

..... AN AMERICAN JOURNAL OF CIVIL DEFENSE

SURVIVE

VOL. 3 NO. 2

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See: "Is The Soviet Civil Defense Program Really Better Than Ours?" -by Joanne Levey Gailar, Page 2.



CIVIL DEFENSE FORUM

OAK RIDGE CIVIL DEFENSE SOCIETY

ASSOCIATION FOR COMMUNITY-WIDE
PROTECTION FROM NUCLEAR ATTACK

Also in this issue:

THE QUESTION OF BLAST
SHELTER - AS SEEN FROM
FRANCE by Pierre Teissier

"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

TABLE OF CONTENTS

Reader Comment	Page 1
Among <i>Survive</i> Writers.	Page 1
Is The Soviet Civil Defense Program <i>Really</i> Better Than Ours?, by Joanne Levey Gailar	Page 2
Chart Correction	Page 6
So Be It!, by Don F. Guier.	Page 7
The Question of Blast Shelter—As Seen from France, by Pierre Teissier	Page 8
Spotlight	Page 11
Dual-Use Shelter Systems, by G. A. Christy	Page 12
Book Review	Page 16
Civil Defense Abroad	Page 17
Senator Young	Back Cover

COVER

This issue's cover shows a framework of Joanne Levey Gailar's disturbing revelations on CD comparisons between the U.S.A. and the Soviet Union. For an excursion into the wherefores and whys see Mrs. Gailar's expert analysis of respective survival programs on page 2: "Is the Soviet Civil Defense Program Really Better Than Ours?"

"Everyone on earth lives within 30 minutes of potential destruction by nuclear bombs or missiles. Our times are perilous—almost unthinkably so. And yet, it is for that very reason that we must think about it—and do something about it, too. . . Even with the worst nuclear attack imaginable, it is still possible that a very large portion of our population could survive if the proper steps are taken now in civil defense preparedness."

— Dr. Werner von Braun

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Authors are encouraged to submit manuscripts for consideration by the editorial 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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Reader

Comment

AMONG SURVIVE WRITERS

General Pierre Teisser

Rockledge, Florida

To: *Survive*

In your editorial of the March-April 1969 issue of *Survive*, you very clearly pointed out the plight of Ernest Fitzgerald, concerning his revelation of a \$2 billion error. I am not in agreement with your rather severe criticism of bureaucracies for it seems to me that almost all organizations finally evolve into bureaucracies. Most function fairly well. It is a challenge for us to operate within and without bureaucracies and learn to get the job done.

However, your concern for Ernest Fitzgerald has proven to be a valid one, since his employment was recently terminated. In Walmer E. Strobe's "disturbed" reply to your editorial, he did not say so specifically, but left the impression that no such action would take place. I have the greatest respect for Mr. Strobe's professionalism and judgment, but maybe we all learned something from the Fitzgerald affair.

Although I detest negative or "I told you so" approaches to anything, you did tell us so. . .

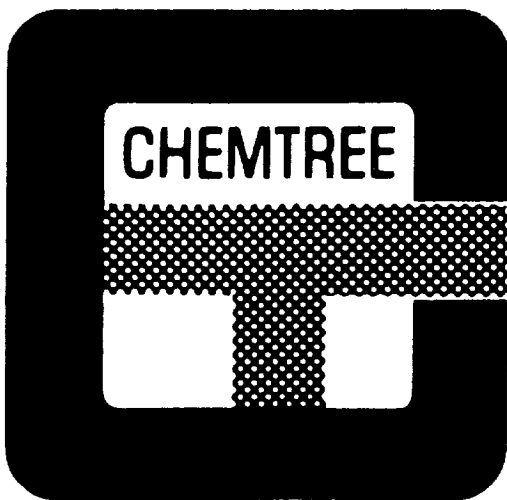
Herbert W. Johnson, Director
Brevard County Civil Defense

Spanning a hectic 40 years with the French Army Corps of Engineers, General Pierre Teissier's military career includes fighting on horseback in the Moroccan desert (1925) with the legendary Spahi, Henri de Bournazel, opposition to Hitler's tragic conquest of France in 1940, and long years as a member of the French underground during the German occupation.

With the sudden advent of nuclear warfare in 1945 General Teissier abruptly devoted himself to intense study and analysis of nuclear weapons and their effects. He led French research on fallout and blast shelter from 1946 to his retirement in 1965. From 1958 to 1965 he was the French representative for nuclear weapons effects with NATO. Almost alone in France he recognized the necessity for blast shelter in urban areas and encouraged its development.

Among his diplomas are those from the Ecole Polytechnique and the Ecole Supérieure d'Electricité. He is a member of the French National Committee of Geodesy and Geophysics (Seismological Section).

General Teissier now leads an active retirement life at his home in Chatenay-Malabry, a Paris suburb. Here he wrote for *Survive* "The Question of Blast Shelter—As Seen from France" which appears on page 8.



SPECIAL NUCLEAR SHIELDING

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A recognized American authority on Soviet Civil Defense uses her in-depth study of today's Soviet popular and technical publications to expose an unsavory fact: civil defense trends in the Soviet Union and in the United States are divergent, the former up, the latter down. If Joanne Gailar's information is alarming it is also current and irrefutable.

IS THE SOVIET CIVIL DEFENSE PROGRAM REALLY BETTER THAN OURS? *

- by Joanne Levey Gailar

Soviet Program Growing; American Program Shrinking

When I speak to various groups on Soviet civil defense, a question that repeatedly comes up is this one: If someone so desired, could he not make just as good a case for the extensiveness of the U.S. civil defense effort as you have made for the Soviet one? This question is asked invariably by reflective, intelligent members of the audience, those who want to be sure that I have not been oversold on the earnestness of the Soviet civil defense effort by the Soviet material I have read.

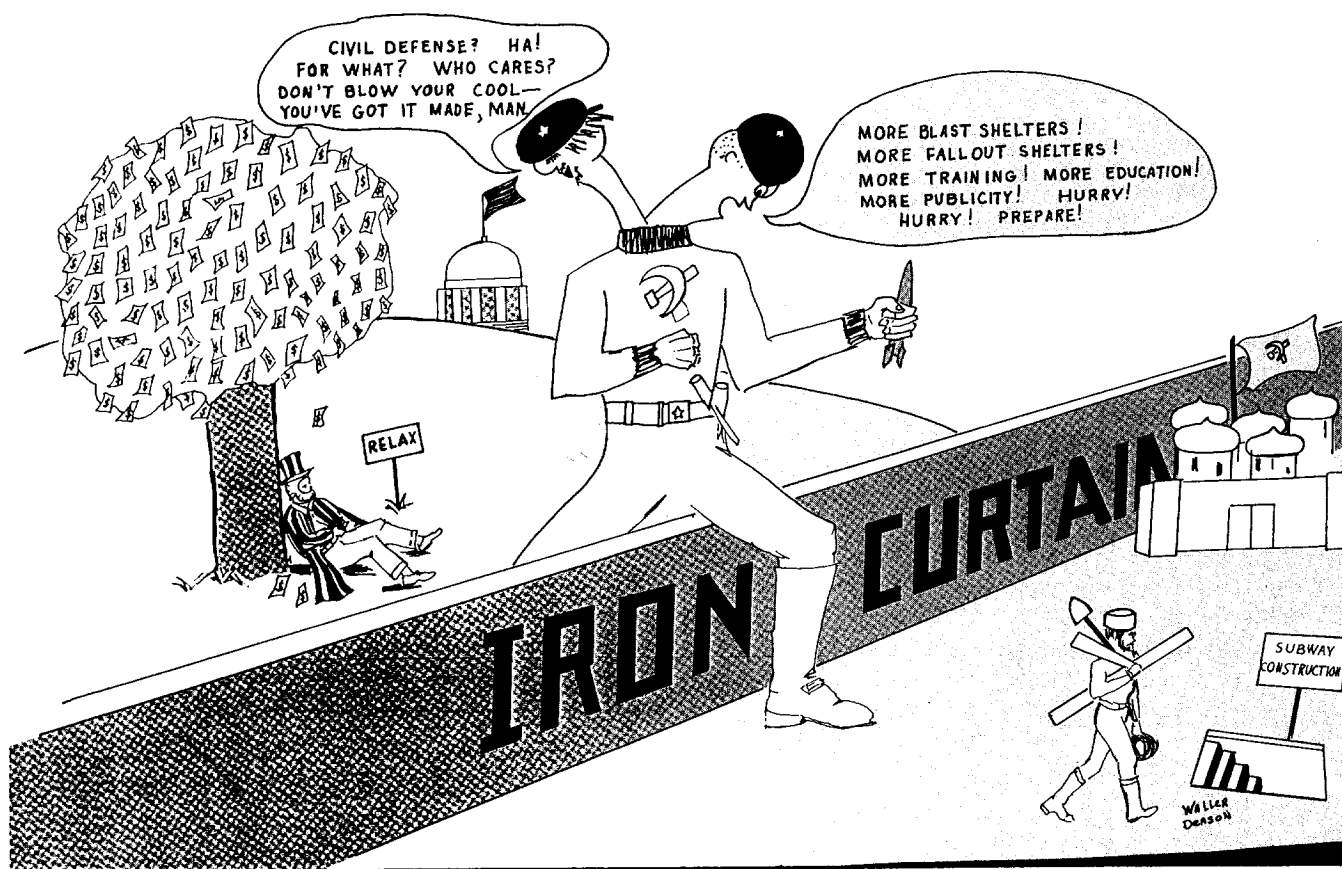
I freely acknowledge that in the event of nuclear war, no one can give an ironclad guarantee that the Soviet program to protect their essential industrial workers in urban blast shelters and to evacuate everybody else to the surrounding countryside and provide fallout protection for them will work.¹⁻⁵ I can attest, however, both to the earnestness and the intensity of the Soviet effort to instruct their entire population in the means and methods of defense against nuclear weapons, compared with a very

low-key American program. The Soviet program appears to be growing in strength and effectiveness, while the American program is shrinking.

Instruction of Soviet Population—Nationwide, Compulsory, Directed

Numerous articles,⁶⁻¹¹ for example, on the civil defense instruction of school children in grades five, six, seven and nine leave no doubt that the Soviet school children in all fifteen republics of the Soviet Union are being taught to protect themselves. Details about the 1968-1969 curriculum which include important changes in method and content of courses taught in the previous year, letters of suggestion and criticism from parents and teachers, and descriptions of equipment (gas masks, first-aid kits) and teaching materials (manuals, handbooks, posters, film strips) supplied to the schools, all point to the fact that Russian school children indeed receive a thorough training in civil defense.¹²

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



Nor is it school children alone who are instructed in civil defense. Marshal V. I. Chuykov, U.S.S.R. Chief of Civil Defense, when outlining the 1969 civil defense program in an interview, stated, "It is pertinent that this year the task of training the population in the 21-hour program is to be completed."¹³ And as Joseph Romm, the then Director of Civil Defense, testified at a recent hearing, "They (the Soviets) have a tremendous civil defense training program. Their society is different. They can direct people to be trained. There is *no question* that over 100 million people have taken their *intensive* civil defense training course. They are now, I think, in their sixth *mandatory** training cycle."¹⁴

Instruction of U.S. School Children—Spotty, Voluntary, Undirected

On the other hand, I know of no similar nationwide program in the U.S. for instructing our own population. While the national Office of Civil Defense has provided training for instructors of adult education courses and has developed with the Public Health Services a medical self-help training course, these courses have been adopted in

what Mr. Romm describes as "spotty fashion" at the junior high school and high school levels. Under a training program like ours, which in Mr. Romm's words is "voluntary . . . not directed,"¹⁵ only a very small fraction of our populace, either in school or out of school, is learning about civil defense. In fact, few of us know of any children who have received any civil defense training.

Direction of Soviet Public Attention Toward Civil Defense

Similarly, the attention of the Soviet public is continuously directed toward civil defense through all the press media—newspapers, magazines, movies, radio and television, while the attention of the U.S. citizens is rarely called to civil defense matters through any press medium whatsoever. A Soviet article informs us, for example, "It is very pleasant to note that in recent times materials on this subject (civil defense) have been published in all the central newspapers, and also in the magazines 'Kommunist,' 'Sovety deputatov trudyashchikhnya,' 'Sovetskiye profsoyuzy,' 'Ogonek,' 'Nauka i Zhizn,' and others."¹⁶ Another Soviet source indicates that "more than a thousand persons have participated and are participating in (providing) television broadcasts in all studios."¹⁷

*Author's italics.

But skeptics need not take the word of the Russian sources. U.S. resident reporters in Moscow from two of our most distinguished newspapers verify the outflow of articles on civil defense in the Russian press. Bernard Gwertzman of the *New York Times* reports: "The article (on large-scale civil defense preparations in the Soviet republic of Kazakhstan) in *Pravda*, the Communist party newspaper, was the latest of a series in recent years stressing the importance of civil defense."¹⁸ And Charlotte Saikowski of the *Christian Science Monitor* attests, "A drive to bolster public awareness of civil defense is under way here. The Soviet press recently has carried a number of articles about air-raid drills in factories, training exercises on farms, and other measures designed to prepare Russians in the event of nuclear war. . . . Movie houses show special films and veterans of World War II give lectures on the subject (of civil defense)." According to Miss Saikowski, "Justification for this heightened attention to civil defense is the allegedly growing threat of the 'forces of imperialism' and attempts of the West to undermine the Communist camp."¹⁹

Attention of U.S. Populace Directed Away from Civil Defense

On the other hand, when Dr. Eugene Wigner, U.S. Nobel laureate, submitted an article on civil defense to the *New York Times*, it was politely received but never printed. A similar effort to interest the *Reader's Digest* in reprinting an article on Soviet civil defense was turned down with comments implying that the subject of civil defense was of little interest. That these are not isolated cases is substantiated by a review of the *Readers' Guide to Periodical Literature* for the past three years. *Readers' Guide* of March 1966 to February 1967 contained seven articles on "Civil Defense"; *Readers' Guide*, March 1967 to February 1968, but two articles, one of which was on Russian civil defense; and *Readers' Guide*, March 1968 to February 1969, not a single article on civil defense, U.S. or otherwise. Thus, in the same years that Soviet periodicals and newspapers stepped up the number of articles on civil defense, American articles in periodicals and newspapers have decreased to zero. I recently questioned ten people at random; like me, none had seen a program or even a spot announcement having to do with American civil defense on television for several years.

Party and Government Mandate Strengthens Soviet Civil Defense; Evacuation Plans Consolidated

The increase in articles on civil defense in the Soviet Union can be viewed legitimately as a reflection of government and party concern. Soviet civil defense was given a major boost in 1966 at the Twenty-third Party Congress when the Central Committee of the Communist Party

called for strengthening civil defense.²⁰⁻²³ The Soviet government gave legislative teeth to this mandate with the Law on Universal Military Obligation, article seventeen of which calls for compulsory civil defense training in the grade schools, high schools, and technical schools throughout the Soviet Union.²⁴⁻²⁶

Another result of the party and government mandate was to substantially consolidate and strengthen existing plans for pre-attack evacuation and dispersal of large segments of the civilian population during periods of crisis escalation. V. I. Chuykov, Soviet Chief of Civil Defense; O. V. Tolstikov, former Soviet Chief of Civil Defense; and Lt. Gen. D. Shuvyrin, First Deputy Chief of Soviet Civil Defense, have all recently emphasized that urban pre-attack evacuation is an extremely effective measure in saving lives. Shuvyrin, in describing evacuation as "the most radical means of defense," indicates that through evacuation, "it is possible to achieve a reduction in the population density by scores of times in the large cities." In addition, he points out that the feasibility of evacuation is enhanced in the Soviet Union (1) by the socialist system and the planned economy, which enables the S.U. to organize and carry out evacuation on a nationwide scale; (2) by the vast expanse of the motherland, the great capacity of the suburban area, which permits the settling of an enormous quantity of individuals in rural localities, and (3) by a well-

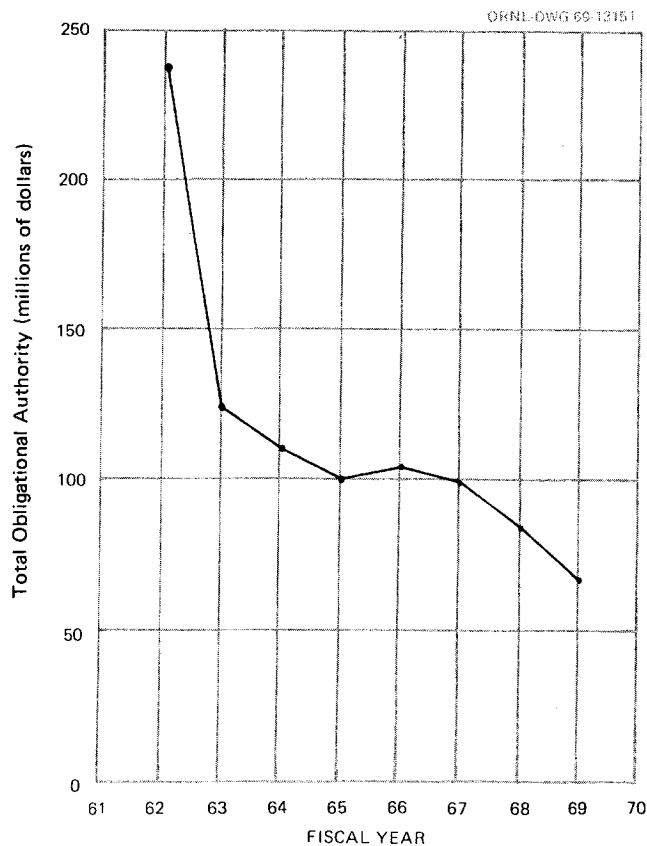


Figure 1. Financial Summary of Civil Defense (United States).

controlled transport, which can move people out of cities in a short period of time.²⁷ Marshal Chuykov, in an article appearing in *Science and Life*, a widely distributed and highly regarded Soviet magazine, makes the same claims for the feasibility of evacuation²⁸ as Shuvyrin, stressing that in the light of its effectiveness, supplying people with food and water—not defending them from nuclear weapons—is the really knotty problem.²⁹

That the Soviets take evacuation seriously is also evident in the comprehensiveness and detail of their program. Every town, for example, has an evacuation transport commission, which is headed by the deputy chairman of the local Council of Workers' Deputies, whose responsibility is to coordinate the evacuation of the population by rail, motor and water.³⁰

Elaborate evacuation plans include the designation of collecting points at which the evacuees would assemble; evacuation passes for every man, woman and child;³¹ the presence of a doctor or nurse with every evacuation train or convoy of trucks; explicit instructions on what every family should take³² (depending on climate and season) and the maximum weight of luggage and contents.³³ There are also plans for receiving the evacuees in the country³⁴—providing them with food, water, and jobs, and even for having their mail delivered to them at their new addresses.³⁵ Thus, the seriousness with which the Soviets take evacuation is evident in (1) the declarations of their military strategists of its effectiveness, (2) the existence of civil defense evacuation commissions in every town and village, and (3) the comprehensive and detailed plans for carrying it out.

Decreasing Budget Allocations Weaken U.S. Civil Defense

I have suggested that the increase in articles on civil defense in the Soviet press is a reflection of government and party concern. By the same token, it is likely that press apathy toward civil defense in the U.S. is a reflection of government apathy, which is evident in decreasing budget outlays for civil defense. While the U.S. government authorized \$238.9 million for civil defense in 1962, only \$105.1 million,³⁶ less than half the 1962 allocation, was authorized for 1966, the year that the Communist Party in the Soviet Union issued its mandate to strengthen civil defense. And the allocation for civil defense for 1969 was \$68.1 million,³⁷ the lowest* authorized federal expenditure for civil defense in the past eight years (see Fig. 1).³⁹

Present policy of attempting to provide fallout protection for people near their homes and places of work has prevailed since 1958 when the Federal Civil Defense Administration (FCDA) declared that national civil defense policy "which now includes planning for the movement of people from target areas if time permits, will now also include the use of shelter to provide protection from radioactive fallout."⁴⁰ In the same release the FCDA cast serious doubt on the effectiveness of blast shelters when they stated, "There is no assurance that even the deepest shelter

would give protection to a sufficient number of people to justify the cost."⁴¹ While the wording of the 1958 FCDA release seems to give equal billing to evacuation and fallout protection, in practice national policy since that time has placed almost exclusive emphasis on fallout protection with virtually no consideration of evacuation. Nor has any effort been made to provide blast protection for the population.

In citing the absence of a workable evacuation plan in the U.S., I am not suggesting that we should inaugurate such a plan ourselves. On the contrary, a federal order to evacuate our population during a period of crisis could very well serve to escalate the crisis rather than diminish it. Also, as the Soviets themselves recognize, an evacuation policy has a greater chance of success in the U.S.S.R. where there is a well established tradition of public obedience to the directives of a strong central government and a distinct separation of cities (in contrast to the megalopolises of the U.S.). And, finally, as the Soviets again correctly surmise, they could evacuate their population with reasonable confidence that we would not attack them unless we were ourselves attacked. Thus, I am not criticizing the U.S. for de-emphasizing evacuation as a civil defense policy. I simply want to point out that successful evacuation of Soviet cities during a period of escalating international crisis could give the U.S.S.R. a decided strategic advantage over us. It would degrade our deterrence capability, take the teeth out of McNamara's policy of assured destruction, and offset the strategic balance by substantially reducing the number of Soviet urban casualties in a countervalue attack. However, the only answer today to a successful Soviet evacuation might be a return to our pre-1958 evacuation policy, even with all the inefficiency and confusion an actual evacuation would entail.

Rough Estimates of Certain, Specific Soviet Civil Defense Costs

While figures on the cost of the Soviet civil defense program are not available, it is possible to make some very rough estimates of annual expenditures for certain specific civil defense activities, which we know exist, and to extrapolate the cost from that of the same civil defense activity were we to inaugurate it in the U.S. Let us take, for example, the cost of civil defense instruction of the popu-

Continued on page 13.

*Decreases in civil defense allocations admittedly reflect budgetary cuts to offset expenditures incurred by the Vietnam War. However, even when allowing for the higher priority of military requirements in Southeast Asia, the wisdom of so severely curtailing our civil defense program seems questionable. Joseph Romm has testified before the House of Representatives as follows:

"Last year I emphasized that the FY 1969 budget estimate of \$77.3 million was the minimum sustaining level for the national civil defense effort. The FY 1969 appropriation was \$61 million, or 21% less than the sustaining budget and 29% less than the FY 1968 appropriation. As a result, essential parts of the FY 1969 program have had to be severely curtailed and some elements deferred."³⁸ (Author's italics.)

DAVIS NOTES SOVIET PROGRESS,

U.S. SHORTCOMINGS

In a January 31 talk to members of the American Legion Auxiliary, National Civil Defense Director John E. Davis emphasized that the United States must retain the position of free world leadership and the capability to deter nuclear aggression.

The Soviet Union, Davis said to the Washington gathering, has more than quadrupled its land-based missile forces and expanded its submarine-launched missile force—and may, as a result, have acquired twice the nuclear payload of U.S. missile forces.

The Soviets have deployed the SS-9 missile, a weapon whose only apparent military use would be to destroy U.S. power to retaliate against a first strike. Davis noted also that “Soviet civil defense measures, by stressing evacuation of cities in a crisis, also lend themselves to a first-strike strategy. And Soviet civil defense progress in the past year has undoubtedly received impetus from confrontations with Red China.”

The U.S. Civil Defense Director praised the Legion Auxiliary for campaigning for more shelter in the nation’s schools and for advocating more widespread education of youth in civil defense skills. Davis pointed out that civil defense should be taught on the basis of lifesaving value in peacetime emergencies as well as nuclear ones.

According to Davis, currently less than half of the U.S. public school population of 45 million students and one million faculty members would have adequate fallout protection in a nuclear emergency, and less than 10 percent of the Nation’s school districts now include civil defense as a regular part of their curriculum.

From the January issue of the Minnesota Civil Defense Newsletter:

To: Minnesota State Architectural Engineer

“The Department of Civil Defense has proposed that new buildings constructed by the State of Minnesota have fallout protection as determined to be necessary by the Department of Civil Defense for the particular location of the buildings. It has been agreed with the Department of Civil Defense that such a provision is desirable in the public interest and further that such modification can be accomplished by addition of necessary language to the State Building Code.

“You are hereby directed to include such language as is agreeable to the Director of Civil Defense, and the State Architectural Engineer into the State Building Code as will establish incorporation of fallout protection in State buildings consistent with recognized standards.”

Rolland F. Hatfield
Commissioner of Administration

FLIPPED TRANSPARENCIES

In the last issue of *Survive* (January-February 1970) two charts accompanying the article entitled “Civil Defense and Public Opinion” appeared at first glance to be in order. Actually the artistry was better than the accuracy. In putting the charts together the curve transparencies became inverted. Result: two errors and another item in *Survive’s* proof-reading SOP.

Charts as they should have appeared:

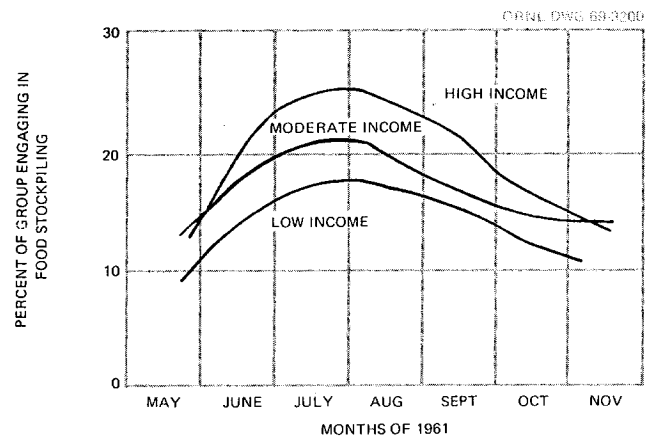


Figure 3. Food Stockpiling for Income Groups during the Berlin Crisis.

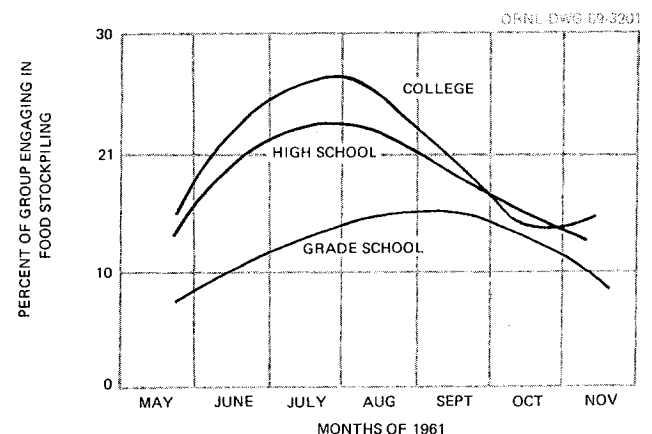


Figure 4. Food Stockpiling for Educational Groups during the Berlin Crisis.

CD CALENDAR

- March 23-25 —American Hospital Association Institute on Disaster Planning, Chicago.
- March 29— —U.S. Civil Defense Council Meeting, Washington, D.C.
- April 1
- April 5-9 —National Association of State CD Directors, Spring Conference, Washington, D.C.

SO BE IT!

-by Don F. Guier

Almost every public discussion of growing national problems such as environmental pollution, poverty and the plight of our cities, seems to include an appeal for "re-ordering of priorities". Often this turns out to be an explicit or implicit plea to divert federal government spending from national security to domestic programs.

The fact is that the federal government *has* been engaged in this kind of priorities reordering—shifting expenditures from defense to non-defense programs—over the last decade or so.

Seven federal budgets ago (before our major involvement in Viet Nam) defense spending amounted to just over half of the federal budget. Since then, in spite of enormous expenditures for the Viet Nam war, the share of the federal budget devoted to defense has *declined*.

Let's compare President Nixon's budget proposals for the next fiscal year to the budget of seven years earlier—on a per capita basis.

	Per capita	
	Fiscal Year 1964	Fiscal Year 1971
Viet Nam	\$ - *	\$ 88
Other Defense	273	268
Non Defense	<u>251</u>	<u>624</u>
Total Federal Budget	\$524	\$980
Totals include:		
Strategic Forces	\$ 46	\$ 39
Civil Defense	0.60	0.36

*Figure not available but very small.

Except for the cost of the Viet Nam war, each U.S. citizen will invest slightly less in defense next year than seven years ago. He will get much less defense for his money because of the enormous increase in the cost of living. On the other hand, each man, woman and child will pay 2½ times as much for non-defense—an increase of \$373 in the seven year period. The non-defense *increase* is more than the entire 1971 budget for defense, including Viet Nam.

Seven years ago defense was 52% of the federal budget. The President's proposal provides only 27% of the federal budget for defense other than Viet Nam—barely half as large a share.

Any rational consideration of national priorities should consider "needs" for defense as well as non-defense. The growing threat to our safety and way of life from domestic problems is both directly visible and well publicized. But what about overseas threats?

As a major indicator, let's take a look at the Soviet Union defense spending. Soviet defense expenditures are running ahead of the U.S. They currently spend about 1½ times as much on defense as the U.S., if we leave out our Viet Nam costs. Since their gross national product is about half that of ours, this amounts to three times as large a share of their national wealth.

A look at trends is also revealing. While U.S. defense expenditures (other than for Viet Nam) have remained nearly level over the last seven years, Soviet defense expenditures have increased over 50%.

When we look at the portions of defense spending for "strategic forces" (offensive and defensive missile systems, bombers, warning, etc.) and civil defense, trends and contrasts are even sharper.

Over the last seven years U.S. spending for strategic forces has decreased from 9% of our total federal budget to 4%. Comparable Soviet spending has increased 60% and currently is about 2½ times the U.S. level (absorbing five times as large a share of national wealth).

U.S. civil defense expenditures have declined (down 30% in seven years) to the point that next year's budget proposal provides only 36 cents per capita out of a total federal budget of \$980 per capita. Although reliable figures for civil defense spending are particularly difficult to determine for the Soviet Union (since their civil defense is, as it should be anywhere, thoroughly integrated into their industrial, military and community life), the Soviet Union may have doubled or tripled its civil defense effort in the last seven years. There seems to be little question that they are spending more than ten times as much as the U.S. for civil defense, or twenty times as large a share of national wealth.

Congressional and news media mood is such that President Nixon thought it wise, in his February budget message, to emphasize that his proposed budget provides the smallest share for defense since 1950. However, in his January State of the Union Message the President said "When we speak of America's priorities, the first priority must always be peace for America and the world".

It is unfortunate that we must spend much of our resources to preserve peace and our national security, but the realities of today's and tomorrow's world make it necessary. ■

France's leading advocate of blast shelter—General Pierre Teissier—here outlines the story of independent French nuclear weapons and shelter research. Like the United States, France lags tragically in making provisions for the protection of its people in the event of nuclear attack. Technical knowledge of required shelter characteristics, however, is not lacking. According to the author good civil defense preparation by France would in the event of a 1,000-megaton attack give France 85% survival, while under present conditions only 5% of the population would survive.

THE QUESTION OF BLAST

SHELTER—AS SEEN

FROM FRANCE *

- by Pierre Teissier

You have said that you would like to have from me, a Frenchman, a brief “exposé” of what our studies on shelter from nuclear blast have been in France and the conclusions that can be drawn from them.

When the atomic bomb changed from a theoretical possibility to something which actually existed, and as soon as peace returned, French Army officers of the Corps of Engineers were oriented toward the new dangers which this involved: they were asked to define the limits of this new menace and the technical means whereby human life could be protected. They began to work with military medics, then because of possible food contamination by radioactive dust, with biological veterinarians. Finally military quartermasters were in turn obliged to study the effects of nuclear weapons on the organization of food distribution.

Very quickly it became apparent that this overly-powerful method of warfare would be used, like aerial bombing,

much more against the civilian population than against troops. Beginning with this realization the responsibility for protection no longer rested with military engineers, but with the French Office of Civil Defense. It is still there.

The French Army, of course, has not kept the results of its nuclear research to itself, and it has given the benefit of its knowledge to French Civil Defense. This explains the presence of several general officers in civil defense technical posts: an engineer general, an aviation general, a medical general, and a quartermaster general.

As long as it was in the military domain nuclear research was kept secret. We at that time photographed, for each

**The views expressed in this article are those of the author and do not necessarily reflect those of the French Government or other official French viewpoints.*

millionth of a second, the momentary but enormous forces which, like nuclear blasts, appeared suddenly, were transmitted instantaneously to the inner walls of shelters, some times rupturing them, and then disappearing as quickly as they had come. We produced flashes of heat of the same strength, the same duration and the same spectrum as those which occurred in the case of a nuclear explosion to the point where steel melts, to that where heated concrete is reduced to dust, to the point where the clothes of men and women burst into flame and to that where a newspaper becomes a torch. We took radioactive rays similar to those of atomic weapons, and we ricocheted them in the entryways of shelters as well as shooting them through earth and concrete to see in what proportion each is deflected into the shelter, each inch of earth or of concrete reduced the radiation intensity and changed its spectrum; we made the same neutrons as those of bombs react on materials employed in construction in order to know which ones became radioactive, to what degree and for how long. Our tests of passages, of doors and of anti-blast measures were countless.

In this way we ourselves became familiar with nuclear weapons effects and their limitations well ahead of the actual construction in France of one of these bombs. And, of course, we tested every possible way in existence or anticipated by us, costly or not, to protect human life.

But, for engineers of long experience, it was unthinkable to consider conclusions of much value as long as they had not been verified by actual nuclear explosions.

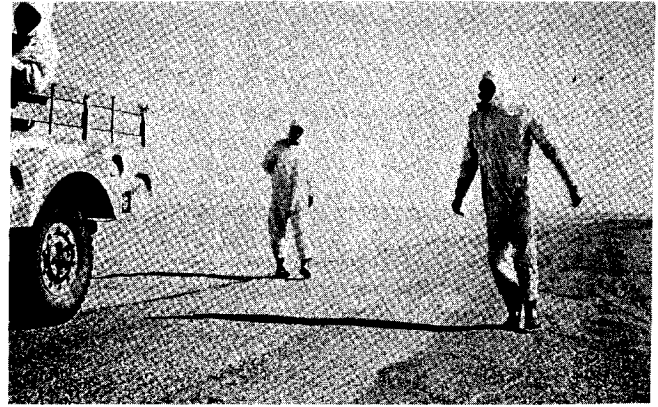
And French Civil Defense waited for us to give it the necessary proof.

In 1957 the United States opened up for us the first opportunity of making a verification of shelters which we had calculated as good for an overpressure of 140 psi. The test was conducted in Nevada, but we were not authorized to be present or even to enter the test area. Our shelters, however, held up under the impact, and the mice which were inside them survived.

Finally in 1960 the first French atomic bomb was detonated, and we were able ourselves to test our shelters under conditions which, although remaining secret for outsiders, were completely known to us.

We tested, in addition to diverse types of covered trenches against fallout, blast shelters designed for civilian populations rated at 140 psi, 220 psi, and 560 psi. This last shelter was studied for rather exceptional cases such as rescue posts maintained in the heart of a threatened city,

**Note: In order to withstand the heavy ground motion in the area of this overpressure a shelter would have to be mounted on springs (See "NORAD: Nuclear Fortress" in the March-April 1969 issue of Survive).—Ed.*



Civil Defense officials in search of irradiated and injured animals after a French nuclear burst in the Sahara Desert.

and it was fitted with a special door with an opening of 5.25 feet by 6.60 feet to permit the passage of ambulances.* (This door, which was built to our specifications, cost us less than 10,000 dollars f.o.b. at the Paris factory.) We also took advantage of this shelter to ask the Louvre Museum in Paris to loan us fragments of paintings which were without value but executed at the same time and with the same paints as museum masterpieces. We wanted to see if neutrons, very numerous at this short distance from the bomb, would be sufficiently attenuated by the shelter walls so as not to damage the masterpieces that might be placed therein.

Finally we had the complete experimental proof that our shelters were adequate: everything had withstood the shock, including items not specifically designed to resist it and subjected to the test merely on the assumption that they could withstand the shock. These items, for example, included door hinges, small electrical assemblies, fans, containers of potable water, lamps, paintings, mice, and even the tape recorder I had placed there to register the terrific noise that a shelter experiences after a close-by explosion.



For us the first round is finished. We know for certain how to protect human lives as close as we want to the edges of the crater opened by the explosion. In the case of a 1-megaton ground burst the overpressure is only 440 psi at a distance from the point of the explosion equal to one and one half times the diameter of the crater.

And what is important for you—Americans in the United States—is to realize that these results were obtained exclusively by French research undertaken in secret at a distance of more than 6,000 miles from America without any communication with those who were undertaking the same research there, also in secret and by different methods, and that this French research led to the same conclusion, to the same result: we know with certainty how to protect the civilian population against the effects of nuclear weapons.

Less than 10 years before this, at a time when the H-bomb did not yet exist, practical thinkers asserted that all our research was useless and that it would never be possible to protect people from an explosion the size of the Hiroshima bomb.

The question of the cost of protection was then considered, and we were quite embarrassed by the variations between the prices given for the same degrees of protection by the United States and by us in France. But then we discovered that this had very little to do with different economic conditions and pertained essentially to the degree of austerity that each country found to be acceptable in a shelter. Examination of German shelter specifications and bills of materials confirmed this further. This is why I use here—in Table No. 1—not the cost of a shelter space, but the comparison between the price of a space in a new, completely equipped shelter assigned a given blast protection with the cost of a shelter space in a new, completely equipped shelter against fallout only (or, if we want, assigned a blast protection of about 4 psi). Expenses for “comfort” being less in France the prices here climb at a comparably faster rate, but not in either country does the price of a space in a new, fully equipped blast shelter protecting against 220 psi exceed three times the price of a new, fully equipped shelter protecting against fallout only.

There appears to be no question about this.



And now to another point:

In any nation there are the big cities, the small towns, the hamlets and “the green country” as we say in France. A ten or twelve-megaton missile costs fifty million dollars in the United States. The enemy, therefore, doesn’t have so many missiles that he can amuse himself by firing a rocket worth fifty million dollars into the wheat fields of Montana or into a small town of 800 inhabitants when the same rocket zeroed in on Washington would replace the capital of the United States with a big hole surrounded by charred and radioactive soil such as that in the accompanying photograph (a picture which I took at Reggan, Algeria where our first bomb had a yield of only 70 kilotons).

It is therefore normal that in the Montana wheat country they build fallout shelters only and that in the big cities they build highly resistant blast shelters.



The 345-foot steel tower supporting the first French nuclear explosion was vaporized, then condensed. Here it lies on the Sahara sand in powder form.

The new stage of research, then consists of each country estimating how the enemy plans to use his bombs in order to cause the most damage possible, what targets he will select as a consequence, how to space around these targets shelters of varied blast resistance in order that, in the final analysis, for a given expenditure the highest possible percentage of survivors results.

We have made this study for France—and it has also been made for the United States.

In the United States, as in France, the study ended with the conclusion that only 50% of the nation’s population could be adequately protected with fallout shelter, but that the other 50% had no chance of surviving if blast shelters were not made available.

In France, a country with fifty million inhabitants (one fourth the population of the United States), we estimated a total expenditure of ten billion dollars for shelter, and that this would allow us in the event of a 1000-megaton attack delivered within a period of forty-eight hours to wind up with 85% survivors at the end of ninety days (death by radiation is slow, as is the cure) in lieu of a maximum of 40% survivors in the case where *all* the population was provided with shelter protecting against fallout only, and less than 5% survivors under present conditions.

I do not think that the proportions could be very different within the United States under a very big and well-conducted nuclear attack.

TABLE 1*

New shelter with a blast protection of:	Fallout only (4 psi)	14 psi	28 psi	80 psi	100 psi	140 psi	220 psi
U. S. A.	1	1.17	1.35	1.80	2.0	2.1	2.7
FRANCE	1	1.45	1.70	2.20	2.4	2.7	3.0

*Note: General Teissier uses ratios instead of actual cost figures due to the wide variation of shelter cost estimates. These ratios pertain

to shelters which are completely equipped. American authorities understandably do not arrive at exactly the same ratios.—Ed.

We have ascertained also that this expenditure should be spread over a period of ten years, not simply to make it acceptable budget-wise but because it is necessary that construction firms equip themselves, that their research personnel get used to thinking in the specialized terms of shelter construction and to calculating required protection features. There are not enough workers, or enough engineers, or enough machinery in the construction industry to exceed this tempo without upsetting the country's economy. Furthermore the location of blast shelter in big cities requires special studies, purchases of shelter sites, and prior rebuilding which, depending upon the situations encountered, could require several years.

The United States, like France, is a free country; it is the obligation of each citizen, after becoming informed, to appreciate the risks he agrees to accept and the insurance that he is prepared to pay to protect himself.

One should not be surprised if this appreciation varies according to the international political situation of the moment, according to the temperament and the convictions of each person.

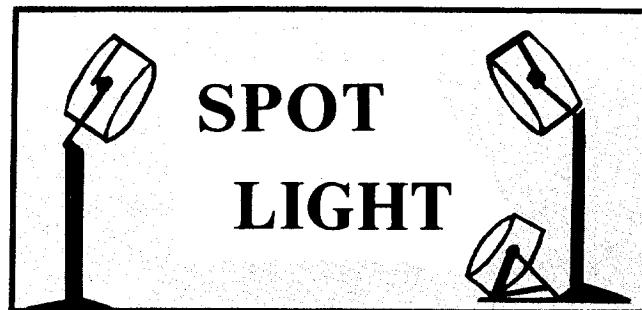
The Germans have often said, however, "We lost the last war for having begun the massive construction of shelters two years late." (Translation WM)

AMERICAN HOSPITAL ASSOCIATION HOLDS MARCH DISASTER MEETING

A three-day "Institute on Disaster Planning" will be conducted by the American Hospital Association in Chicago March 23-25. All sessions will take place at the Hospital Association's headquarters at 840 North Lake Shore Drive. Among the programs to be presented are:

- Behavioral Considerations During a Disaster Period
- Transportation Problems During Time of Disaster
- Bomb Threats
- Role of the State Board of Health in Disaster
- Role of the American Red Cross in Disaster

Participants are restricted to medical personnel and to "individuals related to a Federal Agency or the Military having an association with disaster preparedness." Applications for attendance may be obtained from the American Hospital Association.



Jamming 13,000,000 people into fallout shelter in 30 minutes is a herculean task, but this is what New York City was faced with in its Community Shelter Plan. Understandably, Civil Defense Director Carmin G. Novis jumped at the chance of having the Riverside Research Institute computerize all phases of the study under the direction of Dr. Eric Brodheim, director of Riverside's Computer Sciences Laboratory. A pilot area of 450-block mix of residential and commercial neighborhoods in Queens Borough is the first phase of the study. America's first city has some unique problems in population shifts. Authorities are also aware that blast and heat may well be factors to contend with even though current OCD policy does not focus on them. Due to heavy reinforced masonry construction many New York City buildings are potential shelter against direct effects of nuclear weapons as well as against fallout.

The largest nuclear explosion ever to be set off in the United States is scheduled for Alaska's Amchitka Island in late 1971. "Cannikin," as it has been named, may trigger an earthquake according to AEC authorities, but in so doing it will relieve stresses and serve to ease seismic dangers in an area of high earthquake frequency. Evaluations are still being made of the one-megaton "Milrow" weapon detonated last October at the same location.

The Seventh Day Adventist Church last summer served a "gluten protein" (meat substitute) stew to 1,000 people at Camp Berkshire in Wingdale, New York as an experiment in emergency mass feeding. Using ten U. S. Army field ranges and dividing the diners into 10 groups of 100 each the total serving was accomplished in less than six minutes. So palatable was the gluten protein that a major portion of those people eating it refused to believe that it was not meat.

Survive's annual Florida conference on January 17-18, 1970 underlines *Survive's* most critical need: Funds. New plans were made to contact several possible sources of support with a view to permitting the formation of full-time staff positions. Other 1970 goals were defined as: (1) increased circulation, (2) an advertising build up, and (3) a widened coverage slanted to reader interest with clear concise and pertinent articles and news items. Evidence in the form of reader comment and staff analyses pointed to a highly successful two years of publication plus a necessity for these further developments.

Critical urban traffic problems call for subsurface engineering. Scientist G. A. Cristy here summarizes his research into the question of adapting underground facilities for use as urban blast shelter.

DUAL-USE SHELTER SYSTEMS

- by G. A. Cristy

In these days of frequent and recurring urban crises, drastic methods have been proposed to relieve the traffic congestion on the streets and highways in our cities. Rapid expansion of highway systems leading into the cities, movement of people to the suburbs and rapid growth of the metropolitan areas have combined to create a need for more and better ways of moving people into and out of the cities. Expanding freeway systems have not solved the problem, particularly during the rush hours, morning and evening, when 50% of all weekday trips are made. Along with clogged traffic lanes is the problem of parking individual automobiles in the central business districts.

Most of the major American cities are struggling with these problems, and most are involved in planning for improvement and expansion of the public transportation system. The concept of a "balanced transportation system" is being actively discussed. For major cities this generally requires addition of some type of rapid transit system (either bus or rail) operating on exclusive rights-of-way (i.e., grade separated from streets and highways). Further, most cities need to provide many more automobile parking spaces both downtown and at the outlying stations of the rapid transit system. Even when all this is accomplished, there will still need to be more high-speed automobile accessways (freeways or interstate links) in most of our cities, in anticipation of a steady rise in the United States car population.

A solution being forced upon cities is the use of underground transportation systems whenever population density exceeds a certain amount (perhaps 10,000 people per square mile). All underground structures and even grade separation structures which are built may have value as blast shelters for the city population if timely modifications are made to the normal peacetime designs.

The present shelter policy of the United States does not provide for resistance to the blast effects of nuclear weapons. However, some of the fallout shelter spaces already located provide protection against blast and prompt radiation effects. For example, over 12,500,000 of the 192,000,000 presently identified National Fallout Shelter

Survey (NFSS) spaces are in underground structures. They include tunnels, basements of buildings of heavy masonry construction, mines, caves, and even unused ammunition bunkers. About half of these facilities are within moderate to high population density areas. Unfortunately, many of them are not being utilized in shelter planning because they are in areas where tall buildings provide large numbers of fallout shelter spaces. Although these buildings may give adequate protection from fallout, they are quite vulnerable to blast overpressures as low as 1 or 2 psi.

An example of this situation is New York City, where the subway system provides 1,600,000 adequately ventilated fallout shelter spaces, but only a few hundred of them are actually marked and stocked. Thus, while some shelter spaces providing protection against blast and radiation as well as fallout are not being utilized, dependence for protection is being placed on spaces which are more vulnerable to direct weapons effects. As a small first step toward an advanced shelter system containing spaces specifically designed for blast protection, the replacement of low blast protection spaces with high, wherever possible, would be most useful.

The idea of using transportation systems for dual-purpose shelters has been put into practice in several foreign countries. Russia has incorporated blast shelters into existing subways and is probably extending them to all new systems. Finland and Sweden have civil defense shelters built in or near their subways and railway stations. In 1968 the Netherlands completed dual-purpose blast shelters incorporated into the stations of their newest subway, Metro-Rotterdam. The actual incremental cost of providing civil defense features in these facilities was 440 guldens (U.S. equivalent=\$150.00) per person sheltered.

It is vital that studies of ways of designing blast shelter into underground facilities be completed as soon as possible. The construction industry needs time to program such an undertaking, and unless blast shelters are incorporated in early plans, their inclusion becomes difficult and expensive. Even greater problems are encountered if protection is to be added to already existing structures. Thus, if a decision to have a national blast shelter program is to be made at all, the earlier it is made the less expensive will be the shelters. ■

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

lation. As we have already noted from Mr. Romm's testimony, over 100 million Russians have received intensive civil defense training. We also know that the present civil defense training course for adults in the Soviet Union is twenty-one hours, while school children receive eighty hours of civil defense instruction by the time they complete the ninth grade. Keeping these figures in mind, let us consider the cost of training 85 million Americans—the equivalent of 100 million Russians—in civil defense. If we allow \$1 per hour per person* for a 21-hour program of instruction, the cost to our national economy would be about \$1.7 billion (to the Soviet economy, over \$2 billion), a figure which is more than our total national allocations for civil defense for the past eight years.** And this does not include the cost of training the instructors, who, in the Soviet Union receive 35 hours of special instruction for civil defense teachers.⁴⁵ Nor does it include teaching materials, such as slides, posters, and textbooks; nor equipment, such as gas masks and first-aid kits. Also, we must keep in mind that instructing the population is but one aspect of civil defense.

Again we know from Mr. Romm's testimony that the Soviet Union has a "heavy military organization from the top right down to the bottom"⁴⁶ specifically to assist the civilian civil defense organization. The civil defense military organization is headed by V. I. Chuykov, a full fledged Marshal, and senior colonels are located in small political jurisdictions (equivalent to our cities and states), where they head up units of civil defense which consist principally of military people. The Soviet Union has several schools to train these people. One is the two-year Moscow military civil defense academy established in March 1967 to train junior officers in civil defense.⁴⁷⁻⁴⁸ The costs for operating this academy and maintaining the civil defense military units are difficult to determine, but undoubtedly are considerable.

We have yet to mention the costs for urban blast shelters, which the Soviets have provided, at least in some degree, for essential workers in vital industries. And, of course, there are expenses connected with the elaborate plans that the Soviets have for evacuating the bulk of population, all people who are non-essential to vital industries,⁴⁹ to the countryside.

*The amount paid to U.S. industrial workers (in the Soviet Union workers receive civil defense training during work hours)⁴⁴ would doubtless be considerably more than \$1 per hour. However, since we must include students and the unemployed, an average cost of \$1 an hour seems fair.

**The reader should be aware that even were we to inaugurate a civil defense instruction program similar to the Soviets' the actual costs would not be reflected in the federal defense allocations. Nevertheless, the cost of such a program would represent a real allocation of national resources "costing" approximately the amount we suggest. The Soviets, of course, may also keep their books in a similar way.

A Comparison of Certain Soviet and U.S. Civil Defense Expenditures

We have estimated the cost of instructing 100 million Soviet citizens in civil defense to be about \$2 billion. It is difficult to determine the time period over which this instruction has taken place, as we know that the thrust to provide every one with a minimum of 21 hours of training was a fairly recent one.⁵⁰ However, even if we should say that this training took place over the past six years, the total federal allocation in the U.S. for all civil defense activities during this same time period—\$573.7 million—would represent 28.7% of the amount spent by the Soviets on one single aspect of their program: educating the public.

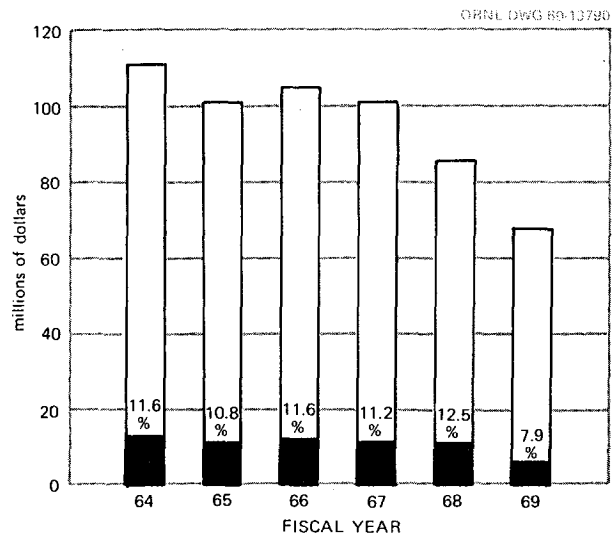


Figure 2. Fraction of Total Annual U.S. Civil Defense Allocations Spent on Education and Training.

We have yet to mention the cost of the U.S. instruction program. Of the total federal allocation for civil defense over the past six years, \$573.7 million, the amount spent on education and training activities was \$63.7 million.⁵¹ Thus, the budgetary allocation for all education and training activities over the past six years in the U.S. has averaged \$10.6 million a year, or 11.1% a year of the total authorized outlay for civil defense over this period (see Fig. 2).⁵² If we were to use this percentage to extrapolate the total cost of the Soviet program over the past six years, we would arrive at the staggering figure of \$18 billion, or \$3 billion a year. Even if we were to raise the percentage of the Soviet civil defense outlay for education to 33-1/3%, we

would still arrive at a figure of \$6 billion, or approximately \$1 billion a year. Thus, we can say with some degree of certainty that the annual Soviet budget for civil defense lies somewhere between \$1 and \$3 billion. Or, put another way, the Soviets spend one to three times more on civil defense in *one* year than the total amount allocated by the U.S. federal government for civil defense in *eight* years. For a country only 15% larger than ours to spend over ten times more than ours on civil defense points to a seriousness of interest an order of magnitude greater than ours.

Soviets Recognize Need for Blast Protection

Thus, the Soviet Union, unlike the U.S., provides compulsory and nationwide civil defense instruction for its population. But the differences between the two programs do not end here: there is also an essential difference in philosophy over the importance of blast protection. The Soviets recognize the need for affording protection from the blast effects of nuclear weapons to people in cities and have provided such protection in all cities with subways. The Moscow subway system, for example, extends for over seventy-five miles and has more than eighty stations. U.S. visitors to the Soviet Union have attested to the depth of this subway and to the presence of both heavy blast doors in the stations and high-speed escalators, which convey passengers down into them. Nor is Moscow the only city with subways equipped with blast doors. Again U.S. visitors have observed similar protective facilities in both Leningrad and Kiev. Baki and Tbilisi also have subways, and new ones are being established in Tashkent and Kharkov. That all seven systems are designed for blast protection is substantiated by a recent Russian television scenario on "Reliable Means of Protection." This scenario, which includes shots from a film of a subway, has the accompanying script: "These structures can protect a person from blast waves, light radiation and radioactive contamination. Here you see the subway. In cities which have one the residents will always find protection in it."⁵³

Protection in U.S. Limited to Fallout

Meanwhile, since 1958, the policy of the U.S. has been to focus exclusively on fallout protection. Thus, there has been no emphasis even on using preferentially those fallout shelters that afford some measure of blast protection. This policy has led, for example, to the identification of 10 million fallout shelter spaces in Manhattan (much more than the peak population of the island) with no preferential selection of those shelters for public use which might offer protection from blast as well as fallout.

Soviets Stress Fallout Protection in Rural Areas

While the Soviets recognize the need for blast protection in cities, they emphasize protection against fallout in the country. Thus, there are explicit manuals with retailed instructions both on erecting hasty shelters out of materials

at hand and on converting vegetable bins, cellars and basements and silage pits to fallout shelters.⁵⁴ Village dwellers are given blueprints and allotted bricks⁵⁵ for strengthening these facilities.⁵⁶ Since the centerpiece of the Soviet civil defense program is to evacuate all nonessential urban dwellers to rural areas, it is hardly surprising that they stress increasing the fallout facilities in the country.^{57,58}

U.S. Discontinues Rural Shelter Development Program

Meanwhile, the U.S. Office of Civil Defense, which appropriated funds to four agricultural engineers for the past year and a half for a minimal "Rural Shelter Development Program," brought this program to a close on December 31, 1969. (See footnote on page 4).

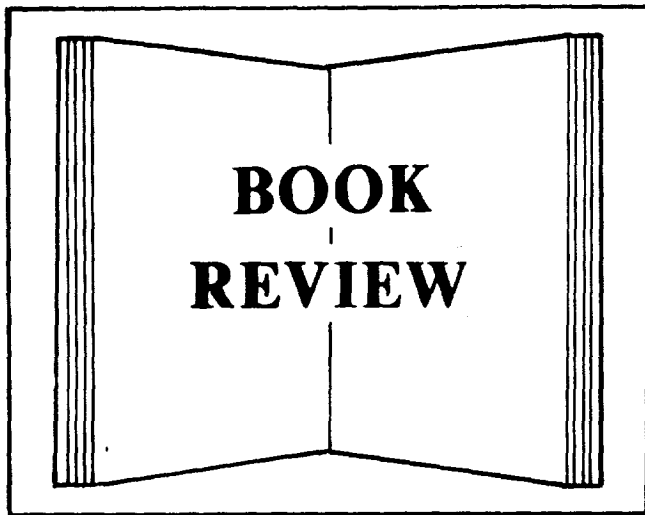
Summary: Yes, the Soviet Civil Defense Program is Indeed Much Better Than Ours

Coming back to our original question—Is the Soviet civil defense really better than ours?—we have no choice but to answer in the affirmative. That the Soviets take civil defense more seriously than we do and are instituting it much more effectively than we are is evident in these facts which we have considered:

- (1) Instruction of Soviet school children is nationwide, compulsory and directed; instruction of U.S. school children is spotty, voluntary, undirected.
- (2) Direction of public attention toward civil defense in the Soviet Union is apparent in the increased use of all press media for civil defense purposes over the past three years; direction of public attention away from civil defense in the U.S. is apparent in the virtual disappearance of any mention of civil defense from all news media during the same period.
- (3) Party and government have issued mandates for strengthening civil defense in the past three years and have funded a greatly extended program, of which one aspect alone, public instruction, has cost about \$2 billion; U.S. government has decreased total appropriations for civil defense from \$105.1 million to \$68.1 million over the same period of time, its eight-year total for civil defense allocations coming to less than the Soviet expenditure for instructing their population.
- (4) Soviet policy is to recognize the need for blast protection and to provide it, for example, in seven urban subway systems; U.S. policy is to focus exclusively on fallout protection with no provision for preferential use of shelters which offer some degree of blast protection.
- (5) Soviets stress fallout protection in rural areas and provide free blueprints and materials to farmers and villagers; the U.S. brought its extremely small Rural Shelter Development Program to a close at the end of 1969. ■

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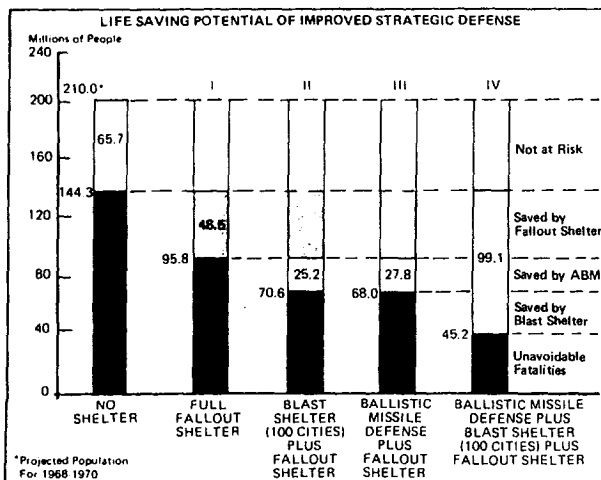


Fallout Protection in the Design of New Industrial Facilities

Fallout protection in the Design of New Industrial Facilities, A Special Report to Business and Industrial Executives, published by the U.S. Department of Commerce in cooperation with the Department of Defense (OCD), FG-F-3.47, August 1969, 22 pages.

Expert guidance in designing shelter into industry's building programs is presented in this well-written and concise booklet. An annual \$29 billion in new construction that could lend itself to dual-purpose shelter is hardly to be ignored. Not only would it provide protection for employees and families, "but will also contribute materially to the strength of the nation."

"Active offensive and defensive systems," the pamphlet states on page one, "are designed to deter enemy attack, or if this should fail, to limit damage, especially from the immediate weapons effects, against which fallout shelters can provide peripheral protection."



It comes very close to advocating *blast* shelter here, and as a matter of fact the booklet plunges headlong into the subject with a chart (see accompanying bar graph) titled "Life Saving Potential of Improved Strategic Defense." This chart is an old one, one which miraculously has survived prolonged tendencies to ignore protection against direct nuclear effects. Based on a 1970 population of 210 million it plots a hypothetical nuclear attack situation where roughly 50 million are saved if a full fallout shelter program is in effect and *another 50 million if a combination of ABM and blast shelter exists for urban populations.*

Of course, neither of these features is now developed. And industry, with a heavy 70% of all the shelter surveyed to date, is a promising prospect for badly needed more of same. The booklet stimulates a number of questions.

For instance, with the pamphlet's direct implication that *blast* shelter is sorely needed, why *not* include blast shelter as a priority part of the overall national shelter effort?

And with the implication that ABM can be effectively applied to the protection of people why *not* go one logical step further and defend cities with ABM?

With the Federal Government asking industry to adapt its new construction to shelter (and asking local governments and the private sector to do likewise) why not *require* the inclusion of shelter in new construction undertaken or sponsored by *federal agencies*? Why not post offices as public shelter? Why not Housing and Urban Development projects slanted for shelter? Why not General Services Administration construction—all of it, not a pilot piece of it here and there—with maximized shelter? Why not the *general* rule—enforced—of shelter in *all* new buildings erected by *all* federal agencies? And why not, as the chart indicates, point to the need for *blast* shelter in federal buildings located where blast may be expected in a nuclear attack?

And why not *actively* encourage the several state governments to imitate this policy?

The shelter salesman—and this is the local civil defense director—could then address his government, not as a suspected bureaucratic dupe or crackpot charlatan, but as the legitimate public safety analyst he actually is. His recommendations would then have the backing of policy and *practice* at the state and federal levels.

Fallout Protection in the Design of New Industrial Facilities reads like a first harbinger of change in official posture. With this possibility in mind another quote from the pamphlet becomes significant: "In our Nation, the preservation of human life ranks far above the preservation of material things."

If this statement is not a platitude, then the questions the pamphlet raises deserve—and will probably get—some good answers.

CIVIL DEFENSE ABROAD

Today a fear of a war of terror calibrated in megatons pervades the world. We must therefore learn "to live with the bomb." We must not on one hand dramatize its effects out of proportion to fact or on the other hand kid ourselves into thinking that the danger is not real.

Dealing with such a situation is not easy. The thinking of the generation in control today is still too closely attached to former concepts, which have certainly proved their worth. But gradually now there will come to remain for us only the possibility of gauging the consequences of the new situation of the present day as it develops from the nuclear rearmament of the great powers and the "balance of terror" which this entails.

In this way we can understand more and more clearly that civil defense in Switzerland has been called upon to fulfill a much more important task than we at first expected of it. It was created as the result of an intuitive understanding of the new war dangers which could menace our country. It could well happen that, at the time of an attempt at nuclear blackmail, the decision we make would be dictated by the degree of our civil defense preparations.

Swiss Civil Defense Director Walter König

Illinois Governor Richard B. Ogilvie in November issued a proclamation calling on all local school boards to include civil defense instruction "as an integral part of the education of faculty, administration and students." U.S. Director of Civil Defense John E. Davis, in commenting on the action, pointed out that it would "undoubtedly provide a positive example to other states."

George Romney on Civil Defense

A few weeks before taking office as Housing and Urban Development Director, Governor George Romney wrote an article in support of civil defense for the December 1968 issue of *Michigan Challenge*, a publication of the Michigan Chamber of Commerce. Following are excerpts from this article, which was entitled "Top Priority":

"In this nuclear age in which we all live, education and training programs dealing with the intelligent development of state and community survival plans of organization and the techniques which implement survival must have a top priority in government . . .

"It is a belief held by some that our enemies would attempt to first destroy our economy. This means all segments of society must be prepared. Organizations must have plant protection plans. They must energetically develop specific plans which will give them employee protection and continuity of management . . .

"In this sense we are talking about the moral conscience of the community. Business and industry has this responsibility toward government, their employees, their stockholders, and the communities in which they operate."

Editorial Note: Will HUD—under Mr. Romney—recognize *its* responsibility to the communities in which it operates? Will the man who voiced the patriotic sentiments he did as Governor of Michigan now as HUD's director cut through the cobwebs and platitudes of bureaucracy and put teeth into policy?

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SENATOR YOUNG

On October 24 (1969) *The National Enquirer* used Ohio Senator Stephen Young's CP files in its publication. He is quoted as saying:

- a. That New York City had abolished its civil defense program. (*New York has a better, stronger, CD program under Director Carmin G. Novis.*)
- b. That civil defense organizations were of no value during recent riots. (*Although not responsible for riot control, civil defense organizations have provided valuable service during major riots, for example in Detroit.*)
- c. That state and local civil defense staff members are overpaid. (*One of the reasons for civil defense ineffectiveness is the extremely low salary scale for staff and highly trained people.*)
- d. That there is no defense against missiles. (*Incorrect. For example, a group of scientists withdrew from Argentina's Army Institute of High Studies last November, to meet U.S. military and CD installations. According to the Argentine Embassy CD installations were high points of the tour, and presented missiles, more advanced than Argentina's defense needs than many in the state's present National Defense program.*)
- e. That "The civil defense program of today will be as obsolete by that time (1975) as the Civil War cannonballs, ladies' bustles, flintlock muskets, and muscades, and that equally obsolete civilian civil defense is extremely slow in showing that it can prevent wounds."

Young's own comment refers to his claim that Red China will not be able to mount a nuclear attack on the United States until 1975. This is five years away.

What do we prepare for defense against a possible 1975 attack? In 1976?

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IN THE MAY-JUNE ISSUE:

Aviation Colonel-General O. Tolstikov, First Deputy Chief of USSR Civil Defense, writes on "Our Patriotic Duty"--the condensation of a translation from the Soviet publication *USSR Military Affairs*.