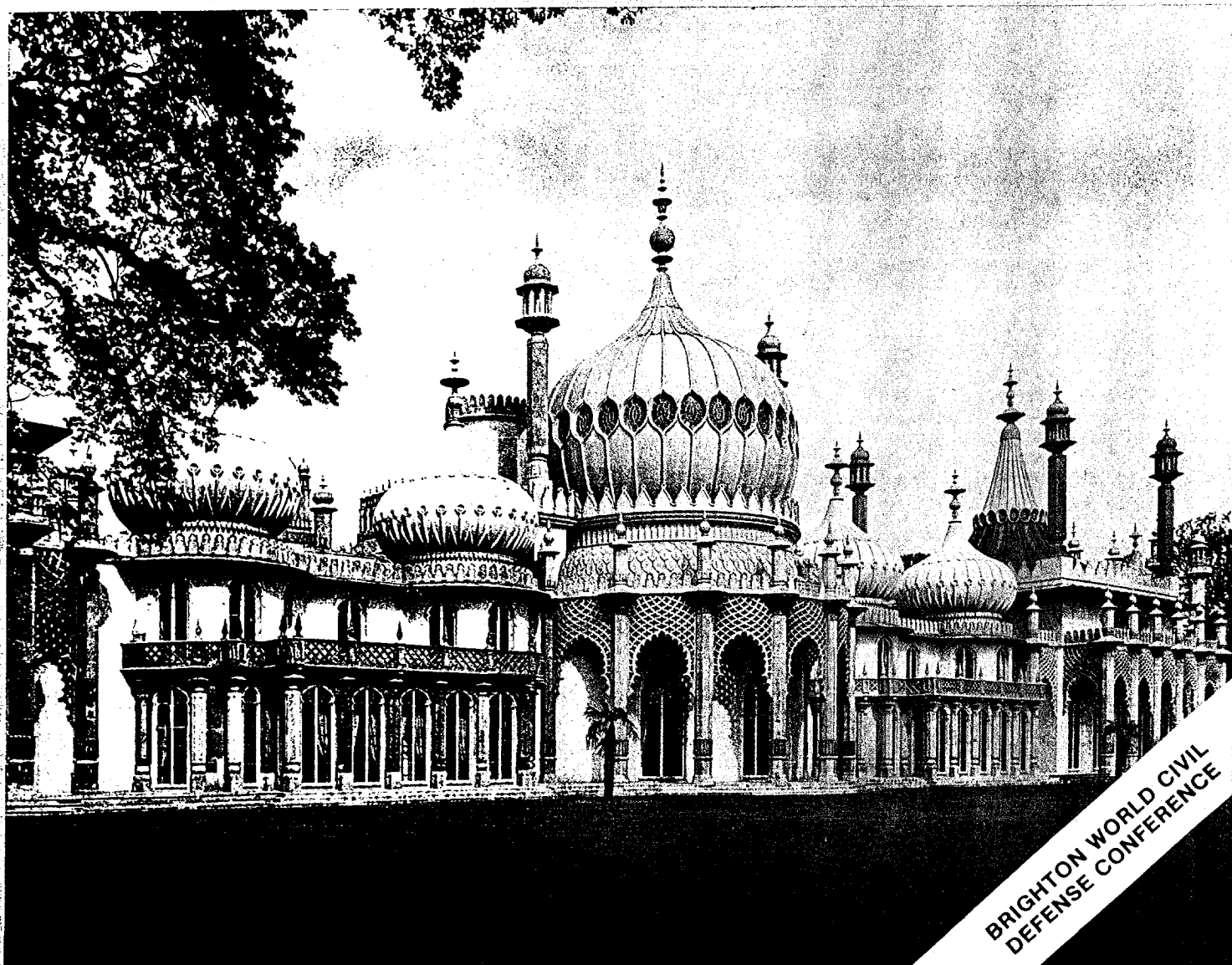


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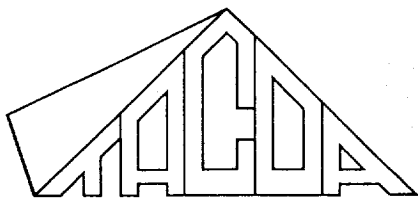
VOLUME XV - NUMBER 1

Journal of Civil Defense

**VULCAN'S FORGE
SONNENBERG TUNNEL
CRP PRO AND CON**



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

FEBRUARY 1982

VOLUME XV — NUMBER 1

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COVER PICTURE

The exotic Royal Pavillon brings the breathtaking romance of Indian architecture to the sylvan heart of Brighton, England. The opening reception of the Brighton World Civil Defense Conference will be held here on May 24th. For details see page 8. (Photo by Frederick Wackett, National Press Photographer, Brighton.)

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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*.

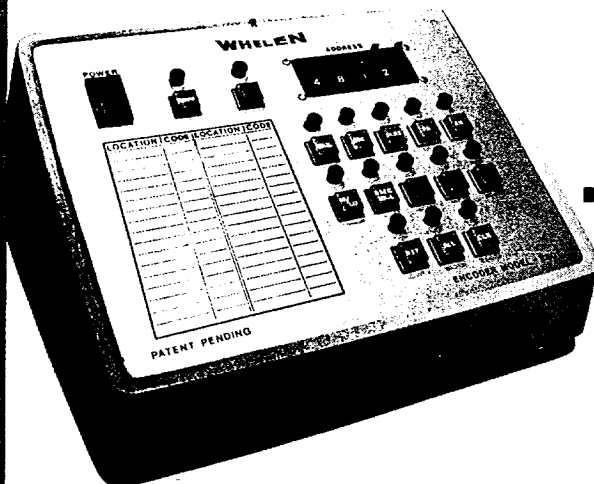
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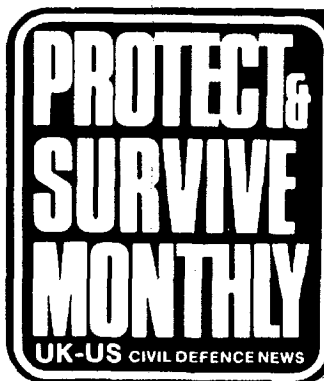
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THEN YOU SHOULD READ THE GLOBAL MANIPULATORS.

DO YOU KNOW AS THE BACKGROUND OF CIVIL DEFENCE:

*That US Secretary of State Alexander Haig, Vice President George Bush and Defence Secretary Casper Weinberger were members of the

controversial Trilateral Commission or participants in Europe's BILDERBERG.

*That also many other Trilateral Commission members hold very important posts in the Govts. of England, France, Germany and Japan.

*That current defence policy of NATO & Japan is being molded by the recommendations published in a document of New York's Council on Foreign Relations, London's Royal Institute of International Affairs and, their French and German counterparts?

*That these UK/US Institutes are in effect the parent organization of the Trilateral Commission, which just met in Washington D.C. at the end of March?

*That most major corporation representatives which make up what Eisenhower coined as the "Military-Industrial-Complex" are also to be found concentrated in the Trilateral membership?

ARK ENTERPRISES P.O. Box 1164 Fairborn, Ohio 45324, U.S.A.

REAGAN DEFENSE BUDGET

The presentation of President Reagan's first budget request to the Congress has been delayed almost a month by fierce internal debates over some of the proposed cuts and possible offsetting tax increases to keep the prospective deficit under control. The economic recession has made it difficult for Reagan to keep his recipe of generally reduced government spending despite increases in defense and other national security programs. Defense programs have been the repeated target of the budget cutters but the President has been steadfast in his refusal to slow the projected growth of the defense establishment. The defense budget will include \$245 billion in new obligational authority, an increase of 15 percent over this year's level. Actual spending next year is likely to be higher, perhaps 18 percent over this year.

Despite the increase, the defense budget will fulfill Reagan's pledge to increase defense spending by 7 percent in real terms only if the inflation rate in 1983 is not over 8 percent. Thus, the significance of increases in spending levels depends a great deal on what the money can buy. The Navy's shipbuilding program, for example, will more than double in the next fiscal year but just a few weeks ago a Pentagon study group warned that the 600-ship Navy and other programs that the services said were needed would cost \$750 billion more than the Reagan Administration had in mind, if inflationary trends continue.

Civil Defense programs also cost more now for less accomplished. Recent appropriations in the neighborhood of \$100 million are actually the lowest in purchasing power since the program began after World War II. The 1983 Reagan budget request will carry about \$245 million for civil defense, by coincidence just 1/10 of 1 percent of the Pentagon budget. This doubling of civil defense funds will dazzle many civil defenders. But the Reagan Administration is treating the increase in a low-key mode, as well they should. President Kennedy made his request for \$207 million twenty years ago in the midst of the Berlin Crisis, so it made a little splash. Also, that appropriation for 1962 was equal in purchasing power to about \$600 million today. So, the Reagan initiative is actually quite modest in comparison.

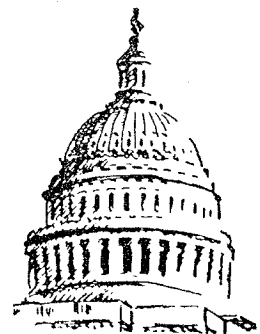
Nonetheless, the 1983 budget request for civil defense is a promising start and fulfills the Reagan pledge to "devote greater resources to improving our civil defenses." Whether this move presages a major civil defense effort depends entirely on what happens in 1984, 1985, and further out-years. Level funding at about \$250 million would not allow a real change in capability to protect the population and industry under any conditions of nuclear war in this century. And, inflation would ensure that cuts would occur each year. The appropriations committees of the Congress understand this and will be watching for any indication that the Administration is not really committed to "closing the window of vulnerability."

Projections about the future of civil defense in White House statements must be taken with a grain of salt while the pressures of economic recession are high. Yet, Administration spokesmen must level with the Congressional committees if they are to expect the

new budget request to be honored. The first opportunity to observe their behavior will be before the cognizant subcommittee of the House Armed Services Committee, which must authorize the funding of the program. This hearing usually occurs near the end of February. At this time, General Louis Giuffrida will tell the members of the subcommittee whatever the White House allows him to say about the "enhanced civil defense effort." He either will discuss the proposed investment in the outyears forthrightly or he will dance around the subject delicately. The budget request for \$245 million will look good to the Armed Services Committee, which authorized \$174 million last year in an effort to goad the Administration into a decision. But Representative Boland's appropriations subcommittee will be most difficult to convince. The Administration will have to commit themselves to a serious effort and show that they are in a position to carry it out.

The General Accounting Office, which is the auditor and watchdog for the Congress, has just released an interim report on the Federal Emergency Management Agency, where half a dozen GAO auditors have been located for a number of months. FEMA, the report says, is "plagued by severe management and organizational problems. These problems have been exacerbated by the lack of an agencywide management system and deficiencies in the accounting, budgeting, personnel, and evaluative functions." The report does recognize that the Reagan Administration inherited these problems and praises current FEMA management for taking steps to solve them. Nonetheless, the subject will come up in committee hearings and may have an influence on the outcome.

There is one hopeful sign that FEMA is girding itself to undertake a stepped-up civil defense program. Giuffrida has set up an internal civil defense coordinating council, headed by his deputy, General Bennett Lewis. The council, which is composed of top FEMA managers, is supposed to meet weekly to identify and solve problems and keep the program on track. They are likely to be rather busy next year.



The county seat of eastern Idaho's Bonneville County is Idaho Falls. CD Director Captain T. J. Wadsworth thinks in terms of what CAN HAPPEN given today's weapons of mass destruction and given today's unhinged international situation. Facing the nuclear music, whatever its impact, and directing all available resources to contend with it represents the Bonneville philosophy. That determination is clearly demonstrated in "Vulcan's Forge," Bonneville County's 1981 nuclear attack exercise.

VULCAN'S FORGE

—A Journal of Civil Defense Staff Report

The following report describes an exercise - a simulation - based on what could happen in one locality in a nuclear attack situation.

On October 27, 1981 - Navy Day - a nuclear attack exercise involving 50 agencies and 2,000 participants swings abruptly into action before daylight with simulated reports of sudden power outages in Idaho Falls. Lights are out. Radio is out. Telephones are out. Reports come in of prolonged bright flashes in the sky in the directions of Boise and Salt Lake City.

"Vulcan's Forge," a nuclear attack simulation organized in remarkably detailed depth by county CD director T. J. Wadsworth, his four MOBDES officers and his staff

assistant*, is underway. An exposed, unprepared, vulnerable America begins to take it on the chin. Page 1 of a 101- page scenario gives an "overview":

In Bonneville County there has not been calamitous destruction of bridges and buildings; there has been a complete blackout of power and communications. And without power and communications and with the disruption of nearly all transportation, we have reverted back to the preindustrialized era - in our homes - in our businesses - in our schools - and on our farms! The survival of this region's population and many of the refugees depends on immediate implementation of an

effective Emergency Operations Plan! In this frightening chain of events the function of Bonneville County Civil Defense's Emergency Operations Center (EOC) is that of centralized command, control, coordination, and communications! Here an independent source of emergency power - protected by its location, construction, and grounding - can operate these essential services!

Bonneville County stages an annual civil defense exercise. Vulcan's Forge caps this series to date. Three of the exercises have centered on nuclear attack situations. The 1981 exercise is the first one in Idaho - perhaps in all of the NATO nations - to bring electromagnetic pulse (EMP) into play.

As sheer drama the Vulcan's Forge scenario deserves a top rating. Multiple international crises lead up to the October 27th attack. Rampant terrorist activities, strikes, student anti-war demonstrations, military alerts worldwide, nuclear strikes in the Middle East, Khadafy's call for a "holy war" against Israel, NATO mobilization, a riot at the United Nations, an attack on the U.S. Sixth Fleet - and finally the converging of Soviet satellites over the U.S.

Reading between the lines, Americans have become so accustomed to crises that they are "conditioned" to them.



Captain Wadsworth (top left) and part of EOC operations team during Vulcan's Forge. L to R: Sue Doyle, American Red Cross; Police Captain Monty Montague; Chief of Police Robert Pollack; Eagle Scout Craig Tibbet; Fire Department Captain Ver Hutchens. In right background, RADEF officers Boyd Leavitt and Terry Burns, both of Idaho National Engineering Laboratory.

*Lt. Col. Darrel C. Hansen, USAFR; Maj. Ralph J. Connors, USAR; Lt. Col. Robert G. Grimm, USAR; Maj. Ronald M. Christensen, USAR; Ms. Debbie K. Blakely, Staff Assistant.



"In my opinion VULCAN'S FORGE is the most outstanding simulated Civil Defense exercise ever undertaken in the State of Idaho and probably in the United States. Several county, state, and federal participants join me in this conclusion!

"Confirming views of five highly qualified assistants, as Chief Simulator I too witnessed operations unfolding in a timely, very professional, and exciting way! . . .

"I have not observed any better planning, cooperative implementation, or can-do execution in any 'real' military engagements that I have participated in, than I witnessed in VULCAN'S FORGE.

"To the some two thousand participants I say - WELL DONE! . . ."

- Col. Archie B. Browning
USAF Ret. (Chief Simulator)

They fail to react to obvious harbingers. Frozen in disbelief they simply let the countdown to crisis proceed and the actual attack take place.

In the three hours following the attack local messages pour in to the Bonneville County EOC: Fires but

no water. No contacts with state or federal governments. No heat in homes. Fallout on the way. No outside help possible. Students call for capitulation. 75% casualties in urban areas. The Civil Air Patrol reports:

Salt Lake City, Ogden, Hill AFB were direct hits by nuclear weapons. Total destruction radius of 10 miles! . . .

Boise and Mountain Home are jungles of twisted steel and pulverized concrete! . . . Refugee-survivors from the blast are crowding I-90 heading East.

An 8 - page Vulcan's Forge "Think List" pinpoints problems and problem solutions that can - and will - demand attention. Everything from new energy requirements to mass burials. For instance:

THINK: Stiff, immediate penalties for robbery, rape, pillage.

THINK: *Winter Survival!* The first can be the worst. Tepees are more adaptable to survival than tents or \$100,000 homes without heat, refrigeration . . .

A wealth of messages pours in to keep the EOC staff hopping. The last exercise message comes from the Executive Officer of the Submarine Ohio who, failing to establish contact with his own higher headquarters ashore, resorts to a HAM frequency and makes

contact with the Bonneville EOC communications officer. The Ohio reports on what has happened in the 3-hour war and regrets that the prolonged American civil defense cop-out has left the country in shambles.

The Vulcan's Forge "Eplilogue" reflects the same sentiment:

Most unfortunately Civil Defense really did not exist in America!

But in the American tradition the accent is on action:

Positive, can-do leadership and attitudes are indispensable! So are ingenuity, hard work, selflessness, and determination! The decisions made in the first few hours and days will be crucial in determining and protecting what resources we have and how they might be best managed TO SURVIVE!

Vulcan's Forge is a disaster planner's bonanza. It would make a fine bestseller. □

For further details on Vulcan's Forge contact:

Bonneville County Civil Defense
Bonneville County Courthouse
605 No. Capital
Idaho Falls, Idaho 83401

PROTECT & SURVIVE MONTHLY FIRMS BRIGHTON WORLD CIVIL DEFENSE CONFERENCE — BRIGHTON, ENGLAND MAY 24-26

The new Western accent on hard-core homeland defense measures takes a big leap forward May 24 - 26 with the British-engineered Brighton World Civil Defense Conference in the English resort mecca of Brighton.

"The objective of our conference," says Alastair Watts, publisher of Britain's *Protect & Survive Monthly* (PSM), "is precisely to stimulate an upgraded interest in population protection that will bring strategic defense among NATO nations up to a really meaningful level."

Over 60 nations with 500-600

delegates are expected to be represented. The conference title — "Brighton World Civil Defense Conference" — alludes to the series of international conferences held by the Swiss-based International Civil Defense Organization (ICDO) which will be a co-sponsor of the affair. Other co-sponsors include The American Civil Defense Association, the British Association of Civil Defense and Emergency Planning Officers, the National Council of Civil Defense, and similar national groups from other nations in Europe, Africa, Asia, Australia and North and South America.

"Leading civil defense authorities will be brought together in Brighton to focus on a true civil defense renaissance," stated Watts in a phone interview from London. "Western powers will be challenged to come

The International Civil Defense Organization (ICDO) is based in Geneva, Switzerland. The ICDO has promoted and produced nine previous world civil defense conferences. ICDO Secretary General Dr. Milan M. Bodi is recognized throughout the world as a leading organizer of international cooperation and teamwork in the field of major disasters — especially among developing countries. Dr. Bodi addressed the 1979 TACDA Seminar in Kansas City.

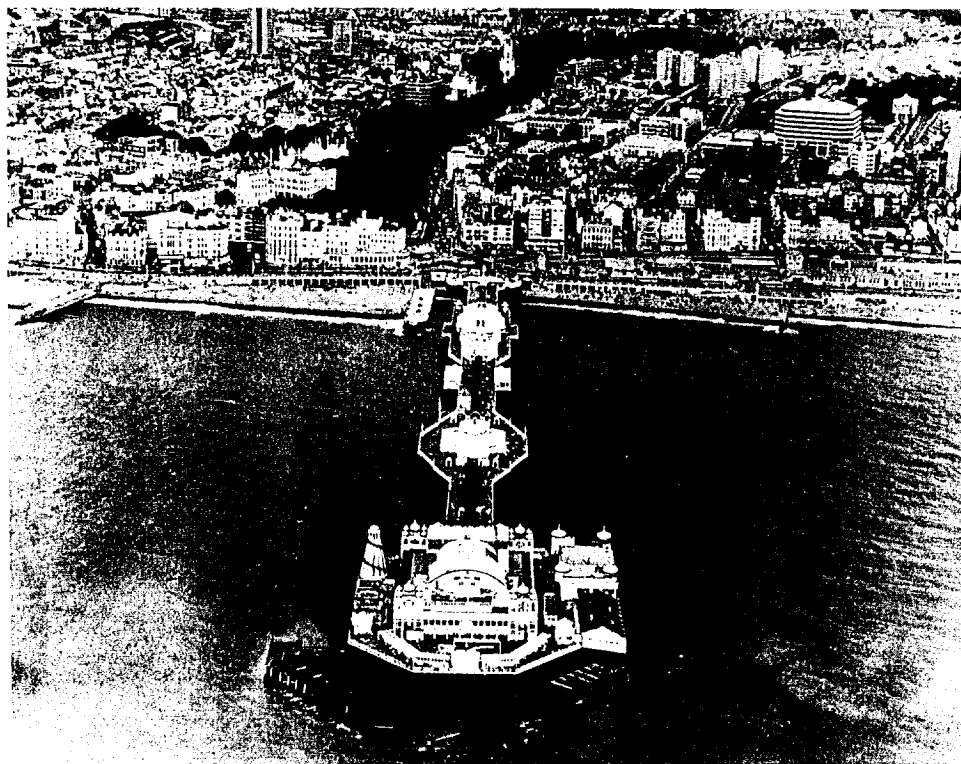
to grips with basic survival problems with no beating around the bush. Conference speakers will include notables from governments around the world, prominent international

Pan-American round-trip fares to London (Heathrow International Airport) from sample American cities:

Miami — \$610
L.A. — \$910
N.Y. — \$682

Negotiations are now underway to arrange for a special bargain air fare from Baltimore-Washington International to Gatwick International and return. Information will be published as soon as available.

scientists and strategists, world media spokesmen and top representatives of leading private civil defense groups and civil defense publications."



Brighton seafront: Palace Pier in foreground, beaches extend east (right) and west (left) from base of pier, Royal Pavillon in wooded area left oblique from pier base. Ferries ply to Dieppe, France from Newhaven, 10 miles to east. London 1/2-hour to north by frequent express trains on 24-hour schedule.

The theme chosen for the Brighton conference is "Civil Defense — A Vital Perspective in the Nuclear Age." Master of Ceremonies will be veteran British civil defense professional Eric Alley, who is currently chairman of the Association of Civil Defense and Emergency Planning Officers. Alley's CD activities have extended far beyond Britain. For several years, for instance, he functioned as an ICDO executive in Geneva. Americans first made his acquaintance in Caracas, Venezuela in 1974.

INTERNATIONAL CIVIL DEFENSE?

The observation can be (and sometimes is) made that civil defense, like a military force, is purely a *national* pursuit and not an international one — and that international CD conferences, therefore, are not of primary concern to a nation's internal civil defense program.

While it is true that civil defense must be a *national* undertaking it is *also true* that an international conference of the scope, magnitude and focus of the Brighton conference serves remarkably well a national civil defense effort by —

1. Providing wide-angle program evaluations and problem analyses;
2. Giving impact to civil defense considerations through presentations by recognized international authorities, exposures to other CD programs, new developments and ideas, and the publicity given to higher level and newsworthy procedures by the media; and
3. Stimulating governments to define CD problems and requirements and taking the necessary corrective action to deal effectively with them.

Working languages at the Brighton International Conference will be English and French.

Brighton, in Sussex County, is the most famous of the British south coast seaside resorts, 60 miles from London and 20 miles from Gatwick International Airport, where most of the American air traffic lands and takes off.

The Brighton conference will also feature exhibits of the latest in the civil defense shelter industry. □

REGISTRATION — BRIGHTON WORLD CIVIL DEFENSE CONFERENCE BRIGHTON, ENGLAND — May 24-26, 1982

Registration Fee: \$231 (Advance Registration Fee prior to May 1: \$198)*

To: THE AMERICAN CIVIL DEFENSE ASSOCIATION □ Enclosed: \$ _____
P.O. Box 1057
Starke, FL 32091 (Phone: 904/964-5397) □ Please bill me

Please register for the Brighton World Civil Defense Conference, May 24-26, 1982:

Name(s) _____ Organization _____

Address _____ Phone _____

City _____ State _____ Zip _____

* Note: Registration includes all conference sessions, 2 receptions, 2 lunches, 3 dinners, 2 coffees, 2 teas, registration/welcome desk services and transportation to and from Gatwick International Airport.

HOTEL RESERVATION BRIGHTON WORLD CIVIL DEFENSE CONFERENCE

To: THE AMERICAN CIVIL DEFENSE ASSOCIATION
P.O. Box 1057
Starke, FL 32091 (Phone: 904/964-5397) **BRIGHTON, ENGLAND
MAY 24-26, 1982**

Please make Brighton, England reservations — preference as indicated:

HOTEL □ Single \$54 HOTEL □ Single \$50
METROPOLE □ Double \$78 BEDFORD □ Double \$71

Arrival date/time _____ No. of days _____

Name(s) _____ Organization _____

Address _____ Phone _____

City _____ State _____ Zip _____

Note: Both the Metropole and the Bedford are luxury hotels. The conference will take place at the Metropole. The old Bedford was a stopping place for Charles Dickens et al. The new Bedford is its ultramodern successor. Prices include the traditional hearty English breakfast.



Shopping Brighton's maze of 17th Century lanes is rapt adventure for visitors from round the world. Crisscrossing, brickpaved byways date from Brighton's fishing-village past and now form a mecca of antique shops, boutiques, pubs and cafes.

TACDA MEETING AT NETC MAY 22nd

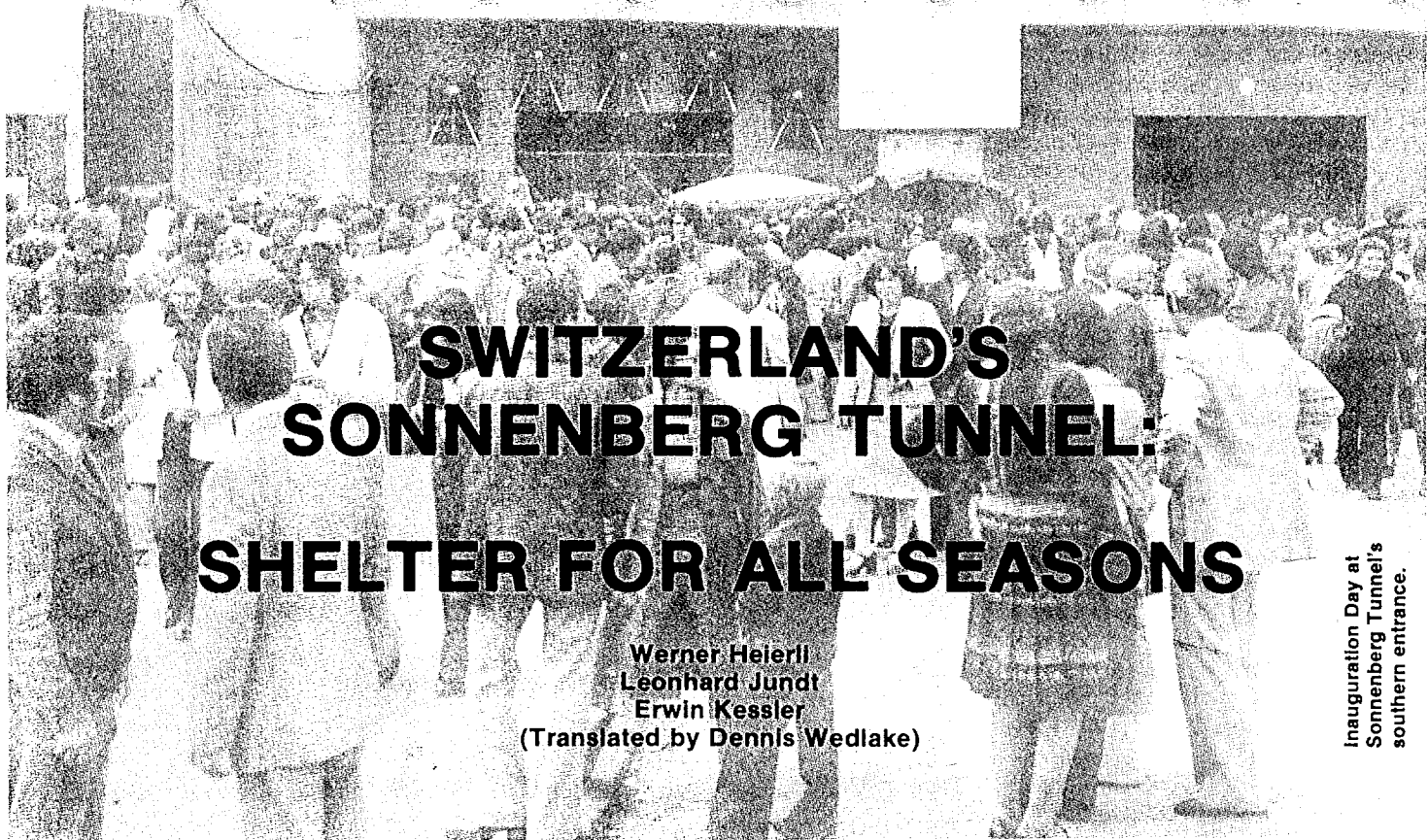
A meeting for The American Civil Defense Association and the *Journal of Civil Defense* (Board of Directors + membership) is now firm for May 22.

Site will be the National Emergency Training Center (NETC) in Emmitsburg, Maryland. The meeting will be open, with participation of all interested parties encouraged. Hours of meeting: 9AM-12N and 1PM-3PM.

Transportation from the Washington National Airport to Emmitsburg and return will be furnished by NETC. Pickup will be at 7PM, May 21st and 7AM on May 22nd. Transportation to Baltimore-Washington International will be furnished on May 22nd for those participants continuing on to the Brighton World Civil Defense Conference May 24-26 (England).

Rooms and meals are at nominal student rates. Those planning to attend are requested to notify TACDA, P.O. Box 1057, Starke, Florida 32091 — Phone: 904-964-5397. Room reservations may also be made through TACDA for those desiring to stay at NETC the night of May 21st and/or May 22nd.

The world's biggest nuclear shelter is no accident. It was purposely designed into the six-year-old Sonnenberg Tunnel just outside Lucerne, Switzerland. It is meant to be - and is - an important part of Lucerne's survival planning. Here three leading Swiss engineers give a running account of its features.



SWITZERLAND'S SONNENBERG TUNNEL: SHELTER FOR ALL SEASONS

**Werner Heierli
Leonhard Jundt
Erwin Kessler**
(Translated by Dennis Wedlake)

Inauguration Day at
Sonnenberg Tunnel's
southern entrance.

The largest civil defense facility in Switzerland is the Sonnenberg tunnel in Lucerne, offering accommodations for 20,000 people. It boasts a high protective capacity against all weapons effects.

Particular difficulties were the huge blast doors for closing the motorway tunnel apertures and the

as early as the general planning phase. The whole facility is divided into tunnel sections, blocks and rooms, the latter for 64 persons each. Each shelter occupant has his own bunk. All bunks have been procured and are on hand.

In order to comply with the minimum requirements for survival

principles of the 1971 civil defense concept: "A place in a shelter for every inhabitant of Switzerland." The construction of this CD facility has almost completely eliminated the hitherto existing shelter deficit in the town of Lucerne.

Because of its exceptional size the construction of the tunnel presented a great many structural and organizational problems.

The most important data of this facility are summarized as follows:

Project - Civil defense facility Sonnenberg, Lucerne, for 20,000 people, together with an auxiliary medical station and a sector command post.

Owner of the facility - Town of Lucerne.

Firms involved in design and construction:

Structural concept and design, including tunnel doors and furnishings: Heierli AG, Zurich,

"A PLACE IN A SHELTER FOR EVERY INHABITANT OF SWITZERLAND"

peacetime ventilation openings. Detailed calculations had to be made to show the behavior of the doors under different weapons effects. The main problem, namely occupation and use in case of emergency, was taken into account by special organizational planning

in case of war all ventilating, electrical and sanitary equipment is in place ready to function. A well-prepared and fully-organized staff, trained in peacetime for its task, is also ready to operate. The Sonnenberg facility has to be seen within the scope of one of the main

Consulting Engineers, 8033 Zurich.
Road tunnel coordination, electrical
installations: Motor-Columbus AG,
Baden (Switzerland).

Ventilation and sanitary installa-
tions: Schindler Haerter AG, Zurich.
Construction management: Motor
Columbus AG, Baden.

Construction period: 1970-1976.

Cost of construction (additional
cost for the civil defense facility,
1971 monetary figures): Approx.
25.5 million Swiss francs (Approx.
\$14 million).

Structural data:

Degree of protection: 130 psi.

Tunnel tubes - protected length:
1,200 meters (2 tubes) designed for
the shelter stay of about 20,000.

Additional space for the CD
organization: Height 19.8 meters,
width 16 meters maximum, length
36.8 meters maximum; 7 stories of
which 3 stories are for the auxiliary
medical station with 2 rooms for
surgery and 336 hospital beds; 2
stories house the sector command
post and the command post for
tunnel management; 2 stories are
for supply purposes (kitchen,
provisions, materials etc.).

Central ventilation station:
Basement - tank rooms for Diesel
oil, lubricants, cooling and drinking
water, plumbing distribution,
drainage pumps. Road floor -
transformer rooms, high voltage
rooms, emergency generators,
refrigerators. 1st upper floor -
ventilators. 2nd upper floor - control
and remote control, storage rooms.
3rd upper floor - gas filters,
ventilators, telephone exchange.

Adjoining structures: ventilating
shaft at the center (in wartime
operation for fresh air intake; for
highway tunnel operation, exhaust
air) with special closure and fast-
closing valves as a pressure seal;
chimney shaft for the exhaust gases
from Diesel generators.

Access gallery - from central
ventilation station to service
entrance used for peacetime
maintenance and as an entrance for
staff in case of emergency (includes
special entrance building).

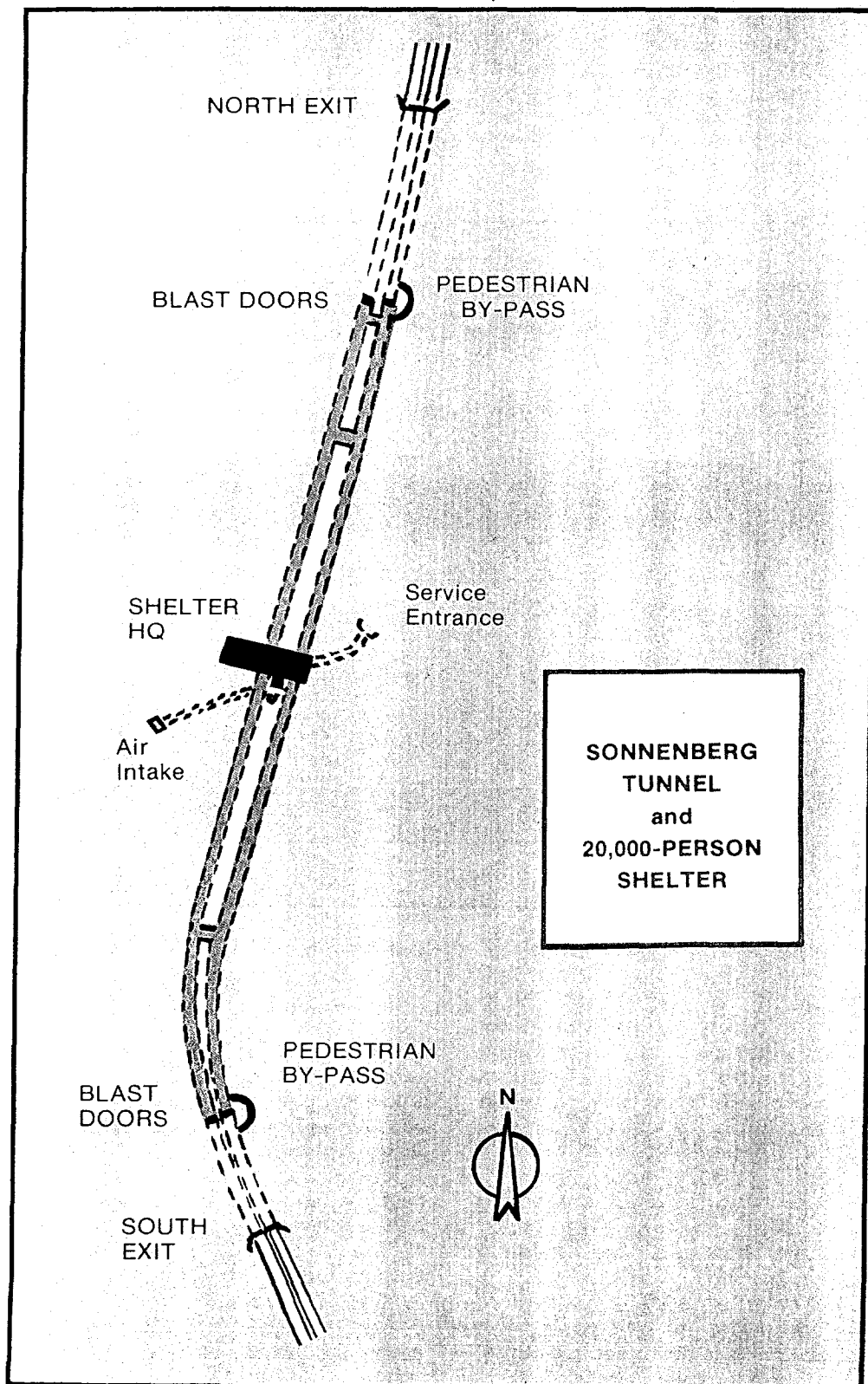
Blast doors, by-pass locks - four
blast doors for closing the tunnel
tubes, 2 by-pass locks as main
entrances from the north and south
portal.

Water intakes for cooling and
drinking purposes.

*Organization in the
Sonnenberg Tunnel*

The shelter stay of 20,000 people
in the two tunnel tubes requires a
clear determination in regard to
space and organization. One prob-
lem - among many - is the shaping
and design of all mobile equipment
to be installed in the tunnel tubes.

The entire protective facility is
subdivided into two tunnel tubes,
each 1,200 meters long, and
connected only by four accesses
and the central ventilation control
room. The protected area is served
by the special closures described
above. The northern and southern
closures in the east tunnel contain
portal by-pass locks. These locks
permit entrance and exit of about



20,000 people within a designated time. From the two main entrances two longitudinal air ducts, each 3 meters wide and one in each tunnel tube, lead to the center ventilation control room and the headquarters of the civil defense staff. Adjacent to these ducts are the lounge rooms (called "tunnel" rooms). In this way, the 20,000 shelter inhabitants are accommodated in the actual motorway tunnel.

North and south end portions of the tunnel, between the blast doors enclosing the protected areas and the actual tunnel openings to the outside, offer good protection from conventional weapons. In a civil defense emergency they may also

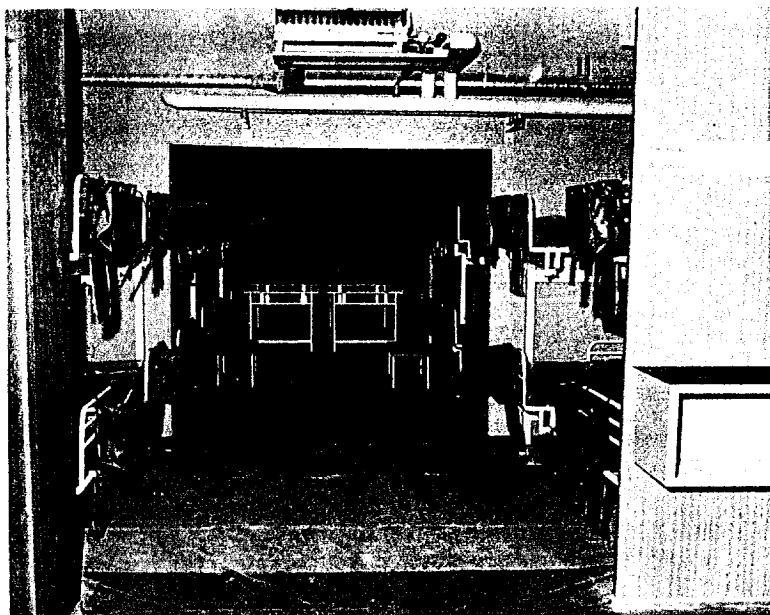
people assigned to it. Within such a tunnel section responsibilities for feeding and supplying of consumer goods and garbage removal are assigned. Sections are broken down into tunnel "blocks," and there are 52 of these, each accommodating 384 people. The block management is in charge of the actual care and leadership functions for the shelter inhabitants. The block management is connected directly with the tunnel command and the tunnel section by telephone. It organizes feeding, daily programming and rotation within the block. Under the block management are the "tunnel rooms." There are 6 tunnel rooms per block with 64 people each. The

address system and the editorial staff of the news bulletin, etc.)

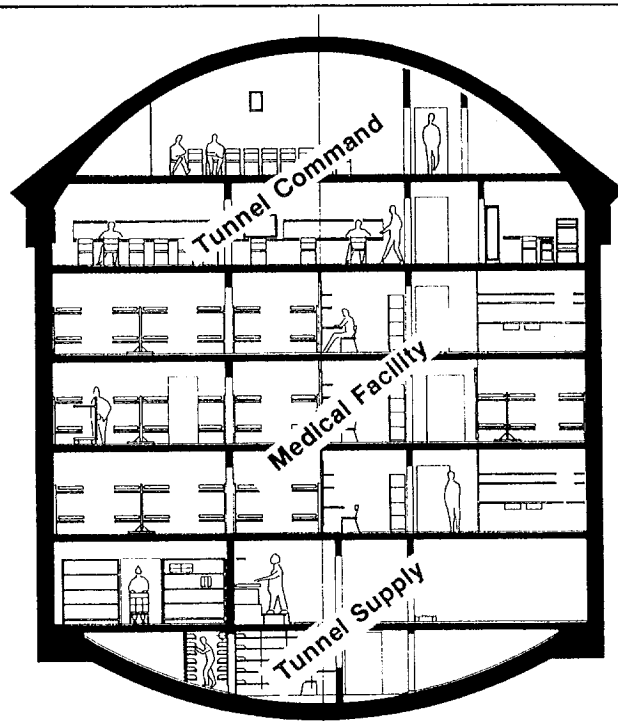
3. The *Administration*, consisting of personal services (registration, care of valuables, information and tracing), mail service and religious welfare;

4. The *Service for Law, Order and Security* is responsible for legal matters and for keeping order and observance of rules and regulations. This service is also in charge of fire control and firefighting.

5. The *Technical Tunnel Service*, with its several operational groups, is responsible for the operation and supervision of the electro-mechanical installations, the entrances and lock areas, the



Typical bunk room



Cutaway of Tunnel Headquarters

be used as assembly rooms for arriving shelterees, for the operations of additional mobile kitchens during the pre- and post-attack phases, and as storage rooms for pioneer and firefighting materials of the civil defense organization.

The Sonnenberg civil defense facility is placed under the civil defense sector in which the facility is located - Lucerne. The sector headquarters and the medical station supervise the facility.

The shelter staff organization, placed under a command with service units, is divided into 8 tunnel sections, each having 2,000 to 3,000

tunnel room staff is in direct contact with the shelter population, and is in charge of general supervision and maintenance of peace and order. Toilets are also under the supervision of the block staff, which is responsible for their smooth operation. There is one toilet facility for each two blocks.

The actual tunnel staff (located mainly at the civil defense headquarters) is comprised of:

1. The *Tunnel Command* (tunnel commander and chief of services);
2. The *Tunnel Communication Center*, consisting of the message communications service and the tunnel information service (public

sanitary installations (water supply, waste water, etc.) and the workshop.

6. The *Service of Rations, Transport and Feeding* operates the central kitchen, takes care of the supply and use of material and coordinates transportation.

7. Finally the *Medical Service* takes care of the sick, controls medical supplies and remedies and supervises the tunnel health service. The operation of the auxiliary medical station is assigned to special detachments.

(A TACDA technical report is being prepared on the Sonnenberg tunnel that will treat the subject in more detail.) □

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CRISIS RELOCATION PLAN

PRO

Robert Baffin

It is quite in order to consider a number of possible solutions for our civil defense and to weigh them carefully, taking into full consideration all their advantages and disadvantages, then to focus on one solution and implement it.

This was in fact done under the (Nixon Administration, and the selection was Crisis Relocation Planning (CRP). At that time American leadership, acting on the advice and analyses of many experts, made that choice for the American people.

as to a choice of say (1) a right end run, (2) a left end run, (3) over left tackle, (4) pass, etc. There are presumably good arguments for all of these. But once the decision is made to say go around right end and the play is put in motion those who advocated the pass must support the play being executed without reservation or the result will be certain disaster.

No team effort could survive any maverick attitudes.

In the same way, those who have been advocating in-place shelter

Germany, obeyed orders only if they were told *WHY* the orders should be obeyed. So, with apologies for repetition, the following advantages are among those for which CRP was selected by the Nixon Administration and for which it is now being continued by the Reagan Administration:

1. The Soviet plan to prepare for an exchange is to evacuate Soviet cities. Should this begin we would know about it quickly. That is certain.

... WE RISK "LOSING THE WHOLE BALL GAME."

When the Reagan Administration assumed its duties in early 1981 CRP was already several years old and much work had been done on it. A further evaluation was made in early 1981, and CRP was found to be based on sound policy. So step was not broken in the CRP effort. CRP remained on course, and is still on course today.

It is a tribute to the Reagan Administration that it saw fit not to undo all the work that had gone into CRP. CRP is in fact a non-partisan, military, strategic decision, and with that decision made and in force it behooves even former opponents of it to support it. Otherwise, as has been pointed out, we risk "losing the whole ball game."

One might liken the CRP decision to a crucial football play that has the potential of winning or losing the game. In visualizing such a situation before the game — or even at the last minute — suggestions are in order

(which had some good points to be sure) need to realize that our government has made the strategic decision to go with CRP and that in fact the CRP "play" is in motion.

To insist now that another course of action be taken is in fact like insisting on a pass play in the above football example when the running play has been decided upon, called, and put in motion.

In both cases a dissenting opinion is too late to be of any help — except to the opponents.

In the spirit of Baron Friedrich von Steuben, the Prussian general who came to the United States during the Revolutionary War to help George Washington, perhaps we should add one more item. Von Steuben complained that American soldiers, unlike those back in

2. Americans, with better transportation and better exit facilities can evacuate much faster than the Soviets.

3. A blast-shelter system was judged to be far beyond our means at the time of the original decision. With budgets now being drastically cut it is certainly much farther beyond our means today. CRP is a small fraction of the cost of a blast shelter project.

4. CRP is an established strategy. Its implementation is well underway. Logic dictates that we pursue it instead of changing in midstream to another concept that has been turned down as not being practical.

There are of course other arguments for CRP, but the above is a capsule version of the main issues involved.

We need now to close ranks. We need in the interests of national defense to get on with the CRP job.

ANNING — PRO AND CON

CON

Kevin Kilpatrick

In the event of threatening international developments plans are to remove the President from the White House and Washington in a matter of minutes.

Good! It is vital that every possible precaution be taken for the safety of the President. Similar immediate action extends, as it ought to, to other elements of leadership.

Not good, however, is the contrast between the rush to protect leadership within a half hour or less and the bland assurance that four to seven days is a time-frame suitable for John and Jane Doe.

How come? There is this to say:

The four to seven day attack delay theory (where citizens are concerned) is based on the assumption that the Soviets will evacuate cities.

Evidence was presented 3½ years ago, however, that the Soviets at that time — 1978 — had enough urban shelter to give them the option of evacuating or staying put.

This, with the heavy Soviet accent on strategic surprise and a history of being willing to sacrifice people, appears to wipe out the four-day signal upon which CRP is based and *must depend*.

If the shelter-evacuation option existed in 1978, then with the continued and accelerated Soviet urban shelter development since that time it must certainly be even more valid in 1982.

An with further acceleration of urban shelter construction what will be the picture in 1985? In 1990? and in 1995? (The unfinished CRP will be even more incongruous at that time.)

Indeed, it appears that plans to evacuate Soviet cities will simply be shelved—except for propaganda use.

Or has this already happened?

At best CRP is tremendously complicated and vulnerable to multiple applications of Murphy's Law. Too, there are many problems such as evacuation of hospitals, homes for aged and ill, the handicapped, jails and prisons.

Complications only begin here. In a megalopolis CRP is its own contradiction. One Soviet-engineered false alarm would doom it for keeps.

With in-place shelter, however, such disadvantages are minimized or disappear. Government studies prove the point. Statistics show

the Americans and other NATO countries can also do it, should do it, must do it.

Cost is cited as the defeating factor in the blast shelter program. The quoted \$100 billion price tag looms as a threat to sacrosanct welfare programs. But the time has come for survival to outweigh welfare.

And \$100 billion is not necessarily the figure to be dealt with. For instance, by using a shelter type tested for blast by the Donn Corporation the cost can be brought to under \$20 billion. With the Reagan

AT BEST CRP IS . . . VULNERABLE TO MULTIPLE APPLICATIONS OF MURPHY'S LAW

that compared even to a fully effective CRP (an unlikely occurrence) the attack fatality rate would be *cut in half* with the use of blast shelters.

Staying close to home among familiar surroundings, near friends and neighbors, with access to emergency supplies, etc. is in numerous ways preferable to being at the mercy of the elements in remote locations (think of our 40-below weather this winter!).

Not that serious problems can be eliminated. A nuclear attack, even with sophisticated preparations, is a superdesperate life-and-death affair. Problems need to be analyzed, brought into perspective and provided with practical solutions in spite of difficulties.

Impossible? The Swiss have already done it. The Soviets have done it. The Swedes, the Finns and the Chinese have done it. The British are making passes at it. They,

policy of phasing out the federal nursemaid role shelter cost could be shared as they are elsewhere. Spread over a 5-year period the cost breaks down to \$4 billion a year total, with a federal share that can be substantially less than \$2 billion a year — even less than \$1 billion a year. Inducements such as tax breaks would provide workable incentives.

Is cutting anticipated fatalities in half worth the trouble?

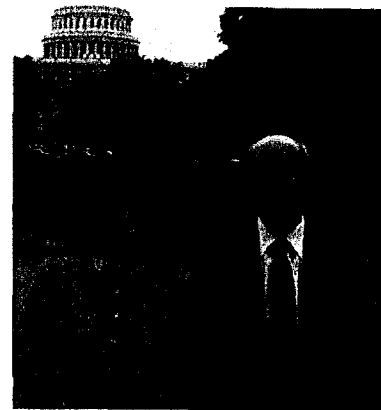
To this add the new possibility of space and terminal active defenses — with further substantial cuts in fatality estimates — and the survival picture is brightened even more.

Such a program presents an aggressor with targets so poor and an attack so risky that it discourages a nuclear adventure to begin with.

All this makes CRP obsolete.

And — if pursued — the shelter program creates a new and practical road to peace. □

Eugene Wigner's Senate calls on behalf of civil defense have stimulated civil defense thinking among Senators. And the calls are becoming Washington legend. Wigner himself is now often referred to as "the secret weapon of civil defense."



Susan Bergman and Eugene Wigner

EUGENE WIGNER CALLS AGAIN

Susan Bergman

During the week prior to The American Civil Defense Association seminar in Washington D.C., Dr. Eugene Wigner visited the offices of six United States Senators. Following are notes covering each of the visits:

Frank Gaffney — **Senator John G. Tower's** (R - Texas) Staff Member on the Armed Services Committee. Senator Tower is the Chairman of this committee. Although Mr. Gaffney personally agrees that a strong civil defense system is necessary, he feels, practically speaking, that at this time there are obstacles in articulating the need to the American people with regard to the present budget cuts. He feels that the American people are reluctant to return to a "cold war" mentality which he feels is associated with civil defense. He said that the Senator is very supportive of a strong civil defense. Mr. Gaffney's recommendation was that action be taken on the Executive level such as an inter-agency review of civil defense by the White House. He said there is a general apprehension of the members of the Armed Services Committee to become vocal proponents before the President makes his opinion known. Dr. Wigner explained that the most important point is not the budget increase but that people in positions of authority speak out in support of strong civil defense. Their voice would influence the White House.

Senator Warren Rudman (R) New Hampshire — Dr. Wigner spoke to the Senator and his Legislative Assistant, John Behuncik who were both very enthusiastic about civil

defense. The Senator agreed with Dr. Wigner that the best way to teach the public about civil defense is to instruct the children in the schools. He said this has already been proven effective with drug abuse programs taught to the children. The Senator expressed his gratitude to Dr. Wigner for engaging in this crusade to protect the American people and said he is anxious to help. The Senator is considering joining the Advisory Committee of TACDA.

THE BEST WAY TO TEACH THE PUBLIC ABOUT CIVIL DEFENSE IS TO INSTRUCT THE CHILDREN IN THE SCHOOLS.

Woody Woodward — Legislative Assistant to **Senator Mack Mattingly** (R - Georgia). Ms. Woodward expressed her concern over the lack of an adequate civil defense system in this country and she felt that the Senator would be extremely sympathetic. She listened with great interest to the information that Dr. Wigner shared with her and assured him that she would brief the Senator on all the points covered.

Senator Carl Levin (D) Michigan — Dr. Wigner met with the Senator and his Administrative Assistant, Robert Seltzer. The Senator was uninformed on civil defense matters and expressed his appreciation to Dr. Wigner for undertaking this project of contacting Senators. The Senator was interested in the idea of civil defense being taught in the schools and he requested literature on this.

He said if he agreed with what would be taught and the methods used, he would whole-heartedly support it and do what he could to help.

Senator Alfonse M. D'Amato (R) New York — Dr. Wigner met with the senator and his two Legislative Assistants, Michael Hathaway and Tanya Metaksa. The Senator showed great interest in Dr. Wigner's message, especially with regard to civil defense protection for New York City. He said he feels it would be important to find the approach which would bring about a positive response on the part of the American people on the need for a strong civil defense system. He agreed that a big part of the problem is that people do not want to think about unpleasant things such as protecting themselves in the event of a nuclear attack. The idea of nuclear blackmail provided him with a perspective that he had not before considered and he felt its logic was very sound. The Senator said he would like to have material on this topic so that he could become more familiar with the issues involved with civil defense and, in particular, he asked Dr. Wigner to send him a letter describing how the U.S. compares with the Soviet Union with regard to civil defense and what measures could the U.S. reasonably undertake.

Senator Don Nickles (R) Oklahoma — Dr. Wigner, unfortunately did not have much time with the Senator because of vote calls in the Capitol. The Senator appeared to be uninformed about civil defense. He was in agreement with Dr. Wigner's main points. □

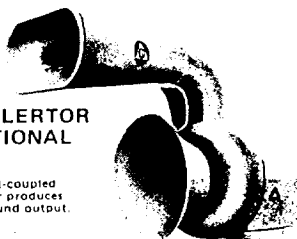
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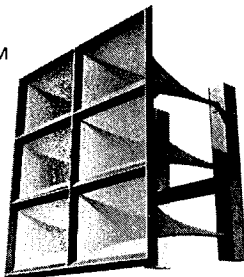
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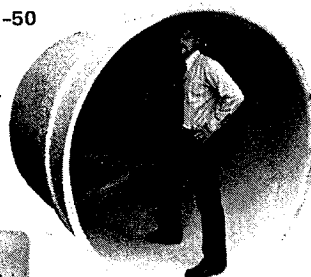
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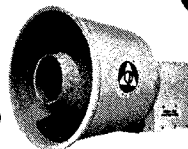
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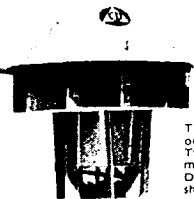
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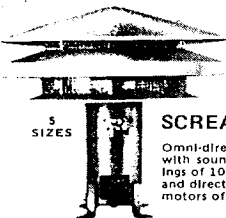
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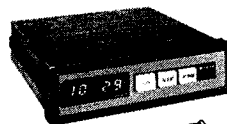
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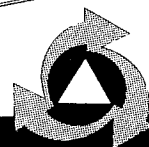
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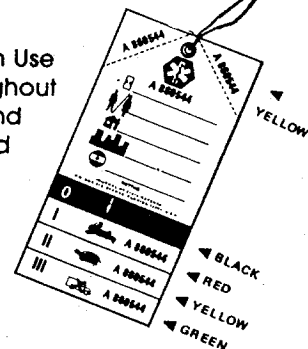
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TRIAGE — EMERGENCY CARE V BURNS

(5th of 13 installments)

— Max Klinghoffer, M.D.

It has been said that, in the field of trauma, burns constitute the greatest insult to the human body. This is probably true in most instances. The patient with severe burns has a great chance of serious and even life-threatening complications; and such a patient requires more material and more personnel than most other types of injury. The recovery period is prolonged, and the after-effects are many.

Hot objects and flame are not the only causes of burns. And there is more than one type of burn. For example, in the category of thermal burns, we are concerned with the effects of flame, heated objects, and hot liquids. But in separate groups are burns caused by electrical sources; those caused by chemicals; and solar burns.

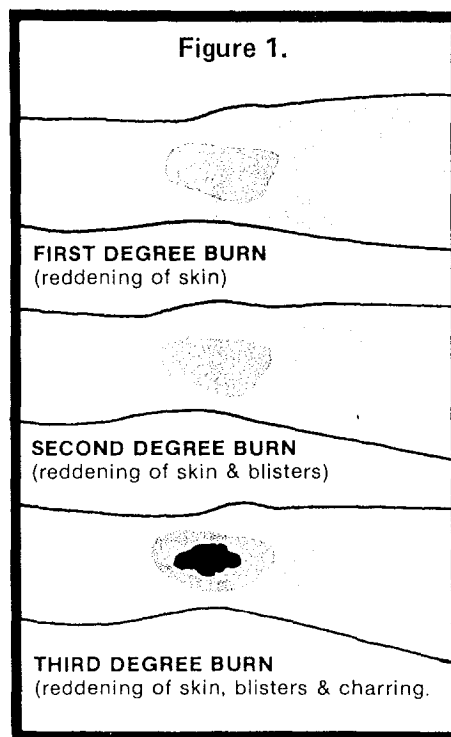
Burns are classified (whatever the cause) by **EXTENT** (or area), and by **DEPTH** (or degree). These are separate and distinct, and they are factors in the treatment and in the eventual outcome.

While it is customary today to divide burns into six degrees, (depending upon depth of burn), it is probably adequate from the standpoint of triage care to consider only three degrees.

A first degree burn is one producing reddening of the skin, and involving only the more superficial tissues. The second degree burn involves deeper tissues, and is characterized by blister formation. The third degree burn involves still deeper tissues, and includes charring. Degree of burn has no relationship to area, or extent of burn.

For example, if a match head flies off the match and is buried in the hand, there may be a minute charred area. This is, by definition, third degree; yet it involves a fraction of one percent of the body surface. Conversely, a first degree sunburn

(reddening of the skin) may, in view of modern swim attire, involve over ninety percent of the body. Yet, since there is only reddening of the skin, this is still first degree. The first degree burn, over a large body area, is much more dangerous than the third degree burn which involves a minute portion of the body area. (All of these comments are, of course, generalizations. If the small, third degree burn should become infected, these generalizations are no longer valid.)



There are many variables in the prognosis of the burn patient, such as age and previous physical condition. But generally we say that a burn is serious if it covers ten percent or more of the body. It is especially serious in the very young and the very old; and also serious if it involves the area about the mouth and face (where it may interfere with respiration.)

While burns are complex injuries,

requiring complicated treatment, the immediate triage care of the burn victim is fairly simple. Again, if you are rendering emergency care, you will probably do so much more efficiently if you know **WHY** you are following certain procedures. Therefore, a brief history of the treatment of burns is in order, along with a summary of the pathologic physiology of burns (those abnormal events which occur in the body as a result of the burn).

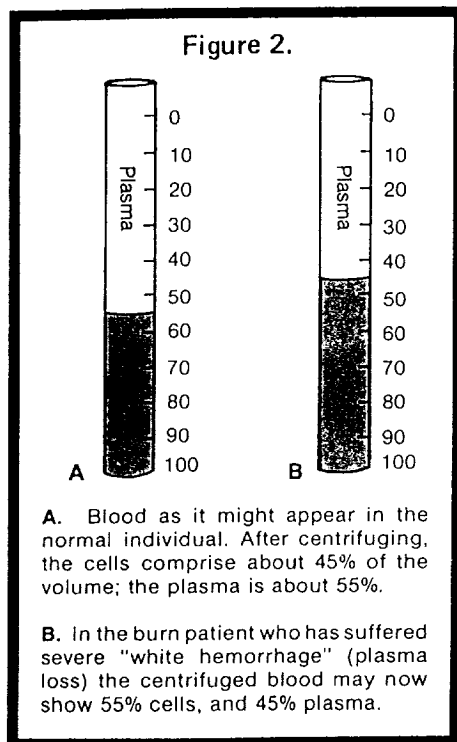
For centuries the treatment of burns remained essentially the same. The burn was considered a localized injury, involving only those tissues which were visibly affected. And treatment, therefore, consisted of one or another type of ointment to be applied to the burn area. Hundreds — perhaps thousands — of salves were tried; and except in the case of the minor burns, they probably did nothing to save lives. It was not until this century that any great attention was given to the problem of the profound effect the burned area had on **ALL** parts of the body.

Earlier in this century a brilliant but unique experiment was done. Sterile dressings were carefully weighed on sensitive balances. They were then applied to the burned area. Upon removal of these dressings, they were again weighed, and it was found that the weight had increased greatly. In retrospect, the answer was simple: the body was losing some component, and it was being absorbed by the dressings. The early workers in this field called this "white hemorrhage".

To explain this "white hemorrhage" it is necessary to briefly discuss the components of the blood. The blood is made up of two phases: the cellular component; and the liquid in which the cells are suspended. The cells are divided into three general categories: the white cells (of which there are

several types); the red cells (which contain the red substance hemoglobin, and which transport oxygen); and the platelets (which are a major factor in clotting of blood).

If a measured amount of blood is placed in a graduated tube, and is then spun in a centrifuge, the cells will be spun to the bottom of the tube, leaving the clear fluid above. In the normal, healthy individual, the opaque mass of cells at the bottom of the tube will constitute about forty-five percent of the tube volume; the clear fluid above the cells will constitute the other fifty-five percent.



The gain in weight of the burn dressings described previously was due to the loss of the clear fluid, or "PLASMA". Very little of the cellular element "leaked" from the burn. This clear fluid is essentially the same fluid which is found in the burn blister.

Now it can be readily seen that the loss of a large quantity of plasma will have a profound effect on the body. Let us say, hypothetically, that the "HEMATOCRIT" reading (See Figure 2) of the blood is now fifty-five percent cellular and forty-five percent fluid (thus reversing the normal proportion.) The blood now becomes more viscous, or "thicker", and more difficult to pump through the circulatory system. It may even "plug up" in some of the smaller capillaries.

In addition, the plasma which

leaks from the burn provides an excellent "culture medium" in which bacteria will grow readily. Many burn patients die of overwhelming infection.

From the time of discovery of the systemic effects of burns, progress in burn treatment was rapid. At first, the researchers sprayed the burned area with various substances in an effort to "seal in" the plasma. For some time Tannic acid was popular, since it combined with the plasma to form a firm, parchment-like material, and it did "seal in" the plasma. But this had disadvantages. Bacteria grew abundantly under this coating. And since the coating was rather inflexible, the involved area often remained inflexible, resulting in considerable disability.

When we were faced with the problems of a great many burns, on December 7, 1941, a more advanced method was used. Paraffin was sprayed on the burn area. This provided a covering which was more flexible, and which was nearly transparent. It was also more readily removed if it became evident infection was present under the coating.

Since that time, materials for covering the burn have improved, and these coverings are also antibacterial.

Above all, research made it clear that deaths due to burns could often be attributed to loss of the liquid phase of the blood, and the various physiological changes which accompanied this alteration in the blood. One of the greatest advances in the treatment of burns was the recognition of the need to *replace* the fluid lost through the burned area. This is now done by use of various intravenous fluids which closely resemble the plasma chemically.

Since the non-medical individual will not be administering intravenous fluids at the triage level, and since he may not have the antibiotic ointments on hand, the triage care of the burned patient may be stated simply: Do everything possible to prevent or to minimize infection; alleviate pain; prevent or treat shock (burns are a common cause of shock); provide airway for the patient with respiratory difficulties (this is number one priority if the patient has airway involvement due to the burns).

Now some general rules in treatment of burns. First do NOT

apply ointments or butter or other greasy substances to the burn. Why? If you do so, then when the patient arrives at a hospital further trauma will result from removal of the grease. In order to apply the medication of choice, it will now be necessary to remove the ointment first applied. This will greatly increase the danger of shock, and will certainly cause the victim much more pain.

Second - do NOT attempt to cut an opening in the "windpipe" even if the patient is having trouble breathing. There are major blood vessels close to the trachea (windpipe) and if one of these is damaged it may prove fatal.

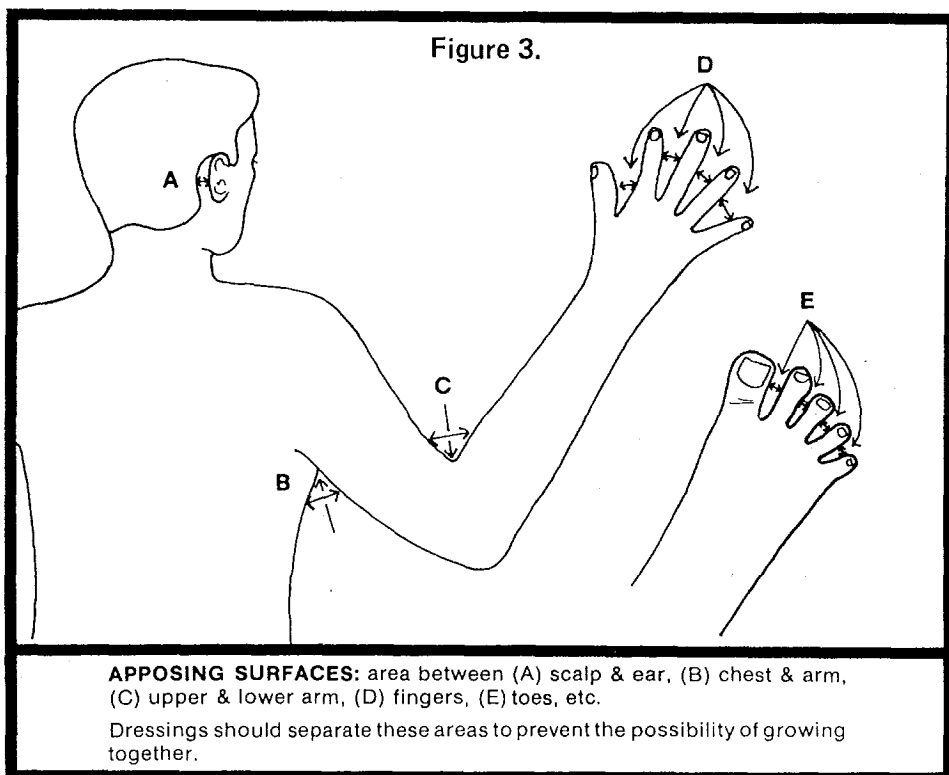
The best way to cover the burn, in the triage level, is to use a sterile dressing, firmly applied. Ideally, you might keep a supply of packaged sterile dressings available. But you may also improvise. A bedsheet or pillowcase or towel may be used and it may be sterilized by ironing with a hot iron until it just begins to char. Or it may be carefully heated in an oven until it chars slightly. Remember not to touch the surface which will come into contact with the burned area.

The dressing should now be fastened in place with a bandage - either a roller or an elastic bandage. This should be snug. This has three purposes: to decrease the loss of plasma from the wound; to decrease pain; and to prevent bacterial contamination. Now when the patient arrives at the hospital, the dressing may be irrigated with sterile saline or water, and removed almost painlessly.

If the patient should have trouble breathing, due to burns about the nose or mouth, a teaspoon may be used (just as you would use a tongue blade) to widen the airway by depressing the tongue. Sometimes applications of ice, or cold packs, about the area will help to decrease the swelling.

Never pull clothing over the burned area. (This is the same rule mentioned under the subject of "hemorrhage".) To do so will contaminate the wound with bacteria contained in the clothing and will increase the danger of infection.

If particles of burned clothing are adhering to the burn, do not attempt to remove them. These pieces of burned clothing are sterile, because of the heat, and any attempt to



remove them may contaminate the wound.

If blisters are present, do not attempt to open them. Should they open spontaneously, the sterile dressing will help to prevent infection. But to open them may increase the chance of infection, and may increase pain. When dressing a burn, it is important to remember to separate apposing surfaces. "Apposing surfaces" refers to those areas of the body which normally may be in contact. For example: the areas where the fingers contact each other; the area between the upper arm and lower arm; between the upper arm and the chest (armpit); between the ears and the scalp; between the toes; in the female, between the breasts and the chest wall; and in the male, between the scrotum and the thighs. In all such areas, dressings should also separate these apposing surfaces, in order that they not tend to grow together with scar tissue.

The electrical burn is a separate entity, since it may mean additional complications. The victim may be in danger of his life as a result of the electrical shock, and this will require priority treatment ahead of treatment of the burn. Further, the electrical burn is deceptive when you first see it. At first, it may appear to be small in area, and not of great depth. But electricity has a tendency to "cook" the tissues, and frequently

electrical burn may be of much greater severity than it appears to be. Such burns must be treated as major injuries, even though they may not appear serious in the first few hours after they occur.

Chemical burns are also unique. They may occur as a result of exposure to strong acids, or to strong alkalies (bases).

Chemical burns often demonstrate a "lag period" in their action. That is, unlike a thermal burn which causes symptoms instantly, the chemical burn may not cause symptoms for several minutes after exposure. It is important to take emergency measures before symptoms appear. This is especially true in the case of chemical burns of the eyes, since any delay may cause permanent damage or loss of vision.

Among the more common acids which may cause burns are sulfuric acid (found in most storage batteries); Hydrochloric acid (Muriatic acid) used in swimming pools, as a toilet bowl cleaner, and as a soldering flux; and Phosphoric acid, used for rust removal.

Among the common alkalies (bases) which may cause chemical burns are: Potassium hydroxide and Sodium hydroxide ("Lye"); and strong Ammonium hydroxide ("ammonia").

*In case of burns by any of the above substances, **DO NOT** start hunting for materials to neutralize*

*the caustic. Time is important. The major objective is to **IRRIGATE** the affected area with water. Time is so important that sometimes a shower or a garden hose is the best means of dilution.*

Remember to remove the victim's clothing, since it is probably contaminated with the corrosive substance. But also remember that, in removing the clothing, you may be exposing yourself to some of the chemical. To prevent the possibility of becoming a casualty, also rinse yourself.

The replacement of fluid has already been emphasized as a major factor in the treatment of burns. Under most conditions, this should not be attempted in a triage area. Assuming you are within an hour or two of a hospital, the rule should be "nothing by mouth." When the victim arrives at the hospital it may be necessary to use anesthesia in order to cleanse the burn area. Or anesthesia may be necessary for treatment of injuries other than the burn. The risk of anesthesia is greatly increased if the patient has any food or drink in the stomach, since he may vomit and aspirate stomach contents into the airway.

However, if you should be in some remote area, and perhaps days from definitive medical care, it may be necessary to replace fluids if the patient is to have a chance of survival. A formula which is recommended is: one teaspoon table salt, one-half teaspoon baking soda, one quart cool water. This is administered in **frequent, small sips**. Why? If the patient takes a large amount of fluid at one time (as he may wish to do) there is an increased chance he will vomit. This will only aggravate the condition for which we are trying to treat him (dehydration.)

Also, if you should ever need to use this formula, remember that any brand of table salt will serve. **Do not** use salt substitutes. But also remember it is Baking SODA - not Baking POWDER. We want to revive the patient — not raise him.

REMEMBER: Do not attempt to give the patient baking soda if he has swallowed strong acid. This will result in intense chemical reaction (foaming), with sudden increase in pressure and may lead to rupture of the already weakened stomach or esophagus. □

(NEXT INSTALLMENT:
FRACTURES)

REVIEWS

THE HIGH ROAD, by Ben Bova. Published by Houghton Mifflin Co., Boston, 1981. 279pp. \$11.95 (Hardback)

Reviewed by Kevin Kilpatrick.

Ben Bova is the editor of *Omni*. He is also the author of 50 books. Further, he is a consultant to the space industry. He is convinced that the only way out of our world delimas of overpopulation, depletion of resources, pollution and war is to take "the high road" to space.

In space, drift untold riches which are keys to survival and plenty for our cramped over-exploited planet. Space will provide abundant energy. It will free the West from dependence on oil. Space will open up a new frontier more bountiful than that of the "New World" of the 16th Century.

Just now, with the space shuttle, we are beginning to open up the possibilities that should have followed the moon landings over 10 years ago. Then we dragged our feet. Now, we either push full steam ahead with space exploration and exploitation and emerge once again as front runner — or we cop out.

Bova's remarkable volume also puts General Daniel Graham's "High Frontier" ballistic missile defense in perspective. The possibility of shooting down earth-based missiles very soon after they are fired is now with us.

"Whether we want this responsibility or not," writes Bova, "it is *this* generation of men and women who will either create the political environment for a vigorous space program, or see the United States — and the world — spiral down into decay and disaster."

Space Power Satellites can begin to give us energy to replace polluting sources by the year 2000. Required international cooperation will make war awkward and unlikely.

Says writer Isaac Asimov:

"Ben Bova, in *THE HIGH ROAD*, makes my heart sing. He sees things as they are. Perhaps he will persuade the United States and the world to save us all. This book should be required reading for every government official, every scientist — everyone."

1st RESPONDER, J. David Bergeron. Published by Robert J. Brady Company, Bowie, MD 20715; Soft cover, 8½ x 11 in., 1982, 300pp. ISBN 0-87619-998-8, \$10.95.

Reviewed by Carolyn Hayes

FIRST RESPONDER is a very comprehensive text book for training one to do advanced life saving procedures in an emergency until more thoroughly trained medical personnel (EMTs or Doctors) can reach the scene.

It begins with an explanation of the Emergency Medical System giving the desirable traits and responsibilities of a first responder. This is a programmed learning book starting with simple basic procedures and progressing into more detailed ones. It covers everything from slight nose bleed to amputations. Procedures are presented in an easily understood manner.

A key has been placed next to all basic information and techniques and is of great help in reviewing them.

A good basic text for use by Fire Departments, Police Departments and others who are likely to be the first on the scene in an emergency.

METTAG — YOUR KEY TO SURVIVAL (Video Cassette — ½ in. VHS or ¾-in.) 20 min. Color. 1-week rental: \$10. Purchase: \$52. From: METTAG, PO Box 910, Starke, FL 32091 (Ph 904/964-5397).

METTAG: Medical Emergency Triage Tag

In **METTAG — YOUR KEY TO SURVIVAL**, Jacksonville, Florida CD Director Bob Blodgett (with cast) achieves a fine off-the-cuff briefing on METTAG usage.

METTAG is the simplified field triage tag that is now America's standard. Reasons: tough card-stock, perforated tear-offs, 4 priority colors.

METTAG can be used without prior briefings. However, briefings give users a built-in field familiarization — a *big help*. Briefings are strongly recommended.

METTAG — YOUR KEY TO SURVIVAL provides this briefing in down-to-earth form from the disaster specialist who designed and tested METTAG to begin with.

TARGET AMERICA, by James L. Tyson. Published by Regnery Gateway, Inc., 380 W. Superior St., Chicago 60610. 1981. 284pp. \$12.95. (Hardback)

Reviewed by Andy Gottesman

Disinformation—propaganda—is big business. And professionals engaged in overt and covert promotion of world Communism are disinformationalists par excellence. Experts.

"Target America" is an apt title for James Tyson's book. For "The United States is the number one target . . . the main enemy" of the heirs of Lenin.

Agents, dupes, front groups, Red organizers cover the world and work with a special diligence on and within target number one.

Tyson names names — lots of them. He describes techniques, gives examples. He lays bare the anatomy of disinformation for all to see. He cites, for instance, CBS and the *New York Times* as disinformation outlets. Our churches too.

For instance, attacks on the neutron bomb — a *defensive* weapon which threatens to neutralize the mammoth Soviet tank force — has up to now been cleverly relegated to a back burner. (Civil defense too is a prime example of the overwhelming value of good disinformation. Cultivated and highly developed in the East and ridiculed to a dormant and impotent role in the West, it stands as a major disinformation win.)

Bring disinformation plays out into the open, however, inform Americans of what is really happening, and the tide can be turned. "If we can unmask the propaganda offensive," says Tyson, "if we can overcome this one advantage the Communists have over the free world, we can arrest the continual retreat, we can stave off defeat, and turn it into a victory — and we can do it without a nuclear war."

New Alabama CD Newsletter:
THE CHALLENGE OF SURVIVAL

Volume 1, Number 1 of *The Challenge of Survival* was published by the Alabama Civil Defense Department on December 15th. The newsletter will appear monthly.

ALABAMA CD PROCLAMATION

The language of Alabama Governor Fob James' proclamation designating a 1981 "Civil Preparedness Week" deserves to see light of day. It reads in part:

"WHEREAS, in this nuclear age, preparedness to protect the population against the effects of enemy attack is as much a part of the deterrent as is military . . . preparedness; and

"WHEREAS, an effective Civil Defense program, coupled with our nation's military . . . strength offers the most realistic approach to a Strategic Deterrence to nuclear war . . .

"NOW, THEREFORE, I, Fob James, Governor of the State of Alabama, do hereby proclaim the week of December 6-12, 1981, be

CIVIL PREPAREDNESS WEEK

in Alabama, and urge those professionals in Civil Defense Preparedness who are charged with the responsibility of preparing our state to survive an attack upon our nation by an unfriendly power to rededicate themselves to their task, and I further urge all local, state and federal officials, and the public, to support them in their efforts."

A literal interpretation of Governor James' proclamation will see much-needed enhancement of protective measures in Alabama's ten target areas, and a much-needed example to 49 other states. In fact, it would represent a welcome and inspiring revolution in America's preparedness policy.

SURVIVE APPEARS ON CD SCENE

With an impressive staff, an impressive product and impressive circulation the new survivalist-civil defense magazine *Survive* has launched itself on the wave of revived interest in preparedness.

Its first issue of 70 pages contained six feature articles, four departments and four columns.

Editor/publisher is Robert K. Brown (who attended the TACDA Seminar in Washington DC October 8-10); Robert Himber is Managing Editor.

Price for six issues is \$12. *Survive* is a welcome addition to the growing number of civil defense publica-



Alabama Governor Fob James

tions. (Subscriptions etc. contact: *SURVIVE*, PO Box 49, Englewood, CO 80151.)

USCDC TO PUBLISH *IMPACT*

The first issue of *Impact*, the new United States Civil Defense Council (USCDC) magazine, is due for late February. *Impact* is the No. 1 project for the recently appointed USCDC Public Affairs Director William E. Murray. Murray will be *Impact* editor.

"One of the features of the first issue," says Murray, "is to be a roundup of organizations with goals and objectives relating to civil defense." Murray will begin the magazine as a quarterly and plans to make it a monthly as soon as possible. Murray will also edit the *USCDC Bulletin* in revised format. (Room 248, CasCo Building, 1601 2nd Av. No., Great Falls, MT 59401.)

SURVIVALIST NOW CD DIRECTOR

Intrepid survivalist Bruce Clayton, author of *Life After Doomsday* and other survivalist books and articles, has been since January 1st civil defense director for Mariposa County, CA. Clayton was recommended ("practically drafted") for the job by his predecessor Baron Brouillette.

Dr. Clayton feels that his job as county CD director answers a challenge which appeared in the Journal's October 1981 issue to the effect that survivalists become involved in organizing "the whole community, the whole county, state and nation . . . and make it an open civil defense program."

Mariposa County has a population of 11,000, but according to Clayton "boasts as many as 60,000 tourists per day visiting Yosemite National Park."

ASDA TAKES STOCK

The current CD picture leaves a lot to shake one's head about according to the American Strategic Defense Association's *ASDA Newsletter* for December 28.

Citing a 1982 CD budget that doesn't even take care of inflation ASDA bemoans the failure so far of the Administration to follow through on optimistic Reagan CD pronouncements.

As for FEMA the newsletter states:

"... A great deal of shifting of personnel occurred that was complicated by the consolidation of the agency into a new office building. Giuffrida brought in his own group of managers, all strangers to the staff. Many career people were assigned arbitrarily to new duties. Key civil defense functions were denuded of their experienced personnel and field activities found it difficult to perceive the intentions of the new management. One conse-

quence was a loss of cohesiveness as the staff sought to make the new arrangements work. Another was an alarming wave of retirements of key individuals. Thus, at year's end, it seems uncertain whether FEMA is really prepared to undertake the enhanced civil defense effort that the President has seemed to promise."

IN MAINE: SHELTER "TEAMWORK"

When Lt. Col. Cyr Pelletier retired from flying planes for the Air Force he moved to Bangor, Maine and promptly built a shelter in his suburban home. But the urban location bothered him; it was too close to Bangor International Airport. So he packed up and settled in remote western Maine "near the foot of Mt. Pleasant, past Moose Pond." Pelletier calls it "Maine's Bavaria" and, as in Bavaria, he manufactures and sells grandfather clocks.

But there's more to it than that: Pelletier has also built a shelter in his woodland retreat — a shelter for 30 people!

Why so many? It's the "team approach" Pelletier explains. He wants — and has — a whole community in miniature — nurses, police, communications, the works.

So far, he has sunk \$5,000 into his team shelter. "Best investment I ever made," he concludes.

ICE SHOW IN CHINESE SHELTER

AP reports that skaters dedicated a skating rink under Peking in one of the city's huge nuclear shelters beneath Ditan Park. Peking's shelter complex also features restaurants, hotels, warehouses, workshops, stores and a cinema.

The idea, of course, is replicated in other Chinese cities. Citizen survival in China is a high priority.

(SPOTLIGHT continued on page 27)

LETTERS

Editor, *Journal of Civil Defense*:

I just finished Mr. Herb Hardin's Grassroots Graffiti article about the survivalists' dilemma which was published in the October '81 issue of the *Journal of Civil Defense*...

First, I have no dilemmas. I am a survivalist, and all I can do is try to prepare to save myself. I am unable to prepare to save anybody else — I lack the resources and the co-operation required to do so. Mr. Hardin's discussion of the survivalists' enclave/morality/ethics law in a negative sense shows his bias. Merely because one wishes to survive, and then defend what his own efforts have brought him (a chance to live) from others who were improvident, who didn't prepare, he is a beast, a fiend, a barbarian. However, are barbarians actually more civilized than 'civilized' man? I sometimes think so.

Mr. Hardin's grand scheme of a nationwide CD-Survival network is wonderful in scope and grasp. Except for one thing. It won't work. Too many people won't respond to the call. Unless everyone is drafted into CD, it won't work. Volunteers are few and far between. I do not denigrate Mr. Hardin's vision — it's wonderful, and I wish it could somehow be made to work. But when CD is so short on money, manpower and public co-operation that it largely exists on paper, then it behooves every concerned person to start thinking in terms of 'Looking out for No. 1' and not about 'I am my brother's keeper.' I wish Mr. Hardin's plan could/would work. But under the present circumstances of massive apathy, indifference, willful blindness and ignorance, on the part of Government and the people

in general, it won't. It is time for "All who are able, save yourselves!"...

Marc V. Ridenour
Marshalltown, Iowa

Editor, *Journal of Civil Defense*:

Dr. Max Klinghoffer's triage series is an outstanding presentation of subject matter which is very difficult to cover in a simple and concise manner. Although I have had varied first aid training and have been a Red Cross multi-media course instructor, I have never had as complete an explanation of the nature, causes, and treatment of shock as that in installment No. 4, which I have just read.

Jay Johnson
Redlands, California

SHELTER AND SHELTER EQUIPMENT COMPANIES — USA

(The following list is prepared as a service to *Journal of Civil Defense* readers. It will be developed further and republished at appropriate intervals. The listing of a company implies no judgment or rating of that company. It would be appreciated by the Journal if information on shelter and shelter equipment companies not shown here could be submitted.)

SHELTER CONSTRUCTION COMPANIES

Amerbrit International Enterprises, Inc.
3436 Prairie Avenue
Miami Beach, FL 33140
305/538-3755

Biosphere Corporation
John Brodie, Pres.
Greenfield, NH 03047
603/547-2725

California Shelters
167 S. Walter Avenue
Newbury Park, CA 91360
805/498-8436

Nuclear Fallout & Bomb Shelter Supply & Construction Company
R.D. 1 Box 151
Muncy Valley, PA 17758
717/482-2104

Stormaster Shelter Company
7318 Ferguson Road
Dallas, Texas 75228
214/286-6844

TEMET USA, Inc.
P.O. Box 439
Great Falls, VA 22066
703/759-3926

Underground Homes
700 Masonic Bldg.
P.O. Box 1346
Portsmouth, Ohio 45662
614/354-7708

VENTILATORS/BLOWERS/FILTERS

Alara Engineering Group
Nuclear Power Outfitters
P.O. Box 84
Crystal Lake, IL 60014
815/455-3777

SI Outdoor Food & Equipment
16809 S. Central Ave.
Carson, CA 90746
213/532-4744

Nuclear Fallout & Bomb Shelter
(For address, see above)

Spec Air Inc.
13999 Goldmark Dr. Suite 401
Dallas, Texas 75240
214/644-6806

Survival Center
5555 Newton Falls Road
Ravenna, Ohio 44266
800/321-2900

TEMET USA, Inc.
(For address see left column)

BLAST DOORS & HATCHES

National Metals & Steel Corp.
P.O. Box 3406
Los Angeles, CA 90731
213/775-3321

Nuclear Fallout & Bomb Shelter
(For address see left column)

TEMET USA, Inc.
(For address see left column)

BLAST VALVES

Donn Corporation
1000 Crocker Avenue
Westlake, Ohio 44145
216/871-1000

TEMET USA, Inc.
(For address see left column)

SANITATION

ITT Jabsco-Marc Division
1485 Dale Way
Cosa Mesa, CA 92626
714/545-8251

Nuclear Fallout & Bomb Shelter
(For address see left column)

Thetford Corporation
P.O. Box 1285
Ann Arbor, Michigan 48106
313/769-6000

Wilcox-Crittendon
699 Middle Street
Middletown, CT 06457
203/632-2600

RADIATION DETECTORS

Dosimeter Corp. of America
P.O. Box 42377
Cincinnati, Ohio 45242
513/489-8100

Victoreen/Nuclear Association
100 Voice Road
Carle Place, NY 11514
516/741-6360

Survival Center
(For address see left column)

SHOCK AND VIBRATION MOUNTS

TEMET USA, Inc.
(For address see left column)

TOO GOOD TO FILE

"We have been told that the new administration has endorsed PD-41, but so far this administration, like its predecessor, has not joined the fight to secure funding that is sufficient to make the lofty goals of the document a reality . . .

— Congressman Ike Skelton

"I challenge the Reagan administration, and I believe this Congress will ultimately join in challenging the Reagan administration to build a prohuman, prosurvival, propopulation strategic policy that is the equal to its weaponry, its hardware, and its strategic offensive policy . . ."

— Congressman Newt Gingrich

"We must begin today to re-balance the strategic equation. How do you deter an attack unless you can convince an enemy that you will win the war that he is starting? I find it doubtful that anyone aware of the strategic imbalance believes we would fire any nuclear weapons if it meant the destruction of our society. Without a civil defense system that is precisely what it means."

— Congressman Donald J. Mitchell

"Mr. Speaker, the subject of civil defense looms larger each day and becomes important with each passing hour as the United States moves into 'the window of vulnerability' . . . Our only hope to change the pathetic situation as regards to civil defense in this country, is to change the basic public attitude that has been built up by our opinion makers that we are in for mutual assured destruction and that no one will survive, so why even discuss it. This attitude is the grossest nonsense of all time . . .

"As in the case of the infantry in World War I, we need to dig deeply into the earth and let that be our armor against a nuclear attack . . ."

— Congressman Larry McDonald

"... the Japanese cannot attack us in the Pacific without running the risk of a two-front war. The Japanese are too smart to run that risk."

— Admiral Husband Kimmel (Pacific Fleet Commander) on December 6, 1941.

DATELINE SHELTERS, U.K. INTRODUCE ONE OF EUROPE'S LEADING GRP SHELTERS TO USA

Dateline Ltd., of Kendal, England are introducing their 'Mini' 5 person and 7 person shelters to America.

Dateline are makers of up-market sports boats and are using GRP/Urethane foam sandwich technology to produce sophisticated shelters which meet the standards set by U.K. and European governments.

All three models are designed for use singly or linked into composite modular for community use. The shelters are dome-ended cylinders and give high strength and insulation. Protection factors are: — Blast, 30 psi; Residual fallout, PF 6600, Swiss ventilation systems are installed for protection against nuclear, chemical and biological attack.

European and Mid-East response to shelters now being installed is excellent and Dateline are looking for suitably experienced U.S. manufacturers in GRP to undertake production under license.

*All enquiries to:
Dateline Marine Limited,
Dockray Hall,
Kendal,
Cumbria, England.*

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UPCOMING

- Feb 1-5 Aircraft Crash and Mass Casualty Management, Arizona State U., Tempe, AZ. (Contact: Mr. Allen, 602/838-9072) — Reg. \$595.
- Feb 9-12 Third Annual Seminar on Hazardous Materials Safety — (Contact: HRAC, Seminar Reg. Desk, Metro Civil Defense, Floor 7M, Metro Courthouse, Nashville, TN 37201 or call Eric Foster, 615/259-6145)
- Feb 28-Mar 3 USCDC Mid Year Meeting, Washington, D.C. Shoreham Hotel (Info: J. Herbert Simpson, P.O. Box 370, Portsmouth, VA 23705 — 804/393-6532)
- Apr 19-22 National Hazardous Materials Spills Conference — Milwaukee Exposition & Convention Ctr., (Contact: Haz. Mat. Spill Conf. Hq., Suite 700, 1629 K St. N.W., Washington, DC 20006 — 202/296-8246)
- Apr 19-30 Crash Survival Investigation (Air) — Arizona State Univ. College of Engineering & Applied Sciences, Tempe, AZ (Contact: Robertson Research, P.O. Box 968, Tempe, AZ 85281 — 602/966-6690)
- Apr 21-25 Colorado '82 — 9th Annual EMT Assn. of Colorado, Inc. Conf. — (Contact: EMTAC, P.O. Box 97, Idledale, CO 80453)
- May 3-14 Crash Survival Investigation (Air) — Arizona State Univ. (see above)
- May 22 TACDA Board of Directors/membership meeting. Held at the National Emergency Training Center, Emmitsburg, MD (Contact: TACDA, PO Box 1057, Starke, FL 32091 — 904/964-5397)
- May 24-26 Brighton World CD Conference, Brighton, England (Contact: Michael Holihan, Ark Enterprises, PO Box 1164, Fairborn, OH 45324, 513/426-3517)
- Jun 6-11 American Nuclear Society Annual Meeting — Los Angeles (Contact: Gene Cramer, 213/572-2786)
- Jun 7-11 Tunnelling '82 — Brighton England, 3rd International Symposium. (Contact: The Institution of Mining & Metallurgy, 44 Portland Pl., London W1N 4BR, England)
- Jun 7-11 8th Annual Meeting of the International Tunnelling Assn., Brighton, England — (Contact: Sec.-General, ITA/AITES, 109 Av. Salvador Allende, 69672 Bron CEDEX, France — TELEX 37008 Cetelyon.)
- Jul 11-16 USCDC Region IV Conference, Nashville, TN (Contact: Hilary Lingner, Metro Nashville Davidson County, Division of CD, 7M Floor Metro Courthouse, Nashville, TN 37201)
- Jul 13-15 British Association of CD & Emergency Planning Officers, University of York (Contact: Eric Alley, 39 Meaux Road, Wawne, Hull HU7 5XD, England)
- Jul 25-28 2nd Joint American Society Mech. Engineers/American Nuclear Society Nuclear Conference, Portland, OR (Contact: Larry Oyen 55 E. Monroe, Chicago, IL 60603 — 312/269-2000)
- Oct 7-9 Annual TACDA Seminar, Wichita, Kansas (Contact: The American Civil Defense Assoc., PO Box 1057, Starke, FL 32091 — 904/964-5397)
- Oct 10-14 Annual USCDC Meeting, Portland, OR (Contact: J. Herbert Simpson, PO Box 370, Portsmouth, VA 23705 — 804/393-6532)
- Oct 20-24 EMERGENCY 82 (International Exhibition for Emergency Preparedness) — Geneva, Switzerland (Contact: Mack-Brooks Ltd., 62 Victoria St., St. Albans, England AL1 3XT.)
- Nov 14-19 American Nuclear Society Winter Meeting, Washington, DC (Contact: James Tulenko, PO Box 1260, Lynchburg, VA 24505 — 804/384-5111 x 3347)

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SPOTLIGHT (Continued from page 23)

KUDOS + CHALLENGES FOR FEMA

In its December 31 edition *Emergency Preparedness News* gives its year-end appraisal of FEMA:

"FEDERAL EMERGENCY MANAGEMENT AGENCY closes out calendar year 1981 with a new organizational structure and leadership cadre, an improved image and prospects for a number of new challenges. . . it has benefitted from excellent relations with the Reagan White House, due largely to the personal friendship between FEMA Director Louis Giuffrida and top Reagan aide Ed Meese. Still, the agency remains largely untested, but not for long.

"1982 WILL BE A YEAR OF CHALLENGES for Giuffrida and Co., particularly in the area of civil defense. CD advocates continue to press FEMA for a commitment to a multi-year multi-billion-dollar program aimed at protecting the American population from nuclear annihilation . . . At the heart of any expanded CD program will be the Emergency Mobilization Preparedness Board."

CITIZEN DEFENSE NO. 1 PRIORITY

Columnist Paul Scott reports: "The decline of American air defense capability began in the early 1960s under Defense Secretary McNamara, and has resulted today in less than 300 outdated US interceptor fighter planes, compared to 2,600 in the 1960s. Only 2 modern F-15 aircraft are currently assigned to the Air Defense Command.

"The US had over 1,000 surface-to-air missiles guarding our key military installations and cities from enemy bomber attack in the 1960s. Today we have none."

The *Daily News Digest* comments:

Someday, hopefully, someone in government will sit back, take a long look at US defense policies, and realize that the FIRST concern of a Defense Department is DEFENSE! If we accomplish nothing else but a reasonable defense system against enemy bombers and most of his ICBM's, then the Defense Department will have done its job.

Defense of US citizens and their property comes before huge standing armies (especially on foreign soil), vast navies in foreign waters, or never-to-be-kept "disarmament treaties!"

EDITORIAL . . .

"THAT'S ITALIAN"

During the deepening crisis of World War II, the story goes, a persistent nuclear scientist, Enrico Fermi, kept calling at a much-harassed military headquarters to alert officers to the idea of a new wierd weapon that, by splitting atoms, could theoretically wipe out a whole city. It was being worked on abroad, should be looked into by the U.S. — *and quickly!* Fermi's off-beat accent and appearance seemed to add up to something other than the brilliant scholar he really was. The story ends with orders going to the front office to "keep that crazy Wop out of our hair."

Fortunately, another scientist with an accent — Albert Einstein — got the message through to President Roosevelt.

The feeling of being rejected by the powers-that-be is not foreign to serious civil defense proponents. At the top echelons of government hierarchy there has been cultivated deep-seated reluctance to do much more than smile indulgently at those who would suggest that extending protection to targeted civilians is anything more than a joke.

And like Fermi some CD pioneers also have accents. Which can add to the problem or the comedy, whichever.

So it is with some real relief that two gentlemen from San Luis Obispo by the names of Giuffrida and Villella (who may be endowed with some ethnic understanding of Fermi's frustration and who are now in the drivers' seat at FEMA) appear to know that listening is as important as talking and give refreshing evidence of that conviction.

Take Villella — Fred J. Villella — who is director of the National Emergency Training Center. He attended The American Civil Defense Association's October seminar — where his boss, General Louis O. Giuffrida, gave a luncheon talk. And he graciously helped by conducting an exceptionally productive public information workshop with Eugene Wigner. And he took the trouble to write a letter which he mailed to each seminar participant. It read in part:

"... I was most impressed with the selection of speakers and the quality of the presentations . . . We are looking forward to working with you to make our mutual civil preparedness mission success-oriented for the future . . . We welcome the opportunity of exchanging ideas further with you . . ."

A strong, positive approach. At this point in time, however, it could possibly breed concern. For President Reagan too has provided a number of solid assurances that the day has now come for a realistic civil defense, e.g. his letter to TACDA. Even No. 1 aide Ed Meese, now chairman of the new Emergency Mobilization Preparedness Board, talks about the sobering effect a "massive U.S. civil defense program" would have on the Soviet Union.

All the right things have been said, are being said. The question is: "When will something of substance be done?"

It reminds us of Ben Bova's story (see review of his book, page 21) about the young wife of a dedicated engineer in the fledgling aerospace industry. At a medical checkup her doctor, to his amazement, discovers that she is a virgin. Wistfully, she says of her cloud-nine mate: "Every night he sits on the edge of the bed and tells me how good it's going to be."

On May 22nd, at the invitation of Mr. Villella, TACDA and friends meet at the National Emergency Training Center in Emmitsburg, Maryland. After years of disappointment they too are weary of being told how good civil defense is going to be. They see further bedside assurances as evasive, leading nowhere. If talk cannot now proceed to action they see the oft-repeated threat to "bury" the United States as imminent. As Congressman Donald J. Mitchell is wont to warn: "We are in trouble."

Perhaps it should be recalled that Enrico Fermi's assaults on the United States military finally paid off when, underneath the University of Chicago football stadium, he and his crew of scientists — in spite of all the handicaps — produced the first atomic chain reaction. Eugene Wigner, one of those scientists, on that occasion promptly uncorked a bottle of Chianti, and those present toasted the reactor's success.

Fermi went to his reward 30 years ago, but Wigner is still very much with us and will in fact be at the May 22nd TACDA meeting. It would be good if at that meeting new and powerful civil defense developments were to inspire him — permit him — to break open another bottle of Chianti.

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