
"I am surprised that men of clear and logical minds confuse defensive warfare with the disease which it alone can cure when all other remedies have failed. Do they not know that police systems and armed national defense are the human agencies made necessary by the deep-seated disease of individual depravity?"

It is a distinct disappointment to know that men who are called to wield the sword of the spirit are deluded into believing that the mechanical expedient of disarming men will transform hatred into love and selfishness into altruism.... Perhaps the greatest privilege of our country, which indeed was the genius of its foundation, is religious freedom.

Religious freedom, however, can exist only so long as government survives. To render our country helpless would invite destruction, not only to our political and economic freedom, but also of our religion."

--General Douglas MacArthur

Shelter Entryways

The family shelter mentioned in our February 1987 issue is shown in Figure 1. Attached to the 5000 gallon tank are two entryways. One is horizontal and one is vertical.



Figure 1

The vertical entryway was made to duplicate one of the vertical entryways on the public shelter described in the book *Fighting Chance*. In the case of a steel tank shelter for family or neighborhood use, the entryway can be of identical design, although the diameter can be reduced to 30 inches for economy.

Let us use this entryway as an example. It is shown in Figure 2.

This shelter has seven feet of earth over the top of the tank. This is sufficient for earth arching, since the tank is only eight feet in diameter. The larger diameter room in the proposed public shelters requires additional depth of burial. Seven feet of earth is sufficient for radiation protection as well.

Therefore, the 36-inch vertical entryway is 15 feet long. It extends from the ground surface to a point level with the bottom of the tank. This provides a well at the bottom of the ladder which aids convenient entry and also provides a little additional radiation safety.

Centered on the midline of the shelter tank, a 36-inch pipe extends horizontally to meet the vertical entryway. This pipe is 6 feet long. It extends through the wall of the shelter and terminates with a two inch flange with bolt holes entirely around its diameter inside the shelter.

The flange provides a convenient means of mounting air blowers, chemical and biological air filters and a secondary door.



Figure 2

Radiation protection is provided by the two right angle bends which the radiation must traverse to reach the shelter occupants. It is also enhanced by the 6 foot horizontal entry portion which is to be stacked nearly full with sandbags after the shelter is occupied. Three rows of sand-filled bags stacked in a staggered baffle arrangement are provided.

At the ground surface, the entryway provides for a blast door, air vent, blast valve in the air vent, and dust filters for fallout. These filters are for removal of any finely divided fallout that gets past the geometrical protection outside. They are located at the top of the entryway, so that radiation from the trapped fallout particles cannot reach the shelter occupants.

In the photograph, the four inch flange around the entrance is shown. It has no bolt-holes. This flange rests in a 6-inch concrete slab which is 5 feet by 5 feet square and is poured around and under the flange after the shelter is covered.

The blast door rests upon the steel flange. The concrete slab transfers the blast load from the door and flange to the ground. Without the slab, blast pressure could buckle the entryway.

Compression of the ground itself may lead to some entryway bending even with this design. This depends upon the blast pressure and upon the compressibility of the soil. This particular shelter is located in relatively incompressible soil. Welding the flange directly to the entryway is simpler, less expensive, and more waterproof. In this installation these advantages have been traded for the disadvantage of some potential entryway distortion.

Distortion can be avoided by various designs such as bellows in the entryway pipe or a telescoping entryway in which tubes of different diameter slide inside one another. In most cases this extra expense is not justified.

The present blast door for this entryway is simply a round half-inch-thick steel plate. The plate has fold-back handles that do not protrude above the door recess in the concrete slab. We have provided a two inch recess in the slab, so that flying objects cannot hit the door sideways.

This half-inch steel door is inexpensive, but it is heavy to lift. The Oak Ridge National Laboratory has developed a steel membrane door which is much lighter in weight and can be used here. This membrane door has been blast tested and may be a better choice for this application.

The blast door has four steel eyes welded on the inside cover with corresponding eyes welded to the inside of the 36 inch entryway near the top. These provide for four loadbinders which hold the door down against the negative pressure which follows the initial blast wave. These loadbinders are available in most hardware stores. They should be purchased before shelter fabrication, so that the eyes can be placed to fit.

Ladder rungs are welded to the inside of the entryway at intervals extending to the bottom. They are placed on the side away from the shelter itself.

At the bottom of this particular entryway, provision has been made for a water well. The drains around the bottom of the shelter (to be described later) were arranged so that groundwater is available just at the bottom of the entryway well. Access to this water is provided through a 6 inch internally threaded pipe welded through the bottom of the entryway.

Outside air is provided by a vent pipe system which minimizes entry of fallout particles, prevents entry of blast pressure, and is simple to clean or to modify as required.

Two feet below the ground surface, the vent pipe with an 8 inch inner diameter extends horizontally from the entryway for two feet and then turns toward the surface. It terminates 1 foot below the surface in a T connection that accommodates two 4 inch horizontal vent pipes. These extend horizontally and emerge flush with the upper and opposite sides of the dirt hilled over the shelter. The T is not shown in Figure 2.

The eight inch horizontal pipe extends through the side of the entryway and terminates in a flange with boltholes. This flange provides for mounting a dust filter and also for a 3/8 inch steel plate to retain the blast valve.

The blast valve slides into the 8 inch pipe against stops or dogs welded at its far, inner end. The valve is held inside by the perforated 3/8 inch bolted inner end plate.

Blast valves for this shelter were made according to an Oak Ridge modification of a simple, older design. Each valve is an 8 inch diameter cylinder 20 inches long with a perforated outer end plate. Each is filled with pieces of compressible rubber. When a blast wave enters, the rubber is compressed against the inner end plate, thus sealing the valve.

With the air vent described above, blast valves can be fabricated later and inserted into the housing provided. This facilitates modification and also servicing of the valves.

At the end of the valve housing away from the shelter, a wide steel flange is welded around the circumference of the housing. This extends into the soil. It performs a func-

tion similar to the concrete slab in transferring blast load to the soil and away from the valve itself. Without this flange, the valve housing might be driven against the entryway wall with enough force to cause breakage or bending.

This entryway was attached to the shelter with bolts through mutual 36 inch flanges, a rubber sealing ring, and silicone rubber sealant. Based upon further evaluation, we suggest that an abbreviated attachment flange be used which is just sufficient to hold the entryway to the shelter in a rigid and correct position. The union should then be welded at the installation sight, inside and out, and coated with tar before backfilling.

Each entryway assembly should be provided with a lifting bracket welded on the outside and positioned so that the entryway hangs vertically with its 6 foot attachment tube horizontal when the entryway is suspended from a single cable on a crane or backhoe. Two or three such hooks properly placed are worthwhile. This saves labor and time in positioning the entryway during installation.

RADIATION BARRIERS

If a nuclear weapon explodes nearby, then people need protection from initial nuclear radiation. If the weapon is a ground burst, then they need fallout protection as well. Since fallout can be carried over long distances by wind, people in locations remote from ground burst explosions may need fallout protection also.

United States government publications on fallout protection are sometimes ambiguous and sometimes simply wrong. During the years following World War II, instead of building proper shelters, the government marked existing structures for civil defense use. Since there was a shortage of existing structures suitable for fallout protection, our government bureaucrats "solved" the problem by lowering the "standards" for protection. The approved protection factor was lowered, therefore, sequentially from 1,000 to 200 and then from 200 to 40. 40 is very inadequate.

A protection factor of 1,000 means that there will be 1,000 times less gamma radiation inside the shelter than outside. 1,000 is good, although 10,000 is preferable. Permanent shelters should be designed with at least a protection factor of 10,000.

Since radiation can leak in through entryways and airvents, several things need to be considered in determining the overall protection factor of a shelter.

As a simple barrier alone, about 4 feet of dirt provides a fallout gamma ray protection factor of 10,000. The same protection is provided by 12 feet of wood, 3 feet of concrete, 10 inches of steel or 6 inches of lead. Dirt or concrete usually constitute the most economical shield.

Misinformation about barrier shielding from gamma rays is dangerous in fallout shelter design. If you are planning a fallout shelter, be sure that it conforms to the information given above. Some people, misled by incorrect government documents, have planned fallout shelters that will not work.

Since we now live in an age of very large numbers of nuclear weapons, most people should have blast shelter protection. These weapons can be used to annihilate civilian populations as a means of ensuring victory. In *Fighting Chance* we advocate this blast protection for all Americans. A properly designed blast shelter with provision for initial nuclear radiation provides more than adequate fallout protection as well.

MILITARY DEATH TRAPS

Even more astonishing than America's lack of civilian shelters is her lack of military shelters. In this nuclear age, 28% of the people on earth have provided themselves with excellent nuclear warfare personnel shelters. American civilians, however, are unprotected and so are American military forces. There are no shelters for our troops.

Now, from a Fighting Chance supporter comes word of a bizarre exception to this. The November 7, 1986 publication of the Andrews Airforce Base newsletter, *Newsreview*, (Vol. XXX, No. 19) has an article entitled "AF Chemical defense shelters readied."

Major Terry Eddleman describes in glowing terms the shelters currently being deployed in Germany by the United States Airforce.

Approximately 35 shelters are being installed at a cost of one-half million dollars each. Each is designed for 84 people. This is about \$6,000 per person. Although the cost is ten times as high as it should be and the number of shelters is pitifully few, at least we might say that something is being done.

Sadly, this is not the case. These shelters are not even buried underground. A nuclear weapon would flatten them. They were designed by bureaucrats whose instructions included chemical protection but not blast and radiation protection.

Now, perhaps they are meant only for conventional warfare. No! They will not even resist hits by a conventional bombs. Why not? Eddleman's article states:

While it cannot withstand a direct bomb hit, that aspect does not trouble ASD [Aeronautical Systems Division, Wright-Patterson AFB, Ohio].

"We thoroughly researched the patterns of a typical enemy bomb attack," Reed said, "and the patterns indicated that a shelter was relatively safe from a direct hit because of the stress of the battlefield situation. While under fire, an enemy pilot won't necessarily have the time or composure of mind to be accurate."

It is probably too much to hope that Lt. Col. Dennis Reed, a "bioenvironmental engineer in ASD" will be in one of these death traps when enemy pilots demonstrate their in-

competence. What worries us is the other 83 sitting ducks. The "shelter" just gathers them together in one place for the convenience of the enemy.

Faced only with World War II technology, the Germans found it necessary to disguise their above-ground bunkers by blending them into the city skylines and providing them with false roofs and windows so that allied pilots would not aim at them.

Moreover, the German bunkers were built with concrete walls several feet thick which were designed to withstand direct hits by conventional bombs. These were built for German civilians during wartime when there were serious shortages of concrete and steel.

German civilians were protected by concrete and steel. American troops are now protected by the wishful thinking of a "bioenvironmental engineer."

DDP vs. PSR

Imagine this scenario:

The United States has been attacked with nuclear weapons. Many military bases, missile silos, airports, cities, and towns have been destroyed or severely damaged. But you have survived along with other prepared or lucky Americans.

You have found a seven year old girl whose leg is broken. If the bone is not set, she will never walk again. Also, the bone edges may cut a large blood vessel, so that she will bleed to death.

A miracle -- you also find a physician. You ask him to help the little girl.

"What do you expect me to do?" he says. "Of course, I would like to help. But the hospitals have all been destroyed. There are no medicines, no x-ray machines, not even any bandages. Not that it matters. We're all going to die soon anyhow. Nuclear war isn't survivable."

"But can't you do something?"

"I tried to prevent this from happening," he replies. It isn't my fault! I'm a member of PSR! I warned our government that this might happen. I marched in demonstrations; I

visited the Soviet Union; I wrote articles. I did all that I could to keep America unprepared and undefended from nuclear attack."

"Something must have happened to upset the Soviets anyway. Maybe it was those war-mongers who told us to dig holes in the ground and store emergency food and medical supplies."

"But can't you help this little girl? She's in pain!"

"There isn't any treatment," he insists. "Only prevention through being unprepared!"

"But she'll die!"

"What does it matter? Today, tomorrow, or the next day. She may not survive the Soviet invasion anyway."

Members of the PSR [Physicians for Social Responsibility] say they wouldn't refuse to help a sick or injured person. But they want America to be unprepared. They don't want to be able to help, if an attack ever happens. They won't be able to help. And they think that their inability to help will keep the Soviets from attacking.

Being unprepared means that millions of people will suffer and die from treatable and preventable injuries. Burns, radiation sickness, blast injuries, epidemics -- all are preventable, and many are treatable.

Doctors for Disaster Preparedness [DDP] believe that physicians have a responsibility to aid the sick and injured victims of war. They believe that physicians have a moral and ethical obligation to be prepared to aid war victims. *They think the little girl should be treated.*

But PSR has more than 100 times as much money as DDP. Guess who is being heard?

If you are a professional, and you think that supplies, equipment, and planning for medical care in wartime should be a priority, rather than a political casualty, join DDP.

If you are not a doctor, give this newsletter and a copy of *Fighting Chance* to your physician. Ask him whether he would treat the little girl. Ask him to join DDP and FIGHTING CHANCE.

If he belongs to PSR, *find another physician.*

The work and writings of Dr. Jane Orient are an outstanding example to all professionals. This patriotic, articulate physician places preparedness ahead of popularity; and moral realism ahead of unethical wishful thinking.

The enclosed letter from Jane Orient gives instructions for joining DDP. The cost is \$40 per year. Associate memberships for non-doctors are \$30 per year.

FIGHTING CHANCE vs. APPEASEMENT

Recently the director of the Federal Emergency Management Agency [FEMA] ordered a test of FEMA's emergency communications and response to a simulated nuclear attack.

This is a valuable test. It raises awareness about defense; it tests the pitifully few procedures that now exist; and it demonstrates the need for *proper* civil defense preparations.

The Governor of Oregon refused to allow the State of Oregon to cooperate with this FEMA exercise. This Governor favors appeasement and unilateral disarmament as a deterrent. He says that test of any defensive procedures raises the likelihood of war. *He is tragically wrong!*

In Grants Pass, Oregon, the local newspaper editor wrote an editorial strongly endorsing the Oregon Governor's position.

In answer to that editorial and, more importantly, in order to encourage the people of Grants Pass to prepare defenses for their families and community, we are sending a copy of *Fighting Chance* to every citizen of Grants Pass and the surrounding rural area. 60,000 Americans live in this region.

FIGHTING CHANCE has done this before in a similar community of 15,000 people. In response, that community formed a civil defense organization and is well along with good civil defense preparations.

We would like to send a copy of *Fighting Chance* to every citizen of Oregon and all other states as well. We are not, however, financially able to do that yet. We are currently

mailing tens of thousands of complimentary copies of *Fighting Chance* to Americans in all parts of the United States.

It costs FIGHTING CHANCE about 59 cents to print and mail *Fighting Chance* to each address on a large mailing list. This is about 20 cents per individual in a typical community. So far, the new supporters of FIGHTING CHANCE who contribute after receiving a complimentary book have paid the costs of sending the books.

We must get the truth about defense against nuclear weapons into the hands of as many Americans as possible as soon as possible. Supporters of FIGHTING CHANCE are making our efforts to do this possible. Your donations, book orders, and newsletter subscriptions are all utilized in our non-profit effort to build a defense for the American people.

Good defenses are the only realistic deterrent to war - especially war in the nuclear age. If war comes in spite of deterrence, good defenses are the only path to personal and national survival.

HOSTAGE DEALS WITH EVIL

Instead of fulfilling their constitutional obligation to provide for the common defense of the American people, many of our politicians have preferred to make treaties with the Soviets deals with the Soviets *deals with evil*.

For example, we have an ABM treaty in which our politicians agreed not to deploy a strategic defense against Soviet missiles. The Soviets agreed too, of course, but then violated the treaty and are deploying a strategic defense for themselves.

Our politicians agreed that all of the American people would be held hostage to Soviet attack in return for a similar hostage agreement concerning our missiles and the enslaved people behind the iron curtain. *Now we alone are the hostages*.

How "evil" are the Soviet deal doers? R. J. Rummel has compiled some interesting facts:

All of the wars in the 20th century have involved a total of 36 million deaths or about 0.2 % of the world's people. However, during that same period, Communist governments under Soviet domination have *killed 95 million* or 4.8% of their own citizens in *peacetime*.

Can anyone doubt that this is absolute evil? These same tyrants now have more than 10,000 deliverable nuclear warheads aimed at a completely undefended American population.