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Civil DEFENSE

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2021 ISSUE 1

DOMESTIC TERRORISM

The Hidden Threat to Our Homeland

See Also:

BODY ARMOR Do You Need It?

10 Reasons to Build a Safe Room

SOCIAL MEDIA for when DISASTER strikes

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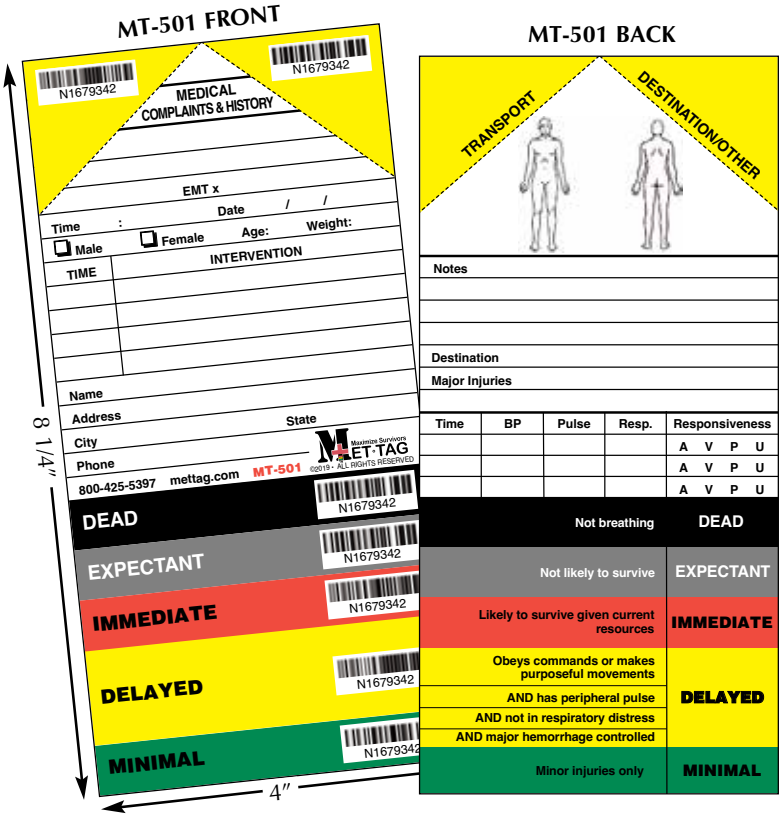

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PRESIDENT'S MESSAGE

Emergencies come in many forms. Sometimes they are sudden like a traffic accident or a power outage, and we have very little warning. Other times you can see them coming from a distance. We are now facing a large-scale emergency of our own making. I believe the United States will be facing a significant monetary collapse in the near future. This collapse will inevitably cascade into a significant economic disruption for the entire world.

Our elected leaders have taken the easy way out of financial difficulties by simply ignoring fiscal restraint. They have decided they can solve most of our problems by creating money with no backing in real goods or labor. This will cause significant inflation and shortages of consumables and will lead to much hardship and perhaps even death for those who are unprepared. Many countries have tried to solve economic problems by creating vast amounts of money. This almost always ends up in economic upheaval and impoverishment.

Those who are prepared for significant manmade or natural disasters – as we at The American Civil Defense Association suggest – will fare much better than those who are not prepared. I would suggest that you prepare in earnest. Some emergencies are predictable.

Sincerely,

Jay Whimpey, PE
TACDA President

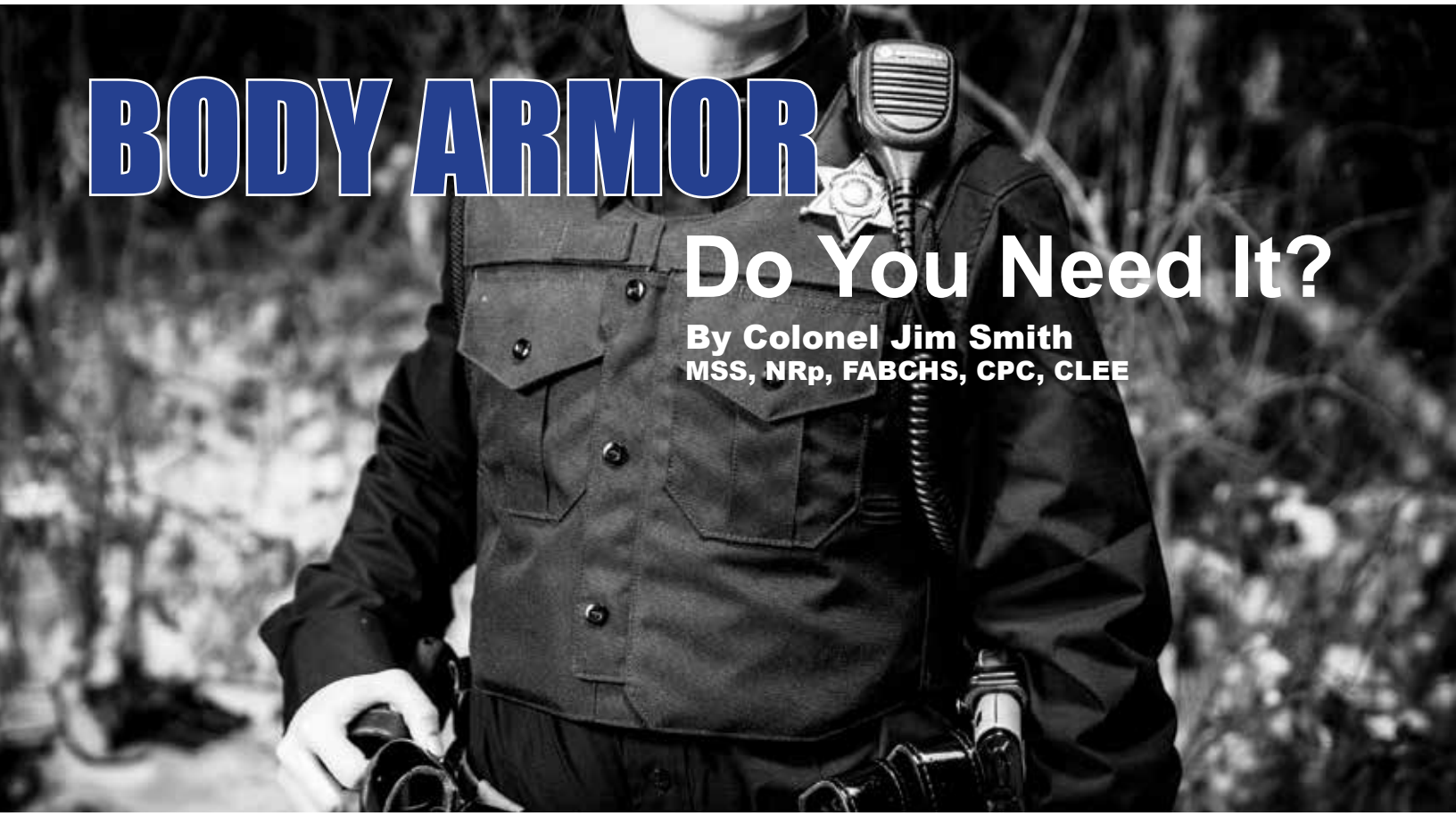
FROM THE EDITOR

A Non-Political Entity

By Roseanne Hassett
Executive Director

You may be wondering why TACDA does not speak of the political affairs that are so blaring in today's news. The answer is, we would love to! But we cannot. Our 501(c)3 non-profit status prohibits us from sharing our political views. We cannot promote, encourage, or persuade our members or followers towards one political side or another. If we did so, we would be violating the terms of our privileged non-profit classification and could risk losing it. Of course, we do not want to do that. TACDA is an astounding 59 years old, and we do not want to do anything that would jeopardize our future or stain our legacy.

You must derive your own political opinions and do what you deem appropriate within the law while considering the safety and respect of others to improve our nation's well-being and the contentment of its citizens. In the case of emergency preparedness, it does not matter what 'side' you are on. Civil defense has always been important no matter who has led the country. The American Civil Defense Association is for everyone. Get prepared! Being prepared for any disaster creates safer neighborhoods and communities. It brings peace of mind and promotes unity. It even creates lasting friendships and mends differences, which is something our nation desperately needs.



BODY ARMOR

Do You Need It?

By Colonel Jim Smith
MSS, NRp, FABCHS, CPC, CLEE

Many individuals purchase body armor with little knowledge of what they are buying or how to wear it. They often do not know how the body armor is rated in terms of ballistic projectiles, edged weapons, or flammability. The questions one must ask include:

1. Do you need body armor?

Public safety occupations exposed to gunfire and edged weapons certainly have a substantial probability of needing body armor to defend against these threats. Certain types of body armor can resist not only ballistic projectiles but also edged weapons such as knives or ice picks. One must consider the probability of such an attack versus the cost of the armor. Body armor does impose a substantial heat load and also limits mobility; however, thinner, flexible, and lighter armor will be more expensive.

2. Are you likely to need protection from flames, ballistic projectiles, or edged weapons?

If the answer is yes, then the type of threat determines the type of body armor. Some body armor is flame resistant, while other types are not. The National Institute of Justice rates body armor for law enforcement at Threat Level II or Threat Level IIIa. This armor resists most handgun rounds and some carbine loads. If one is faced with rifle projectiles, then the use of "hard" inserts rated at Threat Levels IV or V are recommended. Armor rated at threat levels above IIIa are not usually able to be concealed and can be quite heavy and rigid. Higher threat level armor can weigh in the 30- to 40-pound range. Bomb suits routinely weigh in the 90-pound range. The reduction in mobility posed by rigid and heavy body armor can be profound. Body armor is not rated to mitigate blunt force injuries but may reduce blunt trauma from motor vehicle crashes, falls, and other incidents.

3. What body parts do you need to protect?

Configuration of the body armor is the next consideration. Concealable body armor can be worn in a six-point adjustable carrier under a shirt, or armor panels can be inserted in a T-shirt type carrier. The carrier may be part of a backpack-style system or a fanny pack-style system which provides only front coverage. Some external carriers do facilitate the carrying of a concealed pistol with the ensemble. The protection of the front and back of the torso is common, with most configurations also providing some flank coverage. Overt armor worn over clothing typically will have multiple attachment points for equipment and firearms.

Other parts of the body that may need protecting include the head, neck, groin, shoulder, and legs. Usually, overt body armor will provide front, back, and side protection in addition to groin, shoulder, and neck protection. As more areas are added, mobility and concealability decrease, while weight and heat load increase. Head protection usually takes the form of a helmet, although some baseball-style caps can afford forehead protection. These helmets usually are rated in the IIIa protection level and weigh several pounds. Clear face shields affording facial and upper neck protection can be added but substantially increase the weight of the helmet. They also decrease visibility and increase heat load.

4. Will it fit correctly?

Make certain any body armor purchased is custom fitted to the wearer's body. Multiple body measurements are needed to fit the armor to the wearer. If one is to wear body armor daily, it must fit well.

5. What are the laws in your area?

Some state and federal laws regulate body armor such that convicted felons and some others may not be able to possess it. Check the laws in your locale prior to purchasing body armor. There may be restrictions regarding both possession and locations where it can be worn.

6. Can you properly care for it?

Make certain the body armor is not exposed to direct sunlight, UV light, organic solvents, and petroleum products. Most manufacturers recommend against such. Follow manufacturer instructions on how to care for the body armor. Body armor does have a shelf life according to most manufacturers of five years or less. Many agencies replace public safety body armor worn daily more frequently since issues such as set wrinkles or wearer body weight changes may necessitate such.

7. Can you afford what you need?

Body armor prices range from $500 to several thousand dollars. As with most things, you get what you pay for. High-quality, lightweight ballistic panels will be more expensive than lower-quality ones. If your well-being and life may depend upon the body armor, buy the best and be willing to spend more money to obtain custom-fitted, higher-rated armor.

Colonel Jim Smith has been a law enforcement officer for more than 45 years and worn a variety of body armor during his career. Smith has investigated several incidents where body armor played a role in reducing injuries to officers involved in shootings, falls, and motor vehicle crashes. He has published several articles related to body armor and published textbooks relating to tactical medicine, WMD, and crisis management. He has a master's degree in safety from the University of Southern California. He teaches criminal justice related courses for the University of Phoenix and Troy University. He serves as the public safety director of a community in Alabama. Colonel Smith has no financial interests in Armor Express who kindly provided photographs in this article.

Why Build Corrugated Steel Pipe Shelters?

Sharon Packer and I have been active in building NBC (nuclear, biological, chemical) shelters for the ordinary citizen for 29 years. We were fortunate to have the opportunity to consult with a handful of individuals who invented the nuclear age. Several were also instrumental in constructing and testing shelters under nuclear blast conditions at the Nevada Test Site in the USA during the 1950s and 1960s open-air testing period. Since those tests were performed, shelter technologies surrounding air handling units, blast valves, and doors have vastly improved.

Switzerland is the world leader in shelter components such as ventilation, filtration, and armored closures. However, Switzerland's primary shelter formats have hitherto revolved around reinforced concrete structures.

We recognize the value in properly designed concrete shelters but favor the economy and robustness of the corrugated steel pipe (CSP) shelter concept. All have their place. Not all locations are friendly to CSP shelters or nearly any other design. High water table areas do not lend themselves to shelter constructions. For example, in Germany during WWII, many of the areas prone to allied bombing had high water tables. To compensate, the Germans built above-ground shelters called "bomb-proofs". These featured heavily reinforced concrete buildings with four-foot thick walls and ceilings. Many suffered direct hits by allied bombs, but there is no record of a single injury suffered inside one of these shelters during the war. Some of them were built four stories high.

Because of the arched top, a CSP shelter buried properly and with the correct entrance geometry can offer a high degree of protection for occupants to within 500 meters of the crater edge of a one-megaton surface burst nuclear weapon. In order to reach the maximum overpressure protection levels of 150 to 200 psi, the CSP shelter must be buried at twice its diameter (i.e., a 10-foot diameter shelter will need to be placed in a 20-foot deep hole and have ten feet of dirt cover to bring it to grade). Typical concrete shelters will have, at most, a 45 pounds per square inch (psi) protection level and will cost four to five times more than a CSP shelter. Flat-topped steel shelters are difficult to reinforce and never reach the high blast and radiation protection levels needed for a heavy nuclear attack environment.

For airbursts, CSP shelters are considered "sure-safe". That is, they will suffer no damage because, at ground zero, the maximum overpressure from the blast will not exceed 50 psi. At this close proximity, radiation levels are extremely high. There are specific formulas used to calculate the radiation protection factor (PF) of the entrances. It is critical to have small diameter entrances in this environment with 90-degree turns and long lengths on the horizontal and vertical legs.

Many shelter manufacturers we've observed do not understand these concepts and offer entrances that greatly compromise protection from both prompt and delayed radiations. A sure sign of a poorly designed shelter is an entrance that penetrates the ceiling of the shelter itself, such as this picture of a generator shelter (Figure 1). We built this generator shelter for a client, but it is NOT intended for protecting human life. Diesel generators do not care about radiation penetrating inside. This entrance was used to make engine removal easier at some future date.

Figure 1

A personnel entrance utilizes a 90-degree elbow which is attached to the shelter hull while it is in the trench (Figure 2). This picture shows an emergency exit installed at a 90-degree vertical angle.

Figure 2

For a safer and more convenient arrangement, we roll this entrance over to around 60 degrees (Figure 3). This allows for easier access of the ladder. A band used to secure the extra sections needed to extend to the surface is shown around the vertical leg of the elbow.

Figure 3

From the inside, it looks like the photo in figure 4. Here, you can see a man standing on the stair in a 54-inch wide entrance.

Figure 4

You can also see the wiring arrangement for bringing in supplementary solar and portable generator power from the outside to maintain the batteries stored under the shelter floor (Figure 5). These power the shelter lights, appliances, ventilator, and other equipment.

Figure 5

Figure 6 shows a 10-foot wide by 30-foot long CSP shelter during installation, showing part of the air intake pipe and main entrance elbow in place with crushed rock surrounding the shelter hull. It is critical that crushed rock be used to backfill under and around the cylindrical hull for proper support. A two to three-foot layer of "road base" soil is placed over the hull before native fill is backfilled to grade to ensure proper earth arching during wet conditions.

Figure 6

Figure 7 shows the inside of the main stair to the surface. A steel hatch door is used to secure the shelter and protect against blast effects. It is surrounded by a collar of concrete 24 inches deep to securely attach it to the entrance.

Figure 7

In figure 8, you can see the air handling system. This particular air handling system is a Swiss-made VA150. The filter captures and neutralizes the radioactive particles and war gasses that could potentially be present in the outside air.

Figure 8

Most people are now aware of the electromagnetic pulse (EMP) associated with nuclear weapon warfare. CSP shelters offer excellent protection from EMPs (Figure 9) as they are basically a faraday cage. Full EMP protection cannot be achieved unless steel hatches are properly attached to the entrances and metal screens are welded to the steel air pipes.

We highly recommend corrugated steel pipe shelters. We are aware of no other design or building medium that gives the convenience, economic advantages, and high levels of protection in personal shelters. -Paul Seyfried

Figure 9

Paul Seyfried is a graduate from the Missouri Military Academy and enjoyed a 30-year career in the aerospace and defense industry. Sharon Packer has a Bachelor's degree in Mathematics with a minor in Physics, and a Master degree in Nuclear Engineering. Sharon and Paul are currently the owners and operators of Utah Shelter Systems and build and design all hazard NBC shelters throughout the nation. The shelters feature a Swiss made ventilation and chemical-biological filtration system. Sharon and Paul are the North American distributors for this ANDAIR filtration system.

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Question from a Member

Interior Shelter Entrances

Question:

Hi Sharon & Paul,

I want to make an entrance from my underground shelter into my home. How do you suggest this be accomplished?

Answer:

Hi Rich,

Basement Floor Entrance:

I installed a shelter entrance into my basement floor. I installed the shelter before starting the construction of the home. There will be some settling of the earth over the shelter for several years, so the shelter should be kept at a safe distance from the home. This type of entrance cannot be placed into existing construction, as the foundation of the home would be compromised during installation.

I excavated for the shelter and basement at the same time. The main entrance of the shelter was placed about 20 feet from the home site. The diameter of the entrance was only 48 inches, and it was difficult to navigate at that long distance. I would suggest that the entrance tunnel be at least 54 inches in diameter for a tunnel of that length. My emergency exit was placed on the opposite end of the shelter which opened into the yard. Always have at least one exit to an outside area in case the home burns down or is damaged.

The shelter had ten feet of cover, and the basement had a 10-foot-high ceiling (Figure 1). We placed the entrance tunnel about 2 ½ feet below the perceived footings of the home. We covered the shelter before starting the construction of the home. The entrance elbow was placed into a corner of the basement level and protruded about 18 inches above the finished basement floor grade. The elbow, with its 90-degree turn, gave the entrance an additional 90% radiation attenuation factor.

We carefully compacted the dirt around the entrance to within 18 inches of the top of the elbow. The footings, walls, and basement floor were then framed and poured. After the floor had cured, we framed an 18-inch-high by 6-foot concrete cube (with proper re-bar reinforcement) around the entrance elbow. The hatch-type door was placed over the entrance tube, and the concrete secured the door to the entrance (Figure 2). The 18 inches of height made a comfortable place to sit while entering the shelter. This concrete box also provides further protection in the event the basement should flood.

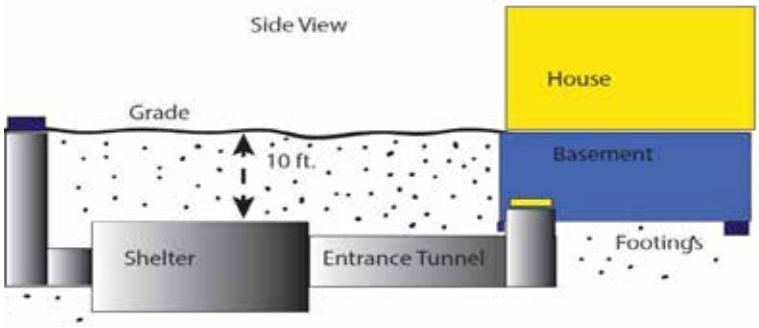


Figure 1 Basement Floor Entrance

Figure 2 Door Hatch

Our ladder was about eight feet from the floor of the entrance (Figure 3). Without the convenience of the basement entrance, the ladder would have been approximately 17 feet from the floor, which is rather intimidating for some people.

Figure 3 Ladder to Entrance

Side Wall Entrance:

We recently installed a 54-inch-diameter, underground entrance into an existing 10-foot-deep basement wall. The entrance ran about 40 feet horizontally away from the home (Figure 4). We carefully excavated the dirt away from the basement wall, staying above the depth of the foundation. It is easy to compromise the foundation, so make sure you hire a competent excavating contractor who understands the risks to the home. We core drilled a 54-inch-diameter hole into the basement wall, about 2 ½ feet above the floor. We welded a 6-inch-wide flange on the end of a 3-foot-long segment of the entrance pipe. The flange was ¼ inch thick and had eight evenly spaced ¾-inch-diameter holes drilled for the concrete bolts (Figure 4). This segment can be bolted to the outside wall, or it can be pushed through the wall from the inside and bolted to the inside of the wall. Entrance segments were made in 9-foot or shorter lengths for ease of handling. All ends were re-corrugated so that they could easily be connected with gaskets and annular bands. The tunnel ended in an elbow to grade, with a hatch door cemented in place.

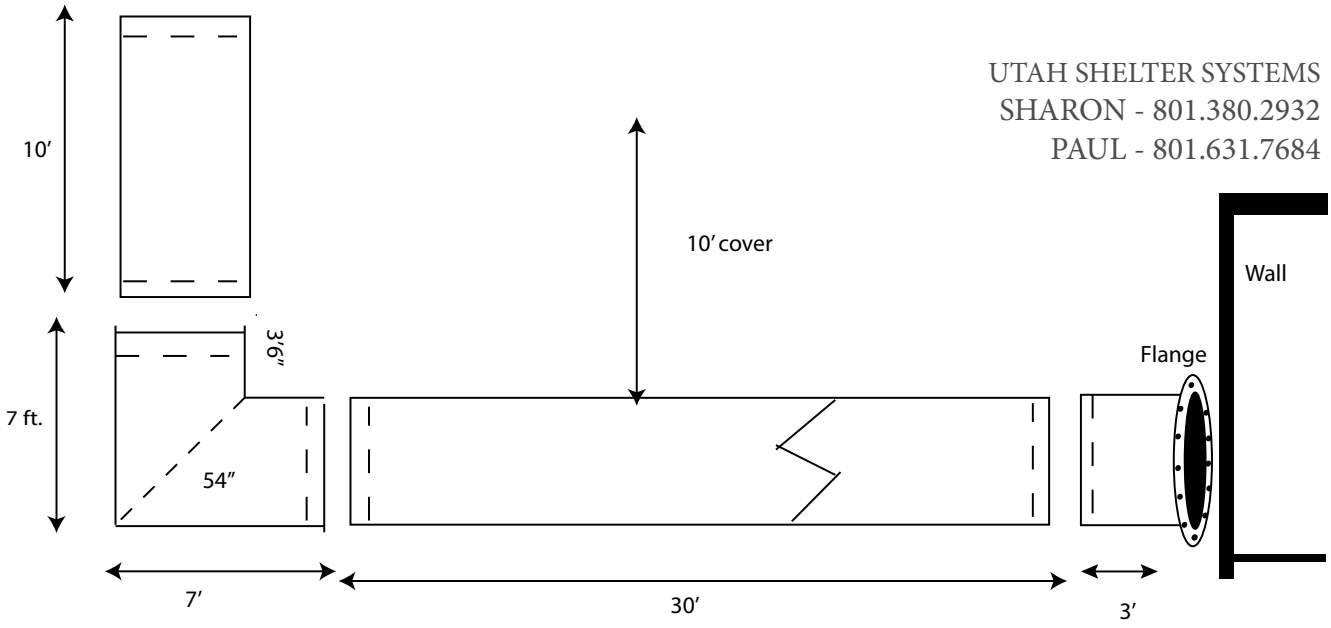


Figure 4 Tunnel Entrance to Basement

Garage Entrances:

We have used garage entrances quite effectively. We cut a hole into the concrete garage floor and reached through the garage doors with a backhoe to dig out the entrance.

We usually use a 48-inch or 54-inch-diameter, corrugated steel pipe for this type of entrance. Instead of the 90-degree elbow, the entrance runs diagonally down at a 60-degree angle, and then horizontally to the shelter (Figure 5). The shelter is usually placed under the driveway with an emergency exit into the yard. There are seldom any utilities running under the driveway, and very little landscaping is disturbed. The closed garage door gives the same privacy into the shelter as a house entrance and the garage gives additional shielding. If the garage is large enough, the hatch door can easily be hidden in a small closet area. If there is rain soon after a nuclear event, fallout particles can be washed from the fallout clouds before they have had time to decay. This is called a 'rainout'. If concrete is replaced in the driveway, it affords much better protection from this radioactive rainwater that would otherwise filter down through the soil near the shelter. Many people choose to put a concrete patio over the shelter for the same reason.

Home entrances are convenient, and the shelter usually stays warmer. I found that I used my shelter space more frequently when I didn't have to go outside to enter. It serves as a safe room as well as an NBC shelter, and the privacy of the hidden entrance gives me a greater sense of security.

Sharon Packer & Paul Seyfried,
Utah Shelter Systems

Paul Seyfried has been interested in national security affairs since his enrollment at Missouri Military Academy and later, New Mexico Military Institute. His interest in self-help civil defense intensified during the height of the Cold War in the late 1980s. After building his first shelter with Sharon Packer he became acquainted with several nuclear weapons physicists involved with the creation of the nuclear age including Edwin York, Dr. Conrad Chester, and others who had hands-on experience in field testing of nuclear weapons and their effects upon buried shelter structures. His main interest is in the development and construction of cost-effective blast and fallout shelters within the reach of middle-class Americans. Paul also serves on the Advisory Board of The American Civil Defense Association. Sharon Packer and Paul Seyfried are currently the owners and operators of Utah Shelter Systems and build and design all hazard NBC shelters throughout the nation.

Sharon Packer holds a bachelor's degree in education with a major in mathematics and a minor in physics. She taught math in the public school system for a short period of time and then became a full time mother, raising 6 children. She became an EMT and volunteered with the Wasatch County Ambulance Service for several years. Later, she returned to the University of Utah where she received a master's degree in Nuclear Engineering. She is the author of 'Nuclear Defense Issues', a handbook of weapons effects and civil defense survival techniques. Sharon is a co-founder of the Civil Defense Volunteers of Utah where she served as the President of that organization for 12 years. She is an amateur radio operator (N7NHJ) and served as a nuclear weapons effects trainer for the U.S. Air Force Communications Command (MARS).

In 1998, Sharon and Paul founded Utah Shelter Systems, a company that manufactures special order steel shelters. Sharon is the Vice President and engineer for the company. The shelters feature a Swiss made ventilation and chemical-biological filtration system. Sharon and Paul are the North American distributors for this ANDAIR filtration system. Sharon currently serves as secretary of TACDA and lectures widely throughout the United States on civil defense issues. Sharon has served on the TACDA board for more than 20 years. She has written numerous preparedness articles and journals, which have been featured in TACDA's Journal of Civil Defense.

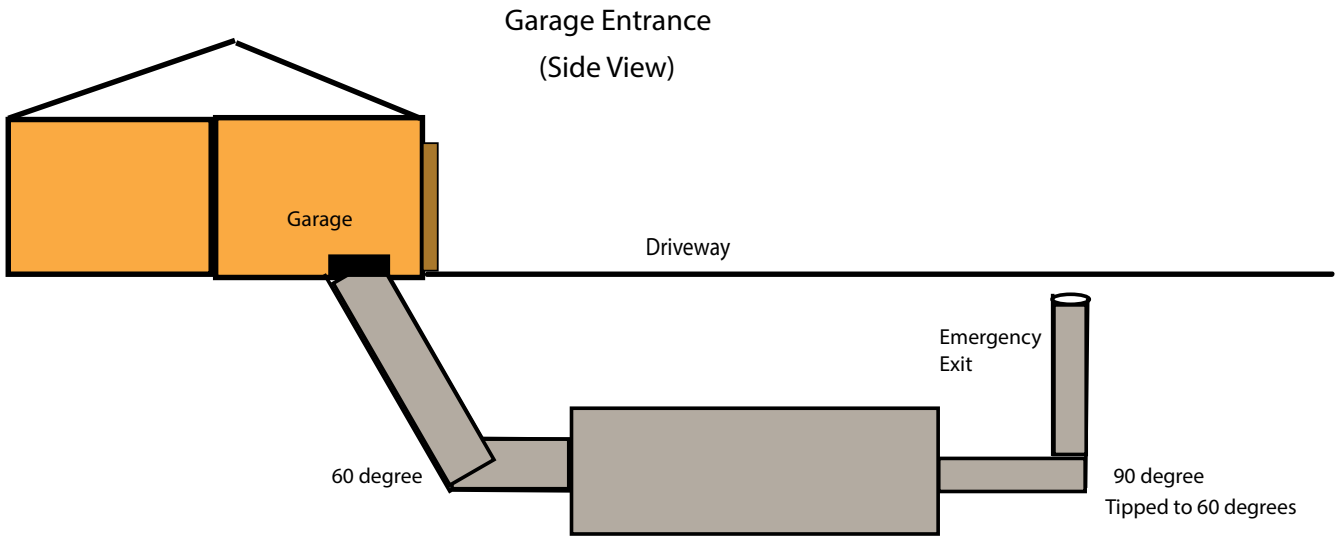


Figure 5 Garage Entrance

The RADON Threat and Mitigation

By Jay R. Whimpey, PE
TACDA President

Radon gas is estimated to be the second leading cause of lung cancer in the United States and is the leading cause among non-smokers. It tends to collect and concentrate in the lower parts of a home and in any underground shelter because it is heavier than air.

Radon is generated by the decay of Uranium. If there is a small amount of Uranium in the soil around a house, it creates gas that causes positive pressure in the soil, driving that gas into a basement floor or wall if there is a small opening. If there is a crawlspace under a house, there is virtually no barrier to the evolved gas. Most soils do not have enough Uranium to create a problem, but it is worth checking since the consequences can be very serious.

A Radon test kit can be purchased from commercial sources or obtained through local health departments. The kits available cost roughly $50 and consist of a certain amount of activated Carbon that will absorb Radon. The kit is then sent back to the provider for testing. There are short-term screening test kits that are placed in the desired testing area for 48 to 96 hours. More definitive tests require the test capsule to be placed in the area for roughly 90 days before it is sent to the provider for testing.

Radon can be controlled by active or passive ventilation in low lying areas of the house or basement or by sealing the walls and floors of the house. There are contractors that specialize in controlling Radon that can install Radon control systems or perform sealing-type control measures.

Prudent individuals will probably desire to test their living and shelter spaces to determine if this is a problem for them. They should then take appropriate measures to control it if Radon is found to be present in harmful concentrations.

How do I get a radon test kit? Are they free?

Radon test kits are available from several sources. Free test kits are sometimes available from local or county health departments, or from state radon programs. The National Radon Program Services at Kansas State University has test kits available to purchase online at www.sosradon.org or by phone at 1-800-SOS-RADON (1-800-767-7236). Test kits are also available from some local or state American Lung Associations (www.lung.org) and some home improvement stores.

To learn more about the availability of test kits in your area, or to find a qualified testing or mitigation contractor, contact your state radon office at: https://www.epa.gov/radon/find-information-about-local-radon-zones-and-state-contact-information and click on your state for a list of contacts. You can also contact either of the national private radon programs: https://www.epa.gov/radon/find-radon-test-kit-or-measurement-and-mitigation-professional.

For more information on radon, see https://www.epa.gov/radon.

For more information on radon mitigation see: https://www.cdc.gov/nceh/features/protect-home-radon/index.html

Jay Whimpey is the president of The American Civil Defense Association and the president of The Civil Defense Volunteers of Utah. He is a licensed chemical engineer with a vast amount of knowledge and experience in civil defense, developing new techniques and teaching preparedness skills. Jay received a Bachelor of Science Degree in Chemical Engineering from the University of Utah in 1982 and a professional engineering license in 1995.

National Radon Levels

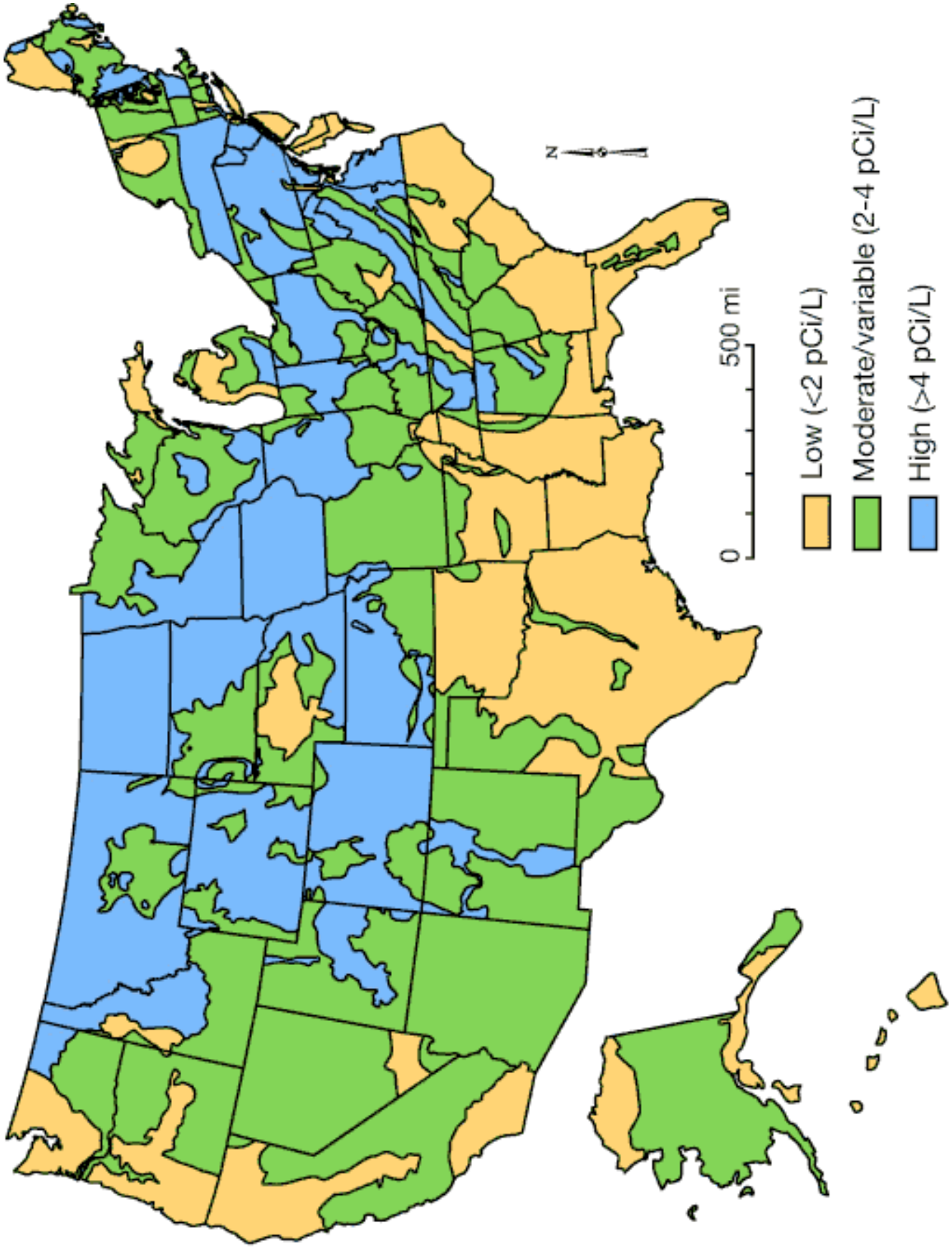


Photo by kgs.just.edu

Question from a Member

RADON MITIGATION IN NBC SHELTERS

Utah Shelter Systems

Question:

Hi Sharon & Paul,

I installed an underground, corrugated steel pipe shelter a few years ago and have an elevated radon reading inside the shelter. I bring my air in from my basement and exhaust to the outside. Could you please comment on radon gas abatement?

Answer:

Radon gas could become an issue in concrete shelters, but the gas will not penetrate through your steel shelter walls. There could be minute amounts, however, coming through the small openings in the seams. I highly doubt that this is the source of your radon reading.

You mentioned that your air for the shelter comes from a basement room. Concrete walls and floors are permeable to radon gas. I would suggest that you put a meter in your basement to see if that is the source and mitigate accordingly. The most common method of radon mitigation is a "sub-slab depressurization" (SSD) system, which uses a fan and PVC pipe to draw air from below the concrete floor and vent it harmlessly above grade where it dissipates. This same mitigation method should also be used for concrete shelter construction in any area prone to radon gas.

You can safely exhaust air from the shelter into your basement room, but you should switch your intake air from basement to an outside air source. If your home were to collapse or catch fire, your shelter air source would be seriously compromised. The potential for radon gas, as you have learned, is another reason for moving the intake air out of the basement. The intake air vent pipe should be placed horizontally away from any structure at a distance no closer than ½ the height of that structure. For example, if the nearby structure is 20 feet high, your intake air pipe should be at least 10 feet horizontally away from that structure.

Sometimes the air in the shelter feels too humid or stale. Most people do not like to leave their shelter's main ventilation system continually running and unattended. I would suggest that you disconnect your intake hose from the motor side and place a small, 12-volt fan inside the hose leading from the outside vent. The fan will draw enough outside air to force a slightly positive pressure into your shelter and will circulate the stale air out of the shelter. This also keeps humidity from accumulating. Make sure you keep a trickle charge on your batteries so that they do not become depleted beyond a 90 percent level.

Sincerely,

Sharon Packer & Paul Seyfried,
Utah Shelter Systems

Paul Seyfried is a graduate from the Missouri Military Academy and enjoyed a 30-year career in the aerospace and defense industry. After building his first shelter with Sharon Packer he became acquainted with several nuclear weapons physicists involved with the creation of the nuclear age including Edwin York, Dr. Conrad Chester, and others who had hands-on experience in field testing of nuclear weapons and their effects upon buried shelter structures. Sharon Packer has a Bachelor's degree in Mathematics with a minor in Physics, and a Master degree in Nuclear Engineering. In 1998, Sharon and Paul Seyfried founded Utah Shelter Systems, a company that manufactures special order steel shelters throughout the nation. Sharon is the Vice President and engineer for the company. The shelters feature a Swiss-made ventilation and chemical-biological filtration system. Sharon and Paul are the North American distributors for this ANDAIR filtration system.

The Terrorist Threat to the Homeland

U.S. Department of Homeland Security

Ideologically motivated lone offenders and small groups pose the most likely terrorist threat to the Homeland, with Domestic Violent Extremists presenting the most persistent and lethal threat. Foreign terrorist organizations will continue to call for Homeland attacks but probably will remain constrained in their ability to direct such plots over the next year. Iran will maintain terrorist capabilities, including through proxies such as Lebanese Hizballah, as an option to deter the United States from taking action Tehran considers regime-threatening.

Violent Extremism in the United States

The primary terrorist threat inside the United States will stem from lone offenders and small cells of individuals, including Domestic Violent Extremists[1] (DVEs) and foreign terrorist-inspired Homegrown Violent Extremists[2] (HVEs). Some U.S.-based violent extremists have capitalized on increased social and political tensions in 2020, which will drive an elevated threat environment at least through early 2021. Violent extremists will continue to target individuals or institutions that represent symbols of their grievances, as well as grievances based on political affiliation or perceived policy positions.

The domestic situation surrounding the COVID-19 pandemic creates an environment that could accelerate some individuals' mobilization to targeted violence or radicalization to terrorism. Social distancing may lead to social isolation, which is associated with depression, increased anxiety, and social alienation. Similarly, work disruptions, including unexpected unemployment and layoffs, can also increase risk factors associated with radicalization to violence and willingness to engage in acts of targeted violence.

- Violent extremist media almost certainly will spread violent extremist ideologies, especially via social media, that encourage violence and influence action within the United States.
- Violent extremists will continue their efforts to exploit public fears associated with COVID-19 and social grievances driving lawful protests to incite violence, intimidate targets, and promote their violent extremist ideologies.
- Simple tactics—such as vehicle ramming, small arms, edged weapons, arson, and rudimentary improvised explosive devices (IEDs)—probably will be most common. However, lone offenders could employ more sophisticated means, to include advanced and/or high-consequence IEDs and using crude chemical, biological, and radiological materials.
- While ISIS and other Foreign Terrorist Organizations (FTOs) have called for attacks in the West using "all available means," biological-focused attempts would likely involve crudely produced toxins and poisons. Similarly, during the COVID-19 outbreak, domestic extremists have called for the spread of the SARS-CoV-2 virus through unsophisticated means. While significant expertise and infrastructure limits the threat by low-level actors, even rudimentary actions can result in economically significant costs and incite fear without a corresponding risk to health.

Some DVEs and other violent actors[3] might target events related to the 2020 Presidential campaigns, the election itself, election results, or the post-election period. Such actors could mobilize quickly to threaten or engage in violence. Violence related to government efforts to mitigate the COVID-19 pandemic and amidst otherwise ongoing lawful protests has exacerbated the typical election-season threat environment.

- Some DVEs have heightened their attention to election- or campaign-related activities, candidates' public statements, and policy issues connected to specific candidates, judging from domestic terrorism plots since 2018 targeting individuals based on their actual or perceived political affiliations.
- Open-air, publicly accessible parts of physical election infrastructure, such as campaign associated mass gatherings, polling places, and voter registration events, would be the most likely flashpoints for potential violence.

Among DVEs, racially and ethnically motivated violent extremists—specifically white supremacist extremists[4] (WSEs)—will remain the most persistent and lethal threat in the Homeland. Spikes in other DVE threats probably will depend on political or social issues that often mobilize other ideological actors to violence, such as immigration, environmental, and police-related policy issues.

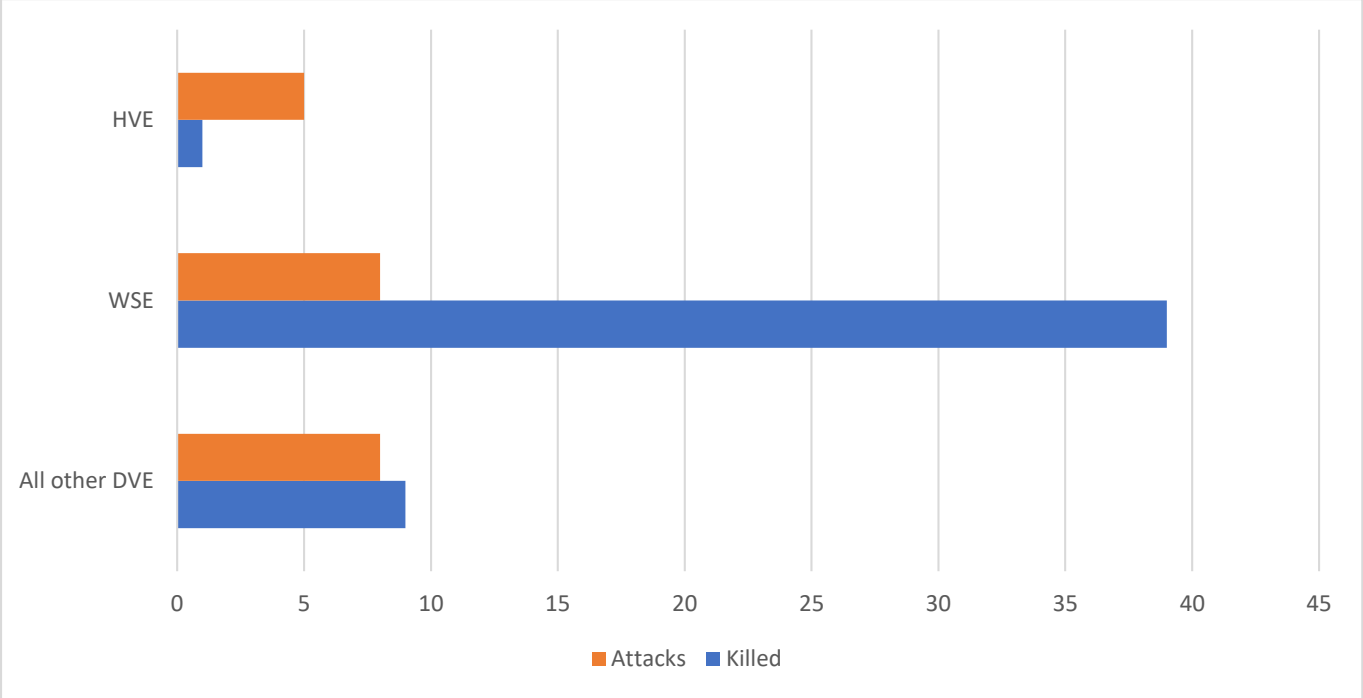
- WSEs have demonstrated longstanding intent to target racial and religious minorities, members of the LGBTQ+ community, politicians, and those they believe promote multi-culturalism and globalization at the expense of the WSE identity. Since 2018, they have conducted more lethal attacks in the United States than any other DVE movement.
- Some WSEs have engaged in outreach and networking opportunities abroad with like-minded individuals to expand their violent extremist networks. Such outreach might lead to a greater risk of mobilization to violence, including traveling to conflict zones.

- Other racially or ethnically motivated violent extremists could seek to exploit concerns about social injustice issues to incite violence and exploit otherwise peaceful protests movements.

Another motivating force behind domestic terrorism that also poses a threat to the Homeland is anti-government/anti-authority violent extremism.

- These violent extremists, sometimes influenced by anarchist ideology, have been associated with multiple plots and attacks, which included a significant uptick in violence against law enforcement and government symbols in 2020. This ideology is also exploited by hostile nation-states, which seek to promote it through disinformation campaigns and sow additional chaos and discord across American society.
- Anti-government and/or anti-authority violent extremists are likely to be emboldened by a perceived success exploiting otherwise peaceful protest movements and concealing violent tactics. These violent extremists are increasingly taking advantage of large protest crowds to conduct violence against government officials, facilities, and counter-protestors.
- We also remain particularly concerned about the impacts from COVID-19 where anti-government and anti-authority violent extremists could be motivated to conduct attacks in response to perceived infringement of liberties and government overreach as all levels of government seek to limit the spread of the coronavirus that has caused a worldwide pandemic.

Terrorist Attacks Posing a Threat to Life in the United States: 2018-2019



This chart depicts DVE and homegrown violent extremists (HVEs) attacks in the US since 2018 that posed a threat to life, based on DHS data. 2019 was the most lethal year for domestic violent extremism in the United States since the Oklahoma City bombing in 1995. We are still evaluating data for incidents occurring in 2020. VEs perpetrated 16 attacks, killing 48, whereas HVEs conducted 5 attacks and killed 1 person. Among DVE actors, WSEs conducted half of all lethal attacks (8 of 16), resulting in the majority of deaths (39 of 48). All the DVE attackers had a dominant violent extremist ideology, with many motivated by multiple violent extremist ideologies or violent extremist ideologies unconnected to global violent extremist groups.

4. Homegrown White Supremist Extremist (WSE): A group or individual who facilitates or engages in acts of unlawful violence directed at the federal government, ethnic minorities, or Jewish persons in support of their belief that Caucasians are intellectually and morally superior to other races and/or their perception that the government is controlled by Jewish persons.

- Ideologies driven by such DVE's often are reinforced by a variety of online content, including conspiracy theories and political commentary they view as controversial. Current events that DVEs perceive as infringing on their worldviews often contribute to periods of increased ideologically motivated violence, including recently during the COVID-19 pandemic and nationwide lawful protests.
- The domestic threat environment is rapidly evolving. Operational reporting shows that DHS law enforcement officers suffered over 300 separate injuries while they were present during months of nightly unrest in Portland, Oregon. This is but one example among many across the country, including in Brooklyn, New York, and Kenosha, Wisconsin, where law enforcement officers have been injured or killed. These increasingly pervasive incidents highlight the threat of anarchist violence that has accelerated in our cities in recent months.

Foreign Terrorist Threats

Foreign terrorist organizations (FTOs), including al-Qa'ida and the Islamic State of Iraq and ash-Sham (ISIS), will maintain interest in attacking the Homeland but we expect the primary threat from these groups to remain overseas in the coming year due to sustained U.S. counterterrorism pressure. Nevertheless, these groups can adapt quickly and resurge, and terrorists overseas will continue to probe for vulnerabilities in U.S. immigration and border security programs. Collectively, vulnerabilities may create an illegal migration environment that FTOs could exploit to facilitate the movement of affiliated persons towards the United States.

- The primary threat to the Homeland from FTOs probably will manifest as "inspired" attacks. FTOs seek to inspire violent extremism in the United States and continue to use social media and other online platforms to call for attacks against the United States. Despite territorial defeats in Iraq and Syria, ISIS continues to draw support from HVEs in the United States and the group's global calls for attacks have intensified since the death last year of senior leader Abu Bakr al-Baghdadi.
- Transportation infrastructure—especially the aviation sector—almost certainly will remain a primary target for terrorists plotting overseas. While terrorists continue to pursue flight school training and the use of insiders, plotting against domestic aviation targets most likely will remain aspirational among FTOs and their supporters over the next year.
- Terrorists and other criminal actors might look to unmanned aircraft systems (UAS) to threaten critical infrastructure. In 2019, there were nearly 4,000 reports of unique incidents of UAS activity near U.S. critical infrastructure or public gatherings. Although we have no indication that any of these events were terrorism-related, it is possible that malicious or criminal actors will turn to UAS tactics.

Iran and Lebanese Hizballah

Iran will continue to develop and maintain terrorist capabilities as an option to deter the United States from taking what Tehran considers regime-threatening actions or to retaliate for such activity, real or perceived. The Government of Iran and its proxy, Lebanese Hizballah (LH), have demonstrated the intent to conduct an array of operations in the Homeland. Iran or LH could advance an attack plot—with little to no warning—in response to heightened tensions. The U.S. Government in recent years has arrested several individuals acting on behalf of the Government of Iran or LH who have conducted surveillance indicative of contingency planning for lethal attacks in the U.S.

Weapons of Mass Destruction and Other Chemical, Biological, Radiological, and Nuclear Threats

The overall global WMD threat will continue to rise in 2021. Spurred by continued capability expansion, modernization, low-yield weapons development, eroding international norms, information proliferation, emerging drone concerns and increasing actor awareness; the risk of intentional chemical, biological, radiological or nuclear incidents in the homeland and abroad has likely increased.

- Biological threats (deliberate, accidental, and naturally occurring) are more diverse and continue to expand with increased global interconnectivity and rapid advances in biotechnology, genomics, and other legitimate-use capabilities that could introduce risks to global health and food security and the potential for adversaries to develop novel biological warfare agents. Notably, the biological agent attribution shortfalls coupled with the now known devastating impacts may lead to a resurgence of state and non-state biological weapon pursuits.
- Chemical threats are particularly notable as we continue in the most significant and sustained period of chemical weapons use in decades. The publicity of emerging chemical weapons compounds and increases in information availability is evolving the chemical threat landscape. This global trend could manifest as an increased domestic threat.
- Radiological attacks are less likely, guidelines for hazards and safe handling of radiation sources reduce the likelihood of radiological attacks; however, actors driven by extremist ideology could pose a threat if they have knowledge and access of locations to aid radioactive materials acquisition. The major licensed users of radioactive material in the United States are in the energy, healthcare, and construction sectors with larger activity sources protected by physical security measures. The amount of radioactive material in use is not expected to increase in the short term.
- Nuclear threats remain enduring and will remain largely unchanged. The number of nuclear weapons states will probably remain unchanged over the next year. Concerns remain related to lower yield weapons development and regional expansion of nuclear capabilities by several nuclear weapons states and the subsequent increasing risks of weapons loss or nuclear conflict that could have global impacts. Non-state actors continue to face significant barriers to acquiring special nuclear material for use in an improvised nuclear device, but vulnerabilities remain. Experts do, however, estimate the rate of nuclear security improvement around the globe has decreased since 2018. The COVID-19 pandemic has drawn government resources away from normal functions, similar to resource shifts observed globally in military and other defense sectors; nuclear security may also be vulnerable to resource shifts which could increase risks of theft or sabotage of nuclear facilities. Domestic and foreign-based non-state actors attempting to steal special nuclear material for use in a nuclear weapon will continue to pose a threat to the Homeland.

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1. Domestic Violent Extremist (DVE): An individual based and operating primarily within the United States or its territories without direction or inspiration from a foreign terrorist group or other foreign power who seeks to further political or social goals wholly or in part through unlawful acts of force or violence. The mere advocacy of political or social positions, political activism, use of strong rhetoric, or generalized philosophic embrace of violent tactics may not constitute extremism, and may be constitutionally protected.

2. Homegrown Violent Extremist (HVE): A person of any citizenship who has lived and/or operated primarily in the United States or its territories who advocates, is engaged in, or is preparing to engage in ideologically-motivated terrorist activities (including providing support to terrorism) in furtherance of political or social objectives promoted by a foreign terrorist organization (FTO), but is acting independently of direction by an FTO. HVEs are distinct from traditional domestic terrorists who engage in unlawful acts of violence to intimidate civilian populations or attempt to influence domestic policy without direction from or influence from a foreign actor.

3. In this instance, and for the purposes of this report, "violent actors" refers to groups or individuals who facilitate or engage in unlawful acts of violence with the intent to cause serious bodily harm and/or damage to critical infrastructure.

4. Homegrown White Supremist Extremist (WSE): A group or individual who facilitates or engages in acts of unlawful violence directed at the federal government, ethnic minorities, or Jewish persons in support of their belief that Caucasians are intellectually and morally superior to other races and/or their perception that the government is controlled by Jewish persons.

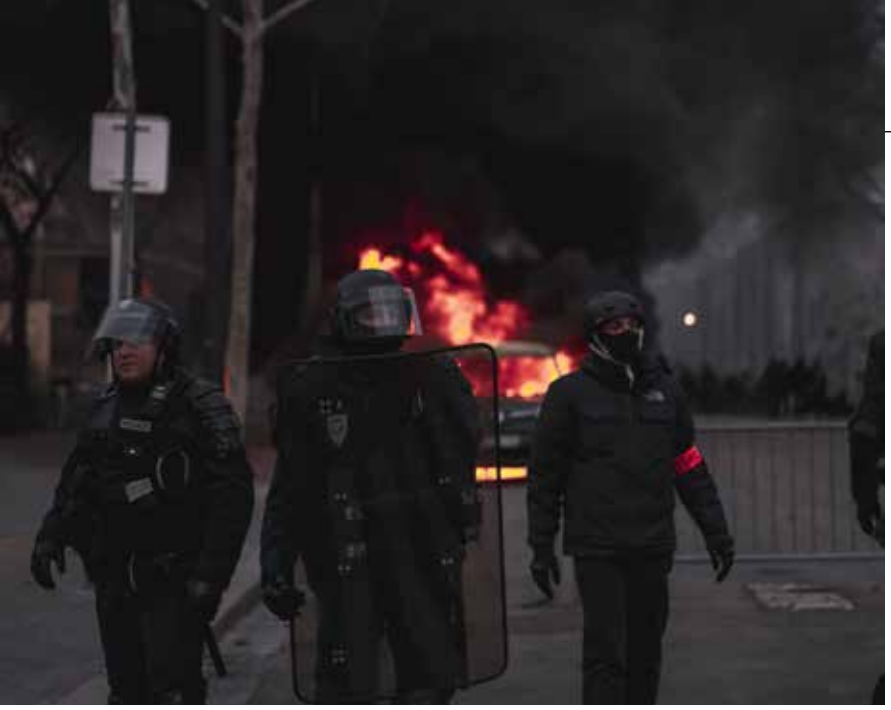

Photo by Aloïs-Moubax on Pexels

DOMESTIC TERRORISM

By Colonel Jim Smith

The problem with terrorism is that no single definition exists that encompasses all the word involves. Many definitions use the tenet of unlawful use of force to change the opinion or support of the public or government through coercion. Most federal agencies have a definition of terrorism, but they vary. Many states have no guiding, central definition. Even the federal government has no anti-domestic terrorism laws, using instead existing criminal laws to combat domestic terrorism.

Defining what constitutes an act of terrorism can be difficult. Some states, as well as the federal government, treat terrorist acts with additional penalties as is done with hate crimes. This may be detrimental, however, since some insurance companies do not pay benefits in relation to terrorist attacks or "acts of war".

Some agencies differentiate between crimes and terrorist acts simply by the intensity of the act. Changes in federal law allow the use of FBI assets to investigate crimes where three or more persons are killed, but these are usually limited to clear-cut acts of terrorism, severe incidents with multiple casualties, or hate crimes.

How does one define domestic terrorism versus foreign terrorism? If the actors are foreign nationals directed by a foreign terrorist organization, such as the September 11 attacks, the definition is clear. However, if the person is a US citizen directed by a foreign terrorist organization, the definition becomes less clear. The connection and motive must be proven. What about US citizens who embark on "lone wolf" attacks such as the "Mad Bomber," the Pulse Night Club shooter, the UNABOMBER, Dylan Roof, or the Las Vegas shooter? Were these hate crimes? Was this person directed or influenced by a foreign or domestic terrorist organization? Or were these just intense crimes committed by a person with a mental health issue?

These tragedies are complicated cases of violence with no obvious answers. In many cases, no motive is required to allow prosecution, and only intent is needed. The Las Vegas shooting is an example of an incident with many casualties but no clear motive. Should the mental health of the person be factored in to determine motive? For instance, the "Mad Bomber" ran a multiyear bombing campaign attempting to punish Consolidated Edison for what he considered an unlawful dismissal because of injuries he allegedly received on the job. He was sentenced to a mental health hospital. Theodore Kaczynski, the UNABOMBER, ran a multi-year bombing campaign against technology. He pled guilty to multiple federal charges related to the bombings and was sentenced to four life terms. Dylan Roof was convicted in state court of murder but on federal hate crime charges. Yet Kaczynski and Roof both had mental health diagnoses which may have affected their competency.

According to the US Government Accountability Office, approximately 100 persons die in terrorist attacks in the US annually. This figure may vary depending upon the definition used to qualify as such. When compared to the FBI's reported 16,000 annual homicides, this number becomes small. Considering that, annually, more than 36,000 people are killed in car accidents per the National Highway Traffic Safety Administration, 1,000 from bee sting allergic reactions per the CDC, 100,000 from adverse medication reactions/medical errors, and even 50 per year from lightning strikes according to the National Weather Service, the chances of dying from terrorism are infinitesimal.

Why are domestic terrorist attacks hard to stop? Domestic terrorist groups tend to be well educated and follow philosophies that can be generations old. They are often well organized, have good training, and use quality weapons. Some members, like Oklahoma City Bomber Timothy McVeigh, have military training. Domestic extremists have a support base in the US which assists in funding these activities.

Many of these individuals may not even be a part of a group, be very loosely organized, or only train together. This reduces their signature and the ability to gather intelligence by law enforcement. Many of the groups focus more on sociality with only a few core members sufficiently dedicated to executing an attack.

The use of "leaderless resistance", developed in the 1960's to combat a potential Communist takeover of the US, is in use by these groups. This allows ideas to be shared including training and tactics on how to conduct attacks by radio, internet, literature, social media, shortwave radio, and the like. It provides the guidance for "lone wolves" to conduct attacks. Many domestic terrorists today are autonomous and are not part of a cell or a group. This makes detection difficult. The government must use caution not to infringe upon First Amendment rights.

No domestic terrorist attack has alerted the country quite like the attacks of September 11, but even the recent Capitol attack, or the more distant Oklahoma City bombing, caused a united effort within the US to combat domestic terrorism. The dismantling of some domestic terrorism has taken an extensive period as evidence by the long-lived Ku Klux Klan. It now appears as only a shadow of itself at its zenith in the early 1900s. Some fear that if the government has expanded power to detect and combat domestic terrorism, the powers might be misused.

What countermeasures should be used? Local law enforcement should be using the community policing model where they have a close relationship with the population served. Many "tips" about threats come from the public. The individual should use situational awareness while avoiding controversial locations or large crowds.

Colonel Jim Smith, is the public safety director for a rural town in Alabama with more than 45 years public safety experience. Smith has a masters of science in Safety from the University of Southern California and teaches counter terrorism classes for the University of Phoenix and Troy University. He has published several textbooks relating to counter terrorism and served several years on a federal joint terrorism task force. He has experience in investigating domestic terrorist groups.

Additional Reading and References. Crisis Management for Law Enforcement, James Smith, Carolina Academic Press

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10 Reasons to Build a Safe Room

By Karen Bradford

Photo by Jason Dent on unsplash

Safe rooms have become increasingly popular. A safe room is essentially a room or structure hardened against your own perceived threats. The exact specifications of a safe room can vary widely and will depend on your own personal threat assessment.

In our estimation, the top 10 saferoom options include:

1. A Haven from Dangerous Weather

One of the most common types of saferooms is a hurricane or tornado shelter. The midwestern states are often referred to as Tornado Alley, and states along the Gulf of Mexico get hit hard by hurricanes almost every year. Earthquake-prone areas will have similar needs for a safe shelter.

By far the most convenient way to build your own storm shelter is to put it into your existing basement. You can use the slab floor of the basement, assuming that it meets Federal Emergency Management Agency requirements and is reinforced to properly support the walls, ceiling, and home above. If your shelter cannot support the weight of your home, a powerful tornado could collapse your home into the basement. Make sure you include a reinforced emergency exit and that you have a civil engineer stamp your proposed plans. You need roughly three square feet per each person taking shelter. The length of time you and your family could survive inside depends on your sanitation capacity, air supply, and water and food storage. Carbon dioxide builds quickly in small spaces, so plan accordingly.

Outside shelters have safety advantages but are not so easily accessed in an emergency. Heating and cooling an outside shelter may be difficult. If your outside shelter is near your home, place the entrance no closer to the home than ½ the height of your home (i.e., if your home is 20 feet high, place your entrance at least 10 feet away from your home).

2. Home Invasion

The other most common type of saferoom shelter is a panic room for home invasion. This is a place inside your home where you can hide from an intruder. It can be as small as a cupboard, or as large as the entire basement. The entranceway into the room should be fortified and only lock from the inside or with a particular code on the outside. If you have small children, make the room as soundproof as possible. Practice your escape. Make it a game with the children, so they are not terrified at the aspect.

According to the Department of Justice Emergency Preparedness manual, you need about ten square feet per person for a panic room to be effective. If your room is not ventilated, adhering to this measurement ratio will prevent an overload of carbon dioxide for roughly five hours.

3. A Smoke-Proof Space in Case of Fire

Smoke inhalation is a dangerous hazard and a leading cause of death in fires. In living spaces where proper exits are not available, having a safe room that can protect you from flames and smoke may save your life. Supplemental

oxygen is not advised as oxygen is explosive and could cause additional risk. Air filters will not remove smoke or carbon dioxide. Compressed air, however, is acceptable. You may also consider purchasing a carbon dioxide absorber to extend the breathable air in closed areas. The entire area must be fireproof and airtight. A thick-enough door can be outfitted with a fire-resistant seal that inflates up to seven times its normal size to keep out flames and smoke. You must include some form of emergency communications so that you can be rescued from this area.

4. A Safe Location in Times of Terror Attacks

Politicians and others in the public eye often opt for this type of safe room. It's also a good idea if you live in an area that has previously had such attacks. Your safe room should go above and beyond what's needed to prevent a simple home invasion. The shelter will need to withstand attacks from assault weapons, bombs, chemical weapons, and other large threats.

A common method of building an underground safe room to guard against terror attacks is the use of insulated concrete forms (ICF). Exteriors are built with hollow, lightweight, polystyrene blocks that snap together similar to Lego blocks. Once these have been assembled and laced with rebar, concrete can be poured through the tunnels created by the blocks' interiors. Above grade construction with ICF, however, has limited protection against explosives or other powerful weapons.

The room must be totally airtight to protect against chemical or biological weapons. Intake and exhaust air vents must be protected with blast valves as well as spring loaded mechanisms to force a slightly positive pressure into the room. The positive pressure will protect the room from any incursion of contaminated air from the outside. Air being drawn through the filters must be carefully metered to insure proper residence time within the filter. All openings for plumbing or electrical conduit must be carefully controlled and filled. If heating or cooling comes from outside the room, the ducts must be closed with gas tight shut off valves. Air pipes should be run horizontally underground to a location that is at least ½ the height of the building before turning up to reach air. Intake air must come from outside areas, never from inside a structure that could burn.

5. Expedient Nuclear Fallout Shelter

Once very popular in the 1950s and 1960s, this type of shelter is again becoming popular. A nuclear fallout shelter can also provide safety if there's a chemical attack due to the nature of the construction and the specialized valves and filters described above.

Reinforce the walls and ceiling as much as you can to protect against radiation. The Swiss require a protection factor (pf) of at least 500. That means that you will get only 1/500th of the radiation inside as there is outside. It is estimated that a basement with one story above will only give a pf of five. The walls of a basement have good protection, but the ceiling and staircase allow for a great deal of exposure. An 8-inch thick concrete ceiling gives very little protection from radiation. Each three inches of concrete gives a pf of two. This is multiplicative, so twelve inches of concrete will give a pf of eight. Another three inches will increase the pf to 16 and so on. Dirt is 'dirt cheap'. Use dirt wherever possible. Stack sandbags around windows and on exposed portions of your foundation. If you have a heavy table such as a pool table, you could consider placing makeshift materials like books, water storage, or other heavy items on top and around the table and stay under the table as long as possible. Blast (bomb) shelters are much more difficult to build. If you live in a target area, seek help from a professional shelter builder.

6. Impenetrable Storage for Valuables

A safe room doesn't just have to be about protecting people. They can be designed to protect your valuables, such as computer hard drives or servers, antiques, and special collector's items. Bear in mind you'll need to check facility temperatures to maintain optimum storage conditions. Humidity should not excede 50%. An electromagnetic pulse (EMP) from a distant nuclear detonation could cause damage to computerized systems. Place vulnerable equipment into metal boxes and insulate the equipment away from the metal sides. Areas totally surrounded by metal form what is called a faraday cage. You should also consider an alternative source of emergency power such as a back-up generator or solar system to maintain the proper temperatures.

7. A Place for Emergency Supplies

Prepare your safe room for a possible long term survival period. Make room to store food, medicine, first aid, and items such as batteries, radios, and flashlights. Store some canned foods and meals that are ready to eat. Also store food for long term survival, such as wheat, rice, oil, and beans and spend time organizing and rotating your supplies. Water is your limiting factor. Store as much drinkable water as possible, and purchase a good water filter/purifier for when your supply needs replenishing from an outside source.

8. A Command Hub for Home Security

Make your safe room one of the hubs for your home security system. Your alarm system, surveillance equipment, and communication gear should have the capability to be controlled from that area so that you can be aware of what is happening outside your saferoom. All-in-one systems should control security cameras, wireless radios, sound detectors, and sirens. There is even equipment available that can monitor air quality, humidity, and room temperatures.

9. A Hidden Panic Room

Hide your panic room from the casual observer. Small spaces can be hidden between reinforced walls. Entrance stairs to hidden basement rooms can be accessed under sliding cabinets. Bookshelves and cabinets are extremely effective in hiding doors. Sliding doors behind the clothes in a closet are easily hidden from view and can access larger spaces. Carpet can be pulled away from the wall to access trap doors. Use your imagination. Be sure the room is easily accessible.

10. A Shelter For the Community

This is a safe room on a larger scale; one that's designed for more than just you and your family. These shelters are usually built in a central location in your town or neighborhood. Sometimes groups of neighbors or friends get together to make a communal safe room for their group. These shelters tend to be well-stocked for a larger number of people and are prepared to face any disaster that could befall the community.

If you're involved in constructing or supplying one of these shelters, take special note of its ease of access. Make one entrance handicap accessible. It's easy to lose control of security when large groups of people are involved. Provide a good security system and only assign keys to responsible adults. Create rules and regulations that are clear and concise and organize a committee so that decisions can be made quickly and effectively in times of crisis.

Carefully do a 'threat assessment' for your immediate area. Consider every logical possibility and build accordingly. There is no better investment than that of the safety of yourself and your loved ones.

Karen Bradford is an editor for Fortified Estate at www.fortefiedestate.com providing safe rooms and secure home solutions to clients around the USA. Check your burglary risk at [https://fortifiedestate.com/burglary-calculator/.](https://fortifiedestate.com/burglary-calculator/)

Outside entrance to an all-hazard corrugated steel shelter.

SOCIAL MEDIA for when DISASTER strikes

By Bruce Curley

Photo by Kelli McClintock on unsplash

Is there a worse feeling than being in a disaster and not being able to contact your loved ones? Consider that feeling in your gut as you try to instant message, text, or call your children to know if they are okay or to notify them that you are okay, but none of your social media platforms work. As minutes pass and you cannot reach them, ideas that you never would have entertained start rising to your conscious mind.

This might be the case in a catastrophic disaster, such as an F5 tornado, when every necessity and comfort you normally enjoy is gone. No food. No water. No electricity. No shelter. No transportation. With power down, you cannot even use your cell phone to find out if your family or friends are safe. The new reality is that everything you took for granted just hours before no longer exists. And it is anyone's guess as to when everything will return to normal. I know because I have been there.

The purpose of this piece is to offer you strategies and tools to avoid being in that situation and to cope with it if it does happen to you and your loved ones. Let's examine a brief history of this technology and capability.

Historical Evidence of Social Media Helping Cope with a Disaster

For all that is wrong with social media, it can be a life-saver and a comfort when you use it to stay in touch with family members during and after a disaster.

One of the best examples of social media reconnecting families was when an F5 tornado struck Joplin, Missouri on May 11, 2011. (For a complete discussion of this event, see https://poetslife.blogspot.com/2012/05/social-media-lessons-from-joplin.html.) The F5 tornado spanning more than a mile wide tore through Joplin, MO and killed over 120 people, leveling the city. The mother and daughter team of Rebecca and Genevieve Williams immediately created a Facebook page to provide accurate information during the response to the disaster. Using social media, they squelched rumors, answered questions, and directed people to help, including waste, food, shelter, and tetanus shots (https://www.facebook.com/joplintornadoinfo).

At the Joplin event, hundreds of messages like the following were posted:

> "...lookin for scott morris, chris miller, stormy miller, and chris elseworth. [A]nyone that knows them from my joplin friends needs to help me find them."

As in the Joplin event, knowing how to post on Facebook, Twitter, and Instagram to contact family members and friends is now essential. Whereas in the past we relied on the authorities to update us on conditions, what to do, or the fate of survivors, now we can conduct those tasks using social media. It is particularly helpful for rapidly

sending pleas for help and locating family and friends via a wide audience. In a disaster, out of area contacts are critical. When family members are unable to contact those who are geographically close to each other, they can often contact relatives far away. These relatives, because they have power, can oftentimes contact other family members.

Dangers of Social Media After a Disaster

The following warning from a Joplin tornado survivor applies to the aftermath of all disasters: "After recently going through this, please be careful where you donate money. Unfortunately, there are many who are not honest and will take advantage of this tragedy." Grifters, criminals, and quick buck artists know that social media donation solicitations are unregulated. Vet and be certain of any person or organization raising money after a disaster before donating.

Multiple legitimate organizations will solicit over social media to raise relief funds and organize volunteers. Here is one such example from Joplin: "You can sign up as a volunteer on www.211missouri.org (United Way)." Avoid grifters and support the honest recovery caregivers on social media.

How to Connect Your Family Using Social Media

Each family is unique and so is their social media use. For disaster response and management, what is most important is not the social media platform you and your family choose, but that everyone knows how to use it. Act now to ensure you have the social media platforms downloaded, used, tested, and ready for the next disaster.

Instant messaging (Facebook Messenger, Google Hangouts, etc.) is particularly useful for immediate responses during and after a disaster. Skype enables a group chat. LinkedIn may not appear to be very useful, but it is for unique disaster needs. For example, in many disasters, mobility is at a standstill until trees, debris, and objects are removed from the roadway. Skilled construction workers and tree removal experts will be needed. You can use search engines, but LinkedIn may be the better choice to find one who is not overwhelmed or busy. LinkedIn will provide important details for critical service contacts.

When my house burned down, we had great difficulty finding a builder to repair the damage. After a disaster, it is often hard to find contractors, as they have already committed to other jobs. Using a nontraditional search engine such as LinkedIn can help you identify and hire skilled professionals.

Best Social Media Platforms for Disaster Communication

The best social media platforms and apps for you to use during and after a disaster are the ones you currently use with your family since you already know them well. Below are additional social media and Internet platforms options:

Apps: You may want to research other Apps that may be better for your needs. The best way is to enter a search term such as "emergency apps", "preparedness", or "disasters" in Google Play or the App Store. You can then identify, download, and test apps that may be best suited to you.

Browsers: Download and use less-used browsers like Brave and Firefox. Many people use Google, Bing, or Chrome, but there are numerous browsers you can use for disaster communication. By downloading multiple, you ensure you have more choices available during and after a disaster.

Blogs: Many blogs have excellent tips, procedures, and useful disaster advice. Blogger (https://support.google.com/blogger/) and Wordpress (https://wordpress.org/) are two of the better known platforms you can use. Do not overlook corporate (https://blog.constellation.com/disaster-preparedness/) or government blogs (https://www.usda.gov/media/blog/2018/04/10/when-disasters-hit-help-close-your-usda-service-center). As weather impacts everything, especially disasters, follow meteorologist Mike Smith's science-based weather blog: http://www.mikesmithenterprisesblog.com/.

Search Engines: DuckDuckGo, DogPile, Gibiru, Search Encrypt, StartPage, and other less known search engines do not invade your privacy like Google. They do not keep logs, sell data, track you with cookies, or bring up ads similar to your searches. Try them. I know you will enjoy all they offer (i.e., privacy).

Social Media Search Engines: Remember that social media platforms such as Twitter, Instagram, and LinkedIn are also search engines. They can be used to identify people, products, and services just like traditional search engines. Ever since Captain Sully landed his plane on the Hudson River and it ended up on Twitter an hour before the New York media, Twitter has provided real-time information on disasters in advance of traditional media every time.

Podcasts: You can listen to podcasts while driving your car or doing yard work. Search Stitcher (https://www.stitcher.com/) or Podcasts (https://tunein.com/podcasts/) to find relevant podcasts. Here are a few natural disaster podcasts:
https://civildefenseradio.com/category/podcast/episode/
https://player.fm/series/natural-disasters-2538998
https://player.fm/series/disaster-podcast

Securing Social Media to Maintain Privacy and Security

Be aware that hackers and other criminals are always probing your social media devices (cell phones, computers, tablets) to corrupt, steal, and sell your data. You must have a multi-layered strategy to protect your data and privacy. This is a big topic, but here are three simple rules to follow to maintain your privacy and security:

- Use difficult passwords
- Keep software, apps, and accounts updated
- Set privacy settings to limit access to your accounts

When Disaster Strikes — Implementing Your Social Media Connections

The key to implementing your social media connections when the time comes is to create, test, and use them BEFORE a disaster strikes. That sounds simpler than it is. Everything changes in an emergency. I know this because I have been through disasters. And no disaster is worse than one that hits you and your family.

I have felt humiliated standing in front of my burned and destroyed house as my wife was taken by helicopter to a burn unit. I only realized that I was doing so in my underwear when a neighbor said, "Do you want a pair of my pants?" When I asked why, he replied, "Look down." (For more information see, "Surviving a House Fire: Lessons Learned" pg. 27 https://tacda.org/journal/journal-of-civil-defense-2014-vol-47-no-2-treating-infection-without-a-doctor/.)

When you are in a disaster, please don't be like me: standing outside with no clothes on wondering if your wife will recover and where your kids will sleep next. Take these simple and easy measures now to ensure that such a fate is not in your future.

Accessing Social Media Sites During a Disaster

Do you have electric power? Do you have sufficient power to transmit your message, data, photos, and other communication? Every device you have will power down quickly when not recharged. Therefore, you must have the ability to charge your devices outside of the electrical system you take for granted. It is likely that your Internet connection will be interrupted in an emergency. If you do not have power or access to the Internet, there are places where you can go to access social media. Here are a few locations that offer access to the Internet via a WiFi connection:

- Your car
- Coffee shop
- Hotel lobby
- Library
- Church
- Work
- Gyms
- Stores
- Shopping centers
- Community centers
- Government buildings

Conclusion

Social media has made our world easier, but it also creates its own issues. In any disaster, rumors run rampant. With little or no data, you still have to act. To prepare to handle the disruptions disasters cause, take care to have your social media platforms, apps, and devices in place, up to date, tested, and ready. The suggestions above are a start. Social media awareness may save your dignity, your possessions, your life, and your loved ones. Start now to make that possible.

Since 2007, Bruce Curley has been a member of the Board of Directors, now Vice President, of The American Civil Defense Association (TACDA). Through the TACDA Civil Defense Journal and his analysis on his civil defense blog (poetslife.blogspot.com) for 20 years, he creates, teaches, shares, and implements civil defense strategies. Bruce is a member of the Carroll County, MD, Community Emergency Response Team and is NIMS 101/102 certified. He wrote the Emergency Response Plan for his hometown of Mt. Airy, MD. He is a member of the Safety and Security Committee at his church where he has helped write the Emergency Response Plan and taught staff how to deal with the threat matrix. More of his articles can be found at https://poetslife.blogspot.com.

The "Anti-Nuke" Pill

KIO_3 and KI

By Chuck Fenwick, Director, Medical Corps

What is the big deal about Potassium Iodate (KIO_3) and Potassium Iodide (KI)? You know it is for nuclear preparedness, but just what is so important?

Of all the radioactive isotopes and radioactive particles which can come from a nuclear reaction, radioactive Iodine-131 (I-131) poisoning is one of the more lethal. The good news is that damage to the thyroid from exposure to I-131 can be prevented. Keep in mind these facts about your thyroid:

1) Your thyroid runs on iodine.
2) Your thyroid is a pig.
3) Your thyroid is stupid.

Your thyroid runs on iodine and will absorb all it can until it is absolutely full. This fullness is called saturation or blockade. However, your thyroid does not know the difference between good iodine and bad iodine. In the case of nuclear preparedness, the bad iodine is radioactive Iodine 131. Iodine-131 is a radio isotope of iodine which is produced in nuclear reactions such as a bomb or nuclear power plant. Iodine-131 is a beta emitter (emits beta particles), and if you get it on your skin, it will burn you much the same way as a bad sunburn. It has a half-life of roughly eight days (8.01 to 8.07). That is one of the reasons spent fuel rods are stored in pools of water for 90 days. They will be off-gassing I-131 for roughly ten half-lives.

If you are caught downwind from a nuclear reaction, and the plume or cloud of fallout reaches you, your thyroid will absorb the bad iodine (I-131). In other words, you now have a sunburn in your thyroid that is not going away. Eventually that sunburn could give you cancer.

Once your thyroid has absorbed the bad iodine, there is nothing you can do to clean it out. All of the good iodine or Prussian Blue or activated charcoal we can throw at the problem is not going to help. Depending on your age, the cancer could take several months to several years to develop. That is the bad news. Fortunately, there are a few things that can help.

Iodine, including I-131 and other iodine isotopes, are from the halogen group. They act like a gas which combines with things such as soil or metal. They float along in a plume, and when conditions are right, they "plate out" and come down like microscopic rain. Growing plants, animals, and humans then absorb them. We can breathe, eat, and drink I-131, and even absorb it through the skin. Your pets are at risk too, as well as your livestock. In fact, it is best not to eat exposed plants or food animals for at least 90 days, including eggs and milk.

The Good News

If you had KIO_3 or KI on hand and had taken it before the plume reached you, your thyroid would have been about 99% saturated with good iodine. The bad iodine would then have biologically passed through your body, leaving your thyroid unharmed.

KIO_3 versus KI

Actually, there is no versus. They are both thyroid blockers. KIO_3 has a much longer shelf-life when stored in a dark cool place. Heat doesn't affect $KI0_3$ nearly as much as it does KI, so KIO_3 is now being used in most of the world's iodized salt (excluding the United States). KIO_3 also has at least an 8-10 year expiration date.

How Much to Have on Hand and How to Take it

Will the government be able to provide KI or KIO_3 to you after or just before a nuclear disaster? If a power plant melts down, they may have time to get it to you. If it is a nuclear attack, members of the government who have survived most likely will not be able to help anyone except themselves. A nuclear attack always produces an EMP (Electro Magnetic Pulse), and quite likely, all printed electrical circuits will be destroyed or damaged. Even your

digital safe where you keep your family documents, guns, money, and medicines will possibly never work again. If your KIO_3 is in it, your thyroid is in big trouble.

First and foremost, you need to have several weeks worth of KI or KIO_3 in storage now because, if we have a nuclear event, the chances of you getting it afterwards are remote to nonexistent. Another point to consider is if we have one nuclear event, we will most likely have more over several days time. That is the reason we have multi-dose bottles.

How to Take KI and KIO_3

KIO_3 can be taken in tablet form, sprinkled on food, or dissolved in drinks. It is not bitter, and children won't throw it up. However, taking KIO_3 on an empty stomach is akin to taking an aspirin on an empty stomach, so you should take it with food or water. If food or water is not handy, then by all means don't delay. Just swallow or chew up the proper dose. KI, on the other hand, is terribly bitter, and the taste must be disguised. The FDA provides some guidance on disguising the bitter taste of KI:

> "The mixture of potassium iodide with raspberry syrup disguises the taste of potassium iodide best. The mixtures of potassium iodide with low fat chocolate milk, orange juice, and flat soda (for example, cola) generally have an acceptable taste. Low fat white milk and water did not hide the salty taste of potassium iodide."

I'm supposed to say that the authorities will tell you when to take the KIO_3 or KI, but an EMP will create communication problems, so with authorities unavailable, you might be on your own. A gas mask will not do the job properly. Human skin will absorb radioactive iodine even if you have a mask on. The only way to completely avoid I-131 is to have a self-contained blast shelter with air filtration. If your thyroid has been surgically removed, you do not need to take a thyroid blocker. You also should not take it as a prophylaxis. Take it only if you see an imminent threat.

You will need to take your KIO_3 or KI for three to 14 days depending on the event. Small babies should not take a thyroid blocker for longer than three days unless absolutely necessary. This includes a baby in the womb. If babies' thyroids are blocked for longer than three days, a doctor may need to give them a thyroid stimulating hormone (TSH).

Read the label for proper dosing. KIO_3 comes in 170 mg tablets or 85 mg tablets. KI comes in 130 mg tablets or 65 mg tablets. The dosing on the bottle will tell you how much to take and how often.

Conclusion

Buy your KI or KIO_3 now so you can concentrate on other things like food, water, shelter and education--especially education. The old civil defense motto was: Knowledge Replaces Fear.

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