AN AMERICAN JOURNAL OF CIVIL DEFENSE.....

SURVIVE

FOR THE RECORD...

Peace

and

EDWARD TELLER

see page 2.

VOL. 4 NO. 3

THE CIVIL DEFENSE FORUM
THE OAK RIDGE CIVIL DEFENSE SOCIETY
THE PROFESSIONAL SOCIETY FOR NUCLEAR DEFENSE
THE ASSOCIATION FOR COMMUNITY-WIDE PROTECTION FROM NUCLEAR ATTACK

MAY - JUNE 1971

"The need for an effective Civil Defense is surely beyond dispute. . . No city, no family, nor any honorable man or woman can repudiate this duty. . ."

– Sir Winston Churchill

SURVIVE

VOL. 4, NO. 3 MAY - JUNE 1971

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Architect-Engineer Group Joins Survive Effort

The publication of this issue marks the formal association of the Professional Society for Nuclear Defense with SURVIVE. Hereafter, the seven hundred dues-paying members of that organization will receive SURVIVE with a special center-fold newsletter covering Society activities.

The Professional Society for Nuclear Defense was formed in 1969 at a Purdue University conference for shelter analysts. Since that time the membership has expanded to attract other architects, engineers, scientists and educators with an interest in or influence over the design of buildings and the planning of communities.

The objective of the group is to support the maintenance of an effective policy for the nuclear defense of the United States through a continuing evaluation, presentation and review of the technological and scientific developments related to this defense. It is anticipated that some of that activity will be reflected through membership submission of appropriate articles.

Readers who are interested in affiliation with The Professional Society for Nuclear Defense or in obtaining additional information are encouraged to write the Society at P. O. Box 1485, Madison, Wisconsin 53701.

The editors and publishers of SURVIVE welcome the cooperation of this organization in meeting our common goal–the survival of the United States and its people in the nuclear age.

Commentary

A Thorn for Camille

On February 17, 1971 I toured the Hurricane Camille area along the Mississippi coast (Biloxi, Gulfport, Long Beach, and Pass Christian). After exactly 18 months it looks as though it had just been hit by a rain of tornadoes. Many many homes have been left just as Camille left them: crippled and twisted beyond any thought of repair. But instead of tearing down these contorted forms, they have been left to add more "flying missiles" to the next big storm. Totally demolished motels with swimming pools full of stagnant water add to the possibility of epidemic and accident (especially to curious toddlers).

These unsafe conditions are *not* the exception but rather the norm. Where are the city fathers? Why can't or don't they require correction of these hazardous conditions?

According to Jack Different, Executive Director of Mississippi's Gulf Regional Planning Commission (see *Survive,* January-February 1971) "our aim is not to see how quickly we can come back. . ." but "to plan rebuilding so as to give our residents and our visitors as beautiful and as safe a resort area as possible."

In the meantime–WHY can't the ruins be photographed and documented for the record then promptly removed? Lives are in danger *now* and not just when the next hurricane hits. Then Mr. Different's idea of a safe resort can be fulfilled even before reconstruction.

The *Survive* article also points out that with new building codes the builder is given the "latitude to by-pass the necessary inspections if his architect or engineer will execute an affidavit to the effect that the building plans conform to the codes. . ." Should the architect or engineer "goof" in his statement when do we hold him responsible–after more deaths? From the look I had at some of the post-Camille construction I suspect that only the dead have learned their lesson. This doesn't help much.

–Randine Johnson (Rockledge, Fla.)

Mississippi Answer:

There are valid points in the commentary. . . There are also some valid reasons for the apparent lack of action which must strike a visitor as little short of criminal. . . I can assure you that lessons have been learned by the survivors as well as the dead. We have never assumed that it would be possible to make the Coast "Camille-proof," and it was not legally possible to prevent some of the rebuilding which has occured at less than desirable standards.

It is difficult for those of us who have been deeply involved to fully comprehend, even now, the extent of devastation and hence the degree of clearance and recovery. Much remains to be done, of which we are painfully aware, but there are as many recommendations for action as there are observers. We accept our share of responsibility for the pace of rebuilding or lack thereof, with apologies to none.

–Jack Different (Gulfport, Miss.),
Executive Dir., Gulf Regional Planning Commission

SURVIVE

. . . AN AMERICAN JOURNAL OF CIVIL DEFENSE

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The Civil Defense Forum
The Oak Ridge Civil Defense Society
The Professional Society for Nuclear Defense
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.

Authors are encouraged to submit manuscripts for consideration by the advisory board for publication. Articles (preferably illustrated) should be 1,000 to 1,500 words in length, slanted to the non-technical reader, and oriented toward the civil defense field. Views expressed in contributions to *Survive* are those of the authors and do not necessarily reflect *Survive* policy.

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In the history of Twentieth Century unpreparedness has invited war while preparedness has brought peace. Edward Teller has since World War II campaigned for preparedness His arguments have been widely criticized as provocative. Campus Reds recently dubbed him a "war criminal." Propagandists paint this picture. Facts produce quite another.

Dr. Teller

FOR THE RECORD...

PEACE and EDWARD TELLER

– by Kevin Kilpatrick

The passion for peace professed by young and not-so-young "radicals" is a curious one. Violence is on the one hand abhorred and on the other cultivated. Military defectors to other countries, escaping the pain of discipline, find they have run headlong into regimented armed camps. Campus orators the while call for disarmament at home and condone rearmament abroad.

Gaps in basic reasoning are bridged by emotional invective. The propagandist thus feeds the fuel of dissatisfaction to short-circuited youth. The well-meaning student, the well-meaning professor, and the well-meaning political science dilettante–searching avidly for easy roads to peace –bite hard. Very hard.

A favorite target in this game is Edward Teller. As a physicist and nuclear scientist, as the man who inspired and led the American research on the hydrogen bomb, as former director of Livermore Radiation Laboratory, and as a foremost proponent of strong American defense Teller is vulnerable. And, as a rough-and-ready fellow of pioneer mold, with a bear-trap mind and a stentorian voice, he often spoils the game.

The University of California campus at Berkeley, near San Francisco, gets special attention from professional dissidents. The University of California supports America's two nuclear weapons laboratories–one at Livermore, California and one at Los Alamos, New Mexico. Disruptive tactics here rate high with America-haters. Teller works at the Berkeley campus, lives in Berkeley.

Last fall Teller's Advanced Nuclear Physics class was invaded by anti-war demonstrators who demanded a debate on Viet Nam. Teller reminded all present that the class had paid its tuition for scientific investigation and not for political discourse. He then asked the class which it would rather have–a discussion on Viet Nam or continued attention to science. The vote was lopsidedly for science. The demonstrators left.

On November 23, 1970, after the circulation of sensational leaflets close to 1,000 young people held a "War Crimes Tribunal" at the Pauley Ballroom on the Berkeley Campus. Moderator was Jack Nichols who described himself as a member of the "Red Family" and cited warm relations with Communist belligerants. The 3-hour meeting was spotted with dutiful applause whenever anti-American feelings were expressed. Talks dealt–sometimes at tiresome length–with the alleged moral turpitude associated with weapons research and what to do about it. The 150 people who survived the repetitious harangues and the tedium of the meeting seemed ripe for a march on Teller's home. Emotions became heated. Nichols fanned the flame with appropriate snatches of rhetoric, his followers in the audience picked up his cue, the meeting broke up in shouting and disorder, and the march was on.

Fortunately, the people who arrived near Teller's house numbered only forty. They dispersed when a few policemen showed up. (Three months later Nichols attacked and injured a policeman and took away his gun. He went to jail.)

In late December, 1970, young radicals at a meeting of the American Association for the Advancement of Science in Chicago tried to give the "Dr. Strangelove Award" to Teller. Immoderate assertions turned the scientific meeting into little better than a circus performance. Fortunately the meeting was chaired by Margaret Mead who seems equally capable to deal with cannibals, atomic scientists and the SDS. At the end she gave the floor to Dr. Teller. He closed the meeting by telling a story of an exam that a football player passed by answering 50% of the questions in Chemistry. While he could not answer the question "What is the color of blue copper sulfate?" he answered correctly when asked whether he knew what happens if solutions of 1% sodium chloride and silver nitrate are mixed. He said, "I do not know." Dr. Teller remarked that we should be better off if we too would use those four words a little more frequently: "I do not know."

Teller-baiting continues. What is studiously ignored by propagandists and not known by their listeners is that Edward Teller is also passionately devoted to peace. But, as a realist, the path to peace he prescribes is somewhat different than the path of weakness, frustration, and appeasement–which has never produced peace. On October 11,

1969, for instance, he told an audience in Seattle:

"What we really want—and this has been said often and is correct—what we really want is not to *survive* a nuclear war. What we really want is not to *have* a nuclear war... The main point is this: I doubt that anyone will ever attack us with nuclear weapons unless he is confident that he can wipe us out. If we can make sure that as a nation we shall survive we will have abolished the incentive for the Russians, for the Chinese, for anybody to attack us."

A few months before that, on May 14, 1969, he testified before the U. S. Subcommittee of International Organization and Disarmament Affairs in reference to antiballistic missile plans in this manner:

"There can be little doubt that if defense and offense were equally feasible it would be more humane to emphasize defense. The claim that defense is provocative hardly seems logical. We do know that nuclear conflict would cost millions of lives no matter under what conditions it is fought. To believe that better defense would encourage aggressive behavior on our part contradicts not only American history but even human nature.

"...It would be well to remember that in war nothing is assured [commenting on the McNamara doctrine of 'assured destruction']. If there is any choice in the way in which our survival can be made probable, that method should be given preference which will save lives over the method that escalates destruction."

Admitting the advent of Russian superiority in nuclear weapons in an article appearing in the July-August 1968 issue of *SURVIVE* he wrote:

"Civil defense may still save our country and may still prevent a nuclear conflict. But time to get prepared for the difficult period that lies ahead is running out fast."

Teller has always been quick to point out, and always has warned against, steps that might lead America to war and defeat. His motivation for working on nuclear weapons research is the deep conviction that the United States must not allow itself to be outdistanced and humbled by any likely enemy. It was with this precise thought in mind that in early August 1939 he and fellow-scientist Leo Szilard drove to see Albert Einstein at Peconic Bay, N. Y. Hitler's sword rattling had just reached a new climax. And Germany had stopped the sale of uranium in Czechoslovakia—an ominous sign that German scientists could be working in earnest on a uranium chain reaction and its use in an atomic bomb. The outcome of the meeting was a letter from Einstein to President Roosevelt which cited the possibilities, the danger, and the need for action. It launched American atomic bomb research. Teller joined the effort. He reasoned: "We [scientists] would stand morally guilty before the free world if we refused to lend our talents to the cause of the free world."

Scientists in general abhor violence and cringe at the thought of their research being used for killing people. Teller is no exception. Along with his stand on pushing the development of nuclear weapons research he has been unalterably opposed to any "preventive" war. He has been strongly and consistently against the use of nuclear weapons in the Southeast Asia conflict.

In the Spring of 1945, a short time before Hiroshima was bombed, Teller felt this same way. He received a copy of a petition from Szilard demanding that a clear warning should be given an enemy before the use of an atomic bomb. His enthusiasm for circulating a petition among scientists to oppose its first use as a weapon of mass destruction was quashed by Los Alamos Director J. Robert Oppenheimer, who told him he thought it improper for a scientist to use his prestige in a political manner.

Teller says in his book, *The Legacy of Hiroshima* (1962):

"It was necessary and right to develop the atomic bomb. It was unnecessary and wrong to bomb Hiroshima without specific warning."

"Disarmament was and is the noble goal. It satisfies the strong desires we all feel for a peaceful world, and it appeals to our elementary human decency. . .Every civilized man must desire effective disarmament that would eliminate the expensive and inhumane balance of terror existing in the world. But every rational man must admit that the terror would be greater if there were no balance, that the threats to peace would be multiplied if the instruments of terror were at the exclusive command of our enemies. One sided disarmament is worse than no disarmament."

—Edward Teller *(The Legacy of Hiroshima)*

In the introduction to *The Legacy of Hiroshima* he writes:

"The main purpose of this book is to make my contribution to the cause of peace. . .One fact seems inescapable to me: It will not be possible to preserve peace unless we are willing to think carefully and in detail about war. . .We cannot have peace unless we are strong."

Peace has been the idealist's dream for centuries. International "perpetual peace" plans, however, have all failed in spite of the sincerity of their designers and their acceptance by responsible statesmen. Countries with the most dedicated resolves for peace have, in spite of exhaustive and desperate efforts to avoid war, been drawn into it. This has been true of the United States, France, Great Britian, Norway, the eastern European countries and many other nations since the Middle Ages.

Around 1600 Henri IV's minister Sully planned fifteen European countries of equal strength as a guarantee of peace. In 1718 the Abbé de Saint-Pierre presented a more

sophisticated "perpetual peace" scheme with twenty-four states. Later in the Eighteenth Century Jean-Jacques Rousseau announced his own plan for everlasting peace patterned after that of the Abbé de Saint-Pierre. In 1795 the German philosopher Immanuel Kant, influenced by Rousseau, advocated a "law of universal hospitality." And in 1840 Jeremy Bentham's plan which advocated pacifist propaganda was published in England.

Although these efforts stimulated much serious thought none of them worked.

Neither did Henry Ford's "Peace Ship" in December 1915, which was a futile gesture to stop World War I. Woodrow Wilson, for all his peace-oriented ideals, and re-elected on a peace platform, led us into World War I.

World War II appeasement of Hitler was a classic blunder. In September, 1938 British Prime Minister Neville Chamberlain returned to England from the Munich Conference excitedly waving a piece of paper to friends and shouting "Peace for our time."

"In a dangerous situation, we have chosen the most dangerous of courses. We have chosen not to face our danger."

—Edward Teller

It was a prelude to the bloodiest war in history.

Two modern exceptions to these failures stand out. They are Sweden and Switzerland. Neither has been involved in war for over 150 years. Both were surrounded for years by desperate fighting in World War I and World War II. Both were tempting prizes and much more valuable as conquests than neighboring nations which fell. Both owe their survival and their ability to maintain peace in the midst of war not to their disinclination to fight but to their *military toughness*, to their *highly developed defense preparedness*, and to their announced *intention of fighting*—and *winning*—if attacked. No aggressor dared to move against them. Both of these *small* countries today stand prepared with synchronized military machines and with civilian defenses second to none in the world. Their primary aim now as in the past: *peace.*

This in essence is Teller's argument for the United States —*peace through preparedness.*

Reason: it works. ■

NUCLEAR WEAPONS SCOREBOARD

Over the past three years SURVIVE writers have frequently referred to Soviet advances in nuclear missilry and have illustrated with charts and tables the disturbing fact that Russia has been overtaking the U. S. A. in this respect during the 60s and into the 70s. The American Security Council* is conducting at present "Operation Alert" as a last-ditch effort to inform Americans of the ominous danger that this development holds. The following table has been drawn up by the American Security Council for use in this attempt:

The Missile Gap

	U.S.A.		U.S.S.R.	
	NUMBER	Megatonnage	NUMBER	Megatonnage
Early Model ICBMs	54 Titans	270	220 SS-6s, SS-7s, SS-8s	1,100
Small ICBMs	1000 Minutemen	1000	800 SS-11s, SS-13s	800
Large ICBMs	0	0	300 SS-9s	7,500
Orbital Bombardment System and Fractional OBS	0	0	Developed, probably operational, number unknown	30-100 each
SLBMs	656 Polaris	460	280 SSN-6s, Serbs and Sarks	200
SLCMs	0	0	300 Shaddocks	30
IR/MRBMs	0	0	700 SS-4s, SS-5s and SS-14s	700
Heavy Bombers	550 B-52s	Variable	200 Bisons and Bears	Variable
Medium Bombers	0	0	700 Badgers and Blinders	Variable
TOTALS	2,260	1,730	3,500	10,330
TOTAL Peacetime Inventory of Strategic Delivery Systems (Megatonnage total does not include bombers or OBS).				

As SURVIVE curves and statistics have shown present production will make the imbalance more marked in the immediate future.

*The American Security Council is a group of citizens dedicated to the principles of an adequate defense for America and of American Survival. It publishes a weekly newsletter, *The Washington Report.*

EDITORIAL...

STRATEGIC SUFFICIENCY - WHOSE?

- by John A. Samuel

Speech by John E. Davis at the National War College in Washington on November 19, 1970:

> "Recent research shows that a nation's ability to 'destroy the enemy as a viable society' is not necessary to deter war. This theory has been replaced in recent years by a concept of 'strategic sufficiency.' This may be defined simply as 'enough nuclear offensive power to inflict unacceptable damage on the enemy.'
>
> "The strategic sufficiency concept gives added weight to arguments favoring an effective nationwide civil defense system."

Refer to "The Myth of Assured Destruction." by Eugene P. Wigner, *Survive*, Vol. 3, No. 4, July-August 1970. Now refer to Joanne Gailar's review on page 8 of this issue:

> "An early dispersal and evacuation could reduce [Soviet] losses considerably, to a level between 5% and 8%."

If the United States is depending on the concept of strategic sufficiency to deter war, the Soviet Union appears to have countered our deterrent with its civil defense program.

It seems obvious that the nuclear offensive power required to inflict unacceptable losses on an enemy must increase in ratio to the enemy's ability to limit losses. If it is true that the Soviet dispersal and evacuation plan can limit loss of life to 5% to 8% it must be considered that under the right circumstances this might be "aceptable damage."

In order to increase damage to an unacceptable level it becomes necessary to increase our nuclear offensive power to cover a much wider area with the direct effects of nuclear weapons.

U. S. policy in recent years has been to "stand pat" on nuclear weapons. There has been no increase in our nuclear offensive power. Thus, the Soviet Union appears to have offset our deterrent force. Our strategic sufficiency has become a "paper tiger."

Now take a look at the U. S. civil defense program from the standpoint of Russian strategic sufficiency.

The United States has not been standing pat on civil defense. Each year the funding has been reduced, more cuts have been made in the program until there is essentially nothing being done except drawing up some plans on paper.

Furthermore, the whole concept of civil defense in the United States is based on a "nationwide system of fallout shelters." There are still not enough of these to provide even a minimum chance of survival for the entire population. Our shelter development program depends almost completely on attempting to persuade people to incorporate radiation protection in new buildings, and asking them to bear the full load of any increase in construction cost.

The result of this program is that shelters are incorporated only in buildings where it can be done at no cost, with a few exceptions. Such buildings are constructed only in business and industrial areas of large urban centers. Rural areas are left without protection.

Our civil defense program calls for moving people to shelter, not dispersal or evacuation. Thus, we intend to concentrate our population into relatively small areas, where the shelters exist. In effect we propose to gather our people together where they can be slaughtered by the millions by medium-sized nuclear weapons.

It appears that the U. S. civil defense program is not only underfunded and woefully inadequate in the light of having any significant effect as part of the strategic defense of the nation, but also in acting to reduce the magnitude of the nuclear offensive power necessary for the Soviet Union to attain strategic sufficiency.

In view of the recent increases in Russian nuclear weapons and delivery systems there seems to be little doubt that they have the capability of inflicting unacceptable damage on the United States. At the same time it is becoming more and more evident that there are serious questions concerning our ability to inflict unacceptable losses upon the Soviets. While there may still be approximate equality in the nuclear arsenals of the two nations, the Russian civil defense system may well have shifted the balance of terror in their favor.

This will mean that any time and place the Soviet Union wishes to move it can move with almost total immunity from any effective opposition from the United States because it holds a hundred million American citizens hostage. In the face of a threat of nuclear exchange the United States has the choice of rolling over and playing dead—or being really dead. ■

SURVIVE PREPAREDNESS AWARDS

- ★ **To be made annually**
- ★ **Eight regional awards, one to a local civil defense organization in each of the the eight civil defense regions.**
- ★ **One national award.**
- ★ **To be selected by the SURVIVE Preparedness Awards Judges Committee on the basis of general and special civil defense accomplishments during the calendar year as well as the general long-term program.**
- ★ **Nominations may come from any county, city, state, and regional civil defense directors or from any other authoritative source. Organizations may submit their own nominations.**
- ★ **Nominations for the calendar year 1971 must reach SURVIVE not later than January 20, 1972. Selections will be announced in the March-April 1972 issue of SURVIVE and will be presented at appropriate occasions as soon after announcement as practical.**

SURVIVE PREPAREDNESS AWARD NOMINATION FORM

(A suggested format only)

Date: _____

The following nomination for a 1971 SURVIVE Preparedness Award is hereby made:

Nominee Organization _____

Address _____ City _____ State _____ Zip _____

This nomination is made for the following general reason(s) (please limit to 100 words or less):

_____

_____

Specific information in support of nomination is appended hereto as attachments as follows (examples of specific information categories are shelter, organization for disaster, staff operations, training, warning, local government support, rescue capabilities, functional planning, etc.—attachments may include pictures, charts, clippings, letters, etc.—they should be as brief as full coverage will allow):

A.
B.
C.
etc. . . .

Nominated by _____ Organization _____

Address _____ City _____ State _____ Zip _____

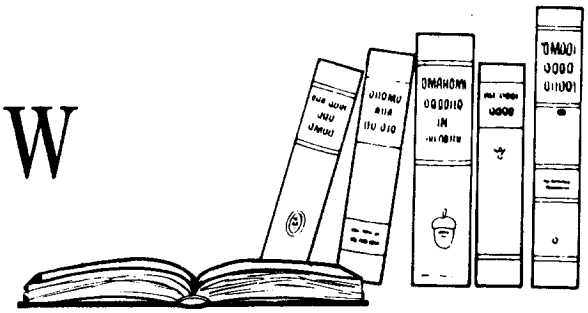
The first nuclear power plant in the United States went into operation at Morris, Illinois in 1959 with a rating of 200,000 kilowatts. In 1968 thirteen nuclear generating plants produced almost 3,000,000 kilowatts. Today twenty plants total nearly 7,500,000 kilowatts. Eighty-nine new plants are either under construction or on order.

94% of U. S. electric power is now generated by plants using fossil fuels. The break-down:

Coal	59%
Natural gas	25%
Oil	10%
Water power	4%
Nuclear fission	2%

A long-term solution to power-plant pollution problems is on the far horizon: nuclear fusion. This may become practical in another thirty years.

REVIEW



12 Protected Schools (TR-65), Office of Civil Defense, 1971. An especially attractive, concise, and instructive 60-page booklet which reveals what can be done to build school shelter economically. In only one case does the cost of shelter exceed 2½% of construction cost without shelter, and this is where over 50,000 square feet of unfinished space was gained at a cost of less than $2 a square foot. A School Board tornado protection requirement in Waterloo, Iowa (Devonshire Elementary School) resulted in shelter space at a *savings* over cost without shelter. Architect Howard Nickerson, Jr. was responsible for this turnabout. At Cholla High School in Tucson, Arizona it was discovered that shelter could be provided without design modification due simply to construction techniques used. Table shows pertinent statistics for the 12 schools.

> The advent of the nuclear age and its accompanying state of continued world crisis have placed additional responsibilities on school authorities. Not only must they prepare for the protection of the school population, but they must also develop school curriculums to reflect the import of modern technologies and problems upon our daily lives.
> —Spiro F. Agnew (as Governor of Maryland)

School	Location	Enrollment	Shelter spaces	Construction costs		Shelter Costs	
				Total	Sq. Ft.	Total	% Extra
Glen Springs El.	Gainesville, Fla.	720	500	$ 766,412	$15.77	$15,982	2.1%
Farm Rd. El.	Marlborough, Mass.	700	1,067	1,816,032	22.86	30,000	2.3%
Jackson El.	Salt Lake City, Utah	780	4,000	789,000	14.28	84,356	10.7%
Northern El.	Lexington, Ky.	900	1,000	1,030,899	18.81	11,399	1.1%
Devonshire El.	Waterloo, Iowa	210	484	363,244	22.72	(Savings of $3,356)	
Nathan Hale Intermediate	Crestwood, Ill.	800	921	1,261,599	24.72	22,000	1.7%
Edgewood Highland	Cranston, R. I.	400	836	946,388	23.95	13,500	1.6%
Portsmouth Middle	Portsmouth, R. I.	1,500	2,050	3,998,000	25.24	72,000	1.8%
Globe Middle	Globe, Ariz.	650	258	664,504	16.93	2,500	0.4%
Ketterlinus Jr. H. S.	St. Augustine, Fla.	770	1,420	928,275	16.66	3,000	0.3%
Cholla H. S.	Tucson, Ariz.	1,400	1,627	3,700,000	16.50	0	0.0%
Lamar H. S.	Lamar, Colo.	600	2,456	1,600,000	16.00	20,250	1.3%

Isn't It Funny?

Isn't it funny—when the other fellow takes a long time to do something, he's slow. But when I take a long time to do something, I'm thorough. When the other fellow doesn't do it, he's too lazy. But when I don't do it, I'm too busy. When the other fellow goes ahead and does something without being told, he's overstepping his bounds. But when I go ahead and do something without being told, that's initiative! When the other fellow states his side of a question strongly, he's bullheaded. But when I state a side of a question strongly, I'm being firm. When the other fellow overlooks a few of the rules of etiquette, he's rude. But when I skip a few of the rules, I'm original. When the other fellow does something that pleases the boss, he's polishing the brass. But when I do something that pleases the boss, that's cooperation. When the other fellow gets ahead, he sure had the lucky breaks. But when I manage to get ahead, Man! Hard work did that! Funny, isn't it—or is it?

—from the Minnesota Department of Public Safety Civil Defense Newsletter, January-February 1971.

Civil Defense, **edited by N. I. Akimov, et al. (1969); translation draft by S. J. Rimshaw, Isotopes Division, Oak Ridge National Laboratory (1970) – printed by the Division of Technical Information Extension of the United States Atomic Energy Commission (1971).**

SOVIET "ASSURED SURVIVAL" – A RURAL PLAN*

– by Joanne Gailar

(An analysis of a new Soviet civil defense handbook)

Copies of the English translation of *Civil Defense* are now available from the National Technical Information Service, U. S. Department of Commerce, Springfield, Virginia 22151. Prices: paper copy – $6; mircofiche – $0.95.

". . . the most thorough work among the books on civil defense published this year."

This is how F. Popenko, a Soviet rewiewer for the military journal, *Voyennyye Znaniya*, describes *Civil Defense*, a 351-page handbook recently translated into English and edited at the Oak Ridge National Laboratory.

Little wonder that Popenko praises *Civil Defense*: Its practicality and completeness are impressive, in particular Soviet plans for the evacuation and dispersal of the urban population into rural areas, but also the carefully designed procedures for sheltering the population and providing protection for livestock, foodstuffs, plants, fodder, and sources of water.

The Importance of the Rural Areas in Soviet Civil Defense

Intended as a textbook for agricultural VUZ (higher educational institutes), this handbook, prepared by editor-in-chief N. I. Akimov and four other editors, addresses itself primarily to rural civil defense. But let it be understood once and for all that it is the *rural areas* that loom large in the Soviet scheme of civil defense; for the centerpiece of Soviet civil defense is the evacuation and dispersal of the overwhelming majority of the urban population to rural areas during periods of escalating crisis, with urban blast shelters provided primarily for on-shift workers in vital industries in target cities.

Population Losses Sharply Reduced by Evacuation from Cities

Soviet rationale for moving people to the country is simple: "The simultaneous dispersal of workers and evacuation of the plants and institutions will greatly decrease the number of people in the cities; this in turn will sharply reduce population losses in case of a nuclear attack by an enemy. . . a nuclear attack of an unprotected large city may result in the loss of life of as much as 90% of the population. An early dispersal and evacuation could reduce the losses considerably, to a level between 5% and 8%" (p. 68).

Why Rural Civil Defense is Important

Thus, because of the unexpected tremendous influx of people in the country, rural civil defense assumes a highly important role. Chapter 11 underscores this fact and goes on to indicate other reasons for the significance of rural civil defense as well (pp. 250-251):

(1) Agricultural regions provide human and material resources for civil defense and furnish manpower and material for rescue and emergency repair operations in stricken cities;

(2) In wartime, "not only. . . a large part of the dispersed workers, service personnel, and evacuated non-working population [would be transported to the country], but also the main material reserves";

(3) Rural communal buildings, hospitals, and other

**Research sponsored by the United States Atomic Energy Commission under contract with the Union Carbide Corporation.*

medical institutions would serve as the main base for treating the injured if the "big cities with their large populations [should]. . . serve as targets of a nuclear enemy attack";

(4) The rural regions would have a primary role in protecting people, animals, plants, food, water supplies, and fodder from contamination by radioactive and chemical substances and bacterial agents;

(5) Responsibility for assuring the output of agriculture during wartime and in the post war years would fall to the countryside.

Civil Defense in Context of Soviet Concept of War

The importance of evacuating and dispersing people from the city to the countryside derives from the Soviet concept of modern war.

Chapter 1 of this handbook explicitly describes World War III: A new world war, "if the imperialists were successful in unleashing [it] would be an armed struggle among countries of two opposite world systems—capitalist and socialist. . .Thus, it follows that [such a war] would be waged with the widespread use of weapons of mass destruction, and, above all, nuclear weapons. Such a war would encompass an enormous area and involve whole continents. Not only troops, but also centers of vital industry, transport, energy production, and communications would be subject to devastating attack. . .Distinctions between front and rear would disappear" (p. 5).

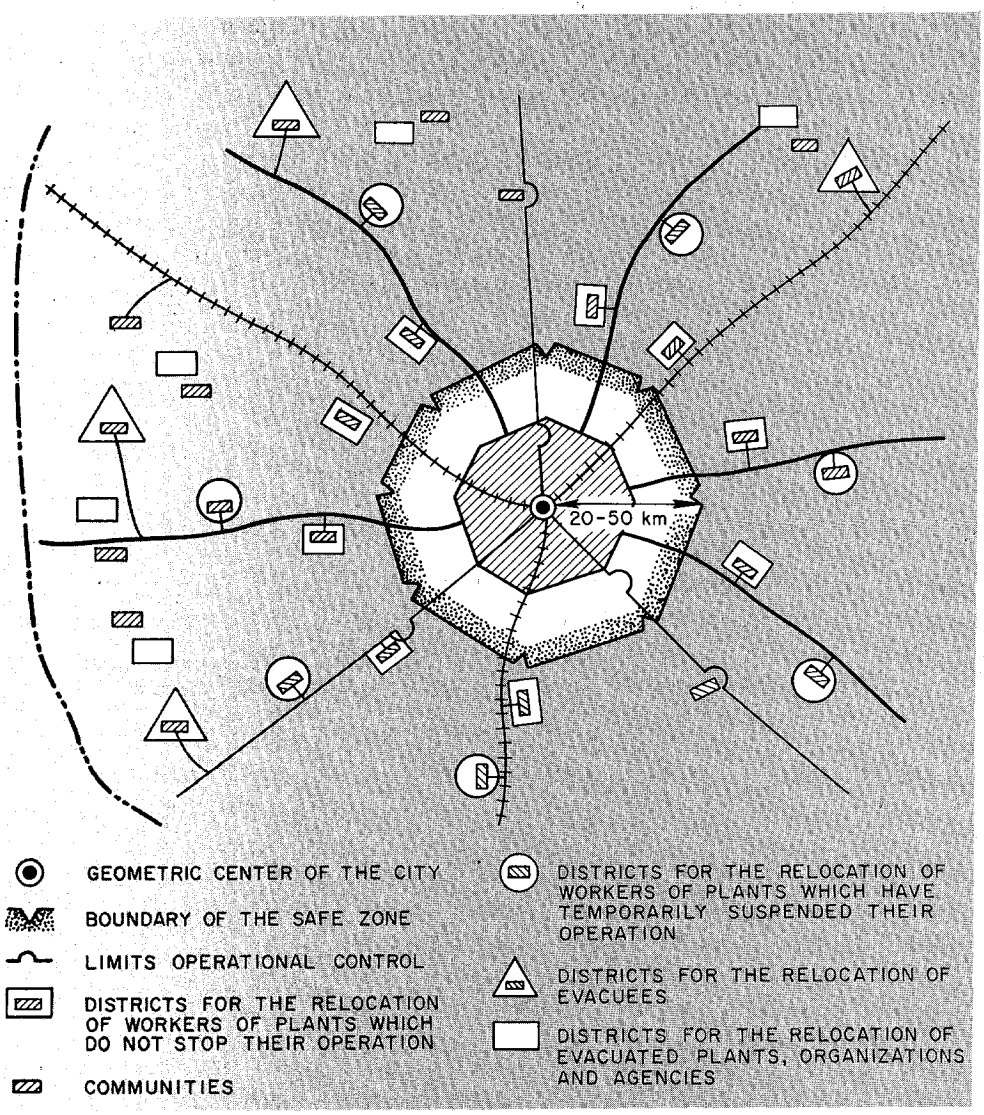
Cities would be targeted: ". . . one nuclear explosion is sufficient to destroy a large city with a population of millions and to contaminate an enormous area with radioactive materials." And "in agricultural regions people, animals, and plants would be affected by fallout, and food products, fodder, water sources, and other assets, would be contaminated" (p. 6).

". . .many administrative, industrial, political, and military centers, ports, airfields, mining enterprises, and other important installations could be subjected to nuclear and chemical attack, and the surrounding territories contaminated with radioactive fallout, poisonous chemicals, and bacterial agents" (p. 9).

It is from this view of war that the rationale of the Soviet civil defense effort proceeds: If cities would be targeted, remove the bulk of the urban population into the country, providing those who would remain behind with blast shelters; if contamination from fallout, poisonous chemicals, and bacterial agents would constitute the main danger to people, animals, plants, food, water supplies and fodder in the country, concentrate on providing protection (such as fallout shelters) from such contamination in rural areas.

Contents of Civil Defense

The business of this handbook is to tell how Soviet civil defense is to be accomplished. Brief descriptions of the subjects of the fifteen chapters follow in chronological order:



Schematic Diagram of the Relocation of Dispersed Workers and Evacuated Persons and Plants.

1. A general discussion of the Soviet civil defense program,
2. The administrative organization of the program to accomplish its mission,
3. Personal protective equipment (gas masks, protective clothing, etc.) for safeguarding the respiratory organs and the skin,
4. Shelters for protecting essential workers in cities and radiation-resistant dugouts (fallout shelters) for protecting rural inhabitants and urban evacuees in the country,
5. Plans for evacuating and dispersing urban dwellers from the cities and for receiving and relocating them in the country,
6. Instruments for detecting and measuring radiation, chemical substances, and bacterial agents,
7. Methods of assessing the effects of nuclear, chemical, and bacterial weapons on people, animals, food, plants, fodder, and sources of water,
8. Measures for protecting animals, food, plants, fodder, sources of water from these weapons effects.
9. Instructions on administering first aid in times of disaster,
10. Responses of the rural population on threat of attack and on the seven civil defense warning signals,
11. The required format and content of a civil defense plan (a written document) for a county or a collective or state farm,
12. The execution of the civil defense plan (setting the written plan in motion),
13. The rescue and emergency repair work of the civil defense brigades,
14. The use of ordinary farm, road, and construction equipment for decontamination and degassing, and
15. Instruction of the rural population in civil defense.

Chapter 5—An Important and Representative Chapter

Chapter 5, "Reception and Relocation of Dispersed Operational and Supervisory Personnel and Evacuated People," deals with the evacuation and dispersal of people from the city and their reception and relocation in the country. Because of the prime importance of evacuation and dispersal within the Soviet scheme of civil defense, this chapter is, perhaps, the most significant one in the book. It is also, for the following reasons, representative of the other fourteen chapters both in spirit and in format:

(1) *There is an explicit definition of terms:* "Dispersal . . . covers operational and supervisory personnel (and members of their families) of plants which continue their operation in large cities during the war. They are to be relocated in an outlying area from which they may commute to work in shifts. They will spend their leisure time outside the city" (p. 65). "Outlying area" is, in turn, defined on the same page as "the territory which lies between the outer boundary of an administrative subdivision, such as county, district, or republic" (p. 65). It is further spelled out that "the dispersed employees should be resettled near railway stations and highways to reduce the [commuting] time, that "the time needed for the round trip should not exceed 4 to 5 hours," that "the dispersal areas may [therefore] be 60 to 80 kilometers [37 to 50 miles] or more from the city," and that "under such conditions the dispersed employees will be at work for 12 hours"—that is, there would be but two twelve-hour shifts per day instead of the usual three eight-hour shifts (p. 67).

"Evacuation refers to [the relocation of] operational and supervisory personnel of plants, the functions of which are scheduled to be transferred during the war to an existing similar or newly organized enterprise at a remote location . . .[and also all] persons. . .not employed within the national economy" (p. 65).

(2) *There is the spirit that the civil defense (in this case evacuation and dispersal) will succeed:* "The tremendous size of the territory of the country, the socialistic planning system,. . .the common ownership of the land, housing, plants, and municipal services make it possible to prepare the outlying areas in due time" (p. 67).

And, as stated earlier in this review, confidence is expressed that an early dispersal and evacuation—prepared for in peacetime and utilizing "all means of transportation"—could reduce human losses to a level of 5% to 8% of the urban population.

(3) *There are numerous lists, specifying all kinds of information.* There are lists, for example, which indicate the various staffs required to perform a particular service together with the titles of the staff members and the number of people in each of their groups:

> "The staff of the [reception] center could include the following persons: the commandant, his 'political' deputy, the recording and checking group (10-12 persons), the building superintendent and his duty officers (3-5 persons), the group receiving the evacuees (16-21 persons), the equipping and dispatch group (6-7 persons), the canteen group (3 persons), medical station staff (2 persons), mother-and-children-room staff (2 persons), and the peace-keeping group (4-6 persons)" (p. 71).

There is a list which specifies what the evacuees should take along:

> ". . .clothing, footwear, underwear, bedding, food, (for two or three days), medicines, and personal means of protection. . .total weight of the goods not [to] exceed 50 kg [110 lb] per person. . ., identification cards, draft cards, school certificates, birth certificates. . ., employment booklet, evacuation certificate, and money" (pp. 76-77).

(4) *Contingencies are anticipated; instructions for each are included:*

> "If the 'air alarm' signal is given when people are at home, they must warn their neighbors to shut off the electricity, gas, furnace, and kitchen range, close the

windows, take documents and immediate necessities with them, and seek refuge in the nearest shelter" (p. 77).

"If the alert is sounded while people are on their way to the assembly evacuation center or after they have arrived there, they must immediately take refuge in the nearest shelter" (p. 77).

"If a motor convoy carrying people to the outlying area must pass through areas contaminated by radioactive, chemical, or bacterial materials, the contaminated zone must be bypassed on the windward side. If this is impossible, the convoy must go through the area at a high speed, using personal protection devices, such as gas masks, respirators, face masks, protective clothing, gloves, and boots. After having passed through the contaminated area, all persons must be checked by the health service, and their clothes, shoes, and belongings decontaminated" (p. 77).

(5) *Plans are complete–not half-formed:* The evacuees are not merely to be rounded up and delivered to outlying areas; they are to be met, lodged, provided with fallout protection, food, other necessities, and even assigned work in their new location.

(6) *And entering every aspect of civil defense is the "political work of the party."* Always there is the party to encourage, expedite, and lend a helping hand: "Under these difficult conditions the political and educational work of the party among the population becomes especially important" (p. 80). This work includes assisting in the implementation of evacuation and dispersal (p. 81), informing workers and the population at large of the general rules of conduct at evacuation centers, on the trip, and at the relocation centers, keeping up the morale of the population, counteracting enemy propaganda, averting panic, and maintaining order and discipline during the entire evacuation-relocation procedure. Further "special political activity. . . [is recommended] among the transportation workers on whose efficient operation the dispersal of workers and service personnel [would] depend" (p. 81).

Questions Not Addressed in the Handbook

There are a number of questions which are evidently beyond the scope of this handbook. For example:

(1) Under exactly what circumstances would the order for evacuation be given?
(2) Would two or three days be sufficient to evacuate the population during a period of crisis escalation?
(3) Might not such an evacuation itself trigger an attack. (One would surely expect that this question would be debated in the highest circles of Soviet Government. However, it is hardly surprising that we have seen nothing on it in the Soviet literature.)
(4) How many blast shelter spaces are available for people in cities?
(5) To what extent are food and medical supplies stockpiled and available for civil defense use?
(6) How many fallout shelter spaces presently exist in the countryside and how many must be built during a crisis?
(7) How vulnerable are rural power supplies?

That the Soviets are indeed addressing many of these as well as other questions is apparent in articles that post-date this handbook. L. Korzun in "The Time Factor," for example, devotes "serious attention to the matter of decreasing the amount of time spent on evacuation measures."[1]

And N. Makushenko, Deputy Minister of Agriculture, Ukrainian SSR, in "Increasing the Readiness of the Service," expresses the Ministry of Agriculture's concern with creating a local electric power base and claims that "measures are being taken to see to it that each kolkhoz has its own autonomous electric power generator."[2]

In the same article, Mr. Makushenko goes on to mention the "intensive construction of special storehouses with refrigerating units" in the Ukrainian Republic for storing food products. "Their design capacity is calculated at 500-600 tons of products at a temperature of from plus 3 to minus 2 degrees [Centigrade]. Of course," he continues, "the storehouses are very suitable in solving civil defense tasks."[3] Such articles show sustained Soviet interest in upgrading civil defense.

Importance of This Particular Handbook

While it is not difficult to find numerous Russian articles on the Soviet civil defense program—Soviet newspapers, periodicals, and broadcasts contain an abundance of information on this subject—this handbook is unusual in that it presents the Soviet civil defense program in its entirety under one cover: its reason for existence, its organization, its aims and goals, and its means and methods of implementation, even down to such minute details as to what to wear beneath protective clothing under various temperature conditions, how to convert a tractor-mounted farm sprayer into a decontaminating machine, and how to administer artificial respiration "when injuries to the ribs or upper limbs make all [the ordinary] methods of artificial respiration impossible" (p. 242).

Above all, it is a comprehensive and detailed account of the Soviet civil defense program from the *Soviet* point of view, thereby affording the reader first-hand knowledge of where Soviet emphasis lies and allowing him to draw his own conclusions. ■

[1] L. Korzun, "Importance of Time Factor in War Stressed" (originally entitled "The Time Factor"), *Voyennyye Znaniya*, No. 7 (Moscow, July 1970); in JPRS 51, 366, Translations on USSR Military Affairs, No. 642 (September 14, 1970), p. 2.

[2] N. Makushanko, "Civil Defense Aspects of Agriculture Discussed" (originally entitled "Increasing the Readiness of the Service"), *Voyennyye Znaniya*, No. 6 (Moscow, May 1970); in JPRS 51, 007, Translations on USSR Military Affaris No. 629 (August 3, 1970), p. 66.

[3] *Ibid*, p. 67.

SPOTLIGHT

In San Fernando—Biggest Quake Problem: No Utilities

Verne Paule, OCD Region VII Public Information Officer, recorded interviews on the scene of the February California earthquake. One was with Mrs. Marguerite Moran, San Fernando Civil Defense Director. Here is a part of it:

PAULE: What were some of your needs?

MORAN: The primary need was [due to] the total loss of our utilities, including our water wells, which the city functions on. We didn't, at that time, know how many of our reservoirs were out. We knew we were totally without water or utilities, and this was our major problem to begin with until we could make our situation survey.

PAULE: Where did the water come from? You have numerous tankers and tanks throughout San Fernando.

MORAN: Yes. Of course, when we got rolling the City of San Bernardino, the first to offer assistance under the mutual aid agreement, asked what our needs were, and I said "Water, and any amount you can spare." Mr. Vince Kerberg [San Bernardino Civil Defense Director] produced four 1200-gallon tankers and one rescue unit and escorted them into the City of San Fernando. Following that, we had offers from the Schlitz Brewing Company. And they have brought in to date I believe around 22 tankers from 3000 capacity to 6000 capacity, and those were stationed around the city and available to citizens for water.

Vehicles of the Long Beach Civil Defense Search and Rescue Units on the scene of the VA Hospital tragedy in Sylmar, California.

Wisconsin Offers Antishock Design Course. . .

"Design of Structures to Resist Extreme Loads"—a two-week summer course for architects and engineers—is being offered at the University of Wisconsin June 14-25, 1971. It will cover the analysis and planning for structures subjected to special stresses such as air blast, ground shock, earthquake and high winds. A blue-chip faculty, with years of research experience in antishock techniques, will be made up of Dr. M. S. Agbabian, Colonel (Dr.) Wallace E. Fluhr, Dr. Jeremy Isenberg, and Dr. George A. Young. Detailed information may be obtained from:

Program Director, University Extension
The University of Wisconsin (Department of Engineering)
432 North Lake Street
Madison, Wisconsin 53715

Beacons Warn Farmers In Iowa*

Robert Welch of Osceola County, Iowa had a problem: alerting farmers in the event of tornado or other emergency. As civil defense director this was his responsibility. His solution: lights. He installed one-million candle power strobe beacons at the highest point available in each of the county's six towns. Amber in color, they can be seen readily day or night, through fog or any type of inclement weather. They penetrate to a distance of 27 miles to cover Osceola County completely (as well as parts of surrounding counties). Each light is monitored 24 hours a day and is battery-operated to guarantee immediate functioning. Commercial power is used to keep batteries constantly charged.

According to Welch the cost of one beacon runs about $200. "I am not saying that this system is the total answer," he says, "but I believe that it is the best we have at this time—until someone comes up with something better."

Each town in Osceola County also has a siren, and Welch is currently planning indoor warning systems for county schools.

*Osceola County Civil Defense, Sibley, Iowa 51249

"Over the years that I have associated with Civil Defense . . .I have tried to analyze why an operation so obviously needed and pledged to a cause so worthy has been consistently overlooked by Congress and the Administration."
—Senator Hubert H. Humphrey, March 15, 1971

Civil Defense Abroad

The 6th World Conference on Disaster Assistance, to be held at Baŝko Polje, Yugoslavia in September 1971, will focus on international disaster teamwork. Sponsored by the International Civil Defense Organization of Geneva, its objective will be to evaluate and implement planning already developed on close-in world regional response to major disaster. Baŝko Polje is near the Adriatic port city of Split.

The controversial Swiss civil defense manual *Defense Civile*—reviewed in the May-June 1970 issue of *Survive*—has been translated in full into Japanese. Switzerland's civil defense monthly publication *Zivilschutz* in its February 1971 number announced the translation as evidence that Swiss critics of the book may have been overreacting.

Excerpt from an editorial appearing in the January-March 1971 issue of *Argus*, official publication of the Malta Civil Defense Corps:

> We are in the 70's—and what should be the role of Civil Defense during this decade? The following anecdote provides the reply.
>
> The former Prime Minister of Canada, the Right Honorable Lester B. Pearson, tells the story about the tourist who was lost in an Irish bog. He enquired of a passing farmer concerning the way to Dublin. The farmer's response was: "Well, if I were going to Dublin I'd never start from here." Mr. Pearson then said: "but here we are, and today is always our starting point." The same remark applies to us all now and during the years ahead, and the whole of out attitude constitutes the 70's challenges.

C D CALENDAR

May 26	Annual Meeting, Association for Community-Wide Protection from Nuclear Attack—Gainesville, Fla.
June 13-17	Conference, National Association of State Civil Defense Directors—Grand Teton National Park, Wyo.
June 14-16*	Institute on Disaster Preparedness, American Hospital Association, Chicago, Ill.
September (second part)	World Conference on Disaster Assistance (Sponsored by the International Civil Defense Organization)—Baŝko Polje, Yugoslavia.

**The 1971 Institute for Disaster Preparedness (June 14-16) will be conducted by the American Hospital Association at its headquarters, 840 North Lake Shore Drive, Chicago. The program will be organized mainly "To provide hospital administrative personnel with information about current experiences, ideas, procedures, and techniques for disaster preparedness." All those associated with disaster preparedness agencies are welcome.*

"If ever a time called for unification of our people, that time has now come. Where better could that word of unification be spread than among you people who work in the field of civil defense, which is perhaps the most misunderstood and less appreciated of all government agencies."

—Congressman F. Edward Hébert, March 16, 1971

NEXT IN SURVIVE

(JULY - AUGUST 1971 ISSUE)

IN THE FRENCH MARITIME ALPS

the "Mistral" – an age-old unrelenting summer wind that blows with gale force, sometimes for days, sometimes for weeks... In dry weather it whips fires through the mountain forests of southern France, sends whole towns packing for safe harbor, destroys, kills... In 1970 a new weapon to combat its fury: the Canadair CL-215. Also in 1970—a severe drought which made the "Mistral" deadlier than ever.

IN TENNESSEE

rural American families build large, below-ground hasty shelters of Soviet design. Scientist Cresson H. Kearny reports on tests of blitz shelter construction.

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