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OAK RIDGE CIVIL DEFENSE SOCIETY

ASSOCIATION FOR COMMUNITY-WIDE PROTECTION FROM NUCLEAR ATTACK

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ROADBLOCKS TO CIVIL DEFENSE

--by Eugene P. Wigner

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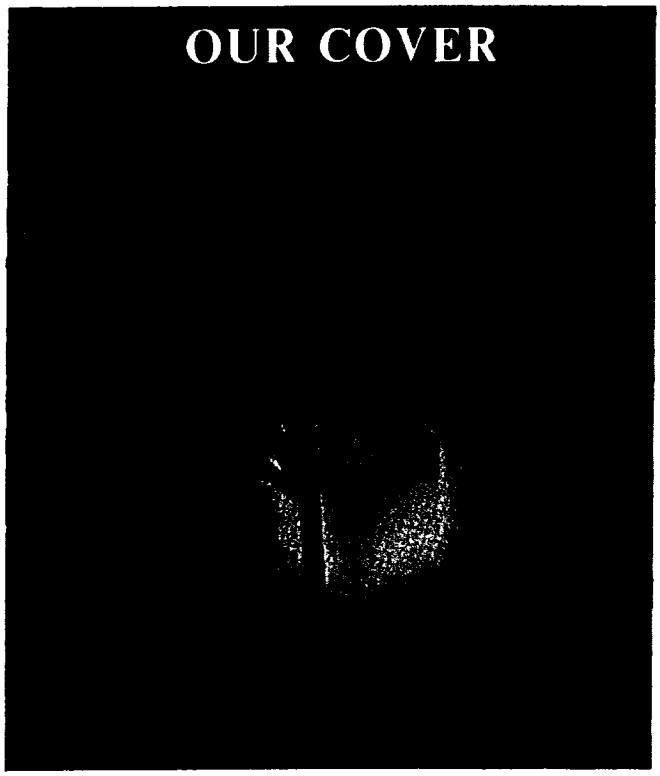


Shown here is the Bulk Shielding Reactor at the Oak Ridge National Laboratory (see article on Oak Ridge Civil Defense Project, page 3). It is an example of the large program involving nuclear energy under way at Oak Ridge. This program includes a project which covers the effects of nuclear weapons and civil defense. Radioactive isotopes produced by reactors such as this aid in providing accurate shielding statistics for shelters.

SURVIVE writers include...

Eugene P. Wigner

Eugene P. Wigner, author of "Roadblocks to Civil Defense" on the opposite page, is a Nobel Prize winner. He is also recipient of the Enrico Fermi, Max Planck and Atoms for Peace awards. He was one of the scientists who, with Albert Einstein, first warned President Franklin D. Roosevelt of the possibility of nuclear weapons development. In 1942 he was a part of the University of Chicago team that first produced a nuclear chain reaction. A member of the faculty of Princeton University, Wigner now carves time out of a hectic schedule to spotlight civil defense as a basic requirement for the survival of the United States in the nuclear age.

Milan M. Bodi

Milan M. Bodi, who writes "International Civil Defense in Action" on page 5, was a member of the Yugoslav Embassy staff in Berne, Switzerland at the outbreak of World War II. When Yugoslavia was invaded by Hitler's armies, Bodi remained with his Embassy in Switzerland. Here he rendered meritorious services to the Allied cause by transmitting valuable information to the United States forces. For this cooperation Bodi was awarded the Medal of Freedom. Now Dr. Bodi heads the International Civil Defense Organization, which from its Geneva headquarters gives guidance to civil defense agencies throughout the world, especially to those in the 25 member countries of I.C.D.O.

ROADBLOCKS TO CIVIL DEFENSE

by Eugene P. Wigner

A renowned physicist and civil defense analyst probes behind the mask of apathy in the United States.

I have often tried to explain the need for a vigorous civil defense effort, why and how such an effort would go far in preserving peace and how it could save many millions of lives if war should come nevertheless. "Why Civil Defense?" would be an apt title for this subject because we *want* the civil defense effort to be strong and vigorous. But my subject is also the opposite: "Why *No* Civil Defense?". What are the roadblocks? Why isn't the civil defense effort as strong and effective as we would like it to be? Why is there not a popular demand for it? There are, it seems to me, three principal reasons for this.

The first reason is the power of the anti-civil defense establishment. What provides this strength? What are the motives of the establishment?

There are, of course, those who would like to see our country become a second or third-rate power, the nakedness and vulnerability of its people forcing its government to accede to the demands of those governments whose people are better protected or who care less for human life. Persons who have these desires are, however, small in number, and they contribute but very little to the undeniably very great strength of the anti-civil defense establishment. Can this establishment muster valid arguments against civil defense? I think it can, and this is the reason for citing this cause for our lagging civil defense efforts as the first of my "principal reasons".

If we install shelters, store food and other supplies, we make preparations against an attack on our country. Such preparations naturally set us apart from those against whose attack we protect ourselves and render it more difficult to develop a true friendship between the governments of communist countries and ourselves. This is the theory of Festinger, often derided by social scientists, but I do think there is something to it even if not in the extreme form propounded by Festinger. It is, of course, true that the hate propaganda of the other side also interferes with the development of the true friendship, and it is sad - very sad - that this is never criticized by the anti-civil defense establishment.

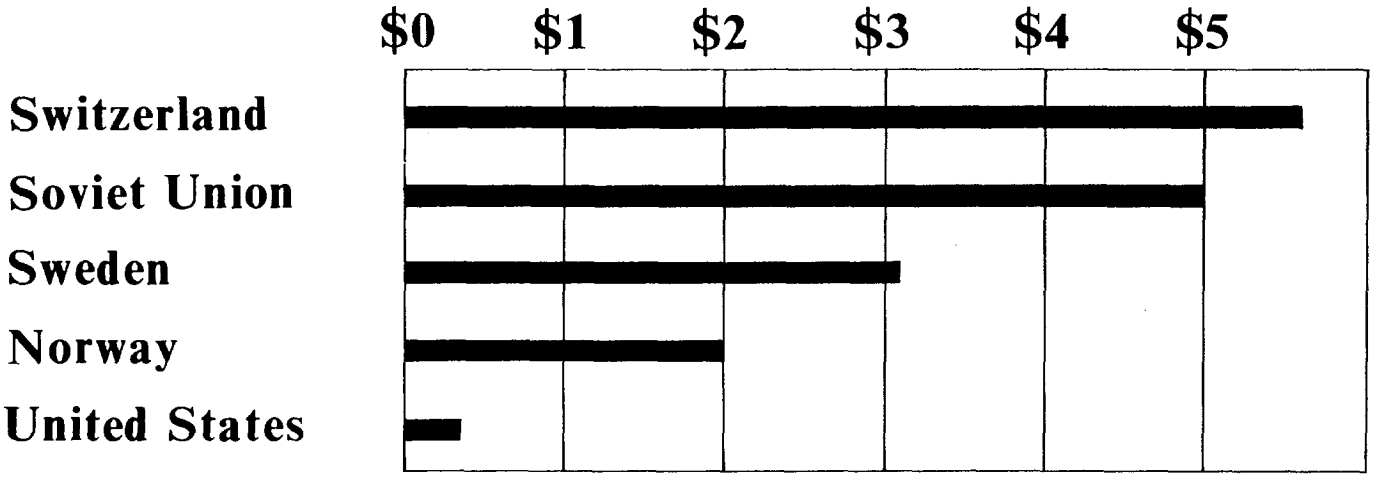
The second reason why the civil defense effort is not more vigorous and why there is not more public demand for it is that it is unpleasant to think about disasters, particularly disasters as severe as nuclear war. Let us note that insurance policies offering compensation in case of fire are called *fire* insurance policies, but that the policies protecting our families in case of our death are called *life* insurance policies. No similarly euphemistic name has been invented for civil defense, and it would not help much if one were invented. Building shelters would remind us in any case of a great and terrible calamity that could befall us, and we all are reluctant to think about such calamities. Why dig a hole in the ground where one may have to live for weeks if one can, instead, walk in the sunshine? We have a tradition for work, and many of us enjoy it, but we do not have a tradition of thinking about disasters which may strike us. However, whereas our reluctance to face the temporary nature of our sojourn in this world does not, as a rule, shorten our lives, our reluctance to protect ourselves may bring war nearer.

The third reason that we do not take civil defense very seriously is that we are all too conceited. Sure, other people have been stricken by disasters, other nations have been wiped out or subjugated. But this cannot happen to us, we say. It is not even decent to think about it. I once went to see the now deceased Albert Thomas, who prevented a good deal of civil defense legislation from being enacted in the House of Representatives. He listened to me for a few minutes and then said: "Take it easy, young man, take it easy. This country is so strong it does not need any civil defense." Most of us would express this self-defeating doctrine less clearly and less bluntly than did Mr. Thomas. But what he said is present in the minds of all of us. On a peaceful day like today, when we are absorbed by so many more pleasant thoughts, is it not unreasonable to think about some country attacking us with nuclear weapons?

In a very real sense, I believe, it will be a test of the democratic ideal whether our people can resist burying their heads in sand or not, whether or not they can muster the foresight and maturity to carry out the unpleasant and unpopular task of protecting themselves, their country, and their freedom against dangers which seem far away. Nothing but illusory comfort can be gained by closing our eyes to these dangers. ■

At a press conference in London, Premier Alexei N. Kosygin of the Soviet Union was asked: "Do you believe it is possible to agree on the moratorium on development of an anti-missile defense system, and if possible on what conditions?" Kosygin replied in part: "I believe that defensive systems, which prevent attack, are not the cause of the arms race, but constitute a factor preventing the death of people. Some argue like this: What is cheaper, to have offensive weapons which can destroy towns and whole states or to have defensive weapons which can prevent this destruction? At present the theory is current somewhere that the system which is cheaper should be developed. Such so-called theoreticians argue as to the cost of killing a man – $500,000 or $100,000. Maybe an anti-missile system is more expensive than an offensive system but it is designed not to kill people but to preserve human lives. I understand that I do not reply to the question I was asked but you can draw yourselves the appropriate conclusions."

Estimated annual per capita national civil defense expenditures (latest available information)



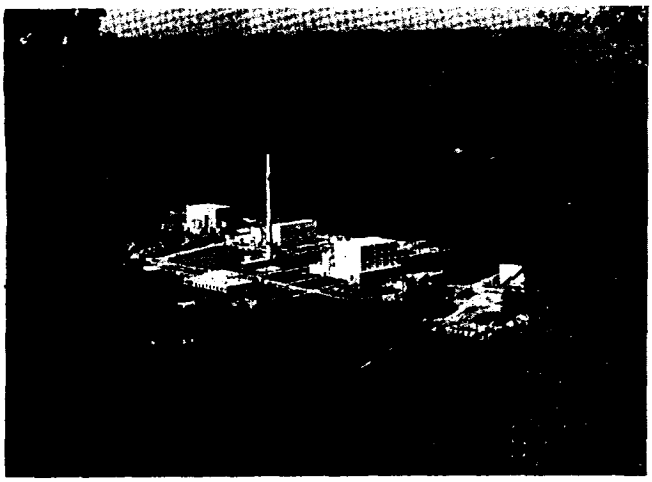
Annual civil defense expenditures are one indication of the accent placed on civilian protection by governments. The above chart shows that the United States spends a comparatively small amount of money on its civil defense program. Other factors, such as the Swedish law making blast shelter in new construction mandatory but not subsidized by government, are not reflected. Neither are civil defense expenditures below the federal level.

NEWS NOTES:

H. R. 229 and H. R. 248, bills which specify inclusion of maximum shelter in new federal construction, provisions for federal agencies to work shelter construction into federally financed projects, and financial assistance available to non-profit institutions for the construction of public shelter, are due for committee action in the House of Representatives. These bills were introduced on January 10, 1967 by Representative Charles E. Bennett of the 3rd District, Florida. ■

The Saturday Evening Post Ben Franklin Award this year for the first time went to a civil defense director - C.W. "Bill" Thomas of Stillwater, Oklahoma. The honor is bestowed each year on the automobile dealer in the United States who has made the most outstanding contributions to the welfare of his community and to his industry. Thomas became civil defense director in 1958. In 1959 Stillwater Civil Defense was recognized by President Dwight D. Eisenhower for its successful rescue of 200 students overcome by carbon monoxide. In 1961 the Stillwater Emergency Operating Center was completed. In 1962 Stillwater became the first city in the United States to achieve surveyed shelter for its entire population. In 1967 Stillwater enlarged its emergency operating center, thereby providing fourteen new offices for city administration. ■

C D SPOTLIGHT



OAK RIDGE LOOKS TO THE FUTURE

In 1943 the legend of Oak Ridge, Tennessee began with the production of U-235 from natural uranium. Its initial product wrote history over Hiroshima, and ushered in the Nuclear Age.

Now, twenty-five years later, in 1968, the sprawling Oak Ridge National Laboratory conducts extensive research in seven wide fields. One of these is the field of civil defense. On April 25-26 the Laboratory's 4-year-old Civil Defense Research Project held its Annual Information Meeting. In attendance were over one hundred industrialists, scientists, educators, and civil defense officials from across the nation. Topics covered represented special studies by permanent research analysts and included the following:

GRAIN STOCKS AS A NATIONAL FOOD RESERVE, by A.F. Shinn – a look at the national food supply at mid-year, now estimated to be at least 19 months' supply (excluding crops in the field) largely composed of grains.

VULNERABILITY OF LIVESTOCK, by S.A. Griffin– Latest information showing that livestock survival in nuclear attack can be substantial, especially with expedient shelter methods.

A DUAL-USE UTILIDOR FOR WHITE PLAINS, N.Y., by W.J. Boogly – information on a projected utilities tunnel system financed by urban renewal funds and to double as a blast shelter.

CIVIL DEFENSE SYSTEMS ANALYSIS, by C.M. Haaland – a study of tunnel shelter occupational problems.

SHOCK WAVE ATTENUATION, by L. Dresner – a study of experiments in the behavior of blast waves in tunnels, conducted at Oak Ridge.

SHELTER EQUIPMENT SHOCK ISOLATION, by C.J. Williams – precautions necessary to protect equipment against blast.

ACTIVE/PASSIVE DEFENSE INTERACTION, by R.A. Uher – blast shelter techniques related to ballistic missile defense.

POWER REACTOR VULNERABILITY, by C.V. Chester – high resistance of reactors to nuclear attack.

STRATEGIC INTERACTION PROJECT, by Davis B. Bobrow – a study in Chinese defense attitudes.

AN INFORMATION CENTER FOR CIVIL DEFENSE RESEARCH, by Joanne S. Levoy – a plan for a comprehensive civil defense information center at Oak Ridge "to serve the civil defense research community."

From the presentations and accompanying discussions it appears evident that the Civil Defense Research Project is making major contributions to advanced survival techniques. The April Oak Ridge meeting accented in particular the value of obtaining underground blast protection in populated areas by exploiting urban development and the excellent possibilities of developing an effective method for use of food stocks during the initial recovery phase following a nuclear attack.

The latest annual report of the Oak Ridge National Laboratory describes the Civil Defense Research Project as follows:

"The Civil Defense Research Project, with its diversified staff of physical scientists, engineers, and social scientists, is attempting to develop and evaluate alternative systems to protect the population from the moment that a nuclear attack becomes likely through the recovery period when people have emerged from their shelters and are starting to resume a near-normal existence.

"Areas of research include the technical and economic feasibility of sheltering urban populations from the blast overpressures from nuclear explosions, combinations of shelters and anti-ballistic missiles that would most effectively limit damage, attitudes of citizens and their leaders toward

various defense systems, the vulnerability of U.S. food supplies and critical industries (e.g. petroleum), the thermal threat from nuclear weapons, emergency salvage of livestock, and the feasibility of dual use of protective shelters."

FACHVERBAND FÜR STRAHLENSCHUTZ MEETING IN SWITZERLAND

Interlaken, Switzerland welcomes world radiation specialists May 26th at the annual meeting of the Fachverband Für Strahlenschutz (Technical Association for Radiation Protection). Through the eyes of scientists in the field of fallout radiation, the seven-day symposium, lasting from May 26th to June 1st, will explore current radiological research and knowledge. Speakers will include leading scientists from Sweden, West Germany, Switzerland, Great Britain, the United States, Belgium and Canada. Representing the United States will be participants from:

Stanford Research Institute
National Academy of Sciences
Atomic Energy Commission
University of Chicago
Oak Ridge National Laboratory
Battelle Northwest
Wayne State University
National Bureau of Standards
Office of Civil Defense

Report No. 29 of the American National Committee on Radiation Protection and Measurements, a 1962 document entitled "Exposure to Radiation in an Emergency" will serve as the basis for symposium deliberations. Among the other documents which will contribute to the symposium background will be the Harbor Report, published by the National Academy of Sciences.

Seven subjects will form the basis for the conferences. They are:

"Nature and Behavior of Local Fallout" (May 27th)
"Hazards of Local Fallout" (May 27th)
"Objects and Methods of Measurements" (May 28th)
"Interpretation of Measurements" (May 28th)
"Protective and Remedial Measures" (May 29th)
"The Making of Decisions" (May 29th)
"Preparatory Measures" (May 30th)

Friday and Saturday (May 31st and June 1st) will be devoted to drawing up and presenting final conclusions and proposals.

Members of the **SURVIVE** Editorial Board participating in the symposium will be Dr. Eugene P. Wigner and Neal FitzSimons. Wigner will represent the Oak Ridge National Laboratory, and FitzSimons, the Office of Civil Defense. ■

SO BE IT!

by Don F. Guier

Civil Defense, a long neglected stepchild in the United States, is beginning to be recognized as an important community and national asset in a completely unplanned and unexpected way.

National - even international - attention is focused on riots across the United States.

In one recent week, civil disorders erupted in 125 cities in 29 states and the District of Columbia. Thirty-nine people were killed, 3,500 were injured, and 20,000 were arrested. There were over 2,600 fires. Over 65,000 troops were called out in 15 states and the District of Columbia.

News reports from foreign capitals - both friendly and hostile - make clear that our "world image" and the credibility of our future world leadership have suffered.

The recently published report of the National Advisory Commission on Civil Disorders cites a clarification of federal civil defense personnel, control centers, communications equipment and other facilities in civil disorder control. Moreover, the Commission strongly recommends that these resources be used.

Planning capability is an additional asset which so far the Commission and many federal, state and local officials have failed to recognize. Where they have been tried in civil disorder control planning, existing civil defense plans and planning expertise have proved invaluable.

This recognition is coming none too soon, at a time when the United States is becoming increasingly vulnerable to nuclear attack.

Last year a number of authoritative, factual and current studies revealed that the Soviet Union is pushing ahead, under top national priority, with new, expanded and improved strategic offensive weapons systems. Their progress in quantity, variety, accuracy and yield turns out to be far greater than expected. Soviet progress and confidence in their anti-ballistic missile system was another surprise. Soviet civil defense is gaining in status and effort.

These reports also revealed that communist China is making unexpected progress in nuclear warheads and missiles. China is predicted to have the capability of attacking the United States in a very few years.

A year ago the Congress cut the federal civil defense budget to the bone. This year, the Administration cut its civil defense request to the Congress to a level drastically lower than any previous one. It was even below last year's pitifully small congressional appropriation.

Last fall, the Secretary of Defense announced a limited deployment of the ballistic missile defense system so long advocated by the Joint Chiefs of Staff and others. There has been no reconsideration, however, of the fallout shelter program. The Administration had been postponing this, they said, until a decision was made on deployment of ballistic missile defenses.

The decision has now been made, but the Administration is still postponing. It blames Congress. The Congress blames the Administration. And the nation is hamstrung by the inactivity of both. And yet both supposedly reflect the will of the people.

How can this be, when two-thirds to nine-tenths of the people endorse the civil defense program, as proved conclusively in national surveys? ■

INTERNATIONAL CIVIL DEFENSE IN ACTION

by Milan M. Bodi

From Switzerland an international disaster control authority evaluates possibilities of coordinated world-wide assistance in national catastrophes.

Let me briefly outline the structure and function of the so-called civil defense agencies as they exist in most countries. Generally the governmental authorities are responsible for the setup and implementation of rescue and relief operations. Moreover, a national plan designates the scope of activity of public services and of voluntary associations for emergency rescue cases. For coordinated action the national plan includes a centralized directing body within the civil defense agencies in order to channel requests and deploy equipment and personnel.

The civil defense organization creates regional and local services throughout the country and specially trains skilled personnel by appropriate courses so that it can assist in emergency situations after serious accidents or disasters.

Despite these organizational efforts there are still internal structures to be reinforced, close links to be established with similar services in other countries and true international collaboration to be promoted. It is regrettable to note how authorities and rescue services alike are caught off guard when a disaster, even if only of national importance, occurs. This lack of appropriate measures thwarts efficient relief operations. For this reason several national civil defense agencies have been searching for ways and means to obtain mutual aid among countries in case of major disaster. Some countries recommend bilateral agreements, others would prefer an international accord which would automatically secure the required mutual aid.

In this respect, the International Civil Defense Organization, (I.C.D.O.) has laid the foundation for a mutual aid system capable of functioning on a world-wide scale in spite of certain obstacles. Member countries of I.C.D.O. now appeal to this organization whenever they need emergency help.

The secretariat of I.C.D.O. relays disaster information to national civil defense agencies of countries capable of giving required assistance. Such measures, however, are always improvised and cannot fulfill completely the emergency needs of a country that is the victim of a disaster. As a consequence, the member nations of I.C.D.O. are studying the possibility of setting up an international mutual disaster aid system among the various civil defense agencies functioning as mentioned above.

Such an international disaster aid system requires, in its ultimate phase, the creation of legal and technical regulations, an assessment of likely disaster regions and potential dangers, a list of available assistance and relief units and equipment, the installation of an alarm and communications system, arrangements for the transfer of personnel and material, etc.

Such international cooperation could expand as new members enter I.C.D.O. Practice and experience in the field furnish invaluable guidelines for drawing up theoretical plans to be approved by the future member nations.

This initiative is already under way and has been further examined in the light of new findings made during the International Fortnight on Disaster Rescue in Geneva, Switzerland held May 6-18, 1968. The "fortnight" included the First International Civil Defense Symposium for On-The-Spot Assistance, a Technical Exhibition of Rescue and First Aid Equipment and an Advance Training Course on the Setting Up of Civil Defense Medical Services.

International meetings of this nature enable leaders of national civil defense agencies to continue their exchange of ideas and experience in planning for an international disaster system. They also furnish the opportunity for expanding the discussions to include all countries concerned about the safety of their populations. ■

50,000,000 AMERICANS - DEAD OR ALIVE

A **SURVIVE** Staff Study

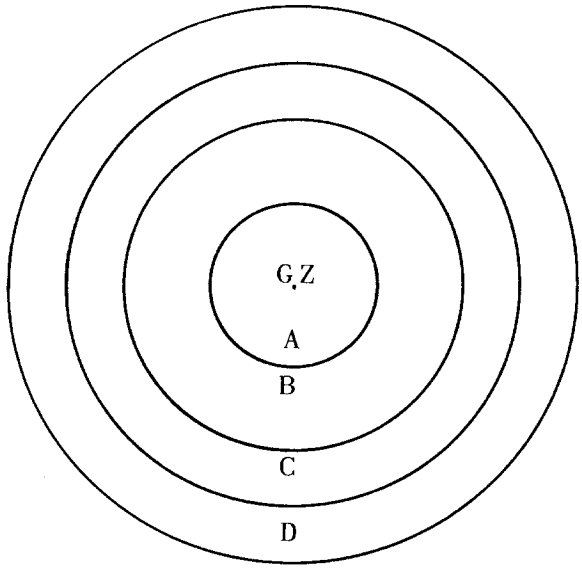
It is shamefully tragic and obvious: fallout shelter would be robbed of value in areas subjected to significant blast in a nuclear attack. But *fallout* shelter is cheaper than *blast* shelter. For this reason the Office of Civil Defense, tied fast to a mini-budget, is obliged to promote fallout shelter as the way to save the most people at the lowest cost – and to apply it to large cities where it may well not apply. It is something like substituting canoes for life boats on an ocean liner with the explanation that canoes are cheaper than life boats, therefore preferable.

The man on the street - the "big city" street - is in this way to a significant degree written off as too expensive to protect. It is impossible, they tell him, to know exactly where the bombs will fall anyway. He is advised to plan for fallout protection in anticipation that his home or his office may perchance be outside of the blast area. He is sometimes informed that those within the blast area of a nuclear weapon have little to worry about anyway, because they quickly and dramatically become "part of the problem", literally part of the explosion and part of the radioactive materials to be dropped as fallout over the countryside. The picture is somewhat inaccurate, but it is a neat way of dividing those far from the bomb who can live if they have protection from fallout, from those near the bomb who allegedly cannot live because they are within that "hopeless" blast area.

But let us look at the problem of the city dweller with an unconvinced mind. Need he really be written off? Should he be discouraged from providing himself with a blast shelter? Is his doom sealed?

The answer is that his case is not at all hopeless. The Office of Civil Defense has done a tremendous amount of blast research. Unfortunately, unlike other countries, we largely ignore the results. OCD research has classified the area around a nuclear burst into four rings or zones fanning outward from the center of the burst, from GZ (ground zero). These zones are labeled "A", "B", "C", and "D". The dimensions of of the zones vary principally with the size of the weapon and the altitude at which it is detonated. At the outer edge of the "D" zone the blast is relatively gentle. This is a distance of 30 miles from the "GZ" of a twenty-megaton air burst. Here the 1 psi (pound per square inch) overpressure produces a wind gust of 35 miles per hour. People behind closed windows may be injured by broken glass. There will be other injuries, not too many.

Within the "C" zone 5% to 15% of the people would be killed depending upon the warning received. Overpressures of 1.5 psi to 2.5 psi would produce winds up to about 85 miles per hour. A good fallout shelter would be effective here, although a blast shelter would be better. The "C" zone extends from 18 to 25 miles from ground zero. Damages are largely reparable.



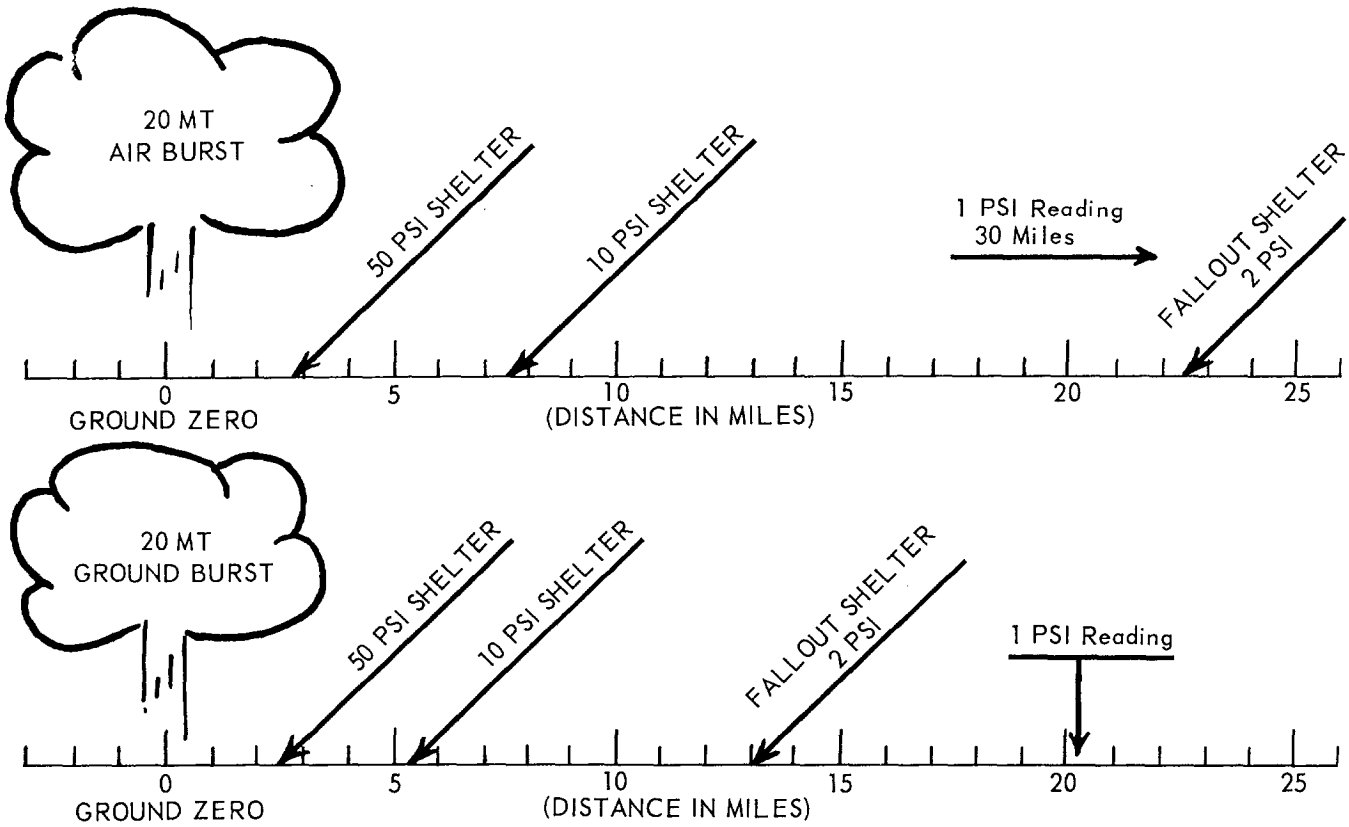
The "B" zone around a 20-megaton explosion reaches from 9 miles from the burst center at ground level to 18 miles, and overpressures vary from 7 psi down to 2.5 psi. Here the situation is somewhat rougher. Most buildings are damaged beyond repair. Eardrums are ruptured at 5 psi pressure and glass splinters and other objects hurled against people will cause other, more serious, injuries. Also, many fires could start in this region. Blast shelters, even modest ones, could, however, protect people adequately.

Devastation in the "A" zone is complete except for good blast shelter construction, which should be underground. Five miles from ground zero the wind velocity is 300 to 400 miles per hour, the overpressure 20 psi. The figures climb swiftly as we get closer to ground zero. We find winds of over 1,000 miles per hour and overpressures over 100 psi. Buildings are pulverized. 75% to 90% of those caught within this zone are killed. It is surprising, however, that 10% to 25% of the people are *not* killed, even *without* blast shelter. With good blast shelter, even here in the "A" zone, casualties could be greatly reduced. Fire, flying and falling debris, and initial radiation dangers must also be considered.

In a good blast shelter halfway between ground zero and the "A" zone boundary, for instance, occupants would survive.

RELATIVE PROTECTION GIVEN BY SHELTER IN NUCLEAR BLAST AREAS

Overpressures given in psi (pounds per square inch)



The above diagrams indicate approximately how close to ground zero windowless fallout shelters could be expected to afford protection from the direct effects of 20 megaton air and ground weapons. They also indicate approximately how close to ground zero blast shelters of 10 psi and 50 psi ratings could be expected to afford protection.

DIRECT EFFECTS CASUALTY ESTIMATES OF NUCLEAR WEAPONS

Zone of Damage	Maximum Winds (mph)	Maximum Overpressure (psi)	Est. Killed (without blast shelter)	Est. Killed (with use of blast shelter)
"A"	1,000+	100+	75%–90%	10%–25%
"B"	190	7	30%–50%	2%– 4%
"C"	86	2.5	5%–15%	1%– 2%
"D"	52	1.5	1%– 2%	0%– 1%

The total area of blast, over 1000 square miles, in the "A" and "B" zones is enough to cover almost any metropolitan area. But it is not an expanse where death is certain. Even under conditions of no warning a good many people would survive. Under conditions of warning but no blast shelters a good many more people survive. With the development of blast shelters - as protected space built into facilities serving a day-to-day need, preferably below grade - chances of survival within the blast area would be greatly enhanced. An examination of this question produces a surprising amount of hope. The claim that over 85% of the United States population could be saved in a nuclear attack begins to make a great deal of sense. The city dweller, properly prepared, has a *good* chance of survival - better than that of the farmer a hundred miles away who ignores protection against fallout radiation.

Where do we start for shelter against blast?

We could certainly start with what we already have: over 7,000,000 heavy basement-type spaces in cities which could be converted into blast shelter with the addition of blast doors, ventilation modifications where required, life support systems, and other necessary equipment and supplies. Much of this is already being done to support the space as fallout shelter. The cost would be comparatively minor. It would raise this "on-hand" shelter to a rating of over 20 psi, some of it over 50 psi.

Subways and urban underground railroad approaches are other existing facilities which hold promise. Properly adapted – which in some cases might mean

major modifications – these would shelter another 3,000,000 people. In Russia, subways are already equipped to serve as blast shelter. In London, World War II bombing saw the "underground" successfully utilized as shelter.

New construction requirements would result in a real blast shelter bonanza. With legislative emphasis, technical support and public orientation, a firm policy of designing blast shelter into the lower levels of commercial buildings could be readily implemented. This would include commercial buildings *throughout* populated areas. Millions of blast shelter spaces could be added each year in this manner.

The utility tunnel system is a modern technique already practiced in a number of locations. Many more are coming. These provide excellent possibilities for blast protection, as well as the prospect of uninterrupted use of utilities. In White Plains, New York an urban renewal plan includes 7,100 feet of utility tunnels which are designed for a psi rating of 60. In Chicago underground pedestrian passageways have proved so successful that an extensive passageway network is planned for the "loop" area. These are not being designed for shelter against blast, but they could be with simple alterations.

Four and a half billion dollars worth of subways now exist in eleven American cities. Planning for underground transit systems has already begun in thirty-two other cities. The Office of High Speed Ground Transportation in Washington is encouraging the development of 150 mph trains that will avoid interference with congested surface transportation between major cities. Dallas is planning an urban underground truck delivery system. Disneyland in Florida will construct a city of the future with *all* vehicular transportation below ground. The Civil Defense Research Project of the Oak Ridge National Laboratory has undertaken extensive studies to investigate the feasibility of tunnel blast shelter for metropolitan areas.

The concept of protecting urban populations is not new. It has been in effect elsewhere for many years. In America we would be pioneers only in the addition of American ingenuity to such systems.

The potential for blast shelter in American cities is a promising one – *if* we want it to be. The 50,000,000 Americans we let our computers write off as part of the debris in a nuclear war need not be lost. They can for the most part be 50,000,000 *live* Americans.

It will take determination. It will take planning. It will take action. It will take sacrifice. It will take money.

It will take faith. ■

AN EDITORIAL:

OLD PROS AND NEW BLOOD

The need for a strong civil defense in the United States is obvious to civil defense officials. They have long been sensitive to the problem. "Assured survival" is a term hatched by them to dramatize it. From many of these officials has come criticism of current national civil defense policies.

In Washington this criticism is not generally accepted. Politicians are led to suspect that civil defense professionals are heavily motivated by a desire to keep their small slice of the federal budget relatively intact, and their jobs secure. The civil defense professional – the recognized expert in his field – is in this way gagged by those who most require his counsel and know-how. He finds his effort to obtain serious consideration of his views a losing battle. The situation is similar at most state and local levels.

The civil defense director is therefore apt to feel that his image has become that of a charalatan. Unfortunately, it often has, and he is often held in tired contempt as a political nuisance who does little but cry "wolf".

Individuals and groups here and there across the country have awakened to the oddity of this state of affairs. To them indifference to the defense of the country and ridicule of efforts to establish a national survival capability have become an alarming disease. They have seen that government, industry and the military in the United States have undertaken for themselves heavy passive defense preparations representing major investments. They have seen also that effective civil defense action for the American people has been generally neglected.

As a matter of conscience these individuals and groups feel obliged to go to bat for the embattled civil defense officials. In doing so, they see that their position vis-a-vis the authorities is not as advocates of any new civil defense argument, but as advocates of the same type of civil defense build-up that the professionals have been championing all along. Their value is that they are doing it as non-professionals. *Unlike the professionals, they cannot be accused of professional prejudice. Their personal economic equations are adjusted outside the field of civil defense.*

SURVIVE *represents this approach. With its publication civil defense non-professionals join the professionals in weighing the question of "assured survival" for the United States. They trust that their voice, expressed in* **SURVIVE** *and elsewhere, will help to bring about a freshened climate of inquiry.* ■

SURVIVE

...AN AMERICAN JOURNAL OF CIVIL DEFENSE

Sponsored by

The Civil Defense Forum
The Oak Ridge Civil Defense Society
The Association for Community-Wide Protection from Nuclear Attack

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SURVIVE presents authentic information relating to civil defense – to the survival of free government, the United States, and its people in the nuclear age. Its aim is public education in this field and service as a forum.

QUESTIONS and ANSWERS

(Questions which follow come from panel programs conducted by APNA, the Association for Community-Wide Protection from Nuclear Attack. Readers are invited to send questions on civil defense subjects to Q & A, **SURVIVE**, *Box 910, Starke, Florida 32091.)*

Q: Edward Teller and others associated with citizen civil defense organizations claim that a good shelter program is a peace quarantee. How is this conclusion arrived at?

A: "Guarantee" is a very strong word. If we change this phrase to read "a good shelter program is a positive peace factor" we are able to answer the question much more easily. Some civil defense proponents have indeed made the point that a shelter system will make a nuclear attack much less effective and therefore, much less profitable from an attacker's position. A potential aggressor can be expected to "think twice" before he risks a war in which United States survival odds have been greatly strengthened. In this very real way a good shelter program certainly works actively as a war deterrent, a strong peace factor.

Q: Are boats good fallout shelter?

A: If you mean the ordinary small covered pleasure craft, boats are good *expedient* fallout shelter. They are *not* suitable as protection against other effects of nuclear weapons. And they are *not at all* preferable to well-designed permanent shelter on land. As an interim measure they can be very valuable. A number of shelter deficient counties where boats and water are plentiful have made excellent plans for their use.

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Book Review - WHO SPEAKS FOR CIVIL DEFENSE?

WHO SPEAKS FOR CIVIL DEFENSE?, Scribners, 1968. $3.95; paper back: $1.65. Edited by Eugene P. Wigner, introduction by Walter Cronkite. Publication date: May 22, 1968.

An equally descriptive title for *WHO SPEAKS FOR CIVIL DEFENSE?* would be *WHAT'S WRONG WITH CIVIL DEFENSE?* In 128 pages of free-swinging criticism, six writers rake the American civil defense program over the coals of their common alarm. More important, they point up the need for leadership that will give civil defense the priority it requires in order to be effective in a national survival role. Typical of the book's style is the following excerpt from the essay on "Government and Civil Defense" written by former Assistant Secretary of Defense for Civil Defense, Steuart L. Pittman:

> "No serious planner in the Kremlin or the Pentagon thinks in terms of a major war engaging the great powers today without the use of nuclear weapons. No student of history capable of resisting wishful thinking rules out the possibility of general war between the great powers in the absence of effective international peace-keeping machinery, which is not in sight. . . Let it never be forgotten that a rational President of the United States, backed by all of his top advisors, decided in October 1962, to dismantle the Cuban missiles by force, believing the chances of nuclear war resulting to be as high as one in three."

Herbert Roback, Staff Administrator of the Military Operations Subcommittee, United States House of Representatives, in his chapter on "Civil Defense and National Defense" says this:

> " . . Civil Defense remains – to borrow an ABM term – a 'thin' program. Blast shelter construction is out of the picture. The presently approved fallout shelter program has large gaps. Planned construction of fallout shelters in deficient areas, which depends on federal support or subsidies, has not been authorized. . .A basic dilemma is that, short of crises, it is difficult to obtain the requisite support for substantial advances in the fallout shelter program, and when the crises are upon us, it is too late to do very much. Since crises frequently occur with lightning intensity, civil defense authorities are compelled to consider contingency plans for last-minute construction of rough-and ready shelter with resources and materials at hand."

A chapter on "Civil Defense Abroad" winds up with the observation that successful civil defense efforts in certain European countries have been achieved mainly "through the acceptance *by* political leaders of the responsibility expected *of* political leaders." After exposing signs of progress in the civil defense program. Neal FitzSimons, who gives a "Brief History of American Civil Defense", makes this statement:

> "All in all, the question remains: are the recent activities in American civil defense historically significant as the beginnings of a long-term citizen-supported program or merely another short-term action-reaction incident so characteristic of our civil defense history?"

The real objective of *"WHO SPEAKS FOR CIVIL DEFENSE?"* is tied into a neat package by Walter Cronkite in the final paragraph of his introduction:

> "If this book sets off a chain reaction of discussion, examination and, finally, action, on civil defense, a nation will have cause for gratitude. . . "

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in the July - August issue of SURVIVE - Edward Teller writes on "Civil Defense in the Age of Russian Superiority"