AND TECHNICAL ASPECTS OF FIRE AND ARSON INVESTIGATION.** (2nd Ptg.) '83, 470 pp., 92 il., 32 tables, \$54.00.
- ☐ France, Kenneth—**CRISIS INTERVENTION, Second Edition.** '90, 316 pp. (7 x 10), 3 il., About \$42.75.
- ☐ Foxman, Joel—**A PRACTICAL GUIDE TO EMERGENCY AND PROTECTIVE CRISIS INTERVENTION.** '89, 322 pp. (7 x 10), About \$49.75.
- ☐ Unsinger, Peter C. & Harry W. More—**THE INTERNATIONAL LEGAL AND ILLEGAL TRAFFICKING OF ARMS.** '89, 170 pp. (7 x 10), 8 il., 5 tables, \$32.75.
- ☐ Peck, Dennis L.—**PSYCHOSOCIAL EFFECTS OF HAZARDOUS TOXIC WASTE DISPOSAL ON COMMUNITIES.** '89, 333 pp. (7 x 10), 8 il., About \$52.75.
- ☐ Bizzack, John—**POLICE MANAGEMENT FOR THE 1990s: A Practitioner's Road Map.** '89, 180 pp. (7 x 10), about \$31.75.
- ☐ Hosford, Bowen—**WINNING IN YOUR PROFESSION BY WRITING BOOKS: A How-To Book for Professionals in the Biomedical and Behavioral Sciences and the Law.** '90, 230 pp. (7 x 10), 9 ill., About \$38.75.
- ☐ Higgins, Clay E.—**UTILITY SECURITY OPERATIONS MANAGEMENT: For Gas, Water, Electric and Nuclear Utilities.** '89, 460 pp. (7 x 10), 13 il., about \$69.75.
- ☐ Cane, Andries C.—**BASIC ARREST AND PRISONER CONTROL TACTICS: Practical Techniques—Fast, Simple, Effective.** '89, 274 pp. (6¾ x 9¾), 804 il., about \$54.75.
- ☐ Coleman, John L.—**THE SECURITY SUPERVISOR'S HANDBOOK: A Guide for the Private Security Primary Manager.** '87, 122 pp. (7 x 10), 12 il., \$28.00.
- ☐ Wensyel, James W.—**SECURITY DURING STRIKES.** '85, 242 pp. (7 x 10), \$36.25.
- ☐ Brodie, Thomas G.—**BOMBS AND BOMBINGS: A Handbook to Detection, Disposal and Investigation for Police and Fire Departments.** (3rd Ptg.) '80, 200 pp., 173 il., \$30.00.
- ☐ Siljander, Raymond P.—**TERRORIST ATTACKS: A Protective Service Guide for Executives, Bodyguards and Policemen.** '80, 342 pp., 143 il., \$41.00.
- ☐ Stoffel, Joseph—**EXPLOSIVES AND HOMEMADE BOMBS.** (2nd Ed., 2nd Ptg.) '77, 324 pp., 156 il., \$40.75.
- ☐ Lenz, Robert R.—**EXPLOSIVES AND BOMB DISPOSAL GUIDE.** (5th Ptg.) '76, 320 pp., 249 il., 3 tables, \$43.25.
- ☐ Fitch, Richard D. & Edward A. Porter—**ACCIDENTAL OR INCENDIARY.** (2nd Ptg.) '75, 224 pp., 62 il., \$29.00.
- ☐ Pike, Earl A.—**PROTECTION AGAINST BOMBS AND INCENDIARIES: For Business, Industrial and Educational Institutions.** '73, 92 pp., 30 il., \$14.50.

Books sent on approval • Catalog sent on request • Write or call (217) 789-8980

2600 South First Street Springfield • Illinois • 62794-9265

TACDA MUG



**What better way to show your support
of TACDA than with this beautiful,
10 oz. ironstone mug.**

ORDER FORM

Only \$3.49 each, add \$2.00 postage for 1st mug, 50¢ for each additional mug.

Send payment to: TACDA, P.O. Box 1057, Starke, FL 32091

Send mug to: _____ Amount enclosed _____

Name _____

Address _____

City _____ State _____ Zip _____

OPEN THE DOORS TO SURVIVAL with LIVE FREE



WE ARE LIVE FREE, a not-for-profit international organization dedicated to the preservation of life and freedom through survival education and individual self-sufficiency. We are committed to promoting cooperation between serious survivalists and today's Civil Defense.

Membership Includes:

12 MONTHLY ISSUES OF OUR SURVIVAL NEWS-
LETTER PACKED WITH SURVIVAL INFO.

NETWORK AND ORGANIZING SUPPORT

DISCOUNTS ON BOOKS, MAGAZINES AND SUR-
VIVAL EQUIPMENT

Information Packet \$1.00

One Year Membership Only \$15.00

LIVE FREE, BOX 1743, HARVEY, IL. 60426



The American Civil Defense Association

P.O. Box 1057 • Starke, FL 32091 • (904) 964-5397

**Effective protective measures — SDI and Civil Defense — are what
TACDA incessantly recommends in its educational pursuits.**

FACT: If a nuclear war were to begin today the average American citizen's chances of dying would be twelve times greater than that of a Soviet. (Put another way, the U.S. could lose over 60% of its population while the Soviets could lose less than 5% of theirs.)

FACT: Today the Soviets have fallout and blast shelters to protect 75% of their urban population. In the U.S., on the other hand, the strong anti-civil defense lobby has blocked efforts to take basic and effective defense measures to protect YOU!

FACT: Today the Soviets are spending 30 times more on civil defense than we are — and their wealth is less than half ours.

TACDA fights for your survival — join the fight — join TACDA today!

TACDA's first objective is to provide educational strategic defense information that can contribute meaningfully to nuclear attack survival and, more importantly to "Peace through Preparedness."

TACDA membership includes *Journal of Civil Defense* (a bi-monthly magazine), the *TACDA ALERT* newsletter, voting rights, membership card, seminar invitations, etc.

Please enter me as a TACDA member (as checked below):

☐ Regular Member (\$35)

☐ Sponsoring Member (\$70)

☐ Journal
Foreign (\$27 yr.)

☐ Foreign Membership (\$50)

☐ Journal Only (\$18 yr.)

\$ _____ Enclosed

Name _____

Address _____

City _____ State _____ Zip _____

☐ Please send information.

The American Civil Defense Association • P.O. Box 1057 • Starke, FL 32091

Civil Defense in the 1990's

As 1989 crept out amid snow and bitter cold, civil defenders were wondering what would be in store in the last decade of the twentieth century. In Washington, the Congress was mostly home for the holidays but the Bush Administration and key congressional leaders were keeping one eye on the situation being played out in Panama and the other on the situation being played out in Eastern Europe. It was the latter situation that caused the wonder about the future of civil defense.

A feeling of euphoria has gripped the nation's capital as the Soviet "evil empire" crumbled. The process of rejection of Communist Party rule in the Warsaw Pact countries has proceeded at a breathtaking pace. Indeed, it has leapfrogged the more plodding pace of negotiations between NATO and the Warsaw Pact to reduce conventional arms in Europe. It has become literally impossible to imagine a Soviet attack on the West under the present circumstances.

... someone is bound to notice that all those nuclear weapons are still ... at the ready.

Accordingly, various members of Congress are calling for major reductions in the American presence in Europe and questioning the need for all those naval battle groups. Liberal pundits are staking out claims on the "peace dividend" anticipated as the \$300 billion dollar a year defense budget is dismantled. Secretary of Defense Cheney tried to stem the tide by instructing the armed services to develop plans for cutting \$180 billion from the defense budget over a five year period but the Congress is unlikely to be satisfied with cosmetic cuts in the planned increases built into the budget projections. Some observers are forecasting a defense budget about half the present appropriation in five years.

At their December meeting in Malta, George Bush and Mikhail Gorbachev put an end to the Cold War for practical purposes. But, as Professor Samuel Huntington noted in a recent paper, the era of the Cold War also was the era of the Long Peace. As the nation-states of Europe sort themselves out, someone is bound to notice that all those nuclear weapons are still in their silos and at the ready. Even if, as Bush and Gorbachev promised the world in December, the superpowers agree next June to reduce their nukes



by 50 percent, the actual reduction will take several years. When accomplished, the remaining Soviet inventory will be more than sufficient to attack the recent civil defense threat analysis, FEMA's Nuclear Attack Planning Base-1990. The public euphoria has far outrun the facts and it will take only one setback in the current dismantling of the Soviet empire, one equivalent to the Chinese repression of the students in Tiananmen Square, to bring reality back in all its ugliness.

... most persistent rumor has been that ... civil defense ... would be returned to the Department of Defense.

Still, it will be a challenge to the Federal Emergency Management Agency to preserve the current minimal level of its civil defense appropriation in the present international environment. FEMA enters the decade of the 1990's still without a director. During the holiday season, there was a flurry of activity as FEMA's program managers were peremptorily directed to summarize their functions for delivery to the White House but other than that there were no leaks as to White House intentions. Indeed, the most persistent rumor has been that responsibility for civil defense — attack preparedness, that is — would be returned to the Department of Defense. This rumor, which surfaces periodically, is almost certainly wishful thinking and a measure of the frustration of those charged with the responsibility at present. □

Carsten M. "Kit" Haaland is one of America's foremost nuclear weapons authorities. A veteran nuclear weapons scientist, Haaland has been a featured speaker at DDP/TACDA seminars and has written a number of layman-slanted technical feature articles for the *Journal of Civil Defense*. With this "Nuclear Weapons" article Haaland begins a series of five articles for the *Journal*.

■ First of Five Installments

Nuclear Weapons

Who, What, When, Where, How?

— Carsten M. Haaland

The first nuclear weapons were made by the United States, and two of them were used to end the war with Japan in 1945. These bombs, called atom bombs, or "A-bombs" by the press, developed their enormous destructive power through a chain-reaction involving the fission of a few pounds of special material. The chain-reaction fission suddenly transformed trillions upon trillions of atoms of this special material into different elements by splitting the large nuclei of these atoms into two smaller parts. With each splitting of a nucleus, a small amount of matter was converted into pure energy according to the famous Einstein equation which nearly every school-child knows, $E = mc^2$.

The A-bomb that exploded over Hiroshima on August 6, 1945, (code name "Little Boy") used a highly-refined form of uranium as the special material. The Nagasaki weapon of August 9 (code name "Fat Man") used an element created by man especially for the bomb, called plutonium.

The first observed and confirmed splitting of the atomic nucleus had been accomplished in December 1938, in Nazi Germany, by Hahn and Strassmann at the Kaiser Wilhelm Institute, now the Max Planck Institute. Because of Hitler's rabid racist policies, many outstanding scientists had already fled Germany. Hahn and Strassmann were unsure of their results and wrote of their findings

to one of their former principal associates, the brilliant physicist Lise Meitner, who had only a few months earlier left Germany because she was Jewish and her life was therefore in danger. Thus began the chain of events by which the rest of the scientific world quickly found out about the monumental discovery inside Germany. Meitner had moved to the Nobel Institute in Copenhagen where she was later joined by her nephew, Otto Frisch, another refugee physicist. The two of them confirmed the Hahn-Strassmann findings, and the word was passed on to Neils Bohr, head of the famous Institute for Theoretical Physics, just before he left for a trip to America.

Another Jewish physicist, Leo Szilard, originally from Hungary, had recognized in 1934 that if the atomic nucleus were split apart by neutron bombardment with the accompanying release of more neutrons, there could be a chain reaction with the release of a cataclysmic amount of energy. In 1934, Szilard filed for a patent with the British Patent Office (it was issued in 1935) that included the concept of nuclear chain reactions. In a letter to C. S. Wright dated February 26, 1936, Szilard wrote

"if we could find an element which is split by neutrons and which would emit two neutrons when it absorbed one neutron, such an element, if assembled in sufficiently large mass, could sustain a nuclear chain reaction, liberate

energy on an industrial scale, and construct atomic bombs." (Feld, 1972, p. 530)

The story of the Hahn-Strassmann experiment and the follow-up confirmation of Lise Meitner and Otto Frisch was related by Neils Bohr to a group of some fifty luminaries in physics at the fifth Conference on Theoretical Physics in Washington on January 26, 1939. Szilard was not present at this meeting because he was in bed with the flu in Princeton. But within a day or two he was on a train to Washington, DC, to talk over the situation with an old friend, Edward Teller, another Jewish Hungarian, who had come to America to escape the Nazi terror. The main question was, did the Hahn and Strassmann splitting of the nucleus produce the neutrons that could lead to a chain reaction?

From Washington, Szilard went to Columbia University where, with Walter Zinn, experiments were performed that confirmed by the end of March 1939 that the necessary neutrons were indeed there. Similar results were obtained independently by Enrico Fermi and others. These results meant that all that remained to be done to create a bomb of unprecedented power was to amass together a few pounds of very special material.

As it turned out, putting together these few pounds of special material

was not a trivial task. It was to become the major hurdle for the Manhattan Project to overcome. But to a number of brilliant refugees who had come to America because of the scourge in Europe, the fear was very great that Hitler would overcome this hurdle and develop the super-bomb that would then guarantee mastery of the earth for this madman.

Many of these refugee-physicists felt that the U.S. government should be approached to support nuclear research, among them Enrico Fermi (Italy), Leo Szilard (Hungary), Edward Teller (Hungary), Victor Weisskopf (Austria), and Eugene Wigner (Hungary). Szilard discussed the problem with his friend at Princeton, Eugene Wigner, another Hungarian physicist-refugee, who brought Albert Einstein into the picture. A series of events led to the famous letter from Einstein to President Roosevelt dated August 2nd, 1939. This letter is credited with starting the Manhattan Project.

On Sunday, July 30, 1939, Szilard and Wigner had driven in Wigner's car to visit Einstein at his rented summer home in Peconic, Long Island. According to Eugene Wigner (personal communication, June 25, 1984), he explained the situation to Einstein, and to his surprise, because Einstein was not a nuclear physicist, Einstein grasped the situation very quickly and agreed to their proposal that he should write a letter to President Roosevelt. Einstein then dictated the letter almost as fast as Wigner could write it down. The entire discussion and the original longhand version of the letter were in the German language. The letter was translated into English by Wigner and typed by his secretary at Princeton University. The following Wednesday Szilard brought the letter from Princeton to New York by train. Szilard did not drive, so he asked Teller, who was then at Columbia University, to drive him to Peconic to get Einstein's signature.

The letter, with an attached memorandum on chain reactions by Szilard and a cover letter by Sachs, was finally delivered in person to the President on October 11, 1939, by Alexander Sachs, a close friend of Roosevelt's. Roosevelt properly assessed the situation and ordered action to be taken (Blumberg, 1976, p. 97). The first appropriation was \$6000 from Army and Navy funds in February, 1940 (Graetzer, 1971, p. 92). Ultimately, the total cost of the bomb

project in the following four years came to more than \$2 billion (ibid.).

To those who were aware of world events at the time and to those who are serious students of history, there can be no doubt that the two bombs dropped on Hiroshima and Nagasaki brought the war with Japan to an immediate conclusion and thus saved millions of lives. The American forces were preparing for a massive assault on the Japanese Islands, and the Japanese people were prepared to fight to the death. According to recent remembrances by Taro Takemi, a Japanese physician,

"The military had driven Japan to a stage that if it could not win, it would not surrender. It surely would have lost the war and many people would have starved if the atom bomb had not been dropped. When one considers the possibility that the Japanese military would have sacrificed the entire nation if it were not for the atomic bomb attack, then this bomb might be described as having saved Japan. This is what I currently think, although I did think differently at the time of the bomb. It seems to be that the attitude of Japanese toward the atomic bomb that was dropped on Hiroshima has changed dramatically since that day. I believe that the majority of Japanese people now agree with my current

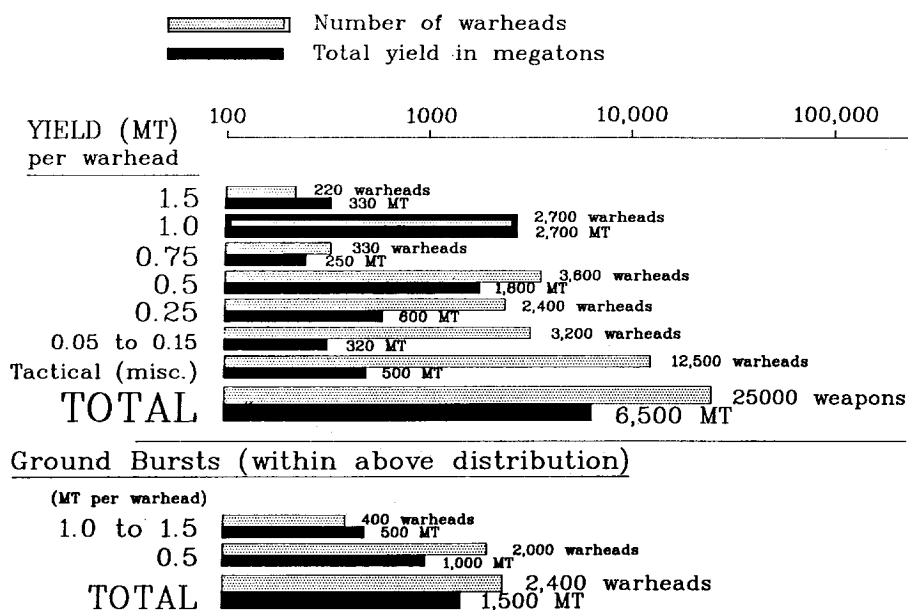
position. However, I was surprised that the United States brought the same bomb to Nagasaki." (Takemi, 1983)

It may have been possible that Japan would have surrendered without the dropping of the second bomb, and there is even a slight possibility that capitulation could have been brought about by a mere demonstration of the bomb. These are conjectures for which there will never be certain answers.

Development of the Hydrogen Bomb

The atomic bomb exploded over Hiroshima released a quantity of energy estimated to be equivalent to that which would be released by exploding approximately 15,000 TONS (not pounds!) of TNT. Instead of saying 15,000 tons, it has become a modern convention to refer to the energy yield of this weapon at 15 kt, where "kt" is the abbreviation for "kiloton." The yield of the Hiroshima weapon was not known precisely and has been recently (Kaul, 1983) revised from about 13.5 to 14.5 kt. The Nagasaki weapon's energy release was equivalent to that which would be released by exploding about 22.5 kt. It would be very gratifying to be able to write that these were the last

Baseline Case: Weapon Size Distribution (NAS 1985)*



*Baseline attack used in *The Effects on the Atmosphere of a Major Nuclear Exchange*, National Academy Press, 1985.

Figure 1.

nuclear bombs to be constructed and that all future developments in nuclear energy were directed in the production of clean, efficient, and almost inexhaustible supplies of electrical power. However, that was not to be the case.

From 1945 to 1947 the United States military forces were reduced from 14.5 million to 1.8 million (Nixon, 1980, p. 155), but the Soviet Union kept its large army of 5-6 million men, 50,000 tanks, 20,000 aircraft, and began to build up its Navy (Halle, 1967, p. 37). Stalin proceeded to use his military might with the necessary degree of ruthlessness, as occasion required, to eliminate the elements that were not 'friendly' to the Soviet Union from those countries given to him to occupy by the Yalta Agreements, including Bulgaria, East Germany, Hungary, Poland, and Rumania (ibid., p. 70). Elimination of unfriendly elements, up until the time of Stalin's death in 1953, usually meant political purges involving fake trials and executions (Halle, 1967, pp. 75, 149; Pond, 1981, pp. 164, 209). Countries under the Soviet domination were surrounded by barbed wire, mines, and machine guns, not so much to keep out invaders as to keep the population within from escaping. A special army of about a quarter-million KGB Border Troops was maintained for the purpose of sealing Soviet borders, up until recent years. (DOD84, p. 15). This practice was maintained up until just recently, as exemplified by the infamous Berlin wall.

These measures and the continuing expansion of the number of countries in which there were Soviet troops prompted the famous "iron curtain" speech by Winston Churchill in Fulton, Missouri, on March 5, 1946. This speech was given only four days after Moscow had announced its intention of keeping its troops in Iran. In his speech Churchill said,

"A shadow has fallen upon the scenes so lately lighted by the Allied victory. Nobody knows what Soviet Russian and its Communist international organization intends to do in the immediate future, or what are the limits, if any, to their expansive and proselytizing tendencies...From Stettin in the Baltic to Trieste in the Adriatic, an iron curtain has descended across the Continent." (ibid., p. 103)

The Cold War had begun. On or about August 29, 1949, there was evidence that the Soviets had tested an atomic bomb (Blumberg, 1976, p.

199). This event combined with the Cold War prompted President Harry Truman to authorize a speeded-up program on the development of the hydrogen bomb, or the "superbomb" as it was called then, on January 31, 1950 (ibid., p. 231). Edward Teller had proposed the superbomb years before, and he led the way to its development in the United States.

The sequence of events indicates that the Soviets were well on their way to a thermonuclear weapon at the time that President Truman authorized its development in the United States. The Soviets exploded a thermonuclear device in early 1951, followed by the American Greenhouse tests in May, which were really experimental tests of the principle (ibid., p. 268). America's first true thermonuclear reaction was achieved in the Mike test of October 31, 1952. The first deliverable hydrogen bomb was detonated by the Soviet Union on August 12, 1953, almost six months before the first American deliverable hydrogen bomb was exploded on February 2, 1954.

The first American hydrogen bomb (code name BRAVO), detonated on Bikini atoll, had an energy yield equivalent to the energy that would be released by the detonation of about 15 MILLION TONS of TNT. We refer to this yield as 15 MT, where "MT" is the abbreviation for "megatons." This yield is 1100 times greater than the yield of the Hiroshima weapon.

This thousand-fold increase in energy is brought about by the fusion process by which two atomic nuclei of very light elements, such as hydrogen or helium, are brought together under conditions of very high temperature and pressure. The two nuclei fuse together to form a single nucleus, but the mass of the new fused nucleus is slightly less than the sum of the masses of the original nuclei. This mass difference is converted into pure energy, according to the famous Einstein equation mentioned above. Because of the high temperatures at which fusion takes place, at several tens of million degrees, the reactions are called thermonuclear. These are the reactions that provide the energy for the light and heat we receive from the sun. The high temperatures and pressures necessary for fusion reactions exist naturally in the sun. In weapons where fusion energy is used, these extreme conditions are usually created by the detonation of a small fission bomb inside the fusion wea-

pon (Glasstone, 1977, p. 22).

The fusion of two light atomic nuclei produces very energetic neutrons which are capable of causing fission in ordinary uranium, that is, uranium that has not been highly refined to the degree necessary for a simple fission bomb and is, therefore, relatively inexpensive and readily obtainable. It thus becomes feasible to surround the fusion weapon, which is triggered by a small fission weapon, with a blanket of ordinary uranium, thereby contributing to the overall energy yield of the explosion. On the average, the energy released in the explosion of a thermonuclear weapon originates in roughly equal amounts from fission and fusion processes, although there may be variations in individual cases (Glasstone, 1977, p. 22).

Worldwide Nuclear Weapons in 1990

Currently, five countries (Britain, China, France, the Soviet Union, and the United States) are known to have nuclear weapons that are deliverable by bombers or missiles. According to a recent report from the National Academy Press (NAS85), United States and Soviet nuclear forces had about 50,000 nuclear weapons, with a total yield of some 13,000 megatons in 1985. About 25,000 of these nuclear weapons, with a yield of about 12,000 megatons, were on systems with strategic or major theater missions. In the Academy report, it was assumed for analysis of atmospheric effects that approximately one-half of these weapons, or 25,000, would actually be detonated in a major nuclear war, with a total yield of about 6500 megatons, as illustrated in Figure 1.

Because of the large number of delivery vehicles, both the Soviet Union and the United States are called nuclear superpowers. Both Britain and France are on the verge of nuclear buildups ambitious enough to turn either one into the world's third nuclear superpower (Seignios, 1984, p. 40). India exploded a nuclear weapon in 1974, and several other countries are thought to either have or be trying to acquire nuclear weapons.

Advances in technology have lowered the hurdles for a small country to have its own nuclear weapons. Developments in uranium isotope separation by chemical means, centrifuge technology, and laser-assisted separation will make the process of

uranium enrichment to obtain weapons-grade uranium economically accessible to smaller countries. As the U.S. attempted to limit the availability of fissionable materials or the technology for producing them to developing nations, these nations have gone elsewhere to obtain them. Breeder reactors now operating in France and the Soviet Union produce tons of plutonium each year. It will soon be cheaper and easier to gather and process the nuclear materials for making a nuclear weapon than it is to deliver it by rocket (Haaland, 1982, p. 6).

These developments greatly increase the probability for the use of nuclear weapons by terrorists. This factor alone could be used as an argument for a stronger civil defense program in the United States. A population that is informed about the protection against the effects of nuclear weapons would be much less vulnerable to nuclear blackmail threats of a terrorist.

Developments in Nuclear Weapons in the Soviet Union

There have been two significant technical developments in the Soviet ballistic missiles in the last decade that bring their rocket forces to a technical level comparable, if not actually superior in some respects, with those of the United States. One is the deployment of MIRVs (multiple

independently-targeted re-entry vehicles), and the other is a substantial and continuing improvement in the accuracy of their delivery. (Both of these improvements have been obtained in both ICBMs and SLBMs in the U.S. arsenal.) With these improvements, the number of military targets subject to destruction by Soviet missiles has rapidly increased by a factor of three or greater, without violating any SALT agreements, which only restrict the number of rocket launchers (Haaland, 1982, p. 6).

Many modern missiles have flexible payloads, meaning that the weapons to be delivered can be exchanged for a different set of nuclear weapons. Over a period of a few hours to weeks, depending on the vehicle, the targeter can have the weapon payload changed from one large weapon to several small weapons, or vice versa, according to his needs.

Before these recent developments, a single Soviet rocket, such as the SS-18, could be counted on to destroy only one U.S. missile silo, and then only by using the largest available nuclear warhead with a yield of from 18 to possibly 50 MT, because the warhead could not be guaranteed to hit closer than a few thousand feet from the silo. With the new developments, that same SS-18 rocket can shoot several smaller warheads in space, each with a different target destination, and each warhead can

be counted on to destroy a missile silo because the warheads will hit within a few hundred feet of their targets, as illustrated in Figure 2. According to *Soviet Military Power*, 1984, p. 22, (DOD84), the Soviets can load 10 warheads of 600 to 750 KT each in each of their 308 SS-18 rockets, and with these 3080 warheads the SS-18 system would become potentially capable by itself (without counting on the approximately 1100 remaining land-based launchers) of destroying more than 80 percent of the entire U.S. land-based strategic missile force, both the Minuteman and the Titan complexes. □

(To be continued)

REFERENCES

Blumberg, 1976. Stanley A. Blumberg and Gwinn Owens, *Energy and Conflict, The Life and Times of Edward Teller*, G. P. Putnam's Sons, New York, 1976.

DOD84. Department of Defense, *Soviet Military Power 1984*, U.S. Government Printing Office, Washington, D.C. 20402, 1984.

Feld, 1972. Bernard T. Feld and Gertrude Weiss Szilard, Editors, *The Collected Works of Leo Szilard: Scientific Papers*, The MIT Press, Cambridge, Massachusetts, 1972.

Glasstone, 1977. Samuel Glasstone and Philip J. Dolan, Compilers and editors, *The Effects of Nuclear Weapons*, United States Department of Defense and the United States Department of Energy, 1977.

Graetzer, 1971. Hans G. Graetzer and David L. Anderson, *The Discovery of Nuclear Fission: A Documentary History*, Van Nostrand Reinhold Company, New York, 1971.

Haaland, 1982. Carsten M. Haaland, "I. Developments in Strategic Nuclear Weapons," *Journal of Civil Defense*, October 1982.

Halle, 1967. Louis J. Halle, *The Cold War as History*, Harper & Row, New York, 1967.

NAS, 1985. Committee on the Atmospheric Effects of Nuclear Explosions, Commission on Physical Sciences, Mathematics, and Resources, and National Research Council, *The Effects on the Atmosphere of a Major Nuclear Exchange*, National Academy Press, Washington, DC, 1985.

Nixon, 1980. Richard Nixon, *The Real War*, Warner Books, New York, 1980.

Takemi, 1983. Taro Takemi, "Remembrances of the War and the Bomb," *JAMA*, August 5, 1983 — Vol. 250, No. 5, pp. 618-619.

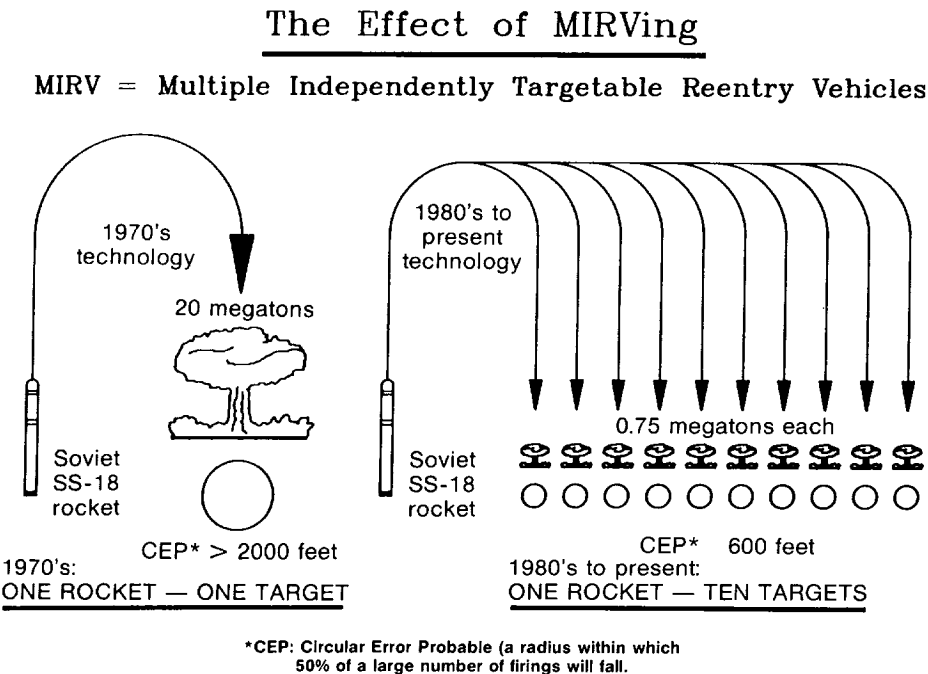


Figure 2.



"ROA NATIONAL SECURITY REPORT" FEATURES APPEAL FOR CIVIL DEFENSE

The November 1989 Reserve Officers Association's magazine *The Officer* carried a four-page "blue-line" report on the status of American civil defense and the overwhelming challenges it faces. Titled "Evolving World Situation Demands Responsive, Flexible Civil Defense," the report is written by Acting FEMA Director Robert H. Morris. He says in part:

It is clear that, in planning for the next ten years and beyond, all of us concerned with human survival will need to set a course which steers between the need to identify the dangers which will confront us, and the opportunities we will encounter to reduce those dangers. . . .

The world in which this civil defense planning will be done is changing very rapidly, and will continue to. Plans must be flexible, and keyed to the evolving world strategic situation.

Morris cited an increase of countries which have nuclear capabilities from five or six to "25 or so." Further, he said, 20 countries "may be producing chemical weapons today." And 15 countries are into missile development. Even with the prospect of a lessening of tensions between the U.S.A. and the U.S.S.R. there will be a new and "pressing need" for defenses.

Morris cited the Robinson shelter as a "good example" of the concept of preparedness. Pictures of the shelter accompanied the article.



(Top-to-bottom) Bobby and Janice Tyliczka and "Pat" Looney pose in the Robinson shelter entrance at the end of their "guard duty" at the DDP/TACDA seminar in Washington D.C. (Crystal City, VA).

He also cited the "bum rap in the media" on the Hurricane Hugo response by FEMA. Both President Bush and the South Carolina governor "have had good words for the overall disaster response operation."



Amy Allen Price (left) of Salt Lake City talks with Bobby and Janice Tyliczka and "Pat" Looney as they begin a night-long vigil to guard the Robinson shelters.

EMI OFFERS CD COURSES

The Emergency Management Institute (EMI) in Emmitsburg, Maryland offers numerous courses relating to disaster and civil defense (some are listed in UPCOMING, page 30). Three of them merit special mention and debut in March and April. They are:

Civil Defense Systems, Programs and Policies (Mar 26-30)

Radiological Series for Radiological Instructors III (Apr 9-13)

Basic Skills in Emergency Management (Apr 23-May 4)

For application procedure and information see box at bottom of page 30.

BOY SCOUT EMERGENCY PREPAREDNESS MANUAL ACCENTS WARTIME DEFENSE

In these days of nuclear piper paralysis it is heart-warming to see that Boy Scouts are still thinking of saving lives in a modern war attack situation. The 1989 version of *Emergency Preparedness* points out:

Tornadoes, hurricanes, floods, earthquakes — Americans have faced these problems since the country was founded. But no U.S. citizen has ever been through an atomic emergency. Still, it is a threat. You and your family

should know what to do in the event of a nuclear attack.

An attack warning signal is given only in case of enemy attack. . . .

When you hear the warning sound, head for the nearest fallout shelter or shelter area. On a radio, listen to your local station for instructions and news. . . .

The next page shows pictures of shelters. The last page of the 64-page booklet lists booklets and a special game ("Environmental Realities") which can be ordered from FEMA.

TELLER TO SPEAK AT 1990 SEMINAR

America's hydrogen bomb pioneer, Dr. Edward Teller, will appear as banquet speaker at the DDP/TACDA 1990 Seminar in Chicago.

Dr. Teller, whose scheduled address at the 1989 seminar in Washington, D.C. had to be cancelled because of Teller's emergency surgery, has been intimately involved in nuclear weapons development since the early days of nuclear fission and fusion research.



Dr. Edward Teller, Senior Research Fellow at the Hoover Institution on War, Revolution and Peace, has long been a TACDA supporter. For Teller's involvement in nuclear fission-fusion research see Haaland article, pp 6-9.

Audio and audiovisual tapes of 1989 seminar speakers are available. Please consult listing on page 11, indicate tapes desired and mail form and payment to Satellite Broadcasting.

PROFESSIONALLY
RECORDED & DUPLICATED BY
SATELLITE BROADCASTING
93 MONOCACY BLVD. A1-10
FREDERICK, MD 21701
Phone 1(800) 458-0731
Telex 650 227 6535
FAX (301) 662-4014

AUDIO & VIDEO CASSETTES ORDER FORM DDP/TACDA SEMINAR

Arlington, Virginia • September 29 - October 1, 1989

Return this convenient
mail order form.
Tapes will be sent
within two weeks.

AUDIO CASSETTES (ENTIRE AUDIO SERIES FOR ONLY \$96.00)

Qty.	Tape No.	Title/Speaker	Price	Amount
	EM-01	MEDICAL RESPONSE — AREA-WIDE PICTURE — Dr. T. Kevin King; AVOIDING ERROR — Dr. Gerald Looney	\$ 8.00	
	EM-02	HOSPITALS vs. NUCLEAR ATTACK & TERRORISM — Dr. William Nesbitt	\$ 8.00	
	EM-03	IMPROVISE! — Dr. Max Klinghoffer; OPEN SESSION (Q&A) — Drs. King, Looney, Nesbitt, Klinghoffer	\$ 8.00	
	EM-04	TACDA SEMINAR KEYNOTE ADDRESS: CD STRATEGY DUE FOR REVISION — Stuart L. Pittman	\$ 8.00	
	EM-05	EXHIBITOR INTRODUCTIONS	\$ 8.00	
	EM-06	CHEMICAL WEAPONS UPDATE — Kyle Olson; THIRD WORLD BOMBS: THE NEWEST THREAT — Philip Clarke	\$ 8.00	
	EM-07	CONGRESS & CIVIL DEFENSE — Andy Jazwick		
	EM-07	LUNCHEON ADDRESS: SPACE DEFENSES — KEY TO SURVIVAL — General Milnor Roberts	\$ 8.00	
	EM-08	SHELTER IN THE GORBACHEV ERA: PANEL — Chester, Kearny, York, Robinson	\$ 8.00	
	EM-09	THE MEDITERRANEAN — NO. 1 HOT SPOT — Dr. Giuseppe Satriano	\$ 8.00	
	EM-10	ARMENIA: LESSONS TO PONDER — Dr. Leon Goure		
	EM-10	AMERICA'S CHOICE: DEFENSE OR DEFEAT — Dr. Max Klinghoffer; PRESENTATION OF AWARDS	\$ 8.00	
	EM-11	ROAD TO A REAL CIVIL DEFENSE — Walter Murphey	\$ 8.00	
	EM-12	SHELTER BUILDING AS A BUSINESS — Paul Gauthier	\$ 8.00	
	EM-12	ISRAELI & EGYPTIAN CIVIL DEFENSE TODAY — Dr. John Christiansen & Dr. Reed Blake		
	EM-13	THE REAL WORLD OF 1989 — Dolf Droge	\$12.00	
	EM-13	MASKIROVKA (STRATEGY OF DECEPTION) — Nancy Greene (2 Tapes)		
	EM-14	LUNCHEON ADDRESS: FEMA AND THE 1990s — Robert Morris	\$ 8.00	
	EM-15	MEDICS AND DISASTER RESPONSE — PANEL: Drs. Maccabee, Morris, Orient, Lucas	\$ 8.00	
	EM-16	SDI POLITICAL STATUS REPORT & PRACTICAL ACTION IDEAS — John Kwapisz	\$ 8.00	
	EM-16	SURVIVAL CRISIS MANAGEMENT — A CONCEPT — Grant Peterson		
	EM-17	ANTI-CD SENTIMENTS — CAUSE & CURE — Dr. Robert Ehrlich	\$ 8.00	
	EM-100	COMPLETE AUDIO SET (All Tapes in Storage Album)	\$96.00	

VIDEO CASSETTES ☐ VHS ☐ BETA (ENTIRE VIDEO SERIES FOR ONLY \$385.00)

Qty.	Tape No.	Title/Speaker	Price	Amount
	EMV-01	MEDICAL RESPONSE—THE AREA-WIDE PICTURE—Dr. T. Kevin King; AVOIDING ERROR — Dr. Gerald Looney	\$35.00	
	EMV-02	HOSPITALS vs. NUCLEAR ATTACK & TERRORISM — Dr. William Nesbitt	\$35.00	
	EMV-03	IMPROVISE! — Dr. Max Klinghoffer; OPEN SESSION (Q&A) — Drs. King, Looney, Nesbitt, Klinghoffer	\$35.00	
	EMV-04	TACDA SEMINAR KEYNOTE ADDRESS: CD STRATEGY DUE FOR REVISION — Stuart L. Pittman	\$35.00	
	EMV-05	EXHIBITOR INTRODUCTIONS		
	EMV-05	CHEMICAL WEAPONS UPDATE — Kyle Olson; THIRD WORLD BOMBS; THE NEWEST THREAT — Philip Clarke	\$35.00	
	EMV-06	CONGRESS & CIVIL DEFENSE — Andy Jazwick		
	EMV-06	LUNCHEON ADDRESS: SPACE DEFENSES — KEY TO SURVIVAL — General Milnor Roberts	\$35.00	
	EMV-07	SHELTER IN THE GORBACHEV ERA: PANEL — Chester, Kearny, York, Robinson	\$35.00	
	EMV-08	THE MEDITERRANEAN — NO. 1 HOT SPOT — Dr. Giuseppe Satriano	\$35.00	
	EMV-09	ARMENIA: LESSONS TO PONDER — Dr. Leon Goure		
	EMV-09	AMERICA'S CHOICE: DEFENSE OR DEFEAT — Dr. Max Klinghoffer; PRESENTATION OF AWARDS	\$35.00	
	EMV-10	ROAD TO A REAL CIVIL DEFENSE — Walter Murphey	\$35.00	
	EMV-10	SHELTER BUILDING AS A BUSINESS — Paul Gauthier		
	EMV-10	ISRAELI & EGYPTIAN CIVIL DEFENSE TODAY — Dr. John Christiansen & Dr. Reed Blake		
	EMV-11	THE REAL WORLD OF 1989 — Dolf Droge	\$35.00	
	EMV-12	MASKIROVKA (STRATEGY OF DECEPTION) — Nancy Greene		
	EMV-12	LUNCHEON ADDRESS: FEMA AND THE 1990s — Robert Morris	\$35.00	
	EMV-13	MEDICS AND DISASTER RESPONSE — PANEL: Drs. Maccabee, Morris, Orient, Lucas		
	EMV-13	SDI POLITICAL STATUS REPORT & PRACTICAL ACTION IDEAS — John Kwapisz	\$35.00	
	EMV-13	SURVIVAL CRISIS MANAGEMENT — A CONCEPT — Grant Peterson		
	EMV-17	ANTI-CD SENTIMENTS — CAUSE & CURE — Dr. Robert Ehrlich		
	EMV-100	COMPLETE VIDEO SET (All Tapes in Storage Album)	\$385.00	

Subtotal	
5% Sales Tax (Maryland Only)	
Shipping — Mail Orders Only	\$3.00
Outside U.S.A. \$3.00/Tape — Max. \$21.00	
TOTAL AMOUNT DUE	

PLEASE PRINT

☐ CHECK ☐ MASTERCARD ☐ VISA ☐ AMERICAN EXPRESS

Acct. No. _____
Exp. Date _____
Signature _____

Name _____
Company _____
Address _____
City _____ State _____ Zip _____
Phone No. (_____) _____

All presentations are unedited, verbatim, material on high quality
cassette tapes. All sales final.
Please include payment with your order.

Date _____

Mail to: SATELLITE BROADCASTING
93 Monocacy Blvd. A1-10
Frederick, MD 21701

(charter member, INTERNATIONAL SOCIETY OF COMMUNICATIONS SPECIALISTS)

"Opposition" to civil defense encourages indifference. Even though 80% of Americans favor civil defense they do so passively — and outright opposition by certain groups like PSR encourages them to remain passive — to sympathize with that opposition. Dr. "Bob" Ehrlich, professor of physics at George Mason University (across the Potomac from Washington DC) here analyzes the negative civil defense attitudes of a population exposed to anti-civil defense sentiments.

Opposition to Civil Defense

— Robert Ehrlich, PhD.

The sources of anti-civil defense attitudes among the public are many and varied. Generally, anti-CD sentiments take the form of doubts about the value of CD rather than the outright hostility of certain anti-CD groups. These doubts are founded on a high degree of public ignorance of: (1) nuclear weapons effects, (2) the nature and value of certain mitigation measures, (3) the scope of existing CD efforts elsewhere, and (4) the kinds of nuclear war scenarios considered "likely." Most of the reasons for opposition to CD will be familiar to the readers of this journal — see Table 1 for a partial list.

The surveys discussed here include national Gallop and FEMA surveys, as well as my own. Although my surveys have a much more limited sample size than the national surveys they do have certain compensating advantages. For example, with one exception my surveys have a 100 percent response rate, which is important when one is concerned about the possibility of biased samples. The groups surveyed included 96 physics students attending George Mason University, 71 "nuclear war and peace educators" attending a conference, 42 civil defense officers attending a short course, and 135 TACDA members. Only for the TACDA members was the response rate less than 100 percent because the form was not distributed in person.

Another feature of my survey is the deliberate inclusion of both "pro-CD" and "anti-CD" questions, but the omission of any "loaded" questions. An example of such a question loaded in favor of CD was included in a 1983 Gallop Poll: "Russia is said to be spending many times more on civil defense to protect its people from

nuclear attack than the US is spending. Do you think we should do more than we are now doing, do less, or do you think our present efforts are about right?" The answers (42% more, 4% less, 44% about right, and 10% no opinion), amounted to a ten-to-one pro-CD versus anti-CD vote. Obviously, it is important for people to know about Soviet CD efforts, but it is doubtful that the pro-CD vote would have been so favorable without the preamble to the question.

The same 1983 Gallop Poll found that 69 percent rated their chances of surviving nuclear war to be "poor,"

although unfortunately it did not ask about improvement in survival chances with civil defense.

A recent survey of public opinion on civil defense was published by FEMA in 1987. The FEMA survey is a well-crafted extremely comprehensive survey of public attitudes on numerous civil defense issues. Its great length of 40 pages may, however, lead to possible problems of a biased return, since those respondents uninterested in CD or unsympathetic to it would probably be more likely to terminate the telephone survey prematurely. Thus, I believe that questions exist regarding the representativeness of the FEMA survey, and some of the "good news" among its results. According to the FEMA survey citizens believe by a margin of 76.2% to 16.7% that civil defense could help save many people in the event of nuclear war — a much higher level of support for CD than I found in my student survey. On the other hand, other findings of the FEMA survey were less favorable to CD. For example, only 19 percent believe there would be enough time to evacuate before a nuclear attack. Moreover when asked about the "best US defense alternative" CD came in third, behind arms control and SDI.

My survey was conducted with the hope of clarifying some of the uncertainties discussed above, most importantly whether the support for CD is actually as high as some national surveys claim, and whether support for (and opposition to) CD hinges on certain identifiable factors. Of the various groups surveyed, the 96 GMU physics students are in some ways the most interesting. I was especially careful not to discuss the subject with the students before administering the

TABLE 1

Reasons for anti-CD sentiments

Feasibility	War unsurvivable Not many extra saved Survivors envy dead No warning time likely
Ignorance	Nuclear weapons effects Nature of CD Soviet & other CD efforts
No need	Nuclear war unlikely USSR threat waning
Alternatives	Arms control SDI
Costs	Budget austerity No large lobby for it
Psychology	Easy to ridicule CD unfashionable CD provocative Overstatements of nuke war "good" Overoptimism of CD supporters scary

TABLE 2**Political views of students — 1988****Nationwide Gallop Poll (percent)**

Far left	2.3
Liberal	22.0
Middle of Road	53.9
Conservative	20.2
Far right	1.6

My GMU* student poll (percent)**"I consider myself to be a conservative"**

Strongly disagree	11
Disagree	29
Neutral	16
Agree	34
Strongly agree	9

*GMU — George Mason University

survey, and gave them no clue as to where I stood. The survey itself was designed to reveal as little as possible about my position, because there is a tendency among some students to answer questions in a way to please their instructor.

Contrary to the students of the 1960's whose political orientation was considerably to the left of the American mainstream, today's generation of college students includes the full spectrum of opinion, as can be seen from Table 2. The main difference between GMU physics students and the nationwide student sample is the depopulation of the middle group which is probably explained by the different form of question used in my survey and the nationwide Gallop survey. Apart from this one difference, both the GMU students and the nationwide sample seem rather symmetrically distributed about the middle, at least based on their self-assessment.

Of all the questions on the survey none resulted in a more polarized response among GMU students than the question about their wish to survive a nuclear war. The responses included a fairly even split with only 15 percent in the middle (uncertain) category. A majority either strongly agreed (26%), or strongly disagreed (30%) that they wanted to survive. Not surprisingly student opinion on the survival question is strongly correlated with their opinion on CD feasibility. The two "expected" correlations: (1) CD feasible + want to survive (17%), and (2) CD unfeasible + don't want to survive (27%), outnumbered

by two to one the two unexpected correlations: (3) CD feasible + don't want to survive (8%), and (4) CD unfeasible + want to survive (13%). The four percentages total only 65 percent because the remainder were uncertain on one or both of the issues.

The students appear to have a highly exaggerated view of the effects of nuclear weapons that is probably similar to that held by the general public. As shown in Table 3, large majorities of students agree with propositions that most TACDA members and CD officers recognized as gross overstatements. Nonetheless, it is perhaps surprising that as many as 18 percent of CD officials believe that fallout arrives instantly from a nuclear detonation, and that the blast from a one megaton weapon would kill everyone at a distance of 15 miles. These local and regional CD officials were attending a short course at the National Emergency Training Center at Emmitsburg, Maryland when the survey was administered.

In fact, on some issues GMU students are not so poorly informed. For example, only 15 percent believe that the US now has an SDI system deployed, a belief shared by 16 percent of CD officers and 3 percent of TACDA members. On the other hand it is somewhat disconcerting that only 59 percent of students and 66 percent of CD officers disagree that the US has an SDI system deployed — a belief held by 90 percent of TACDA members. In the February 1989 issue of this Journal it was said that 64 percent of those polled believed that

the US had an SDI system deployed — an astounding figure which only remotely agrees with my survey if the "uncertains" are included.

One SDI-related issue on which I found the students were not alone in being poorly informed was a lack of awareness of a treaty that currently limits anti-missile defenses (the 1972 ABM Treaty which was not identified by name in the question). Only 26 percent of students, 16 percent of CD officers, and 41 percent of TACDA members appear to be aware that such a treaty exists. Student attitudes appear to be significantly more positive toward active defenses than civil defense, with 54 percent favoring deployment if feasible, and 23 percent opposing deployment. The student preference for SDI over CD may in part be explained by the "if feasible" caveat included in the SDI deployment question. However, students did not appear to believe that SDI makes CD unnecessary (7 percent agree), nor did they believe that the need for defenses are lessened in today's world of relaxed tensions (27 percent agree), or that CD would make US leaders and citizens less cautious about avoiding war (20 percent agree).

One key finding of the student survey concerns the relative importance of factors that would increase support for CD (see Table 4). Only 25 percent of the students agreed that they would support a large-scale US CD program "without reservations," and only 14 percent agreed they would support such a program "under no condi-

TABLE 3**Knowledge of weapons effects**

	Percent agree/disagree		
	GMU Physics Students	CD Officers	TACDA Members
Extinction likely	51/23	8/84	3/93
Radiation levels deadly for thousands of yrs. over most of U.S.	68/14	5/87	5/89
1 Mt blast deadly at 15mi	78/8	18/74	10/83
Fallout arrives instantly	64/16	18/66	6/84
Few survive nuclear winter	41/22	8/76	4/90
Knowledgeable on nuclear issues	30/39	42/26	87/7
Took a nuclear course	15/66	24/58	17/69

tions." For the remaining 61 percent their level of enthusiasm for CD hinged on various conditions. Not surprisingly, the postulated condition which led to the largest increase in support for a large-scale US CD program (68 percent) was the actual detonation of a terrorist weapon on US soil. Two other items which also evoked a large increase in the level of support for CD are interesting: (1) 61 percent agreed they would support a large-scale CD program "if a scientific study proved it worked," and (2) 53 percent agreed that they would support it if the Soviets were found to have a large-scale program. Since both of the postulated conditions, in fact, already exist, support for CD among the students (and presumably the general population) would be a lot higher if scientific studies on the feasibility of CD and the scope of the Soviet CD program were more widely known. But, alas were the situation only so simple. For every study claiming CD works one can find one claiming survival is impossible, and for every article describing a robust Soviet CD effort, one can find one claiming it to be a sham. Only the naive (perhaps my physics students?) will hold out hope for the "definitive" study performed by completely objective scientists motivated only by their search for the truth. Regretably, one searches in vain for

TABLE 4

Factors that would increase CD support among GMU students

"I Would support large-scale CD effort if . . ."

	(percent)
Terrorist detonated nuke in U.S.	68
Nuclear war seemed more likely	62
Scientific study proved it works	61
"Crazy" 3rd World leader got nukes	59
USSR found to have large-scale CD	53
CD program were not too costly	36
Number of nukes reduced	33
without reservations	25
under no conditions	14

TABLE 5

How do views of TACDA members compare with pro-CD and anti-CD GMU students?

	TACDA members	Percent agree/disagree	
		47% GMU students anti-CD	33% GMU students pro-CD
CD could save millions	98/2	0/100	100/0
I consider myself to be a conservative	83/10	44/42	50/34
Suspicious of USSR	91/4	33/51	44/25
Strong defense needed	98/1	58/29	75/15
Nuke war likely in 50 yrs.	67/7	20/51	16/50
Percentage Male	92	42	47

examples of scientific studies on public policy issues where the results are at odds with the scientist's known political views.

Are there ways that anti-CD sentiments can be overcome without waiting for the definitive scientific study that would "prove" CD works, or without waiting for the first nuclear terrorist incident? We need, of course, to distinguish between CD-opposition based on poor information (some would say disinformation), and opposition based on ideology. The ideological opposition, relegates CD not merely to the realm of the unfeasible, but also considers it to be provocative, an obstacle to arms control, and unnecessary in today's world of renewed detente — attitudes not shared by many of the public who have doubts about CD feasibility. Despite the more entrenched anti-CD attitudes among ideological opponents, outreach efforts by CD-supporters should include anti-CD groups such as PSR as well. Moreover, in making such outreach efforts it is important to recognize the sincerity of such group's motives. For example, nothing could be worse than to follow a talk on the feasibility of CD to an anti-CD group with some implied assertion that those who oppose civil defense are unpatriotic Soviet dupes.

Many TACDA members have strong opinions on many political issues that are only indirectly related to the value of civil defense. If an outreach movement to the public is to succeed, TACDA members may need to be more sensitive to the lack of direct connection, for example, between support for civil defense and conservative politics. Table 5 which

compares the attitudes of TACDA members with those of pro-CD and anti-CD students is particularly instructive.

TACDA members can be seen to be far more conservative than GMU students whose degree of conservatism is *not* strongly dependent on whether they are anti-CD or pro-CD. Both the pro-CD and anti-CD students also profess to believe in the need for a strong defense, although nowhere near the 98 percent level of TACDA members. The greatest difference between the pro-CD and anti-CD students appears to be their level of suspicion of Soviet intentions, but even the pro-CD students are nowhere near as suspicious as TACDA members. Both groups of students seem far less worried about the likelihood of nuclear war in the next 50 years than TACDA members, with little difference between the pro-CD and anti-CD groups. I would surmise that the students' attitudes on the Soviets and the likelihood of nuclear war probably comes closer to those of the general public than do those of TACDA members.

It is important to keep these differences in mind when making outreach efforts to individuals and groups that may be sympathetic to civil defense, but who are less conservative, less suspicious of the Soviets, and less concerned about the prospects of nuclear war. For example, without in any way downplaying the scope of the Soviet CD program, it can be portrayed as a manifestation of the Soviets' commonsense desire to ensure survival if war comes, rather than part of some sinister plot to initiate and win a nuclear war.

Another area in which the toning

down of rhetoric might reap dividends in terms of outreach efforts concerns extreme claims for CD in terms of the percentage of the population saved and the number of years required to recover the pre-war levels — claims which often rely on best-case assumptions of CD performance. The fact that CD-opponents often make worst-case assumptions to justify their case is no reason to counter with best-case scenarios if the goal is to put forth a credible case for CD that can withstand the scrutiny of skeptics. When the public is confronted with exaggerations of the worst-case and best-case variety, I believe the tendency is not to average the two but rather to subscribe to the view that seems more credible.

Among the key groups in greatest need of factual educational material on nuclear weapons are educators. I have organized three conferences for "nuclear war and peace educators" and have found myself in the interesting position of being in a small minority of those attending. (See Table 6 for a summary of the views of those attending the 1986 conference. A more detailed discussion of this survey appears in *Perspectives on Nuclear War and Peace Education*, R. Ehrlich, ed., Greenwood Press, 1987.) As Table 6 shows, peace educators by a large margin tend to be on the left of the political spectrum. Many, in fact, overtly acknowledge their desire to use peace education and to make converts to particular causes — see last response. It is equally unsurprising that the group of peace educators surveyed overwhelmingly opposed SDI and CD. In addition their ideas on weapons effects (not included in the table), were even more exaggerated than those of the students I surveyed.

Many readers of this Journal may believe that it is useless even to try to change the views of a bunch of "naive woolly-headed leftist academics," but I have found that sometimes opinions do change in subtle ways through a process of give and take. As one possible outreach effort aimed at academics, I believe a short course on weapons effects and protective measures would be quite valuable. Short courses on "nuclear issues" have been offered for some years under the sponsorship of the Alfred P. Sloan Foundation, the sponsor of my conferences, but these courses have tended to give very little coverage to weapons effects and

civil defense. It is unlikely that short courses of the kind I suggest would convert a CD-opponent to a CD-supporter, but they might well open a few minds, and possibly increase the percentage of nuclear war and peace courses devoted to civil defense — a percentage which is currently quite small.

Nuclear age education has also been included at the pre-college levels, with the result being some extremely biased educational mater-

attractive spokesperson. A good example from the other side of what can be done with adequate resources is a half hour video interview with Helen Caldicott. The sponsor of this video not only paid for the production, but also for many thousands of copies which were mailed unsolicited and free of charge to educators across the nation (including this one).

Raising the public's consciousness on CD will not be easy. As a start it might be useful to remember that the

... sometimes opinions do change in subtle ways through a process of give and take

ials, including NEA/PSR's "Choices." This lack of balance may change in the future as new curricula now in preparation are introduced, but it is hard to imagine that any extensive amount of pro-CD material would find its way into the pre-college curriculum without being neutralized or neutered by the curriculum designers. At least at the college level instructors can decide for themselves what curriculum materials to use.

Regarding educational efforts aimed at the general public, I believe the most promising avenue to include the production and distribution of high quality videotapes. High quality requires financial backing and an

8 percent female membership of TACDA is unrepresentative of the public at large, or for that matter the fraction of the public that is sympathetic to CD. As my student survey shows, belief in CD is nearly the same for males and females.

It is possible that no outreach effort can bring about a large resurgence in public attention to CD which will only occur during the next wave of belief that nuclear war is more likely. One can only hope that when that time comes, the perceived risk is associated with a lower level threat such as posed by a nuclear terrorist rather than the threat of large-scale nuclear war. □

TABLE 6
1986 Survey of 71 College-level Nuclear War Educators*

	Disagree	Agree
The U.S. should eventually deploy a missile defense system, even if that means abrogation of the ABM Treaty.	86%	10%
If there is a nuclear war, there is a significant chance it would lead to the end of life on earth.	28%	63%
The U.S. should pursue a civil defense program to protect the population.	75%	15%
Politically conservative?	75%	7%
Nuclear war courses should be used to generate greater public support for specific efforts to stop the arms race, such as the nuclear freeze.	44%	40%

*Conducted at 1986 conference I ran; reported in detail in *Perspectives on Nuclear War and Peace Education*, Greenwood Press, 1987.

The National Defense Executive Reserve — by whatever name it has been called — has been around at least since 1800 B.C. as Dr. William H. Tomlinson points out in this article. It will be needed in the future, and that is why now in peacetime it is kept alive. To be of maximum effectiveness in times of crisis it needs the same close attention that other elements of national defense get — or should get.

NDER Emergency Executive Manpower — the Formative Years

— Dr. William H. Tomlinson*

The need for emergency executive manpower in the administration of government is a relatively recent concept and concerns a very specialized area of business-government relations. Throughout the history of Western civilization one can trace a thin intermittent line of heritage in which the businessman has demonstrated an interest in using his executive skills and influence in supporting his government when needed. To a greater extent this interest occurred when the businessman or man of commerce found his nation in danger, and he assisted in the supply of weapons and material of war or provided financial advice and assistance to help in conducting his country's defense.

Today, one of our country's important business-government executive manpower programs is the National Defense Executive Reserve. It is composed of executives recruited from civil life to serve with the Federal Government in times of national emergency such as periods of international conflict and as a force-in-being to assist departments and agencies during disasters or situations that may require augmentation to perform emergency functions in restoring adequate government service. In analyzing the heritage of this type of social or non-economic responsibility of the "man of commerce," many important contributions can be identified.

Between 1800 and 1200 B.C. the tradesmen of Babylonia, Phoenicia, and Egypt began establishing their markets for iron, metal weapons, armor, and accouterments, and

salesmen-businessmen of the Near East came to the barbarous nations of Western Europe. From these contacts business-government relations in the Western tradition slowly evolved, first focusing on government procurement of armaments and later leading to government regulation of commerce as societies became more economically complex. Only since the Industrial Revolution in the latter part of the eighteenth century has the

NDER: National Defense Executive Reserve

businessman really exerted influence on the direction of government either in peacetime or wartime emergencies. Since then he has at times made significant contributions to his government during emergencies but it was not until World War I that the concept of the businessman in the administration of the government in emergencies actually took hold.

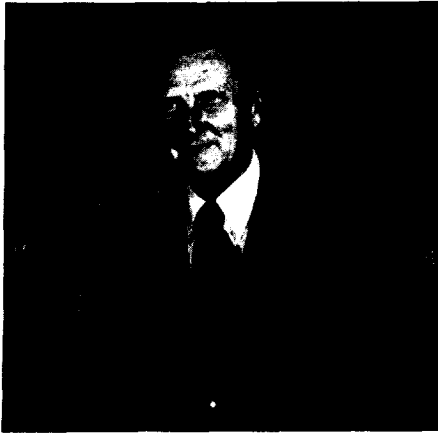
Earlier Experiences

In the Homeric world, the difference was clearly drawn between the hearty warrior and the wary, anemic businessman, and out of this hostility, there developed trader communities and warrior communities depending on the dominant group. This struggle lasted almost a millennium, from about 1,000 B.C., when iron swords flooded the market, to 146 B.C. when Rome ravaged and razed Corinth and Carthage, the two great main trading centers.

In his *Republic* Plato sees the need for ancient businessmen-artisans, traders, and merchants — but only in their functional place. For instance, traders were commonly those weakest in bodily strength and therefore of little use for any other purpose; their duty was to be in the market. In *The Laws*, Plato objects to allowing craftsmen a part in the government of the state, for that by itself was a craft, and no man can learn two crafts. The administration of government he says is to be known only to a few who possess special political gifts and definitely not to the socially inferior traders. Aristotle was harsher in his prejudices and recognized no service of the merchant middleman.

The animosity and suspicion of the businessman continued into the next millennium as the Roman warrior-landlords and church leaders disdained trade and sought to bar the businessman from advancement to political power and spiritual salvation. Nevertheless, the strengthening of

*Dr. William H. Tomlinson is a June 1943 graduate of the U.S. Military Academy, a combat veteran and a career Army field artillery officer, retiring in 1973 from the faculty of the Industrial College of The Armed Forces. A graduate of the U.S. Army War College, Dr. Tomlinson's academic record also includes degrees from the University of Alabama (M.B.A.), George Washington University (M.S.), the Advanced Management Program, Harvard Graduate School of Business Administration, and The American University (Ph.D.). In 1987, Dr. Tomlinson was Visiting Professor at the University of Glasgow (Scotland). He has served on the management faculty at the University of North Florida since his retirement and as a member of the National Defense Executive Reserve with FEMA since 1976.



Dr. Tomlinson

the Empire and the Church, particularly in emergencies, called for the acquisition of capital and the moneyed-businessmen of the plebeian class were summoned. Probably the most successful of these early businessmen was Crassus who became the richest man in the Republic, gaining a fortune of almost \$13,000,000 in modern currency. He manipulated kings with his wealth and power and aspired to govern Rome. Although not attaining his goal he did become co-ruler of Rome with Pompey and, later, Julius Caesar.

After the dissolution of the Roman system, the Church continued to accept the skills and profits of the businessman, as the missionary and merchant together expanded Christian frontiers against the heathen during the Dark Ages. Around 1000 A.D. there began a second flowering of merchant-managed cities, and the ascendancy of the medieval merchant-patrician redeveloped; business governments in such politically powerful entities as the Hanseatic League in northern Europe, the Florentine city-republic in central and western Europe, and the semi-Oriental "Merchants of Venice" in southern Europe and the Near East. Later, with the spread of the Renaissance spirit, which provided science and individualism, and the subsequent rise of the "Bourgeois Gentilhomme" middle class, capitalism was redeveloped and national mercantilism brought new opportunities for the businessman to expand his scope of business-government relations.

From the twelfth to the eighteenth centuries, the succession of business oligarchies may be followed without a gap. Then, as Max Weber saw it, the Lutheran and Calvinist Protestant influence helped keep alive the older

individualism of the Renaissance by prolonging the "tradition of business independence under the guise of religious dissent" and linked the mighty financiers of the 1500's with the modern entrepreneurs of the 1900's.

This individualism of the Puritan and Bourgeois Christian businessman swept across the Atlantic to our shores and provided the political and economic impetus which resulted in our independence. Financial businessman, Alexander Hamilton, the most ardent advocate of industrialization for the new Republic, stressed the critical need for providing for national emergencies in his *Federalist Paper Number 23* when he said "It is impossible to foresee or define the extent and variety of national exigencies, or the corresponding extent and variety of the means which may be necessary to satisfy them." Of course, providing for the common defense by a federal government was his central concern here, but it poignantly exemplifies the vital interest a member of the business community demonstrated in shaping the charter of our Republic.

Early American Experience

As the Quartermaster General Timothy Pickering attempted to make preparations for the final campaign against the British in 1781, he found that he had no horses to move Washington's artillery to Peekskill, New York. He tried to buy the horses on credit, postponing the payment for several months and paying the interim interest. To meet these obligations he turned to businessman Robert Morris for assistance. By 1781 Morris was generally regarded as the foremost merchant in America, and this reputation, above all other considerations, caused the country's early leaders to ask his assistance in serving as an early emergency executive. Closely associated with Morris was another, less known businessman, Haym Salomon, whose skill, ability, and sacrifice ensured the success of Morris' financial program. Not only was he Morris' sole agent for negotiating notes of exchange, but it is estimated that he advanced over \$700,000 to the Revolutionary Government with no return. At times this early emergency executive subsidized the services of a number of the nation's early statesmen and leaders, such as Thomas Jefferson, James Madison, Edmund

Randolph, General Friedrich Von Steuben, General Thomas Mifflin, General Arthur St. Clair, James Monroe, James Wilson, and others.

During the American Civil War, the United States' second great emergency, the greatest contributions were performed again by pioneer emergency executives, not by arming the union with the tools of war but by financial assistance. Government procurement was handled directly by the ordnance, quartermaster, and other service department bureaus without any need for activating an overseeing coordinating civilian agency. Because of President Abraham Lincoln's and Secretary of War Edwin Stanton's forceful interest and leadership in weapons development and logistics, the need for an all-powerful coordinating mobilization agency with many industrial leaders did not become urgent. Probably the best known businessmen to give financial help in the Civil War was

The animosity and suspicion of the businessman continued

Jay Cooke, another early emergency executive. While General Ulysses S. Grant was besieging the approaches to Richmond and the expenses of the war effort were at their highest, Cooke led the campaign to popularize and sell \$820 million of notes, the money to pay the troops who would carry the war through to ultimate victory. Two other financiers deserve recognition, August Belmont and Joseph Seligman. During the War, Belmont recruited and provisioned the first German regiment from New York City, and his warning to European banking circles that the Confederacy was a poor risk inflicted "more practical damage to the South than Beecher's orations in England." Seligman, after manufacturing huge stocks of clothing for the Army, went into banking. When the need was desperate and neither England nor France would buy U.S. bonds, Lincoln appealed to Seligman who saved the day by selling \$200 million worth of bonds in Germany.

The first attempted industrial mobilization of a nation for a general war emergency occurred in 1861 as the South tried to expand its meager industrial resources. With no precedents to regulate its economic life, the Confederacy improvised controls

which were not always too effective. Although the South failed to produce the manpower and munitions to match the North, its superior mobilization efforts contributed signifi-

inform American manufacturers as to the part they can and must play in national emergency. . . .

The personnel of the Council's advisory members, appointed without

While . . . Grant was besieging . . . Richmond . . . Cooke led the campaign to . . . sell \$820 million of notes.

cantly to its ability to survive for four years both in battle and on the home front.

World War I and Growth of Concept

As far back as 1910 the idea of a Council of National Defense to prepare, coordinate, and control our industrial preparedness for a wartime emergency had been discussed by General Leonard Wood and other Army leaders. In December 1915 President Woodrow Wilson called upon Congress to create the right instrumentalities by which to mobilize our economic resources in any trial of national necessity. As a consequence, a rider to the appropriations act, on 29 August 1916, approved the Council of National Defense for the coordination of industries and resources for the national security and welfare. Many civilians and officials contributed to this executive reserve concept, but the efforts of Dr. Hollis Godfrey, President of Drexel Institute, and Dr. Henry E. Crampton, a distinguished scientist, deserve the credit in seeing the Council and its Advisory Commission a reality. President Wilson stated the Council of National Defense:

. . . has been created because the Congress has realized that the country is best prepared for war when thoroughly prepared for peace. . . . Upon this conception of the national welfare, the Council is organized in the words of the act for 'the creation of relations which will render possible in time of need the immediate concentration and utilization of the resources of the Nation. . . .

The Council's chief functions are:

1. The coordination of all forms of transportation and the development of means of transportation to meet the military, industrial, and commercial needs of the Nation.
2. The extension of the industrial mobilization work of the Committee on Industrial Preparedness of the Naval Consulting Board. . . . One of the objects of the Council will be to

regard to party, marks the entrance of the non-partisan engineer and professional man into American governmental affairs on a wider scale than ever before. . . . In the present instance, the time of some of the members of the Advisory Board could not be purchased. They serve the Government without remuneration, efficiency being their sole object and Americanism their only motive.

The Council was made up of the Secretaries of War, Navy, Interior, Agriculture, Commerce, and Labor, but the initiative in shaping and directing the emergency business-government relations program was exercised by seven pioneer "executive reservists": Daniel Willard, president of the Baltimore and Ohio Railroad; Bernard M. Baruch, financier; Howard E. Coffin, vice-president of the Hudson Motor Company; Julius Rosenwald, president of Sears, Roebuck and Company; Dr. Hollis Godfrey, president of the Drexel Institute of Philadelphia; Samuel Gompers, president of the American Federation of Labor; Dr. Franklin Martin, secretary-general of the American College of Surgeons. These civilian leaders were the progenitors of the emergency executive reserve concept. Their attitude and spirit was best expressed by Howard Coffin: "Twentieth century warfare demands that the blood of the soldier must be mingled with from three to five parts of the sweat of the man in the factories, mills, mines, and fields of the nation in arms."

President Wilson appointed Bernard M. Baruch chairman of the reorganized War Industries Board . . . under the President, giving it expanded powers.

During the first three months after the Advisory Commission's first meeting on December 7, 1916, the reservists devised the entire system of buying war supplies, planned a program for press censorship, conceived a system of food control (headed by Herbert Hoover), worked out a day-

light-saving scheme, and developed plans for almost every war measure that Congress subsequently enacted.

On March 4, 1918, President Wilson appointed Bernard M. Baruch chairman of the reorganized War Industries Board, removing it from the jurisdiction of the Council of National Defense, making it an administrative agency directly under the President, and giving it expanded powers. An Executive Order, dated May 28, 1918, after passage of the Sherman Act, ratified the President's earlier action taken under his general powers as Chief Executive. Although Congress prepared bills giving the Board larger legal powers, no legislation was ever passed that made specific provision for establishment of the War Industries Board. The new Chairman, primarily aided by his volunteer emergency executives in key positions, quickly decentralized his authority to his eleven colleagues, who would direct the functional committees.

Baruch further decentralized this authority to the heads of the some sixty commodity sections that would maintain constant contact between Government purchasing agents in these commodities and their industry suppliers. The Board executives used priorities to regulate finance, manufacturing, and trade, and they fixed prices in an effort to discourage excess profits. Through the Board's charter they attempted to restrain competition among the buyers of war materials and to control the civilian use of men, money, and materials so that civilian needs, not merely civilian wants, should be satisfied.

Baruch's philosophy toward the selection of his executive reservists for the emergency emphasizes his interest in the individual rather than the machinery of the organization. He said that he had "seen too many organizations fail because more

attention was given to tables of organization and operating handbooks than to finding the right man for the job. . . . I began to recruit the best men I could find — and I looked for them, not among the captains of industry, but among the lieutenants on whom those captains relied.

Accordingly, the Chairman, early in his service, regarded as his highest duty, the necessity to select as his team members those particularly qualified in temperament, knowledge, and experience in their own field as well as men with "catholic and broad-gauged vision who could correlate the problems of their neigh-

executives, Benedict Crowell (who was Assistant Secretary of War from 1917 to 1920) and Robert Wilson, recognized that these mobilized civilian executives in the War Industries Board exercised complete control over the American economy and by the winter of 1918 were moving toward domination of the industrial

Bruce, Robert V. *Lincoln and the Tools of War*. Indianapolis: Bobbs-Merrill, 1956.

Clarkson, Grosvenor B. *Industrial America in the World War, The Strategy Behind the Line, 1917-1918*. Boston: Houghton Mifflin Co., 1923.

Hartstein, Jacob I. *The Jews in American History*. New York: Anti-Defamation League of B'nai B'rith, 1958.

Hamilton, Alexander. *Federalist Paper No. 23*.

Huston, James A. *The Sinews of War: Army Logistics 1175-1953*. Washington: Office of the Chief of Military History, U.S. Army, 1966.

Kranzberg, Melvin and Carroll W. Purcell, Jr., *Technology in Western Civilization*, Vol. 1, New York: Oxford University Press, 1967.

Oberholtzer, Ellis P. *Jay Cooke, Financier of the Civil War*. Philadelphia: George W. Jacobs & Co., 1907.

Peters, Madison C. *Haym Salomon, The Financier of the Revolution*. New York: Ronald Press, 1960.

Risch, Erna. *Quartermaster Support of the Army, A History of the Corps, 1775-1939*. Washington: Government Printing Office, 1963.

Rosenbloom, Morris V. *Peace Through Strength: Bernard Baruch and a Blueprint for Security*. Washington: American Surveys, 1953.

Ver Steeg, Clarence L. *Robert Morris, Revolutionary Financier*. Philadelphia: University of Pennsylvania Press, 1954.

Multivolume Works

Baker, Ray S. *Woodrow Wilson, Life and Letters*. 8 Vols. New York: Doubleday Doran and Co., Inc., 1937.

Martin, Franklin H. *Digest of the Proceedings of the Council of the National Defense During the World War*. U.S. Congress. Senate. 73d Cong., 1st Sess., June 1, 1934. Washington: Government Printing Office, 1934.

U.S. Congress, House, Select Committee on Expenditures in the War Department, *War Expenditures, Serial 1, Part 7*, Hearing, 66th Congress, July 7, 1919. Washington: Government Printing Office, 1921.

"Key" men . . . "tact . . . patience, endurance, and buoyancy; enthusiasm which could inspire, and inspiration which could accomplish."

bors with their own. For the 100 or more of his "key" men, Baruch wanted, besides the normal executive ability, "tact in a high degree, patience, endurance, and buoyancy; enthusiasm which could inspire, and inspiration which could accomplish."

The executives of the Board, numbering at full strength about 750, were from all walks of life. They were mostly young; very few were over fifty. They were in the active middle of their careers; they were not public figures but were well known in industry. Most of those selected for the Board were the managers rather than the owners of large industrial firms, but upon appointment they discontinued their private business affairs. Baruch frequently repeated his guiding principle "the avoidance of even any appearance of acting in a dual capacity for the government, themselves, or the businesses in which they have an interest."

In assessing the effectiveness of this pioneer group of emergency

strategy of the Allied Powers. President Wilson explicitly recognized the contribution of these civilians when he said they had "turned aside from every private interest of their own and devoted the whole of their trained capacity to the tasks that supplied the sinews of the whole great undertaking. The patriotism, the unselfishness, the thoroughgoing devotion and distinguished capacity that marked their toilsome labors, month after month, made them fit mates and comrades for the men in the trenches and on the sea." World War I had shown the need for emergency executive manpower. □

REFERENCES

Baruch, Bernard M. *Taking the Profits Out of War*. (n.p.: n.n.), 1936. *American Industry in War, A Report of the War Industries Board*. New York: Prentice-Hall, Inc., 1941.

The Public Years. New York: Holt, Rinehart and Winston, 1960.

Beard, Miriam, *A History of the Business Man*. New York: MacMillan Co., 1938.



TACDA: 1990 FUND DRIVE IN FULL SWING

The American Civil Defense Association (TACDA) as a non-profit organization, must rely for about half its income on donations from supporters and national security-oriented groups.

The other half comes from *Journal* subscriptions, memberships, METTAG sales (now increasing — see page 21), and minor sources of income.

We hire no money-raising firm, so 100% of all donations go into the

TACDA bank account. Part of our travel is also contributed. The recent DDP-TACDA trip to Soccorso Amico's conference in Salerno, Italy, for instance, cost DDP and TACDA nothing.

It's a battle. The help of those readers who can afford it is greatly

appreciated. Many thanks to those who will contribute now. (We need especially live contacts with foundations and industry who support homeland defense. Know of any?)

As Charlie Badley (TACDA's immediate past president) would say: "Bless you".

TO: TACDA
P.O. BOX 1057
STARKE, FL 32091



YES! I'LL HELP. HERE'S MY TAX-EXEMPT DONATION OF

\$ _____ KEEP FIGHTING FOR DISASTER RESPONSE!

Name _____

Address _____

City _____ State _____ Zip _____

DISASTER PREPAREDNESS = DISASTER PREPAREDNESS

Long before Hurricane Hugo, and even shortly before Hurricane Hugo, FEMA took special pains to inform all lower echelons of government that disaster preparedness meant taking steps to contend with disaster problems *before* the advent of disaster.

The *Emergency Management Quarterly*, published by the Council on Emergency Management of the American Public Works Association is another source of disaster preparedness information, and a particularly good one. In its 2nd Quarter/1989 issue Lawrence E. Lux of the Midwest Consulting Engineers, Inc. writes an article entitled "Pre-Emergency Location of Materials is Essential." Here are excerpts:

The primary objective of resource management is to provide prompt and effective acquisition, distribution, and use of personnel and material resources for essential purposes in the event of an emergency. No degree of effective planning, training and exercising will result in successful operations if essential resources are not available in sufficient quantity at the time and place required.

In most communities governmental agencies, private sector businesses, industries, institutions and organizations are involved in the day-to-day acquisition, procurement, use, manufacture, transportation and maintenance of resources which, if properly identified and prearranged, could be used in the mitigation of the adverse effects of any disaster.

There are ten major categories to be considered in emergency resources management planning:

- Health and Medical Resources
- Food and Water
- Utility Lifelines
- Fuels
- Sanitation Facilities
- Temporary and Long Term Housing
- Construction Equipment and Materials
- Transportation Facilities
- Human Resources and Volunteers
- General Use Supplies

Over half these categories have the potential for heavy reliance upon the ability of public works responders. Unfortunately, in the day-to-day press of activity, neither the general public nor elected public officials tend to recognize the demands that will be placed upon their public works personnel and equipment in emer-

gencies. . . .

Finally, there are a number of programs and publications available from the Federal Emergency Management Agency which provide guidance and training in the development of disaster procedures. . . .

The failure of people and governments to react to recommendations for preparedness may be a part of human nature. A part of human nature, too, is to blame those who have issued warnings and preparedness measures for their neglect to pay attention to them in disaster.

There are thousands of victims of disaster-to-come in the 1990s who are ignoring the preparedness counsels of FEMA and organizations like the American Public Works Association (and maybe TACDA) who will again blame them for their plight when disaster hits them.

Seat belts are now law. Smoke alarms are soon to become law. If simple disaster preparedness measures were also to become law we might lessen the slurs and arrows from those who feel they aren't being properly coddled as a result of their neglect to prepare as recommended.

References to "bureaucratic jackasses" (not that there aren't a few) would also simmer down as they should.

DENMARK TO BE COVERED BY "ATOMIC UMBRELLA"

Denmark is located very close to some of Europe's largest nuclear power plants. After the Chernobyl nuclear power plant accident in 1986, the Danish government decided to allocate funds for a nuclear monitoring and warning system that will prevent damages in Denmark caused by nuclear power plant catastrophes in the surrounding countries.

The nuclear monitoring and warning system, which will be established through a network of high sensitive measuring stations located throughout Denmark, will continuously measure and communicate the results back to the main control and alarm center. Not only will the nuclear warning system report the level of radioactivity, but it will also detect what kind of nuclear substances are causing the radioactivity.

The Danish Civil Defense Organization, owner and operator of the

new system, has already received several inquiries from other countries interested in the new concept.

For information in the United States call the Danish Trade Office, Silverado Center II, Suite 500, 1777 So. Harrison St., Denver, CO 80210-3930. (Phone: 303-692-9090, FAX 303-656-0678.)

MARILYN QUAYLE JOINS FEMA ADVISORY BOARD

Marilyn Quayle, wife of Vice President Dan Quayle, has accepted an appointment to the FEMA Advisory Board according to an announcement by Acting FEMA Director Robert H. Morris.

The FEMA Advisory Board is comprised of business, scientific, academic, government and military leaders.

In accepting the appointment, Mrs. Quayle told Morris that the "mission of FEMA, and of the Advisory Board, is one I fully support. . . ."

Mrs. Quayle has devoted significant time and attention to the plight of victims of recent natural disasters in the U.S. and worked closely with FEMA relief operations following Hurricane Hugo and the Loma Prieta earthquake.

R&D COMMITTEE HEAD DELLUMS — SHOULD WE TRUST HIM?

Charlie Reese, outspoken columnist for the *Orlando Sentinel* (Florida), recently observed that the KGB would like left-leaning politicians in sensitive positions. Is Rep. Ron Dellums a candidate? As head of the House Armed Services Committee's subcommittee on research and development, Dellums is in a sensitive position. Says Mr. Reese:

Dellums' leftist slant is best summarized by a letter from his staffer, Carlotta Scott, which was recovered by U.S. forces in Grenada. It was addressed to Maurice Bishop, Grenada's Marxist dictator:

"Like I said, he's [Dellums] really hooked on you and Grenada and doesn't want anything to happen to building the Revolution and making it strong. He really admires you as a person and even more so as a leader. . . . Believe me, he doesn't make that kind of statement often about anyone. The only other person I know of that he expresses such admiration for is Fidel [Castro]. This is confidential rap. . . ."

METTAG, the rugged, symbol-engineered international emergency triage tag is now a standard rescue tool in airports, fire departments, hospitals, emergency management teams, police departments, athletic events and wherever safety is a major concern. The value of METTAG is summed up in the phrase:

When Lives Count — Count on METTAG!

METTAG — Medical Emergency Triage Tag — took its biggest sales jump ever in 1989 and aimed at major expansion, major lifesaving services during the 1990s. Expanded sales allowed METTAG again to postpone a price increase until January 1, 1991 (its last price hike was in 1986).

"We have had a 1989 jump in METTAG sales throughout the United States and Canada," says personable METTAG manager Brenda Reynolds, "and now we're looking to new markets in Europe for 1990 where interest is building fast."

METTAG is the revolutionary *international* field triage tag that expresses its functions in *symbols* so that it is completely clear to medics (and lay people as well) of all nationalities irrespective of language. Understandable at a glance — like the rest room boy and girl figures, like the handicap symbol, like a deer crossing sign.

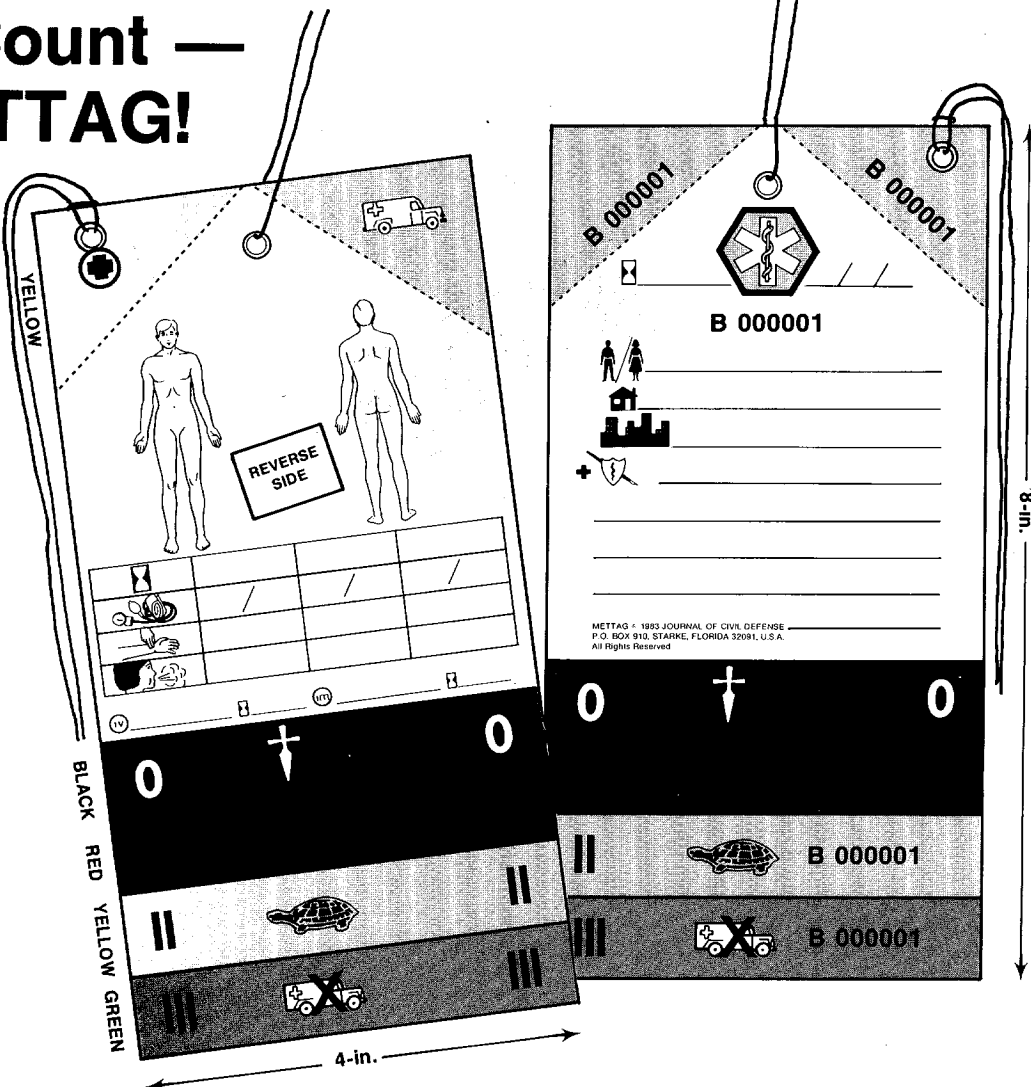
"Emphasis has been on making everything crystal clear," says Brenda. "It makes for speed in processing casualties, in getting them the emergency medical attention they need — even under adverse conditions like rain, smoke, darkness, difficult terrain, or whatever."



Brenda Reynolds

METTAG features include:

1. Easy to see 4-color design
2. Tough weather-resistant cardstock
3. Individually serial-numbered in six places on tag and tear-offs
4. Body designs and chart for easy indication of injuries
5. Tough metal grommet and strong 30-inch loop
6. Easy-to-understand symbols
7. Instructions with each pack of 50 METTAGS in English, French, German and Spanish



"I know of no medical professional familiar with METTAG who doesn't vouch for it," says Brenda. "And why not. No other tag holds a candle to it. It lives up to its 'When lives count, count on METTAG' battle cry with miles to spare."

In his standard disaster medical manual *Triage Emergency Care Handbook*, author Dr. Max Klinghoffer writes:

The emergency medical tag for field use which has received almost universal acceptance is METTAG. . . .

Many hospitals have their own "Triage Tags," or EMT tags. These do not replace the METTAG field tag; nor does METTAG replace the hospital EMT tag. Ideally, the METTAG and the hospital triage tag become part of the total chart.

For free catalog and/or free sample of METTAG contact:

METTAG
P.O. Box 910
Starke, Florida 32091

(Phone: 904-964-5397
FAX: 1-904-964-9641)

METTAG also markets an "ER-TAG" (emergency room tag) for use in hospitals. Other products are included in a *METTAG Products Catalog*.

"Call me anytime," says Brenda. We'll gladly give you whatever information you need. We hope you may become one of our satisfied customers." □

REVIEWS

NUCLEAR WAR SURVIVAL, by Duncan Long. Published by J. Flores Publications, P.O. Box 163001, Miami, FL 33116. Sixth edition. 221 pages. 1990. Price: \$14.95.

— Reviewed by Kevin Kilpatrick.

Over the last decade Duncan Long has become "Mr. Civil Defense" for the man-in-the-street and everyone who needs a direct, thorough, simple approach to what can be done to maximize survival odds in the event some of the many thousands of nuclear missiles are ever loosed upon us.

Long's sixth edition is an updated and expanded version of his previous editions. Written in layman's language, it communicates to society-at-large in clear, understandable terms the step-by-step precautions that anyone can take to feel secure in the fact that provisions are on hand to survive modern warfare — and natural disasters as well.

In his down-to-earth introduction Long says (in part):

On the flip side of things, surviving a nuclear war would not be a picnic. It would be bad. But it could be survived and the survivors would NOT necessarily envy the dead — provided the living had planned on surviving beforehand.

... do a little crude budgeting and do a little studying and thinking. It's painless and actually will help you sleep a lot better at night since you won't have to worry about so many "what ifs" (this may be why people with life insurance live longer than those without it!). Knowing you have a good chance of surviving the worst that mankind might dish out is pretty comforting.

Long's range of vision in preparedness is indeed a wide one. Looking at the ongoing SDI "debate" he says:

So even if the U.S. should manage to get an operational SDI system in place, the American citizen will need to prepare to survive the "leaks" of weapons getting through the hi-tech shield on his own. And if SDI doesn't come into being (while the Soviets continue on their system), a "personal civil defense program" would seem to be an even greater asset to the average citizen since the probability of war would seem much greater if the Soviets have a system in place while the U.S. does not.

Perhaps the most commendable approach by Duncan Long is his

superstrong emphasis on shelter and shelter stocks. He goes into considerable detail with this, with illustrations that feed the planning of the serious shelter buff. There's a whole chapter on the subject of WATER. And one on FOOD. And one on WASTE DISPOSAL. And one on STOCKING UP that zeroes in on taking care of other items (medical, mechanical, protective, etc.).

Long emphasizes good books on survival and civil defense. And he gives their titles and information on obtaining them. He also lists in his appendix those organizations which are "useful" in terms of providing good survival information.

Add to Long's "Sixth Edition" a basic enthusiasm for survival and a willingness to mix in a good bit of ingenuity and planning to contend with local disaster situations, and the exciting adventure of providing insurance for one's survival — and that of his family and friends — begins to take shape as a logical American precaution in the tradition of American "pioneer" heritage.

The new 1990 *Nuclear War Survival* can indeed be a wise investment for the serious student of survival who wants to plan effectively.

SAFETY/RISKS — Questions and Answers. Published by the American Nuclear Society, Inc., 555 North Kensington Ave., La Grange Park, IL 60525. 8½"x11" format. 56 pages. 1989. Price: \$10. Use Order No. (3)-750048.

— Reviewed by Bob Baffin.

Most of us who are beyond the clutches of nuclear alarmists realize that nuclear energy is far and away one of the safest forms of energy on earth. But, confronted with critics, we are lacking the hard facts to cite that show this to be true.

Here are the facts. They are set forth in simple question-and-answer form. And the many questions come from sources which express concern for the safety of nuclear power.

America's most "famous" nuclear accident, Three-Mile Island (TMI), is examined from a number of angles. It was indeed an accident. But because of the safety features at TMI it was an inconsequential accident. Pertinent figures are given. No one was ad-

versely affected.

The Soviet Union's Chernobyl accident was something else. In answer to a question about this *Safety/Risks* says:

The Chernobyl plant did not have a conventional containment structure, and this is another reason why so much radioactivity was released off site. This plant could not have been licensed to operate in the United States, where the NRC [Nuclear Regulatory Commission] requires mechanical defenses in depth, including containment structures, to protect the public against severe accidents.

There are 18 illustrations in the booklet. One of them (page 22) shows "Average Loss of Life Expectancy in Days Due to Various Causes." Radiation from nuclear industry at the bottom of the table shows 0.02 days average loss. And this assumes that all U.S. power is nuclear. Going up in the table's listing of 38 "causes" we find activities that are somewhat more dangerous in days in average life expectancy loss:

Accidents to pedestrians	37 days
Accidents in the home	95 days
Motor vehicle accidents	207 days
Heart disease	2100 days
Cigarette smoking, male	2250 days

Nuclear industry radiation gets lost in these statistics.

However, the booklet does not play down adverse effects that nuclear power plants can have. Warm water discharges, for instance, can kill fish and plant life and are a matter of concern. This is to a large extent controllable.

Earthquakes are also a recognized problem, but so far nuclear power plants subjected to earthquakes have not been damaged, and they are designed to withstand them.

Safety/Risks arms those who need to know and those who want to know with invaluable information on the safety and utility of nuclear power plants and is an excellent reference volume. It is part of a series of four information booklets that the American Nuclear Society has published under the common heading of *Nuclear Power and the Environment*. The other three volumes are:

Radiation (Book 1)

Fuel/Waste (Book 2)

Energy Alternatives (Book 4)

Each of these books costs \$10. A set of all four books costs \$40.

TOO GOOD TO FILE

SDI DEPLOYMENT: ACTION NEEDED

... When considering the chaos in Central America, Poland, the Middle East, Iran, Afghanistan, South Africa and many other places (not the least of which is the Soviet Union and China), the U.S. must face the realization that we are no longer dealing with strong and cohesive nations capable of abiding by international agreements, legally binding treaties, or accepted standards of international conduct. Indeed, what does an arms control treaty mean to a strong military commander in the Soviet Union who despises the West and sees himself in a position to take advantage of the current lack of centralized control in his government, or to a warlord in China who is struggling to gain the upper hand and finds himself in possession of long range ICBMs? All the Midgetman missiles and arms control agreements in the world can not do one thing to protect the United States from an unexpected attack from even one ICBM which falls into the hands of just one of these unknown forces currently present in any of these troubled spots throughout the world.

Hence, it is paramount that the policy makers in Washington respond quickly to our precarious situation and move towards a Phase I deployment of SDI.

— Paul Metrey in *Newswatch* (High Frontier)

BENNETT SDI POSITION ILLOGICAL?

... Bennett [U.S. Rep. Charles E. Bennett — FL] argues that since polls indicate that only 2 percent of the public believes that fear of nuclear war "is the most important problem facing this country today" that there is no public support for SDI. That is patently ridiculous, and Charlie Bennett proves that by his own amendment. Why would he propose spending \$3.1 billion next year on SDI if only 2 percent of his constituents supported the program? ...

Bennett demands that we give up the idea of ever deploying defenses against ballistic missiles and make certain SDI is confined to research only. In other words, Rep. Bennett is willing to put over \$3 billion per year into SDI, if we make sure it is wasted. Not too logical in my view.

— Lt. Gen. Daniel Graham, Director, High Frontier
(Letter appearing in *Defense News*)

SWEDEN AND "ARMED NEUTRALITY"

Why should we give up neutrality? I think it is an advantage to both NATO and the Warsaw Pact that there is a neutral Sweden defending its territory and air space.

It is also politically impossible, because 95 percent of the Swedes want neutrality. The reason is very simple. For 700 years, between the 11th century and the 19th century, every generation fought about two wars. We got into neutrality in the beginning of the 19th century, and since then we have been left in peace.

For Swedish people, neutrality means peace and freedom.

— Gen. Bengt Gustafsson, Supreme Commander, Swedish Armed Forces (in *Defense News*).
[Gen. Gustafsson is former head of the Swedish Civil Defense Administration's Planning Bureau]

DRINKING WATER FOR EMERGENCIES with KATADYN Water Filters

Removal of:

Bacteria
Parasites/Cysts
Protozoans
Nuclear Debris
Sediment/Dirt
Silt/Sand

Used by:

NATO
Armed Forces
Emergency Crews
Red Cross
AID
Survivalists

Ceramic filter element with pore size of 0.2 micron. Unlimited shelf life. Useable element makes systems last for thousands of gallons.

Three portable models available, all self contained. No hook-up required. Invaluable in case of man-made or natural disasters; also used for camping, backpacking, and foreign travel.

For more information and the name of your nearest dealer, call toll free

1-800-950-0808

In HI and AK: (602) 990-3131



Katadyn USA Inc.

3020 N. Scottsdale Rd.
Scottsdale, AZ 85251

Sold in fine camping / backpacking / survival stores.

AIRCRAFT TERRORISTS TO TURN TO MISSILES?

International defense experts say terrorist organizations are acquiring surface-to-air heat-seeking missiles to get around increased anti-bomb aircraft security. Says the *Jane's Avionics* report: "The majority of these missiles are simple to operate and could have a devastating effect. The use of the highly-portable missiles is such a clear and present danger that commercial airliners will soon be equipped with defensive infrared countermeasure systems, according to the report. The defensive system launches flares that distract the missiles, a tactic used to defend Soviet aircraft in Afghanistan.

— *American Sentinel*

The U.S. Communist Party is more influential than ever, because we have created an atmosphere that the U.S.S.R. is no longer a threat to America.

— Gus Hall, General Secretary of the Communist Party U.S.A. in an interview with *The New York Times* (from *The McAlvany Intelligence Advisor*)

DEAL WITH "FULL SPECTRUM" OF CD

Beverly, MA

Doctor Klinghoffer:

I would like to take this time to mention that right now the leaders of "Civil Defense" are missing a great opportunity to bring Civil Defense into a leadership roll as an emergency planning and response organization. Let's look at the events that have happened recently: plane crashes, earthquakes, oil spills, SARA title III, the Berlin Wall, reductions in Government spending. All provide opportunities for rethinking the rebirth of Civil Defense.

Why hasn't this happened? Why don't we have a true national Civil Defense association? Well, I don't know the answer. But I do know if we fail to get together we will be doomed to exist as some fourth-rate agency that gets little attention. . . .

I would suggest that TACDA think about stepping in and filling the void at the top. With a little work your magazine could become a top-rate emergency management publication. A few more articles with appeal to the all-hazards aspect of emergency management would result in a much more interesting magazine to the Civil Defense community, and an increased membership to TACDA.

I can appreciate your emphasis on nuclear preparedness, but I would think that an organization that deals with the full spectrum of emergency planning and response and professes nuclear preparedness, would get more respect than an association that deals primarily in nuclear preparedness and gives little more than lip service to the other areas.

Best of luck in these exciting times.

Mark Foster, CD Director

WAR OR PEACE?

West Palm Beach, FL

Everyone is delighted by the new freedoms and end of one-party rule in the Soviet satellite states. A lot of people will hopefully soon be leading much better, richer lives because of this. But what if these changes are just the result of a ploy that got out of hand? Russia is just as strong militarily as it ever was. We have not deployed our strategic defense (SDI —

the "Star Wars" shield), or the blast and radiation shelters which constitute the modern nation's suit of armor.

How should America respond to the events in East Germany, Poland, Hungary, Czechoslovakia and Rumania? How should we (in the Civil Defense and survivalist communities) respond as knowledgeable people when it comes to our own families?

I say we need to deploy the "Star Wars" shield and blast and radiation shelters right now as an insurance policy. They are moral, they can't be used to kill people. Personally you should clean out and re-stock your shelters.

Let us look at all possible scenarios, our possible responses to them, and the consequences to us and the nation if we are correct and if we are wrong. We should beware if the consequences of being wrong would prove fatal to us. What is the evidence for each interpretation?

ASSUMPTION (The Soviet reforms are a ploy to get us to disarm):

A. We fall for the ploy, disarm, fail to deploy SDI or shelters. This is the worst possible outcome. At a time of Soviet choosing all the democracies of the world go the way of Carthage.

1. We survivalists with shelters survive with many neighbors to die fighting, face firing squads, or possibly live as slaves (if "they" are generous!). Possibly they will spare the women and children. So our genes may live on.

2. The Soviet Union falls apart after a partial victory, and in America those who are left become warriors like the Sioux or Afghans and fight off repeated attacks by invaders.

B. We do not fall for the ploy

1. We continue as we have been with Mutual Assured Destruction as a deterrent to war.

(a) You can't deter an accident. Eventually the 1% chance per year catches up with us. We die as a nation if there is an all-out attack upon us. We suffer needless horrible casualties if an "accident" occurs.

(b) Eventually "they" will get their own shelters and SDI so heavily deployed that they can choose whether to blackmail us into surrender or give us the "nuclear Pearl Harbor" which will win them

the war.

— David Lobdell

PS: The nation which controls space in the 21st Century will control the earth, just as the nation (The U.K.) which controlled the seas in the 17th, 18th and 19th Centuries controlled the earth, and the nation (U.S.A.) which controlled the air controlled the 20th Century.

UNWISE AND UNAWARE OF REALITY?

Hartville, MO

Sirs,

Enclosed are my August dues in TACDA's \$10-a-month club.

I hope my donation, along with those of other members, will be helpful in furthering our cause.

Being prepared to help ourselves and those around us when disaster strikes, whether natural or man-made, is an important part of our national heritage — which has been put aside in recent years. The idea that preparedness is uncivilized, unmodern or uncultural is simply being unwise and unaware of reality.

J. Don Stewart

THE INDIVIDUAL, THE LOCAL LEVEL

Monrovia, IN

Journal of Civil Defense:

In this busy troubled time, I realize that there are other problems that the Federal Government has to deal with, and the Federal Government and its elected officials are not likely to require shelters for the general public until it is either too late or the shelters are proven and an overwhelming majority of the public demands them. Thus, it is up to individuals and towns and states to provide them.

How nice it would have been to have stocked shelters that could house the victims of some of the disasters that occur every year such as the recent Hurricane Hugo and the California earthquake. As you well know, most people don't realize that the worst part of a disaster often comes days after the disaster strikes as the systems break down. . . .

G. Saucerman

"A strong Civil Defense might prove an even greater deterrent to war than some of our most lethal weapons. The enemy's knowledge that much of our civilian population would survive would indicate to him the futility of aggression against us."

— Porter Hardy, former U.S. Congressman (VA)

Manage Emergencies Better With Custom-Digitized Maps And The EMERGENCY INFORMATION SYSTEM

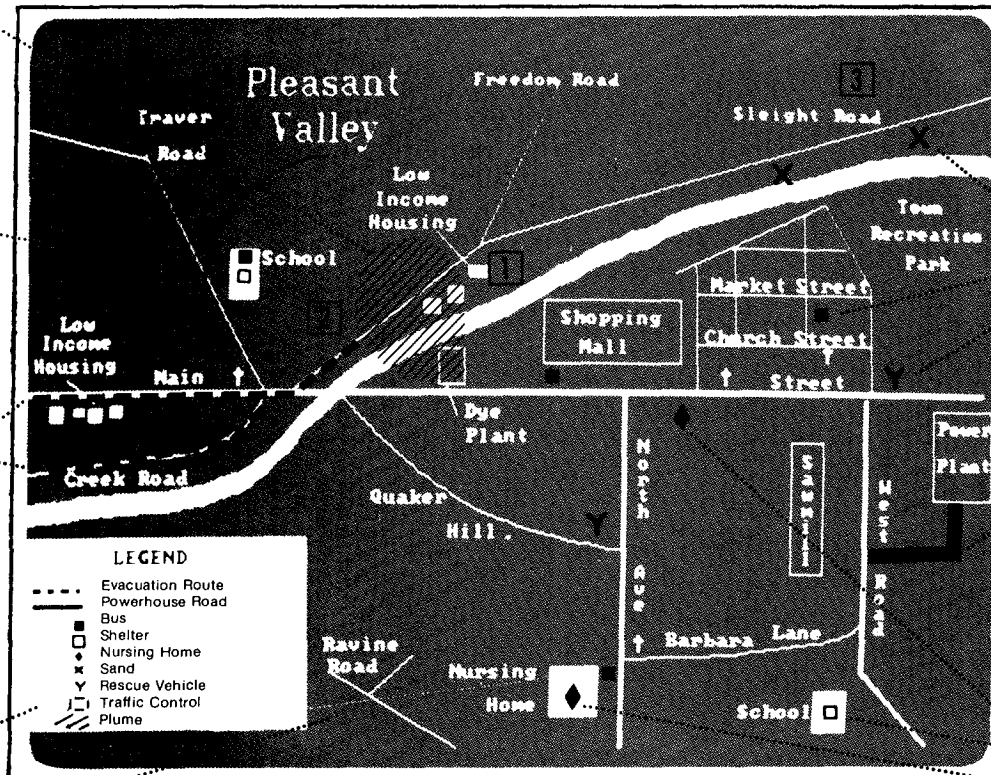
Use cross-hatch markings to track the spread of flood waters, wildfires, chemical spills, etc.

Draw evacuation routes or traffic control perimeters as red, blue, or yellow; dotted, dashed, or solid; thin, medium, or thick lines.

To evacuate an area, designate these routes as one-way outbound by blinking dotted lines.

Bring up a legend of all map symbols at any time by pressing a single key.

Zoom into progressively more detailed maps by pressing a single key.



Record all messages and locate critical incidents on the EIS Event Log.

Show all available emergency resources. One key calls up the name and details of any resource on the map.

Update your maps quickly by drawing a new route that's important to incident management.

Wherever special emergency needs exist, press one key to get the requirements, contact name, and number of people involved.

What Can The Emergency Information System
Do For You? Here Are A Few Examples.

☐ Please Send Me More Information!

Name: _____

Organization: _____

Address: _____

City, State, Zip: _____

Telephone: () _____

EMERGENCY INFORMATION

Suite 31, 966 Hungerford Drive, Rockville, MD 20850
(301) 424-2803

With the EIS you get:

- Event Log
- Hazard Analysis
- Shelter Management
- Alert List
- Damage Assessment
- Situation Report
- Automated Plan
- Locator
- Contact List
- Resource Inventory
- Special Emergency Needs
- Emergency Notepad
- Letter Writing and Update
- Administration: Personnel, Training, and Volunteers

Also Available—Custom Digitized Maps

BLUEPRINTS — 8 working drawings each

- 1983 earth-sheltered home design \$25
- 1985 "austere" earth-sheltered home design .. \$25
- 1985 "commodious" earth-sheltered design ... \$25
- 1986 retrofit blast shelter (4 drawings) \$25
- 1986 retrofit blast shelter, 8½"x11" (11 sheets) \$ 9

BOOKS NEW!!

Cost

- *Emergency Preparations and Survival Techniques for Ham Radio Operators*, by Calvin C. Steinberger. Manuscript form 65pp + reports, maps, etc. \$19.00
- *We Can Prevent WWII*, by Sam Cohen, hardback, 129pp., \$19.95 \$11.95
- Total Books — Total Cost of Books \$ _____

ORDER FORM

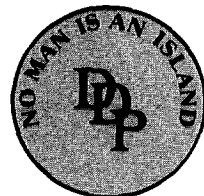
\$ _____ Enclosed to cover above order.

The American Civil Defense Association • P.O. Box 1057
Starke, FL 32091 • 904/964-5397 FAX: 904/964-9641

Please ship to:

(shipping and handling included)

Doctors For Disaster Preparedness



An American organization of medical professionals and involved citizens dedicated to organized and effective disaster response capabilities in all types of disaster situations.

AIM: To save lives and alleviate suffering in all disaster situations.

MEMBERSHIP FEE:

- Professional (MD, PhD, etc.) \$ 50
- Associate (RN, EMT, lay, etc.) \$ 50
- Student (no voting rights) \$ 25
- Sponsoring Member \$100

Membership includes: *Journal of Civil Defense*, TRIAGE newsletter, certificate and more.

To: Doctors For Disaster Preparedness, P.O. Box 1057, Starke, FL 32091, (904/964-4848).

I have enclosed \$ _____ ☐ Send free information

Name _____

Address _____

City _____ St _____ Zip _____

Office Phone (_____) _____

Home Phone (_____) _____

SUBSCRIBE NOW!

AMERICAN SURVIVAL GUIDE

Self-Defense ★ Self-Reliance ★ Freedom



American Survival Guide is for people whose chief concerns are protection of individual life and property and preservation of the United States of America as a nation. The magazine presents information on world and domestic forces, and threats posed by these forces in day-to-day life: terrorism, urban violence, economic

breakdown, geophysical events, conventional warfare, toxic wastes, and nuclear conflict.

American Survival Guide presents the politics, technology, hardware, weapons, problems, practice, tactics, attitudes and philosophy of self-defense and self-reliance for survival in freedom.

Use this coupon below to subscribe and save. ★ Do It Today!

Mail to: AMERICAN SURVIVAL GUIDE
P.O. Box 15690, Santa Ana, CA 92705-0690

DE/jed

- ☐ Enter my subscription for 12 issues for only \$21.95. (That's \$8.05 off the newsstand price.)
- ☐ Save more! Save longer! — 24 issues \$38.95. (That's \$21.05 off the newsstand cost.)

Name _____

Address _____

City _____ State _____ Zip _____

☐ Payment enclosed ☐ Bill me later ☐ Charge my ☐ MasterCard ☐ Visa

Card # _____ Expiration Date _____

Signature _____

This rate applies to the U.S.A. and its Possessions. All other countries add \$6 per year (U.S. funds) for postage. Allow 4-8 weeks for delivery.

FREE

METTAG PRODUCTS CATALOG

Full description, information and pictures of METTAGS, ER-TAGS, EVAC-TAGS, ID-TAGS, Metboards, and teaching sheets.

For **FREE** catalog send name and address to:

METTAG
P.O. Box 910
Starke, Florida 32091
(Phone: 904-964-5397
FAX: 904-964-9641)

Index to Feature Articles *Journal of Civil Defense* — 1989

Vol. XXII, No. 1 Feb. 1989

Cover: Comparison of Civil Defense Budgets (world)
Finland: Civil Defense, by Reed H. Blake and John R. Christiansen
FEMA Defends Against PSR Charges
Donald Mitchell Urges New Focus on Active and Passive Defense
A Real U.S. Civil Defense Must Begin Now!, by Arthur B. Robinson
AIDS: Quo Vadis?, by Max Klinghoffer

Vol. XXII, No. 2 Apr. 1989

Soviets Today Push Civil Defense — Why?, by John F. Devaney
Gorbachev's "Star Wars," by Richard E. Sincere
Civil Defense in Norway, by John R. Christiansen and Reed H. Blake
SDI Bonanzas, by Michael Duggin
Soviet Civil Defense in Peacetime Disasters — Translation by Leon Goure
D-Day Remembered, by Charlotte Smith
FAB: Guidance for FEMA, by Robert W. Deimel

Vol. XXII, No. 3 June 1989

Cover: Comparison of Soviet and U.S. Nuclear Attack Fatalities
What If We Still Had Our Packaged Disaster Hospitals?, by Max Klinghoffer
Aerie: Rockwell's Fast-Track Terminal Missile Defense Concept, by Warren S. Everett
Bill Chappel and "Cold Turkey"
Putting the "DUAL" Back into Dual-Use Civil Defense, by William K. Chipman
Don Mitchell retires as TACDA President, by Kevin Kilpatrick
2,254 "Minutemen" — The NDER, by James M. Ridgway
Fire... FIRE... FIRE!, by Donald B. Gould
Civil Defense — An International Question, by Richard E. Sincere

Vol. XXII, No. 4 Aug. 1989

Capital Commentary ("Interregnum at FEMA"), by Jerry Strobe [The Strobe column appears regularly in the *Journal of Civil Defense*]
Soccorso Amico/FACEP International Conference — Salerno, Italy (Oct.)
Sweden's Civil Defense: A Vital Activity, by Reed Blake, John Christiansen
Should We Be Afraid of Radon?, by Richard E. Sincere
Editorial: 5,000+ Nuclear Warheads — What Do They Mean?

Vol. XXII, No. 5 Oct. 1989

Civil Defense Surge, by William K. Chipman
Civil Defense in the Year 2000, by Jane M. Orient
Denmark: A Leader in Civil Defense, by Reed Blake and John Christiansen
Will You Still Burn Me? [Poem], by Patsy L. Cabral

DDP/TACDA Seminar "Around the Corner" (Washington DC)
Editorial: Civil Defense in Ten Years? Why Not Now?

Vol. XXII, No. 6 Dec. 1989

Capital Commentary ("Disaster Impact"), by Jerry Strobe
"Defense or Defeat" — a DDP/TACDA Seminar Staff Report

Kids: Survival Roles and Survival Mindset, by Tom Parker

Soccorso Amico International Conference Scores Big, by Kevin Kilpatrick
CD Scene — TACDA Statement of Purpose

"Lessons Learned" from Hiroshima and Nagasaki, by Richard N. Nott and David St. John

Review — "One Incoming" (High Frontier film)

But there is an absolute certainty, and it is this: if and when, God forbid, sirens should ever sound [people] will demand their right for shelters, food, water, clean air, protection, hope and the proper leadership that should have been there in the first place.

— C. Bruce Sibley (author of *Surviving Doomsday*)



Practical Preparedness

with John and Judy Wadsworth

A VHS Color Video Presentation

John and Judy Wadsworth, noted for their lectures on emergency preparedness, have produced this first-of-a-kind video presentation to better illustrate the problems of preparedness and how to solve them. You'll find practical help in all aspects of being prepared for whatever emergency may strike — heat, light, shelter, sanitation, food, water, organizing your family and neighborhood and 72 hour kits.

In our day and age, we never know when or what type of disaster may come our way. This video shows how to dramatically improve your chances of surviving disasters such as earthquakes, floods, high winds, power outages, and even a nuclear attack.

You'll learn solutions to problems such as

- Increase food storage by 300% for approximately \$30.00.
- Store a year's supply of fuel, safely and affordably.
- Nuclear war may not be preventable, but it can be survivable for most.

This video will be extremely helpful for those who are concerned and may have the occasion to teach others about emergency preparedness.

Special Price \$29.95

Running time — 64 minutes

Send check or money order for _____ "Practical Preparedness Videos"
to: TACDA, P.O. Box 1057, Starke, FL 32091

Name _____

Address _____

City _____ State _____ Zip _____

With government increasingly reluctant to carry the ball on the civil defense front, Dr. Kenley Snyder suggests from the depths of his own model shelter that we fall back on a basic pioneer instinct: private initiative. Is it not logical that the home protect its occupants against cold, heat, storm, fire — even violent weather, earthquake and criminal acts? Why exclude weapons of modern warfare expressly engineered so as to be able to decimate our families?

Snyder makes sense.

Protect Your Home and Family

(CD for the Enlightened)

— Kenley L. Snyder, Ph.D.

It's hard to imagine the government doing anything dramatic in the area of civil defense. With the needs of the poor, the demands of the environmentalists, the war on drugs, the attempt to balance the budget, the government will give little but lip service to civil defense. Regardless of how logically we ask, unless there is some national scare, the government is not likely to allocate the money it would take to do the job.

Besides, some might feel a little uneasy with the government's direct involvement in the providing of CD facilities. When the bureaucracy gets involved in the spending of money, letting of contracts, etc., greed and corruption seem to creep in (e.g. the HUD scandals). And sooner or later, mismanagement and neglect will surface. The cost of construction and maintenance would escalate from our projections and would undoubtedly result in bureaucratic boondoggles, needlessly raising our taxes.

So I see the government somewhere in between — not wanting to and unable to. So perhaps we need to reorient our thinking. Let the government provide the strategic defense, but have each family provide its own civil defense. Instead of debating over who's responsible, let's think in terms of how to get the job done.

One bright note: even though the government isn't likely to give direct help, it does give us the freedom to do things ourselves. We should be thankful.

Private Initiative

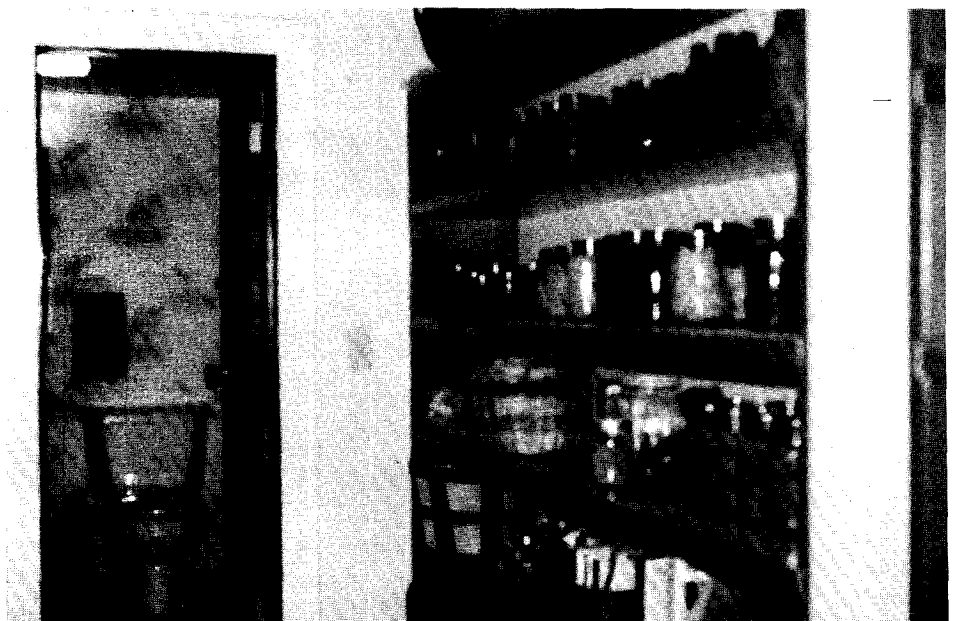
In the past, what have we done in instances when the government didn't meet its responsibility? Well, if we couldn't straighten things out legally, politically, or through better management of the bureaucracy, we demonstrated how it could be done with private initiative.

For instance, what woke the postal service to provide more efficient and better service? Not the howl and cry or even additional funding of Congress, but the advent of competitors like UPS and Federal Express.

Private initiative bridges the gaps in many aspects of our lives. If the municipality doesn't pick up your garbage some enterprising company will offer to do it. Or if the government doesn't cover all the medical risk with Medicare, then there's an insurance ready to step in and fill in the gap. Or if parents don't like the public education, they can educate their children at home.

Individual Action

So the government has absolved its civil defense responsibilities. Who fills the breach? I propose the family



Dr. Snyder's own under-the-home shelter is an integral part of his residence. Here a conventional bath room and stored food — lots of it — attest to his thorough planning.

unit can. Homes have fences, watch dogs, doors that can lock, insurance, and so on; so why not protect against the bomb?

This plan would not require the government's involvement. It would utilize the enthusiastic (yet self-serving) interests of the individual. In fact, it could be done in the name of recreation, or, if you will, a hobby.

This is not to say, we wouldn't want the government to play some roll in coordination, communication, and incentives. Yet this would be more likely if a good number of mainstream Americans were committed to a project (as I described in the October, 1988, issue of the *Journal of Civil Defense*).

Parallel with Small Business

Just as small business is the bulwark of our free society, so could the initiative of many family units be the bulwark of this nation's civil defense system. These units simply need a little direction and encouragement.

Just as the efficiencies of decentralization, diversification and plurality of small business are incomprehensible to a Marxist, so could the decentralization, diversification and plurality of a family civil defense system be an incalculable foil to an enemy.

The alternative, centralized planning (with the standardization of all civil defense facilities), lends itself to discovery and effective counter-measures by the enemy.

Technology Available

The technology and the means are available for any individual to protect himself from nuclear attack. However, few of us do much in the way of preparation. The reason seems to be a matter of motivation. This is the key to getting the job done. And in this age of Glasnost, special motivation may be required.

So I suggest we turn the need into something really rewarding. In fact, you may find civil defense so satisfying as a hobby that doing it will overshadow the underlying survival benefits.

Ownership is Control

Ownership gives control. And control is a form of personal freedom. Ownership is a revered and satisfying human achievement. In any society, from the poor to the rich, people want to own things. Renting or borrowing or being given to by the government is a poor substitute. People will go

through much sacrifice just to call something theirs. Not that they don't share with others, but as owners they call the shots, make the plays, and have control.

Extension of Self

This is even more true of something one makes for himself. With a high level of involvement — designing, planning, constructing — there is a high level of fulfillment.

The architect Witold Rybczynski says:

A home represents a refuge from the public world. It is a safe place in which people feel that they can let their minds drift off and dream. Imagin-

Manual Available

I've written a do-it-yourself instruction manual on such a project. The manual is designed to help the individual wishing to develop his own creation — yet benefit from my more than fourteen years of first-hand experience. It covers every aspect of the engineering and construction.

It is easy to follow and understand. It shows how to plan and construct each segment of the project from the Tunnel Entry to the Staging Room. This includes such things as: a) making a material handling system, b) taking care of ground water, c) techniques of excavation, d) providing for plumbing and wiring, e) the forming and pouring of concrete, and f) designs for six different entry doors.

For further information on how to get the manual, simply write:

Ken Snyder
P.O. Box 418A
Blaine, WA 98320

ing a house, building it and then living inside it is something quite wonderful. Every time you enter the house, you're really entering your own mind. This is equally true whether you are an architect or somebody living in a Mexican slum. An awful lot of what people do with their homes can't be explained by simple function; it has as much to do with communicating an idea of themselves to others.*

How often does a person have an opportunity to do some major creative work, one with practical value? How often does a person in his lifetime

do something truly his own — a landmark achievement, something that may save the lives of his children or his children's children?

The Hobby

Our project is not some dismal covered pit, but a bright cheery and sophisticated survival shelter that could have come right out of a James Bond movie. It's an extension of the home, available and usable at all times. Yet the hobby can be continued indefinitely.

It's not a harried quick-fix that one might do on the eve of a nuclear war. Nor is it one that tries your patience or tests your endurance. The pace is yours; the results are yours. There's no one around to satisfy but yourself. Not the banker, nor the building inspector, nor your neighbors.

Why not do something that for sure has a return? Guaranteed!

Here are some of the benefits. It:

1. Directs energies to a useful purpose.
2. Puts leisure into the "excitement" category.
3. Provides the best and most convenient protection possible.
4. Is a conversation piece.
5. Is workable no matter what the climate or the weather.
6. Provides control over your environment; solitude and serenity at will.
7. Is loved by the hardware and building supply store.
8. Gives more control over your physical destiny, and those of others.
9. Protects property from thieves and raiders.
10. Protects family from other disasters besides the bomb — tornadoes, fire, marauding bands.
11. Provides diversion from a desk job.
12. Keeps one physically fit with productive exercise.
13. Requires monthly expenses — less than your auto insurance.
14. Is a game, with you as the winner.

So take the challenge, make the effort — start. Protect your home, friends and family, and have fun doing it. □

*"The house that dreams are made of", U.S. NEWS & WORLD REPORT, July 3, 1989, page 55.

UPCOMING

- Feb 15-17 **8TH ANNUAL EMS TODAY CONFERENCE & EXPOSITION**, Tucson Convention Center, Tucson, AZ. Contact: The Conference Corp., JEMS, P.O. Box 805, Solana Beach, CA 92075 (619/481-5267).
- Feb 26-28 **DISASTER PREPAREDNESS SEMINAR**, EMI, Emmitsburg, MD. Intro and overview of emer. mgmt., case studies, crisis mgmt., developing emer. plans, and more. Contact: See box below.
- Mar 9-10 **EMERGENCY CARE '90**, 9th Annual Life Flight/AMSUS Conference, Red Lion Hotel, Salt Lake City, UT. To provide physicians, nurses, flight nurses and medics, paramedics and EMTs with a deeper understanding of emergency care situations. Contact: Pet Petersen, Critical Care Medicine, LDS Hospital, 8th Ave. & C St., Salt Lake City, UT 84143 (801/321-3662).
- Mar 12-15 **18TH ANNUAL WINTER SYMPOSIUM OF THE AMERICAN COLLEGE OF EMERGENCY PHYSICIANS**, Loews Ventana Canyon Resort, Tucson, AZ. Practice management and clinical technique. Contact: Janet Darling, ACEP, P.O. Box 619911, Dallas, TX 75261-9911 (214/550-0911).
- Mar 12-23 **CHEMISTRY OF HAZARDOUS MATERIALS COURSE**, provides basic knowledge to evaluate potential hazards and behaviors of materials considered to be hazardous. Contact: National Fire Academy, 16825 S. Seton Ave., Emmitsburg, MD 21727-8995.
- Mar 18-20 **12TH NATIONAL TRAUMA SYMPOSIUM**, Crossroads in trauma care . . . paving the way to the 21st century. Baltimore Convention Center, Baltimore, MD. Contact: Kimberly Unitas or Terry Young, MIEMSS, University Square Bldg., 11 St. Paca St., Suite 303, Baltimore, MD 21201 (301/328-2399).
- Mar 19-30 **FALLOUT SHELTER ANALYSIS**, EMI, Emmitsburg, MD. Course for architects and engineers who assess protective value of structures against fallout radiation. Topics: weapons effects, design, federal policies and programs, more. Contact: See box below.
- Mar 26-30 **OCCUPATIONAL & ENVIRONMENTAL RADIATION PROTECTION**, Boston, MA. Addresses basic practices for working with radiation. Topics: atomic structure & radioactivity, ionizing radiation, monitoring and more. Contact: Sharon Block, Office of Continuing Ed., Harvard School of Public Health, 677 Huntington Ave., Dept. B, Boston, MA 02115 (617/432-1171).
- Mar 29-Apr 1 **EMS UPDATE** — Advancing Your Educational Commitment, Pittsburgh, PA. Ag rescue, PALS, mgmt, dispatch, disaster mgmt., more. Contact: Emergency Medical Service Institute, Suite 100, 4240 Greensburg Pike, Pittsburgh, PA 15221 (412/351-6604).
- Apr 9-13 **HAZARDOUS MATERIALS MANAGEMENT** — Incident Response Operation, San Luis Obispo, CA. Course focuses on response team function, methods, procedures, and safety in responding to hazardous substances spills or waste sites. Reg. fee: California govt. and non-profit \$150, all others \$300. Contact: CSTI, P.O. Box 8104, San Luis Obispo, CA 93403-8104 (805/549-3551).
- Apr 23-25 **DISASTER PREPAREDNESS SEMINAR**, EMI, Emmitsburg, MD. Intro and overview of emer. mgmt., case studies, crisis mgmt., developing emer. plans, more. Contact: See box below.
- Apr 23-27 **RADIOLOGICAL EMERGENCY PREPAREDNESS PLANNING**, EMI, Emmitsburg, MD. Course focuses on nuclear power plant off-site emergency preparedness. Addresses federal regulatory policies, and more. Contact: See box below.
- Apr 26-28 **SEVENTH ANNUAL NEW JERSEY EMS SYMPOSIUM**, Caesars Atlantic City. Focus: EMS Management. Contact: CENTEMS, 65 Bergen St., MB 935, Newark, N.J. 07107-3005 (Tel: 201/456-3604).
- May 4-6 **LIBERTY AND SECURITY FOR THE 1990's**, International Policy Alliance Conference (IPAC), Hyatt Regency Convention Centre, Vancouver, B.C., Canada. Contact: Bradley Watson, IPAC 1990, Suite 201B, 325 Howe St., Vancouver, B.C., V6C 1Z7, Canada (604/688-6476) Fax (604/688-6425).
- May 7-11 **RADIATION PROTECTION INSTRUMENTATION**, Boston, MA. Covers fundamentals of radiation protection instrumentation, external radiation and contamination, whole body counting, more. Contact: Sharon Block, Office of Continuing Ed., Harvard School of Public Health, 677, Huntington Ave., Dept. B, Boston, MA 02115 (617/432-1171).
- May 7-11 **TERRORISM COURSE**, San Luis Obispo, CA. Overview and targets of terrorism, disinformation, terrorist groups and individuals, weapons and tactics, more. Reg. fee: California govt. and non-profit \$150, all others \$300. Contact: CSTI, P.O. Box 8104, San Luis Obispo, CA 93403-8104 (805/549-3551).
- Jun 3-8 **DISASTER PLANNING**, San Luis Obispo, CA. Contact: (See above).
- Jun 25-29 **2ND INTERNATIONAL CONFERENCE — WARTIME MEDICAL SERVICES**, Hospitals In War, Stockholm, Sweden. Contact: Wartime Medical Services, IFS Institute for Hospital Planning, Östermalmmsgatan 33, S-11426 Stockholm, Sweden. Phone: (+46)8230435 FAX: (+46)87918834.
- Jun 26-30 **NATIONAL SURVIVAL WEEK** — Live Free National Training Center, Harrisburg, MO (hands-on classes in advanced survival training). Contact: Live Free, Box 1743, Harvey, IL 60426.

Application to EMI is made by using General Admission Application Form (FEMA Form 75-5) which can be obtained from state or local emergency management offices. For more information contact: FEMA National Emergency Training Center, P.O. Box 70274, Washington, DC 20024.

■ MARKETPLACE

MARKETPLACE rates are \$5.00 per line of 37 characters. Send check or money order with ad to: JCD, P.O. Box 910, Starke, FL 32091.

SHELTERS: Specializing in design & construction of reinforced concrete blast/fallout shelters; Air Filter Systems; Radiation fallout protective clothing; Blast valves & Doors. We build anywhere. Nuclear Defense Shelters & Equipment, P.O. Box 31662, Lafayette, LA 70593. Phone (318) 984-7029. \$2.00 brochure & info.

SELF-HELP CD AS A HOBBY. Ingenious project under your present house. Information, write: Ken Snyder, P.O. Box 418, Blaine, WA 98230.

SHELTERS: Steel reinforced concrete. Standard models or custom design. Also complete drop in the hole metal shelters. Plans, complete blueprints, blast doors, valves, ventilation equipment. Marcel M. Barbier, Inc., P.O. Box 2905, Reston, VA 22090. (703) 860-1275. \$5 brochure.

56-PAGE BOOK demolishes arguments of the peace movement. Criticizes politicians for failing to provide backup systems. Offers two moral alternatives. Economical home-built shelter plans. One copy \$3. Additional copies \$2 each. Send to: David Lobdell, P.O. Box 3132, W. Palm Beach, FL 33402.

FREE METTAG PRODUCTS CATALOG — (METTAG, ER-TAG, EVAC-TAG, ID-TAG, more). Contact: METTAG, P.O. Box 910, Starke, FL 32091 — Phone (904) 964-5397, FAX (904) 964-9641.

DISASTER PLANNING FOR LOCAL GOVERNMENT. Hardback, 139pp, standard in the field. \$16.50 ppd. Herman Associates, 19 N. Main St., Rittman, OH 44270-1407. *Mention this ad!*

PLYWOOD DOUBLE-ACTION PISTON PUMP INSTRUCTIONS; making and using a homemade filter box and filters by Cresson Kearny. 8 dimensioned drawings and 8 photos. \$2, postpaid from TACDA, P.O. Box 1057, Starke, FL 32091.

DOCTORS FOR DISASTER PREPAREDNESS (DDP), an organization dedicated to effective preparedness for all types of disaster. FREE brochure. Write: DDP, POB 1057, Starke, FL 32091 or phone (904) 964-4848.

TRIAGE EMERGENCY CARE HANDBOOK, by Max Klinghoffer, MD. 197pp, 121 illustrations, quick reference guide to lifesaving techniques. Only \$7.99 while supplies last. Discount for bulk. Order from JCD, P.O. Box 910, Starke, FL 32091. Payment with order.

LATELINE . . .

"ONE INCOMING" STATEMENT OF PURPOSE

HIGH FRONTIER, THE WASHINGTON-BASED PROPONENT OF THE STRATEGIC DEFENSE INITIATIVE (SDI) announces that its dramatic film "One Incoming" is now available for distribution. "One Incoming" centers on the President of the United States, who is awakened with the message that a Soviet missile has been fired by mistake. He has the choice of replying in kind or letting the east coast of the country absorb the impact. He chooses not to reply. The one missile discharges ten nuclear warheads as it travels toward the U. S., and each warhead zeroes in on a target. The drama, of course, is intense. As the warheads impact we see the results. Highly recommended for all patriots. Cost: \$25 plus \$2.50 handling and shipping. Contact:

HIGH FRONTIER
2800 Shirlington Road (Suite 405)
Arlington, VA 22206

THE JOURNAL OF CIVIL DEFENSE AND TACDA, although primarily concerned with national security aspects of preparedness, are vitally concerned with the entire spectrum of disaster preparedness and disaster response. While it is true that the mechanics of preparing for and responding to (and recovering from) natural disasters and technological accidents are more in the purview of publications like American Survival Guide and Live Free's Directions (they do a remarkable job), TACDA and the Journal focus primarily on the subject of "civil defense" as it relates to national survival. But in doing so they give heavy support to response to other disasters. The "Statement of Purpose" makes this very clear (note paragraph 4). It looks upon attention to these disasters as a basic obligation -- and as a way to better prepare for the possibility of wartime attack on the United States. The TACDA "Statement of Purpose" was published in the December 1989 issue of the Journal. Here it is again:

THE AMERICAN CIVIL DEFENSE ASSOCIATION (TACDA) STATEMENT OF PURPOSE

TACDA campaigns for a credible civil defense — effective population protection against modern weapons of war — and a meaningful, deployed Strategic Defense Initiative (SDI); it sees the realization of these passive and active defense measures (they have no offensive capabilities) as the path to peace and a developing future for the United States.

As a recent historical example of what the dire consequences of homeland defense neglect can be, it invites attention to the tragedy of the 1930s when decent, pious, patriotic intellectuals closed their eyes to the reality of maintaining peace through preparedness and succumbed to the overtures of Axis peace propagandists. Neville Chamberlain, the "Man of Peace," came back from the 1938 Munich Summit with disarming promises from Hitler and Mussolini that served only to lay the sordid groundwork for World War II and 50 million deaths.

TACDA is firm in the belief that this must not happen again. World War III, as a matter of fact, would be much worse. Perhaps inconceivably worse. The non-threatening and effective protection offered by SDI and civil defense — if properly developed (as is the case elsewhere) — can remove Americans as "hostages" to nuclear war and can act as an effective peace guarantee. In order to assure this kind of population protection, the United States Congress must turn its attention to homeland defense solutions, prescribe them, and fund them on a first-priority basis. The combined efforts to those who see the direct and dramatic lifesaving values of this effort will work to convince our influential civic and service and church organizations and other groups and individuals to prevail upon elected officials to turn their attention and support and initiatives toward "the common defense" of their constituents — their first duty as public servants.

TACDA considers it to be a moral imperative that the expertise and capabilities gained through population protection in the event of wartime (or terrorist) attack be used in vigorously contending with all other disaster and emergency situations.

TACDA considers also that its duty is to actively encourage U.S. citizens to take steps independent of government to provide survival measures for themselves (effective private shelters with the required equipment and supplies) and that these measures would be invaluable in supplementing any government program — as well as providing lifesaving capabilities in the absence of government measures for those farsighted enough to invest in this well-known and available survival technique.

These efforts should see expression in direct contacts, in resolutions and petitions, and through the communications media.

TACDA is wholeheartedly dedicated to this concept as its "Statement of Purpose."

TACDA WILL HOLD A SPECIAL BOARD OF DIRECTORS MEETING in Florida on January 29th. This meeting will take up planning for 1990. A similar meeting was held in January 1989. TACDA members and other interested parties are invited to submit recommendations for agenda items. Those attending will assemble at the Starke, Florida office at 9AM and proceed to the Crystal Lake meeting place.

■ EDITORIAL

"All-Purpose" Protection?

In spite of the exponential increase in the nuclear threat in the past 45 years, in spite of extensive and dramatic measures to contend with the problem by other countries — the other superpower for instance — and in spite of dogged efforts by civil defense and survivalist advocates here at home, American civil defense has deteriorated to a point where precious little is left of the original modest effort of the 1950s. Even warm support by Presidents for DDP-TACDA preparedness goals has gone for naught. Polls have shown around 80% of the population approving of civil defense, but less than 1% actually do much of anything about it. Like building shelter. The valiant efforts of preparedness pioneers like Ken Snyder, Paul Gauthier, Marcel Barbier, Art Robinson and a number of others — including FEMA realists — have had good but limited influence.

Why? People don't know today where public shelter is located; emergency stocks to bridge an emergency period no longer exist; disaster medical facilities have been rifled, given away, allowed to decay. Etcetera. People are turned off by the mention of the threat of nuclear war. Hiroshima today is an old fantasy, buried, its lessons lost. Human nature.

It was Cresson Kearny who said: "The normal reaction of most people to a danger that they believe is overwhelming is in effect to deny its existence." Something like Robert H. Williams' comments in a December 10th letter to *The Washington Post*. He's ashamed of his inherited underground shelter. He's stuck with it.

Citing the fact that government has failed us by not implementing the Constitution's pledge to provide "for the common defense" produces indulgent smiles from those interested only in handouts. Dr. Robert Ehrlich in his article "Opposition to Civil Defense" (pages 12-15 of this issue) gives us well-researched reasons why our population ridicules preparedness. And on page 24 civil defense director Mark Foster suggests — with sharp New England horse sense — that TACDA must now deal "with the full spectrum of disaster planning and response."

He's got something there. Because in the U.S. government has failed.

*

An example close to home supports a "back door" approach to shelter: a friend of ours recently suffered a fire in his home. Total loss. Luckily, smoke detectors had alerted his family. Another house down the block hadn't been so lucky in 1986. Three children perished. Horrible examples are in the news with disturbing frequency. Our friend now needs a new house. His choice: rebuild. And rebuild one that he is sure is fireproof. One convenient way to do that: use masonry construction and fire-resistant furnishings. (With smoke detectors of course.)

"Marvin" we said to him, "as long as you'll have a house that won't *burn* down you're well on your way to one that won't *blow* down. Remember Hurricane Hugo?" Marvin did. We talked with his builder and his architect. They recalled a tornado that had "exploded" houses along seven city blocks across town. It seemed to make sense to spend a little more to make the new home tornado-proof as well as fireproof.

Then Marvin himself thought of something else. He had been a company commander in Viet Nam. And one of his stories was about the trouble he had had in getting his men to "dig in" at or near front line positions. They too showed a strange indifference to danger the closer it got. Marvin had to *order* them to dig slit trenches. Or fox holes. Even to disperse so that one shell couldn't kill an entire squad.

He looked at us. In this new house, now to be safe against fire and wind . . . "How close are we to having a fallout shelter?" he asked.

"You already have, as planned, a low-grade shelter," we replied. "If you want, for pennies you can make it a better one."

So, on paper, the architect beefed up the concrete bathroom walls and it's concrete ceiling a bit, arranged a couple of decorative baffles, including an adjoining closet, designed a couple of small windows, put a hand-operated crank on the electric ventilator, and made a few other small changes.

Of course, and we told Marvin this, it didn't afford the super-protection that a sophisticated buried shelter did. But it was far and away better than standards for the old public shelters. It boasted a most respectable fallout protection factor. Even a capability to protect against a good bit of blast. And it was "home."

"And no one has to know it's a shelter," observed Marvin.

"No one," we said.

Marvin smiled.

□

THE AMERICAN CIVIL DEFENSE ASSOCIATION
JOURNAL OF CIVIL DEFENSE
P.O. BOX 910
STARKE, FLORIDA 32091



NON-PROFIT ORG.
U.S. POSTAGE
PAID
Starke, Florida
PERMIT NO. 83