

CIVIL DEFENSE:

SHELTERS OR TOMBS?

Some Facts on a Morbid Subject

THE ONLY REAL DEFENSE AGAINST NUCLEAR ATTACK IS TO ABOLISH WAR ITSELF.

This staff study presents some very depressing facts and quotations. These facts make understandable the government's efforts to help alleviate some of the horrors of a nuclear war through a civil defense program. But the conclusion seems warranted—that millions of Americans, especially those in the major metropolitan areas and near important military installations, would not survive an all-out nuclear war, even if they have fallout shelters.

The danger in a huge civil defense program is that it may stimulate a war psychosis or divert energies from the essential task of building the conditions of peace.

The civil defense program can serve a constructive purpose, however. If the American people are given the full facts, the devastation of a nuclear war can then be balanced against the risks involved in world disarmament and in relinquishing some sovereignty to develop a truly effective United Nations and international court system. Confronted with these alternatives, men may choose to accept the considerable changes required within nations and in the international community to create a disarmed world under law.

WHAT CAN YOU DO?

1. Support programs and agencies which build the conditions of peace -- the UN, the new U.S. Arms Control and Disarmament Agency, the Peace Corps, international educational and cultural exchange programs, food for peace, economic aid and technical assistance. Urge U.S. initiatives to end the arms race.
2. Question the proposed civil defense program wherever appropriate -- in your community, with your neighbors, in the PTA, in service clubs, in letters to your local newspaper, in letters to Congress and the Administration. Point out some of the facts set forth in this study. Stress the need to work on the only real preventive measure -- world disarmament under law. Urge a local study of the changes required to make this transition to a peacetime economy.
3. Where your conscience requires, refuse to participate in civil defense drills or programs.

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CIVIL DEFENSE : SHELTERS OR TOMBS?

Some Facts on a Morbid Subject

On May 25, in a speech to Congress, President John F. Kennedy launched a major attempt to sell a much enlarged civil defense program to the American people. He asked for a trebling of funds for civil defense and announced he was shifting prime responsibility for this program to the Department of Defense. In his major speech on Berlin on July 25 he reiterated his civil defense plea.

Under this Presidential pressure, Congress, which has for years been passively resisting the Civil Defense program by cutting its appropriations, gave the President most of the funds that he asked for, some \$308,000,000. This is regarded as only a beginning. The ultimate cost of a civil defense program recommended by Chet Holifield and others has been estimated at twenty billion dollars or more.

Many feel that a major commitment by President Kennedy and his Administration to a huge civil defense program will have the most serious consequences. By placing primary emphasis on war preparation, by increasing fear and distrust among American people, it could undermine his efforts to negotiate agreements with the Communist world and to advance world disarmament through the newly created Arms Control and Disarmament Agency. It could initiate the next great phase of the arms race -- an international shelter race, which would succeed the race to perfect the A and H bombs and the ICBM.

The proposed civil defense program confronts every American with the need to make some important personal decisions. Should the family build a shelter, or spend the money on education or remodeling the home? What does one's conscience require when an air raid siren sounds to take shelter? What should one say to one's children or one's neighbor about fallout shelters and civil defense? Should one build a shelter on the chance, even remote, that it might save the lives of some in the family, or should one devote his full energies and resources to building the conditions of peace in the world?

To help answer these and many other questions, this staff study has been prepared by the Friends Committee on National Legislation.

Many of the following quotations assume a large attack and point to the extreme consequences which may result. Secretary of Defense Robert S. McNamara told the Holifield Subcommittee on August 1, 1961: "I think that in order to avoid confusing the planning on the local level it would be wise to pick an attack that is most likely -- and I believe the largest is the most likely -- and base the local planning on that assumption."

Many of the following quotations are taken from testimony given before the Military Operations Subcommittee of the House Government Operations Committee during hearings on August 1, 2, 3, 4, 7, 8, and 9, 1961. Rep. Chet Holifield, Calif., is Chairman of the Subcommittee. In this study, testimony before this Subcommittee is cited as "Hearings".

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1. What is the purpose of the civil defense program?

Insurance In his May 25 address to Congress on "Urgent National Needs," President Kennedy justified civil defense as "insurance for the civilian population" in the event of "an irrational attack, a miscalculation, an accidental war which cannot be either foreseen or deterred." He discounted its deterrent value. He said deterrence is based on a strong retaliatory force. "If we have that strength, civil defense is not needed to deter an attack. If we should ever lack it, civil defense would not be an adequate substitute."

Deterrence Says the House Government Operations Committee's Military Operations Subcommittee, chaired by Rep. Chet Holifield, Calif. :

"Civil defense finds its justification in two fundamental considerations: (1) It helps to deter attack; (2) it reduces the casualties if deterrence fails and the attack is launched."

The Holifield Subcommittee has long been a champion of a greatly expanded civil defense program. In their interesting Report (House Report No. 2249, 87th Congress, First Session) they welcome the President's new interest in civil defense and undertake to suggest some refinements in the President's thinking on civil defense. The Subcommittee in this Report especially emphasizes that civil defense is a part of an overall deterrent policy (see pages 6-9, 66). Gen. Lyman L. Lemnitzer, U.S. Army, Chairman of the Joint Chiefs of Staff, shares this view:

"As regards the contribution of civil defense to deterrence: The extent to which we have the ability to defend against an attack, particularly the initial attack, or to minimize the effects of an attack, is an essential element of our overall deterrent. Any doubt in the mind of a potential enemy with respect to his capability to deal us a decisive blow makes less likely the possibility that he will initiate a nuclear attack against us. This, then, is the important way in which civil defense contributes to deterrence. It provides further unmistakable evidence of serious determination on our part."

- Hearings, pages 14-15

* * * * *

The civil defense program has also been described as the official admission by the Government that the \$40 to \$50 billion spent annually by the Department of Defense neither defends the nation nor gives security to its citizens. Americans are required to dig holes in their backyards or make their own shelters in their basements if they are to have some chance of surviving another war.

It is clear that the Department of Defense cannot prevent major devastation of the United States:

"Today we do not have the military capability to protect our Nation against nuclear attack."

- Rep. Chet Holifield, July 17, 1961, Congressional Record, page 11821.

"Despite the damage that these [U.S. defensive] forces might inflict on enemy aircraft, some of these aircraft would probably penetrate our defenses far enough to release their weapons. Further, we do not yet have any effective operative defense against ballistic missiles, and some of those missiles would undoubtedly reach targets in the continental United States. Therefore, in a nuclear attack, several million Americans -- perhaps several tens of millions -- might be killed."

- Secretary of Defense, Robert S. McNamara, Hearings, pages 5-6

"We do know enough to know, and I can assert it here, that we cannot rely on any kind of active defense system to protect this country against fallout."

-Adam Yarmolinsky, Special Assistant to Secretary of Defense, Hearings, page 124

2. Can a Civil Defense program save U.S. citizens from death and destruction?

No.

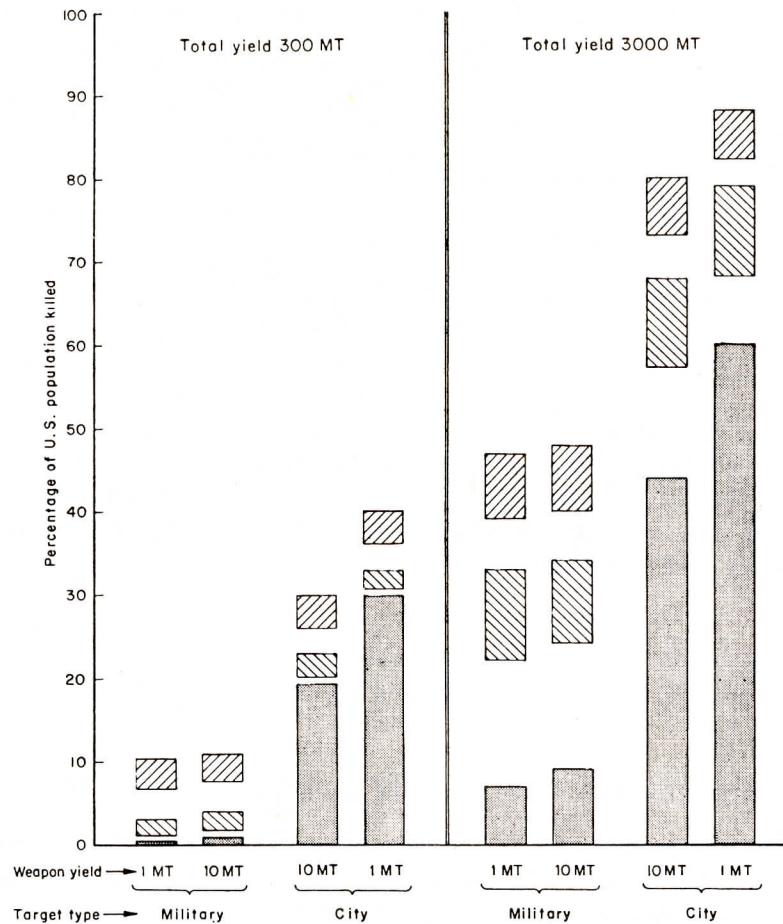
"We believe that these shelters [proposed by the President] will provide very effective protection against fallout; they will not provide, in any sense of the word, protection against blast."

- Secretary of Defense McNamara, Hearings, page 18

3. How many people might die from blast and heat (not fallout) in a nuclear attack?

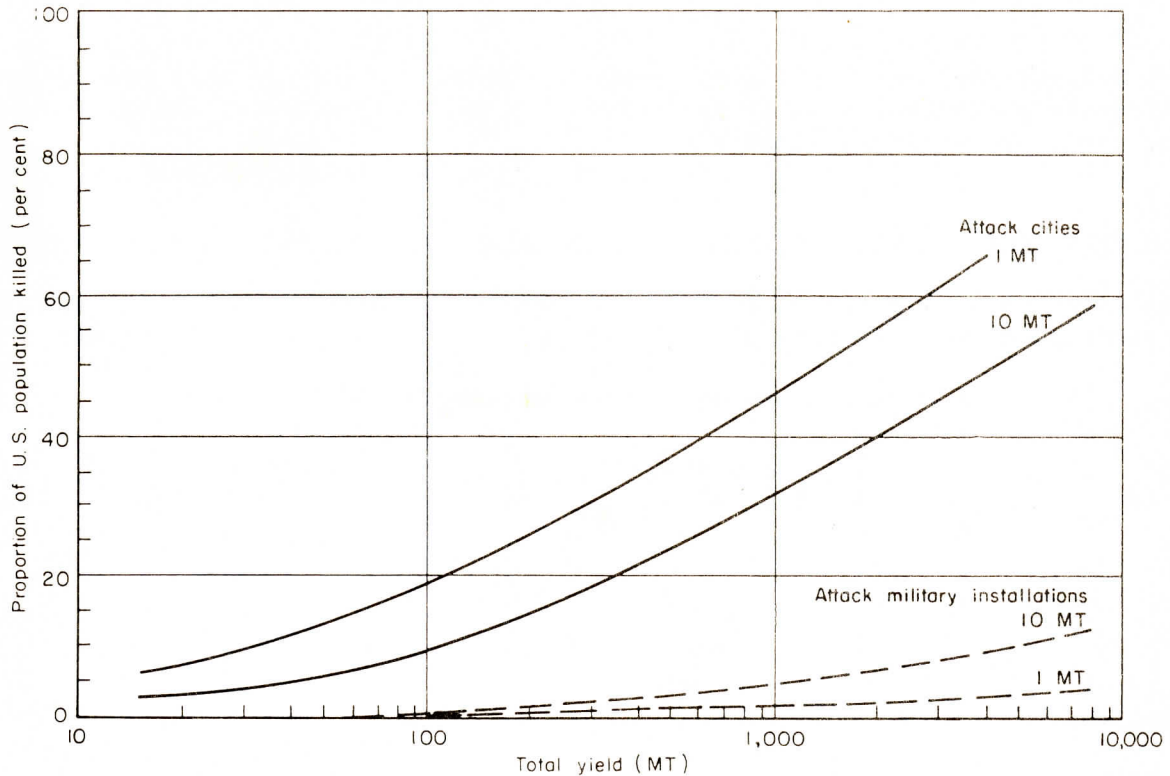
The following charts, prepared by Norman A. Hanunian of the Rand Corporation, an Air Force contractor, were discussed before the Military Operations Subcommittee:

FIGURE NH-3.—PROMPT AND TOTAL DEATHS FROM HYPOTHETICAL ATTACKS



- Represents level of fatalities resulting from effects of blast and prompt radiation
- Range of fatalities if entire population found shelter in dwelling basements or a good substitute
- Range of fatalities if population took no protection against blast

FIGURE NH-2.—PROMPT DEATHS FROM ALTERNATIVE BOMBING ATTACKS
(DEATHS DUE TO BLAST AND PROMPT RADIATIONS)



- Hearings, page 213

The charts show, for example, that an attack of 1000 megatons on cities would kill by blast and prompt radiation, exclusive of fallout, over 45% of the population (over 80 million people) if one megaton bombs were used. Mr. Hanunian pointed out that a 3000 megaton attack on cities might kill 120 million people by blast and prompt radiation alone.

(It has been estimated that the United States has in its nuclear stockpile weapons equivalent to about 30,000 megatons. - James E. MacDonald, University of Arizona, Hearings, page 520.)

4. What is the destructive power of nuclear weapons?

In General The following questions and answers are part of a series prepared by the staff of the Joint Committee on Atomic Energy and inserted in the Congressional Record on September 26, 1961 by Rep. James E. Van Zandt., Pennsylvania (page A 7808).

Question. What are the effects of a 10-megaton bomb on an average city?

Answer. It would dig a crater 240 feet deep and 2,500 feet in diameter. Brick apartment houses would be destroyed out to a radius of 7 miles from the point of detonation. Wooden buildings would burn up to a radius of 25 miles from the point of detonation.

Question. What are the effects of a 10-megaton bomb on man himself?

Answer. Blast injuries from flying debris would occur out to a radius of 7 miles from the detonation. The area affected would cover 150 square miles. Second degree burns (blistering) on the bare skin would occur out to a radius of

25 miles. The area affected would cover 2,000 square miles.

Question. What are the radiation effects of a 10-megaton bomb?

Answer. Initial nuclear radiation of 700 roentgens or more which would result in death to unprotected persons and would cover a radius of 2 miles or an area of 12.5 square miles. Fallout assuming a 15-knot wind would deposit 450 roentgens 150 miles downwind, 25 miles across and over an area of 2,500 square miles.

Question. What are the blast effects on humans from nuclear weapons?

Answer. Primary effects from the blast wave are: lung damage, rupture of the ear drums. Secondary effects result from flying fragments propelled with great force by the blast wave. Tertiary effects result in the human body becoming a missile propelled by the blast wave.

Question. What are the thermal effects on humans?

Answer. Casualties are produced from:

- (a) Fires caused by direct combustion from the heat from the bomb.
- (b) Skin burns. (c) Temporary and permanent blindness from the intense light of the fireball.

"Ten Megatons on Los Angeles"

In more dramatic fashion the above figures were set forth in "Community of Fear" by Harrison Brown and

James Real, pages 15-16 :

"The blast effects would exterminate virtually all but the most deeply sheltered living things within a radius of five miles. Blast casualties would be severe up to a distance of ten miles. But the phenomenon that would complete the devastation of life in the entire area would be fire. The area would be one great sea of fire, which would burn until there was nothing more to consume. A good proportion of the metropolitan area's three-and-a-half million cars and trucks would be lifted and thrown like grotesque Molotov cocktails, to spew flaming gasoline, oil, and automotive shrapnel onto and into everything in their paths. In an instant most underground gasoline and oil tanks would rupture and explode within the blast area, and a large proportion of the remainder within the firestorm radius would follow, each in its own particular manner -- pumps and pipes sheered and, finally, higher and higher ambient temperatures which would soon expand, rupture, and explode the remainder. . . .

"There are relatively few facts about large fires. Several firestorms were produced by the incendiary bombing of German cities, and one such storm occurred after a fire raid on Tokyo. An atomic bomb created a firestorm at Hiroshima, but not at Nagasaki. It seems safe to speculate that in Los Angeles at least a twenty-five mile radius and an unknown distance beyond it would be, within minutes, engulfed in a suffocating firestorm that would persist for a long time. It seems unlikely that there would be appreciable rainfall for weeks or even months; thus, the basin fire would proceed in all directions with no interference from man or nature.

"It seems clear that in the event of such an attack there would be virtually no survivors of the blast and thermal effects, with the possible exception of a few persons who had made elaborate preparations for surviving the catastrophe. Their shelters would have to be very deep and provided with a built-in oxygen supply and cooling system. Unless they were able to maintain themselves in such a shelter for many weeks, their chances of making their way to relative safety would be slim.

"A major problem would be trying to get through ankle-high to knee-high ash containing numerous hidden pitfalls; clambering for dozens of miles over huge, smoking piles of radioactive rubble, burned-out timber, wire, and steel. If the survivor made it to the edge of the devastated area, he in all probability would have accumulated by that time a fatal dose of radiation which would shortly claim what was left of his life."

Effect on Eyes

"But in this matter of taking shelter or getting out in time, a different fact, always known and never, to my recollection, faced squarely, would create such a hideous situation that no program could be imagined which would control it. That fact has been documented by tests made during nuclear-bomb explosions on animals with vision comparable to our own. Granting clear weather, the explosion of a medium-sized H-weapon, day or night, would cause all persons indoors or out within view of the fireball to look at it, by uncontrollable reflex. And such people, seeing the fireball bloom into glaring reality -- whether in an air or ground burst -- would be made blind, instantly, even at distances of 40 miles from the explosion. . . .

"These unguessable scores of thousands in and around cities, walking, driving cars and busses and trucks, piloting commercial planes, driving locomotives, farming, shopping, whatever, would, after one glance, be helpless. Their cars, trucks, trains, and planes would smash. People in the countryside would be unable even to find their way home. And even cloudy weather would merely lessen the area where an H-bomb would blind (even if it did not otherwise harm) the people able to see the fireball -- an area, in clear weather, on the order of 5,000 square miles per 'shot'".

- Philip Wylie, "Why I Believe There Will Be No All-Out War," Rotarian, September 1960

(Philip Wylie, well known author, and former federal civil defense consultant, has since the advent of the H-bomb been a vigorous opponent of civil defense as futile.)

"The light from a nuclear explosion is dangerous to the human eye at ranges of many miles in the event of bursts low in the atmosphere or on the surface, varying with visibility. . . . Injury may range from a temporary flash blindness to burns on the retina. In the event of high-altitude explosions of megaton bombs, that is, at 20 miles or so, the data from experiments during the tests above Johnston Island in 1958 show that burns to the retina can occur as far away as 300 nautical miles, or 345 statute miles.

"In such high-altitude explosions the light pulse is emitted very rapidly -- much of it less than 0.015 second, the time required for the blinking of the eye. If one were looking in the direction of a very high altitude burst, the injury would be produced before the blink reflex could react to protect the eye."

- R.L. Corsbie, Deputy Assistant Director for Civil Effects, Division of Biology and Medicine, U. S. Atomic Energy Commission, Hearings, page 146

Effect of Heat

"Rep. Griffiths (Mich.) - 'How close could a 20-megaton bomb come to the Empire State Building and still have it remain an effective shelter?'

"Frank Ellis, Director, Office of Civil and Defense Mobilization - . . . 'Herman Kahn states that if a 20-megaton bomb were exploded in the heart of downtown Los Angeles and a man was standing on the outskirts of a California town 20 miles away by a window, he would be scorched to death.'

Effect of Fire

"One of the first conclusions to be drawn from the World War II experience with mass urban fires is that, in the areas severely damaged by blast, firefighting is virtually impossible. In the first place, a large percentage of unsheltered firefighting personnel in such areas would be killed or injured and their equipment destroyed by the blast. Even if such facilities were protected by blast shelters, the debris in the streets would make it impossible to get to the fires. Furthermore, the large numbers of fires and their rapid development in a matter of minutes would completely overwhelm the normal capacity of the firefighting services and the heat would rapidly reach such high levels that personnel in the open could not live. Furthermore, the many breaks in the water system would reduce the available water to negligible amounts in a short time. . . ."

"Another serious problem is that for surface burst weapons, deposition of fallout would be taking place during just the period when such emergency services are most urgently needed. . . ."

- Dr. Jerald E. Hill, Rand Corporation, Hearings, pages 350-351

"Rep. Chet Holifield - 'What about shelters in residential areas where you had the usual 1- and 2-story buildings. Would there be enough material there that would ignite to cause a fire storm?'"

"Dr. Jerald E. Hill - 'I think it could happen, particularly in fairly densely built-up, highly combustible areas. Now, in very good residential areas with not a very large built-upness, it would be less likely to happen. But I must say I would be very unhappy to build a shelter in close proximity to my house as it would have to be, without having some way of shutting off outside ventilation and providing for the purification of air for a period of a half-day or a day, whatever it may be.'"

- Hearings, page 359

Shelter Life

"You don't have any place in a shelter to incarcerate a person. If somebody is going to act in a way which cannot be accepted, it is much better to drug him than to shoot him. This may be an important problem in mass shelters."

- Herman Kahn, Hearings, page 367

One of a series of personal sketches of 17 people who participated in a two-week shelter test:

"Mr. Black was the only subject who had to be removed from the shelter during the course of the experiments. The project shelter staff requested that he leave the shelter on the morning of the sixth day of Study I because of his short-term adjustment difficulty. Although the maladjustment symptoms disappeared shortly after his exit from the shelter it was felt that he would have been incapable of functioning properly had he remained in the experimental situation. Mr. Black attempted to assume leadership of the group immediately upon entering the shelter, and at first met with some success. His level of general ability was quite low, however, and it soon became evident to other members of the group that his decisions concerning certain problems of shelter living were inappropriate. His leadership was challenged, and Mr. Black attempted to remain awake at night in order to 'stay on top' of the situation. Bizarre behaviors on his part were observed as early as the first night in the shelter, and he had lost all semblance of leadership by the time he was removed from the shelter."

- Psychological and Social Adjustment in a Simulated Shelter,
A Research Project, American Institute for Research, page 73-74

8.

5. What would it be like if you came out of the shelter alive?

"Supposing your shelter was far enough from the center of the blast and beyond the area of fire storms spreading outward from the blast and you had made adequate preparation to stay underground to escape the first massive lethal fallout -- and you survived. But you would come out to an all but uninhabitable desert. Even if some semblance of civil order had been preserved -- most unlikely in view of the appalling chaos -- the means of existence, heat, light, water, food, would be virtually nonexistent. . . .

"Scientists now generally reject the view of total destruction. The sequence would be roughly as follows. Immediately following the explosion of a number of megaton missiles a massive fallout consisting of about 50 percent of the total radioactive material released in the atmosphere would fall on northern half of the globe. From six weeks to two months later rains would bring down another 30 to 40 percent of the total again in the northern part of the globe. Those who escaped the first lethal dose would almost certainly be destroyed by the second, unless extraordinary preparations had been made to live underground for an indefinite time."

- Marquis Childs, "Shelter Protection Has Grim Limit," Washington Post, October 6, 1961

"Not only are there likely to be millions of nonfatal casualties from the blast, thermal and radiation effects of nuclear weapons who will die if medical care is not provided, but additional millions will be threatened (with varying degrees of immediacy) with death from exposure, disease, thirst, and starvation. . . .

"Finally, we have to consider the broad problem of the social, political, and psychological impact of the war. Will the shock of the war so derange people that they will be incapable of constructive action on behalf of themselves and others?

"To what extent will an extensive delegation of responsibilities in the civil defense area to State and local governments lead to actions consistent with the national interest when these may be in sharp conflict with the interests of the smaller political units?

"Will survivors be so overcome with grief and apathy, even when the immediate threat to their survival has passed, that they will be unwilling to make the effort to restore the economy? Will those survivors in relatively untouched areas willingly bear the burdens of supporting those who are less fortunate?

"Will the psychological scars produced by events in which millions are killed, additional millions injured and by living in an environment which has become distinctly more hostile to human life, preclude any meaningful recovery in terms of human welfare? . . ."

- Sidney G. Winter, Jr., Rand Corporation, Hearings, pages 309 and 311

"I recognize that there will be martial law almost inevitably."

- Rep. Chet Holifield, Hearings, page 37

"It's been argued that under a nominal -- i.e., 2000 megaton -- attack, we could recover a high level of Gross National Product in a decade or two. But if one looks at the studies on which these arguments are based, one is overwhelmed with the evidence that recovery could only be accomplished by the most stringent and controlled allocation of human and natural resources. Given likely situations

following a major thermonuclear attack, it is clear that democracy is not among those items that survive or can be stock-piled for the post-attack period. It is probably true as well that the Russian form of communism would not survive either. . . ."

- Donald N. Michael, "The Threat of Thermonuclear War and the Assessment of Reality," address delivered at the American Psychological Association Annual Meeting, September 4, 1961

Hanson Baldwin, military affairs editor of the New York Times, has reported that "studies show that if about 30 percent of the population of any country is killed, wounded, or put out of action, that country will no longer function as a rational and coherent social organization." (January 14, 1961.)

"In contaminated areas our food animals, as well as people, would require protection from external radiation or they would become casualties. Added to this would be the additional hazard to life -- animal or human -- from eating contaminated food and water. Unrestricted consumption of exposed foodstuffs and crops would threaten the lives of all survivors in these areas.

"In the heavily contaminated areas a very large percentage of our food animals would perish from the combined effects of external radiation and the consumption of contaminated fodder. For some months essentially all milk supplies would be too highly radioactive to use even if the cows survived. . . .

"When I have talked about food, I have had reference to existing stocks. New production is another matter, one with which the survivors must expect to have difficulty. Much of our valuable agricultural lands will be highly contaminated and crops raised in these areas will take up radioactive materials from the soil. Reclamation of these lands will be a particularly critical matter. The principal problem is that presented by strontium 90 which, unless removed, will contaminate the land and its crops for decades. The most effective removal method as yet is the removal of ground cover or the surface soil. This is time consuming, would require a great deal of labor and equipment and we are left with the problem of disposing of large quantities of contaminated material. Intensive cropping is another method, but here again considerable time is required -- about 40 crops to remove the strontium 90 to acceptable levels. . . ."

- John A. McCone, then Chairman of Atomic Energy Commission, (now CIA Director), speaking at a White House Conference on Fallout Protection, January 25, 1960, pages 14-15

6. Is misinformation being circulated about the civil defense program?

Government spokesmen, Rand Corporation officials, and members of Congress familiar with the problems of nuclear war have usually attempted to provide factual information to the American public on the consequences of nuclear war and have often lamented that the public would not listen. The facts have sometimes become distorted by newspapers, magazines and publicists in transmitting this information to the public. For example:

- Life Magazine, September 15 issue, reprinted a full page letter from President Kennedy suggesting that the public build fallout shelters. At the end of the letter in bold type Life said:

"You could be among the 97% to survive if you follow advice on these pages . . . how to build shelters. . . where to hide in cities. . . what to do during an attack."

The 97% figure is highly optimistic. It is based on the hypothesis of an extremely

limited attack on the United States directed solely against military installations. The charts reproduced on pages 3 and 4 in this paper show that Life chose the most optimistic estimate based on a minimal attack (some 300 megatons) on military targets alone. The charts also show that a major attack (3000 megatons) on cities could kill 120 million Americans by blast and prompt radiation, exclusive of deaths due to fallout.

- In recent magazine articles discussing the effects of a nuclear war the results of the 1959 hearings are often cited: nearly 50 million killed outright, 20 million more injured, 25% of the nation's homes destroyed and 25% damaged. The assumed attack of 1453 megatons on the United States is sometimes referred to as a major attack, the largest which might be expected. Actually, at the hearings the attack was termed a "limited" one, and Rep. Chet Holifield said a larger figure could well have been used.
- There is almost exclusive preoccupation with nuclear weapons. The difficulties involved in the use of chemical or bacteriological weapons are seldom explored.

"I should mention that throughout my talk I am neglecting some important possibilities in the range of military postures, particularly the possibility that bacteriological and chemical weapons might play a significant role. The reason is simply stated: ignorance. I believe this ignorance is widely shared, and I doubt that the possible effects of bacteriological and chemical weapons are known with sufficient accuracy to permit an evaluation of how important their effects might be on the recovery problem."

- Sidney G. Winters, Jr., Rand Corporation, Hearings, page 306

- Adam Yarmolinsky, Special Assistant to the Secretary of Defense, one of the top Pentagon officials on civil defense, told the Women's National Democratic Club on October 16 that Washington, D.C. would be "far down" an enemy's target list. Unless "the Russians just got mad," Washington would probably be spared. "We can only guess, but I think Omaha would be a much more likely target than Washington." (Omaha is the headquarters of the Strategic Air Command.) In the hearings before the Joint Committee on Atomic Energy in 1959 in a hypothetical attack on the United States it was assumed that one 10 megaton and one 8 megaton bomb would be dropped on Washington, D.C.

7. Does the Soviet Union have a major civil defense program?

On this question there is considerable disagreement.

Leon Gouré of the Rand Corporation testified before the Holifield Subcommittee on August 9. His conclusions:

"The available evidence leaves no doubt that the Soviet authorities are serious about civil defense and that they have been trying over a period of years to develop within the limits of available financial, technical, and material resources a significant civil defense capability.

"It is not a mere paper program. At the same time it appears to be far from complete although it has made considerable progress. One thing, they have no hearings on it.

"Its implementation has, of course, been considerably facilitated by the totalitarian character of the Soviet system. Nevertheless, the Soviet civil defense system appears to contain some obsolete or even irrational features and there has been some lag in adapting it to meet new requirements imposed by weapon developments.

"Whether these shortcomings are due to budgetary and technical limitations or to

bureaucratic inertia is not certain, but constant efforts are being made to improve the effectiveness of the system and its ability to deal with new threats."
- Hearings, page 295

Although there is no published figure on the sums spent, "it is likely that over the past ten years the Soviet Union has spent at least \$3 billion and possibly much more on civil defense."

"The Soviet authorities have officially designated the subways as shelters and are believed to have adapted them for this purpose. . . . The Soviet basement shelter is a special structure built inside the basement of an apartment house or public building. . . . Although equipped for long term occupancy, no food is stored in apartment house basement shelters. . . . The Soviet authorities plan to build a variety of fairly simple fallout shelters in the cities and especially in the countryside when the Soviet Government announces a 'threatening situation' alert. . . . Most of the emergency fallout shelters consist of earth covered trenches, dugouts, or galleries in hillsides and make use of whatever material is handy. . . . it is present policy to post no signs indicating the location of existing shelters until the 'threatening situation' alert is announced.

"Since 1955, the Soviet Union has instituted a series of compulsory training courses for the population including men 16 to 60 years old and women 16 to 55."
- Leon Gouré, Hearings, pages 277, 283, 286, 290, 268

"Although the new 18-hour course, like the earlier ones, has not involved the entire population and has lagged behind in some areas, the present indications are that an increasing number of persons have been exposed to it and that many of the previous shortages of training equipment and instructors have been generally overcome. Training is also being given to schoolchildren 12 to 16 and there are lectures for people over 60."

- Hearings, page 270

The Soviet people are divided on civil defense.

"They have the activists, who are pushing for it, and they they have the other kind.

"I would say the Soviet press complains about the defeatists, the people who say, 'What is the use,' or the people who come to the meetings with a bored expression or fall asleep or even the ones who just come to register their presence and walk out again. This is all, of course, highly condemned, but it is mentioned in the Soviet press. I would say on the whole that the public is neither reassured, nor impressed, nor very interested. The general hope is that they just want to avoid war -- period. And the existence of shelters does not make them feel any happier. It is just part of life in Russia.

"They always had shelters. For every adult Soviet citizen there was always a civil defense program. And there was always somebody trying to organize a civil defense team in the apartment house or at work. . . ."

- Leon Gouré, Hearings, pages 298-299

At these hearings, Herman Kahn also commented on the Soviet civil defense program:

"I would emphasize more than Leon did the curious old-fashioned appearance that much of the Soviet civil defense program has. It looks very much like they had a very successful civil defense program in World War II and then they sort of continued it, gradually modifying it but at a slower rate than we did."

- Hearings, page 373

In a statement filed with the Holifield Committee, the National Committee for a Sane Nuclear Policy commented:

"To date, the evidence is overwhelming that the Russians have taken their civil defense program no more seriously than we have our own. On June 5, 1961, Newsweek reported:

"'MOSCOW.- It sounds odd, but Washington's clamor for bigger and better civil defense has no counterpart here. The sharpest observers see no signs of stepped-up construction of air-raid shelters (although the new subways could double in that role). Air-raid drills are held in factories but rarely for the general public. Moscow's sirens, in fact, haven't sounded since World War II.'

"Osgood Caruthers, reporting from Moscow in July 18 issue of the New York Times confirms this impression. He indicates that there are no practice alerts in Moscow, no outward sign of even the most rudimentary preparations against nuclear blast and fallout, and no evidence of construction of shelters visible to foreign military experts who have traveled through the Soviet Union.

"This lack of current preparation is consistent with reports coming from the Soviet Union for the past several years. Dr. A. Allan Bates, vice president of the Portland Cement Association of Chicago, visited construction projects throughout the country in 1960 as a member of an exchange delegation from the cement and concrete industry. Dr. Bates has informed us that there were no signs of shelters being built into the thousands of apartment houses which he saw in the process of construction.

"The report of the House Military Operations Subcommittee on 'Civil Defense in Western Europe and the Soviet Union,' issued April 27, 1959, shows that the Russians gave civil defense manuals which are incongruously old-fashioned in the thermonuclear age. But the report fails to show any substantial civil defense activities in being.

"In recent efforts to justify its expenditures, the Office of Civil and Defense Mobilization has cited claims to the contrary. These claims are based largely, we submit, on Soviet manuals and not on eye-witness observations. If the Russians were to judge American efforts in the civil defense field from viewing CDM manuals, film strips, and other propaganda media, they would no doubt come to the conclusion that every American family has a fallout shelter resembling the average Soviet apartment, complete with attractively packaged canned goods, toilet paper, and recreational materials."

- Hearings, pages 546-547

8. Do the top officials in the Kennedy Administration have shelters?

In additional views submitted with the Ninth Report by the House Government Operations Committee on Civil Defense, September 21, 1961, five members of the Committee reported:

"As recently as Saturday, September 16, 1961, top officials of the Kennedy administration have been reported as being apathetic to home shelters.

"It is reported, reliably we believe, that of 14 high officials who sit with Mr. Kennedy on the National Security Council or in the Cabinet, not a single one has as yet built a home shelter.

"Vice President Johnson recently bought a French chateau type home in Spring Valley

which is being revamped, and the revamping does not include a fallout shelter according to his aids.

"Secretary of State Rusk and his wife have been talking about a shelter but have made no decisions.

"Apparently Secretary of Defense McNamara is now arranging to have a shelter installed in the big house he rents on Kalorama Circle to set an example since he is in charge of civil defense.

"Frank B. Ellis, civil defense director, is renting a house and is trying to get a shelter so designed that it can be removed if the next tenant does not want it.

"Presidential Assistant McGeorge Bundy, Secretary of the Treasury Dillon, Attorney General Kennedy, Secretary of Agriculture Freeman have no shelters.

"Secretary of Commerce Hodges lives in an apartment and can't have a shelter of his own.

"Secretary of Labor Goldberg contemplates no shelter either for his home in Washington or his home in Chicago.

"Secretary of Welfare Ribicoff rents a house in Georgetown and feels that he can't do anything about a shelter.

"The only high official who seems to be really shelter conscious is Deputy Secretary of Defense Roswell L. Gilpatric. He has a shelter both at his Long Island home and his home at Grasonville on Maryland's Eastern Shore."

- "New Civil Defense Program," House Report 1249, page 82

9. Even assuming shelters might provide some hope of survival and possibly deter an attack, are there countervailing considerations against embarking on a huge shelter program?

A civil defense program can be provocative, increase tension, and arouse fear in the enemy:

"The shelter talk may increase what recent visitors to this country feel is a growing war psychosis -- a combination of fear and uncertainty generating a 'let's get it over with' psychology."

- Marquis Childs, Washington Post, October 6, 1961

In an article in the October issue of the Bulletin of Atomic Scientists, J. David Singer, political scientist at the University of Michigan, suggested that shelters were provocative:

"If the shelter-seeking time is greater than the warning time, the Soviets. . . will wonder whether the shelters are for protection against surprise attack or whether they. . . reflect a first strike strategy."

He also said shelter construction gives Americans a feeling that war is inevitable and such a sense of fatalism impedes the initiative and imagination needed to seek peaceful alternatives.

Herman Kahn at the Holifield hearings was asked whether he would advocate a four to five year civil defense program at \$5 billion a year. He replied that although as a military analyst he could justify a \$5 billion program, he preferred something closer to \$1 billion.

"I take the arms race arguments very seriously. I think if we went into a big program we would find Soviet reactions which we would be sorry to have touched off. In this sense I agree with the people who worry about accelerating the arms race. I just draw this line at a different place."

The United States should not initiate the next and possibly the last phase of the arms race, an international shelter race. Instead it should direct its main energies to ending the arms race and achieving world disarmament.

Harrison Brown and James Real in "Community of Fear" (now available in paper back as part of a symposium entitled "World Without War," 45¢) say:

"The next phase of the 'arms race' will almost certainly involve great emphasis upon the area of civil defense. If the arms race continues, as it probably will, its future pattern seems clear in broad outline. As a result of the emergence of the current tremendous capabilities for killing and destroying, programs will be started aimed at the evacuation of cities, the construction of fallout shelters in regions outside the major metropolitan areas, and the construction of limited underground shelters. Increased offensive capabilities will then emerge which will to some extent neutralize these efforts. Larger bombs will be compressed into sufficiently small packages to be carried by ICBM's. Very large bombs (about 1,000 megatons) will be built which, when exploded at an altitude of about 300 miles, could sear six Western states.

"The new developments will cause people to burrow more deeply into the ground. Factories will be built in caves, as will apartment houses and stores. Eventually most human life will be underground, confronted by arsenals capable of destroying all life over the land areas of the earth. Deep under the ground people will be relatively safe -- at least until such time as we learn how to make explosives capable of pulverizing the earth to great depths. . . .

"Once the shelter program is underway, it will constitute a significant retreat from the idea of the obsolescence of war. Once the people are convinced that they can survive the present state of the art of killing, a broad and significant new habit pattern will have been introduced and accepted, one grotesquely different from any we have known for thousands of years -- that of adjusting ourselves to the idea of living in holes. From that time onward it will be simple to adjust ourselves to living in deeper holes.

"Tens of thousands of years ago our Mousterian and Aurignacian ancestors lived in caves. The vast knowledge which we have accumulated during the intervening millenia will have brought us full cycle. The epic of man's journey upward into the light will have ended."

- "Community of Fear," pages 38-39

Governor Robert B. Meyner of New Jersey, writing against civil defense in the September 1960 issue of Coronet Magazine, says:

"There is only one solution: peace. Anyone interested in protecting more than a minute fraction of the American people ought to devote himself to obtaining -- while there is still time -- an enforceable peace. Control of nuclear weapons, to be effective, must be administered by an international organization. Today, that means the United Nations.

"But the making of a genuine peace is too important to be left to governments alone. It needs the active support of individual citizens. By making known to their governments the growing strength of their commitment to peace, they can create a

mandate so powerful it will not long be denied. The only shelter against a nuclear war is a workable peace.

"The most convincing argument against the 'shelter psychosis' arises, I believe, in the area of the human spirit which, at its finest, has always resisted restraint and closure. Shelters represent a niggardly estimate of mankind's destiny and capabilities -- at complete variance with the optimism that has characterized the American spirit. Has this faith so shriveled, our vision so dimmed, that we plan our future in terms of a cringing subsistence underground? Does man who has made proud symbols of the lion and the eagle settle now for the mole and the worm?

"I say no. When primitive man left his cave and began to live in the light, he was meant to travel onward and upward; not to circle back."

10. What are some of the pending bills in Congress on civil defense?

H. Con. Res. 391, William F. Ryan (N.Y.), to establish a Joint Congressional Committee to investigate the civil defense program (referred to the Rules Committee).

S. 2238, Sen. George A. Smathers (Fla.), to allow a deduction on federal income taxes for expenses of an approved family fallout shelter. Other bills on this subject: H. R. 9203, Seymour Halpern (N.Y.); H. R. 9421, Harold D. Donohue (Mass.); H. R. 9423, Florence P. Dwyer (N. J.)

H. R. 9202, Seymour Halpern (N.Y.), and H. R. 9422, Florence P. Dwyer (N. J.) - to permit FHA loans to build shelters.

H. R. 8960, Herbert Zelenko (N.Y.) - to require shelters in all buildings constructed with Federal funds.

H. J. Res. 588, Arch A. Moore, Jr. (W. Va.) - to create a Federal Commission on construction of school fallout shelters.

S. 2328, John Sparkman (Ala.), Lister Hill (Ala.) - to establish "survival depots" in areas less likely to be devastated. Other bills on this subject: H. R. 1023, D. R. Matthews (Fla.); H. R. 1781, W. R. Hull, Jr. (Mo.)

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