NOVEMBER–DECEMBER 1977 VOL. X NO. 6

Journal of Civil Defense

TOMORROW'S MIRACLE?

Journal of Civil Defense

NOVEMBER–DECEMBER 1977 – Volume X - Number 6

COVER – Johnstown Flood - One of a series of natural disasters that have occured recently in the Unites States.

PAGE 4 – Capital Commentary by Jerry Strope. House Committee advises Tirana the Administration had better come up with a positive civil defense policy.

PAGE 5 – Civil Defense Abroad – A look at hospital shelter planning in Switzerland. and Five Years Ago — Highlights of Chinese tunnel shelter system.

PAGE 6 – Who Said "Natural Disaster?" – Editor Walter Murphey argues that there can be no separation of wartime and peacetime disaster preparedness.

PAGE 7 – "The Necessity for a Civil Defense Program." by Congressman G. William Whitehurst – an in-depth look at the consequences of Nuclear War with the USSR.

PAGE 11 – Countdown by Herb Johnson – Is the United States Arms Control and Disarmament Agency trading away what little civil defense this country has?

PAGE 12 – Over the Iron Curtain – Ruby Thurmer discusses Soviet Civil Defense as a well organized nationwide activity.

PAGE 13 – Question and Answer Corner.

PAGE 14 – METTAG: Tomorrow's Miracle? by Kevin Kilpatrick. Facts, Figures, testamonials and prices of the international triage tag.

PAGE 16 – What Happened at Long Beach? Report of the recent USCDC meeting by Walmer E. Strope.

PAGE 18 – Remember Civil Defense? – Contributing Editor Jack Conway looks back at civil defense over past administrations.

PAGE 21 - Book Reviews - Two recent publications are examined by R. F. Blodgett and B. A. Fleming, Lt. Col. (USAR).

PAGE 22-23 – Spotlight - Notes on issues, analyses of civil defense and the new look of the Journal.

PAGE 14 - Atoms, Arms and Apathy – an interview with Dr. Eugene P. Wigner by Earl T. Tildon.

PAGE 28 – Emergency Operation Simulation by Christopher Fey – a look at a recent EOS in Alachua County, Florida.

PAGE 29 – Too Good To File – Special selection of notes from around the globe.

The "Journal of Civil Defense" is published bimonthly by the American Civil Defense Association, Address: Journal of Civil Defense, P.O. Box 910, Starke, Fl. 32091. Subscription: One Year–$12, two years–$22. Phone (904) 964-5397.

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

Authors are encouraged to submit manuscripts for consideration by the editorial committee for publication (the "Journal", as a non-profit organization, pays no fees). Articles, preferably illustrated, should be 500 to 1,200 words in length, slanted to the non-technical reader, and oriented toward the civil defense field. Views expressed in contributions to the "Journal" are those of the authors and do not necessarily reflect "Journal" policy.

CAPITAL COMMENTARY

by Jerry Strope

Overview of What?

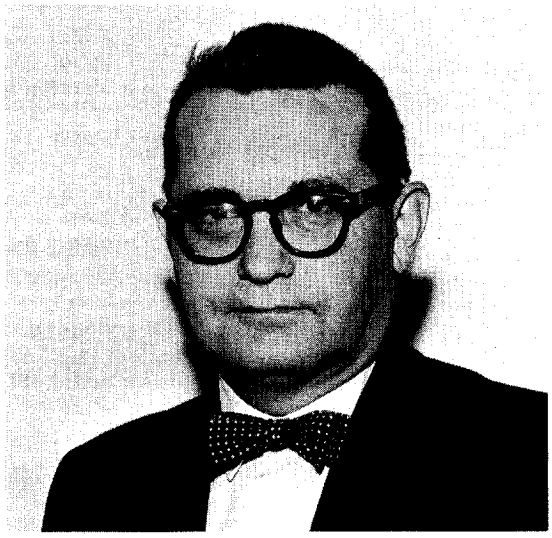
Without any fanfare whatsoever, the Armed Services Committees of both houses of Congress held hearings on civil defense in early October. Both hearings were labeled "overview" hearings but little, apparently, was found to view.

The House hearings were connected with the consideration of legislation – a bill introduced by Jack Brinkley (D-Ga.). Brinkley, a lawyer and former Air Force pilot, chaired a Special Subcommittee on Civil Defense in the 92nd Congress. Key features of the Brinkley bill are a reaffirmation of the "dual-use" policy linking nuclear defense to peacetime disaster preparedness, a change from the present 50-50 matching funds arrangement to one in which the Federal Government would pay most of the cost of State and local civil defense staff and activities, and a generally larger role for the Federal Government.

The principal witness before the House subcommittee was Bardyl Tirana, Director of DCPA, representing the Carter Administration. Right away, the chairman, Lucien Nedzi (D-Mich), and the outspoken Republican member, G. William Whitehurst (who is a contributor to this issue of the Journal), ran into difficulties. Tirana said that the Administration had no position on the pending legislation and, indeed, no civil defense policy. All this plus the question of whether the primary emergency planning agencies – Defense Civil Preparedness Agency, Federal Preparedness Agency , and the Federal Disaster Assistance Agency – should be combined or otherwise reorganized was, he said, under study at the President's direction. Recommendations were due sometime in March of next year. Try as they might, the subcommittee members were unsuccessful in getting Tirana to give any clues as to the direction the Administration might take, which led Rep. Charles Wilson (D-Cal) to question whether Tirana was not being muzzled by Secretary of Defense Harold Brown.

Finally, the frustrated subcommittee agreed to delay action on the Brinkley bill until next March when the Carter civil defense policy could be inspected. But the Congressmen were in a no-nonsense mood. Tirana was advised that the Administration had better come up with a positive civil defense policy and program to match by next March or else. "If you don't do it, we're going to do it" was the committee's warning.

In the Senate, the hearings were held by Senator John C. Culver (D-Iowa) and Tirana and his staff were the chief witnesses once more. Tirana had flown back from the USCDC conference at Long Beach for the hearings. He could have stayed there for all the help he was to Senator Culver. The DoD restraints on Tirana were increasingly evident. Among other things, he was not permitted to discuss strategic matters or Soviet civil defense. A general officer from the Office of the Secretary was provided for this purpose but he was found to be unfamiliar with the field and poorly briefed. Culver, who was alone, asked many, many questions designed to find out what, if anything, was being done about the low estate of civil defense in the United States. He found that very little was going on; that DCPA was in a "holding pattern" until the Administration made up its mind on the subject. He, too, vowed to reconvene his subcommittee in March for a real overview.



New SALT Agreement?

As we go to press, all indications are that SALT negotiators in Geneva will come up with a SALT II agreement by Thanksgiving. The general outlines of the proposed treaty have been leaked over the past month. About 2200 strategic missiles and bombers would be allowed each side, 1320 of which could be equipped with multiple independently-targetable reentry vehicles (MIRVs). Of the latter, 1200 can be on land- and sea-based missiles. Moreover, each side will be limited to 820 land-based missiles with multiple warheads.

The treaty is intended to remain in effect until 1985. Protocols will be attached covering the cruise missile, the Backfire bomber, and flight testing of new missiles. A statement of principles accompanying the treaty and protocols will announce the joint intention to negotiate further substantial, mutual reductions in strategic weapons by 1980.

The treaty is said to have a 50-50 chance of approval by the United States Senate. □

CIVIL DEFENSE ABROAD

From "An Alternate World, Underground: The Swiss Civil Defense Program," a feature article on Page 1 of *The Wall Street Journal* (October 17, 1977) describing the Ostermundigen school-hospital shelter complex.

The hospital is the most elaborate feature, and perhaps the eeriest; in a labyrinth of wards, there are seemingly endless rows of double-decker beds, each with a thin olive drab mattress, neatly folded brown blanket with a red stripe, shiny aluminum chart holder and zipper bag for personal toilet articles – all empty, and waiting – reminiscent, somehow, of a well-kept military cemetery.

Each bunk is set in a cream-colored tubular metal frame, bolted down so that shock waves from, say, a second nuclear blast, wouldn't topple victims of a first one to the thick concrete floor. A special hand-cranked forklift truck can ease each mattress out of the frame, for moving a patient to the intensive-care unit or the operating room.

Many Regular Hospitals have been ordered to Duplicate themselves Underground . . .

It, too, is ready for anything, with surgical masks and instruments at hand, and a third electrical system to keep the powerful light over the operating table going if both outside and central shelter power fails. Nearby are offices for two doctors, nurses' quarters (with distinctive plaid pillows), sterilizing equipment, stockpiles of bandages, medicines, oxygen and anesthetic gas cylinders, a pharmacy, kitchen, laundry, and a morgue.

The hospital, built along with the school two years ago, isn't a rarity. Many regular hospitals have been ordered to duplicate themselves below ground, and, to provide practical experience, some willing patients already have undergone operations underground. By the time the program is complete, the authorities intend to have 150,000 subterranean hospital beds – a staggering total nearly four times the 40,000 beds in conventional Swiss hospitals now.

Officials admit that that may sound like overkill, conceding also that the program helps the construction business and supports a mini-industry in specialized shelter accessories (in scattered stockpiles, there already is a gas mask for every man, woman and child). But they counter that modern wars are getting harder on civilians; while there was only one civilian death for each 20 soldiers killed in World War 1, the ratio swung to 13 civilians for each soldier dead in Vietnam, they say, estimating a 100 to one ratio in a nuclear war.□

5 Years Ago In The Journal of Civil Defense

The following appeared on the cover of the *Journal's* November-December issue in 1972 superimposed on a drawing of a Chinese urban tunnel-shelter system:

"One morning in Peking they told us they wanted to show us some tunnels. Now who wants to see tunnels when you are in Peking? We said, 'Well, wouldn't it be nice if we could go out to the countryside and see a commune?' And they said, 'No, no, you really must see these tunnels.' So they took us to the busiest marketing section of Peking and into a large department store. And on one counter they pressed a button: the counter rolled away, and we saw steps leading down. We went down about eight meters, about 28 feet, and found tunnels, all right – well-built, brick and concrete tunnels, miles and miles of them. The entire city of Peking, they told us, has tunnels under it, with an entrance from every department store, every apartment building, every residence.

"Inside the tunnels we saw kitchens, running water, sanitary facilities, food storage, medical facilities, all ready for use. In the event of a nuclear attack, they said, Peking's 7 million people can be safe in the tunnels in seven minutes, and can walk through them to 20 miles outside of the city. And they told us that, since 1968, every major city in China has had similar tunnels built. So whenever we went to another city, we asked to see the tunnels – and they were there . . ."

– from an interview with Political Scientist Dr. Ishwer Ojha published in April 1972 issue of *Bostonia,* Boston University Alumni magazine.

UPCOMING

Nov. 27 – Dec. 2	American Nuclear Society Winter Meeting, San Francisco
Mar. 12-15	USCDC Mid-Year Conference, Washington, DC
May 18-20	Region IV USCDC Conference, Racine, WI
Jun. 19-21	Region VI USCDC Conference, Livingston, MT
Oct. 8-13	USCDC Annual Conference, Mobile, AL

EDITORIAL

WHO SAID "NATURAL DISASTER"?

Every so often Potomac pundits field the proposition that civil defense must limit its activities strictly to the nuclear attack threat and surgically divorce its operations from the natural disaster scene.

It's a recurrent type of desk-top jogging. And in the heady atmosphere of Washington it may well appear that there is a compelling logic to such an approach, that a neat separation of wartime and peacetime disaster preparedness makes for efficiency, effectiveness and economy.

Hogwash! And of a right dangerous sort.

At the grass-roots level nothing is more obvious than the fact that no such looney division will work. In a natural disaster or major accident situation for a civil defense director to tell his local government bosses that civil defense personnel, facilities, equipment and supplies (or any portion of them) could not be used to cope with the emergency would be prompt and total professional suicide.

In major natural disasters help is also required from state and federal civil defense levels. And it is forthcoming because:

- it is humane to mitigate suffering by using *all* available tools and *all* available expertise
- peacetime disasters afford opportunities to use and test civil defense procedures, shake them down.

As basic, valid and valuable as this dual-use concept is, however, it must not lead us to a false conclusion that preparation for natural disaster will automatically gear us for nuclear.

No way. Nuclear disaster preparedness is another animal. A recent General Accounting Office civil defense study observes:

> " . . . the dedication of civil defense personnel to localized disaster preparedness will not suffice for, and can dilute attention to, the more difficult and demanding preparedness for enemy attack . . . "

It should also be emphasized that this "more difficult" preparation for wartime disaster does generally provide very good preparedness for peacetime disaster.

And it should follow from this that in aiming for a superior all-around safety for the country the accepted principle of protecting government and military leaders and staffs with several thousand fortified bunkers and emergency operations centers now functioning across the nation must now be extended to the *people.*

That would be a huge across-the board disaster preparedness plus. It would lead to the saving of thousands of additional lives in natural disasters. And millions in the event of a nuclear disaster.

Giving American taxpayers the grisly role of "nuclear hostages" by denying them government-planned and government-regulated protective measures while using large chunks of taxpayer loot to provide sophisticated protection for leadership is shameful.

Hogwash. *The* most dangerous kind.

What permits the hostage concept to persist is a public ignorance of it, a reluctance to turn from expanding hedonistic hangups to a cold and unglamorous consideration of survival and the "unthinkable." And secondly, an Administration reluctance to face the protection problem (except for leadership), to profit from top-drawer analyses of it, to speak out on it, and to act on it.

It boils down to a monumental cop-out.

* * * *

Relating nuclear and natural disaster preparation requires no ivy intellect. Grassroots insistance that civil defense be used for peacetime disaster purposes prevented the implementation of the cloud-nine "nuclear only" role for civil defense.

And it should be duly noted that DCPA Director Bardyl Tirana has seen clearly the dual-purpose mission of civil defense and has been vocal in his support of it. (From our corner a subdued "bravo.")

It should further be noted that Congressional civil defense subcommittees (in the House and in the Senate) have lost patience with the Administration's civil defense "holding pattern." They want Administration action or they intend to take action themselves.

Capitol Hill needs to be encouraged, congratulated. The issue needs to be kept burning. As Congressman Robert H. Michel said a few days ago in the House of Representatives: "One of the most important parts of the legislative process is constituent letters . . . "

With this kind of fuel from the grass roots civil defense — *real* civil defense — may yet surface. □

The Necessity for a CIVIL DEFENSE PROGRAM

by CONGRESSMAN G. WILLIAM WHITEHURST

Congressman G. William Whitehurst represents the 2nd U. S. Congressional District of Virginia — the Norfolk area. His courageous stand for a civil defense that will provide the American people with the protection required to make them unrewarding nuclear targets is becoming legend.

Earlier this year General George Brown, the Chairman of the Joint Chiefs of Staff (JCS), wrote that the Soviet civil defense program is "more extensive and better developed than it appeared to be several years ago." Further, according to the Joint Chiefs of Staff:

Under optimum conditions, which include a period of warning prior to an unrestrained U.S. attack and successful evacuation and other preparations, Soviet civil defense measures could probably: (1) assure survival of a large percentage of the leadership necessary to maintain control, (2) reduce prompt casualties among the urban population to a small percentage, and (3) give the Soviets a good chance of being able to distribute at least a subsistence level of supplies to the surviving population, although the economy as a whole would experience serious difficulties.

The Soviet civil defense program, of course, runs contrary to the many myths and mistaken beliefs in this country concerning actual U.S.-Soviet strategic capabilities and the Soviet Union's view of power as a means to achieve political objectives. Most importantly, however, an effective and sustained Soviet civil defense program assumes importance because of its potential implications for U. S. National security and strategic deterrence doctrine — a doctrine which forms the basis for what we believe is necessary to maintain strategic stability, and a doctrine which rests on the premise that the United States has the capability to inflict "unacceptable" levels of damage on the Soviet Union, even after absorbing a major attack against U. S. strategic forces. To the extent the United States either lacks such a capability, or the Soviet Union can neutralize that U. S. capability, to that extent the credibility of the U. S. strategic posture may be in doubt and strategic stability undermined.

In a letter to Senator William Proxmire on this subject, the Joint Chiefs of Staff expressed their belief that while the "available evidence suggests the USSR is engaged in a program to achieve (military) superiority (over the United States) they have not (yet) attained this goal." However, the JCS also stated that "the recent U. S. and Soviet trends in military programs and civil defense could permit the USSR to attain superiority." In particular, according to the JCS, "an increasingly effective Soviet civil defense program could reduce the U. S. capability to achieve (the damage criteria prescribed and considered necessary to achieve U. S. objectives today)." Therefore, for the U. S. to continue to be able to meet its national strategic objec-

tives, the JCS stated their belief that it would be necessary for the U. S. to continue with its current and projected weapons acquisition programs, although they also recognized "that improvements to and expansion of Soviet civil defense programs concerned with dispersing and hardening industrial capability and protecting political and military leadership could require changes in (U. S.) policies and programs."

U. S. Security at Risk

Since the Joint Chiefs made these comments we have, of course, seen President Carter recommend the cancellation of the B-1 and Minuteman III production, oppose a Minuteman II modernization program, and slow down the MX program. The cancellation of these programs would not be important if the United States really did possess either a credible assured retaliatory capability or a vast "overkill"– a useless excess of capability – in strategic capabilities. There are many ways to define or characterize U. S. strategic capabilities, and overkill – which has as its basis an overly simplistic logic – is not one of them. Unfortunately, to the extent that the belief in "overkill" fosters illusions or mistaken complacency about U. S. strategic capabilities it is a dangerous myth of potentially serious consequences to U. S. national security.

Let us for a moment look at actual U. S. strategic capabilities, based on the fundamental requirement of U. S. deterrence doctrine which stipulates that the United States be able to absorb a Soviet first strike against its strategic forces and still be able to retaliate so that we could defeat the aggressor and prevent him from dominating the post war environment.

It is, of course, too horrible to contemplate the consequences of a nuclear war, but we must remember that only if we realistically assess the threats and requirement we face as a nation – only then will we have the proper basis from which to develop adequate policies and capabilities which will enable us to maintain peace and avert war.

"AVAILABLE EVIDENCE SUGGESTS THE USSR IS ENGAGED IN A PROGRAM TO ACHIEVE MILITARY SUPERIORITY OVER THE UNITED STATES"

Effect of U. S. Retaliation

A variety of studies on the feasibility of Soviet civil defenses, including government and non-government studies, have produced remarkably similar conclusions. In brief, as testimony before the House Armed Services Committee earlier this year revealed, U. S. strategic retaliatory forces (those forces most likely to survive a Soviet first strike) could cover unprotected people and industrial installations in a total area equal to about three percent of the Soviet Union. If we designed our retaliatory attack to cover as much territory as possible, we could spread enough radioactive fallout to cause illness and fatalities among unprotected people in about fifteen percent of the Soviet Union.

Looking at the Soviet civil defense program, if the Soviets were simply to evacuate and disperse from their cities by walking – say a maximum of twenty miles (and a mean of ten miles) – the majority of the Soviet population would be in an area in excess of 1 million square miles. If these 200 million Russians, dispersed over 1 million square miles, build the easily-constructed shelters (of say 30 PSI) they are supposed to, U. S. weapons (5,000 weapons of 50 KT and 2,000 weapons of 200 KT) ground burst would probably result in some 1.4 million Soviet fatalities from blast. If the shelters failed at 5 PSI and the weapons were burst at optimum height, fatalities would be about 16.1 million.

"CIVIL DEFENSE – IT'S HUMANE; IT SAVES DOLLARS; IT MAKES SENSE."

Taking another perspective, assuming a 1985 Soviet population of 280 million, and without any civil defense preparations, the U. S. retaliatory force (assuming a total megatonnage near 2,000) could probably kill about 98 million Russians (35 percent) in an industrial attack, or 149 million (53 percent) in a population attack. Assuming complete Soviet civil defense population dispersal, shelter protection of 25 PSI (with a radiation factor of 200) under the same scenario, it is estimated that 3.9 million to 5 million Russians would be killed (1.5 percent to 2 percent), depending on whether it was a population or industrial attack; if the shelters failed at 7 PSI, it is estimated that approximately 10.3 million (4 percent) fatalities would result.

Under the same scenario, if the U. S. wanted to inflict some 20 percent population fatalities, using all surviving weapons against Soviet population, we would have to increase our weapons on the order of six times for 7 PSI shelters, and some 30 times for 25 PSI shelters.

Russian Winter: A Russian Weapon

Even the Russian winter, which so many skeptics of the Soviet civil defense program cite as definitive evidence as to why a Soviet civil defense program cannot work, is based more on hope than substance, as any review of Russian history will all too readily illustrate. In particular, some of the major campaigns of World War II in the Soviet Union lasted through severe Russian winters including 1941-42 (west of Moscow), 1942-43 (west of Stalingrad) and 1943-44 (in the Ukraine). Further, under extremely severe winter conditions in 1941, with the added turmoil of a Nazi invasion, the Russians evacuated not only their people but over a thousand industrial complexes.

On the subject of Soviet winter evacuation, a recent Stanford Research Institute study came to the conclusion that the Soviets could successfully evacuate their urban centers on all but a few days each year – the exact figure is classified, but is so low that it essentially is insignificant. This SRI study also noted that in some respects evacuation

is facilitated by winter conditions. Evacuees can walk across frozen rivers more quickly than they can cross the bridges that would create "choke points" in warmer weather.

Some, of course, will argue that U. S. deterrence policy should not be based on the threat of the destruction of people, but rather the adversary's war-making capability. and economic resources. It is interesting, therefore, to note that if we assumed a Soviet industrial base hardening of 15 PSI, U. S. retaliatory forces might be able to cover as much territory as the state of Indiana. Thirty to fifty PSI hardness can be accomplished merely by protecting industrial equipment with sand bags or covering such equipment with layers of earth. For the U. S. still to be able to meet prescribed levels of destruction we would have to increase the warheads in U. S. retaliatory forces many times over present levels.

Soviet Civil Defense

The various analyses done on the subject of civil defense fail to identify any achilles heel which would stop Soviet "recovery." These studies have looked at refineries, electric power, food production, etc., and have come to the conclusion that while Soviet recovery could be seriously disrupted if present U. S.-Soviet strategic trends continue, it does not appear possible that following a U. S.-Soviet strategic exchange (with the imbalance of civil defense in favor of the Soviet Union) that the U. S. could "retard significantly the ability of the USSR to recover from a nuclear exchange and regain the status of a 20th century military and industrial power more rapidly than the United States," and hence the U. S. would probably not be able to prevent the Soviet Union from dominating the post-war environment.

If it were true that neither nation could hope to survive a nuclear exchange, there would be little reason for concern over who might control the post-war environment. However, if the Soviets face the prospect of losing less population than they did in World War II, or less than they destroyed themselves for political reasons, at some point in the future the Soviets might well be prepared to risk such a conflict – especially since it would only be a risk on their part. If present strategic trends are allowed to continue unchecked, the U. S. might well confront a so-called Cuban-missile crisis in reverse. Indeed, it is in this context that Soviet civil defense is of particular concern. The Soviets, like the U. S., I am sure, will do everything possible to avoid a nuclear war. However, if the Soviet offensive strategic capability provides them with the opportunity to neutralize major elements of U. S. strategic forces, while using only a small portion of their own, they could retain large reserve forces to deter the U. S. from using its deterrent forces in response, a potential problem which was noted in the fiscal year 1977 Annual Defense Department Report. Further, in the event the U. S. were to respond to a Soviet attack, the Soviet civil defenses could potentially limit the damage to a level the Soviets might be prepared to tolerate– certainly to a level far less than commonly perceived by most people. In such a strategic environment the likelihood of accidental or miscalculated conflict might well be increased.

Why a Better U.S. Civil Defense?

The primary arguments against a U. S. civil defense program are usually based on the mistaken belief that a civil defense program cannot be effective, or on the belief that it would be destabilizing. The latter position is based on the rationale underlying one element of U. S. strategic deterrence doctrine which holds to the theory that the "mutual vulnerability" of U. S. – Soviet societies provides the basis for deterrence. To the extent this principle was ever true, the Soviets seem determined not to accept this principle. Instead, the Soviets seem prepared to do everything possible to protect their people and society from the consequences of an accidental or calculated nuclear exchange. In short, the Soviets seem quite legally to have circumvented the guarantees sought by the U. S. in the ABM Treaty – a treaty heralded as an indication of Soviet acceptance of the "mutual vulnerability" doctrine.

In testimony before Congress last year on the subject of civil defense, a witness observed that the Soviet war survival capabilities make it imperative that the United States make some critically important policy decisions:

We can choose to try to make nuclear war as unthinkable for Russia as it now is for the United States, or we can try to make it as survivable for the United States as it now is for Russia.

The Administration's recommendations concerning future U. S. strategic programs make it clear that it will not be U. S. policy to try to overpower Soviet civil defenses -- if, indeed, that could be accomplished. While it is of critical importance that the U. S. maintain a strategic force posture capable of meeting present U. S. targeting objectives and requirements, it also makes sense that the people of the United States be no less prepared to survive the "unthinkable" should it ever occur than their Soviet counterparts. Moreover, a prudent and balanced strategic policy would permit the U. S. to maintain its security for less cost and with less nuclear weaponry than a policy that attempted to redress the strategic imbalance with an increase in weaponry alone. Indeed, in a world that seems to be moving forward under proliferation, a U. S. civil defense program could result in millions of lives being saved were a nuclear weapon ever to be accidentally launched. The cost of such a program would be relatively insignificant compared to what we spend on other defense programs, and we would be spending money to save lives not destroy them. Moreover, any civil defense program that is designed to protect society from the possible consequences of a nuclear war would provide additional benefits, including improved capabilities in dealing effectively with natural disasters and large scale emergencies and accidents. There is no need for the U. S. to try to mirror image the Soviet civil defense program. On the other hand, it should also be apparent that the time has come for the United States to devise and integrate a civil defense program that can meet our national requirements and objectives. As a colleague recently observed: Civil defense -- it's humane; it saves dollars; it makes sense. □

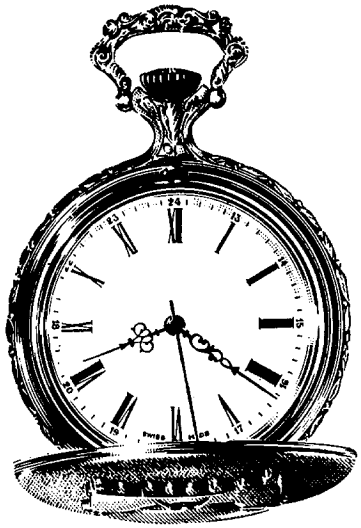
USSR Nuclear War Fatality Estimates

Derived From a Recent Analysis by T. K. Jones, Boeing Aerospace Company

Based on: (1) 1985 Nuclear Conflict
(2) Soviet 1985 population of 280,000,000

U.S.A. NUCLEAR RESPONSE CAPABILITY (MT = Megatons)	U.S.S.R. CIVIL DEFENSE CAPABILITY	TYPE OF ATTACK	U.S.S.R. FATALITIES
2,000 MT	Not Used	Industrial	98,000,000
2,000 MT	Not Used	Population	149,000,000
2,000 MT	Population Dispersal 25 psi Blast Shelter	Industrial	3,900,000
2,000 MT	Population Dispersal 25 psi Blast Shelter	Population	5,000,000
... and with greatly increased U.S.A. nuclear response capability:			
12,000 MT*	Population Dispersal 7 psi Blast Shelter	Population	56,000,000
60,000 MT*	Population Dispersal 25 psi Blast Shelter	Population	56,000,000

*Current U.S.A. nuclear weapons planning shows no indication of nuclear response capability above 2,000 MT.



COUNTDOWN

- by Herb Johnson

Curtailing civil defense is the objective of the last of eight major topics for discussion with the USSR in future SALT talks. And in this light the acronym SALT should really stand for "Since All's Lost Talks" or "Sellout of Anything Left Talks."

The United States Arms Control and Disarmament Agency (USACDA) represents us in these talks. Their stated purpose is to "place constraints on civil defense insofar as it would affect the strategic balance between the two countries."

MY LORD! What further constraints could possibly be applied to civil defense in this country? The present nuclear preparedness program is minimal at best. To place "constraints" on that program would be to destroy it completely vis-à-vis Soviet all-out civil defense development.

The fact that there is an agency (USACDA) in the business of trading civil defense away makes the past few decling years of civil defense in this country seem more understandable. For the elimination or curtailment of program after program — which we did not understand at the time — is now quite logical. When Congress wants to appropriate additional money for civil defense and DCPA says it doesn't want it and can't use it, and the White House talks of "constraints," what are we doing if we are not, with our eyes wide open, playing into the hands of the Russians?

If USACDA is willing to trade away what little civil defense this country has, it makes you wonder just how far in all respects it will go to buy off the Russian bear.☐

OVER THE IRON CURTAIN*

by RUBY N. THURMER

Solar and Special Studies Section
Energy Division
Oak Ridge National Laboratory

Soviet civil defense is now a well-organized nationwide activity. Training has been conducted at schools, plants, factories, offices, etc., for many years. This training has evolved from lectures and slide shows to the practical exercises required today, where entire cities participate in civil defense days in order to prepare both the workers at these installations and the people who live in nearby communities to take part in shelter occupancy, evacuation and dispersal, rescue and restoration work, and various other civil defense activities. In recent months, it has become apparent that a refining of the training process is now taking place. More emphasis is being placed on specialized training within the organization for specific groups, e.g., medical teams, food services, rescue and restoration teams, reconnaissance teams, and fire-fighters.

In our last column, we reported on improvements in the medical services of civil defense. We have recent reports of special efforts to upgrade the efficiency of the personnel of civil defense fire-fighting services. Various means of accomplishing this task in the Ukranian SSR were reported.[1]

"Personnel of the civil defense fire-fighting services of the oblasts in the Ukraine are working hard to find ways further to increase proficiency and tactical skills. Various work forms and methods are being employed more effectively. Fire-fighting equipment has become more sophisticated. All this has made it possible substantially to increase the preparedness of plant, kolkhoz and sovkhoz fire-fighting units. . . .

"Successful performance of fire-fighting measures is also promoted by a businesslike relationship between the fire-fighting service, oblast and rayon civil defense courses. Headquarters and fire-fighting service management team personnel regularly present lectures at courses for directors of enterprises, kolkhozes, engineers, technicians, kolkhoz chairmen and sovkhoz directors, and conduct classes with them on important fire protection topics . . . .

"An important place in high-quality training of civil defense fire-fighting service . . . is assigned . . . to sports activities and competitions. One can often hear sirens wailing at the stadium . . . This means that competitions among industrial enterprise and kolkhoz civil defense fire-fighting units have begun."

A new Soviet Civil Defense textbook for students of the higher educational institutions has been published in Moscow.[2] It is entitled GRAZHDANSKAYA OBORONA by P. T. Yegorov, I. A. Sklyakov, and N. I. Alabin. This 1977 edition presents basic trends in work on increasing the stability of national economic enterprises as well as of control, material-technical supply, and public utility and power systems. A large list of organizational and technical engineering measures and decisions which contribute to this is presented. In addition, the authors *dwell in detail* on the aggressive nature of imperialism and stress the necessity to conduct constant work on the military-patriotic upbringing of the Soviet people. The various methods of moral-political and psychological training in the civil defense system and at national economy installations are analyzed.

Reports coming from the People's Republic of China indicate that the Chinese are continuing to improve their defense capabilities. From a *Kiamgsi Daily* editorial, a Nanchang broadcast on July 6, 1977[3] states:

". . . the masses of cadres and people on the provincial air defense front continue to persevere in making preparations against war and in digging tunnels."

****

REFERENCES

1. B. Simakov, "Experience of the Volhynians," Moscow VOYENNYYE ZNANIYA in Russian, No. 6, June 77, p. 19 as reported in TRANSLATIONS ON USSR MILITARY AFFAIRS, No. 1297, JPRS 69721, Sept. 1, 1977.
2. Review by V. Yukhinmenko, Moscow VOYENNYYE ZNANIYA in Russian, No. 4, April 1977.
3. DAILY REPORT, PEOPLE'S REPUBLIC OF CHINA, FBIS-CHI-77-133, 12 July 1977, Vol. No. 133, p G8.

* Research sponsored by the Energy Research and Development Administration under contract with the Union Carbide Corporation.

Question and Answer CORNER

Q - The neutron bomb a weapon for peace? Come again. How can a "formidable" weapon such as this promote peace?

A - Defensive troops, who can dig in and protect themselves, are not as vulnerable as troops in an offensive situation, who have to be moving and therefore must be exposed. In an offensive situation even civilians remaining in or near a target area need not normally be exposed – they are usually in hiding. Shelter of the required density and thickness can protect them – usually without the heavy reinforcement needed to protect against high blast effects. The neutron bomb, therefore, is a weapon primarily effective against *attacking* troops, and for this reason works to *discourage* attack. Loud and clear it says: "Let the aggressor beware."

Q - What's to stop the Russians from getting the neutron bomb? Then where are we?

A - Should a weapon keyed to *defense* in the hands of the Soviets worry seriously a nation (the United States) which does not intend to *attack?* In the American Security Council's *Washington Report* for September General Ed Black summarized the neutron bomb's "ABC's" as follows:

"It is not a new weapon. It was first tested in 1963.

"It is not an exclusive U. S. weapon. The Russians understand the principles involved and may have already incorporated it in their nuclear arsenal.

"Its primary role is not to kill civilians while leaving the buildings standing. Its purpose is to serve as the most effective anti-tank weapon available for the defense of Western Europe."

Q - The American Civil Defense Association (ACDA) was "introduced" at the USCDC conference in Long Beach, and the idea was apparently most favorably received by the local directors. I have two questions: (1) What are ACDA's objectives? (2) How does ACDA relate to USCDC aims and actions?

A - (1) ACDA's objectives are spelled out on pages 16 and 17 of the September-October issue of the *Journal of Civil Defense,* and there is further input on the back cover of this issue. Briefly, ACDA aims directly at involving the American citizen in the problems of homeland defense – *his* defense. (2) ACDA, principally through the *Journal of Civil Defense,* has for years thrown its support unreservedly behind USCDC (United States Civil Defense Council), and to NASDPD (National Association of Disaster Preparedness Directors). With the building of its new image and new role ACDA intends to reinforce this concept with a strong public relations campaign. This is already well in motion and succeeding beyond expectations. Providing local civil defense directors with private citizens interested in civil defense, for instance, should be a real bonanza. The goal of public education in civil defense requirements is a common one to be sure. And informed public support will bring realistic civil defense developments into line.

Q - It is my understanding that no charge is made to the locality or to the people for the "Family Survival Handbook." How, then, is it financed?

A - The "Family Survival Handbook," now being offered by ACDA, is financed solely by local advertisers and individual sponsors with patriotic leanings. All copies of the handbook are distributed free. (Further information may be obtained by writing: Community Survival Handbooks, American Civil Defense Association, Suite 100D, 1441 N.W. 6th St., Gainesville, FL 32601.)

Q - How many local emergency operating centers (EOCs) are there in the U. S. with built-in protection against nuclear weapons effects?

A - Better than 4,000. In addition to these, of course, are the EOCs at the state level. In further addition are federal emergency installations, most of which are much more sophisticated and include blast and fire protection.

Q - Will the *Journal of Civil Defense* ever become a monthly magazine now that you are retooling it?

A - This is a principal objective of *Journal* programming, and plans for it are gradually crystallizing. A monthly publication schedule may come about some time in 1978. We fervently hope so. With anticipated support from the grass roots that hope will become a certainty. □

METTAG: Tomorrow's Miracle ?

by Kevin Kilpatrick

A disaster landscape is a scene of chaos. Initially there is disbelief, then the intrusion of suffering – of cold, heat, rain, thirst, pain, blood, fright, death. A reaching for help.

Chaos reigns until that help arrives. And when it does chaos gradually gives way to an organization of effort that becomes less ragged. It may take minutes. It may take hours. Or it may take days. It depends on many factors.

If help is *knowledgeable* help this means a lot. And if knowledgeable help is also *trained* help this means much more. And if knowledgeable, trained help has the equipment, supplies and support that will allow it to bring organization and order into play then the kind of rescue operation that disaster specialists strive for comes within reach.

This is the type of operation that METTAG was conceived to support. It is important to realize that METTAG was born and developed in the *field* – "where the action is." It was undertaken because *field* disaster conditions dictate certain specific needs and impose certain specific limitations that have to be respected. METTAG's design was thoroughly tested, and the advice of doctors, nurses, firemen, rescue professionals, industrial safety experts, airport safety directors, police and civil defense specialists was sought out, studied, analyzed and implemented. METTAG began as a team effort, and with the objective of saving lives constantly in focus it has remained a team effort. It must contribute in the most flexible and realistic way possible to the goal of controlling the disaster scene and promoting quick, orderly and documented delivery of casualties to medical care.

"From the strong response reported so far," says local civil defense director Bob Blodgett, responsible for conceiving and developing the METTAG idea, "it looks as though we were right on target. METTAG accounts have now spread into 48 states and several foreign countries. The idea of a *standard* tag is catching on because this means much more effective casualty processing, and that means a big break for the patient and everyone who handles him. Sure, we and the *Journal of Civil Defense* have people who would like to change the METTAG design. We all expected that. We, who made the original decisions in arriving at the present design solution, had a lot of different ideas. But we thrashed these out, and we asked for widespread professional counsel, and we got it. And some of it was contradictory. So the design we originally wound up with had to be the very best workable and tested compromise we could make from the ideas we sifted through. A lot of good ideas were simply not used. It would be impossible. And we all still get suggestions because we ask for them, and we still study each one and analyze it carefully. There is the recommendation, for instance, that the METTAG be smaller, and there are good reasons fot it. And there is also the recommendation that the METTAG be considerably larger, and there are

good reasons for that too. There are other excellent suggestions most of which will not be used mainly because we can't go two directions at the same time and because we now have a *standard tag.* The Journal of Civil Defense *must keep that standard in good faith to its customers.* and in order to promote our objective of supporting as best we can the rescue and transport operation. They say in METTAG advertising that in doing this METTAG saves lives, and this idea is constantly before us all."

Aside from being a *standard* tag METTAG has other features such as a four-color priority coding, individual serial numbers, tear-off portions also serially numbered, weather and water resistant card stock, and plastic ties through metal grommets. Its use of international symbols instead of language means that it is not dependent on any one language or even on levels of literacy. With these large symbols even poor visibility and the precious time required to read instructions are no longer disabling handicaps.

"One thing to remember," says Blodgett, "is that when the *Journal* priced METTAGs in 1975 it tried to cut cost to the consumer as low as possible without cutting quality. It achieved this thanks to a good bit of bargaining and working within a non-profit setup. This left no room for inflation and increases in costs of materials, services and labor that has come about. So modest price increases of between 10 and 15 per cent on January 1, 1977 are inevitable. I think it is a real tribute to our METTAG workers and their efficiency that the increases are not much more."

METTAG is revolutionary in that it is simple and functional and flexible. Common remarks are: "This is just what we've been hunting for without knowing it." And: "Why didn't someone think of this before?" It's also revolutionary in that it's a turnaround from many detailed, time-consuming and complicated tags in several copies which can be excellent for controlled hospital use

but which in field conditions are only rarely successful. These latter can crank confusion and deadly delay into the rescue operation. METTAG *standardization* means that rescue and medical teams from different places can use the same tag and can be familiar with one tagging procedure. That alone significantly boosts effective life-saving capabilities.

"METTAG," says one critic, "is way ahead of its time. It wasn't really expected or due until the 21st Century. Thank God we got it 25 years in advance."

Remarks like that make METTAG people feel that the project is well worth the long years of effort. □

For Further Information and Free METTAG Sample
Write: METTAG, c/o Journal of Civil Defense
PO Box 910, Starke, FL 32091
(Phone: 904/964-5397)

METTAG PRICE LIST – Effective Jan. 1, 1978

Quantity	Price Per Tag	Net Price	Shipping/Handling	Total Cost	*Pre-Jan. 1, 1978 Total Cost
50	39c	19.50	$1.45	20.95	18.75
100	33c	33.00	2.25	35.25	30.95
200	29c	58.00	2.95	60.95	54.55
300	27c	81.00	3.55	84.55	72.10
400	24c	96.00	4.15	100.15	87.60
500	21c	105.00	4.50	109.50	98.90
1,000	20c	200.00	8.90	208.90	187.75
5,000	19c	950.00	31.65	981.65	877.50
10,000	19c	1,900.00	63.30	1,963.30	1,755.00

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

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

*These prices good only for orders postmarked prior to January 1, 1978.

What Happened

AT LONG BEACH?

by Walmer E. Strope

Walmer E. Strope has been a leading civil defense executive on the Washington scene for the past 16 years. Now the Washington representative for the Center for Planning and Research, Inc., Strope was formerly Director of Research with the Defense Civil Preparedness Agency. Strope, a prolific writer on civil defense issues, heads up the American Strategic Defense Association. He also writes "Capital Commentary" for the Journal of Civil Defense. *He was the logical selection to deliver the summation address for the 5-day U. S. Civil Defense Council Conference aboard the Queen Mary in Long Beach, California. And he is the logical selection to report on that meeting for the* Journal.

The United States Civil Defense Council held its twenty-sixth Annual Conference on board the Queen Mary at Long Beach, California, on October 2-6, 1977. It was my honor to summarize the conference at the end of the final session. This brief report is based on my remarks at that time.

I went to Long Beach expecting the usual and I found the unusual. I found an excellent program, with top-notch, well-prepared speakers. I found an unusually large registration that surprised the hosts and strained the facilities. As a measure, 199 local civil defense directors voted in the election of officers, a new record by a substantial margin. Despite the inevitable proportion of attendees who were "on the town," I found the sessions well-attended, the listeners attentive, the questions serious. I also found TENSION: tension colored by despair but also tinged with anticipation and not a little impatience.

For one thing, there were numerous and repeated references to how we got to where we are today, a recognition of the need for perspective and a larger context. After all, it has been over 30 years since World War II ended with nuclear weapons detonated over Hiroshima and Nagasaki. It has been over 25 years since the Civil Defense Act of 1950 was enacted, a law that still governs the course of civil defense in the United States. It has been 15 years since the Berlin and Cuban Crises educated the people of this country on life and death in the Nuclear Age. And, it has been over a decade since the Federal Government abandoned the shelter stocking program, thus allowing aging biscuits to signal that civil defense was no longer to be taken seriously because of a strategic policy of mutual assured destruction.

Also, it has been a decade since the Soviet leadership, it too educated by the Cuban Crisis, told a party congress of a renewed civil defense effort that would later show what ten years and $10 billion can do in this business! But, in America, civil defense began to go downhill ten years ago.

One measure of the problem can be found in federal appropriations. Not long ago, I asked a distinguished economist friend of mine to use the appropriate deflators to express past civil defense appropriations in 1977 dollars. The lowest appropriation in actual dollars has been $31.8 million for the partial fiscal year of 1951, the year the USCDC was formed. To my surprise, that $31.8 million is worth nearly $100 million in 1977 buying power. Indeed, the current DCPA appropriation of $90 million is the lowest in the history of the USCDC.

The consequence has been a slow dismantlement of the civil defense of the early 1960's. I heard a veritable litany of abandoned programs recited at this conference—shelter stocks, shelter survey and marking, family preparedness education, the university extension system of training, radiological defense maintenance, public information, etc. I found DCPA Director Bardyl Tirana willing to continue the dismantlement process. During his Tuesday session, he said that if any local director had a surplus package disaster hospital (PDH) lying around, he would "dearly love" to send it to Latin America. He seemed somewhat surprised when a member of the audience suggested that any extra PDHs might be useful here.

Another measure of the low estate of nuclear preparedness was the search for meaning in other goals exhibited at this conference. I had found indeed a magnificent agenda for the conference; yet, I also found

a significant dichotomy. On the one hand, I heard a fine series of talks on the substance of emergency preparedness, the kind of exchange of know-how that makes a conference worthwhile. Without exception, all of these presentations were directed toward and took sustenance from the field of peacetime emergencies — earthquakes, terrorists, fires, disaster medicine, radiological incidents, lessons from the Johnstown flood.

On the other hand, we heard a group of distinguished guest speakers — Raymond Sleeper, Fred Schwartz, Leon Goure, Val Peterson, Admiral Joseph Russel, General George Keegan — all sounding the warning of Soviet buildup and voicing concern for the fate of America.

And in between, I found tension in discussion of the virtues and limitations of "dual-use", the problems of "selling" local officials, how the rules and regulations could be liberalized to permit other goals, and proposals to change the name of civil defense, as if this would make the problem go away.

A significant element of tension appeared to lie in the nature of recent events, which were mentioned from time to time by various speakers. For example, during the panel discussion of Tuesday afternoon, one panelist, an elected local official, argued that since the "bomb scare" of the 1950s and 1960s, people had come to believe that nuclear war was altogether unlikely, and hence local officials were unwilling to devote local dollars to nuclear preparedness but would always support natural disaster preparedness. Another panelist, a city civil defense director, not taking issue, reminded Director Tirana that when DCPA got into trouble recently, it was the USCDC that came to the rescue."

[illegible] to an incident in the last year of the Ford Administration when the Office of Management [illegible] to reduce the DCPA budget by eliminating all funding and other support for State and local [illegible] supporting these "natural-disaster" organizations. This proposal generated a magnificent rebuttal from the USCDC, ultimately resulting in legislative action. It would seem that the USCDC [illegible] before [illegible] for [illegible] the tension [illegible] that [illegible] as an example of the USCDC coming to the rescue of DCPA although [illegible] the

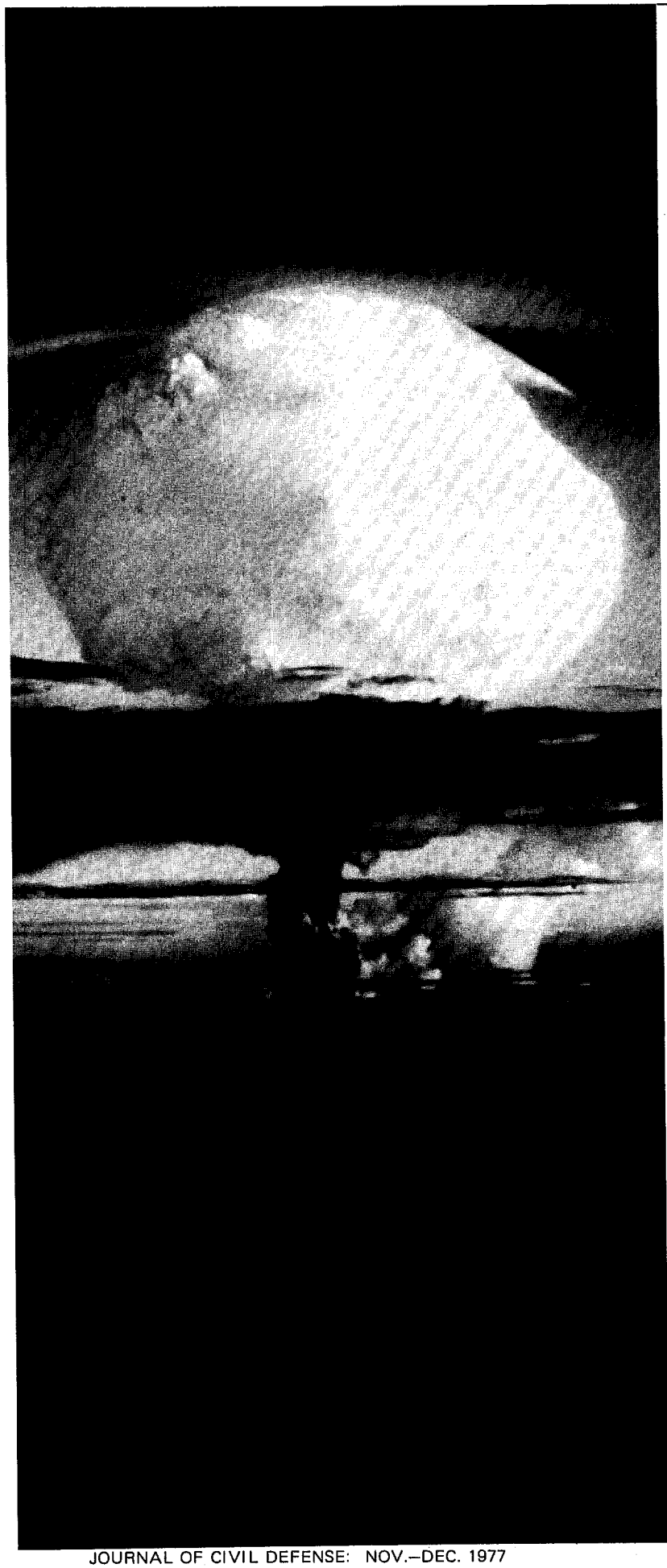
Bardyl [illegible] made it clear that [illegible] has not yet established a policy on civil defense and spoke [illegible] "holding pattern" for the next [illegible] Greg Schneiders of the White House staff described a "reorganization study" to be undertaken during the next six months that would recommend to the President a civil defense policy for his Administration, show the relationship of this policy to other emergency preparedness activities, and propose a reorganization of the Federal bureaucracy in the light of these priorities. It was asserted that the study was being undertaken without any preconceived notions of the outcome. Also mentioned were a study of civil defense by the National Security Council staff and a "short term" cost-effectiveness study being done for Secretary of Defense Harold Brown. Not mentioned was a Carter SALT proposal to the Russians for discussions by which they might mutually agree not to spend money on population protection.

Much of the tension that dominates my impression of what happened at the 26th Annual Conference of the United States Civil Defense Council can be traced to worries about [illegible] the decision of the Carter Administration [illegible] There is also evident impatience with studies when [illegible] action seems soobvious. This tension, anticipation, and impatience is not peculiar to the membership of the USCDC, nor to civil defenders in general. Many of the distinguished guest speakers at this conference and the organizations they represent have

Photos by Herb Knight

Gregory Schneiders, newly appointed Director of the President's Reorganization Project on Federal Preparedness and Response to Disasters, converses with U. S. Civil Defense Director, Bardyl Tirana at the USCDC meeting in Long Beach. As head of the Reorganization Project, Schneiders plans to carry on a study of disaster programs in the Department of Defense, Defense Civil Preparedness Agency, Federal Preparedness Agency, General Services Administration, Housing and Urban Development and other public private and non-profit groups with disaster planning or planning of relief responsibilities.

As Director of White House Projects since January, Schneiders was President Carter's personal representative [illegible] scene of major disasters. His objective is to get the full scope of how these disasters are handled by all levels of government and by volunteer organizations.



A look back into the beginnings of civil defense and how the meaning of the program changed over the years. Local "muscle" for improving it won't be generated by the threat of nuclear attack alone, but rather from the all-inclusive understanding that civil defense stands ready to protect people from the entire spectrum of natural and man-made disasters.

Remember Civil Defense? -

NOW LOOK AT IT TODAY!

by Jack Conway

Depending upon your age, either you were trained to hide under school desks and sit in lines along the walls of hallways with your head between your knees – or your children were. Remember when scary newspaper headlines kept people turning dials to "Conelrad" radio stations and waiting for instructions – instructions that didn't come? ("Conelrad" stood for *control of electromagnetic radiation.)*

In 1955 the country got a special thrill by watching on live television the A-bomb test at Yucca Flats. The vision of war and nuclear disaster seemed to be our conscious motivation for launching a program to protect and defend our civilian population.

If we were to set a date for some formal beginning of a civil defense movement, perhaps we ought to consider Sweden's last war in 1814. After this conflict Sweden adopted its no-war policy that developed gradually into an "armed neutrality" posture that kept her clear of World War I and World War II. But whatever its beginnings, we all remember civil defense in different ways. This writer, for one, can recall the days of the London Blitz with the air raid wardens in their white helmets and people diving into sandbagged bomb shelters and other expedient havens.

Enter the Atom

The catalytic agent that was responsible for modern civil defense was the atom bomb. The atom was first split by Enrico Fermi and Amelio Segre in Rome in 1934, and again by the Germans in 1939. Russia also had the secret early and was smashing atoms with Europe's first cyclotron.

Physicists Edward Teller, Eugene Wigner and Leo Szilard asked Albert Einstein to contact President Franklin D. Roosevelt about the possibility of developing the atom bomb. FDR formed a team of physicists led by Enrico Fermi, and in 1942 during World War II the world's first nuclear chain reaction took place in Chicago.

Nazi Germany was eliminated from the race for nuclear power by a Commando raid that all but wiped out the Nazi heavy water plant in Norway.

On the morning of July 16, 1945 at 5:30 AM the United States determined unquestionably at Alamogordo, New Mexico that the atom bomb would indeed explode. On July 26th President Harry Truman gave Japan the ultimatum "surrender or be destroyed." On August 6, 1945 an atomic bomb was dropped on Hiroshima, Japan killing 70,000 people.

In December of 1946 Robert Patterson, then the Secretary of War, named five generals to study the Army's part in protecting the civilian population in an atomic war, including underground shelters, industrial dispersal, and other tactics. The director of this study group, General Harold R. Bull, brought to then Secretary of Defense, James Forrestal, the group's report which brought about the establishment of the Office of Civil Defense Planning in March of 1947.

On September 23, 1949 the Soviet Union tested its first atomic bomb. The blast came three years before the experts' earliest estimated date. The Russian bomb began to work tremendous changes in American attitude. America's total civil defense effort at that time consisted of two full-time workers and ten part-timers.

New York City suddenly became totally security conscious – an atom bomb could come from anywhere or be hidden any place. New York authorities began to check all shipping vessels of Iron Curtain registry – "witch hunting." The need for civil defense burst into the lime-light. Everybody wanted to get into the act. Civil defense concern popped up the country over.

CD Crank-Up

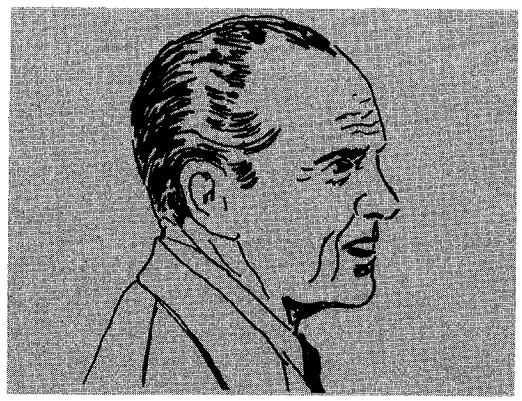
On January 12, 1951 under President Harry Truman, the national civil defense responsibility was vested in a new independent agency, the Federal Civil Defense Administration. Immediately the country and FCDA began formulating master plans for the atomic age, and how we were going to live with nuclear war for the next millennium.

In June of 1954 the FCDA staged its first nationwide "World War III" drill. Fifty-four cities were theoretically raided, and twelve million imaginary dead were racked up, including 2,175,000 New Yorkers. In Washington, one imaginary blast killed 287,000 – but not President Dwight Eisenhower, who took shelter in the underground war room bunker.

The deadly fallout factor took everybody by surprise and caused a complete turnabout in thinking. FCDA Director Val Peterson developed a motto which most aptly suits the feeling of that time. It was "Dig, die or disperse."

After Kennedy: A CD Toboggan

When Kennedy was assasinated civil defense seemed to fade away with him. After the Cuban Missile Crisis subsided public interest never reached the levels necessary to push through the funding of a significant civil defense program. In 1965 President Johnson quietly announced that he had withdrawn plans to shelter the entire nation. There was a brief revival of interest when the National Academy of Sciences reported that the nation's economy could support the construction of a grid system of blast-protected tunnels beneath the major cities. Thirty-eight billion dollars was called for to build the system – but there was little reaction.



When President Richard Nixon took office he announced that he would revive the shelter program and an in-depth study, "The Lincoln Report," was undertaken. The report, however, was put under a TOP SECRET security wrap that made Nixon's announcement meaningless. No action was taken.

Civil defense and the need for protecting our people had gathered major headlines all across the country. But now it has faded. There seemed to be no civil defense at all. Urbanites, suburbanites and rurals alike are now complacent and oblivious to the perils of the deadly effects of nuclear weapons.

Today there's still a federal civil defense office – now called the Defense Civil Preparedness Agency. It is headed by a new director, Washington barrister Bardyl R. Tirana. His attitude on civil defense can best be summed up by a quote from an editorial in the July-August 1977 issue of the *Journal of Civil Defense:*

"He (Tirana) didn't need more money – civil defense was not all that important. The reaction of shock, dismay and anger that swelled from CD ranks triggered a series of semantic pirouettes by Tirana in discussions, letters, and talks which soothed some and further confused others – made them madder."

A Kissinger View

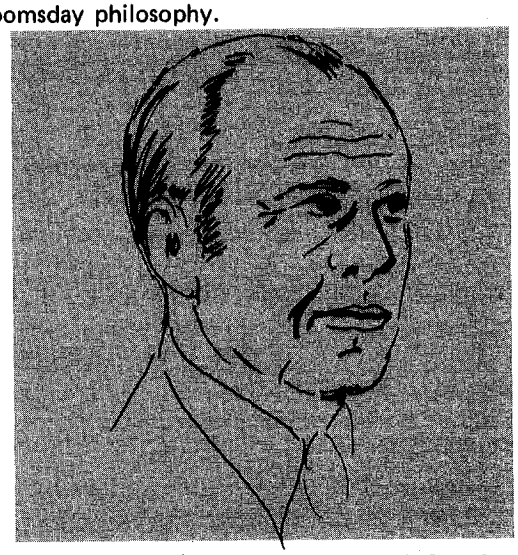
Fallout, then, became the big concern. The Atomic Energy Commission and the Federal Civil Defense Administration brought up numerous programs to eliminate the dangers of fallout. Prophylactic medicines for radiation were discussed; transplanting of bone

marrow was another suggestion. Everyone got excited about the radioactivity created in the United States by nuclear testing. Strontium-90, Cesium-137 and Carbon-14 became common terms. Out of the hubbub of discussion in 1956 came the Rockefeller brothers study concerning the long-range future of the United States and our Western way of life. This project gathered together many experts such as Edward Teller, Dean Rusk, Henry Luce, Arthur Burns, John Gardner and David Sarnoff. The best known section of the report was called "International Security; The Military Aspects" authored by then thirty-three-year-old Kissinger. The report recommended that civil defense become a part of our strategic posture, especially warning systems and fallout shelters. And Nelson Rockefeller declared that civil defense might be the deciding factor in the next war. Billions of dollars a year were needed for the construction of shelters, but President Eisenhower saw the creation of underground shelters as turning the United States into an isolated fortress.

In 1959 the public's feeling of total frustration was dramatized by the film "On The Beach," a persuasive fable depicting the end of the world by fallout.

In January 1961 President John F. Kennedy asked for $312,000,000 to build fallout shelters. In July of 1961 it was discovered that Russia was testing a hundred megaton bomb capable of being delivered by missile – a bomb FIVE THOUSAND times the power of the one that leveled Hiroshima! Something to scare people a little further was the fact that "the wall" went up in Berlin just a few days later. In October of 1962 the U-2 photographs of Cuba revealed the presence of Soviet missiles and bombers capable of launching a nuclear attack on the United States. On October 22nd Kennedy announced the U. S. blockade of Cuba until the strategic weapons were removed. Six days later Kruschev yielded and ordered the missiles removed.

Hard upon the Berlin Crisis and the Cuban Missile Crisis opportunistic contractors touted "shelters for survival." One type – a seven-ton underground concrete dome - was advertised with the screaming headline, "Your entire family could be wiped out tomorrow." Business jumped on the bandwagon. Twenty-three companies were involved in making civil defense rations. The Federal Trade Commission was called into action when hundreds of companies popped up to sell shelters and various shelter-stuffing items designed to save lives. The Commission warned: "Scare tactics, such as the employment of horror pictures calculated to arouse unduly the emotions of the prospective buyer, shall not be used." This was indicative of the public's attitude and the acceptability of the doomsday philosophy.



With Jimmy Carter – A New Deal Coming?

But let's not only "remember" civil defense. Let's do something about it!

Civil defense would surely be a crash need in war, but only on a "too little, too late" basis. Why not prepare now for peacetime application of protective measures against all types of disaster? So that while we're gearing up to handle the emergencies of 20th Century warfare we will simultaneously, automatically and in a thoroughly competent manner gear up for constant threats of natural and other man-made disasters. They go hand-in-hand. Organizing for the ultimate catastrophy gives us an effective weapon for all others.

There is hope for an active, viable, forward-moving civil defense program. Congress thinks so, and President Carter thinks so. In a recent communiqué to the heads of executive departments and agencies, President Carter launched a reorganization study of federal preparedness and response to disasters. Excerpted below are some of the pertinent parts of this message:

"I have directed my reorganization project staff at the Office of Management and Budget to carry out a comprehensive study of the Federal Government's role in preparing for and responding to natural, accidental and wartime civil disasters . . .

"In national emergencies the resources of the entire Federal Government are on call, but they must be deployed effectively. After local disasters Federal

Cont'd on Page 30

BOOK REVIEWS

The Effects of Nuclear Electromagnetic Pulse (EMP) on Nuclear Power Plants By P. R. Barnes, R. W. Manweiler, and R. R. Davis. Research sponsored by the Division of Biomedical and Environmental Research, Energy Research and Development Administration, under contract with the Union Carbide Corporation. Printed by National Technical Information Service, U. S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, 43 pages, $4.50, September 1977. Reviewed by R. F. Blodgett.

Unless you are conversant with acronyms such as ECCS (Emergency Core Cooling System) and RHRS (Residual Heat Removal System the reviewer suggests that you leave this report to the nuclear power plant experts. Furthermore, unless a quote, even out of context, such as:

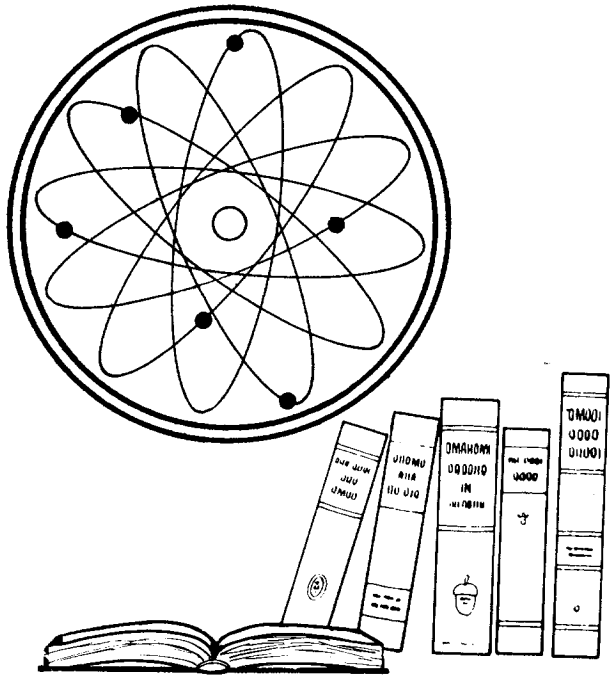
"However, if flashover does not occur, a portion of the surge will capacitively couple across the plant transformer"

can easily be translated into your everyday language the reviewer suggests that you leave the report for the electrical engineers. In other words, this study was not written for the average civil defense director/coordinator, but rather for those schooled in the graduate level disciplines.

The study is meant to determine if EMP would present major problems for nuclear power plants and to resolve the problems if potentially unsafe conditions were to develop. Section two discusses some of the systems in light-water nuclear power plants, and section three covers the "worst-case" EMP effects on important plant systems.

Since the United States can be covered by a single exoatmospheric burst, EMP presents real difficulties to communication and power transmission elements. Serious study must, therefore, be given to the potential problems.

Chinese Civil Defense, A translation of Chapter 7 and a Part of Chapter 3 from *Basic Military Knowledge* (one of a set of books for the self-instruction of young people). Edited by C. V. Chester and C. H. Kearny. Contract report by Oak Ridge National Laboratory, under sponsorship of the Energy Research and Development Administration with the Union Carbide Corporation. Date Published—August, 1977. Printed by National Technical Information Service, U. S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, 91 pages, $5.50. Reviewed by B. A. Fleming, Lt. Col., (USAR).



Until 1976, Americans have had no access to Chinese books or civil defense publications which adequately portray their concept of the threat they are facing and the defensive countermeasures needed to repulse that threat. This book *Basic Military Knowledge,* is the first book we have obtained on the subject.

In preparing for protection from a nuclear attack, the emphasis is placed on protection against *initial nuclear radiation* rather than the subsequent effects of such an attack.

The book also deals with protection against chemical weapons and germ weapons. The explicit instructions given are "do it yourself" protective countermeasures, with a few alternatives given if the primary protective source is not available.

The American editors, in their review of the Chinese translation, point out that there are some apparent weaknesses in China's preparation to deter or withstand a nuclear attack. In an effort to prepare to survive a nuclear war, the Chinese have paid more attention to the tactical use of nuclear weapons and have disregarded their use strategically, such as a massive attack employing thousands of megaton weapons. The shelters illustrated in the back are capable of withstanding blast effects, but lack the thicknesses or earth cover to prevent fatalities from the initial nuclear radiation from tactical nuclear weapons.

SPOTLIGHT

Retired Admiral Joseph W. Russel, Systems Analysis Manager of Boeing Aerospace Company, was one of the Long Beach convention speakers who "told it like it was" to the appreciative USCDC overflow audience. (See pages 16-17 for a report of the meeting.)

Hiroshima, he pointed out, was not all that devastated if you just studied the report and noted the facts. Traffic was rolling the day after the attack. Streetcars began reappearing 2 days later with makeshift sheds sheltering generating equipment (which had weathered the attack and was still functioning).

With warning and proper preparations it could have been much better than that! Boeing created an updated attack scenario at one of its West Coast plants and found that it could come out of an attack, not unscarred by any means, but in operable condition.

One precaution was not hiding in any "overkill" closet. Another was taking the necessary deliberate action to contend with the problem. Overpressures up to 600 psi were successfully dealt with.

Russel's fatality charts showed that unprepared the United States could lose as much as 83% of its people, and that this would fall to 16% with evacuation and expedient shelter. For the Soviet Union, with its special industrial shelters and expedient shelters for evacuees the fatality rate was 4.3%.

He concludes with the statement that with our technological capabilities we could remedy the situation if we could overcome inertia and public apathy – and with a quote from James R. Schlesinger:

> "The underlying reality is that at no point since the 1930's has the Western world faced so formidable a threat to its survival. As then, the military balance is deteriorating, but the trend in large measure goes unnoticed . . . "

With far and away the highest safety outlook in history, as measured by both past accident experience and projected "worst-case" estimates, the nuclear reactor industry is being pushed by critics to even higher assurances of safety.

It now appears that astronomic odds against a "Class 9" accident – where the reactor dome is ruptured and radioactivity is released to the atmosphere – can be increased to guarantee even greater safety margins.

Using an iron oxide mortar instead of conventional concrete for dome construction will:

(1) Provide a compressive strength double that of concrete.

(2) Provide a thermal conductivity 2½ times that of concrete (allowing heat to escape quicker and consequently pressures to be reduced).

(3) Provide a coefficient of expansion for construction materials compatible with that of steel reinforcing (not the case with ordinary concrete).

CHEMTREE Corporation (Central Valley, N. Y. 10917), which manufactures and markets the product as Chemtree 1-20-26T, claims that the "moderate additional cost of such construction would be compensated by not only the cited benefits but by public good will.

The product is now used in nuclear and non-nulcear construction where its safety features and long-term economy are considered desirable.

In *Harper's* for October, Norman Podhoretz writes on "The Culture of Appeasement." He attributes England's precipitous decline after World War I to the "homosexual feeling" that infected Britain in the early 1920's. He sees the same type of effete liberation growing in America today and combining with apologists to pave the way for America's reluctance to face issues.

"To be sure," says Podhoretz, "how we can prudently and effectively deter the Soviet Union and resist the advance of Communism generally without unleashing a nuclear war is a serious and difficult question – the most serious and the most difficult question of the age. But even to begin answering it requires the realization that the democratic world is under siege, the conviction that it is worth defending, and the understanding that American power is indispensable to its defense."

Access to Energy reports in its October issue:

"It is not yet a year that the nuclear shut-down initiatives were shatteringly defeated in all of the 7 states that voted on them – 20% of the US electorate.

"Trounced at the ballot boxes, the Luddites turned to economic warfare, legalistic sabotage and government decrees. Today nuclear power, harassed as never before, is back as the target of the no-growth, no-technology, no-defense, 'America stinks' crowd."

The prestigious Committee on the Present Danger, according to *Christian Science Monitor* Washington bureau chief, may be about to dent the White House peace-at-any-price armor.

"Members of the group," he reports in his Washington Letter, "now are convinced (from feedback they say they are getting from those around the President) that they made progress with Mr. Carter. They think that if not now then in a matter of a few months, the President, will tell the people the "hard facts" about the Soviet buildup and of the need to counter with an American buildup.

"They also think the public will respond positively to such 'leadership.' "

"Full speed ahead" on *Journal of Civil Defense* expansion was the unanimous verdict of participants in the *Journal's* 11th annual conference in Florida on October 29th. Supporting input from USCDC's Long Beach conference and from other sources bolstered confidence in achieving new goals in stride and in good time.

Among the points given special emphasis were:

(1) The heavy response of citizen civil defense interest shown in the first 10 communities to launch Family Survival Handbook projects.

(2) The wide support of new *Journal* and ACDA (American Civil Defense Association) public relations programs.

(3) The necessity of coordinated efforts to achieve a civil defense posture that will make possible realistic civil defense protective measures for the citizen.

(4) Growing interest and involvement of Congressional leadership in revising home defense concepts, pointing to a new national capacity for obtaining. practical solutions to civil defense problems leading to effective protective measures for the people.

Reactions to the redesigned September-October *Journal* issue, to the idea of the Survival Handbooks geared to localities and to the ACDA "package" offered with the new ACDA membership were all reported as being strongly favorable.

Helsinki representatives of Temet Oy, contractors for "civil and military air-raid defense systems," presented three short films depicting Finland's advanced shelter technology. They gave credence to the claim that Finnish civil defense has made enormous strides in the last ten years in the blast shelter field.

For well over a decade, one of the world's foremost physicists, Dr. Eugene P. Wigner of Princeton University, has worked ceaselessly for a stronger system of civil defense in the United States. More than 30 years ago he was an important member of that elite band of scientists who developed the first atomic bomb. Holder of many awards, including the Nobel Prize, this intelligent, sensitive man, born in Hungary 75 years ago, cherishes one award above them all: the freedom provided by his American citizenship (granted in 1937). Here Dr. Wigner talks about his life and views with Earl T. Tildon of DCPA Information Services.

ATOMS, ARMS & APATHY

AN INTERVIEW WITH EUGENE WIGNER

BY EARL T. TILDON

EARL TILDON — Dr. Wigner, tell us something about your early backgound.

EUGENE WIGNER — I was born in Hungary. I studied in Germany, where I was trained as a chemical engineer, which was very useful in my later life. I later became a physicist, and was employed for a little while in Germany, when suddenly, in 1931, I received an offer from Princeton University as a visiting professor. I accepted it, and from then on I essentially lived in this country.

My early views of this country were greatly influenced by the contrasting lifestyles of the very formal Princeton, and the less formal University of Wisconsin where I taught beginning in 1937. At Wisconsin I made friends more easily, and felt more at home than I had earlier at Princeton. I learned to love the openness of the Midwest, which I still prefer to the crowded cities of the East Coast.

Tildon — What are some of your thoughts regarding your early involvement with the atomic bomb?

Wigner— We were all so afraid of Hitler, who was a dictator, and who said as clearly as the Russian leaders do today that he wanted to conquer the world. When fission was discovered in 1938, we all realized that this might give rise to new types of weapons. We feared that the Germans would develop it first, and that would make it much easier for them to conquer the world. That worried us deeply, and we decided that it would be good if the United

EUGENE WIGNER

States developed that weapon so that it would not be unprepared in case of a confrontation.

When the weapon was ready for use, Germany was already defeated in the Second World War. And most of us that worked on the weapon felt that the U. S. should not use it against Japan, and we circulated a petition to this effect. However, I am now convinced that lives were saved. Had we not used the bomb, the war would have been continued and it would have been very difficult to defeat the Japanese in their homeland. They were ready to sacrifice their lives for the defense of their country. A few years ago I read a book by Feis which said that the use of the atomic weapon in that case saved 1.5 Million Japanese lives and about 150,000 or 200,000 American lives because it made it possible for the Japanese to surrender. I have some Japanese friends and colleagues, and I asked them, "Is this true?" They all said "Yes."

I think we did the right thing in developing the bomb. The atomic bomb was bound to be developed. The discovery of fission was a great discovery. To make atomic weapons from that was perhaps more difficult than we realized, but it was evident a bomb could be made. Almost every physicist who heard about fission realized that this was possible. It was good that a peace-loving country like ours developed it first, and not a country bent on conquest.

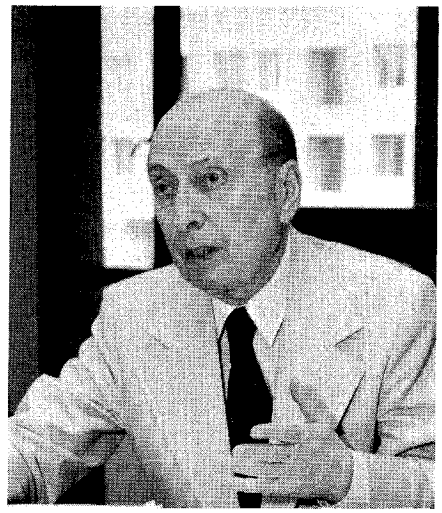
I am most proud that we did not ever threaten Russia with an attack with the atomic weapon, and that we used it as moderately as possible. A Russian once told me: "We wanted to go much farther in Western Europe, and we could not do it because the U.S. had the atomic weapons."

Tildon — How did you become involved in civil defense?

Wigner — When I was a member of the general advisory committee to the U. S. Atomic Energy Commission, I learned about the effectiveness and the possibilities of atomic weapons. But, I came to realize also that there was a defense against them. And I decided that it is better if the two countries can defend themselves, rather than both annihilate or destroy the other. And that is why I started to work on civil defense.

Tildon — What were your early views of civil defense, and what are some of your present observations?

Wigner — My early views were not very different from my present views. I believe we should build shelters, and good blast-resistant shelters. The Oak Ridge National Laboratory had a project on it, and developed a system — the Tunnel-Grid System — which was reviewed many times. At that time we thought it would cost about $115 per person in the U. S. Now the view is that it costs $170, which is $35 BILLION for the whole country. But, according to the PONAST II study (Post Nuclear Attack Study of 1973, conducted by the Joint Chiefs of Staff and involving participation by more than 30 military and civilian agencies) it would reduce the fatalities which a Russian attack could inflict on the U.S. to about 5 percent of the population. It is now 45 percent. There is an unbelievable difference between 45 percent and 5 percent.



We have done far too little in civil defense, and we have not even seriously tried to interest the common people in this effort. This is a great mistake. We should make the common people realize that they can defend themselves, that they can do a great deal to make their lives more secure.

We (the Wigners) have built a shelter here in Princeton. We have a shelter in our summer home in Vermont. And the people around us in Vermont know this, and they know that you can produce a good deal of defense against nuclear weapons. But in the cities, people do not know, and many people deny it on the basis of entirely incorrect information.

Tildon — Dr. Wigner, you have frequently spoken out against some of your scientific colleagues who oppose civil defense. What are some of your views in this regard?

Wigner — This is a very interesting story. The original argument against civil defense was that if we install civil defense, the Russians will believe that we are preparing a first strike, and we don't want them to believe that. Surely it was never true. Then came the time when the Russians prepared civil defense. So this argument had to be abandoned. The next argument was that if we prepare civil defense, the Russians would increase their armament and our civil defense would not be effective. The Russians increased their armament, even though we did terribly little on civil defense.

The last argument that I heard was essentially the sincere, true reason — that they don't want the average person (non-scientist) to be thinking of

the possibility of a war. You know what Marx said: "What keeps us loyal to our cause is not what the cause does for us. It is what we do for the cause." Some people in our country do not want the average person to have too much zeal and too much loyalty to the country and its institutions. I am sad to say that, but I am convinced it is true.

The state of awareness in the scientific community has increased partly because we learned a great deal from Solzhenitsyn (Alexander Solzhenitsyn, Soviet dissident and Nobel Prize-winning novelist) and others. From Solzhenitsyn we learned that the West has to defend itself, has to be on the alert if it wants to survive as an independent State, as a State in which there is freedom and freedom of expression of opinion. He realized that there is a desire in the heart of the dictators to conquer the world.

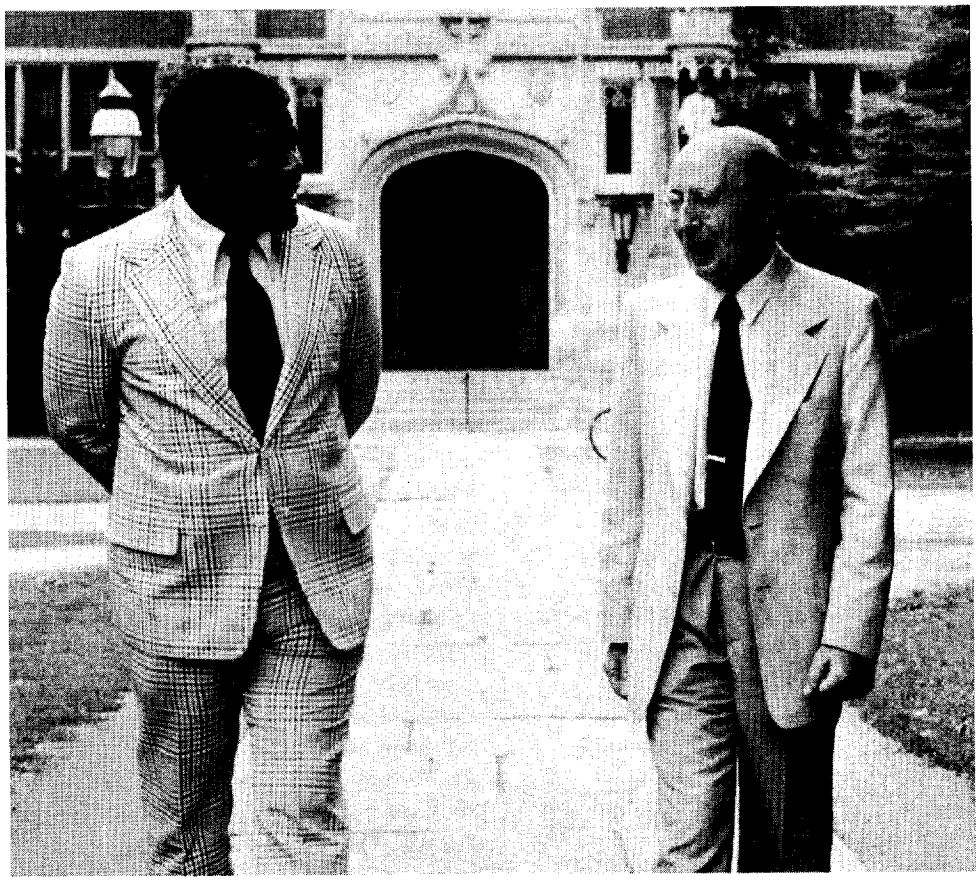
I think that scientists should instruct people. They should explain to them what a nuclear war means, and how we can defend ourselves. They should also point to the enormous differences between a free society and a totalitarian society. Most people do not fully realize that.

It is not easy for scientists to communicate with the average person, but when they communicate, they should tell the right thing, and it will have the right effect. I know. In Vermont we communicate very well with the people in the same village. It's a very small village, but we understand each other, we speak the same language, not only in that we speak English, but we understand what the other one means, what his emotions are, what his desires are, what he enjoys in life, and what causes him trouble and discomfort.

I am moderately optimistic that the scientific community, in time, will do its job.

Tildon — Is Russia's civil defense superior to ours, and as costly as is claimed?

Wigner — Their civil defense is unbelievably superior to ours, even though it is not the civil defense I am most in favor of. It is largely an evacuation plan, though not entirely. However, as far as the cost is concerned, much if not most of it consists in diversion of people from other types of work to this type of work, to civil defense work



TILDON and WIGNER

work — to teaching it in schools, which takes a lot of energy of the students who could learn instead much that is more useful in peacetime, of the teacher's time who also could teach something that, in peacetime, is more useful, more valuable. The same applies to the construction of shelters in the factories, when they could produce goods for the consumption of people. A Russian worker works for almost everything four times longer than a U. S. worker. The only important exception is the rent of his lodging, which is cheaper than ours. But for almost everything else, he spends four times longer at work to pay for it than we do.

Tildon — There is a contention by some in high places in the United States, Dr. Wigner, that the United States could easily overcome any advances in Soviet civil defense simply by retargeting our weapons aimed at Russia. What's your reaction to this point of view?

Wigner —I reject it completely. I made a calculation on the fatalities that we could inflict on the Russian population in case of an evacuation by retargeting completely, shooting at all the evacuated population, and assuming also that the Russian first strike is totally ineffective, and that their ballistic missile defense is totally inefective. Under these assumptions I arrived at the result that we could destroy something between 2 3/4 percent and 4 percent of their population, which is not terribly much. There is another calculation carried out by T. K. Jones of the Boeing Company, who came to the conclusion (he used more realistic assumptions, I used very pessimistic assumptions) that we could destroy only 2 percent of the Russian population.

"Atoms, Arms and Apathy" was originally written for FORESIGHT MAGAZINE.

"I THINK WE DID THE RIGHT THING IN DEVELOPING THE BOMB"

Tildon — Would a U. S. civil defense buildup cause Russia to react, thinking we're planning a nuclear attack?

Wigner — Certainly not. As you know, Brezhnev said: "Don't worry. If I offer you my embrace, you will not refuse it." They know very well the U. S. does not want to extend its power or its territory. We have a resistance against immigration and not against emigration. We don't want to grow unreasonably. We want you to have children. We want you to have a happy life. But we don't want more territory.

Tildon — Almost a decade and a half ago, you responded to the argument that the military situation of the U. S. was so strong that we do not need any civil defense. You said that "even if we need no civil defense now, this may not be true in 5 years." The recently appointed DCPA Director, Bardyl Tirana, is saying essentially the same thing now. He said: "We don't need nuclear attack preparedness on this specific day, but I don't know about 3, 5, or 10 years from now. Civil defense planning is long-lead in nature." When is the right time?

Wigner — I think the right time is to start as soon as possible. Because the threat will increase, and we should work hard and devotedly on the defense of freedom in this world. Because that is what we are defending. It is often said that, even if we don't destroy much of the Russian population, we can destroy much of their wealth and industry. And that is probably true. But you know what the Russians say, and what they repeat again and again. It is what Lenin said: "The primary productive factor of all humanity is the laboring man. If he survives we can save everything and restore everything, but we shall perish if we are not able to save him." In other words, the Russians consider the saving of the population to be the decisive factor. And

"SCIENCE GAVE ME IMMENSE PLEASURE"

you see, they are right, because even if we destroy their productive capacity, once they have defeated us they can force the rest of the population of the earth to supply them with everything. Seven percent of the population of the world is Russian. The rest of the people can supply them with their livelihood for years. Ninty-three percent can support seven percent for many, many years, and certainly for a few years, so that they can restore everything as Lenin said.

Tildon — As you look back, how do you view your personal life, Dr. Wigner, especially your life here in America?

Wigner — I have had a very happy life on the whole. Science gave me immense pleasure. When I could read an interesting article — when I could add a tiny bit to the knowledge of mankind — this was a wonderful thing. And this was made possible for me by Princeton University and also by the University of Wisconsin.

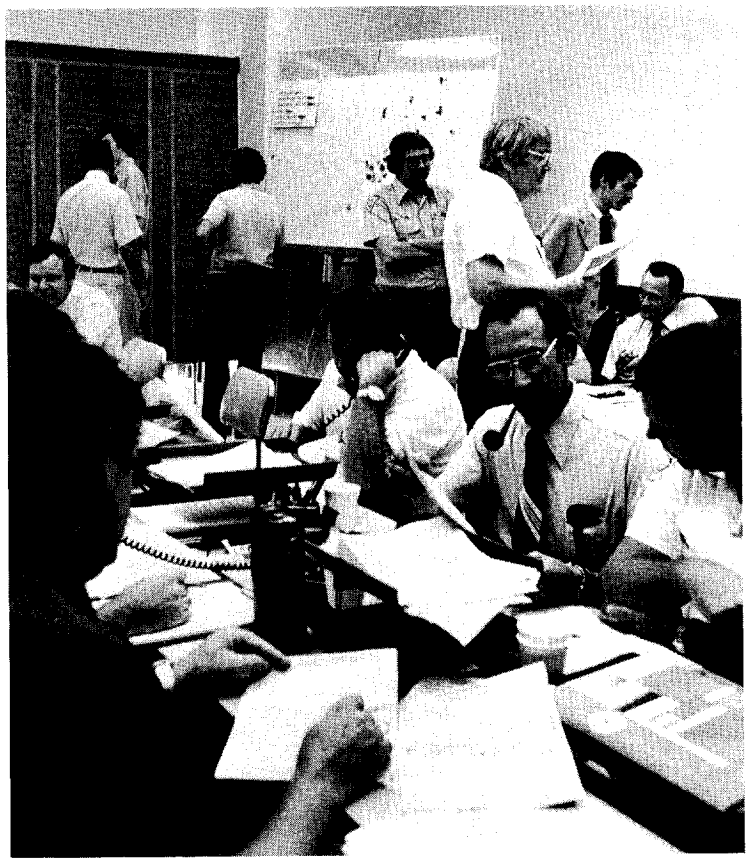
"I THINK THAT SCIENTISTS SHOULD INSTRUCT PEOPLE"

I also have a very happy family life, and our daughter is now living close to us and we see her often. This makes my my wife and me very happy.

When I understood the spirit of this country — and I understood this for the first time in the few years that I spent at the University of Wisconsin — I realized what an enormous difference there is between this country and the country which I left and which was under the Hitler dictatorship of Germany. And how much my love of this country has increased. Some of my friends were communists. A few of them thought they would have a happier life in a communist country and moved to countries under communist dictatorships. They all came back completely cured. They all came back completely cured. □

EMERGENCY OPERATION SIMULATION

by Christopher Fey



Disaster preparedness was practiced in Alachua County, Florida recently in the form of a telescoped Emergency Operations Simulation (EOS). County and municipal officials, with the participation of fifteen local agencies, spent five days preparing for the exercise and conducting it. The objective was to train civil defense and other key emergency services personnel in responding as effectively as possible to any natural or man-made disaster. In this case it was a mock nuclear attack.

Critique evaluations of the Alachua County EOS brought out the following points:

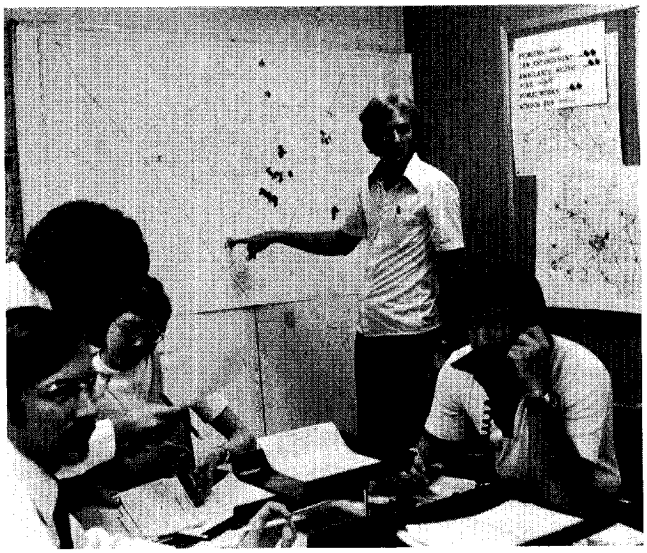
(1) That reactions to problems brought out decision-making, procedural and teamwork deficiencies (one purpose of the EOS).

(2) That in revealing these deficiencies the EOS permitted planning for corrective action.

(3) That in order to obtain maximum benefit from the EOS concept it should be repeated periodically – probably every six months.

(4) That the organized planning and critiquing of EOS exercises would in natural disaster situations, major accidents and nuclear attack:
   a. Improve emergency services teamwork
   b. Restore order and services quickly after disaster
   c. Reduce property losses
   d. Promote effective recovery measures
   e. Save lives, reduce injuries, mitigate suffering
   f. Give the community confidence in riding out disasters successfully

"Going through an EOS," says Pat Jamerson, Alachua County Civil Defense Director, "is certainly exhausting. But it's rewarding in the sense that it prepares you for the real thing. We owe that to our people. And because of this we in Alachua County have another EOS on order."



TOO GOOD TO FILE ...

Journal of Civil Defense research and far-flung correspondents gather materials which give the Journal *direction, furnish it with back-up expertise and help it formulate policy guideposts. Sometimes quotes are taken from such materials to use for* Journal *"fill". We think* Journal *readers would like to see selections of these materials in a special column. Here they are. (Ed.)*

Truth is a fragile commodity. The true state of things is frequently unpleasant. That's why we don't tell the truth more often – to ourselves or to others. It is more convenient not to. Instead we rationalize our own imperfections and those of the world around us. If we work hard enough at those rationalizations, we soon believe them ourselves, and when we do, our grasp of the truth is a little less sure than before.

—Lt. General Donn A. Starry

* * * * * * * * * *

The game of words which sophists enjoy becomes serious when used as an instrument in a social or political struggle. Ceasing to be a mere distraction it becomes a contest aiming at self-aggrandizement at the expense of all competitors. The mere will to live uses all fundamental principles capriciously and almost interchangeably as arguments that serve simply to promote the purposes of the moment. It does not look to them for truth but for sophistical weapons. Where philosophical and psychological "schools" develop, the struggle against philosophical heterodoxy is often accompanied by the fury, the partiality, and the breaking through all arguments and breaking off of all communication and of all attempts to explain what the other view really means when the validity of one's own position is threatened. Unconsciously the truth is identified with one's own interests. When position, status, role, and the means to the good life are at stake, the will to be right overpowers the will to truth.

—Karl Jaspers

* * * * * * * *

War can be avoided if you are strong, keep on your toes and have good intelligence and a strong leadership.

—Ezer Weizman, former Commander of Israeli Air Force

* * * * * * * *

When inferior people have obtained positions of influence, society becomes shrouded in an atmosphere of mutual mistrust. No fruitful activity can take place in the quagmire of suspicion. Under these conditions the superior person will not respond to offers to participate in public activities. One will hide one's worth and wait.

—I Ching

Since 1950, the Soviet Union has undertaken the most extensive war survival and civil defense program in history, placing essential war support and fighting capabilities under ground . . .

In World War II, the Soviet Union had losses of between 20 and 40 million people killed or wounded. About half its cities were destroyed. Russian civil defense projections are that in a nuclear confrontation today the losses would be somewhere between 3 and 4 percent. Similar projections by U. S. officials are that most of America's major cities would be destroyed, along with upward of 70 percent of the people.

—Tom Sweeten, Managing Editor, *Knoxville Journal*

* * * * * * * *

"It has taken several acts of God – cruel blizzards and a devastatingly cold winter – to awaken us Americans to our worst qualities: We are a people spoiled by abundance, unwilling and almost incapable of voluntarily accepting even remote reductions in our standards of life – let alone measures that approach the Spartan or the austere. We are an arrogant people, persisting in the belief that we can forever consume a grossly disproportionate share of the world's energy – even while dictating to others how much they may charge us for their petroleum. We are a crisis-oriented society, rarely rising to any challenge until we are eyeball-to-eyeball with disaster."

—Carl Rowan as quoted in *The Blast* and *Foresight*

* * * * * * *

Orville Wright was fond of telling the story about the introduction of the scythe to China by a missionary who proposed to substitute it for slow-moving shears in cutting grain. The first demonstration of the scythe's capabilities was just as much of a success as Lindbergh's flight to Paris.

But a local delegation visited the missionary on the morning after the demonstration to tell him the scythe must be destroyed at once. What, so the delegation asked, if the scythe were ever to fall into the hands of thieves?

A whole field of grain could be cut and carried away in a single night.

—Columnist John Chamberlain

Cont'd on Page 30

REMEMBER CIVIL DEFENSE

Continued from page 20

Agencies should be effectively coordinated to be able to assist state and local authorities without delay.

"A preliminary review indicates that there are opportunities for the executive branch to improve its performance in planning for and helping to cope with the effects of major disaster. But this is a shared responsibility. The cooperation of state and local government, Congress, private sector organizations, and individual citizens is essential . . . "

President Jimmy Carter with this message has indicated his stand on the subject of national preparedness. The entire memorandum has been published in the Federal Register. Congress and the White House have "listened to the people." Perhaps a new approach is just around the corner. Now seems to be the time for an active, onward-going civil defense program to get started – now in peacetime when deliberate planning and deliberate action are possible. When a real-life payoff in family, community and national survival across the entire disaster board is practical and attainable. ☐

WHAT HAPPENED AT LONG BEACH?

Continued from page 17

mobilized their energies because of a perceived need to engage in a dialogue with the Carter Administration. It is important to avoid the derogatory implications of the terms, "hawk" and "dove". Nonetheless, it can be said the major appointees of President Carter in the fields of foreign affairs and national security are regarded as doves by those whom they regard as hawks. What this may mean for the fate of civil defense is perhaps an open question.

Will we still be in a holding pattern when the USCDC Mid-Year Conference is held in Washington in March? Will we know the Administration's intentions when the membership gathers in Mobile next fall for the 27th Annual Conference? Will it be worthwhile to gather in Mobile or will decisions already made have left no role for the local civil defense directors? Are these decisions within the power of the USCDC to influence? And, most important, what do local civil defenders really want?

What happened at Long Beach was of equal parts: one part plea for an expanded nuclear civil protection effort and one part "don't bother me with that nuclear attack business." And that is why I found TENSION: tension colored by despair but also tinged with anticipation and not a little impatience. ☐

TOO GOOD TO FILE

Continued from page 29

" . . . nowhere are the health arguments against nuclear power supported by hard scientific fact. From the beginning, such stringent controls have been imposed on offsite radiation exposure and radioactive contamination that epidemiological studies are unable to show any ill effects in a community from chronic exposure within the control levels. Accident situations leading to a few higher exposures of individuals must be anticipated at a very low statistical incidence, but much lower than in other industries because of the ruthless attention to safety in nuclear design. Nor do the opponents of nuclear power seek to explain how our electrical supplies might be maintained without it at the turn of the century twenty-five years hence."

—*Royal society of Health Journal* (Great Britain)

* * * * * * * * * * * *

Eight years after China launched a major nation-wide shelter system for all its principal cities the American press is still "discovering" with surprise that China really means to protect its citizens against the effects of nuclear attack. In the October 25 issue of *The New York Times* Harrison E. Salisbury reports from industrial Harbin in Manchuria that "day and night, seven days a week, power excavators, bulldozers, cement mixers and construction workers are building a deep nuclear shelter system."

Salisbury reports that the Harbin experience is typical of the rest of China. For instance, Peking is constantly improving its vast unsophisticated tunnel system. "Work has been halted on the second line of the Peking subway system because of 'lack of funds.' Some foreigners believe the subway has, in fact, been converted to a major shelter."

The Soviet Union is now in a position of saying, 'We know we can fight a nuclear war and survive as a nation.' The United States can't make the same claim. With a strong Russian civil defense effort and no comparable U. S. program, our strategic deterrence can't operate. ☐

—Leon Goure

JOURNAL OF CIVIL DEFENSE
P.O. BOX 910
Starke, Florida 32091