The Best Of

AMERICAN SURVIVOR

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"Wherefore the citizens ought to practice war not in time of war, but rather while they are at peace. And every city which has any sense should take the field at least one day in every month having no regard for winter cold or summer heat, and they should go out in masses, including their wives and their children … and they should have tournaments imitating in as lively a manner as they can, real battles"

Plato, 304 BC

Best of
AMERICAN SURVIVOR
Index of Articles

INTRODUCTION

The intention of creating this document is to concentrate the best and most original of the many survival and self-reliance articles published in the newsletters of *Live Free USA*. Unfortunately many of the articles from the earliest publications (Directions and New Directions) were not created in any electronic format. Even some of the articles created in the early 1990s existed in incompatible programs or were lost in various computer crashes. Fortunately, much of this early material can be found in *The Survival Papers* as either MS Word Files, PDF files, or scanned files. These are available on the website and on CDs. The first and second sections of this document cover the survival imperatives, and the psychological and philosophical aspects of survival. Some of these articles are drawn from my online publication, *Life Freedom and Survival,* also on a CD. There are plenty of so-called survival manuals and survival encyclopedias on the market, so no attempt is made here to cover all the aspects of survival and preparedness. The articles included here cover many routine survival related topics as well as some that are seldom discussed.

This looked like a simple project at first, but turned out to be a challenge. It was fairly easy to cut-and-paste all of the articles into one document, but establishing uniformed fonts, size, spacing, and layout was a bit of a project. The articles are organized into the broad categories of: Survival Imperatives, Survival Philosophy and Psychology, Survival Preparedness, Survival Skills, Survival Equipment and Miscellaneous Survival Stuff. Inevitably, there is some duplication and overlap. For example, an article under Preparedness may cover skills and equipment, etc. Many short articles or those that were time related are not included here. I wrote the great majority of the articles here. This is only because I wrote most of the articles for American Survivor. I did include a few articles contributed by other members of *Live Free USA* where they fit the topic.

I look at survival and self-reliance as a stand-alone philosophy and life-style unrelated to any specific political, religious, or ethnic foundation. I am not motivated by fear of any particular type of catastrophe or disaster. History, economics, politics, human behavior, and nature are sufficient to guarantee the need for smart people to become as prepared and self-sufficient as possible. My personal experiences with poverty, hunger, street crime, and struggle combined with decades in the safety profession, give me a unique approach to some of these subjects. The reader can peruse and choose articles of particular interest. I hope you find value and enjoyment here. I hope to add to this volume in future years and welcome contributors.

NOTE: *American Survivor* newsletter was previously published as *New Directions* and has been in continuous publication since 1977. Prior to that date it was published as the *Dispatch* in mimeograph form only in the Chicago area. Many of the issues predated computers and were typed and laid out by hand. Most of the articles here are from the most recent 5-years of publication.

About The Author

Jim Jones

I was born in 1941, just months before Pearl Harbor, Therefore, I was immersed in blackouts, air raid drills, “duck and cover,” and the growing Cold War at an early age. I grew up on the far Southside of Chicago—a place as tough as its reputation—but I also had access to some still unspoiled woodlands and marshes where I built my first camps and rafts. I cannot really say that I was “raised” because my parents were very troubled, and I was pretty much on my own. We often went without heat, lights, and even running water because the bills were unpaid. Food was pretty scarce, too. We were evicted before I started high school so I lived in a single hotel room and worked two part-time jobs until I graduated. Yes, this is the exact profile of a “survivalist.” All of this made me extremely self-reliant and security conscious. In fact, I can’t remember not having a survival pack. I had one from at least age 12. These traits were a bit odd in the past decades of affluence and security, but are becoming highly valued in this century.

Once out of high school, I had to get the first jobs I could get. In those days anyone could get a decent job in a day or two. I picked up college courses when I could, and eventually found employment at well-known chemical company just blocks from my home. My tendency to recognize hazards and act to correct them landed me in charge of the safety committee. Back then, there were no “Safety Professional” or “Safety Systems,” but I started developing programs from scratch that were adopted by other facilities. Meanwhile, I married and started an NRA shooting club that evolved into a general sports club as the gun laws in Chicago became more and more prohibitive.

On a trip to the Grand Canyon, I experienced dehydration and heatstroke due to being unfamiliar with high altitude and desert climates. Talking to the rangers there, I found out that there were many deaths in the national parks each year due to lack of knowledge. This, combined with my life experiences, led me to become more and more devoted to the study and advocacy of survival education and self-reliance. I ended up being a Safety and Security Manager for the company I worked for. I have a certificate in Safety Management from the American Society of Safety Engineers, and I am certified as a Training Manager by the Langevin Institute. I have also been an Emergency Medical Technician for over 20-years. I helped found *Live Free USA* from the original sports club in the late 1960s and have served as its president for most of the years since. The history of that organization will be addressed in a separate article.

I believe that my life experiences, professional background, and years of teaching survival combine to give me a unique and valuable approach the challenges of survival and self-reliance posed by the current and impending disillusion of the world economy and social order. I tend to ignore panic peddlers, conspiracy quakes, and political literature. I study unbiased scientific data, economics, human nature, and historical trends. In the long run, it is irrelevant as to who caused past or coming

disasters. It is only important that they will happen and *we* all will have to survive them.

About Live Free USA

Live Free USA started as an NRA shooting club on the Southside of Chicago in the late 1960s. This was a time when Chicago was beginning to initiate its draconian gun laws so we diversified into an outdoor sports club. While we still engaged in shooting sports when and where we could, we added rock-climbing, cross-country skiing, camping, rafting, and caving to our programs. We also started teaching survival skills and conducting survival-training activities. We soon were camping in the middle of winter and testing equipment and techniques under survival conditions. The temporary fuel shortages and recession of the 70's, combined with the nuclear threat of the Cold War, increased interest in all aspects of survival and we expanded our programs to cover nuclear, biological, and chemical war survival as well as general self-reliance skills.

At this time there were several national publications devoted to survival related subjects, including *American Survival Guide* and *Practical Survival*. This allowed us to advertise and build a national and international membership. We also launched our own newsletter titled *Directions* in 1977. This was later changed to the current *American Survivor*. We also raised enough money to buy land for The American Survival Center in Wisconsin.

In the late 70's, the news media began to run stories about "survivalists," but they had simply attached the title to a variety of religious, political, and racial extremist groups that were prevalent at the time. *Live Free* was faced with the challenge of correcting these misrepresentations while defining the true survival, self-reliance philosophy. We had some excellent spokesmen, positive explanations, and posative, ongoing activities to use in our campaign. We were interviewed on national television, scores of magazines, and newspapers, and even were on Dutch television and the BBC. We did get neutral or positive coverage because we had the right message and refused to be manipulated by the media. This was a time when we recruited some of the core membership that would hold the organization together and serve as the framework for future growth.

We continued slow growth through the 80's, but the public's misunderstanding of our mission kept impeding our progress and outreach efforts. The collapse of the Soviet Union that ended the Cold War in the early 90's coupled with a temporary increase in oil supplies and economic growth created a false sense of euphoria and security. The vast majority of the public was sure that the age of peace, safety, and prosperity had come and that the coming millennia would be even better. Our analysis of the world's resources, economics, and history told us that this was a very dangerous illusion, but no one wanted to hear that.

Most survival groups and publications when out of business by the mid 90's. Our membership and funds plummeted, and we were forced to sell off the American Survival Center property. We were only able to have a few activities each year, and the publication of the newsletter was sporadic at best.

The twenty-first century quickly revealed the growing cracks in national and

world stability. As catastrophes of every variety began to multiply throughout the world, the public started to slowly awaken to their insecure present and threatening future. This time, the need for preparedness was acknowledged and acceptable. This time, advocating family self-reliance for a long-term or indefinite disintegration of the systems that we have come to depend on was not being rejected.

Unfortunately, it took *Live Free's* remaining staff and limited funds a while to catch up with the demand for information and programs, but we still had a solid framework and core group with 30-plus years of dedication and experience. We had to work very hard to regain recognition and rebuild our membership. We were able to put on our survival education programs in public venues that would have rejected us in the 70's and 80's. We are actually able to work with local fraternal, emergency response, and community organizations in many locations. Membership, chapter formation, and the number of programs continue to increase at a geometric rate as we bring together and support more and more skilled and dedicated survival and self-reliance instructors, writers, and organizers. The challenge now is to carry out our mission while people can still travel to seminars and meetings, and afford to buy the survival and self-reliance supplies and tools they will need. While our programs will continue to support preparedness for common home emergencies, localized disasters, and outdoor survival situations, our larger missions must be to:

1. **Increase public awareness** of the unavoidable economic decline and associated disasters, emergencies, hardships, and conflicts that it will generate in the next decades.

2. **Provide a variety of educational programs and training events** that will help good people adapt to the future challenges and survive the very serious dangers and disasters to come.

3. **Build a national network of chapters** that can provide improved survival resources for their members and be a framework for community survival, as situations grow more severe.

The fulfillment of these missions into the next decade will depend much on the commitment and dedication of the newest members to continue the work started almost 50-years ago.

SURVIVAL PREPAREDNESS IMPARATIVES

Very little is written about why preparedness and self-reliance is important. Most "survival books" assume that the reader is already committed and move on to the how-to issues. Many of those who do "sell" preparedness have political, religious, or financial agendas that may be justified, but often dampen the interest of most citizens. Fright of the month panic peddlers who scare people into preparedness only damage the credibility of true survivalists. *Live Free* has never tried to predict the exact nature or timing of disasters and dangers that may afflict the public. We can only follow trends, statistics, and historic precedents to conclude that bad things will happen and some of them will happen to you.

WE ARE SURVIVALISTS

By James C. Jones

"He who fails to prepare for the night, fails to prepare for the dawn"

I am a survivalist, and by nature a survivalist is an optimist. I do not have a pessimistic bone in my body. If what I just said sounds odd to you, then you are not yet a survivalist and you do not understand the modern survivalist at all. It has been very difficult to communicate to the public and the mass media, the concept of an optimistic, hopeful survivalist.

A fireman is a fireman, not because he believes everything will burn, but because he believes much can be saved. Doctors don't believe in death, they believe in life, and a survivalist is not a survivalist because he believes that everything will be destroyed and everyone will die. He believes that life and freedom can be saved if people of good will are prepared. A fireman does not start fires, a doctor does not make diseases, and a survivalist does not make disaster. **Crime, disease, war, revolution, tyranny, fire, flood, famine, and economic upheavals are the results of nature and the nature of man, and unfortunately are not always within the power of anyone on this earth to prevent.**

We all know that the sun will set each day, leaving us in the darkness, and we all know that warm summers give way to cold winters and though we know we cannot stop the sun from setting or the cold winds from coming, does this make us pessimistic? I think not! So then, why is the survivalist called a pessimist when he makes ready to face events that are just as much a part of history and nature as the sunset or the changing of the seasons?

Another misconception about survivalists is that they are predicting world catastrophes. On the contrary, survivalists are the optimistic minority that predict survival and freedom for those who care. It is difficult to find any well-recommended historian, economist, political scientist, sociologist, or military strategist that will predict that disasters are not inevitable, yet **we survivalist dare to be optimistic** about the

future. We survivalists do not need to predict the probability of disaster any more than we need to predict the sun setting. Those who criticize survivalists are like men who refuse to look at the calendar, in the hope that through self-imposed ignorance they can keep from aging another year.

"You survivalists will be disappointed if we don't have a world cataclysm." Here is another accusation that is totally ridiculous. We survivalist have loved ones that we do not want to see hurt or killed. We survivalist have homes and property we do not want to see lost or destroyed. We are not so foolish as to think that just because we *are* survivalists, disasters will not cause us to experience danger, loss, hunger, injury, cold, or even despair and death. **We do not want bad things to happen to good people. We want good people to be able to survive and stay free when those things happen.**

We spend some time and money to improve our chances for survival and recovery in the event of a disaster, but we would have a great celebration if some day we could be assured that we had wasted our time. No, we will not be disappointed if there are no disasters to survive, any more than the Red Cross is disappointed when there are no floods or storms, or the man who buys fire insurance is disappointed when his house fails to burn down. It may be said that the survivalist would much prefer the pleasant (but unlikely) surprise of being wrong, than rude awakening that the non-survivalist will face if he is wrong and thus unprepared.

The survivalist can not lose because his survival preparations will be of value regardless of what the future has in store. In time of crisis, those who have not prepared to turn *to* each other are much more likely to turn *on* each other. It is most regrettable indeed that many people still consider survivalists as a threat and regard them with suspicion and even hostility. This attitude is logically indefensible, and is rooted in the non-survivalist's own sense of fear and guilt. Subconsciously, the non-survivalist may hate the survivalist for reminding him of how fragile his lifestyle is.

Now, let's get the facts turned around right. The most dangerous people in today's world are the non-survivalists. Every person who has failed to make provisions for surviving without food, water, fuel, and other essentials from the outside world is potentially a mortal danger to his neighbors. What will a man do when he and his family are cold, hungry, thirsty, and sick? He may ask his neighbors for help, but when they have no extra fuel, food, water, or medications to give, will he just go back home to die with his wife and children? What do you think he will do?

Modern survivalists who stock up on food and other supplies do a great service to society because what we now buy is replaced on the shelves, so there will be that much more available in times of crisis. We survivalists won't be the ones looting and killing for food. We survivalists won't be a burden on the medical facilities or a danger to police. We will be able to turn *to* each other and we will not need to turn *on* anyone. We will be in a position to help our neighbors and our community without endangering the safety and freedom of our families. **Survival preparedness should be regarded as a social obligation, one that every responsible individual owes to his family, community, and nation.** The non-survivalist is simply a poor and irresponsible citizen.

So the reality is, that survivalists are optimistic, self-reliant individuals who cannot help but see the imperative of preparing for the worst events, while at the same time working and hoping for a safer and freer future. **Today's survivalist is an asset to his**

community and to the world and should be proud to say, "I am a survivalist."

"Everyone's ancestors were survivalists or you wouldn't be here".

Editor's Note

We Are Survivalists was first published in *Directions*, a newsletter published by *Live Free* in the early 1980's. It was written in response to the many misrepresentations and misconceptions then being established by the news media. The article has been reprinted many times in survival/self-reliance publications all-over the world. This issue has been only slightly edited by the original author to reflect 21st century concerns. It still serves as one of the best explanations of the philosophy and position of true survivalists and of the *Live Free* organization that has been its oldest and strongest advocate.

STORM WARNING

The Perfect Storm of Change and Disaster in the Years to Come and How to Prepare For It

By Jim Jones, CHCM, EMT

In the Twentieth Century, we put in less and less and took more and more.
In the Twenty-first Century, survivors will be the ones who do more and more with less and less.

The Twentieth Century was the time of waste, and consumption, and luxury.
The Twenty-first Century will be the time of conservation and self-reliance.

In the movie *The Matrix* agent Smith (a virtual being) says, “Humans are the only mammal that acts more like a parasite, moving from one area to the next while growing exponentially until all of the resources in one area are gone and the area is dead and then moving on to the next area.” In fact, archeological and anthropological data supports this assertion. The arrival of humans always correlates to extinctions of animal, vegetable, and mineral resources. In cases such as islands where the human population was unable to move on, they fought with each other over the little remaining resources and then died out, or lingered in misery and poverty. In the twentieth century, America has populated and consumed itself into a dead end. We were the last place to go. There is no place to move on to. The entire world is now populated beyond the remaining resources. We have a fast growing population seeking higher living standards on a nearly used up planet. There are as many people alive now as there were during the whole of recorded history combined and that will double in the next 40-years.

Windmills, hydrogen power, solar power, and better farming will buy a little time, but this is a race that humanity cannot win. The use of corn for fuel has instantly caused a food shortage. Many stores in the US are rationing rice and other staples. Africa is starving, and there have been food riots in Egypt, the Philippines, and Mexico. 37 countries have declared being in a food crisis. Some countries have banned exports of grain to assure local supplies. The falling value of the dollar has resulted in more of them being needed to buy the same amount of oil. The drive for biofuel is leading to less food crops and massive deforestation in third world countries. Grain reserves are at a 30-year low. A bad harvest anywhere could be catastrophic.

Massive legal and illegal immigration from “have not” to “still have” nations is generating instability, crime, and unrest throughout Europe and the US. This will only get worse. In some cases food is the new drugs. Criminal gangs known as “boosters” are beginning to steal food and resell it on the streets. The “black market” and government price controls will be more and more evident over the next 5 to 10 years. Water is the new oil. There are already legal conflicts developing between states in the United States and between many foreign nations over access to water. Water is currently classified as a “resource” belonging to everyone, but that could change. There are motions afoot to classify water as a “commodity” to be owned, bought, and

sold like oil. Think about the consequences of that! Even freedom from thirst may not be a human right.

Urban sprawl is eating up farmland. When I was a boy, I lived on the edge of Chicago at 97th street south. There were open marshes, woods, and farms nearby. Now, 60-years later I have to go out to 225th street to see similar areas, and that is being developed fast. With exponential growth, Chicago's sprawl could reach the Mississippi by the end of the Century. The oceans are no longer international territory. As resources dwindle, nations are reaching out for the ocean and the ocean floors. The Russians recently planted their flag on the sea floor at the North Pole to claim any mineral resources that may be there. Other nations are trying to extend their boundaries or are disputing current limits. There is no doubt that in the future, every inch of the Earth's land, ice, and water area will be claimed by someone. This will of course result in serious border conflicts and probably wars.

Americans once lived the "American Dream" with one working parent, good vacations, and benefits while buying with cash and saving regularly. Today it takes two working parents taking few vacations with few benefits and high debt to desperately hang on to a vanishing dream. As the late George Carlin said, "We spent money we didn't have on stuff we didn't need" and now we are broke with a lot of junk. The politicians will continue to try to fool the public with smoke and mirrors to get reelected and since false hope gets more votes than hard choices, the issues will not be faced. So there will be an ever-increasing series of ups and downs, but the downs will always be greater than the ups. The elite will thrive, the unprepared will perish, and the prepared will survive and stay free.

What Will Happen?

In essence, the entire social, economic, political, and environmental structure of the planet will be progressively stressed to the breaking point. Virtually everything we consider "normal" will be subject to change.

- Cuts in police, fire, and medical services will put every family in growing danger. Trauma centers in cities and suburbs are closing at an alarming rate.

- The aging infrastructure will continue to degenerate faster than it can be maintained, causing failures in power distribution, water service, sewer systems, bridges, and roadways.

- Natural disaster will become more and more lethal due to the increased population densities, a more dependent population, and declining emergency services.

- Climate changes will kill hundreds of thousands. Climatologists agree that heat waves of weeks with temperatures of 110*f* – 120*f* will be common in cities like Chicago and New York by the end of the century. Don't even think about Arizona or California! Recent heat waves in Chicago and Paris

killed thousands. As the population doubles and the sources of water and energy for air conditioning diminish, heat alone could be enough to bring down civilization. The fire season in California was a few months in the 90's, but is all year now. There is a clear water path through the North polar cap.

- No doubt, epidemics and pandemics will occur, with or without terrorist involvement. It is simply a natural phenomenon when populations become too dense. There are millions of viruses that could mutate and spread quicker than they could be controlled. Bubonic plague hit India as recently as 1994. Influenza killed millions in the last century and mutates constantly. Antibiotics are becoming less and less effective, and resistant viruses are multiplying every year. Experts agree that a world-wide pandemic is inevitable within the next 10 to 20 years,

- The power of gangs and international criminal organizations will grow dramatically as they begin to control access to food, medications, and other vital needs. The so-called "black market" will return. The gangs will often be able to offer better protection than the state. This is already a fact in poorer communities and third-world countries. Citizens may have a choice between being a ward and slave of a corrupt and oppressive state, or a member of a brutal gang.

- Prices will continue to rise faster than income. This will dump the lower income people and smaller businesses into bankruptcy. Service jobs such as landscaping, waiters, cleaners, general labor will be the first to go. Then semi-skilled jobs will go. Being poor is a bad survival plan.

- Shortages of just about everything will result in rationing, price gouging, increased theft, violence, and the rise of the "black market" as in "I know a guy that can score you some cornmeal".

- Massive legal and illegal immigration will occur as people flee from countries where the economy, food supply, and water sources are already inadequate. These people will flee towards any adjoining country where prospects are even a little better. This trend will result in increased border conflicts and civil disorder.

- State and national governments will greatly increase regulations and confiscation (laws and taxes) in an attempt to sustain programs and authority. They may well attempt to institute socialist economics and unconstitutional laws. Hungry and desperate people will accept false promises of security in exchange for their (and your) freedoms. Even the Constitution and Bill of Rights will be at risk of being scrapped.

- When things get tough, those who seem to be doing okay will be regarded with suspicion and even anger. We are talking about the folks who

stayed out of debt and were better prepared to survive. The politicians will gladly blame them for hording, conspiring, and hurting the economy. They will do this to deflect blame from themselves and their associates. This is what Hitler did to the Jews (they know about survival) in Germany.

- Demigods and fanatics of all kinds will rise out of the chaos to offer solutions that will involve hate, violence, obedience, and the surrender of freedoms and property. They will be more dangerous to survival than any of the manmade or natural disasters that may have occurred.

- Local governments are closer to the people and will struggle to cope with changing conditions. Some may collapse, some may become corrupt, but some may restructure to involve citizen volunteers, local food co-ops, and other innovations to maintain and secure their communities.

This will all work out in one of three ways:

1. There will be one or more population reducing events such as wars, pandemics, famines, or other disasters that will bring the population to a sustainable level where “life, liberty, and the pursuit of happiness” can still exist.

2. The entire society will degenerate into a constant state of conflict on a local and world basis. In this scenario, the wealthy elite and the gang leaders will live well, while the masses obey, pay, and struggle to survive.

3. The world population will exist in a regulated, pacified, crowded and meaningless subsistence existence under the rule of a world state.

What, exactly, will happen, how it will happen, and how soon it will happen is hard to predict, but grim and dangerous changes will happen. There will be three groups of people involved in these struggles.

- **Predators** exist on the bottom and top of society. They believe they have the right to take the property, freedom, and even the lives of others. On the top end, we have the politicians, bureaucrats, ultra-rich, and corporate executives. Of course, they are not all evil conspirators (some may be), but as a culture they tax, price, exploit, manipulate, regulate, and confiscate. On the bottom we have the “criminal class” that steals, intimidates, drugs, destroys, and murders. When things get tough, these people thrive and multiply like rats. The rules and natural inhibitions that kept them in check tend to breakdown. They will steadily fight over the decreasing resources of the general population. They have always survived at the expense of the welfare and safety of good and hardworking people. But in the hard times to come they will survive at the expense of the very survival of those people.

- **Victims** are the great majority of the world population that

remains in denial of reality and dependent on others for survival. In the poorer communities and countries, it is people that even now are barely able to obtain enough food, water, and shelter to get by from day to day. They exist in dwindling resources and the excess of the better off. These resources and excesses will continue to diminish with predictable and horrible results. In the richer nations it is the middle class that works harder and harder for less and less in the face of increasing debt, crime, and taxation. They have more time, but are on the same road to losing life, liberty, and property.

- **Survivors** are people that are not dependent on exploiting others or being supported by others. They take full responsibility for the sustenance and security of themselves and their families. While they are hardworking and productive members of society, they have not become fully dependent on that society. While they enjoy life, they avoid waste, unnecessary consumption, and debt. They tend to live a bit below their means and have at least some reserves and backup systems if things get bad. Their sense of responsibility makes them good citizens and good neighbors who are often involved in volunteer work. In the gravest extremes, most of them will manage to stay alive without harming others or surrendering basic freedoms.

Predators will say, “Let me save you.” Victims will say, “Who will save me?” Survivors will say, “Let’s save ourselves together”.

What Can We Do?

To quote yet another movie (*Terminator Three*), “We were not intended to prevent the catastrophe, just to survive it”. You must survive without becoming predators, or victims, or slaves. You and your children have the mission of surviving physically, mentally, morally, and spiritually. Compassion, knowledge, responsibility, freedom, and hope must survive with you. The past belongs to those who took more and more while giving less and less back. The future belongs to those who can do more with less and fight those who would take what is not theirs. The past was the age of dependency and waste. The future must be the age of self-reliance and efficiency. You and your children must be ready and able to adapt to painful and deadly changes. You and your children must be ready to outlast, outsmart, and even outfight the predators and opportunists that will victimize the unprepared. While it may or may not be necessary to take to the hills or drop off the grid entirely, you must consider that possibility. Meanwhile, you need to change your habits and take serious steps to improve your survivability before it’s too late.

1. Reduce your “needs” and consumption. There is a big difference between what society calls “needs” and what you really need. Society says you need golf, Starbucks™ coffee, Gap ™ cloths, every new DVD that comes out, and bottled water. Most tap water exceeds bottled water in safety; beats bottled water in blind taste tests, and is 240 to 10,000 times cheaper. Stop using credit cards to buy everyday items. Cash makes you think and visibly see what you

are spending. Resist fast foods. Brown bagging or home cooking is much cheaper and healthier. You do not need to go to a health club to get exercise. Walking, home exercise, gardening, and other activities along with a good diet will do the job, but you need to have will power. Leave the Starbucks ™, health club, designer labels, fast food, and credit card rip-offs to the future victims. And of course. you don't need to smoke. That eats up your money and endangers your life.

2. I am not advocating that you adopt an Amish life style. Treat yourself occasionally, go out to dinner from time-to-time, but think and stop wasting your resources. They are not endless and what you waste today you cannot get back for what you may really need later.

3. Stop wasting. Use real plates and cups instead of paper plates and cups for everyday meals. Use washable rags instead of paper towels. Use all the contents of containers of food and household cleaners. Turn off lights in rooms you are not using. Plan "right sized" meals that leave a clean plate without an overfull stomach. This will save money while you lose a little of that extra weight. Here's a good weight loss tip: "You do not need to eat every time you feel hungry!" Rain barrels on downspouts can catch thousands of gallons of water you will not have to pay for. Yes, water will be the new oil. If you do not have one, install a fireplace or wood stove in your home now. Dry your clothing on a clothes line or at least get clothesline and pins so you will be able to. Buy fans and use them as much as you can in place of A/C. If things get tough, you will have fans that can run on less power. Learn how to can, dry, and vacuum pack foods.

4. Learn to do more with less. Instead of making several trips to stores, plan a loop trip that gets the most done in one trip to save gas. Plan menus carefully to avoid throwing out leftovers. Swap books and CDs with friends to save money, close off unused rooms in your house so you do not need to heat or air-condition them. Remember; survival is 50% what you can do with and 50% what you can do without.

5. Build your reserves. Put real needs and future needs first. The first step in building reserves is to get out and/or stay out of debt. While there are some opportunities where limited, short-term borrowing is justified, you need to get on the positive side by accumulating property, assets (equipment, tools, trade goods) and life supplies in place of debts for luxuries, expendables, and services you could do for yourself.

6. Think smaller. While you may be able to "live large" (big refrigerator, whole house A/C, big SUV, light on in every room) today, you must have the ability to downsize your needs quickly. Electric bills and fuel bills could quickly become unaffordable. Have a small refrigerator. You can use it for cold drinks in summer, but it could replace your big one if things get tough. At least

half of what you now keep in that big refrigerator (bread, cheese, soft drinks, water, pickles, etc.) does not need to be there. Have enough fans and small heaters to keep a few rooms comfortable if you cannot run that big furnace and A/C unit. Replace all your incandescent bulbs with compact fluorescents. Another benefit of these steps is that you will be able to get by better with a portable generator, or solar or wind power if the need arises. Unless you need it for business, trade in that big SUV for something smaller. If you must have that big SUV to "make a statement," you are already a victim of the system. Consider getting a bicycle for short trips in good weather. Save gas and get exercise. That's a win-win. Bicycles are also the ideal survival escape vehicles. You can carry more, move faster and go almost anywhere. Bikes are actually more efficient than walking. The Vietcong used them to move and supply a whole army in Viet Nam.

7. Buy durable and simple stuff. If you need to, spend a bit more on tools, generators, vehicles, tools, weapons, electronics, etc. Do some research. When possible, buy military surplus equipment that is specifically designed for hard use and easy maintenance. Be sure to buy essential spare parts, tools, and manuals for all essential survival and self-reliance items. You may not be able to afford or even access a replacement part or a repair shop when you need it most.

8. Stock up on essentials like non-perishable foods (e.g. pasta, honey, sugar, vinegar, molasses, rice, corn meal, etc.) and essential supplies such as toilet paper, soap, toothpaste, light bulbs, batteries, LP gas cylinders, water filters, socks, underwear, ammunition, candles, clothesline and clothespins, matches, over the counter medications*, canning equipment, how-to books, and don't forget a spare sump pump.

9. Stock up on tradable goods such as batteries, toilet paper, ammunition, over the counter medications*, cleaners, lubricants, disinfectants, salt, kerosene (does not evaporate, less flammable, used for heaters and lanterns), vegetable seeds (vacuum packed), insecticide, tools, anything that would be badly needed and hard to get. Actually, just about any necessity bought today will be worth later if you can safely store it. There are still lots of well-built World War Two bolt-action rifles in new, like new. or good condition (e.g. Mosin-Nagant 1938, Lee-Enfield 303, Gewehr 43) that can be had for less than $150.00 and ammunition is cheap and available. What will a good rifle and say 500 rounds of ammunition be worth in trade to unarmed survivors in the future?

10. Maintain a stock of bleach. It will be essential for water purification, sanitation, and decontamination. Rotate the supply because it will lose strength over years. Soap and Listerine ™ for decontamination and insect repellent are other things to stock up on.

11. Buy crank powered and solar powered radios, lanterns, and flashlights and any other devices that work independently of batteries or plug-in power sources.

12. Take up gardening. Until the late twentieth century, almost everyone raised vegetables for their own use. Even chicken coops were common in the city. During World War Two they were called “Victory Gardens”. Big lawns, swimming pools, and supermarkets became part of the lazy and dependent life after the war. It is time to turn some of that grass back into food. These would be truly “Freedom Gardens” or “Survival Gardens.” You save money, eat better, and get exercise. No down side!

13. Consider adding solar or wind power systems. Generators are great for short-term emergencies, but how much fuel can you store and how much will there be in a future economy?

14. Arm yourself. If you have not already done so, consider purchasing at least one firearm and at least 500 rounds at ammunition. At the very least, have a 22-caliber handgun (revolver or automatic) and a rifle of the same caliber. These will give you some deterrent against predators, animal and human. Much better, get yourself a reliable (e.g. Glock, Colt, Ruger, SIG, S&W) 9mm, 40 or 45 caliber auto loading handgun that will stop any home invader or looter. Even if you lock them up in a safe place for now, you should get them. Their value will increase faster than just about any other investment and when and if you really need them, they will be worth more than any amount of money you spend.

15. Consider taking up hunting and fishing. These hobbies could have real value in tough times. Not only could fish and game supplement your own food supplies, but also you can use them as trade items. Consider also learning to dry and smoke the meat and fish that you get.

16. Always be prepared for an emergency. While you can’t go around carrying a pack and wearing a protective suit, you can keep items on your person, in your locker, at your desk, and in your vehicle that will give you an edge in an emergency. Wherever possible, carry a pocketknife. A good quality single blade or the ubiquitous Swiss Army ™ knife will be invaluable in a number of situations. Carry a folding N95 respirator in your pocket for when smoke, dust, and perhaps biological hazards fill the air. One of those tiny LED flashlights can go on your key chain. Include some painkillers and Band-Aids ™. Large plastic bags can become rain, wind, and chemical protection. A water filtration straw (available at sporting good stores) could come in handy, and a whistle may be something to consider. If concealed carry is legal and practical, a small firearm may be your choice. If not, go with a small pepper spray. Wear sensible shoes that you could run through debris in if necessary.

17. Develop alternative income sources. Don't give up your day job, if you still have one, but do start to develop a backup source or sources of income. If you have skills, consider developing them into a home business. Accumulate the tools and supplies you may need to make money in a desperate economy. Auto repair, home repairs, gun repair, reloading, food preservation, clothing repair, shoe repair, and many other skills will be in high demand. Gathering and rehabilitating broken and discarded appliances, tools, and furniture could be a good business. Surplus sales and the sale of survival and self-reliance products would surely be a good choice.

18. Stay Healthy. Get regular medical and dental checkups. Keep your teeth in good condition. Stock up on prescription and non-prescription medications. Have extra pairs of glasses. Once good medical care becomes unavailable or unaffordable, it will be a bad time to discover that you have a problem that could have been treated or prevented earlier. Learn first aid and stock up on basic first aid items such as gauze pads, tape, bandages, splints, antibiotic cream, disinfectants, etc.

19. Prepare for serious disaster. Kits, caches, plans, packs. While "slow disaster" of climate changes, economic decline, shortages and crime (by the criminals and the state) will challenge survival for most, "fast disasters" such as riots, epidemics, floods, storms, etc. will be more frequent and more devastating in many areas. With less and less help available, it will be critical for every home to have the capacity to sustain itself for weeks or even months without outside sources of water, food, sanitation services, heat and power, or even police, fire, and medical services. In addition, each person (including children) should have a "survival pack" that is light enough to carry, but contains all of the necessities (necessities only) to survive in any weather for several days in the event that you are forced to evacuate. There should be a small quantity of water and a water filtration device, non-perishable foods, shelter and warmth (sleeping bag, blanket, tent, and plastic sheets), a first aid kit, spare socks, underwear, medications, weapons, fire starters, a knife, and everything you would need. There are many sources of lists on how to put together a "survival pack", but don't wait. Any pack is better than no pack.

20. Have emergency plans. Consider what we have said about the future. Consider the various emergencies (fire, assault, flood, epidemic) that could happen in your area. Think "what if?" Make basic plans for each situation. Think "If this happens I will do this." Consider what skills you need, what supplies you need, who you can work with, priorities, routes, alternate routes, communications. When others (family and friends) are involved, passwords and rendezvous locations are necessary. Remember that many emergency situations may develop while you are not at home or while you are asleep. Where will you be? Where will you loved-ones be? If you are one of those people that thinks "I don't want to think about it," then you are already a victim and so are those you care about.

21. Be Prepared 24/7. Do not go out into the world prepared to be a victim! Carry a pocketknife where you can, a firearm when conditions require, a small respirator, matches, a mini-flashlight, a whistle, and extra medication (if you need it.) A few Band-Aids ™ are advised. A large plastic bag if there is room. These pocket items will be a big help in the unexpected emergency. A more complete survival kit should be in your vehicle, brief case, or locker.

22. Network and team up. There are a lot more self-reliance, self-defense, survival ready oriented people than is generally visible. The media and the governments tends to discourage independence and self-reliance. Practitioners are often low profile and disinclined to share their ideas with others. Even though self-reliance is essential, family, community, and group support (not dependence) is critical to long-term survival, and greatly enhanced potential and recovery. Self-reliance does not require isolation. Self-reliance means you have a choice as to who, when, and how you support and are supported by others. In the short-term, the capacity for individual self-reliance is critical. In the long term, the option and capacity exist for mutual voluntary support

23. Teach the children to survive and value freedom. A recent study indicated that many young people become stressed if they lose their cell phones. They are no longer individuals. They think and act as part of a network of cell phones and web sites. They may confuse reality with computer games. Their grasp of history is so shallow that they are truly “doomed to repeat” the errors that ruined and enslaved past societies. It is the most important parental responsibility to assure that their children have the will, knowledge, and capability of taking care of themselves in emergencies and through hard times. The cruelest thing you can do to your children and grandchildren is to set them up for disaster by over protecting and under preparing them. It is the duty of every responsible parent to empower children with a sense of self-reliance and independence. This is the gift of life and freedom.

24. Use technology, but do not become dependent on it. The Internet, computers, and cell phones are great tools for gathering information, networking, communicating, ordering equipment and books, and making some extra money, but these tools will be the first to fail or be used against you when you need them most. So use them, but don’t need them. Keep hard copies (books, papers, tapes) in a safe place. Develop direct communication systems based on those used by the underground and spy crafts of the pre-computer age. Set up things so that at any point things (emergency plans, organizations, teams and business) can go on without regular communication.

25. Don’t let your guard down. The recent Supreme Court decision to support at least part of the Second Amendment, a temporary drop in the price of oil, or a slightly improved economy does not mean that all will be well. The

United Nations wants to ban small-arms on an international scale and over-ride the US Constitution. The weakening dollar guarantees that fuel and everything else but your pay check will go up as your living standard goes down. Those in power will use every trick to disarm you and render you poor and dependent. You *will* have to fight for your freedoms and struggle for survival. Hold on when you must. Advance when you can. Know your friends and your enemies.

26. Build up a self-reliance library. There are lots of great, free information on virtually every survival and self-reliance subject available on the Internet. Enter the words "survival," "self-reliance," self-defense," "water purification," "first aid," etc. into any search engine. Print what you find and make up binders that you keep in secure containers. When things get tough, you may not be able to access the Internet, so print it now. Order the *Paladin Press* catalog from: www.paladin-press.com or Paladin Press, Gunbarrel Technical Center, 7077 Winchester Circle, Boulder, CO 80301. Checkout www.modernsurvivalmagazine.com & www.survivalring.org. Subscribe to *Backwoods Home Magazine* at www.backwoodshome.com or Backwoods Home Magazine, 29545 Ellensburg Ave., Gold Beach, OR 97444

27. Above all, don't give up and don't doubt yourself. Those who live in challenging times have the opportunity to make a profound difference in the future. You will be the ones that decide if your children and grandchildren survive to be free, creative, and happy.

** A Department of Defense study found that most medication last far past the expiration dates on the labels.*

Conclusion

Live Free has been fighting for freedom and self-reliance for over 40-years. We have seen the threats of the Soviet Union, Red Dawn, Y2K, and many others come and go. We have also seen a lot of panic peddling by various groups trying to promote products or sell fear and hate. We have seen dozens of so-called survival organizations come and go. We have never been a big organization and we have never received a large contribution or grant, but we have endured and retain a reputation for responsibility and integrity. We have never claimed to know exactly what will happen, when it will happen, or who to blame. What we do know is that changes and disasters will happen and they will happen to many of you. We also know that only through emergency preparedness, self-reliance, and a steadfast determination to hold on to every inch of personal freedom and survival capability is there any hope for the future. If you have not seriously thought about changing your life style to a prepared, self-reliant, freedom first mode, do it before it's too late. If you already call yourself a "survivalist" or a "self-reliance practitioner," redouble your efforts and reach out to friends and neighbors now. **If you do not happen to things, things will happen to you. You can happen to the future before it happens, or you can chose to be a future victim.**

TEN THREATS TO LIFE AND FREEDOM IN THE TWENTY-FIRST CENTURY

By Jim Jones

Introduction

The notes for this article were completed well before the events of September 11th 2001. Prior to that date, there existed a public perception that a millennium of peace and prosperity was at-hand. America was degenerating into the land of the dependent and the home of the pacified. An America where "politically correct" was more important than truth and style was more important than substance. Responsible citizenship, self-reliance, and preparedness were replaced by bureaucracy and regulations. Freedom meant being free to pick diet or regular coke, and life was about having more cool stuff. Americans in general believed that security and safety was not their job, and that freedom was a normal and natural condition. The fact is that security and safety is a personal responsibility that the people cannot delegate. The fact is that freedom exists only as long as the people (individually) are ready and able to maintain it. Like every other century, the twenty-first century will be filled with opportunities for longer, better, and freer life and with threats to our liberty and our survival. My intention here is to outline some of the major threats to life and freedom that will face America and all people in the next hundred years. My perspective is from a study of history and technology. The order I have listed these threats does not necessarily indicate their probability or magnitude.

Threat #1: Plagues

A combination of population density and modern technology is creating a growing potential for rapid and lethal spread of worldwide plagues. In the past, diseases spread relatively slowly, like a fire burning outward from one area. There was time for recognition and isolation. It took about 8 years for the bubonic plague to run through Europe in the 14th century. Fast killers like Ebola burned out in isolated villages before it could spread. Today, an infected person can board a plane, travel through several world airports, and infect others who travel to other locations infecting thousands in a few days and perhaps millions before the disease is even detected. There are three main sources of what scientists call an "SPE" Species Terminating Event .

1. One of the old plagues such as Anthrax or Bubonic could mutate and spread rapidly throughout the world before it could be identified and stopped.

2. An accidental release from biological research or genetic research laboratories could introduce deadly new viruses for which we have no defense.

3. An accidental or deliberate terrorist initiated release of a biological warfare agent that is specifically designed to spread for many weeks before

anyone gets sick could infect millions before we even know it's there.

So here we have a totally interconnected world population and virtually hundreds of scenarios that could start a flash fire of infection to consume a major portion of humanity in a matter of weeks

Threat #2: Thirst and Famine

Urban sprawl is eating up more and more prime farmland in the advanced nations while over-population and erosion has already brought starvation to millions in the so-called third-world nations. Cities along rivers and even the Great Lakes (the world's largest bodies of fresh water) are fighting over access to fresh water. Even the bounty of the sea is being fished out in many areas. It is most probable that the underdeveloped nations will first turn on each other for water and food sources while advanced nations will be less and less able to aid the starving people. These shortages will become matters of national survival that will trigger the most desperate and violent measures. Advanced nations may be forced to return to forms of colonialism to acquire food and water sources. The costs of food and water will seriously impact the quality of life in even the most advanced nations. While scientist differ on how many people the plant can support, all will agree that there is only so much water and land. It's only a matter of time.

Threat #3: Fuel and Energy Shortages

The race between dwindling supplies of fossil fuels and the development of new energy technology will be a close affair at best. The current sources can keep our civilization running for another 50 years or so, but the growing costs will affect the price of every commodity and service on earth. Some nations may be faced with the choice of war or economic devastation. It is important to remember that World War Two was primarily fought over access to oil, coal, and mineral resources and the demand has grown tremendously since 1941. The fact is that the supplies of fossil fuels are limited, and solar and wind power are totally inadequate to power modern civilization. Political and economic chaos will result as energy supplies decline. If new technology should suddenly make fossil fuels obsolete, the nations that have depended on oil sales for their economy will be destabilized and become desperate.

Threat #4: Changing Climates

Environmentalists would have us believe that industry is responsible for the so-called "global warming" phenomenon. That may or may not be true, but the fact is the earth's climate always changes. There are cycles of warm and cold within larger trends towards and away from ice ages. The climate will always be changing and if humans put their cities in the wrong place or were depending on growing food in an area that will soon be a desert, nature doesn't care. Massive social and economic displacements, killer storms, massive flooding, food shortages, new tropical diseases, and wars for survival are the normal effects of climate changes that have been repeated many, many times throughout history. Our high-density population and high technology society is much more vulnerable than the farming and hunting societies that existed during past climate shifts. It may well be that Mother Nature may reduce

the population density by her own means before the 21st century is out.

Threat #5: Regulation and Confiscation

A healthy society is always a bit closer to anarchy than it is to order. All human progress and creativity has come from some degree of conflict and disorder. Most cultures reach a point where stability becomes the primary goal of the state. Economic, social, and political statuesque are protected at the expense of individual freedom and progress. Ancient China was once far in advance of the western world, but became a frozen autocracy that stifled all freedom and exploration. The world is covered with the ruins of once free and great nations that became stable and then died. There is a growing trend on the part of even the so-called free societies to meet every threat or social deviation with new laws or regulations. When any part of society refuses to conform to the established norm, strict regulation, confiscatory taxation, or even outright confiscation is used. Terms like “politically correct” and “the new world order” have become acceptable terms that define the decline of freedom. The future may hold a totally pacified, totally stable, and totally stagnated society in which there is no place for any true freedoms. There are several special interests and economic factors that work to increase regulation and confiscation year after year.

- The media, by nature, seeks to find or manufacture and magnify issues, there-by putting pressure on the politicians to pass more laws and establish more agencies so they can appear to be doing something about it. Most of these regulations increase taxes, decrease freedom, and often create more problems than they fix.

- Most legislators are lawyers whose friends are lawyers. They think in terms of making laws. Their friends thrive on new laws. We call them law makers, not law evaluators or problem solvers.

- New regulations generate huge profits for consultants, lawyers, accountants, and many special interest groups. These groups tend to lobby with cash for more regulations, not less.

The relentless pressure of the media, lawyers, politicians and special interests will whittle away at liberty until even the most basic freedoms are assaulted. But first they must disarm the general population. Of course, all this would go much faster if the population were disarmed.

Threat #6: Organized Crime vs. Law and Order

We are witnessing the development of a true world alliance of organized crime. These huge organizations have the resources to corrupt governments, finance terrorists, and even acquire the most sophisticated weaponry. While their command networks are worldwide, their power reaches right down to the street gang in every community. In response to this growing threat, the governments of the world find justification for suspension of basic freedoms for their whole populations as they move

towards becoming a “police state.” There is a symbiotic relationship between organized crime and the state.

- The existence of crime justifies more laws, more taxes, more agencies, and more confiscation. So while stopping crime is the stated goal of the state, actually crushing it is not in their best interest.

- The more things that are illegal, taxed, or regulated, the more economic territory is given to organized crime. The US crime syndicate thrived on the prohibition of alcohol in the 30’s. The Russian Mafia grew huge in a state where virtually everything was regulated.

So, as more and more power and wealth move to organized crime and to the state, the honest citizen is increasingly robbed, taxed, regulated, intimidated, and violated into extinction. In many countries today, this evolution has left people only two choices for survival: join the criminals or work for the state. Of course, all this would go much faster if the population were disarmed.

Threat #7: Human Obsolescents

Ancient cultures and religions placed the highest vale on the production of many children. In those times, the child death rate required that a family produce many children in order to assure some survivors. The ability of a family or a nation to produce food and provide defense was directly related to the size of its population. Even in the industrial age, the size of the work force and the army was the key to victory. Computer technology is rapidly making unskilled, semi-skilled, and even some highly skilled professions unnecessary. While there will be a need for engineers, developers, and programmers, 90% of today’s jobs will not exist in the next few decades. Intelligent machines will increasingly replace even teachers, lawyers, accountants, and medical professionals. Will society tolerate a useless population? Will unnecessary people become unstable and violent? Will there be wars just to do something?

Robots and smart weapons are replacing divisions of soldiers. A small number of high-tech soldiers with weapons can make a small rich nation equal to a big nation. The balance of military, political, and economic power is shifting away from people. Computers already control the information sources people need to make important decisions. If people are no longer needed to meet the needs of people, then what are people needed for? As food, fuel, and water sources become depleted, we may be able to have a much smaller population supported by more technology, but who will control it? We cannot and should not stop progress, but we must be aware of how it will affect our survival so that we can use it to increase life and freedom, not destroy it.

Threat #8: Overpopulation

Integrally related to all of the other challenges is the paradoxical hazard of over-survival. The more diseases we cure, the better nutrition we provide, the more wars we avoid, the closer we get to shortages of food, water, fuel, and space. The more people there are, the more regulation and regimentation is called for. The more people

are jammed into an area, the more they become violent. Even with the best technology there are limits to how much food, water, and even fresh air is available. If we are unable or unwilling to solve this dilemma, the state or Mother Nature will reduce the population for us. In Chicago in 1945 the area just south of 95th street still had some farms and open fields. By 1990 you have to go out past 195th to find any farmlands. Multiplying all the urban areas at this rate through the 21st century and you have an urban area from the Mississippi River to Detroit Michigan and on to the east coast. Is that what we want? Over population in poor nations is creating a massive illegal immigration problem in the more developed nations. This trend is destabilizing these societies and economies and could result in civil wars. Remember that the vandals that sacked Rome in 410 AD were not so much invaders as they were illegal immigrants that were permitted into Roman territory.

Threat #9: Racial and Religious Conflicts

The current racial and religious conflicts will only be magnified by the struggles for energy, food, and space. Many of these conflicts are rooted in religious ideas and hatreds that are centuries old. By nature, they are not rational or reasonable and are easily manipulated by demigods. As wealth, resources, and technology become more concentrated in the major nations, third world countries and displaced minorities will have no other recourse but terrorism. These groups have nothing to lose and no incentive to be reasonable or compassionate. Shootings, bombings, chemical weapons, biological weapons, and even nuclear devices may be used indiscriminately. The very technology that supports a modern society will make it the most vulnerable. As with the threat of organized crime, terrorism will only accelerate the sweeping away of personal freedoms by the state.

Threat #10: The Unknown Factor (Stuff Happens!)

All previous threat scenarios are based on established trends, scientific data, and past history, but there are always the unexpected and unpredictable events that change everything. The two most important sources of unpredictable change are nature and technology. The emergence of new religions and ideologies are generally in response to upheavals resulting from acts of nature and/or technological development. Natural sources of disaster include climate shifts, radiation waves from exploding stars, variations in solar energy, large meteor impacts, and massive earthquakes in highly populated areas. The earth may go on for millenniums without such events, but they do and will happen. For example: an earth quake on the scale of past events in the New Madrid area of the United States could seriously affect the economic capacity of the nation.

While no one can be sure what technological revolutions will take place in the future, we can be sure they will happen and that they will have great political, social, and economic impact. The unintentional consequences of the invention of the cotton gin were the expansion of slavery and eventually the Civil War. The invention of movable type printing and the flintlock rifle lead to revolutions and liberty. New technology virtually always threatens the established power structure unless they can control it to their advantage. The struggle will be to assure that these advances are used to extend life and expanded freedom for all.

Conclusion

Awareness is the first step towards freedom, and preparedness is the first step towards survival. The ten threats to life and freedom (and any others) that I have outlined above are only threats. They are threats that you, and your children, and their children must face and overcome in order to preserve a good life with true freedoms. The course of the twenty-first century must be determined by the actions of responsible and self-reliant people.

Will The Next Generation Survive?

Those of us in our sixties and beyond have "survived." **Our mission at this stage is to do what we can to ensure that the current and future generations are imbued with the values of freedom and responsibility, and are provided with the skills and determination to survive the inevitable challenges that they will face in this century**. Those of us that were young in the 40's, 50's and 60's had parents and grandparents who had lived in an almost totally self-reliant age. That is, they remembered when 90% of everything you needed was done by you or your neighbors. They still knew how to grow, preserve, and prepare raw vegetables. They could prepare household cleaners, medication, and other products from raw material. They seldom called a doctor for colds, flu, lacerations, or fractures. They had at least a working knowledge of how to butcher a hog, clean a chicken, and fillet a fish. Tools, carpentry, basic wiring, auto maintenance, and gardening were just what everyone did for themselves. Maybe Mom was cooking from a box, but Grandma still knew how to cook from scratch.

As we entered the 70's, technology, supermarkets, the medical *industry,* and the growing "nanny state" began to create dependent culture. Life without A/C, instant food, or services for everything became unthinkable to many. "Work" and "Self-Reliance" became dirty words. Meat comes in packages; food is microwaved, delivered, or eaten at a fast-food place. Every sneeze and scratch warrants a trip to the "Urgent Care." We crank up a powered lawnmower to cut the grass and then turn on a powered exercise machine to get exercise? This generation tended to over protect and over manage their children by providing constantly structured games and not allowing them to do much for themselves. These hovering "helicopter parents" created an even more spoiled and dependent generation that is immersed in dependency-oriented technology. Constantly subjected to information and disinformation, overload, and unproductive conversations (e-mail, text, twitter) with virtually no time for individual thinking or analysis, they now become just a dot in the vast matrix, instead of a self-reliant, self-motivated individual. If this were science fiction it would be a horror story! Individual thinking and individuality are dying concepts today.

Recent studies have shown that many young people have no idea how to operate a can opener (thanks to pull tabs), tie their shoes (thanks to Velcro), or even use some kinds of coat hangers. Cooking? Don't even go there! The vast majority of the population has no idea how to cook anything from scratch. At best, they can follow the direction on a box where most of the hard work has already been done. The urban population depends mostly on fast food, delivered food, and microwaves. As if to prove my point, I was amazed to see that Cracker Barrel and other restaurants were packed on Thanksgiving! Most folks take refrigeration, air-conditioning, central heating, and clean running water for granted. **They do not associate these comforts with how they get them and tend to panic when they fail**.

Before 1948, most of Chicago got water pumped straight out of the lake. Treatment consisted of a screen to keep fish out of your faucet, and lots of chlorine. On stormy days your tap water was a bit cloudy and an occasional minnow showed

up. Yet, we usually drank tap water. Having old wiring, I never had A/C at home until very recently. So what. Yes it's uncomfortable, but you adapt. A few years ago we had a survival camp in June. It was 98-degrees the first day. No cold drinks, no shade, no fans. About half of the would-be survivors left the first few hours. The rest of us adapted and stayed in that condition for a week. When the A/C, central heating, clean water and easy to access food stops the resulting panic and physical shock will probably result in a significant population reduction in the over serviced, over protected, over comforted population. These effects will be particularly severe among two groups. The spoiled and over protected upper-class urban population and the vast population of welfare system beneficiaries. A combination of anger, fear and panic will likely make these folks very dangerous to themselves and those around them. **Those raised in rural areas and lower-middle class suburban environments, where basic home skills and survival skills may still have been part of youth will do much better**.

Now I live a few blocks from a Cabela's so I know there are plenty families that hunt, fish, cook, and preserve foods. I also know that the Boy Scouts, Girl Scouts, and other organizations continue to advocate and teach a variety of self-reliance skills. As I review the toy ads, I am pleased to find a few tool shop kinds of toys, and even a few survival oriented toys, but thanks to lawyers, most are so safe and self-explanatory that any educational value is minimized*. So maybe 20% of the younger generation may be prepared, but a vast majority of the younger generations are becoming more and more survival disabled. They have been raised to believe that they are *entitled* to all the necessities of survival and comfort provided in easy and clean form from "the system." They are conditioned to the idea that they are protected and that all things are safe. Not being keen on history, they actually think that their current state of luxury, comfort, and security is normal and will continue**. In fact, this period of comfort and security is a rare historic anomaly and there is every indication it will soon end**. As responsible, caring citizens we need to do the best we can to help today's youth acquire the values, skills and fortitude to sustain and revive our communities and our nation in the future.

** This may be hard for folks in the current generation to comprehend, but my childhood chemistry set contained a variety of poisons and flammables. Some toys and most pencils were made of lead. My "Handy Andy" tool kit contained a real safe, awl, and other sharp tools. We could walk down the street in a suburban neighborhood with a BB-gun or even a 22-calaber rifle and the police would tell us to "be careful". We learned to "be careful", and resourceful, and constructive, and self-reliant.*

Why Disaster Are A Sure Thing

By James C. Jones, CHCM/EMT

Of course natural disasters such as earthquakes, hurricanes and meteors are sure to happen, but there are reasons why mankind is seldom ready to avoid even the predictable and avoidable disasters and is also seldom prepared to survive the unavoidable disasters. Simply put **"we are always prepared for the last disaster and seldom prepared for the next one".** The fact is that safety, security, and preparedness run against human nature and economic imperatives. Humans tend to take risks in order to gain immediate gratifications. We take the expressway rather than the side streets to get to work faster. We accept risky jobs for higher pay and, unfortunately, we often ignore safety procedures in favor of comfort or speed. Families, corporations, and governments will ignore or postpone spending time and money on safety, security, and preparedness in favor of the immediate economic and political rewards of more popular and enjoyable investments. What often looks like a conspiracy to fail is actually just human nature, shortsightedness, and political and economic reality. It's the story of the three little pigs over and over again. Let's look at a well-known case. When the tanker Exxon Valdez ran aground on Bligh Reef in Alaska spilling 11 million gallons of crude oil, the cover-up was to blame Captain Hazelwood, but here is what happened.

- The land based radar that was responsible for watching the waters that the ship was in had been replaced with less powerful equipment that could not monitor the tanker's location. Budget cuts.

- Exxon had not gotten around to replacing the ship with the newer double-hulled ships. Economy.

- Crew size on the Exxon Valdez had been reduced from 40 people in 1977 to only 20 who were working 12 to 14 hour shifts. The crew worked overtime the night before and were very fatigued. Bean counters at work.

- Equipment to monitor icebergs was never installed, so the ship was outside its normal shipping lane to avoid possible icebergs. More money saved.

- The Coast Guard's staff had been cut by one-third so it could not perform the required safety inspections. Congress!

- Tanker crews relied on the Coast Guard to plot their course all the way to Bligh Reef, but the Coast Guard had discontinued this practice without informing the tanker crew.

Now, they say that the Captain was drinking. I can't blame him. It was not the

captain's fault, or the crew's fault, or the Coast Guard's fault. It was the inevitable result of decision and priorities established by the United States Government and the Exxon Corporate culture. These kinds of decisions can be found at the root of 9/11, Chernobyl, Pearl Harbor, the Titanic, and Katrina, and they will be there when they investigate the next cataclysmic event. On a smaller scale, you will find the same kind of failures behind that house fire or industrial accident you read about every day.

- Would the Captain of the Titanic have been applauded for arriving late in New York on the maiden voyage of a new "unsinkable" ship? He probably would have been fired!

- Would the public have paid higher airfares and taken off their shoes for security *before* 9/11? They would have complained until it stopped.

- Did New Orleans want higher levies or bigger casinos *before* Katrina? You know the answer!

- If Dad said that the family vacation was canceled so that we could stock up on emergency supplies, would he get away with it? Probably not!

- Will most folks spend real time and money being fully prepared and self-reliant before the inevitable next big disaster? Unfortunately, the answer is no.

Basically, funds, time, and support will always flow away from security and preparedness, and towards immediately popular and rewarding investments and programs until there is a dramatic failure. Then resources will be focused temporarily on preventing a reoccurrence of similar failures. In addition, special interests almost always misdirect government programs into ineffective or even dangerous programs that are more about making money for someone than protecting anyone. For example: the US Navy at Pearl Harbor was thinking in terms of the big battleship threats of the previous war. As time goes on, even the resources initially dedicated will be whittled away until once again disaster strikes. There were no air marshals on any planes at the time of 9/11. The program had been canceled since there had been no hijacking in a long time.

Then there is the old military axiom that "you cannot be strong everywhere and weak nowhere." Resources (e.g. manpower, funds, time) directed at one threat must inevitably be taken away from some other threat and create a new weakness. The effects of 9/11 were that resources to prevent terrorist attacks were drawn away from anti-crime and anti-gang programs. The huge cost of the so-called "War on Terror" has cost the private economy billions and run up the national debt, thus hastening an economic disaster. One need only remember how the Soviet Union's economy collapsed from the constant costs of military preparedness to see where things are going. So it can be said that **(1) peace and security are almost guaranteed to create the proper environment for violence and disaster and (2) we are most ready for the least likely (repeat) disaster scenarios.** For example,

after 9/11 FEMA said they were caught off guard because they focused on being ready for a natural disaster. Then after Katrina they claimed that they were mainly ready for a terrorist attack**. Simply put, we never learn from history and we are doomed to repeat it.**

It's Going To Get Worse!

The aforementioned patterns are dangerous enough in a healthy economy and a relatively stable world. When things get tough (as they are going to get) safety, security, and preparedness are the first things to be cut. Metaphorically speaking, a nation, or a corporation, or a family that is suffering economically is like a human body that is bleeding. When the body loses blood it contracts the blood vessels, reduces blood to the extremities, and pumps it faster. This is called compensated shock. This keeps things looking normal for a while until collapse and death. In the case of state*, corporate, and family economies the extremities are almost always safety, security, and preparedness. So everyone is working harder, with greater debts and less security to sustain a "normal" life, but inevitably there will be a catastrophic and domino effect collapse. **It can be said that the United States in particular, and much of the world in general, exist in a state of "compensated risk" where most things seem normal and the illusion of prosperity and security exist on a weakening foundation.** The realities are:

- There are simply never enough resources in even a healthy economy to provide more than minimal security and preparations for limited emergencies.

- In a constantly changing matrix of threats, limited resources will most often be for the wrong disaster at the wrong place.

- Population densities, international travel, weapons proliferation, and new technology have greatly increased the size and effect of disasters.

- In the "gravest extremes," governments are about government survival and corporations are about corporate survival. So people have to be about people survival.

- Regardless of the nature and scope of a disaster (e.g. storms, epidemics, crime, economic collapse, fire, etc.), it is individual and family preparedness and self-reliance that will be the most reliable and effective means of preserving lives and freedoms.

The effect of dwindling resources on governmental and corporate safety and security will assure the occurrences of bigger and more frequent accidental and intentional manmade disasters and reduce preparedness for all kinds of disasters. Families that have waited too long or misplaced their faith in government agencies will unnecessarily suffer loss of life, liberty, and property. Once the symptoms of social/economic shock appear, it will be too late to invest time and money in

preparedness and self-reliance because there won't be any time or money available. Those who have taken survival preparedness and self-reliance as a personal responsibility and commitment will have a far better (not guaranteed) chance of coming through the challenges ahead and being able to lead their communities in retaining safety and freedom. **Just because we are doomed to repeat the history of unpreparedness on larger and larger scales does not mean we, individually, have to be doomed.** That's still up to us. Self-reliance and preparedness beats dependency and complacency every time. It may not be normal thinking, but it *is* superior thinking.

* By "state" here, I refer to any level of government entities.

SURVIVAL PSYCHOLOGY AND PHILOSOPHY

We maintain that the survival mentality is a self-standing philosophy bridging all kinds of people. Within every community, religion, race, nationality, and social group, there will be those who think and act as survivors and those who do not. In fact we are here today because our ancestors were "survivalists" and practiced "survivalism". There are many fine books and studies on survival psychology and some of our articles were inspired by them. Other articles were generated by observation and practice.

Survival Ethics

By Jim Jones

The “big one” has hit and the entire system has shut down. There is no water, power, or gas service and no place to get food. You are doing okay because you stocked up on food and water years ago and your family is reasonably warm and well fed. After about a week, your neighbor comes knocking on your door asking for food and water. This is the same guy who chose to buy a big screen TV and a luxury car instead of emergency supplies. He is the one who called you a “survival nut” a few months ago but he has two small children. You do not know how long the emergency will last and how long your food and water will be needed to keep your own family alive. What is the “right thing” to do?

You are moving with your family to escape from a riot zone. You hear cries for help from a doorway you pass. Do you stop and help or keep going?

You and your family are on a makeshift raft in a flood. A panic stricken person is desperately trying to board the raft, but his efforts and his weight threatens to overturn and sink your small raft. Do you do the “right thing” based on normal codes of conduct and help him even though the outcome and your duty to your family are compromised? Do you do the “best thing” and fight him off to assure the survival of your family? Do you do the “acceptable” thing in the eyes of your family and society by helping or the logical thing to most people? If you let him drown are you a monster? If you save him you may be a hero, but if you only succeed in drowning your whole family you are a fool. These are the classic “ethical dilemmas” that face the survivor. In real disaster the dead are dead, the desperate are the desperate, but the survivor has choices. Those choices are going to be gut wrenching moral and ethical decisions that have no easy or absolutely correct answers. A good grasp of ethics may aid the survivor.

The subject of ethics is a major issue in business and in medicine today, but no-where is it more important than in a survival situation. If “survival of the fittest” means survival of the meanest and most ruthless, then what really survives?

Each person has his or her own ideas about what is right or wrong. We make what we consider to be “moral” decisions. Morals are what we feel about right and wrong. Ethics, on the other hand, are guides we use to examine situations and guide our actions. Our families, communities, religions, and societies program our ideas of right and wrong from an early age. These expected behaviors stick with use. Laws establish standard of behavior and “morality,” but “morality” is not necessarily ethical. Slavery was once considered morally permissible, but is now recognized as unethical. During World War Two the Japanese considered surrender immoral, but suicide was a duty to the Emperor. Mobsters have moral codes that make them “good fellows” to each other and to whom murder can be “doing the right thing.”

The concept of ethics came from the ancient Greek philosophers such as Socrates, Plato, and Aristotle. The Greeks focused on the concept of personal virtue. Virtue was viewed as an internal value. The individual was expected to be the best they could be, and right and wrong were defined by how the acts represented the

actor. British philosophers such as Mill and Bentham brought forth the “utilitarian” concept of ethics. In this concept, it is the results that justify the action. This is the “end justifies the mean” philosophy. The “deontological” philosophy advocated by Immanuel Kant is based on the idea of doing your duty. It would support an action for its own sake, regardless of the consequences. It is about the means rather than the end. So we have right and wrong based on who you are, what the results will be, or what your duty is. It gets complicated when your *duty* is to do something that will result in a bad *end*, or when the *means* needed to serve a good *end* will have little personal *virtue*. Always telling the truth may be a good moral code, but it may be ethically questionable when it could result in real physical and/or psychological harm. Killing another human being may be morally wrong, but ethically defensible based on the situation.

Survival ethics comes down to life and death. Your life and death and that of others you come into contact with. Do you save life, risk life, or take life? A primary question that everyone must answer is; how do you define your life? Are you *what* you are physically or *who* you are morally and spiritually? Are you about how you look and what you have, or are you about what you believe in and stand for? While your body is mortal, your values and ideas are immortal. So, does your survival action justify your continued physical survival, or does your survival alone justify your action? Is what’s best and safest for you also best and safest for what you stand for?

In survival, laws are not an issue. You are left with your own moral code and ethical concepts to make life and death decisions. You must ask yourself:

- What is the right thing to do based on my values?
- What is the best thing to do for me?
- What is the best thing to do for others?
- What represents my values and ideas?
- What is my duty?
- Would I want others to do this *to* me or *for* me?
- How will others that I care about judge my actions?

Yes, the answers to each question may be conflicting! What *can* you do? What *should* you do? What do you *want* to do? In the heat of a survival situation there will be no time to engage in a philosophical discussion. Most true survival situations are about risking your life, or risking or taking the life of others. You must have an idea of where you draw the lines. In a situation where you may need to choose to risk or even sacrifice your own life, when would you do it?

- Never. Even if it would protect those I care for or values I stand for.

- Only if absolutely necessary to protect the lives of others I care about.
- To defend the life of others being attacked or abused.
- Only if necessary to defend my values and ideas.
- Only if necessary to remain free.
- To defend my property.
- To maintain my pride and honor.
- Rather than live an unpleasant life.

If you know when you would be willing to put your own life on the line, have you established when you would take a life or put the life of others at risk?

- Never. Not even to defend my life and that of those I care for.
- Only in the immediate defense of my life and those I care for.
- To defend to life of others being attacked or abused.
- To defend my personal freedoms and rights.
- To defend my values and ideas.
- In order to remove potential threats to my life and freedom.
- To defend my property and lifestyle.
- When insulted or disrespected.

For the purposes of the above questions, taking or risking life is not just about shooting or being shot at. Risking your life could be the act of sharing your food, entering a danger zone to rescue someone, or stopping to help instead of keeping moving. Taking life could be just failing to aid others, or withhold food or water needed by others to survive.

We may look at our moral code as a compass that directs us towards the right action, but ethics is the map that guides our route. Ethical choices must be free of fear, anger, hate, pride, and other negative emotions. Flexibility and adaptability are key concepts in survival psychology. Ridged moral codes that are valuable assets during “normal” times may conflict with survival imperatives in emergency conditions. The lines between right and wrong can become blurry in the heat of survival and

conflict. What can you live with and what would you die for? The true survivor must know themselves and have a firm ethical foundation upon which to base life and death decisions. How and why we survive is as important as *that* we survive.

Survival Will Building

By Jim Jones

Most survival texts list air, water, shelter, and food as the primary needs of survival. There is no doubt that these are absolute necessities to physical survival. But there is one other factor that outweighs even air and water in survival. If the will to survive is weak, then the mind and body will surrender before all options for survival have been exhausted. It is well known that depression leads to suicide. So it follows that low self-esteem, low personal morale, or lack of purpose will cause one to give-up more easily in a life-threatening situation. There are numerous cases where healthy individuals who had the knowledge to survive failed to do everything they could do. There is one case where a man was trapped in a camper truck on a back road in a snowstorm. He had the options of building signal fires, hunting for food, or making snowshoes and walking out. Instead he sat in the truck for weeks until he starved to death. Animals have survival instincts and so do humans, but humans need more than instincts. Human beings have to apply reason and determination in a survival situation and that requires that they have a reason to survive that is stronger than the reasons to quit.

Certainly, the fact that one has taken the time to learn survival skills and acquire survival equipment would indicate a high level of value on personal life and freedom. But we all have ups and downs. Things are going badly or we feel we have failed in some way. Maybe we just haven't given much thought to the "why" of survival until we are plunged into a life and death situation. When faced with the prospect of pain, cold, hunger, injuries, and unending hardship some people suddenly choose to give up. Back in the Cold War days, I heard people say that they would rather die than live on canned goods! Some say they would rather die than kill another even in self-defense. They are saying that their life is not as important as that of a criminal murderer. **There are those who die because they refuse to live and those who live because they refuse to die**. A strong will to live is not a guarantee of survival, but it is the foundation of your survival potential.

We can improve our survival will just like we can improve our survival skills and add to our survival supplies. To do this we need to prepare our minds and spirits by establishing the reasons why our personal preparedness and survival matters. In a tough survival situation your mind could tip towards the negative unless it is conditioned not to. You must do for yourself what the military does for soldiers when they instill pride and *espirit d'corps*. The exercise below will not only help strengthen your will to survive emergencies, it should also encourage self-improvement and self-respect in everyday life.

This short exercise is designed to help you identify and define who you are, why you should survive, and what survival means to you. The answers to these questions should be the foundation of your efforts to be prepared for emergencies and to seek greater and greater freedom and self-reliance. Take a few minutes to sit down

and write out the answers to the following questions:

1. What are three reasons others would want you to survive?

2. What are three reasons your survival is important to you?

3. What are the three most important ideas or values you live for?

4. Who are the three most important people, and what are the three most important possessions in your life?

5. What are three goals that you want to accomplish with your life?

6. Do you have life mission statement? If not, write one now. “My mission in life is to ---------”

Congratulation! This is why you are here and need to stay alive and free.

Based on the above, what actions will you take to improve your safety; health, and survival capacities so you can complete your life mission and uphold your values and responsibilities?

Closing thoughts:

- Safety and survival are directly linked. Weak reasons to live lead to high risk behaviors and poor health habit on a daily basis.

- True “human” survival is living for a reason that you freely chose.

- It is a paradox that a life mission must be the strongest reason for survival and at the same time the very thing you will risk your life for.

- If you cannot identify what you live for, you are unlikely to have a strong will to survive.

- If you cannot define your mission in life, how do you know where your efforts are taking you?

- Are your life priorities (time, attention, funds) focused on a worthy life mission?

Error Precursors in Survival Situations

By Jim Jones

As a Safety Manager, I am often involved in investigating accidents or “near miss incidents” where an otherwise safe and well-trained employee committed one or more errors that were not “normal” or logical. Often the person had been doing it right for years and deviated from safe behavior because of one or more “error precursors” affecting his or her actions. The employee may have been required to change shifts frequently, had a death in the family, or some other “life event” that caused fatigue, distraction, and frustration. Under these conditions, their mind was not on task and they were not mentally there. The answer to the question “What were you thinking?” is often “I don’t know”

Error precursors are sources of stress that can lead to human factor errors. Human factor errors often lead to injury or damages that result in more stress. If these factors are present in the workplace, they are a much bigger factor under survival conditions. In other words, you are most likely to make mistakes when you can least afford them. In a survival situation you may already be injured or in serious danger. Others may be depending on you to act, but these are exactly the situations that one is most likely to make errors. Errors in life can lead to survival situations, but errors in survival situations can be fatal.

Error precursors are mental states that arise from four factors. These factors are: Situational Demands, The Environment, Individual Capabilities, and Human Nature. Each of these factors can seriously affect the individual’s capacity to respond effectively to challenging and dangerous situations. Let’s look at each of these factors and consider how best to reduce or control them.

Situational Demands

There is nothing more demanding than a life-or-death, survival situation. Some of the error precursors at work are:

Time pressure (hurry): In many cases such as CPR, bleeding, combat, or a fire, action must be taken with seconds. Often, the most important decision in your life must be made in a minute or two without help or further information. **Without training you are forced to guess what to do or do nothing.**

High workload: In survival situations you may need to work harder mentally and physically than you have ever done. **Staying in shape is a big help. Take care not to become exhausted or injured, making things worse for everyone**.

Unclear task requirements: What should I do? Should you run, help; get out of the way, or something else? The “right” action is not always clear and the “wrong” action could make things worse. **Planning and training will help you make the right choices here.**

Simultaneous requirements: What to do first? Call for help? Move the victim? Take cover? Put out the fire? **Planning and training will help you make the right choices here.**

Situation Environment

The environment is often part of the survival problem. It may be cold, dark, wet, noisy, smoky, etc. Environmental error precursors include:

Weather: Excessive cold or heat can seriously affect your mental state, leading to mistakes in judgment and action. **Be aware of the dangers of hypothermia and hypothermia. Stay dry. Stay hydrated.**

Distractions: Other people yelling, noise, light, gunfire, worries all can take your focus off of doing the right thing right when you need to. **Only training and experience can help you tune-out distractions and focus on what counts.**

Personal conflicts: Other people who are panicked or becoming combative under stress can cause individual and group errors. **Take charge. Be firm. Assign tasks to keep everyone busy.**

Confusing information: Survival situations often are confusing. What happened? Who is doing what? What are the hazards? How much time do we have**? Being aware of your situation and surroundings at all times can help. Thinking "what if?" before "it" happens can also help.**

Location: Location can lead to errors, especially if the location is unfamiliar or changing. A Midwesterner can make serious errors in mountains or deserts. What works in the country will kill you in the city and visa-versa. **If you are in an unfamiliar location, you may have to limit your actions or be extra cautious. When in any new place gather information (recon and intelligence) just in case. Know routes, exits, obstructions, equipment, etc.**

Hostile action: Being assaulted, shot at, or even threatened will cause an adrenaline rush and the fight or flight reaction that may be an error in some cases. These survival reflexes kept our ancestors alive. Thinking takes too long when a saber-toothed tiger is stalking you. **You may not be able to fight the hazard and you may run into more trouble than you are escaping. Only training can combine the survival reaction with the correct choices.**

Individual Capabilities

Mental, emotional, and physical capabilities will effect actions under stress. Error precursors related to individual capabilities include:

Illness: Illness may be the survival situation or it may be caused by the situation. Unfortunately, the illness may negatively affect decisions. **Just be aware of how your illness or pain may be affecting your decision. In some cases, you may have to endure pain in the short-term to survive in the long-term**

Fatigue: Fatigue is the inevitable result of a survival situation. In some cases staying awake and staying alive are linked. The stress of survival situations will affect the quality and quantity of sleep until clear thinking is diffecult. **Always be well rested, hydrated and nourished so you will be better able to cope with a survival situation. Under survival conditions try to rest and nap anytime you can. Do not waste energy.**

Attitude: This is a big one. A negative attitude or an "it's not my problem" attitude will almost guarantee bad decisions and errors. **You can change your own attitude! In a survival situation you must have an "I can get through this," "I can do this," "it's up to me" attitude. If you do not have that attitude "normally" you will not have it when you need it most. Then only luck will save you.**

Experience: Those who have experienced emergencies and hardships in the past usually make better and faster survival decisions and fewer errors. Kids who came up under tough conditions are usually (not always) better under survival conditions. **Hard core survival training can compensate somewhat for lack of actual experience.**

Training and knowledge: When training and knowledge provide the right answer, errors are less likely. Obviously, you cannot do the right thing if you do not know what it is or how to do it. **Knowledge works if time is not a factor. Only hands-on training works under pressure.**

Human Nature

Habits: "I do it this way all the time." A habit like dressing too lightly, standing up, or talking can get you killed under some situations. Even good habits can be dangerous under changing survival situations. **Under survival conditions, everything you do has to be measured against what needs to be done under the circumstances. What was a basic value ten-minutes ago may have to be abandon now.**

Attention span: Attention spans decreases under pressure. The mind tends to jump from one issue to another without acting to solve anything. Focusing on one problem at a time may be essential. All that adrenaline makes the mind race. **You may even jump to thinking about the future or what is going on at other places. You must "be here now" and focus on doing one correct thing at a time.**

Assumptions: Assumptions are not knowledge. Help may not come. The water may not be safe. Those folks may not be friendly. What worked before may not work

now. **While we have to make some assumptions, we must be sure that critical assumptions are correct and not just hopes. All life critical issues must be covered by effective actions and back-up options.**

Tunnel vision: Under stress, people tend to focus on the most immediate and obvious problem. The guy bleeding, the guy with the gun, the fire. This can tune out other threats and other options for survival. It's the adrenaline again! It actually reduces your peripheral vision and thinking. **There is no easy answer here. Again, training and experience reduce the reaction and broaden vision. When possible take a minute to think, take a look around before acting. There may or may not be other threats, other needs, and other options**.

Over confidence: No matter how much training you have or how good you are at survival skills, you can be wrong and you can fail. Know that and you are stronger. Special Forces people have been killed on tourist rafting trips because of over confidence. **Confidence is a necessity, but be aware of your limitations and be willing to ask for help.**

Fear: Fear can cause you to freeze when you need to act. Fear of heights, water, or enclosures may stop you from escaping. Fear of your doing the wrong thing or looking foolish may prevent you from surviving or helping others. **Some fears can be overcome through training. Fear is normal and to some degree healthy. You must recognize it and control it to avoid panic reactions and errors**.

Conclusion

Being aware of error precursors and their causes can prevent serious accidents and injuries in everyday life. The loss of a loved one, the death of a pet, something that made you angry, lack of sleep, or other stress sources can set you up for more trouble. Being aware of your own mental state and how these may affect your choices in traffic, at your job, or at home could save your life. Under a survival situation, you are already pre-loaded to make errors when you can least afford them. Self-awareness and self-control will help prevent errors. Training and experience will reduce stress and direct reactions towards the correct action.

Near Miss Incidents and Survival

There is a safety theory that there are about 300 near-miss incidents for every 30 minor injuries and 1 serious injury or fatality. That means that there may be several hundred *opportunities* to recognize and prevent a hazard *before* it causes harm. On the survival level there are two kinds of near miss incidents.

Personal near misses are those in which you are directly involved but by chance alone did not result in harm to your life, liberty, or property. Examples of these are:

- Almost getting lost in the woods while hunting.
- Almost hitting another car because you forgot to check you blind spot.
- Almost starting a kitchen fire because the flame was too high.
- Almost being caught in a storm because you didn't check the weather.
- Almost being a crime victim because of poor awareness.
- Almost hurt on the job because of not wearing protective equipment.

These are things that almost happened to you or those near you because of things you did or failed to do. Learning from the near misses of others is free. Learning from our own near miss incidents may have some costs. Not learning from them is dangerous. Don't make excuses. Give yourself choices and chances.

General near misses are natural or manmade events that *almost* caused a disaster but had minimal impact and little or no impact on you. Examples of these could be.

- An epidemic that was prevented or quickly controlled.
- A hurricane that missed your area.
- A serious crime in your neighborhood that didn't happen to you.
- A terrorist attack on the train you take to work that was prevented.
- Job layoffs that did not get to you.

Almost anything that you read about or see on television that happens to other people could happen to you and be considered a general near miss.

If near misses are not recognized as warning and opportunities for preventive or preparatory action they will keep happening until one of them doesn't miss.

Take personal near misses personally. Ninety percent of injuries and deaths are caused by the unsafe actions of the victim or those near the victim. Be willing to accept responsibility for your own safety and survival. In most cases, being in the wrong place at the wrong time doing the wrong thing is the result of choices you make. Be ready to choose to change you habits, behaviors, and improve your safety and survival skills in order to eliminate those personal near miss incidents before they get you. Even if others were involved in near miss incidents, you have to take the position that it's your responsibility to prevent or avoid the repeated occurrences. Accepting that responsibility is the first step to personal safety and survival. You should not just say, "Wow, that was close" you should be asking yourself:

- What could or should I have done to avoid or prevent that incident?
- What can or will I do to avoid or prevent that kind of incident in the f future?
- How can I improve my own habits, behaviors, awareness levels, etc.?
- What can I learn from this incident to reduce this and other risks?
- What can I do to avoid and defend against the deliberate or accidental dangerous actions of others?

In the case of general near misses, you probably have little control of or responsibility for the causes. That which has happened will happen again. That which has happened to others can happen to you. Where you live, how you live and what you do will determine what kinds of general near misses require your concern. An earthquake in California is a near miss for people in Kentucky's New Madrid earthquake zone. A hurricane in Texas is a near miss for North Carolina. Terror attacks in New York are near misses for those living in Chicago or Washington D.C. but not for someone on a farm in Iowa. Gang crime, terrorist activities, economic instability, and epidemics anywhere are near misses for almost everyone today.

While you probably cannot prevent such events. You may be able to avoid some hazards by changes in your location, habits, routes, etc. but this may only lead to new hazards. Your major responsibility here is awareness and preparedness. Consider the worst-case effects of the hazards evident in the near miss. Plan to reduce the negative effects (injury, losses) of the event through the acquisition of knowledge and equipment. Life preservation comes first so consider how to avoid injuries, treat injuries, defend yourself, and ensure safe air, drinkable water, and adequate shelter (falling debris, flying bullets, cold, wet, chemicals, etc.) from the hazard. I didn't forget food, but it comes after all of the above.

Personal near miss incidents *do* happen to you and general near misses *can* happen to you. Near miss incidents are warnings and opportunities to act. Failure to acknowledge your responsibility to act is choosing to be at risk for a direct hit instead of a near miss.

Three Point Concepts for Survival

Quite often when I examine a concept or situation I find that there are three key values or entities involved. I have concluded that this is a natural development. It is not a fluke that we have three (not two or four) branches of government that has created a relatively stable state. When there are two dominating elements there is almost always conflict until or unless a third element is found or is created. Christianity is founded on the Father, Son, and Holy Ghost. I do not intend to establish any philosophy based on this observation, but I will present a few examples of this concept that I have found important to understanding what I call "survival philosophy."

Practical, Psychological, Philosophical Aspects of Survival

Everything we do consists of three elements. Without all three nothing happens. Your psychology causes you to adopt a compatible philosophy that generates practical applications. These elements must be compatible and balanced. For example, a religious philosophy would not survive without people accepting the psychological comforts and practical applications. Knowing the practical skills of sailing will bring little satisfaction unless you have the psychological attitude and philosophical outlook to enjoy it. You cannot believe (what you think) in something and lack the psychological will (why you think it) to do something (how you act) about it. Okay, you could but it would be pointless.

Having the elements in balance is not enough. The Nazis and Communists certainly had the what, why, how in some sort of balance but their philosophies (based in their leaders psychologies) was terribly flawed. For a person, a family, or any kind of organization to survive, its philosophy must be logical, constructive, and positive. Its psychology must be strong and yet flexible. Its practical application must be well considered and skillful.

As applied to survival/self-reliance; can one imagine having a fully-stocked survival kit if you philosophically believe that others are responsible for taking care of you or you lack the psychological will to use the items in the kit to deal with various emergencies? Of course not! Could you philosophically believe in the principals of responsibility, self-reliance, and personal freedoms and then fail to acquire skills and equipment to protect those principals? I would hope not!

Preparedness based on fear or hate will fail those who practice it. The philosophy of self-reliance and the psychological will to survive and thrive are core values of a free people and the foundation of hope for the next generations.

- **The philosophical** reason that we adopt a lifestyle or support a cause is based on our experiences, culture, and values. Our philosophical positions may be clearly defined or seldom thought about. Followers tend to accept ready-made philosophies (political, religious, moral) established by

others, but it is a choice. This is what you think. When you keep making the same mistakes, you need to reexamine your philosophy. You have choices. Think about *what* you think.

- **The psychological** element refers to persons, attitudes, reactions, and prejudices. It is based on a combination of genetics, experiences, and environment. This is how we are wired to look at each situation. It affects everything in our lives. Are you self-confident or self-doubting? Do you think before you act or just jump in? Is your life about you or is it about others? Are you defined by whom you hate or whom you love? Obviously, how you think directly affects your survival. This is how you think. When you consistently get in trouble (fights, accidents, etc.) you need to examine your own psychology. You have choices. Think about *how* you think

- **The Practical** aspect is what we actually do based on our psychological attitude and philosophical position. This is the how, what, when that happens because of our choices. Unfortunately, it is not always based on sound philosophical and psychological foundations. When this happens in life or in survival, your action or failure to act may result in exactly the results (injury, death, destruction) you wanted to avoid. Lots of people are so focused on climbing the ladder that they fail to notice that it is on the wrong wall. You have choices. Think before you think then think again before you act.

It would not be expected that any two people would have exactly the same philosophy, or psychology, or practice survival/self-reliance in the same way. It is not a dogma. It is a set of common values supporting a variety of approaches and activities.

Rights, Respect, Responsibility

Rights, respect, and responsibility are the three most important values in a stable and free society. When these values become twisted or are allowed to degenerate, that society will inevitably drift towards chaos or tyranny. It is the survival of people who have these values that is important to me. These are inseparable values. Any person or organization that seeks one or two of them without the third is at best incompetent and more often evil.

- **Rights** are earned. I will say it again, “rights are earned” only by those who respect the rights and property of others and take responsibility for their own choices and actions. While the law may technically grant some rights to the disrespectful and the irresponsible, they are not entitled to them.

- **Respect** for one’s self and others are the hallmarks of a responsible citizen. Respect for life, respect for freedom, respect for property, respect for the ideas and opinions of others is essential to the survival of a family, an organization, and a nation. Respect like freedom must be earned.

Respect cannot be gained through fear or intimidation. True self-respect is not pride or vanity. It is not possible to have true self-respect without having earned the willing respect of others.

- **Responsibility** for one's own choices is what earns respect and freedom. If you hide from responsibilities or surrender choices to others you deserve little respect and will have little freedom. No matter what your situation may be, you will have some responsibilities. The amount of respect you earn for yourself and receive from others is directly proportionate to the amount and difficulty of the responsibilities you assume. Responsibility in your hands is the foundation of your freedom. Responsibility in the hands of others is the foundation of their power.

As you can see, it is virtually impossible to talk about one of these concepts without the other two. In an emergency situation, these concepts are magnified and become even more important. If you have not taken the responsibility to achieve some level of self-reliance, you have disrespected yourself and your society and have surrendered rights and choices that may cost you your life and freedom.

The People, the State, the Criminal

The people created the state to combat internal and external threats to their life, liberty, and property. In doing so they created a new threat to life, liberty, and property. Thus creating a constant three-way struggle that continues today. At the root of this struggle is the potential of deadly force. While it is seldom used, it is always the bottom line. The state will use deadly force if you don't pay your taxes. The criminals will use deadly force if resisted. The people can use deadly force to defend their lives against criminals and could potentially resist governmental abuse of power. Take the deadly force potential away from any one of these elements and the other two would overwhelm it. The maintenance of the life survival potential of the good and responsible people is essential to balance power and thus to the survival of freedom.

- **The People** in this case refers to the great majority of responsible people regardless of race, religion, education, nationality, or economic status who generally respect the rights and property of others and do their best to contribute to society. Because of their positive and industrious nature, they are often too trusting and fail to realize that their life, liberty, and property is coveted by the other two elements. Every product, service, and idea of value is created by this group. They are the positive force of humanity.

- **The Criminal** here refers to a small but unfortunately significant group of humans that have chosen to steal, intimidate, enslave, corrupt, destroy, and kill. They may be individuals, gangs, international cartels, or terrorists. They may act out of simple greed and lust, or they may have created some false social, political or religious justification. They create nothing and

destroy much. If they ceased to exist there would be no loss and much less need for the state. They are the negative force of humanity.

- **The State** can be any level of local or national government. It is a creation of the people and is arguably composed of the same proportions of positive and negative people as the society it represents. It is responsible to the people and empowered by them, but it has a vested interest in the criminals that justify its power. This is an unintentional but real symbiotic relationship. Prohibition laws in the 1920's increased the wealth and power of gangs and government. Drug laws today actually increase drug use and gang power while justifying more police powers. Terrorism's first major blow was to the civilian freedoms. If there were no crimes or threats of terror, etc. more laws, taxes and bureaucracies would be hard to justify. By nature of the state tends to opposes individualism and self-reliance and promote dependency and regulation. It will take whatever wealth and power the people will give it. The great majority of politicians and government employees (fire, police, etc.) are also good people, but it is the nature of the entity to grow, tax, and pass laws. Since the state can sometimes serve the people and sometimes be the criminal, it is a neutral force that can go either way.

For Example:

In many South American countries the balance has shifted greatly in favor of the criminals and drug cartels so that the state is their tool and the people can be victimized without hope.

In Germany in the 1930's the state became all-powerful and was able to crush all individual rights and commit unlimited crimes. The same was true of communist Russia.

In short, where ever the people were misled or intimidated into abdicating their capacity for self-reliance and self-protection, evil dominated.

In many places today, where the people are disarmed and dependent, the two forces left are the state and the criminals. One must either join the states entities (the military, the party, etc.) or the criminal entities (the gangs, warlords, etc.) to survive at all. Such is the fate of a weakened people.

It is by no means my intention here to be anti-government or in any way diminish the honor and accomplishments of responsible law enforcement agencies and individuals. My point is that it is important of maintaining the people as a potential balancing force.

Will, Knowledge, Equipment

In a survival situation there are three key things you must have. In fact, these are key things in almost every aspect of life. You must have the will and determination to do what you need to do. You must have the knowledge and skills to do what you need to do. And you must have the required equipment. These are in order of priority (1: Will, 2: Knowledge, 3: Equipment) and the more you have of one, the less you may need of the other two.

- **Will:** The will to survive is not equally strong in every person. It can become stronger or weaker depending on a person's current psychological state and situation. When life is safe and comfortable, most people choose to survive and enjoy it. As life gets more stressful and painful, a larger percent of the population will consider giving up or even actively ending their lives. I have heard people proclaim that they did not want to live if a war or catastrophe throw us back to 18th century life styles. Obviously, people in the 18th century did not feel that way. Alcoholics, smokers, and drug addicts will have weakened wills to survive if deprived of these substances. Tragically young people often commit suicide for reasons that mature adults would shrug off as one of life's challenges. Those who found their existences on false values such as wealth, pride, ego, vanity, and comfort, tend to lose their will to survive when confronted with situations where these values have no meaning. People with these kinds of false values are also the ones who will readily give up their freedoms and even betray their fellow citizens' in-order to maintain their own comforts and advantages. Those whose values lie outside themselves tend to have stronger survival wills. People who had deep faiths, commitments, and loyalties, tell most of history's great survival tales. Deep religious faith played a part in many stories of survival through incredible hazards and hardships. Many survivors had a strong sense of responsibility to get through it for their families. Soldiers in hopeless situations fought on out of loyalty to each other. Dedication to a mission or goal helped others keep going. Faith and loyalty combined with even the thinnest shred of hope for rescue, escape, recovery, or victory was evident in almost every great survival story. To have the will to survive, you must have a *why* to survive. There must be someone or something that is worth the pain, the hunger, the cold, the fear, and the effort to hang on and keep trying. A vision of victory that leads you to one more step, one more push, one more breath. In a survival situation you must care about yourself because your life means something to a bigger (god, family, mission, etc.) idea.

- **Knowledge:** The old saying that only the strong survive is not entirely accurate. Certainly the physically strong have advantages, but being smart and well trained is often more important. In a survival situation, being strong and smart will beat just being strong every time. We all have mental and physical limitations, but why not push them? Stay as healthy as you can and gather skills and knowledge that increase you capabilities to survive, stay free,

and be more self-reliant. The fact is that almost all knowledge has some survival and self-reliance value. Knowledge and skills take up no room and have no weight. The more of them you have, the less dependent you are on equipment and outside support. At the one end of the scale we have citizens that are sheep-like and completely helpless, compliant, and dependent on "the system" and at the other end we have the virtual "Rambo" who can go naked into the wilderness. The great majority of the people lie somewhere in between. While I do not advocate a society of Rambo's, the more people who move in that direction the better. The truth alone will not set you free or save you. It is knowledge and wisdom that will give you freedom and security.

- **Equipment:** The first thing people think about when they do think about emergency preparedness and self-reliance is equipment, better known as "stuff." Stuff oriented people put their faith in stuff. Obviously, you are better off with lots of stuff to go with your knowledge and your strong will to survive than you are without stuff. But stuff (survival equipment and supplies) is the least important. If you are just accumulating equipment (e.g. food, gasmasks, weapons, etc. etc.) and you lack the will and the skill to use them, then you may be stocking up these supplies for someone else to take and use.

Air, Shelter, Defense

The three things you need for immediate survival of an emergency are breathable air, shelter from hostile elements, and defense against assault by people and conditions. These are the things that will get you through the first seconds and minutes of an emergency. If your will, skill, and equipment is inadequate to assure these three things, you will not need to worry about other needs.

1. **Air** is the first priority of survival. In many situations the availability of adequate breathing air is not in jeopardy and one can move on to the next need. But in fires, chemical, biological, and nuclear incidents, the air may be inadequate or contaminated. Without air you will die in just a few minutes. Breathing air contaminated with poisons (carbon monoxide, radioactive dust, chemical agents, and biological agents) will result in serious illness or death. When planning and equipping for these situations, you must have a way to assure safe (filtered or replaced) air long enough to get to a safe air environment

2. **Shelter** is right after air in survival priorities. Exposure to cold, rain, snow, or wind for a few hours can lead to hypothermia and death. Exposure to heat and sun can take a little longer to kill you. Skin contact by chemical agents and radioactive particles can cause illness and death in a few days or weeks. Shelter from tornadoes, bomb blasts, and falling debris from earthquakes is an immediate priority. If you were not adequately and quickly sheltered, you will not survive to worry about such things as hunger and thirst. Always have fast effective shelter in your plans and gear.

3. Defense is often overlooked and replaced by water in survival priority lists. But while the lack of water cannot kill you in a few seconds, the lack of defense sure can. Defenses may be passive (e.g. fences, armor, camouflage, etc.) or active (e.g. weapons, traps, etc.). The defensive element of a survival system should fit the situation, but minimize the danger to innocent people.

4. Water, Food, Medical Care Once you have air, shelter, and defenses your survival is a matter of days or weeks. Your priorities are obtaining drinkable water, safe food, and any needed medical care

The Survival Rule of Three

It is a well-established outdoor survival rule that you can survive three hours without shelter (in a cold wet environment), three days without water, three weeks without food. I have expanded this idea a bit to encompass all types of survival situations.

- **Three seconds without the will and means to defend yourself**. If you are shot, stabbed, crushed, or blown to pieces, you will never get to worry about air, water, and food. You have to have a 24/7-survival state of mind and the will to act and do whatever it takes to survive an unexpected assault by man or nature. Weapons and tools can greatly improve your chances. In some cases, instant response (run, fight, duck, etc.) is all that matters.

- **Three minutes without adequate and safe breathing air.** We take air for granted and in many survival situations it is not an issue. But in a fire, chemical, biological attack, or nuclear incident one must have ready access to filtered air. If someone has stopped breathing or is in an oxygen deficient atmosphere (less than 19% oxygen) CPR and or oxygen must be administered in no less than 5-minuets

- **Three hours without shelter from a hostile environment.** In ideal conditions, shelter is not an immediate concern, but ideal conditions are rare and seldom last. Exposure to cold, heat, rain, chemical contamination, biological agents, nuclear fallout, flying debris, bullets, etc. can injure and kill. Some kinds of shelters (storm, fallout) can be prepared while others have to be found or improvised. As they say, “seek shelter immediately.” Know what, how, and where shelter is.

- **Three days without adequate and safe drinking water**. If you’re still breathing and have not died from cold or heat in the first three hours of a survival situation your chances are good. You may be hungry, but thirst will kill you first and eating without water will make things worse. Maybe you stored enough water. Maybe there is safe water in the area. Maybe you had better be sure you know how to find and purify water before you are in a survival situation.

- **Three weeks without adequate food.** Food is usually the first thing folks think about for survival, but it is not the top priority. People have survived three weeks and longer with no food, but it’s not a good idea. You can survive for a long time on much less than the FDA recommended 2000 calories per day. When the body starts burning fat in large quantities to supply energy it can make you sick. Inadequate food affects mental and physical performance and weakens the immune system. Children, the elderly, and those weakened

by other injuries or illnesses will certainly not last three weeks without food. More food is required for survival in cold weather. Stored or carried food backed-up by knowledge in foraging, hunting, fishing and trapping are an absolute necessity for any situation beyond a few days

The Human Element in Survival

This article first appeared in the February 1979 (mimeographed!) issue of "Directions" survival newsletter. It includes some of the ideas expressed elsewhere in this book and once again is based on three elements.

A survival situation can be a wilderness mishap involving three or four people, a plane crash involving hundreds, or a nation-sized natural or manmade calamity involving millions of victims. Regardless of the origins or nature of a disaster, there will be three distinctly identifiable human elements involved.

The first element consists of a person or persons (groups, states, etc.) Who through aggression, greed, carelessness, or ignorance has allowed the event to happen to themselves and/or others. This applies to some degree even to natural disasters. People choose or are led into building towns and cities in flood plains, earthquake zones, etc. People choose or are misled into building vulnerable dwellings and having no preparedness plan. The most frequent small-scale disasters (fires, accidents, lost, crime, etc.) and the most destructive large-scale (war, economic collapse, nuclear, chemical, biological, etc.) disasters are "man-made." The causes range from a teacher who fails to teach safety and causes an accident to a political leader that weakens a nation and causes a war or economic disaster. So the first element necessary for true disaster is people who deliberately or unintentionally create the conditions for bad things to happen to people.

The second element is composed of people who, through their own apathy, laziness, ignorance, foolishness and lack of preparedness, let themselves become helpless victims (so called "innocent bystanders") of unfortunate events. An example of this would be getting into a car with a drunk driver, not bothering to learn basic first aid until you're bleeding to death, or closing your eyes to developing local conditions or world events that could result in a threat to your life, liberty, and property. These folks may not be part of the cause but they do little to prevent or avoid any of the potential disasters. A disaster is a disaster because people are hurt, property is destroyed and freedoms (political, economic, and social) are lost. Therefore, these folks (victims) are a necessary human element in creation and magnification of any "disaster."

The third and final human element seen in any disaster are those individuals who, through some degree of foresight, education, preparation, and judgment, are able to avoid, prevent, and survive. Thereby mitigating the disaster and aiding recovery. A survival trained outdoorsmen, a first aid trained neighbor, an armed urban dweller, the emergency-prepared home owner, are examples of this element.

The first human elements may not be on hand to be victims of their own creations. They may have acted deliberately, or at least been aware enough to avoid

the consequences of their actions or inactions. The second element of self-designated victims has voluntarily stacked the deck against themselves. Of course luck (mathematical probability) will save some of the undeserving and take down some of the best prepared. The third element folks obviously have a better than average chance of survival and recovery. Still, in the big picture, the impact of any unfortunate developments on the survival and freedom of mankind will depend on the actions and the growth of the third human element. There always seems to be a good supply of criminals, tyrants, and fools in the world waiting to victimize, mislead, exploit, and occasionally slaughter humanity. The survival/preparedness element by whatever name it goes by is seen throughout history as a counter-force and recovery factor. Simply put, the more of elements one and two, the more dangerous our world is. The more of element three, the safer it is.

The objective must be to increase and strengthen this human element by all means. In the description of elements one and two, the terms “ignorance,” “foolishness,” “apathy,” were used to describe human failings. The terms “aggression,” “greed,” and “carelessness” describe more deliberate and amoral actions. While it would seem obvious that these are all negative and dangerous concepts, it should be obvious that they are not uncommon. These are attitudes based on established values supported by vested interests. While maintaining self-reliance, self-defense, emergency preparedness, and family self-sufficiency may seem to be unassailably good ideas, in practice they often run against political, economic, religious, and social interests. There are many people who will be a little of all three elements in one person. Those who are strongly determined to create disasters and those who freely chose to be victims will always be with us. Those who are at-least interested in trying to be even a little more prepared, a little more self-reliant, a little more free deserve respect and support.

Doing the Best With What You Have and What You Are

We are not all born equal, nor are we *entitled* to be equal. While we have, or should have, equality before the law and in things related to government, the rest is up to us. No one can be equal, much less superior in all ways and at all times. Equality is relative, transitory, and subjective. We all start out with a given physical and mental capacity in a given social and economic environment. A genius is born in a slum of East Africa while someone of less than average intelligence is born into a wealthy home in the USA. They have been dealt their opening hand. No use complaining. As the game of life plays out you will gain (experiences, opportunities, relationships, education) and lose (trauma, accidents, fears, debts, addictions) according to your fortunes and more often according to your own choices. Where you are in life is always in part a product of what you started with and what you did with it. There is little use complaining about fate and the rest is up to you.

In hard times and survival situations you need to know (admit) what your weakness are and recognize what your strengths are. You will want to seek out and manipulate situations that maximize the advantages of your strengths while avoiding tactics and actions that depend on areas where you have physical, mental, or psychological weaknesses. Select tactics and goals based on a realistic assessment of what you are best at. Be aware that sometimes what we like to do is not what we are good at. Know how to avoid or minimize the impact of your weaknesses on your critical survival and freedom situations. At the same time, you should not be afraid to expose weakness to educational, training, and testing challenges that can correct them. In short “play your strength, cover your weaknesses”. Examples of important survival and life traits that you may be weak or strong at could include:

- Mental agility (fast thinking under pressure)
- Physical strength and endurance
- Detail mindedness
- Patience
- Attention and focusing ability
- Organizing ability
- Analytical mindedness
- Short-term memory
- Long-term memory

A person with a poor memory, but an analytical mind would need to think ahead

and make notes for an emergency situation, while a person with a good memory and mental agility might be able to memorize survival information and react as needed. A physically weaker person may need to “dig in” and hide, where a stronger person may be better off to run and fight in a given emergency. No two people can have exactly the same survival strategy. Your ability to thrive in everyday life and survive in an emergency depends on how well you use the cards you are dealt. The weakest person doing their best may often do far better than the strongest person doing their worst.

Analysis and Control of Fear

"We have nothing to fear but fear itself." *Franklin D. Roosevelt*

"I have had a lot of trouble in my life. Most of it never happened." *Mark Twain*

Fear and anxiety are unavoidable elements in any survival situation. Scientist have found that a "fear gene" may control how we respond to fear. Fear is a psychological and biological reaction to real or perceived threats to life and to those things we consider important. Of course we will fear bodily injury and death, but we may also fear for others, or fear for the loss of property or freedoms. Fear can manifest itself in many ways. The knot in the stomach, the inability to concentrate, the urge to run, headaches, loss of sleep, nausea, and loss of fine motor skills are some manifestations of fear. Fear is normal and must be expected and accepted. Fear can save you or doom you, depending on how you manage it. Sometimes fear is an indicator of what you should avoid. At other times the thing you fear is the very thing you must do to survive. If the object of fear didn't matter it would not be feared, therefore it requires action and management by you. Fear should stop you from taking unnecessary and foolish risks. Fear should not misdirect you into harm's way such as backing off a cliff to avoid snakebite. Fear should not be allowed to get between you and an objective of worthy vale.

Fear starts with our physical and psychological environment. Each person has his or her own list of potential threats. The nature of these threats depends on many factors including the immediate situation (lost in woods, being shot at, and chest pain), age, knowledge, health, financial situation, vocation, life style, location, etc. You may be afraid of the smoke coming in under your bedroom door or of losing you job. It's still "fear." So we start with the threat/no threat analysis. There are three states of threat response. They are ignorance, preparedness, and awareness.

Ignorance may be deliberate or accidental. There are folks who simply avoid any sources of enlightenment. They may be lazy or illiterate, or just can't handle any kind of challenging information. They don't even know they don't know. Accidental ignorance can happen to even the most educated and responsible person. Let's face it; no one can anticipate everything that could happen. That "bolt out of the blue" can catch anyone. Ignorance may be bliss, but it can also be fatal. You do not really want to be ignorant! There is no fear here because there is no awareness.

Preparedness is the state where a fear has been recognized and managed, or neutralized in advance. Preparedness requires that the psychological, physical, and material requirements of threat response have been addressed. The psychological aspects are addressed through training and mental conditioning. Building self-confidence in the required abilities, having faith, developing a personal mission, and having a plan are effective ways to psychologically prepare for fear generating situations. How one addresses the physical aspects of a hazard will depend on age, sex, physical condition, and health, but regardless of these factors there are steps that can be taken to improve physical preparedness. A healthy lifestyle including weight control, exercise, and medical checkups is always a good idea. Stocking medications

and having devices that compensate for any physical limitations is important. You must ask yourself, “If this happens, do I have the strength and endurance to survive?” If the answer is no, then improve your condition, plan ways to compensate for your problems, or do what you can to avoid that situation. Material preparedness is simply having the necessary items to avoid, neutralize, or survive a hazard. Survival kits and home preparedness is addressed in many, many publications and need not be covered here. It can be said that the possession of survival stuff can compensate for some physical limitations and impart some level of psychological comfort, but stuff alone can give false confidence. At this stage fear is managed if not eliminated.

So, now we come to the state of awareness where fear is recognized as a threat for which we are inadequately prepared. This is true fear and it comes in two varieties. There is “chronic fear” of bad things that are anticipated in the coming weeks, months, or years. Examples would be fear of economic collapse, fear of declining health, fear of being a street crime victim, fear of an epidemic, or a terrorist attack. Symptoms of chronic fear include loss of sleep, inability to concentrate, anger, and depression, use of drugs or alcohol, poor decision-making, headaches, and loss of appetite. Chronic fear must be recognized and corrected before it leads to even more real and immediate threats to your life and freedom. Truly, the fear is a bigger danger than what is feared. Then there is “acute fear.” That is an immediate threat to your existence or freedom such as someone coming through your door, a gun aimed at your head, freezing in the wilderness, or on a sinking boat. Symptoms of acute fear include: nausea, shaking, loose bowels, psychological paralysis (freezing), and loss of fine motor skills, tunnel vision, and fight-or-flight reactions. The boosted adrenalin and other fear generated physiological reactions can help save you if controlled. Here you have to act fast but also act right. Even the best trained have been known to panic, but training and mental conditioning are your best defense.

Both acute and chronic fear can be divided into three categories. These are fear of the unknown, fear of pain (physical and mental), and fear of one’s own inadequacies. While these can never be completely removed from our minds, they can be anticipated, prepared for, managed, and reduced.

Fear of the Unknown

In the movies, it’s always the monster you don’t see that is the scariest. Fear of the dark, fear of the future, fear of what a stranger may do are forms of this fear. Fearing to go to the doctor because we don’t know what he will find. Fear of going someplace or doing something for the first time is common. In its chronic manifestation, it is a source of constant worry that wears us down and holds us back from going places and doing things. It is that big “what if?” that keeps us awake at night. In its acute form it is better known as “the unexpected”. The unexpected situation that jumps up and forces us to make fast choices without knowing much about the situation. For example we wake up to the sound of the smoke alarm (you do have one?), you don’t know if it’s an alarm malfunction, you left food on the stove, or the whole house is on fire. Fear initially seizes you. You may suddenly realize that you do not know where you are and panic can make you do things that make your situation much worse.

While it is easy to say, “expect the unexpected” it is by definition impossible to

do. There are things you can do to reduce the potential dangers of fear and panic generated by the unknown and unexpected. While some events are truly unpredictable, others are unexpected because we just don't want to think about them. These can be substantially reduced by a processes known as "what-if analysis". As the name implies, "what-if analysis" is the process of mentally considering what if an undesirable and hazardous situation occurs and mentally dealing with it in advance. What if I am bitten by a snake out here? What if that guy approaching me intends to assault me? What if I can't get home in this blizzard? What if that smoke is from a big fire? You can use this process as soon as you recognize a potential hazard. You do not have to wait until you smell the smoke or hear the snake's rattle. A fear of something unknown can also be reduced by deliberately going at that fear through education and experience. Learn more about the things you fear and if possible, gain experience with them in a safe manner. Planning is an especially effective way to reduce chronic fear. Convert the fear of an undesirable event into a plan to cope with it. Instead of "Oh God, what if I lose my job?" its then I will cut spending and go back to school for a while. Instead of "Those people are going to kill me" it can be "I can avoid or counter them if they attack". By applying "what-if-analysis" to potential acute fears and planning for things you chronically fear they can be greatly reduced. Doing these things does not make you paranoid. On the contrary, these techniques reduce anxiety and contribute to a calmer and more confident psyche.

Fear of Pain

While masochists actually like pain, most folks find it unpleasant. By pain I am including the physical pain we experience from injuries and illnesses, the more subtle pain of heat, cold, hunger, and thirst, and the psychological pain we may experience from shock and grief at losses. We may put off going to the dentist when we know we should or delay putting a pet down because it will be psychologically painful to us. It is normal to avoid pain and in most cases it is wise, but fear of pain can work against our best interests. Those who live a less sheltered life have experienced more pain and are better at managing it. How you react to pain is also affected by your experiences and culture. I have seen children in America screaming from a minor bump and I have seen films of African children sitting calmly in the clinic with horrible wounds and amputations. In the acute situation where the wound has just occurred, the fear reaction actually releases powerful analgesics that temporarily reduce or completely eliminate pain. This is nature's way of providing the opportunity to finish the fight or flight before the pain overwhelms you. The absence of pain should not mislead you into thinking "it's just a scratch" and doing something to make things worse. Trust me, the pain will come. Knowing this, you can plan for the pain by treating the injury, seeking shelter, taking pain relievers, etc. before it hits you. Here again, planning and preparation can reduce fear. Knowing first aid, carrying pain relievers, having experienced cold, hunger, etc. in training can greatly reduce the fear of pain. You must not let pain break your will. Say, "Okay pain, I can handle you". A long as it hurts you are alive, and as long as you are alive you have a chance to beat it.

Fear of Personal Inadequacy

Unless you are a complete idiot you know you have some inadequacies. The

“great ones” are great because they deal with their shortcomings, not because they are perfect. We all have mental and physical limitations that make us fear situations. We fear the social implications of admitting that we don’t know or that we can’t do it. We fear the real hazards of being unable to shoot straight, climb a cliff, stop bleeding, or know the way out. We are afraid of not knowing what to do, or not doing the right thing, or not being able to do the right thing. We fear our own shame and the disapproval of others. This fear most often manifests itself in a failure to act. We see a danger, but we don’t want to say or do anything that would make us look silly. We go along with the group while we have a feeling this is not good. Maybe the whole group is going one way, while each person in it is afraid to say that they think it’s a mistake. You may not take a class or try a skill because you fear failure. Those things you fear are often the exact things that will provide the greatest rewards and best chances for future survival. There are two things you can do that will help to deal with this fear. First, you must accept that inadequacies are normal and that everyone has them. Success and survival just depends on not letting them stop you. Failure is better than failure to try. The second is obvious. Adopt a life mission of continuous mental and physical self-improvement to reduce those things you are inadequate at and prove to yourself how good you can be.

Fear is a very powerful force that can doom those who should survive and save those who should perish. It allows the weak to subdue the mighty and the few to intimidate the many. It is why small forces can send whole armies into retreat and why whole populations can be enslaved by a brutal few. Being able to manage and overcome fear in yourself and your friends is a vital element in staying alive and staying free.

Thoughts About Fear

- Courage is not being unafraid. Courage is being afraid and doing the right thing anyway.

- Fear (founded on deadly force) is the root of all power and (they say) money is the root of all evil. Self-reliance and preparedness reduces fear and dependence on money. Therefore self-reliance and survival abilities can be called the roots of freedom.

Survival Is About Choices

The foundation of survival is having choices, and having choices is the very definition of freedom. So the concepts of human survival are inevitably linked to human freedoms. A Jewish survivor of the concentration camps described how his captors controlled where he could go, what he ate, what he drank, how he dressed, but he still had one freedom. He had choices as to how he endured and reacted (mentally) to the situation. There are those who chose to work and those who chose not to. Those who chose to learn and those who chose to be ignorant. Those you chose to save and those who chose to spend. Those who chose to prepare and those who chose not to. In all cases, we are responsible for and entitled to the benefits or the consequences of our choices. By choosing to retain the capacity to defend myself and to provide essential survival needs I have given myself choices (freedoms). Those who chose not to prepare and chose to depend on others (i.e. system, bureaucrats, etc.) have chosen to surrender freedoms. The greater your potential for self-reliance, the greater is your true freedom. You may never need to actually use that potential, but its existence provides a sense of security and freedom that is founded on reality. When others cry, “What will I do?” or “Where is FEMA?” you would have choices as to what to do and would not be surrendering your freedom to others, in order to survive. You would also have the wonderful choices of helping others while less responsible people turned to begging, looting, or dying.

These survival freedom choices are things you can give to yourself. They are:

- Choices you give yourself through preparation and education
- Choices you give yourself through being able to control your own mind and emotions
- Choices you give yourself by putting aside negative fears and prejudices
- Choices you give yourself by accepting a situation and using your imagination and determination to solve problems
- Choices you give yourself by not depending on others
- Choices you give yourself in every situation because there are always choices

Remember “YAHOO”. **Y**ou **A**lways **H**ave **O**ther **O**ptions

Doing the Next Correct Thing

In his book *Deep Survival*, Laurence Gonzalez presents some gripping examples of people who found themselves in seemingly hopeless situations faced with impossible tasks in order to survive, who made a choice to ignore the magnitude of the situation and focus on doing just one thing that would improve the situation just a little. Just one more step, just one more push, or one more deep breath, etc. Just doing *something* that would not make things worse and would buy a little time, such as moving a few inches in the right direction repeated over and over has saved their lives from a "hopeless" situation. In some cases these folks even gave up and then somehow gave it one more try and reached salvation. While wide scope, awareness focus is good to identify all hazards and to identify what the best thing to do is, it should never be allowed to overwhelm one into inaction. You have a choice as to how to focus your mind. Your action focus need only be directed at doing that one right thing one more time. As they say, "A journey of a thousand miles starts with a single step" if it's a "step in the right direction." In the movies, James Bond escaped some ridiculous survival situations with highly unlikely scenarios, but even so the scripts had some survival lessons. First he (Bond) was always prepared. Thanks to good old "Q" he had some equipment specifically designed for the anticipated situations. When the villains had him in their grasp he did the following:

1. He did things to buy that most important survival commodity—time

2. He made no critical errors that further limited his time or options

3. He evaluated to situations, his resources, and his choices

4. He kept a wide view for both physical and psychological opportunities

5. He kept struggling and thinking until an opportunity to use his best advantages against the weakest aspect of the situation to effect an escape

Of course in real-life survival situations, even doing all the right things may not be enough, but giving up short of dead is unacceptable and when you are sure you have given all you had you probably have a lot more left in you. Even in a seemingly hopeless situation, hanging on and keeping on a bit longer may put you in the right place at the right time to be saved. Keep in mind that if the unexpected can get you into a situation it could also get you out, if you live long enough

Mental Focus In Safety and Survival

In his book *Deep Survival* Lawrence Gonzales cites several cases where victims of outdoor disaster were experienced experts and yet made foolish decisions that lead to serious trouble. As a safety professional, I have investigated scores of injury cases and "near miss incidents" where there was no real engineering failure or training flaw and yet the wrong thing was done. In my studies of military history I see great generals make errors* that in hindsight seem hard to understand. As Gonzales put it, "Be here now!" In safety we talk about "mind on task, eyes on task" as being necessary to avoid injuries. As we are driving to our jobs, our minds may still be at home or already at work, or focused on that jerk that just cut in front of you, or you may have tunnel vision on your lane? In a survival or combat situation you may be thinking about what others will think of you or how much better it would feel to be home, etc. In long-range emergency preparedness, we may let pride, anger, or other emotions misdirect our efforts and establish unproductive goals. This displacement of our efforts and resources can be defined as:

- **Strategic Displacement**. This is the establishment of goals and objectives based on negative and false values and motivations that are not supportive of your survival, self-reliance, and freedom. A person who chooses to use drugs, join a criminal enterprise, spend excessively, adopt extreme and negative ideas, focus on luck rather than effort, etc. would be practicing strategic displacement.
- **Tactical Displacement**. This is the more immediate action or reaction motivated by negative activators. Fear, anger, embarrassment, pride, jealousy, laziness are all negative activators that can put you and others in great danger when they affect your actions in a survival situation. In one case, a member of a climbing team seriously doubted the wisdom of taking a short route off the mountain back to the lodge, but didn't say anything because the longer safer route would not get them back to that nice warm lodge in time for dinner. He would have been the guy that kept them out in the cold so he kept quiet. People died! They were not "there now," they were at the lodge at 7:00 PM. How often have you almost had an accident because you were not there then?

Simply put; bad things happen when our mental and psychological focus does not match the needs of the situation. The range is between complete withdrawals from reality (curled up in a ball) to a total lack of perception of immediate reality, as in daydreaming. Many things require our minds to multi-task rapidly. In fact, the ability to widen and narrow our mental focus is essential to most activities and especially to survival situations. The key is to (1) keep the focus within the time/palace/subject area of effect and (2) prioritize your attentions on the areas of most immediate impact on your survival. For example: in combat you have to alternately focus on your weapon,

your body movement, your team members (if any), your environment and terrain (lighting, cover, footing), your immediate assailants, and other potential threats. You do not want your mind to start thinking about “Did I load this gun?” “Will this guy kill me?” “Why did I come here?” “Boy, this will be a great story!” All of these are outside the immediate range of effect and are tactical displacements based on negative (pride, fear, etc.) actuators. You also do not want to have tunnel vision just on the assailant, because this could cause you to trip, shoot one of your team, forget to take the safety off, etc. Obviously, spending too much time focused away from the primary assailant can be disastrous as well. You multi-task maybe 90% assailant 10% on the other factors. The military refers to this as “situation awareness”—putting yourself where it counts.

Think of your awareness range as a series of concentric circles.

1. In the very center are your hands, feet, head. fingers, etc. There are times when you damn well better know where those are! Yet there are cases after cases where people obviously did not know where they were putting themselves.

2. Next are the things you have immediate contact with such as your tools, clothing, steering wheel, glasses, etc. Have you grabbed the tool in the wrong place? Left your coat open? There are potential hazards in not paying attention in this range. Obviously, everything in this range is a potential and immediate hazard.

3. A few feet out is what we often call “our personal space”. We generally feel a bit threatened if someone gets too close (well it depends on the someone), yet we can become unaware of what is going on that close.

4. Next comes the immediate environment including a room or vehicle we are in, or things out to about 50 feet that could impact our situation very quickly. This is the range usually excluded when fear or concern causes us to get “tunnel vision.”

5. After that comes the larger environment including incoming threats, weather, sounds, smells, etc. They are not likely to kill you this minute, but not being aware of changing temperatures or the faint smell of smoke certainly can mean trouble in the near future.

6. Now we get to mental environment that includes where you were, where you want to be, where you don’t want to be, what you want to do, etc. On a cell phone in traffic is a perfect example of this. You are “there then,” not “here now”. This can be a very creative and enjoyable area of awareness if done in the right place. For example: I am there now as I write this article.

The table below may help illustrate the matching of awareness ranges with

some survival situations. I have shaded the area that would be the highest priority for awareness, but the other areas cannot be ignored and could demand higher attention. Your focus can be too wide or too narrow, or it can linger too long in one range. Knowing this, it is possible to develop awareness. You can say to yourself, “Hey! I need to get focused back here” or “Oh oh! I am not thinking and acting in the critical areas here.” Going into a situation you can mentally identify the priorities and boundaries for your awareness.

Awareness Range	**Driving**	**Combat**	**Wilderness**	**Survival Planning**
Body Parts Actions	Position	Position Movements	Injuries Temperature	Minimal Hazard
Immediate Contacts	Seat Belt Steering Wheel	Weapons	Clothing Temperatures	Minimal Hazard
Personal Space	Interior Controls	Dangers?	Shelter Hazards	Minimal Hazard
Close Environment	Adjoining Vehicles	Dangers? Enemies? Friends?	Hazards Resources Others Involved	Factors to Consider
General Environment	Traffic Conditions	Potential Dangers?	Weather Routes	Factors to Consider
Mental Emotional Location	N/A	N/A	Self-reliant Attitude	Consider Hypothetical Situations, Times, Places

Champion target shooters never ever are thinking about what the other guy is scoring, whether they are winning or losing, or how great the victory will be. While they are shooting they are thinking about the shot they are taking or even the incremental step (e.g. grip, trigger pull, etc) of that shot. I can guarantee that anyone who does not know how to control his or her focused “be here now” will not win.

Being able to match your awareness range to your situation is critical to virtually every task in life and has special impact on safety and survival. Knowing this, you should be able to consciously say to yourself, “Am I where I belong mentally?” The ability to bring your awareness within the time and place you are at and apply your attitudes of resourcefulness and self-reliance means you are never lost.

In addition to the range of personal, internal issues that can cause you to misdirect you focus in life and in emergencies, there are people and institutions that thrive on keeping you from focusing on what’s in your best interest. Politicians, salesman, conmen, lawyers, magicians, etc. are all experts at redirecting and misdirecting your focus in order to further their own causes and agendas. Others can also be adept at using your internal emotions (fears, anger, pride, greed) to cause tactical and strategic displacement of your focus that results in bad or even fatal decisions. Recognition of this hazard and constantly matching your focus with what’s real is a must. Don’t let emotions, environments, or other people choose how you

focus and react to a situation. It's "mind over mind" and "think before you think."

***Notably: Napoleon at Waterloo who became obsessed with taking the chateau at Hougoumont to the detriment of the overall battlefield and Japanese Admiral Kurita at the battle of Samar where he let his losses divert him when the objective of the whole operation was in-hand.**

You Are Never Lost!

The classic survival scenario is one in which the victim is lost in the wilderness or stranded on a deserted island. Laurence Gonzales in his book Deep Survival proposes that you are never lost. While you may be lost to others who do not know where you are. You are never lost to you because, "Hey! I'm right here." Being lost is a state of mind. Being lost is a choice. Being lost is when you are not mentally and spiritually where you are physically. You may have inadvertently misplaced civilization while traveling (hiking, boating, flying, etc.), or civilization may have left you through acts of man (war, terror, etc.) or nature (storms, earthquake, etc.) but you do not need to be lost. Once you choose to accept the situation and the environment (wilderness, combat, weather, chaos, etc.) as it is and mentally abandon the environments, situations, and values (comfort, pride, safety, wealth) that are not applicable, you are where you are ready to live in that time and place. The better you are prepared psychologically to adjust and find yourself, the better off you will be in a survival situation.

Survival, Self/Reliance, and Youth

I do not intend to be one of those "old timers" who laments about the weakness and degeneration of the young. Generation gaps and misunderstandings from one generation to the next are normal. Children will challenge their parents and their values as a way of declaring their independence and establishing their own identities. We all did it. Ultimately, they will make choices that will alter the courses of their lives for better or worse. Today's youth are no more or less likely to be good and responsible people if they survive their teen years. They are well adapted to a high-tech, multi-tasking, fast reaction world. During their lives, computers will achieve human intelligence, fossil fuels will be exhausted, the technology for total surveillance and control will be perfected, and the very existence of humanity as we know it will be in their hands. The youth can be particularly susceptible to simplistic solutions and short-term thinking. It is at this stage that big mistakes like smoking, drugs, crime, etc. can be made. It is at this stage that salesmen, gang leaders, politicians, and others will find them easy to lead in wrong directions. Knowledge is mistaken for wisdom and mass nonconformance is mistaken for individuality. A narrow view of history and their role in it causes them to repeat past social, economic, and political errors. A limited experience and lack of historic perspective causes them to think that they are the first ones to face challenges and emotional crisis that mature people understand to be

normal and survivable. To some of them, the sky is always falling and the world is focused on doing them harm. For others it is “live for today.” Well, as we know, the sky *is* always falling, but yet tomorrow does come, so we deal with it! There is a growing segment of the youth that may have been over protected and over directed by well-meaning parents. Conditioned to the idea of entitlements, guidance, protection and comfort; they will be ill equipped to cope with any unstructured, hazardous, and even violent situations that the future will bring. A life of comfort and gratification will meet with some hard realities and difficult decisions that will leave them vulnerable to political manipulation and panic-driven decisions. This component of the generations will be eager to blame others rather than accept responsibility for problems. They may be inclined to follow leaders who offer false hopes in exchange for their money and freedoms.

However, there is another element of the youth that does learn from history and/or their own hard times and deprivations. They are good or lucky enough to get through their youthful errors and challenges and still hang on to their survival and self-reliance choices. Their survival training may have been formal or more often just real, tough street and wilderness experiences. They are going to be stronger, more adaptable and highly resistant to assaults on their self-reliance and freedoms. They will be more able to overcome chaos, disaster, despair, and intimidation. They will recognize threats to their lives and their existence as free people, and be ready to do whatever is necessary to survive. Humanity would not have gotten this far without extinction or total enslavement if it were not for the constant regeneration of this kind of person.

Counter Survival Syndromes

In trying to get good people to accept the possibility of hard times and catastrophic occurrences, we run into four arguments. This syndrome of attitudes is sometimes referred to as the Titanic syndrome. The folks on that fated vessel probably exhibited some of these fatalistic and denial characteristics prior to that unintended interaction with the frozen obstruction.

1. The first one is simply denial. **“It can’t happen.”** Now, admittedly some things are highly unlikely, but almost nothing is impossible. When we consider the history of nature’s power and human folly, no one can honestly think that a ship cannot be sunk, a war cannot be started, an economy cannot collapse, or a climate cannot change. Unfortunately, catastrophes of all sorts are normal.

2. The next position is that while it can happen or is happening, “I**t will not happen to me.”** The Jews of Germany and the dissidents of Russia really paid for this kind of thinking. You cannot deny that bombs are going off in the next block or neighbors are losing everything, or other folks are being rounded up, but I am immune because -----. This idea does make it easier to go

on with life under dangerous conditions, but not if you really believe it.

3. Then there is the fatalistic notion,. “**If it does happen, I am doomed anyway.”** The folks in London during the German bombing in World War Two often frustrated the Air Raid Wardens with that one. I guess that’s okay, but unfortunately that’s not the way it may work for you. You may just get badly injured or be a desperate survivor. And what about your family and friends that may need you?

4. Finally we hear, **“If that happens, I don’t want to survive.”** This was a very popular argument for non-preparedness during the Cold War. What a bunch of bull! These folks would be the most desperate predatory and violent animals on the planet after a large catastrophe. Having made no preparations physically or mentally, they would be at best a burden and at worst a serious hazard to all around them.

All of these are just excuses for avoiding reality and responsibility for one’s own life and freedoms. I am not saying that the passengers on the Titanic should not have enjoyed its fine amenities any more than I would suggest that we go through life endlessly stocking supplies and building bunkers. Enjoy life, do good things, but protect the people and the freedom you value and enjoy with a healthy dose of reality and preparedness.

SURVIVAL PREPAREDNESS

Preparedness is what survival is all about. Preparedness is both mental and physical. These articles cover a variety of preparedness related issues.

Preparedness Overview

By James C. Jones, EMT/CHCM

An Overview of Why Personal Preparedness Is Important Today and the Various Levels of Preparedness Needed to Survive Common Emergencies and Future Multi-Catastrophes

Introduction

If you are reading this, you have already become concerned about future events and have begun to take responsibility for your own survival and that of your family. You may be alarmed at the increasing number, variety, and severity of "disasters" throughout the world and particularly in the United States. This is not your imagination. Things *are* getting more dangerous and the infrastructure and the emergency services *are* starting to breakdown. One disaster often contributes to another. Who can doubt that the immense costs of the 9/11 attacks and Hurricane Katrina contributed to the economic collapse. The shrinking economy reduces funds for infrastructure improvements, safety, emergency services, and police. This then sets us up for further attacks and disaster. **The eventual result of these combined and multiplying manmade and natural disasters must be a general world collapse some time in the next twenty to one-hundred-years**.

The immediate mission for the responsible citizen is to prepare to survive increasingly severe and lengthy emergencies with less and less outside help. Since these events will strike closer and closer to every family, and economic conditions will become more and more challenging, it is imperative that people begin an energetic and systematic program to increase their emergency preparedness and long-term self-reliance while they still have the resources and time to do so. **Furthermore, the children and grandchildren of today must be reoriented from passive dependence to active self-reliance through preparedness training and the acquisition of basic survival skills**. Here are just a few of the scientifically calculated situations that are already in progress as you read this article:

- As the population outpaces resources, basic necessities such as water, food, and fuel will become scarce. At first the famines, droughts, epidemics, wars, and massacres will ravage the third-world countries and then it will spread around the world.

- Increased population densities combined with economic decline will mean that floods, earthquakes, and storms will cause astronomical death

and destruction that will not be recoverable.

- The combination of economic decline and growing populations will result in the collapse of infrastructure and public services in many (if not all) urban and suburban areas. The failure of water supplies, electrical service, sewer systems, fire, and police protection will make crime, riots, and epidemics more and more common.

- The combination of less and less farmland and shifting climates will ultimately lead to conflicts over food and water resources that could lead to wars.

- International travel, population densities, and on-going biological experimentation probably will lead to one or more worldwide epidemics that will kill hundreds of millions sometime in the next few decades. Many scientists calculate that while the population may double or triple by the middle of this century, it will end at pre-1950 levels after starvation, war, epidemics, and other events have reestablished a balanced system.

- All of these factors will empower international crime cartels whose "street gang" soldiers are already on our streets. Desperate people will be easy recruits for extremists and terrorists. In reaction, there will be great temptations to establish Marshall Law, suspend basic liberties, and even establish dictatorial governments.

- Exactly how these events will unfold, when they will occur, and how they will affect you is impossible to predict, but some of these events will strike you and your families in the foreseeable future. While there is not much you can do to prevent these complex combinations of man-made and natural disasters, there is much you can do to increase your chances of surviving them while retaining your personal freedoms and values. Never has the future depended more on what *you* do today.

The first step to survival is to assess your current situation and level of preparation against what you truly need to survive anticipated emergencies. Having done that, you can then start improving your situation in an organized and scheduled manner. To aid in this process, we will establish six levels of preparedness starting with "zero".

Level Zero: Planning to be a Victim

The individual or family prefers not to think about "bad things" and has no plans or means for surviving even a "normal" emergency. These folks are totally dependent on the political and economic system for every day-to-day necessity of life. Any disruption will panic them. They are highly likely to be a burden on public services (if they exist) and/or turn violent under severe emergencies. They are a danger to their neighbors and the community, and will probably not survive long into a true

catastrophic event. Unfortunately, this classification describes a significant portion of the population.

Level One: Essential

Even a casual concern for your own safety should put you here! You have a good flashlight, candles, a first aid kit, a few days of food on the shelves, a few gallons of water stashed away, and you have given some thought to what you would do in emergencies such as: extended power outages, water supply interruptions, home invasion, fires, etc... It's not much, but it's a start. If you are lucky you will get through a few short-term situations, but if you don't improve, you are going to be in real trouble at some point in the next few years.

Level Two: Basic

At this level, you are making a conscious effort to prepare for common, short-term emergencies. You have put up at least 5-gallons of water per person and have a 5-10 day supply of food on hand. You have invested in several LED flashlights and lanterns, and have a crank powered emergency radio. You also have at least one good fire extinguisher and probably a firearm. You may have a first aid manual and/or "How to Survive" book. This is the *minimum* level for any responsible citizen.

Level Three: Responsible & Ready

This is where everyone needs to be ASAP! At this level you should get through most "normal" emergencies and have a good chance to survive many serious and longer-term disasters. You will not be a burden to your community and may be able to help others. In addition to your "level two" supplies, you will have a 30-day food and water supply. You have a small 72-hour survival pack capable of supplying essential food, water, shelter, and first aid for a few days on the road. You may have a generator and fuel to run basics (e.g. sump pump, freezer, etc.) for 3-6 days and a safe portable indoor heater. You have the ability to purify water, cook food, put out fires, treat minor injuries, and dispose of bodily waste without outside help.

Level Four: Advanced

This level will make it possible to ride out (at home) or escape from (evacuate) many serious disasters. In addition to your "level two and three" supplies**,** you have a fully equipped evacuation pack or "bug-out-bag" capable of sustaining and sheltering you for an extended time. You now have a variety of weapons for home defense, self-defense, and hunting. You have a number of survival books and have at least basic first aid and other survival related training. You may also have acquired training and equipment to cope with nuclear, biological, and chemical hazards. You will have made detailed plans for your own evacuation and may have established safe locations and caches of emergency supplies along that route. At this level you should be involved with community emergency response organizations and/or preparedness clubs in your area.

Level Five: Self-Reliant

This goes beyond preparedness and moves towards a more self-reliant

lifestyle. While the previous levels involved putting away resources from the existing sources for a future need, this level implies being able to generate and use essential supplies from the environment over a long period. At the extreme it can involve moving to a remote location and establishing a “retreat” with its own power supply, gardens, water source, etc… This may be impractical for most people, but everyone can achieve at least partial self-reliance. Adding rain barrels, wood stoves, vegetable gardens, solar panels, or windmills can vastly improve your long-term survival chances. Develop skills that can be used to supply essentials such as hunting, fishing, sewing, metal working, and carpentry. Stockpiling tools and supplies that can be used as trade goods. This will put you in a position to survive and even thrive during hard times.

Conclusion

While no one likes to think about a future of dangers and challenges, an open minded look at current events and recent history leads to the inescapable conclusion that humanity is entering a perfect storm of combined economic, natural, and man-made disasters. No amount of preparedness can guarantee one’s survival under every conceivable situation, but a systematic and continuous effort to increase one’s material, mental, and psychological capacity to survive will greatly reduce the chances of serious, injury, loss, and death. **The future survival and freedom of good and responsible citizens and their children is dependent on their efforts to become better prepared and more self-reliant.**

SAFETY, **the First Step to Survival**

By Jim Jones, CHCM, EMT

Accidents are a manifestation of unconscious intent - Sigmund Freud

As a Certified Hazard Control Manager with over 25 years of experience in industrial safety management, I have developed and implemented hundreds of safety programs and systems. At one time it was assumed that “accidents happen” and that from ten to thirty percent injury rates could be *normal* for some jobs. In fact, all accidents are preventable. I have been able to reduce injury rates to less than one percent. Employees work millions of hours year after year without a significant injury. The great majority of injuries and deaths today are not job related or caused by disasters or terrorists. **Most unnecessary injuries and deaths happen in the home or on the streets.** Obviously, basic home safety must come even before home emergency preparedness. It would be a sad situation to be fully prepared for Armageddon and then die because of a simple home hazard or unsafe habit. No one can keep you safe but you. In industry, it has been found that engineering and safety program can only go so far in reducing injuries. As long as the employees believed that their safety was the responsibility of the company or “the safety guy,” injuries continued to happen. Only when they accepted responsibility for their own safety and adopted safety principals into their daily routines were the great safety records achieved. Even as we prepare for future disasters, we must first assure safety in our homes and in our daily lives. The individual and family can use the same principals and techniques as industry does to reduce risks. Let’s look at some of them, as they would apply to personal safety.

What is an Accident?

There are many definitions of an accident, but the most common one is “an unplanned and uncontrollable event that has negative consequences.” By this definition there are very few true “accidents.”* We may not *plan* to have an accident, but in most cases we had control of one or more of the causes. For example: You roll through a stop sign at an intersection that has little traffic, but today you get broad sided by a truck. Was that an accident? Your house burns down because of a leaking gas-can in your basement. Was it an accidental fire? They were unplanned but they were not uncontrollable (by you) so they were not true accidents. They were the result of choices you made. You were in the habit of saving time by rolling through that stop sign. You saved a few dollars by not buying a proper container for the gasoline.

Hazard Recognition

It is very easy to overlook hazardous conditions and unsafe habits as we go about our daily lives. Our parents may have told us “don’t go looking for trouble” and our nature is to focus in what we are doing. We may not recognize a hazard because we actually cannot actually see it, or because we lack the technical information needed, but the great majority of hazards and unsafe habits are visible and

recognizable to anyone with common sense. Think! I cannot count the times that an injury victim said, “I knew that was going to happen.” Subconsciously, they recognized to hazard but kept doing it until they got hurt. Look for hazards, think about your actions, **listen to your safety consciousness**.

Near Miss Incidents

In theory there are 300 near misses and about 30 small injuries before a serious injury or death occur from any hazard or unsafe habit. Each (almost!) near miss incident is a warning and an opportunity to fix the problem or change the habit before it gets you. For example: You almost tripped on that lose carpet on the stairs, or you almost fell of that old rickety ladder. Do you keep going and forget the event, or do you make sure to put correcting these hazards on the top your to do list? **Never ignore a near miss incident or something that looks wrong. Fix it now or be sure to do it ASAP!**

Unsafe Acts vs. Unsafe Conditions

Unsafe conditions such as broken steps or worn electrical cords are dangerous and must be corrected, but **the great majority (90%) of all injuries and deaths are the result of unsafe acts of people**. A spill on the kitchen floor that is not cleaned up is *not* an “unsafe condition,” it was the act of who-ever spilled it and did not clean it up. The batteries taken out of the smoke detector was an act. Letting combustibles pile up near the furnace is an act. Unsafe driving is an act. Think! Examine your habits for potential risk taking.

Unsafe Habits

One of the most common sentences I hear from accident victims is, “I’ve been doing it that way for years.” We develop our habits based on the immediate rewards we get for our acts. If we do it and we get any kind of small and immediate reward we tend to continue doing it. The reward can be saving a few seconds, using less energy, or saving a few cents. The immediate reward has much more impact than any potential long-term dangers. Cigarettes provide an immediate reward (good feeling) and become a habit in spite of the horrible long term dangers. The driver who rolls through the stop sign at the deserted intersections and is rewarded by getting to work early will keep doing that until the inevitable injury. Safety glasses and gloves are uncomfortable; reading the labels on insecticides takes time. Fire extinguishers cost money you could spend on DVDs. This is human nature that can get people hurt. **Get in the habit of thinking about the long-term results of your habits and correct those that are dangerous to your health and safety**

What If Analysis

Most accidents happen when several unsafe conditions (you didn’t fix) and unsafe habits (you didn’t change) come together. For example: You are in the habit of wearing flip-flops on the stairs and you never fixed the worn carpeting there, or you are in the habit of walking to your car without looking around and today there is a mugger in the parking lot. **It is not paranoid to look through your daily actions and your environment (home, work, road, etc.) and ask, “What if?”** What if there is a

car-jacker at the corner? What if a train is coming? What if this gas can leaks?, what if my hand slips?, etc. This is called a “questioning attitude” and it can save your life.

Management of Change

Even in a fairly safe environment, changes can result in disaster. In fact many of history’s greatest disasters were caused by unmanaged changes meeting unsafe acts or conditions. Icebergs are an unsafe condition, going too fast was an unsafe act; the Titanic had a changed rate of turn. You may be in the habit of backing out of your driveway without looking, but the school schedule has changed today. **If you are correcting unsafe acts and conditions, you are 90% safe, but watch out for changes.** Any kind of changes in weather, schedules, routes, people, the building, hobbies, etc. can bring new hazards. What was safe before may now have risk. Think!

Safety Inspections

After teaching the above safety principals I often sent supervisors into the workplace to do a focused safety inspection. They usually return, amazed at the number of unsafe conditions and unsafe acts they discovered. They may have thought they were “watching out” for safety, but they actually had become used to seeing these conditions and acts without recognizing them. The same is true in the home and away from home. There are many safety checklist available, but these are not as effective as developing your own. **The key is that you need to spend time *focused* on safety observation.**

Safety Rules (Do’s and Don’ts)

In your life you are not going to have a safety guy standing around enforcing safety rules. You have to make your own and *you* have to maintain them yourself. **Remember that most accidents are caused by unsafe acts that you control**. Having recognized your unsafe habits, make a list of do’s and don’ts. For example: Don’t leave doors unlocked. Do turn on the lights before going in. Don’t stand on chairs. Do remove fuses and check for current flow before working on electrical wires. Don’t leave loaded firearms out. Etc. etc.

Root Causes

When you recognize a hazard, even if no injury occurred, ask why three times. Just fixing the immediate hazard may not be enough. There is probably a deeper cause for the unsafe condition or unsafe act that should be addressed. For example: You find your child playing with drain cleaner. Fortunately, you get it away from him in time and place it on a high shelf. That takes care if the immediate danger, but why was the drain cleaner available? The answer may be that you keep lots of chemicals under the sink. Why are chemicals under the sink? Maybe because you are not thinking about what a child could get into. Now you go about and find all kinds of poisons, matches, etc. that need to be locked up or removed. This “Why? Why? Why?” can lead you to the root cause of many kinds of problems and provide an opportunity for real improvements. **The root cause of most unsafe acts and unsafe conditions usually lies in someone’s attitude.**

Conclusion

Just like emergency preparedness, your safety is up to you. The above principals are used by safety managers and (more importantly) safe workers to achieve outstanding safety records. They can do the same for you and your family**. Think about safety.**

* That said, I will use the term “accident” here for any kind of negative event

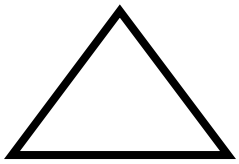
Principals of Emergency Planning

By James C. Jones, CHCM/EMT

"If you're failing to plan, you're planning to fail"

A great deal of attention is given to what equipment to have (e.g. survival kits) and to the specific skills (e.g. first aid, shelter building, etc.) needed for emergencies. Less attention is given to emergency planning principles and techniques. Government agencies and industry are required to maintain up-to-date emergency plans for every anticipated emergency. The responsible citizen and family would be well advised to make their own emergency plans for those situations that may endanger their lives and safety. Having the right emergency equipment and skills is important, but having a plan for their effective and timely use is a key element in the preparedness triangle

Emergency Plans



Survival Kits Survival Skills

What to Plan For?

Detailed hazard analysis is the subject of many past articles. Using the methods I have previously described and some common sense, you can select those emergencies that are the most likely to happen to you and would have the most serious consequences to your life, property, and freedom. These will differ for every individual and family. You may live in a high crime area, an earth quake zone, or down wind of a chemical plant. You may work in a terrorist target zone, or you may have enemies with violent natures. If you smoke, a home fire is much more probable than a tornado. Consider the things that have happened in your area. What trends are developing in the areas you live and work? It should be easy to come up with a number of emergencies you would want to have a plan for.

Answering the Questions

Once you have a short list of potential emergencies, the process of planning for each one can begin. Emergency planning is the process of answering questions before fate asks them. These questions are:

1. **What events would trigger the plan?** It is critically important that everyone understands that a certain event will trigger the plan without their asking anyone. The smoke detector goes off, the lights go out, an intruder is heard in the house, etc. should trigger immediate action by every family

member even if they are in different rooms. You are at work while your wife is at home and the kids are at school. Suddenly, there is a toxic chemical spill upwind of your home and the school. Each of you has to know what to do and hopefully where to meet when that trigger event happens. When event "A" happens, everyone executes his or her part of the plan *for* event "A."

2. What actions are required in what order? This is the most complicated part of the plan. You must cover all the critical actions but keep it simple and fast. The first element of the plan must be to stop or escape the immediate danger. This could be escaping from a home fire, taking shelter from a tornado, or calling 911. Gathering critical emergency items for continued survival would be next. You may need respirators, protective clothing, medical supplies, or weapons to stay alive. Having survived the immediate threat and provide protection against continuing hazards, your next priority is reaching your family and providing continued safety. Having gathered loved-ones and equipment, you can move-on to long-term survival activities as needed. In the event of a home fire, escape and gathering of the family is probably all that is needed. Surviving and escaping a civil disorder in your community (for example) would require a series of additional actions such as preparing the home for defense, extinguishing fire, or gathering survival packs and following a pre-planned route to safety.

3. **Where will you be and where will you go?** Obviously, the location you are in when disasters strikes will greatly affect your planning. A plan to react to a Nuclear, Biological, or Chemical attack will be very different if you are at work or on the road than if you are at home. You also have to consider your primary shelter or escape destination and your main rendezvous location where you will meet others and access your survival equipment. You may have selected a number of temporary storm or blast shelters (culverts, basements, etc) along your daily route. You can hang-on in these with your small (carry along) survival items for a few days, and then make your way to your home or other long-term shelter. Never assume that everyone will be at home and have access to all your supplies when disaster strikes!

4. Who is responsible for what actions? In any emergency, it is critical that everyone does his or her job. Who locks up the house? Who gathers the children? Who brings the supplies? Who calls 911 while who provides CPR? Make sure everyone can do each job (cross-train) if necessary, but clearly assign tasks.

5. When to act and when to meet? It could be hours or days before family or group members can move from shelter, evacuate the danger area, and get to a designated assembly point or rendezvous. You should have several alternate meeting places and a time each day that plan members would be there. You plan might say that you would meet at the abandoned gas station on highway 12 at noon four days after the plan trigger event and every day after

that until all are assembled or 10 days. If that location is unsafe (e.g. occupied, contaminated) the alternate location is the cluster of trees near the Wilson farm.

6. **How each action will be achieved?** While some actions may be self-evident (run, hide, carry) some actions may require more detail. How to crawl out of a burning house, or specifically what protective equipment to put on to protect against biological contamination may need to be included. Good training requires less detail included in the plan

7. **What if there are problems with the plan?** No plan survives the first few minutes of a disaster. Plan on things going wrong and *try* to have a plan that can get you past these inevitable problems. What if your route is blocked? What if you have to walk? What if you can't get to your survival pack? What if you have to evacuate? What if someone is injured? What if you or someone else cannot safely get home? You need alternate plans and backup equipment to deal with these inevitable challenges

Emergency Plan Examples

Example #1 Home Fire

Trigger: Smell smoke, see flames, smoke detector activated

What Action: Get to floor. Call 911. Test doors for heat before opening. Escape via crawling (route practiced) or through window, etc. Get to neighbors (rendezvous). Direct Fire Dept and inform of missing family members. If neighbors not home run to 7/11 Store at corner

Example #2 A Terrorist Attack Resulting in Civil Disorder

Trigger: Terrorist attack within 100 miles of home followed by riots, power failures, spreading fallout, or plague, state of emergency, etc.

What Action: All members access personal emergency items and self-defense items. Put on best available respiratory and skin protection. Escape hazard areas if possible via railroad tracks, back roads, and other preplanned routes. If escape is not possible, take shelter (preplanned) in a location that minimizes exposure and is defendable or well concealed. When safe to do so, evacuate to home shelter. Person at home will establish shelter and defense if possible or evacuate with as much gear (see priority list) to rendezvous point #1. If home has been abandoned, others will continue to rendezvous point #1 and meet there at noon each day until contact is made. Recover food, water, and medical supplies at rendezvous point #2 and establish shelter until emergency is over.

Of course these plans would probably include much more detail about the specific routes, equipment, and assignments, but all the basics are covered.

Getting It Done

We play all kinds of video games and watch all kinds of highly unlikely adventure/survival videos while we put off real emergency planning and preparedness. Survival planning can be a game for the whole family that will be interesting and can save lives. A family planning session for a home fire, home invasion, tornado or, yes even "the Big One" is time well spent.

Critical Equipment

No attempt is made here to cover emergency equipment or survival kits, but obviously the availability of equipment must be considered throughout the planning process. Your first plan must be made based on what you have at the time. Planning will probably highlight the need for additional items and/or the relocation of things you may need in a hurry. Plan to improve and then plan again.

Don't Guess; Know!

How long will it take to crawl blindfolded smoke filled room) to your front door? Can you really build a filtered air shelter quickly in a biological attack? Can you really carry your survival gear 5 miles in an emergency? Test your equipment, practice your actions, and test your plan against the "worst case" scenarios.

Emergency Planning Tool

Here is a form you can use to guide your emergency planning efforts.

EMERGENCY PLANNING GUIDE

Emergency Situation (what is the plan for?)

_____
____

Trigger Event (what events will cause this plan to be activated?) _____

Activation Code Word (optional) _____

Emergency Actions

Order/ Priority	Actions, By Whom? With What? How?	Notes /Alternatives
1		
2		

3		
4		
5		
6		
7		
8		
9		
10		

Emergency Routes

From	To	Route Description and Alternates
Work	Home	
Work	Point #1	
Home	Point #1	
Point #1	Point #2	

Meeting Places and Rendezvous Points

Number	Location Description	Time to Meet
1		
2		
3		

NOTES:

The First 72-Hours

By James C. Jones, EMT/CHCM

The great majority of emergencies last three-days or less.
Even if the disaster is an extended cataclysmic event, surviving the first hours and days will be critical.

The Department of Homeland Security and FEMA advocate that everyone should have a "72-Hour Survival Kit." There are scores of articles and lists devoted to the contents of "72-Hour Survival Kit." These kits or packs are intended to provide a bare minimum of life critical supplies during a short evacuation to a safer location where food, water, shelter, and medical aid will be available. Realistically, most homes have sufficient water, food, and other supplies to get through a few days without outside support. The theory behind the 72-hour kit is that (1) it will take no more than 3-days for help to get to a stricken area or (2) it will take no more than three days for someone to walk out of a disaster area and reach help. Based on most recent disasters in the U.S., this is a reasonable assumption. Most disaster events unfold, peek, and improve within 3-days. Most disaster areas are of limited size and can be evacuated from in a one to three day walk. Disaster response agencies take two to three days to fully respond to a major disaster. So for the purposes of surviving "normal" and localized disasters, 72-hours is a reasonable period to plan and prepare for.

Keep in mind that the future holds events and trends that may be nation-wide in scope and months in length requiring much greater levels of personal preparedness. But here we will limit our analysis to the first 72-hours of any disaster scenario. We will establish a chronological examination of a general, nonspecific disaster and consider the challenges, needs and actions required to survive at each point in time. Keep in mind that failure at any of the time-points make the remaining time irrelevant, since you're dead.

The First Minute

While some disasters occur over hours or days, many others are instantaneous. There may be an expulsion, an earthquake, an assault, or you may wake up to a smoke-filled house. In such cases everything depends on actions in that first minute or two. Your options will depend on your training, planning, and what items are immediately available to you. Bullets, blast, debris, smoke, heat, falling objects, and flames are in your immediate environment. In some cases such as fires and civil disorders, you may need to escape to a safer location, but if bullets, debris, or blast material are flying you must immediately find shelter. In a collapsing structure (e.g. earthquake, etc.) it is generally better to lie down next to some strong object such as a car, desk, or cabinet rather than under it. If you are under them they will be compressed and kill you, but they will only compress so far, leaving a gap known as the triangle of life which will hold up the fallen walls and ceiling. Getting behind or under any heavy and secure object can protect from flying debris such as in smaller

explosions, distant blasts, and strong winds. If immediate shelter is not available, lie flat and cover your head. Most bullets can penetrate furniture, auto bodies, and interior walls. Seek shelter behind brick walls, trees, large appliances, auto engines, and concrete structures. Many Japanese survived the nuclear blasts at Hiroshima and Nagasaki because they were sheltered behind walls or rocks while people a few yards away were incinerated and blown to pieces. In a burning building, the air a few feet off the floor may be hundreds of degrees hotter than the air at floor level. One standing inhalation can shrivel your lungs and burn your airway closed. Roll out of bed, get low now, and crawl to safety. Know the escape routes and have an escape plan for every building you are in. Smoke, dust, hazardous vapors, and soot caused by blasts, fires, storm, or biological hazard can stop your breathing or start a reaction that will be fatal in a few hours. Always carry a small folding N95 dust mask in your pocket and have one in your desk, lunchbox, and bedside drawer.

The First 5-Minutes

Assuming that the hazard was less than instant or that you did the right thing and survived the first minute, you now can improve your chances and deal with immediate problems. This is the time period you have to seek better shelter, escape from the danger zone, and treat life-threatening injuries. If you have that 72-hour kit or other needed items, this is the time to grab them. In most situations, if you cannot get out in 5-minutes your chances are poor. Five minutes of exposure to contaminated air, radiation, excessive heat or cold can kill you. If you are bleeding heavily or going into shock you must stop the bleeding and get help fast. Most likely, if you cannot escape a structure in 5-minutes you are trapped. If this was an on-coming (tornado, etc.) disaster you should be in the best available shelter with your survival items in no less than 5-minutes.

If you survived a bomb blast or shooting incident, get out of the area immediately. Often there is a second bomb or the shooters return. Bullets and blast fragments may have struck supports, wiring, pipes, or tanks that may cause a secondary hazard.

The First Hour

If you have survived the first few minutes and have made the right moves, your chances of survival are greatly improved. In the first hour you should either move further away from the danger area or improve your shelter and start to prepare for the next few days. Evaluate your situation, look around, make plans, calm down, and take control. What do you have that can be used? Can you self-rescue (e/g. dig out)? Can you signal for help? Do a self-examination for injuries and treat them (bandage, splint, clean) as best you can. If you have been contaminated with chemicals, biological agents, or fallout, get out of any contaminated garments and/or clean them as best you can. Keep that dust mask on!

The First 8-Hours

In this time frame you should have gotten to your best available shelter and treated any serious injuries. In cold or rainy weather, shelter and warmth become imperative. If you are exposed to cold for too long you, will be subject to hypothermia

(exposure) and die. Get into shelter. Get into dry clothing. That dust mask will reduce heat loss through respiration so keep it on. Put on a warm hat that should be in your survival kit. Water also becomes a critical need. Hopefully, you can find some safe clean water. You can use 4-8 drops of bleach per gallon or boiling for 5-minutes to purify suspect water. Although you can (theoretically) last 3-days without water, your physical and mental state will deteriorate after a day or two so stay hydrated.

The First 24-Hours

Stay warm, stay dry, stay hydrated. Avoid dangerous areas and dangerous people. At this point there are secondary hazards developing. People may be panicking,

Criminals may be roaming the streets and looting. Fires may be out of control. Water and sewer systems may not work and when the sun goes down there may be no lights. The best defense is camouflage and evasion. You need to avoid showing that you are there if you have taken shelter. If you are evacuating, you need to avoid areas such as main roads and commercial areas that will attract looters and gangs. Yes, you need to be armed.

The First 48 Hours

If you are still in shelter, trapped, under attack, or on the road after a full day, you have a serious situation. This is where you really need the stuff in that 72-Hour Kit. There will be some water, food, and medical items in there. If you depend on prescription medications and/or eyeglasses, be sure you have extras in that kit! You really start to get hungry by now. Theoretically you can go without food for three weeks, but after 24-hours the need for food starts to affect your judgment and health. If you have not accessed stored food or food in your pack, then you must start foraging. Foraging in urban and wilderness areas is difficult and hazardous. In many cases you will be competing for limited food with other desperate (and armed) people. It is far better to have enough food on hand to avoid this necessity. Now you can evaluate your situation and decide if you need to just hang-on, or take action to improve your chances. Waiting too long can be fatal, but so can taking a risk.

Reevaluate and improve

The First 72 Hours

If this is a true 72-hour emergency all you need to do is hang on. Rest, stay warm, conserve energy, drink water, signal for help, and do nothing to expose yourself to further hazards. This is the time for calm consideration, observation, and maybe cautious reconnaissance. Whatever happened may have now generated a breakdown in law and order, epidemics may have broken out. There may still be radioactive fallout or other contaminants in the air. Psychologically you are going to return to a safe mode or a “whatever it takes” mode as you prepare for the days and weeks to come.

Beyond 3-days?

In most cases you are going to make it if you got through three-days, but *if* it turns out to be an extended, wide area disaster where help will not be available for

weeks and things will not return to normal for months or longer, your chances of survival are still poor unless you have planned, prepared, and stocked up for a longer siege.

The Kit List

In case you have somehow missed seeing a recommended 72-hour survival kit list, here is one. While you can buy prepackaged kits, most of them are (in my view) poorly stocked and way overpriced. I recommend you go shopping and build your own kit for your needs. You really, really should get this put together today.

72-Hour Survival Kit List.

Backpack: I recommend a standard school or business backpack that will not attract undue attention.

Plastic bag with copies of your essential legal documents and identification

3, 1 pint bottled water or 1 full 32 oz canteen

Assorted energy/food bars adding up to 3000+ calories

1 N95 dust/mist respirator

1 plastic rain poncho

1 Space Blanket ™ reflective emergency blanket

1 pair of HD work gloves

1 multi-tool or Swiss-Army ™ knife

1 crank/battery powered AM/FM/Weather Band radio

1 4 – 10 LED Flashlight with extra batteries

1 12-hour light stick

1 whistle with lanyard

1 roll of electrical tape

1 box of waterproof camping matches

1 small first aid kit including assorted bandages, disinfectant, gauze, aspirin, and tweezers, eye drops, etc.

Paper and pencil for leaving and taking notes

Packaged Handy Wipes ™ or waterless hand cleaner and tissue

Optional items that may apply to your situation or be of use without adding much weight

- Spare glasses.
- Spare prescription medications
- A candle
- Heavy-duty aluminum foil 12 x 24”
- Water purification tablets
- Magnesium all weather fire starter
- Spare socks
- Wool cap
- Regional maps
- Handgun with spare magazine and ammunition
- Hunting size knife and/or small hatchet

The above list is by no means a “survival pack” or a “bug out bag,” but it is lightweight, low cost, and easy to assemble from local stores. It puts the owner way ahead of those who don’t have one ready in a serious emergency or evacuation. There is absolutely no excuse for not having one. I should also point out the considerable psychological comfort and sense of pride that comes from having your pack ready to go.

Ten Keys to Survival and Freedom

By Jim Jones

Having outlined the ten main threats to life and freedom in the twenty-first century in an earlier article, I thought it would be appropriate to provide ten key principles for survival and freedom. The majority of people are content to be dependent on the system to provide their means of shelter, nourishment, and health. These folks are like-wise content to let regulators and confiscators whittle away at their personal freedoms and independence. No one here is advocating that the sky is falling and we should all run to the hills and live in caves. We are just advocating that the people retain the right and the ability to protect their own life and liberty when necessary. A good citizen (survivalist) contributes to and benefits from participation in the social/economic system, but always maintains a mental and material capacity to survive without it. Education, employment, family, and community are all important to every-day survival. The better off you are in terms of education and income, the more resources you have for preparedness and survival. Since independence and individualism are the hallmarks of survivalists, their approach to life and freedom will differ widely. The four key elements that unify and motivate use are:

- The principals and values that we hold in common and use to guide our actions

- The missions and goals that we establish to defend and advance our principles and values

- The skills and knowledge we must acquire in order to achieve our missions and goals.

- The threats that we perceive as most dangerous to our survival and freedom and the future of our children.

Each of these has been detailed in numerous articles in Live Free publications over thirty years. The following actions will greatly improve any citizen's chances of staying alive, staying free, and thriving in the twenty-first century.

1. Always be able to provide water, food, shelter, and medical care for yourself and your family for at least six months.

2. Always have a survival pack ready to "grab and go" that will support survival under most conditions for one week.

3. Always carry items with you that could help assure short-term survival and escape

4. Always retain the capacity for effective armed resistance to crime and tyranny

5. Always preserve the knowledge and skills of survival, self-reliance, and self-defense.

6. Always be learning the most current technology in order to use it to advance and promote self-reliance and personal freedom.

7. Always be a responsible and helpful neighbor that is ready to help others in time of disaster or oppression.

8. Always be alert for current and developing threats to survival and liberty

9. Always resist legislation and regulation that would inhibit preparedness, self-reliance, and self-protection

10. Always respect the rights and property of others.

These simple actions by a major portion of the population can assure the continued freedom and prosperity of the nation.

BASIC HOME SAFETY AND PREPAREDNESS GUIDE

This guide has been prepared for *Live Free, International* by safety professionals, emergency medical technicians, and experienced survival instructors. Hazard selection is based on the most common causes of injury and death. Good safety practices and emergency preparedness can greatly increase individual survival and freedom.

HAZARD	**PREVENTIVE ACTION**	**PREPAREDNESS ACTION**
Slips and falls Check box [ ]	Home hazard inspection. Check stairs, carpets, flooring for tripping hazards. Install railings, improve lighting and install non-slip mats, etc.	Have first aid supplies, cold packs, splints and bandages. Have emergency phone numbers handy.
Home Fires Check box [ ]	Remove accumulated combustible trash and paper. Inspect wiring. Place all combustible liquids (fuel, paint, cleaners) in fireproof cabinets or separate storage away from the house. Be aware that smoking is the number one cause of home fires!	Have smoke detectors mounted in bedrooms and hallways. Have large size fire extinguishers in the kitchen, garage and workshop. Conduct fire escape drills. Designate escape routes and outside meeting place.

Carbon Monoxide Check box [ ]	Have furnace and water heater checked annually. Be sure all vents and chimneys are kept clear. Never ever run a car, mower, generator or other combustion powered device in a closed garage or basement. Never use charcoal burners indoors	Have at least one CO detector near where you sleep. If residents are experiencing drowsiness, headaches or unconsciousness DON'T WAIT! Get out to fresh air. Ventilate home. Call 911. Even gas stoves, dryers, fireplaces and barbecues can create deadly levels of CO.
Electrocution Check box [ ]	Replace all worn electrical cords. Place safety covers on unused outlets. Keep appliances such as radios and hair dryers away from bathtubs and pools. Avoid using power tools in wet weather our wet locations. Always use a test lamp or amp meter to assure that a circuit is really dead before working on it.	Know (label) locations of power cut offs and breakers for all circuits. Never touch a suspected electrocution victim until you are sure the electrical source is off or moved away. Learn CPR, it can often save an electrocution victim.
Poisoning Check box [ ]	Never take prescription medications not prescribed for you. Never mix medications without asking your doctor. Keep medications clearly identified and in a safe place. Keep toxic home chemicals such as cleaners and insecticides in a secure location away from children. Always read and follow label instructions.	Post the number of the poison control center. Stock poison antidote in your first aid kit. Follow instructions on containers for emergency aid.
Violent Crime Check box [ ]	BE ALERT! Know that criminals avoid alert looking people. Avoid establishing routine schedules and routes. Avoid flashy cars, jewelry, etc that may attract crime. If possible, avoid traveling alone. Listen to your senses! If it doesn't feel right or look right, get away. Keep car doors locked at all times. THINK! Never, ever get in a car or stay in a car with a criminal. You are much better off running from an armed criminal than going with one. Do the unexpected and stay alive.	Have a plan for fast action if attacked because the criminal depends on your being paralyzed and not thinking. Carry an appropriate weapon that you feel confident you can and will use. Stay fit and learn basic self-defense and escape moves
Burglary	Keep areas around window and doors	Have a plan for home

Check box [ ]	clear of bushes and places burglars can hide. Use Lexan, glass blocks, or steel grills to protect lower windows. Install good deadbolt locks on all exterior doors. Install motion activated lights outside. Use timers to activate lights when you are not at home. Leave the radio on to a talk station when not at home. Consider installing an alarm system or having a dog. Keep valuables and cash in a heavy safe or bank deposit box. You may need to move from a high crime area.	invasion. Have a “safe room” prepared for family defense. Do not go looking for a burglar. Call the police and stay put. Keep a cell phone near you (there are no wires to cut). If you get home and suspect a break-in has occurred DO NOT GO IN. Get away and call the police. Be alert! Many burglaries are committed by someone who has been in your house before.
Severe Storms Check box [ ]	Keep aware of the weather changes. Avoid travel if severe weather is predicted. Secure anything that could be picked up by the wind.	Have a shelter ready with emergency supplies (light, water, food, first aid, rescue tools) ready. Have tools and heavy plastic to cover roof and window damage, etc.
Power Outages Check box [ ]	Install self-charging emergency lights that go on when lights go off. Install surge protectors and backup power for computers	Stock flashlights and batteries, candles and lanterns. Consider purchasing a generator but be sure to store fuel safely and avoid carbon monoxide hazards.
Flooding Check box [ ]	Be alert! Do you live in a flood plain? Will development in your area effect drainage? Consider landscaping to route drainage.	Stock sandbags. Have at least two electrical sump pumps with a generator or batteries. In high-risk areas an inflatable boat may be a good investment.

Environmental Accidents Check box [ ]	Keep aware of the kind of industries and transportation in your area. If you live down-hill or down-wind of a nuclear or hazardous chemical plant consider moving	Have a good evacuation plan to take you out of the downhill, down-wind track of vapors and fallout. Have protective clothing and good respirators available. Know how to decontaminate.
Civil Disorder Check box [ ]	Keep aware of developing news and community conditions. Avoid living near or traveling through commercial areas that attract looters. Avoid living in high population density areas where crowds may gather. Consider the safest (not the shortest) routes to work, school, etc. Stay home and keep the family together in uncertain times.	Cover windows with chicken wire to stop rocks and fire bombs. Have buckets, hoses and extinguishers ready. Keep lights out and stay indoors. Establish a 24hr. watch schedule. Consider having large size pepper sprays or other appropriate weapons ready to defend life and property. Have an evacuation plan and route ready. Have what you need to survive ready in packs in case you have to run.
Use this row to plan to prevent and survive your special concern Check box [ ] Check box [ ]		

Now that you and your family are safe and prepared, how about helping your friends and neighbors?

BASIC EMERGENCY PREPAREDNESS

Preparedness Is the Duty of Every Responsible Citizen

This brief publication is intended for those responsible and concerned citizens who have recognized the hazards of our times and have determined to improve their own readiness for emergency situations

Introduction

It is amazing how many American's will spend thousands of dollars on video games, designer clothing, and CD players, but still not buy a fire extinguisher, a crank powered radio, or a good first aid kit. We may spend hundreds of hours each year playing games and watching TV, but put off learning basic skills of first aid, self-protection, or basic survival. Even simple things like storing extra water or making a home fire escape plan are often put off until too late. Even when we see horrific events like the 9/11 attacks, storms, and earthquakes, we quickly sink back into apathy. Unfortunately, bad things do happen. And they can happen to anyone, anywhere at any time. There just is no such thing as a safe place or a safe time, but you can be a safe person and have a safe family. While preparedness cannot guarantee your safety in all events, it can greatly improve your chances of survival and minimize the impact of any disaster. It is also the duty of responsible citizens in a free society to be prepared to help themselves, their neighbors, and their communities in times of crisis. The following checklists are intended to establish the minimum level of civilian preparedness for most emergencies. Your location, lifestyle, profession, travel routes, and concerns may indicate additional needs. Ask yourself: What can happen to my family and me? What could I do? What do I need to do now to improve my situation?

Basic Emergency Planning Checklist

Use this list to establish an emergency plan for you and your family.

1. Do you have clear and simple plans for each of the most probable emergencies that could happen to your family such as:

- Home fire [ ]
- Home invasion [ ]
- Power outages [ ]
- Earthquake [ ]
- Flood [ ]
- Civil disorder [ ]
- Street crime attack [ ]
- Medical emergency [ ]
- Biological / Chemical incident [ ]
- Storm [ ]

- Other _____ [ ]
- Other _____ [ ]

2. Are all family members fully aware of these plans? [ ]

3. Do you have plans, routes, and basic items for emergencies that could happen while you and family members are: in your car, at work, at school, on the street, etc.)? [ ]

4. Have you established escape routes and assembly points for emergencies when family members may not be home or may have to evacuate the home (fire, intruder) via different exits? [ ]

5. Do you have all the items and equipment (e.g. water, food, shelter, first aid, medications, sanitation, defense, etc.) to sustain your family for 30 days without support? [ ]

6. Will these supplies be safe and available in all anticipated (floods, fire, etc.) emergencies? [ ]

7. Would you be able to take supplies with you in your vehicle or on foot if you need to evacuate? [ ]

8. Have you reviewed emergency plans with your family for home fire evacuations, home intruder situations, etc. in the past 6 months? [ ]

9. Have you practiced your plans to be sure they work? [ ]

10. Have you considered the safety and survival of your pets in your planning? [ ]

Things You Should Know

1. Know the kinds of emergencies that are most likely to happen to you based on past and current weather events, crime patterns, nearby industrial and government facilities, recent trends, etc. [ ]

2. Know what your communities' emergency signal and plans are. [ ]

3. Know what the emergency plans, signals, and routes at your place of employment, school, etc. [ ]

4. Know a number of safe evacuation routes. [ ]

5. Know basic first aid, CPR, and self-protection techniques. [ ]

Emergency Preparedness Supplies Checklist

Here are the most basic items you need to have to survive emergency situations.

1. Water stored in clean plastic bottles. About 5-gallons per person. Add a few drops of bleach per gallon to assure safety or replace every three months. [ ]

2. A chemical (camp) toilet or plastic bags, 5-gallon pail and bleach. [ ]

3. Oil lanterns and/or candles plus good LED flashlights and batteries. [ ]

4. A battery or crank powered FM/AM/Weather Radio. [ ]

5. At least two large ABC fire extinguishers. [ ]

6. Heavy plastic sheeting, duct tape, and rope. [ ]

7. A fully stocked first-aid kit including bandages, compresses, tape, antibiotic ointments, burn cream, and a first aid manual. [ ]

8. Extra stocks of your needed over-the-counter and prescription medications. [ ]

9. Self-protection such as a handgun, shotgun, or at least large size pepper spray. [ ]

10. Extra blankets or sleeping bags for cold climate areas. [ ]

11. Propane camp stove and heaters with extra fuel. [ ]

12. Extra canned goods and/or dried foods (beans, rice, past, dried fruits) to feed the family for up to two weeks beyond what is normally in the home. [ ]

Options and Alternatives

1. You may want to keep all your emergency supplies in one or two tote-bins. This keeps them safe and dry. If you have to evacuate you can just throw them in your vehicle and go. [ ]

2. Some people prefer to make up “Emergency Back-Packs” that are

self-sufficient for each family member. These can be kept at home, carried in the vehicle, or carried if you have to walk to safety. [ ]

3. Add things like life jackets, gasmasks, rescue tools, signal flairs, rope ladders, etc. based on the situations you anticipate. [ ]

4. You may want to consider storing some or all of your supplies away from the home (shed, buried, etc.) if your concerns are fire, flood, earth quake, etc. where they might be destroyed or unavailable when you need them. [ ]

5. If you elect to have a firearm for self and family protection PLEASE take a safety course, keep them out of the reach of children, and learn the legal aspects and the skills of self-defense shooting. [ ]

Preparing For Emergencies

When there are signs of an impending there are some actions you can take to reduce the hazards.

1. Check your emergency supplies and have them ready to use or move to safety. [ ]

2. Be sure your vehicle is fully fueled and in good condition. [ ]

3. Fill your bathtub and other containers with as much water as you can. Don't forget there is clean water in your hot water heater and your toilet tank. [ ]

4. Be ready to turn off gas and electrical supplies to avoid fires. [ ]

5. Get the family together if possible before the emergency and be sure everyone knows what to do if you are separated. For example: "We will all meet at Uncle John's farm within two days". [ ]

6. Gather any high value personal items that you want to take with you. [ ]

7. Listen to emergency information on the radio and obey instructions. [ ]

We hope this information will help you and your loved-ones survive any future emergency. Most of these preparations take only a little time and the costs are modest compared to the potential savings of life and property. Even if you never need to use your plans and equipment, you will have the peace of mind that comes from knowing you did the responsible thing. There is much, much more to know about emergency

preparedness, survival and self-reliance.

URBAN & SUBURBAN SURVIVAL

While survival publications devote most of their text to rural and wilderness survival, the fact is that the great majority of the population and the great majority of survivalists live in or near urban areas. Most of us have jobs and families that make it necessary to stay near populated areas. These jobs are what pays for our survival supplies and of course our daily survival. Articles written by professional writers and survival gurus living in the wilds of Oregon or Montana seldom relate to working families living in Chicago or Atlanta. When the crunch comes, these folks are not going to need to know how to start a fire with flint or build a log cabin. They are going to have a whole set of life and death challenges immediately and long-term that will require planning, preparation, determination, and of course luck. Most will not have a fully stocked retreat to go to. They will have only their own supplies, survival pack, weapons, and perhaps a group of family members or neighbors to work with. Evacuation may not be practical or safe under many situations. Many have elderly parents or small children that will be difficult to move. Others may have physical conditions that make marching to the wilderness impossible. The surrounding areas and roads may be full of refugees and be more dangerous than the areas they left behind. In this article we will explore the challenges and options that face the majority of would-be survivors today.

Fire, Disease, Crime

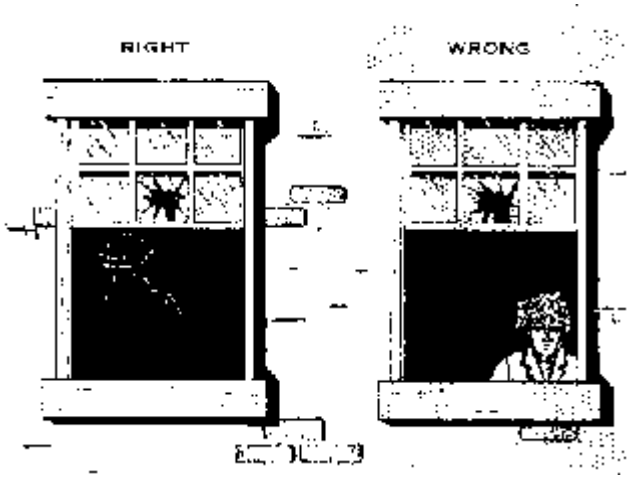
Fire, disease and crime are the three greatest threats to survival in the urban and suburban environment. Because of the concentration of buildings and population, all three can spread rapidly and all three are very difficult to stop by individual efforts. These are the three main reasons that may force evacuation. Apartment dwellers and those living in closely spaced homes will be more vulnerable to fire. Good fire extinguishers and water spray can put out small fires that are started by accidents (e.g. candles, heaters, etc.) or flying embers, but will not save you from big fires in close adjoining buildings. If your situation will require foraging for water and food outside the home, you will be more exposed to diseases. Being able to stay in place for several months may be your best defense. A well-armed, well stocked home may be defensible against small groups of looters, but not against larger gangs. An organized block or street defense group could be effective here. Of course, you are probably more exposed to diseases and crime as you evacuate through a populated area than if you stay at home. If these three threats are minimal and you are well stocked with food, water, and other essentials, you may want to stay put as long as possible.

Security and Reconnaissance

You need to know more about your environment than your environment knows about you. Before bad things start to happen (that means now) start scouting the area around your home in all directions. You need to do this on foot. The walks will be good

exercise. Look for routes, hiding places, shelter, alternate ways to cross streams, and highways. Consider how these areas will be in a crisis situation. Will there be looters, gangs, and roadblocks? If you can, walk the same areas at night to see what the lighting and shadows are like. You should know every block, street, and alley within a mile of your home. Drive out along your most likely routes of escape and explore alternate routes as well. Use binoculars and cameras as needed. Purchase good maps of the area and use Google Earth to explore the surrounding area. You can be sure that the criminals have already scouted out your community and have plans.

Once the crunch comes, you will need to keep a low profile while securing your base. No candles or lanterns visible at night. No smoke from the chimney during the day. No playing the radio, except low to monitor news, CB, and shortwave broadcasts. You will need to set up a 24-hour security watch. This can be 6-hours on and 6-hours off for two people or 3 x 8-hour shifts for three or more. Once security is established, you can make short reconnaissance patrols on foot. First, go just a block or two out and circle, then further out as safety permits. Use extreme caution. Do not approach people or houses! Do not get near stores where you may be mistaken for a looter. Stay near cover (stuff that stops bullets) and be ready to us it. Remember that there are a lot of bad folks out there and also a lot of scared folks with weapons. Use your binoculars to spot danger before you walk into it. You need to know how bad things are and what could be coming your way before it gets to you.



Safe and unsafe ways to observe from a window. Never silhouette yourself in a window or doorway. Stay back in the shadows.

Enemy Tactics

While gangs may lack formal training, they are capable of organized assaults and a variety of tactics. They use them today in the commission of crimes and will no doubt build on them when law and order break down. Be alert for these tactics.

Shock: This is simply a massive guns-blazing charge intended to paralyze and panic the victims. It depends on surprise. Fences, tripping hazards, and a high volume

of return fire will be the best defense.

Diversion: They will send a small group to keep you focused on the threat while another group closes in from another direction. Another variation is to send one or two people posing as victims needing help. They may use women and children for this. When you let down your guard, the others launch their assault.

Intimidation: They may use a show of force including a display of weapons and even random shooting, followed by threats to get you to lay down your arms. They may even promise you that they will let you all go if you comply. Yeah, right.

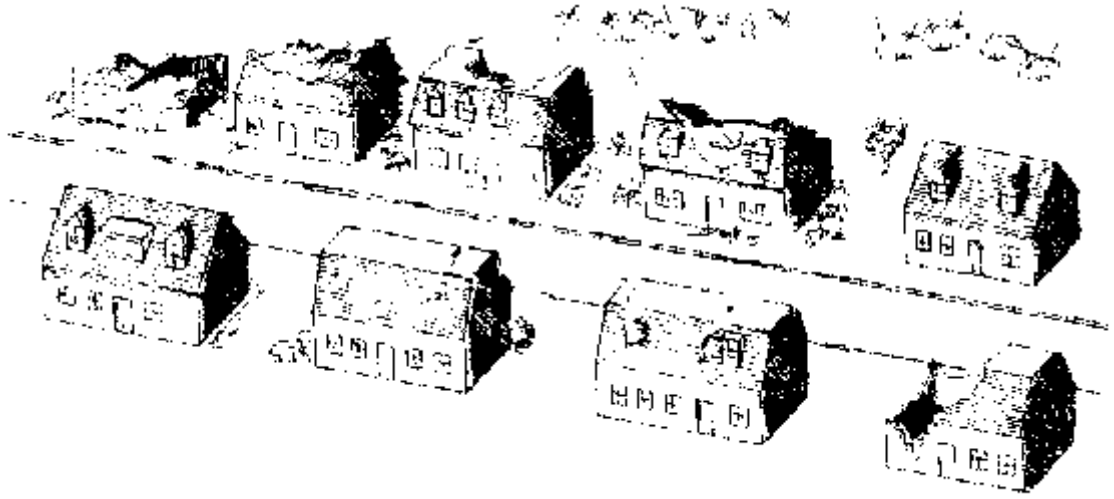
Infiltration: **They may send a seemingly helpless person to your door asking to be let in. This person or persons may seem grateful and even be helpful until they have your confidence. Remember that criminals are expert liars and actors. Then, like the Trojan Horse, they will take over and let their members in.**

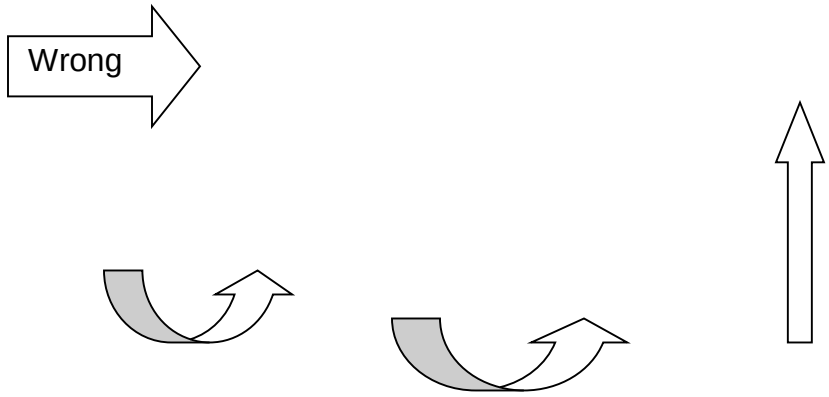
Ambush: Once out of your home you can get ambushed on every street. A sniper can lurk in every window. Alleys, utility easements, and cutting through yards is much safer than moving down streets. If caught in an ambush, move out of the kill zone to good cover fast. In an urban environment you probably will not be able to win a firefight against well protected shooters in buildings. Get out!

Evacuation and Escape

Traveling routes through urban and suburban areas under survival conditions is completely different from normal conditions. Streets and roads are where you are most likely to encounter gangs and be a target for snipers. If you are in a motor vehicle you should avoid main streets, commercial districts, and routes through apartment and high rise buildings. Routes through industrial areas and single-family houses will be somewhat safer. There are often service roads alongside railroad tracks and power lines that may be usable. Use side streets and alleys when possible. Use binoculars to observe the route ahead for dangers. You should be using street maps and satellite images to establish routes now. If on foot or bicycle, you can abandon streets altogether. In built up areas you can move down alleys and cut through and between buildings and rush across streets. In suburban areas there is usually a utility easement down the center of each block. You can use this and weave in and out of back yards. These back routes provide all kinds of cover and concealment from garages, sheds, trashcans, and trees. The open streets put you in a shooting gallery. Railroad right-of-ways and drainage channels offer clear routes, but no cover. These should be avoided in most cases unless they are well clear of buildings. If the lights are out and you know your route, night evacuation is a good option. Trouble locations will usually be sources of noise and light that can be avoided. Strict light and noise discipline, and staying together will be essential. Plan your movement so that you are out of the urban area, or at least into a good hiding place before dawn.

Evacuating to the countryside may seem appealing, but it should be weighed against the risks. Everyone else will be doing the same thing. Once on the road you will be subject to the weather, bandits, government intervention, crowds of refugees, and possible diseases. Your supplies will be limited to what you can carry and defend. So, unless you have a reachable and secure cache or retreat location, evacuation should be a last resort. But, evacuation is an option you must have. So you must have your evacuation pack, routes and plans ready.





Wrong way to move **going down the street**

Right way to move from rear yard to rear yard and across between buildings using smoke or covering fire from friends if available.

Apartments

If you live in an apartment building your survival options are limited. Your escape routes are down the halls. Your supplies are limited to a closet, and everyone else in the building endangers you. You could be trapped by criminals or a fire started by another tenant. Have an escape ladder or rope to get down to the ground in an emergency. Have an axe or other tool capable of chopping through walls into

adjoining apartments to escape. Have a handgun with a high capacity magazine and plenty of extra magazines to lay down suppressive fire during an escape or defense. You are much more likely to have to evacuate and your route will most likely be longer and through more urban areas. Your pack will have to be lighter and you will need more short range firepower such as a shotgun, carbine, or handgun. Smoke grenades may also be helpful for crossing open areas. You will definitely need to scout out several routes ahead of time. Since you will not be able to stay put and you will have to travel light, a cache of survival supplies (e.g. food, medical, shelter, water, ammo, etc.) will be critical. Consider storing things in an outlying rental storage unit or with a friend who lives in a safer area.

Urban House or Townhouse

If you live in an urban house or townhouse, any fires in adjoining buildings will spread and burn you out. You only have the front and back to defend, but they are also your only escape routes. You may be able to move across the roofs to escape, but so can the bad guys. You probably have limited space for storing water, fuel and supplies. If the house next door is set on fire or occupied by criminals, you are going to have to evacuate fast. Your needs are much the same as the apartment dweller above.

Single Family Homes

If you live in a single-family house in a suburban environment you have some advantages. You have storage space for everything you need and enough privacy to make preparations without attracting attention. Houses are spaced far enough apart to be at least somewhat defendable and safer from spreading fires. If you are well away from main roads and commercial districts, looters and gangs may bypass you. Your local police and fire department, together with volunteer groups, may be able to maintain some level of security. Fortifying your home before things get bad will attract unwanted attention and may violate town regulations, but you can put up fences and hedges, reinforce doors, and stock up on wire mesh to cover windows. You will need to have sufficient chicken wire to cover windows against rocks and firebombs. Pre-cut plywood with observation ports is even better. You can mount the hangers for these without attracting attention.

You will need to have several hundred gallons of water available for fire suppression. While you may not be able to fight a full-blown fire, you can put out firebombs, and fires started from adjoining structures. You will need enough pump power to wet down your roof and exposed walls. Have your evacuation packs near the exits just in case the fire wins.

During World War Two, the residents of European cities buried their valuables in the yard so they could recover them if the house was bombed. You may want to prepare a similar secure place for such items. In the first few weeks' looters will generally stick to areas where there are stores, but then they will start exploring the residential areas. They may be armed, but should be deterred by gunfire since there are plenty of easy sources of loot. Criminal gangs will be looking for loot and people to use. They will be well-armed and more organized. They will use stealth, lies, and flanking tactics to kill or capture you and your family. Usually, they will hit others in

your community before they get to you. If these folks are coming your way, you have to make a decision fast. If they are in great numbers you may need to evacuate and take your chances on the road. If your position is strong, you may elect to hold and hope they will pass you by or you can fight them off. A third option would be to ambush them before they get to you. This is risky, but it could eliminate or reroute them and let you stay in your home.

Desperate neighbors are another problem. After a few weeks the unprepared will become a threat. They may be armed and start looting and shooting. If you have extra weapons and food you may want to consider taking a few close, trustworthy neighbors into your survival perimeter. This would increase your security and capacity to fight off attacks. Help those you can, but be ready to stop those who endanger you and your family. The first 4 to 8 weeks of the crisis will be the most dangerous. The looters, and criminals, and unprepared will die or move on by then. If you made it through this period, you are now faced with living in a sparsely populated town with no power, water, or sanitation system. Rats, feral dogs, and insects will abound. Your stored water and food will start to run short, but you will have a roof over your head and all of your tools and equipment. Foraging patrols and gardening may help supply food. Water can be gathered from the roof and rain. Trash and human waste can be burned or buried well away from your house.

The Preemptive Option

All of the above scenarios assume that you are hunkered-down in a low profile, defensive posture. In many cases this may be the only option you have, but if you have a number of family members, neighbors, or friends organized in the immediate area that are well-armed and equipped with radios, you may have the capacity to stop trouble outside your area. Gangs come down streets. Streets can be blocked and covered by armed citizens. Fire spreads from house to house, but can be stopped from jumping streets so if you can prevent gangs and looters from crossing the next street in each direction your block is relatively safe.

This would require a 24-hour watch covering all directions and a ready-response group to quickly stop any intruders before they get close enough to penetrate your block. Getting to know your neighbors, becoming a crime watch leader, or other volunteer work may prepare you for this option. Military manuals such as FM 90-10 Military Operations on Urbanized Terrain (MOUT) offer little help for civilians defending against mobs and gangs. Civilians will not have fire support, heavy weapons, or barbed wire and sandbags. Understanding basic use of such techniques as cover and concealment, bounding overwatch, and fire discipline will be of use.

Conclusions

Anyone caught in an urban or suburban environment when water, heat, electricity, and public services collapse is going to face immediate hazards that will be greater than those faced in rural areas. Evacuation may not be practical and may be even more dangerous than staying put. While the evacuation option must be kept open through planning and equipment, it is essential to consider holding in place at

least for the first few weeks of a crisis. Regardless of your situation, you *must* be prepared to hold out for many weeks without outside help. If the community remains viable through the first weeks and months of a collapse, it may adjust into a self-reliant and sustainable environment. But you must also be prepared to evacuate with enough food, water, arms, and essential supplies to get clear of populated areas if you must.

SURVIVAL SKILLS

There are literally hundreds of good “survival manuals.” Some are focused on wilderness survival, others cover home preparedness, and still others provide ways to become self-sufficient. The subject of “survival” is so broad that almost any skills can have survival applications. The articles to follow cover only a small number of these skills, but with our particular perspective.

The Root Value of Survival Training

As a professional industrial safety trainer and experienced survival/self-reliance educator, I feel somewhat qualified to address the subject of training and its value. More importantly, I have had the opportunity to observe the long-term effects of training on individuals and groups over several decades. I even know a number of people who were exposed to survival/self-reliance training from childhood and are now friends of mine with families of their own.

People often make the mistake of thinking that having a lot of “stuff” and reading some books is a substitute for real hands-on training. It is not. Equipment and information alone does not necessarily assure capability. Some folks feel that having survived in their particular environment (e.g. “a country boy can survive” or “I did good in the hood”) means they can handle anything. Having successfully adapted to one environment does not necessarily confer survival in a new environment or situation. While the most obvious goal of training is to learn the skill being taught, it is not always the most valuable benefit. I know only a few people who have actually had to start a fire with flint and steel, engage in armed combat, live off the land, or decontaminate themselves from a chemical or biological exposure in a real life or death situation. In fact, it is somewhat paradoxical that the very people who are most inclined to learn survival and self-reliance skills are the best at recognizing and avoiding those situations where they would need to use them. Of course as the NRA says, “Better to have it and not need it, than need it and not have it”.

From my observation, the major benefits of real survival training are psychological and philosophical. While the trainee may or may not ever use the specific skills acquired, they gain and reinforce their self-confidence, self-respect, and “can-do” attitude that enhances their lives in and out of survival situations. They seem to handle stress better and be less controlled by outside events and conditions. They learn that they can look within themselves for strength and make good choices based on responsible life and freedom imperatives. They are better, stronger, and freer individuals from the training experience. This applies to all manner of training. From wilderness treks and combat courses to medical drills and hard-core tests. You do not have to be a “gung ho” would be Rambo type to benefit. You don’t even have to be good at everything to benefit. Though, obviously, harder training and good performance is desirable. Any level of survival/self-reliance training in any related subject will put the participant ahead of most people in important ways. It is not so

much what you learn as the fact *that* you learn and seek to learn self/reliance that pays off in the future.

FIRST AID OR DIE!

When *Live Free* started out waaaay back in the late 60s, we were mainly an outdoor sports (e.g. shooing, climbing, rafting, camping, etc.) club. Our survival interests were limited to outdoor emergencies. We soon realized that injuries that occurred far into the swamps, forests, mountains, and caves had far more serious implications than the same injuries occurring in town where prompt and professional medical care was minutes away. Many of us took Red Cross first aid classes and a few of us went further to become EMTs. As *Live Free* moved into the fields of disaster preparedness and self-reliance, it became obvious that first aid would be an essential skill for these situations as well. While *first* aid was the *first* need for disaster survival it is not enough because medical help may not come at all. So we began building knowledge of more advanced medical skills. We also had some classes on alternative medical techniques. For some time we actually had our own medical aid team. Unfortunately, we lost most (not all) of our best “medics” in the 90s when preparedness and survival became dirty words. Today we see our chapters building more and more effective local survival systems. There is lots of training in shooting, self-defense, food preservation, water purification and other subjects, but (in my view) not enough first aid and medical related training. There are three imperatives for every family a group to consider:

1. Every scenario for disasters of any kind involvers a dramatic increase in the potential for serious injury and/or illness. This includes wounds, infections, burns, communicable diseases, poisoning, cold and heat exposure, and more

2. None of these scenarios involve the probable accessibility of professional medical services.

3. Without available first aid skills and medical supplies, your chances of immediate and long-term survival are significantly reduced.

It would be tragic indeed to die of blood loss, infection, or other treatable conditions after learning all those other skills and gathering all those supplies. In addition to the three imperatives above there is the moral (and practical) benefit of being able to help your family, neighbors, and community. Being able to reduce pain and save lives makes you a popular and valued person or group.

This publication is too small and has too much to cover to provide any kind of complete first aid information. What we can and will do is try to include some basic first aid information and tips in every issue. We will also work on adding some more comprehensive first aid material and videos to the website. We can also review some related books and products. We do have full first aid courses that we can do at Camp

Independence and other events, but only a few instructors available. Meanwhile, every member and chapter should:

- Find ways to do a basic first aid class every year.

- Sponsor members to take advanced first aid, outdoor medic, or EMT training and then become the group's medic and trainer.

- If possible, recruit EMTs, Paramedics, Doctors, RNs and other medical professionals.

- Maintain stocks of medical supplies, medications, and medical books.

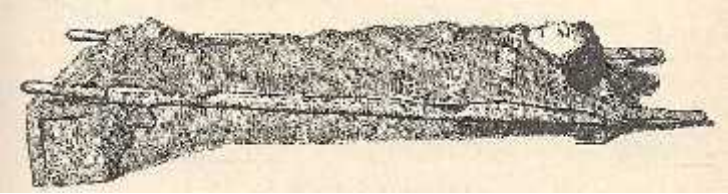
In future articles we will cover some essential first aid skill for handling the most common serious injuries. Hypovolemic shock, stopping arterial bleeding, basic bandaging and splinting, spinal immobilization, and improvised stretchers. We will only cover two non-traumatic medical conditions, hypothermia and hyperthermia. Of course this leaves a whole host of serious trauma and illnesses for the reader to learn about else ware.

BASIC FIRST AID: **SHOCK**

Shock is a life threatening medical emergency caused by the loss of blood pressure in the circulatory system. Hypovolemic shock results from insufficient blood volume to profuse the body cells with oxygen and nutrients. The body begins to die and the process may be irreversible if blood pressure to vital organs and the brain is not restored *quickly***.** This is usually the result of severe bleeding, but can be caused by a loss of fluids from severe burns or prolonged illness. Head injuries and psychological trauma can cause the expansion of the blood vessels resulting in lowering of pressure in the system. The signs, symptoms, and treatment of hypovolemic shock are the same regardless of the cause. As soon as breathing and pulse are established and severe bleeding is stopped, evaluate and treat for shock

Signs and Symptoms of Shock
•Restlessness and anxiety
•Weak and rapid (+80 p/m) pulse
•Cold and wet skin
•Profuse sweating
•Paleness may go to cyanosis (blue)
•Shallow, labored, rapid (+18 p/m) breathing
•Dull listless eyes with dilated pupils
•Thirst
•Nausea and vomiting
•Steadily falling blood pressure (- 100 mm Hg Systolic)
•Loss of consciousness. Late Stage!

Prevention and Treatment of Shock
•Maintain breath and pulse as needed
•Stop severe bleeding
•Elevate lower extremities 12 inches
•Splint fractures as needed
•Handle gently
•Keep patient comfortably warm.
•Do not give any liquids (can cause vomiting, etc.) but you can moisten lips.
•Check pulse, breathing, blood pressure every 5 minutes



Rehydration Solution

Dehydration is one of the primary causes of death secondary to shock, heat stroke, radiation sickness, and many communicable diseases. If ambulance and ER treatment is not immediately available and the patient is fully conscious, oral hydration can be sustained using the following solution.

8 tsp. of sugar, 1 tsp. of salt to 1 liter of water. Provide small 4 oz drinks every hour

Caution: giving water or other liquids to an unconscious, semi-conscious, or seriously injured patient may cause them to vomit and aspirate resulting in pneumonia. Generally, these patients can be rehydrated by intravenous methods at the ER

BASIC FIRST AID: **ARTERIAL BLEEDING**

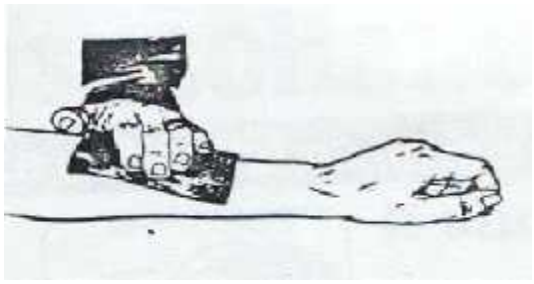
Severe bleeding is a true life-threatening emergency that you must find and treat as soon as you have established that the victim is breathing and has a pulse. The loss of anything near two pints of blood is serious. Dark red flowing blood is venous bleeding to be treated as second priority. Bright red spurting blood is arterial bleeding to be treated (stopped) immediately!

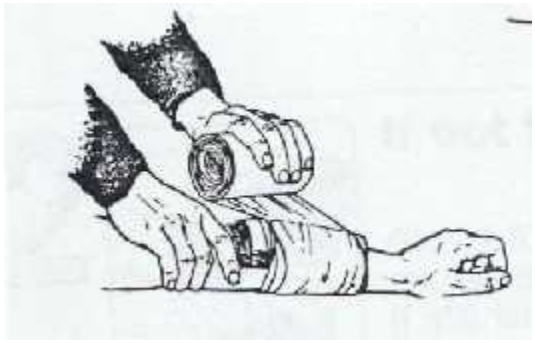
Direct Pressure over the wound: Place any kind of cloth or gauze pad on the wound and apply hand pressure.

•If the dressing soaks through, pile on more dressings but never remove the

first one.

•Secure the dressings firmly in place with tape or cloth, but not so tight that it cuts of circulation to the limb. Check the distal pulse.





Elevation of bleeding limb above the heart level.

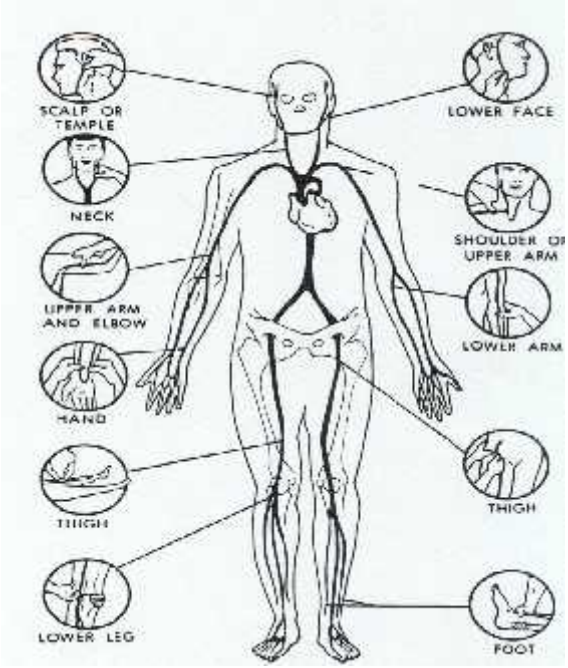
•Usually used in combination with direct pressure.

•May need to quickly splint limb if fractures are present

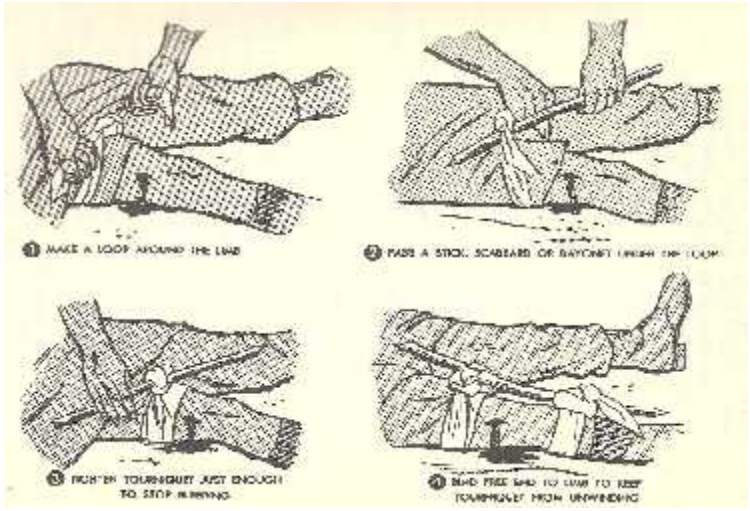
Digital Pressure on arteries.

•Only if direct pressure and elevation fail.

•Hard to maintain for extended time



Tourniquets are now an option when you need to self-rescue or no other method works



BASIC FIRST AID: **BASIC SPLINTING**

Any kind of musculoskeletal injury can be fatal under survival conditions. Extra care must be taken to avoid this kind of injury. Being disabled may prevent you from escaping further danger and inhibit your ability to take necessary survival actions. Effective splinting can partially restore mobility and prevent further injury to the limb. In

extreme cases, splinting may be the only treatment available in the long-term. It can be difficult to determine the difference between a simple strain and more serious sprains. Even fractures are often hard to identify. Dislocations of joints are usually very obvious. The resetting of dislocations and badly out of alignment bones is beyond the scope of this article. When in doubt, splint

Strains are a stretching or tearing of muscles only

Sprains are a partial or temporary dislocation of a joint resulting in damage to ligaments

Both of these can be treated by the three I. C. E actions

•I = Immobilize the injured joint with a splint or elastic bandage
•C = Cool the injured joint with ice packs to reduce pain and swelling
•E = Elevate the injured joint to reduce pain and swelling

Signs of musculoskeletal injuries

•Pain at the injury site
•Bruising at the injury site
•Swelling at the injury site
•Loss of function of the limb
•Deformity of the limb.

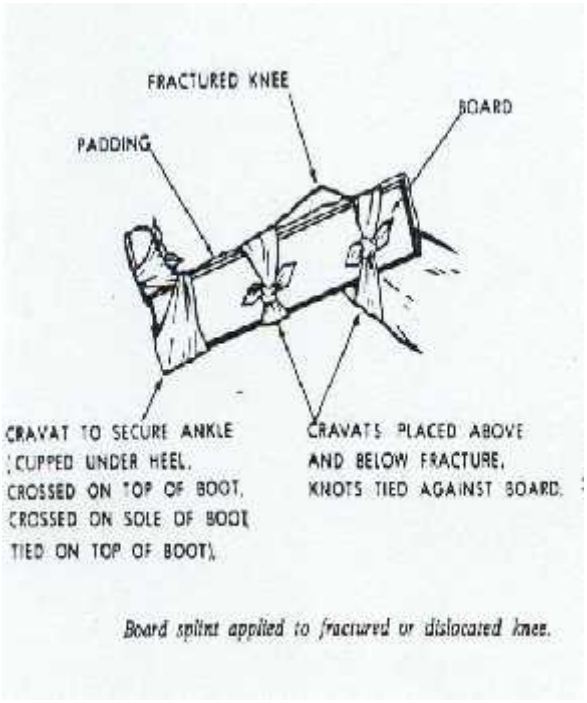
Diagnosing Injuries

•If in doubt (strain, sprain, fracture?) treat it as a fracture.
•Check for deformity by matching the injured limb against the uninjured limb
•Consider the forces involved (bullet, baseball bat, fall). Would this likely cause a fracture?

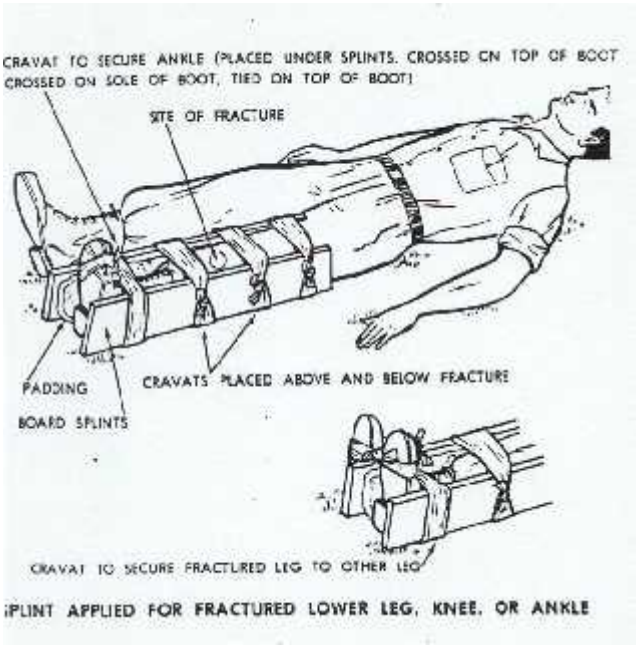
Splinting Procedures

- •Check for pulse and feeling and movement below the fracture. If there is no pulse the victim is in danger of losing the limb!
- •If there is an open fracture where bone is exposed (visible or not visible) stop the bleeding and cover the wound before splinting.
- •Splint the fracture or dislocation in the position you found it. DO NOT attempt to realign or reduce it.
- •Only in cases where there is no pulse below the fracture before or after splinting and no hope of prompt medical attention you may need to try realigning the bones enough to restore the pulse.
- •Anything (newspapers, magazines, blanket, etc) that will keep the bone or joint from moving is good.
- •If nothing else is available, splint the injured limb to the body or uninjured adjoining limb.
- •For fractures you must immobilize the joint on either side of the fractured bone.
- •For dislocations you must splint from the bone on one side to the bone on the other side of the joint.

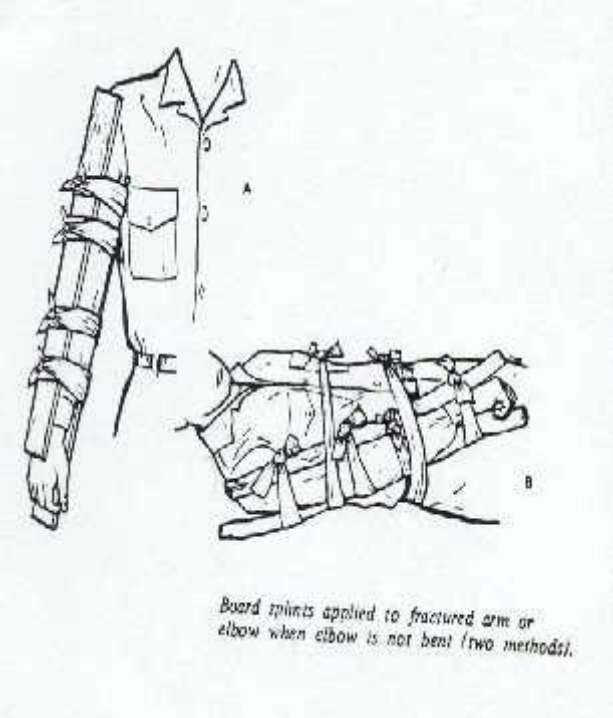
- •Always check the pulse below the fracture before and after splinting.



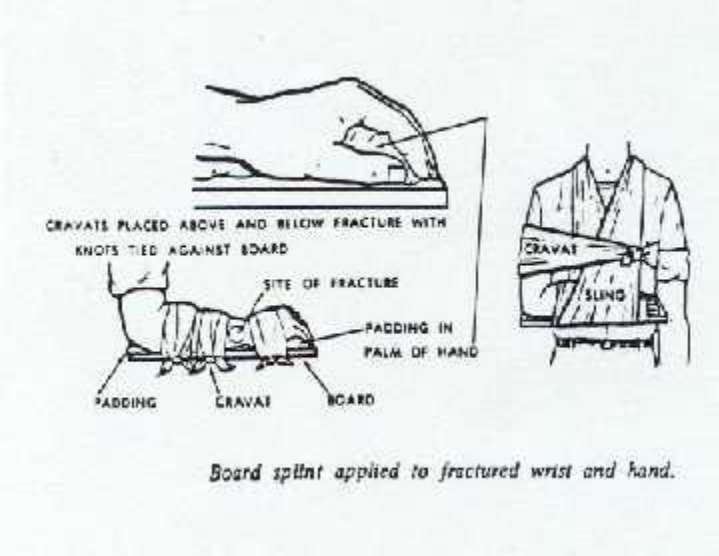
Board splint applied to fractured or dislocated knee.



SPLINT APPLIED FOR FRACTURED LOWER LEG, KNEE, OR ANKLE



Board splints applied to fractured arm or elbow when elbow is not bent (two methods).



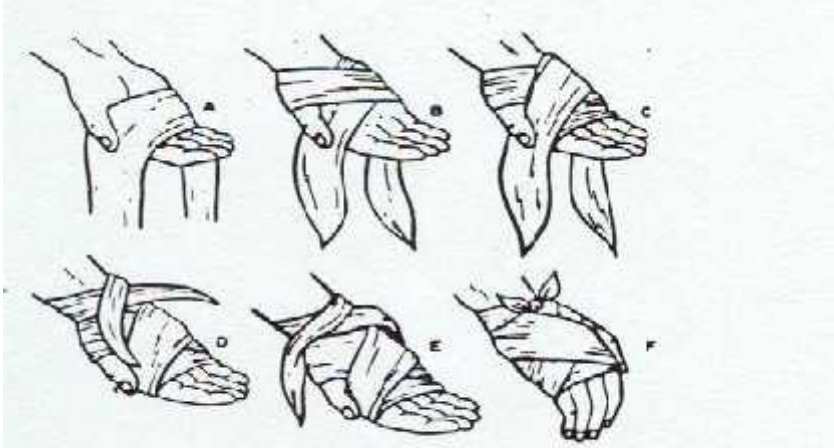
Board splint applied to fractured wrist and hand.

BASIC FIRST AID: **BASIC BANDAGING**

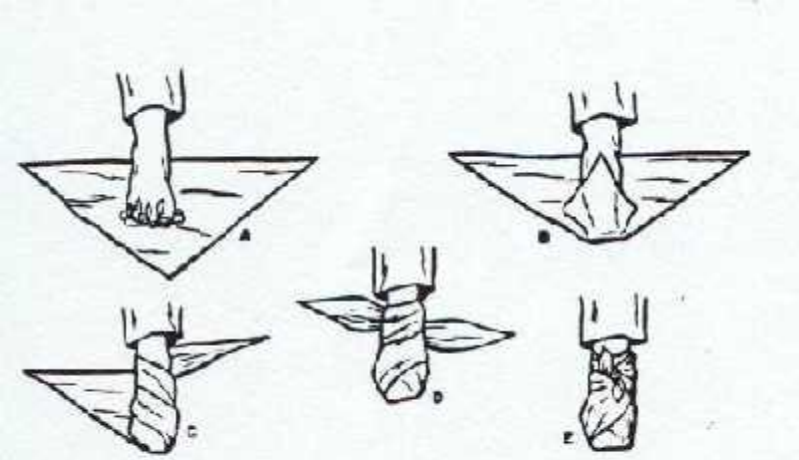
Lacerations, abrasions, and burns are common injuries. They are almost assured to happen during a survival situation. These “soft tissue” injuries must be cleaned and bandaged effectively to relieve pain, prevent infection, and allow the injured person to continue functioning. In survival, only the walking, working wounded will be able to survive. You may not have all of the prepackaged, self-adhesive bandaging products that we are all now used to using. You may need to use triangles and strips of clean or preferably sterile cloth for bandaging. Dressings may be secured

with Saran Wrap ™ , duct tape or electrical tape. Here are the basic procedures for bandaging and a few illustrated examples.

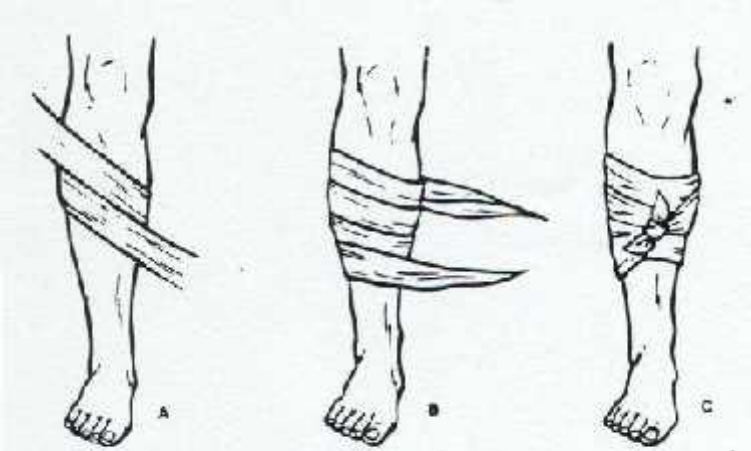
- •If the wound is bleeding heavily, your only priority is to stop the bleeding!
- •Freely bleeding wounds should be covered with a sterile dressing bandaged in place.
- •Abrasions and shallow wounds should be cleaned with soap and water, and covered with a sterile dressing.
- •For skin flaps: flush with clean water and replace flap before applying dressing
- •For separated skin: apply dressing to wound and keep skin dry and cool for reattachment.•A sterile dressing is preferred, but a clean dressing is better than no dressing.
- •Soap and water are adequate for wound treatment. Alcohol, iodine etc. are not recommended.•Dirty wounds can be flushed with clean water or saline (salt) solution from a squirt bottle.
- •Extensive cleaning (debridement) or removal of debris from a wound should be avoided unless medical care is not available.



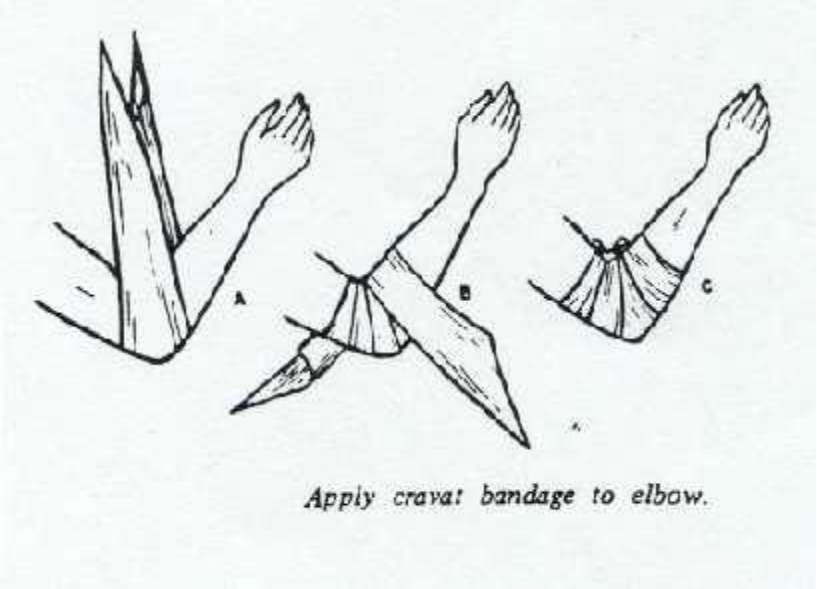
Applying cravat bandage to palm of hand.



Applying triangular bandage to foot.



Applying cravat bandage to leg.



Apply cravat bandage to elbow.

BASIC FIRST AID: **PATENT PACKAGING & TRANSPORTATION**

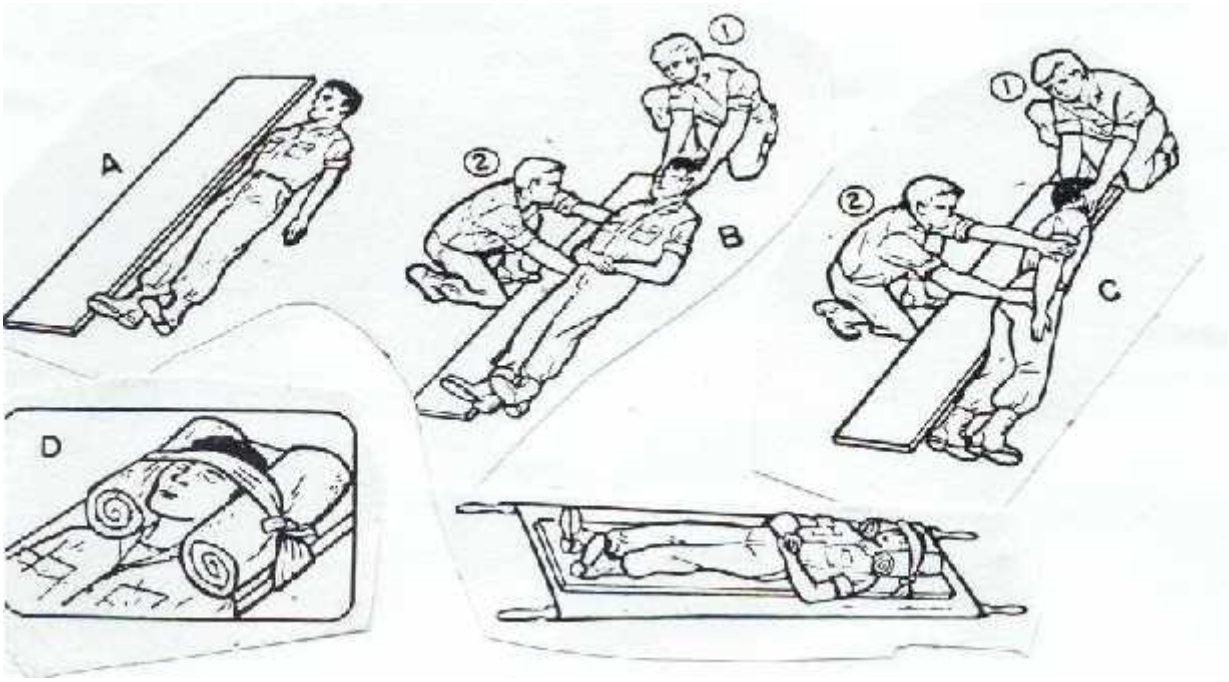
- •If normal/professional medical care is coming and the victim is not in immediate danger DO NOT MOVE THE VICTIM.
- •If the victim is in immediate danger (fire, explosion, collapse) of further harm, use the fastest drags or carries to get them to safety
- •If the victim is ill or has only localized injuries (single fractures, cuts, etc.) you may use any improvised stretcher
- *•If the victim has suffered general trauma such as a fall or auto collision, the cervical (neck) spine must be secured from movement in the natural (eyes front) position before moving. This victim should be secured to a board or other ridged object for transport*

Best positions for victims depending on the nature of the injury

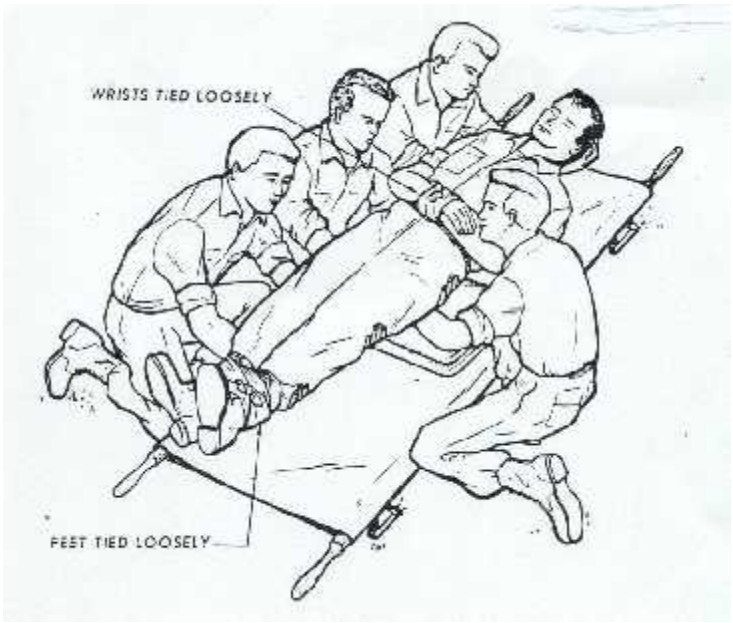
•SUPIN: for most serious injuries or illnesses
•SITTING: for non-serious injuries or illness and for respiratory distress
•ON SIDE: for unconscious without possible spine injury
•FEET OR FOOT OF LITTER RAISED 12": for shock
•HEAD END OF LITTER RAISED: for head injury
•SUPIN WITH KNEES RAISED: For abdominal injuries
•ON INJURED SIDE: for lung injury, flail chest, etc.
Log rolling a victim onto a board or stretcher while maintaining spinal alignment.

Several people may be involved in rolling the victim while another shoves the board or stretcher into place. It is most important that the person holding the head is the one in charge of the movement. "On my count, 1 – 2 - 3 roll." Then once the board

is in place “On my count, 1 – 2 – 3 roll” back. The head, torso, and legs must move together to avoid spinal injuries.



Lifting a victim on to a starchier



Improvised method to immobilize the cervical spine

BASIC FIRST AID: **HYPERTHERMIA**

Heat Related Emergencies

•Maintaining good hydration, limiting physical activities, and frequent rest in the shade can prevent most heat related illnesses

Three Kinds of Heat Related Illnesses are:

- •Heat Cramps are muscle cramps caused by depletion of fluid and electrolytes and is easily treated with rest in the shade and water
- •Heat Exhaustion can be more serious, but is still easily correctable
- **•Heat Stroke is a life threatening medical emergency that must be treated quickly and aggressively**

Signs and Symptoms of Heat Exhaustion

•Weak
•Dizzy
•Pale
•Cold wet skin
••**COOL & DAMP**

Treatment of Heat Exhaustion

•Get victim to cool place, A/C, shade, etc.
•Elevate legs as for shock
•Give cool (not cold) liquids
•Keep victim resting
•Consider calling 911if child, old, sick, etc.

Signs and Symptoms of Heat Stroke

•Weak
•Dizzy
•Headache
•Dry Skin (no sweat!)
•Red color to skin
••**DRY & RED**

Treatment of Heat Stroke

•Cool this victim rapidly by any means available. Cold bath cold packs, hose down, etc.
•Call 911 immediately
•If victim's body temperature is not reduced, brain damage and death will result
BASIC FIRST AID: **HYPOTHERMIA**

Cold Related Emergencies

•The two main cold related illnesses are frostbite (injury?) and hypothermia (exposure).
•Frostbite can cost a limb
•Hypothermia can kill
•Hypothermia can occur in cold or just cool wet (45-50 degrees) weather.
•Once Hypothermia starts it is difficult to stop and will continue to get worse and to kill even after the victim is brought into a warm environment

Signs and Symptoms of Frostbite

•Skin is pale and white

•Area is numb or has no feeling at all

•Stiff, hard, leathery

•The ears, nose, fingers and toes are usually affected first

•After feeling very cold the area, the stops feeling anything, but will become very painful when thawed

Treatment of Frostbite

•Do not rub a frost bitten part!

•Place in warm not over 105 degree f. water.

•Once thawed, wrap in soft bandages

•Do not expose a thawed part to the danger of refreezing

•Get medical attention for deep (black dead tissue) frost bite

•Be alert for infection

Signs and Symptoms of Hypothermia (Exposure)

•Shivering is an early warning

•Sleepy and listless

•Slow slurred speech

•Stumbling gate

•Unconsciousness

•Death

Treatment of Hypothermia

•Get the victim out of the cold and out of cold, wet clothing

•CAUTION: You cannot rapidly rewarm the victim as it can cause cardiac arrest.

•If conscious give warm liquids

•Place hot pads around neck, groin, and armpits
•Place in sleeping bag with hot pads, another person, etc

Body Temperatures and Signs
•99-98 degrees: shivering
•95-91degrees: violent shivering, slurred speech, poor coordination, staggering
•85-81 degrees: irrational, stupor, slow respiration, and pulps
•80 > degrees: Unconsciousness, cardiac failure, death.

CAUTION!
Advanced hypothermia cannot be reversed in the field by simply bringing them into a warm environment. They will die unless you get them to an emergency room fast.

Dakin's Solution for Deep Wound Care

The reader may be familiar with the gruesome descriptions of Civil War field hospitals where surgeons were quick to amputate wounded limbs as the only way to prevent gangrene from killing the patient. Before the 20th century, a deep, penetrating wound from a bayonet, shrapnel, or musket ball almost always became infected. Wounds to the arms and legs that did not cause fatal blood loss and shock still killed. Battle statistics that show killed and wounded are misleading because a large percentage of the "wounded" died a few days or weeks later from septic wounds. Although accurate statistics are hard to find, it is likely that well over 50-percent of those with serious wounds died from various complications within a few weeks. Exposed wounds can be effectively cleaned and washed, and are much less prone to infection than deep wounds.

The main problem is that deep wounds are difficult to clean and are highly contaminate and ideal for biological growth. This lead to the development of "gas gangrene." Gangrene is tissue death and gas gangrene is a severe form caused by the Clostridium perfringens or from Group A Streptococcus. In deep wound the low oxygen conditions produce toxins that kill tissue. While the cases of gangrene and gas gangrene are fairly rare (1,000-3,000 annular) in the U.S. today, it could be a serious and common problem under survival conditions. With the introduction of antibiotics and well-organized medical care, the fatality rate from deep wound in World War Two dropped to one in seven. During World War One there were no antibiotics, but the necessity for amputations was still greatly reduced and the chances of surviving a deep wound were improved by the use of something called "Dakin's Solution".

"Dakin's Solution" was an antiseptic fluid developed by a British chemist and a French-American surgeon. This was basically a 1/10 strength Clorox, with a little boric acid in sterile water. They would simply place a tube in the wound and run the fluid over/through the wound. The solution would kill germs and dissolve dead tissue without harming healthy tissue. Studies indicate that solutions weaker than .025% are ineffective and stronger than .25% kill healthy tissue so a .025%-.050 solution is recommended. The wound needs to be kept open and flushed frequently, as the solution remains effective for a short time on the wound. With the growing threat of antibiotic-resistant strains of Staph and the possibility of shortages of antibiotics in a large-scale emergency, "Dakin's Solution" might be something to consider. In an emergency one could make up the solution from available bleach and boric acid, but it can be purchased on-line from the http://woundcareshop.safeshopper for $16.20 per 16 oz bottle. Some doctors still prescribe Dakin's for wound care so some pharmacists may have it.

EDIBLE WILD PLANTS

There are plenty of great books on edible and medicinal wild plants. Every survival library should include at least one of these books. This book is limited by space and the lack of colored illustrations. Therefore we will limit this article to the most common edible plants that are easy to identify by shape and location. Many of the plants covered are common in urban and suburban lots and parks. I would recommend washing all wild plants before consumption to remove contamination. In an extreme survival situation, you may be forced to try unidentified plants for edibility. In a survival situation, you need nourishment, but you cannot afford to become ill, so pass up any plant that seems questionable. I would pass on any kind of mushrooms period. It may be better to spend a few hours testing available plants for edibility than spending time and energy searching for known edibles. Don't wait until you are out of food and hungry to start foraging for edible plants. A rapid shift from prepared food to wild edibles (even safe ones) will result in cramps, nausea, and diarrhea. These conditions result in the loss of nutrition and dehydration. Consider having salt, bullion cubes, and other seasoning in your survival pack to make these unfamiliar plants more appetizing.

Here is the standard way to safely test for the edibility of a plant.

1. Rub a small amount of the plant juice from leaves or roots on the back of your hand. If no irritation or rash develops after 30-minutes

2. Chew a small quantity and spit it out. Do not swallow any! If there are no ill effects after one-hour

3. Chew and swallow a very small amount. If you are not ill in the next 4-6 hours

4. Repeat the process

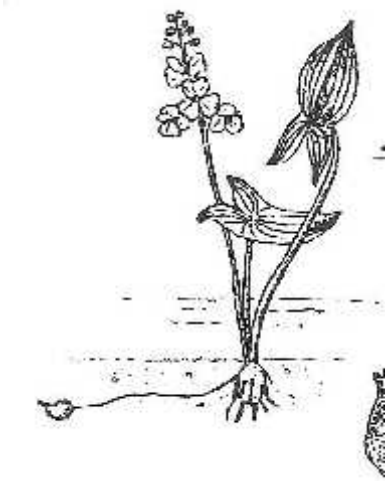
5. If there are still no ill effects you can assume the plant is safe to eat

6. If there is any indication of poisoning, induce vomiting immediately

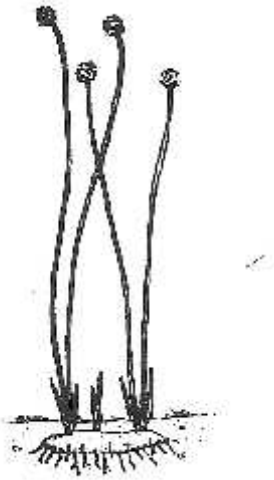
Spend some time looking for these plants in your local area. You are sure to find some of them. Try them in a salad or cooked.

Adderstonge- a low plant 5-10 inches tall consisting of pairs of mottled oblong-elliptic leaves with a 6 petaled yellow, violet, or white flower on a separated short stalk. Found throughout the US in moist woods in early spring and late fall. The bulb is edible when cooked but eat sparingly. Spring leaves can be used as greens

Arrowhead- a small plant found throughout the US in wet ground and shallow water. Arrow-shaped leaves appear at the end of individual stems. Flowers appear on separated stems. Boiled or backed bulb tastes like potatoes. Follow the threadlike root down to find the bulb. *



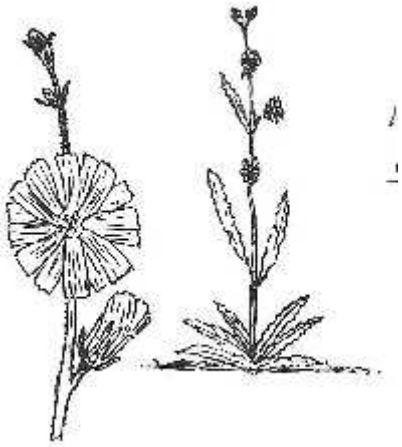
Bull Rushes- A small marsh, grass-like plant, consisting of a long stem with small seeds at the upper end. Light green in color. Found in slow streams, marshes, and at the edge of lakes. The base of the stalk and young shoots are edible raw or cooked. Young roots are edible. Roots may be dried and pounded into flower. *



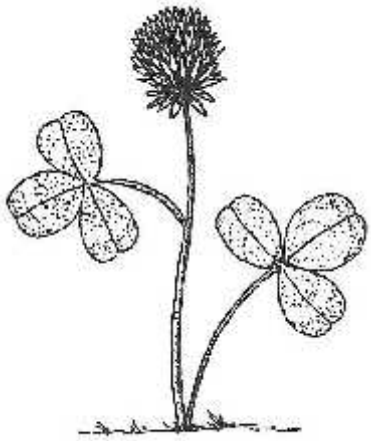
Burdock- A large plant which may grow as high as 9-feet., but averages somewhat less. Coarse leaves, purplish flowers compressed in bur-like head. Found throughout the northern US in open wastelands, roadsides, and along streams. Tender stalks can be peeled and eaten raw or cooked. Roots may also be cleaned and cooked. Use two changes of water in all cooking.

Cattail-Tall stalks with flat leaves. Average height about 4-feet, but may reach over 6-feet. Flowers appear at top of stalks. After the flower a dens brown spike remains. Found throughout the US in wet a swampy areas year-round. The leaves lie-down in winter but the bulbous spike remains. Roots may be roasted or boiled, chew out the starch. Young shoots may be eaten. Roots may be dried and pounded into meal or cooked to form a thick soup. Young spikes are edible or cooked before the flower. *

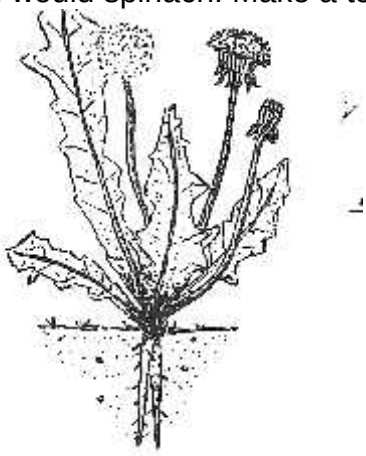
Chicory-Light-blue flowers grow close along stiff branching stems averaging 3-feet high. Flowers wither rapidly in direct sun. Found throughout most of the United States along roadsides, in pastures, and wastelands. Dried roots make a good coffee substitute. Young spring greens boiled in two changes of water resemble spinach.



Clover-The blossoms, stems, and seeds are all edible. Clean and dip in salt water if possible. Found throughout the United States in fields and open lands.

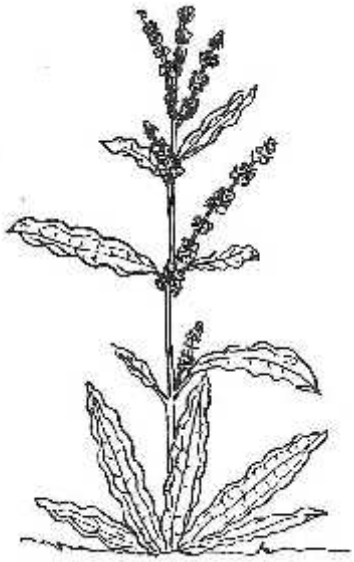


Dandelion- Found worldwide. Roots may be eaten raw. Cook the leaves as you would spinach. Make a tea by boiling the leaves. This is a good cold remedy.



Fireweed- Found throughout the northern and western United States. Often grows in burned out areas (hence “fireweed”), open woods, and along roads. A tall plant growing from 2 to 6 feet high with purple and pink flowers. Young shoots and leaves are good raw or cooked. Add salt if possible.

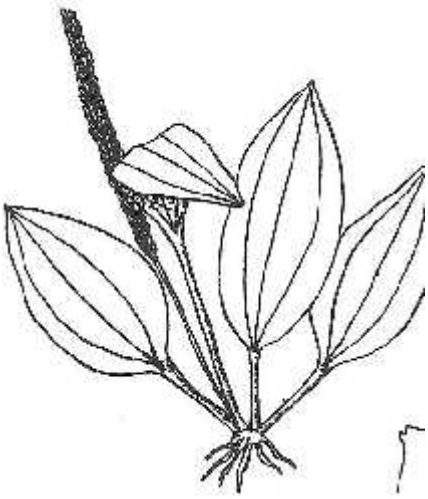
Curly Dock-A tall plant growing from 2 to 4 feet tall. Found throughout the United States in cultivated or waste ground. It has deep taproots and many smooth marginal leaves with long stemmed, small greenish flowers that fade to a reddish brown. Tender leaves may be cooked. Parboil to remove a slight bitter taste. Seeds can be ground up to make a cake or gruel.



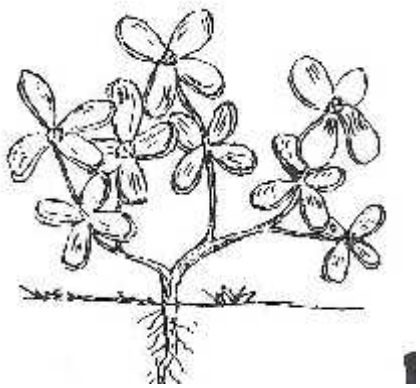
Pokeweed- A tall plant from 4 to 8 feet high. The young, pale green leaves come up in bunches at the base of last-years stalks. Mature plants have red stems. The flowers are small, grow in clusters, and may be tinged with purple. Dark blue berries follow the flowers. They are common throughout the United States in fallow fields, forest clearings, and along roads. **CAUTION! Roots and Berries are poisonous**. Cut stems well above ground level when they are 4 to 6 inches high. Boil,

rinse and boil again. Use as asparagus substitute.

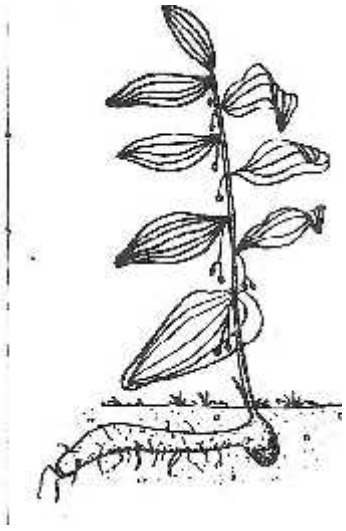
Plantain- Long spear-shaped leaves spring from the ground on a rather coarse stem. Small flowers grow compacted on a separated stalk. Found throughout the northeastern and north central United States in lawns fields and woods. Boil early shoots as greens.



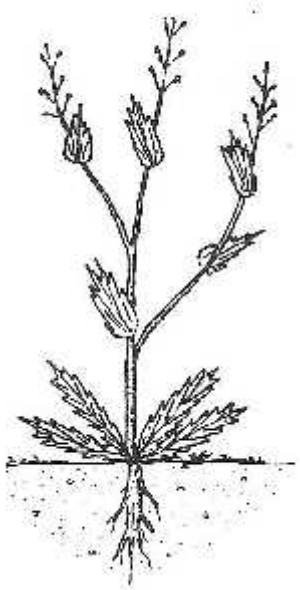
Purslane- A low ground plant often found growing from cracks in rocks or sidewalks, in fields, and along streams. The leaves are juicy, soft, and oval in shape. Normally light green, but may have a red tinge. The flowers are small, yellow, and five-petaled. Leaves and stems may be eaten raw. Although a bit sour, they are a good source of water. Leaves and stems may also be steamed and eaten like spinach.



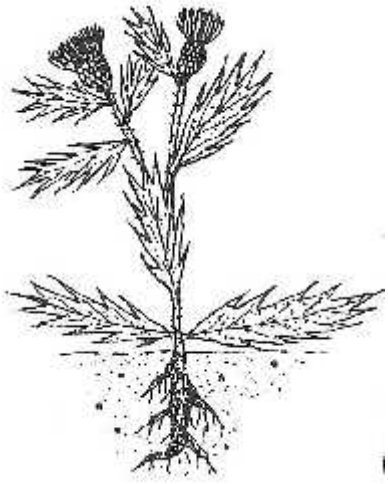
Salmon Seal – Found throughout most of the United States in moist areas and along streams. A slender stalk with lacy-shaped or ovate leaves growing alternately. Flowers grow singly or in twos or threes from the leaf axel and are light green turning into dark blue berries. The fleshy roots may be boiled or roasted and eaten like parsnips. The young shoots are also edible.



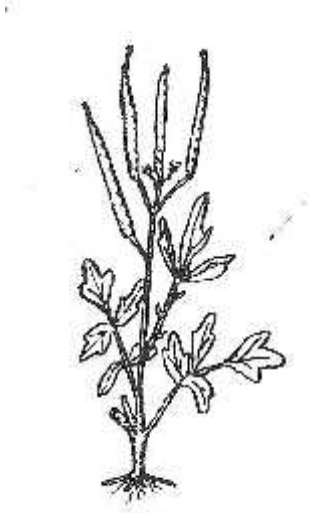
Sheppard's Purse- Found throughout most of the United States in fields and wastelands. The plant grows to a height of about 10-inches. The leaves are pear-shaped. The lower leaves are deeply and irregularly lobed. Flowers are small and white. Young leaves can be eaten raw and taste a bit like cabbage.



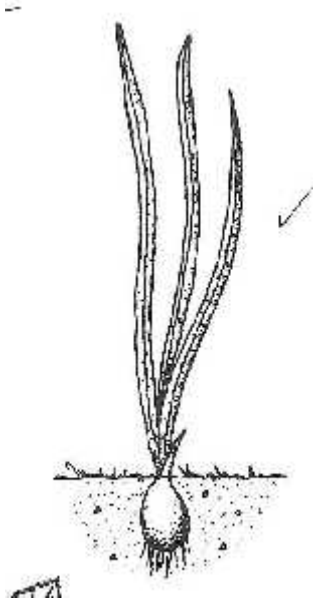
Thistle- Found throughout most of the United States in pastures and roadsides. May consist of one or two stalks, growing from 1 to 4 feet high, from dark green or silver green. Flowers vary from pink, white, purple, or yellow. Rome young plant stalks and leaves. Peel and boil stems until tender.



Watercress- Found throughout most of the United States where there is running streams. The flowers are white and usually grow in clusters. The leaves are dark green and somewhat rounded. Leases can be eaten raw or added to other greens for flavor. **CAUTION: take care when picking watercress since the deadly water hemlock usually grows in similar places. Do not use watercress from polluted streams.**



Wild Onions- Found throughout most of the United States. Looks and tastes similar to the domestic onion. Long glasslike flat juicy leaves originate from ground surface. Leaves will have a strong onion odor. Use as with domestic onions. Cooked syrup is good for colds.



Ground Nut- Found throughout most of the eastern United States in low damp soil. A smooth slender climbing vine with milky juice, growing 5 to 10 feet in length. The root system consists of a number of tubers connects by fibrous strands. The leaves are compound with 5 to 7 oval leaflets. Flowers are brownish purple with pods resembling beans. One of the best wild foods. Tubers may be eaten raw, boiled or roasted.

Note: Unfortunately the cattail, bull rush, and arrowhead have been replaced by severe invasive species in some areas.

Additional edible plant descriptions and illustrations will be included in future issues of America Survivor.

Camouflage

Camouflage is not just a pattern on clothing. Camouflage is whatever one does to avoid notice or detection. It is a combination of appearance and action that reduces the distinction between the person and the environment. The person wearing woodland camouflage clothing in the city is not camouflaged while the guy wearing jeans and a sweatshirt is well camouflaged. In survival there are two classes of camouflage. There is Passive Camouflage that is used to avoid being noticed or avoid standing out from others. And there is Active Camouflage that is used to avoid being seen by those actively looking for you.

Passive camouflage should be used in everyday life. You can look like an outdoor person without looking like a survivalist. In urban areas, gray and tans are good camouflage without looking like camouflage. In areas where hunting and fishing are common actual camouflage (e.g. woodland, tree bark, etc.) may be okay. In many cases the jeans and T-shirt, or slacks and sweater may be true camouflage. While you may like to wear “Don’t Tread on Me” shirts or full camouflage pattern cloths at gun shows or survival group meetings, it is not advised for street attire.

Active camouflage is an important part of military survival training and is also practiced by hunters, and to some extent by law enforcement. In survival situations camouflage can be used to evade detection by criminals and looters. It can aid in hunting game for food and it gives the survivor the choice of when and if he or she becomes visible to others. While modern infrared and night vision technology can limit the effectiveness of camouflage, they have limitations and are may not be in use by those you are trying to evade. So knowing the principles of camouflage will remain an important survival skill. There are five key elements to good camouflage. They are:

Shape: The human form is distinctive from most surroundings. A round head peering over a rock will be noticed. A straight rifle barrel stands out from bent and forked branches. Use branches, camouflage netting, etc. to break up your shape and that of your equipment.

Shining: Cover, enclose, or wrap up anything you have that will reflect light. This includes jewelry, watches, glasses, buttons, belt buckles, and binoculars. One glint of light off of these, day or night, can undo all your camouflage work.

Silhouette: this is your shape against the background. Is the sun, or moon, or town lights silhouetting you? A white gravel road, or a snowy field, or smoke can make you stand out as a target. I once detected a well-camouflaged ambush because the setting sun was behind them where they hid in the bushes.

Shadow: You may be well hidden from direct view, but your shadow may give you away. If you have successfully broken up your shape it will help. Keeping low will also reduce your shadow. You must be aware of your shadow and use the shadows of trees and rocks to cover your shadow when possible. Shadows are especially distinct against flat surfaces like buildings, roads, and snowy fields. We once used near perfect winter camouflage to blend into the snow and the pines only to realize that our clear black-on-white shadows gave us away.

Use the shadows of trees and rocks to cover your own shadow when possible. Shadows are especially distinct against flat surfaces such as buildings, roads and snowy fields

Shading: the colors and the shade (dark or light) of the camouflage is the most important element. It must match the environment as closely as possible in pattern and color. As you move from one location (e.g. dry grass) to another (e.g. green forest), the effectiveness of your camouflage may be lost and require changing. Gilly suits and netting is good for staying in one location, but tends to snag, pull, and tear in movement. Fortunately, there is a big selection of camouflage clothing for just about every location and season. If you will be moving from civilization (I'm just a hiker) to escape and evasion, you may have to use basic dark and earth tone clothing enhanced by foliage and paint when needed. Apply camouflage paint in patches or stripes across the face based on the patterns of light and shadow in the environment. The eye sockets, cheeks and below the chin are generally shaded and therefore should get most of the lighter green and tan colors while the more exposed nose, ears and forehead get the darker green and black tones. Don't forget the neck and the back of the hands. If you don't have camouflage paint, dirt, and charcoal can be used. Carrying camouflage gloves and a face net or mask is handy if you don't have time for paint.

Other Factors

Camouflage alone will not be sufficient if you fail to consider these factors.

Movement: Movement attracts the eye. Slow movement is often missed even if camouflage is poor. Ninjas were masters of camouflage, and stealth, and very, very slow movement. When you must move through a location where observation is likely, move slowly and stay low.

Secondary motion: As you move you may move branches and tall grass or stir up dust. This may give away your presents and location.

Sight level: Whenever you stop moving or are observing, do it while crouching or lying down. People naturally look at eye level. The lower you are, the more you blend

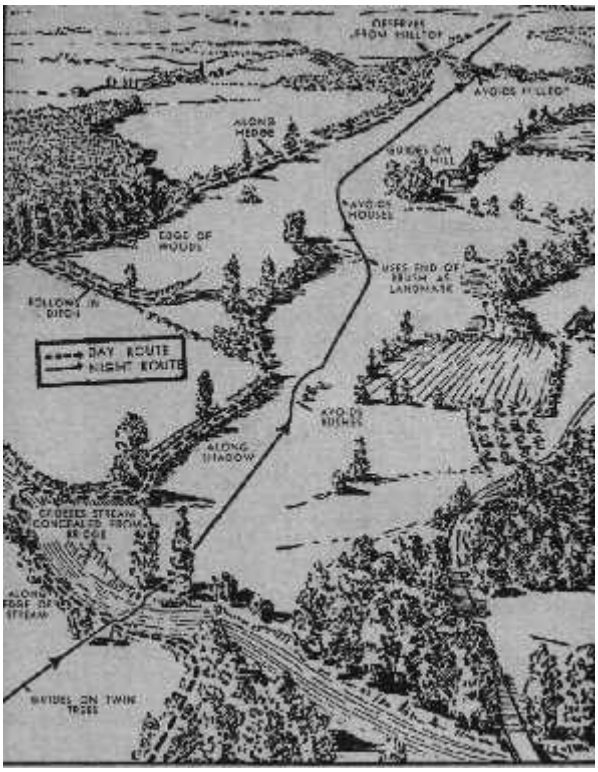
in to the ground and are literally overlooked.

Noise discipline: Your equipment must not bang, squeak, or rattle. Water canteens must no gurgle. NO TALKING! Use hand signals or low, in your ear whispers.

Light discipline: No flashlights, or matches, or cell phones at night. When absolutely necessary, red lens lights can be used under a tarp or low in bushes just long enough to read a map, fix a weapon, or render first aid

Time selection: If you can do so, select a time to move through an area that will be best for you. Maybe there is more noise to cover your movement at a certain time. Maybe it is foggy in the morning. Is there a full moon? How will the sun's location affect your visibility? Night or day?

Route selection: route selection makes the best use of all available concealment, including low areas in the ground, foliage, background, lighting, and of course the location of the hostile observers. Moving through thick woods may give good concealment, but make a great deal of noise. Gravel roads are noisy. Look at the map below to see how routes would differ from day to night.



Conclusion

Good camouflage and stealth techniques can keep you safe, prevent the need to engage in combat or flight, and let you get in and out of places you need to get in and out of safely. Learn to do it well. We once sent out a "patrol" along a trail and we had an "ambush" set up for them. The "patrol" was so stealthy and the "ambushers"

were so well hidden that they never detected each other even though they passed within eight feet.

Movement Under High Threat Conditions

"Men who had fought in several wars and many bloody battles told me that no horrors of a field of battle can be compared to the awful spectacle of the ceaseless exodus of a population"

Russian General Gourko

Introduction

Under most survival circumstances your best survival option is to stay home. Once on the road you are limited to the supplies you can carry while being exposed to weather, injury, and a variety of hostile situations. If you are unable to reach a safe and well-supplied location or establish a safe camp where you can quickly access food, water and shelter within 5 to 10 days your survival chances are greatly diminished. Only when the hazards of staying put outweigh the hazards of becoming a refuge should you take to the road. If you are forced to take this last resort option, here are some recommendations.

Routes

You must assume that if this is a true disaster, the main highways will be closed or at best very dangerous to travel. Even where secondary roads and trails are available they may not have bridges and underpasses to cross rivers, expressways, rail lines, and natural obstacles. Routes that go through towns may be clogged with refuges or blocked off by local residents. So your planned escaper routes and alternate routes must avoid main highways, have ways to cross obstacles, go around populated areas, provide safe places to camp, and take you to a desirable location. Obviously, you should plan routes in various directions well before you need them. Scenic drives, hikes, and Google Earth are all good ways to scout out routes. Bike paths, abandon rail lines, hiking trails should be considered, but be assured that these routes are already part of others plans as well. Avoid retail areas, medical facilities, and government centers where mobs and looting may be occurring. Industrial areas may be less populated. You may have to consider crossing open fields and forested area. Items such as wire cutters, small rubber boats, rope, and even smoke bombs to screen crossings maybe be worth considering. Movement at night may be impossible in unknown and rough terrain, but having night vision equipment could make this an option for you that most others will not have.

Mixed family group lines up in double column preparatory to moving down a road. Such formations support alertness and facilitate response to emergencies

Caught In A Mass Exodus

If you are really lucky, you may have anticipated the epidemic, nuclear attack, massive unrest, or other event and quietly started your evacuation before everyone else. That would enable you to use your vehicle before the roads became jammed and to haul a much larger quantity of supplies to a secure location. However, in many cases the event may strike without warning or develop before you can react. In this case you may find yourself caught in a massive exodus with thousands of less prepared and panicked refuges. Here again, you may have to make a tactical decision. Is it more dangerous to hide and hold in place or put yourself into this mass of desperate and dangerous people? If you are caught in this situation you will need to protect your family from those around you and get out of this crowd as soon as possible.

If you are well equipped and armed it's going to be hard to avoid being noticed. Your level of preparedness and responsibility will identify you as a target for the desperate and the ruthless among the crowed. You must try to keep a safe zone around you. This may require moving off the road, picking a spot between the bunches of people, and adopting a very aware and threatening attitude. Be constantly aware of those around you and be ready to act if they try to grab you or rush you. Once one moves against you, others may follow to grab your supplies and weapons. This is a very dangerous situation that you must get away from as soon as possible. Take side roads, railroad tracks, paths; anything to get free of the masses on the main roads. If necessary, pull off into the woods and let the wave pass before proceeding

Individual

If you are traveling alone you have two problems. First, you can't defend 360 degrees and second you can't stay awake 24/7. You can, however, move faster and hide easier. You *really* need to stay away from the crowd. Don't let anyone get close to you. Keep your weapon ready to fire. Take your own path and make sure you are not being followed. Look back every few minutes and take a rest stop in a hidden location where you can spot anyone following your trail. When you need to rest you

will need to pick a spot well away from any road or trail in a thick growth area where you will be hard to see and hard to sneak up on. Always be ready to move away quickly. Avoid contact and combat at all costs.

Small Family Movement

While there is safety in numbers, that depends on what the numbers (people) do. Young children need constant watching and are hard to keep quiet. They also are quick to wander off. The more you have to watch them, the less you are able to be alert for outside threats. This is *not* a nature hike or trip to the mall! You do not walk along socializing and looking only ahead. If there are two of you, you should move in echelon about 8-feet apart. Close enough to support each other, but far enough not to be easily hit by the same attack. The front right person constantly watches the front and right while the rear left person is responsible for looking back frequently and covering the left area. If there are three you can form a triangle (wedge) formation. With four or more you can form a diamond or staggered column. When you stop to rest or converse, everyone should be off the road, squatting or prone, facing out. Huddles are for football not survival. Even when out in the open, conversation should be in low tones or whispers. Shiny objects should be covered, and nothing should rattle or clank. With two or more people you can establish a 360-degree observation plan and a 24/7-watch schedule. One can sleep, cook, etc. while the other is fully focused on watching for potential dangers.

Large Group Movements

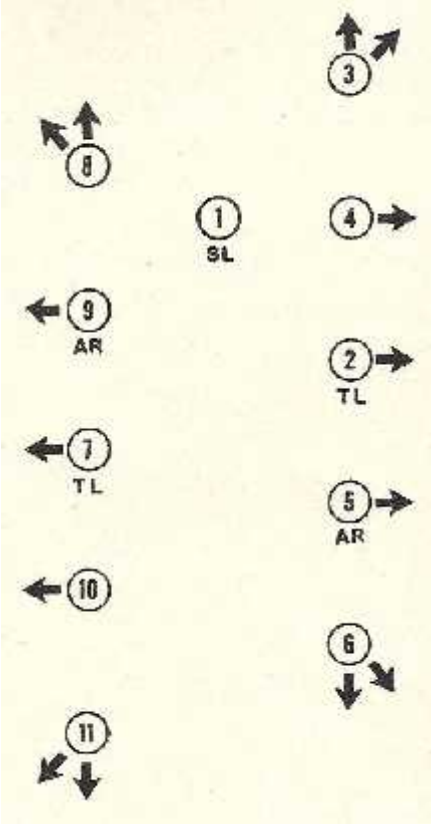
I have seen so-called survival training hikes where everyone straggled along like a bunch of tourists. Here a bunch talking to each other, there a couple holding hands, and then we have the stragglers daydreaming or looking at their feet. Ambush bait for even the most inept criminals. The same group moving quietly in good order can discourage would-be attackers or respond to any kind of situation effectively. For the purposes of this dissertation we will consider any group of 6 or more to be a “large group” capable of a variety of advanced security techniques.

Single Columns

On narrow trails you may need to move single file. In this case you need to space out 4 to 8 feet depending on the terrain and foliage. At night you may need to be closer. You must be able to see the person in front. The first person (after the point man) looks ahead and right. The next left, etc., and the last person looks back every minute or two.

Double Columns

On roads or open trails a double column is more practical. With two rows, one guarding left and one guarding right. You still need the point man and rear guards. The two columns should be staggered so no one is next to anyone. In any kind of line, the children, disabled and less capable should be in the middle. Generally, the medic and any critical supplies should be there also.



Basic double column formation with leader in the center. Arrows denote direction of responsibility

Point Man

If you can have 4 or more people in the main group you can assign a “point man” to go well ahead of the group to spot hazards. He or she should stay well ahead, but within sight of the main group. If someone up ahead spots him they still can’t see the group and if he needs to signal the group or get in trouble, he is visible. This job requires the most alert and experienced members. The need to constantly be scanning for threats from every bush, tree, building and rock while being alone is exhausting. Rotate this job every few hours if possible.

Emergency Response Plan

At this level, the group should have an emergency response plan to extricate the group and any injured members from danger. The plan should include taking cover, escape routes, passwords, reassembly points to the rear that everyone can get to if the group is forced to scatter and retreat, and clear assignment of responsibilities.

Crossing Open Ground

Crossing large areas of open ground should be avoided if possible. You are not a military unit and you do not have to “take” any ground. Stick to the best concealment and take safe routes. If you must cross open ground consider a diamond formation that would permit 360-degree defense or, if there is no threat from the rear, a wedge

or skirmish-line formation that maximizes frontal defense.

Basic diamond formation provides for 360-degree defense and can change direction of movement without changing formation.

Crossing Roads & Railroads

Even if you manage to stick to trails and paths you are probably going to need to cross major roads to get to your destination. There are two hazards in crossing roads. First there may be traffic. This could be masses of the refuges you are trying to avoid and/or hostile forces of any kind. You have several options here. You can wait in concealment for a gap to develop. This may be easier in hilly terrain where blind spots in the road can be used for a quick crossing. You can find and use a culvert or underpass. If you must get across and there are no other options, you may need to use smoke (e.g. smoke bombs), fire, or even armed intimidation to force through. Crossing an empty road or railroad track possess other hazards. If you cannot find a way under or over them, you must cross with extreme caution. The hazard here is that as you cross, you can be spotted or even shot at by anyone down the road. There is also the opposability that there are hostile people on the other side. Crossing at the center of a curve limits your exposure somewhat. There are two schools of thought about road and railroad crossings. The first is to send a few across first to secure the other side before the rest of you cross. The second is to rush everyone across at once so that no one down the road or across the road has a chance to react. Your choice depends on the foliage and situation, but you *do not* want to spend any time exposed on that open space.

Skirmish line prepares to enter wooded area. Each person needs to maintain contact with those on each side. This is also a good formation for search and rescue.

Conclusion

The very sight of a group moving in some level of order and formation will likely discourage all but the most aggressive intruders. Hopefully you and your family are never faced with becoming refugees, but if you are you need to do so in a way that will improve your chances of reaching a safe destination without further injury or deprivation. To survive this kind of journey requires an organized approach, a focus on security and constant vigilance by all involved. Those who are unwilling to support this effort will put the entire group at high risk and should be abandoned to their own fate*. They may or may not be lucky enough to survive. You and your family should be depending on skill and organization.

** Of course those who are disabled and children are not to be abandoned*

Fire; Who Needs It?

The very definition of “survival” is someone starting a fire without matches. What survival class goes without a fire starting class? So, to suggest that a fire is not always an essential survival need is near heresy. But all the other mammals do survive without the benefit of fire. Even in the arctic, many species thrive without knowing how to start a fire. Eskimos have no access to firewood in most places and get by with no fire, or with very little heat from oil stoves. The animals and primitive man survived by conserving body heat alone.

I am not suggesting that fire is not important. But I am stating that in many cases its value is only psychological and in some cases it may be more of a liability than an asset to survival. In all cases, shelter, keeping dry, and the conservation of body heat should take priority over fire building. Putting aside the psychological benefits of a campfire, let’s look at the physical benefits of a fire under different conditions.

- Warm Dry Nights: On a warm dry night a large fire is just not necessary for survival. A small twig-fire may be needed for cooking, water purification, or some smoke to ward off insects. A camp fire will have you breathing smoke, ruin your night vision, attract unwanted attention, and could cause a forest fire. Insect repellent and a compact stove would be much better. If you must have a fire, make it a small one before dark. A dark camp is practically invisible and generally safer.

- Rainy Weather: It takes skill, time, and luck to start a fire in wet weather. Damp fires are hard to keep going and put out little heat. Getting wet and using energy while trying to gather wood and start a fire may not be worth the trouble. Staying dry and finding shelter far outweigh fire making in your survival priorities. A good rain poncho and a mini stove heating up a hot drink will do much better. The exception is if one is already soaked and hypothermia is a danger. In that case a big fire may be a necessity if it can be achieved.

- Cold Windy Weather: In a cold wind, without shelter, most of a fires heat blows away and the fuel burns fast. Cold air is drawn into the fire past the people around it, taking away more heat than they get. Snow melts around the fire resulting in damp feet and boots. What heat you do get from a fire under these conditions is from radiation, but you lose more from convection of cold air going into the fire. If you have a good shelter at your back (e.g. lean-to, rocks, etc.) and a reflector on the other side of the fire you can get some benefits. You are better off in a tent and blankets or sleeping bag than in the open around a fire in these conditions.

- Cold Calm Weather: In low winds and low temperatures a campfire has real value. A modest fire can provide heat, cooking, water

purification, and snow melting for water. Combined with a shelter and a reflector, it can provide real comfort. We still have the energy and time spent on building and maintaining the fire, but it may be well worth the effort in this case.

Fire may give the illusion of warmth and safety while actually putting you at risk. Fire is a luxury, not a necessity. You can survive without it. Shelter, clothing, food, and energy conservation are more important. People have survived long periods in even arctic conditions by holding up in a shelter. Eating hot food and drinks to get heat into the body does more than a fire outside the body. A small stove or twig fire can be used for this. Always carry a wool cap and extra socks. 50% 0f your body heat escapes through the top of your head. The cap will probably do more to keep you warm than a fire. The extra socks can replace wet ones or be used as mittens to protect the hands. Carry a 24” x 24” sheet of folded HD aluminum foil in all your survival kits. It can be used as a reflector for a small fire or fashioned into a pot to melt snow and heat water to drink.

Always carry three ways to start a fire. I recommend: waterproof matches, a lighter, and a magnesium metal-match. When in a survival situation stay dry, get out of the wind, conserve heat and energy, and then consider the risks and benefits of building a fire. Stay warm and safe.

STREET SURVIVAL
For The Prepared Citizen

Criminals are basically dumb and cowardly; that's why they are criminals. To offset this lack of intelligence they have developed instincts and what is known as "street sense." The great majority of intelligent, working, and responsible people do not have well developed instincts and have not had the criminal's years of developing "street sense" so they are at a great disadvantage in a crime situation. In many ways the citizen is in the same situation as a conventional army confronted by a guerrilla ambush. You are carrying out normal operations and are deployed and equipped for getting to work or buying groceries, where-as the criminal has the initiative in selecting the time, place, and method of attack. Just like the guerrilla he will want to strike hard and fast and get away without being pressed or pinned down. The average street crime takes from 4 to 6 seconds from the time the victim realizes it's happening till the time the criminal is gone. In the streets a little paranoia is very good thinking. Whether you're walking or in your car, you should be thinking a little like you are on a combat patrol where you are the point man, the squad leader, and the rear guard.

Deny the enemy a target: Plan your route so as to avoid high crime areas, empty parking lots, dark alleys, etc. and if you must move through such areas plan to do it at times when it is light and most crowded. As much as possible, avoid being on his ground (e.g. alleys, dark streets, bad neighborhood) If he wants to commit a crime against you, let him come to you on ground that you know well.

Deny the enemy confidence: One thing a criminal does not want is a fight so he looks for "soft" targets. A person walking along daydreaming or looking down at the pavement tells him that this target is not alert and is probably submissive. If you are marching along with purpose, scanning the area for threats and with your head high the criminal will probably look for someone else to attack. Clothing can help too. Someone wearing boots, a leather jacket, and a buck knife on his belt is a lot less likely to get jumped that someone wearing thongs, shorts, and a sweater. If you encounter a person or persons coming towards you never (I mean never) look down. Keep your head up and look past them. Remember downcast eyes say, "I am submissive and I will do what you tell me to do." Never let a criminal or anyone think that! Remember, all the criminal knows about you is what he sees so if you look like the Terminator he has to assume you could be the Terminator.

Deny the enemy surprise: As I said you are the point man and the rear guard so as you move into an area scan the whole area to identify danger areas and good ambush sites, then you can plan your route to avoid what you can and make a reaction plan for those you can't avoid. Then as you move through the area tune your senses for noises, shadows, even odors (most criminals don't bath and may smell of alcohol or Pot). If there are other people along the route what are they doing? Are they watching you? Can they intercept you? Are their actions normal or do they seem to be waiting for something? Don't forget your rear guard duties by zigzagging a little on the

sidewalk and turning your head. You can get a good view of what's in back of you. You should do this at least twice every block. Don't put yourself in the enemies kill zone where he can surprise you. Walk on the outside of the sidewalk or even in the street if necessary so he has to come out of hiding (in alleys and doorways to attack). If your scan picks up a suspicious person or persons ahead of you, go to the other side of the street, after-all they don't know where you were going so crossing the street says either 1) you were going to do that anyway or 2) you are a very sharp person and should be left alone. Be sure and buy one of those small stick on convex mirrors to install on your left rear view mirror. Carjackers and "snatch and run" thieves will approach from your blind spot while you sit at a traffic light or in a parking lot. The extra mirror will help you spot them. A mirror or two in your trunk lid will help you spot attackers who close in on you while you are loading or unloading groceries.

Deny the enemy the initiative: Rest assured that the criminal or gang has a plan. Their plans will be simple because they are simple. You must have a plan too and your plan must be simple because you are smart and know that simple plans work. Remember you only have 4-6 seconds so you must know exactly what you are going to do and have gone over your plan so you can react fast. Your plan can be "I will scream and kick like hell" or "I will throw my bag and run the other way" or "I will start yelling Fire as loud as I can." One idea is to have a money clip with a few dollars in it (the clip gives it weight) that you can throw in on direction while running in the other direction. Consider routes of escape (avoid dead ends) and potential safe havens to head for such as open stores, well light areas, gas stations, etc. Inventory your weapons (everything you have can be a weapon) and how they can be used.

Deny the enemy privacy: Just like the guerrilla ambush, the criminal does not want to have the cavalry show up and pin him down so stay where there are other people, good lighting, and high visibility. If you are about to board an elevator or a subway car and don't like the looks of someone on board don't get in. Far better to ride the next elevator or train than the next ambulance. Listen to your instincts! If you are in the elevator and someone gets on that worries you, get off! If attacked in the elevator Do Not Push The Emergency Button, as it will stop the elevator, instead push all the floor buttons and prevent the attacker from pushing the emergency button. This way you have an escape opportunity every few seconds when the door opens. NEVER GET INTO A CAR WITH A CRIMINAL! If you are in your car and a criminal points a gun at you can hit the gas and take your chances with traffic or get out of the car, but do not let them get in with you. If a criminal points a gun at you and says, "Get in the car," run like hell. The chances that he will shoot at you are about 50/50. The chance that he will hit you if he does shoot at you are about 50/50. The chances that if he hits you the wound will be fatal are less than 50/50, so your chances of survival if you run are about 90% but crime statistics show that your chances of being found dead if you get into a car with a criminal are almost 100%. DON'T GET IN THE CAR! At home you should have motion-activated lights to cover your routes to the front door and garage. Be sure to cut down bushes and place mirrors to deny potential assailants any place to hide.

Weapons: Criminals are generally not very intelligent, have little or no conscience, and act on instinct. Responsible citizens on the other hand are generally intelligent and conscientious and unless they have had intensive combat training they will think about and analyze the consequences before using deadly force. In the seconds it takes for an intelligent citizen to compute the probability of being wrong, the criminal will kill or disarm him. If you elect to carry a gun or a knife you had better be absolutely sure that you know how to use it and that you will use it without hesitation. If you have doubts then you are just carrying a weapon for a criminal to use on you and perhaps others. In most cases pepper spray units are recommended. Because they are simple to operate and non-lethal almost anyone will use them without hesitation. They are very effective, come in sizes to fit almost anywhere, and are legal in most places. Pepper sprays have ranges of up to 20 feet and will put down an attacker or several attackers for several minutes. In the event that you do spray the wrong person, no lasting harm is done and if it can be shown that you had good reason to fear harm you probably won't be sued. Keep one in the car, in your pocket or purse, and a bigger 15 oz. fogger for home.

You don't need to be Rambo to survive on the city streets, but you must make plans, be equipped, and maintain a high level of awareness. Remember that predators always eat the weakest and the slowest. In the urban (and suburban) jungle the unaware and the unprepared will perish. Don't let it be you or those you love.

- *Although anti-gun and some police groups maintain that guns save few citizens at home or on the streets their numbers are misleading. In reality, few citizens ever report having prevented a crime by pointing their guns because instead of being given a medal that they deserve they would be treated like a criminal. The street facts are that lots of people I know are alive because they had, or at least the criminal had reason to think they might have, a gun. As I said, criminals like easy safe targets. The effect of public disarmament is to make the streets safe for criminals. The slogan "When Guns Are Outlawed Only Outlaws Will Have Guns" may be true, but gangs of thugs who are good with knives and clubs really don't need guns against unarmed citizens so maybe the slogan should be "When Guns Are Outlawed, Outlaws Won't Need Guns*".

Self-Defense Pistol Basics

Before we can we can begin to consider the techniques of using deadly force in self-defense there are several issues that must be clearly understood.

1. Even under the most extreme and justified circumstances, the taking of a human life is to be avoided if at all possible. It is morally and legally wrong to seek out or create a deadly combat situation.

2. If you wound or kill someone in self-defense you will have to prove that you had no choice.

- You had good reason to believe that yourself or others were in immediate danger of death or serious injury.

- You could not have avoided the situation.

- You could not escape or retreat safely.

3. When you are faced with a kill or be killed situation, it's too late to face your moral dilemma! You can be sure that the criminal will not hesitate to pull the trigger. They don't care about your life or about the legal implications. You must be psychologically conditioned to do what you need to do without hesitation.

Example: You are confronted in your living room by an armed stranger (not a police officer, not a family member, etc.) who is moving towards you with a weapon (gun, bat, knife). You have no way to escape as he raises his weapon. You have less than one second to pull the trigger or seal the fate of your family. *KNOW* THAT YOU WILL ACT FAST!

4. Reading this article is absolutely no substitute for live-fire training. Unfortunately, in today's anti-gun, anti-freedom society it is increasingly difficult for responsible citizens to practice the skills they need to effectively defend themselves and their families.

5. There are dozens of different combat shooting techniques being taught and advocated by various organizations. The arguments about what type of handgun and what caliber is best for home defense goes on. The most important thing is to select one weapon and one set of techniques and learn them well.

Training to Live

Criminals seldom have the intelligence or self-discipline required to train and practice. This is why they typically wave their guns around or shoot holding the gun sideways. This is also why they often miss their target and hit some innocent person a block or two away. This is also why running away from an armed kidnapper (see side bar) gives you a much greater chance to survive than going with them.

Proper grip, hand and arm positions

Hunting skills do not translate into combat skills. Shooting a tight group at the range will not necessarily mean fast center-of-mass hits in combat. Ducks and targets don't shoot back. Most defensive combat situations occur in a range of about 10 to 20 feet. All that matters is that you get one or two rounds into the opponent's torso before he (or she) shoots you. That may sound easy, but it is not. In most room-range shooting incidents about half of the shots miss. A handgun is an inherently inaccurate device. Training is necessary! Defense combat shooting training will do three things for the responsible armed citizen

1. It eliminates the doubts and assures that you will be able to shoot when necessary without that fatal hesitation

2. It reduces the chances of panic shooting of an innocent family member or police officer

3. It facilitates accurate shooting of the threat/target without wild shots endangering innocent people.

AGAIN REMEMBER!

If you run from a kidnapper or carjacker there is a;

- 50% Chance they won't shoot at all
- 50% Chance that if they do shoot they will miss you
- 50% Chance that is you are hit you will survive

If you go with them there is almost a 100% chance you will be killed

Combat Shooting By The Numbers

This article is intended for the armed citizen who may have limited opportunity for other training. With this in mind, I have elected to break the combat shooting scenario into ten detailed steps. For this we will assume a right-handed defender.

1. **DRAW**: This is unless you have already taken the firearm from a drawer, etc. You must be able to do this without taking your attention off of the threat.

- You draw the firearm from a holster (or drawer) with the right hand as the left hand comes over at the waist.

- You disengage the safety (usually with the thumb) while keeping the trigger finger alongside the slide/barrel.

2. **READY** (or Guard Position):

- The fingers of the left hand now overlap the lower fingers of the right hand. The right arm pushes out with locked wrist and elbow while the left pulls in. This creates a firm mount for the firearm. The only movement is to pivot up and down at the shoulders

- Keep the firearm pointed down at about 45 degrees until ready to engage a target.

3. **GRIP:** This is not really a separate step, but something you must do right as you go through steps 1 and 2. Work on this! As your hand acquires the firearm it should seat into your hand evenly so that the barrel aligns vertically and horizontally with your forearm.

4. **STANCE:** You must maintain a solid balance or your accuracy will suffer greatly

- Keep your feet slightly apart with the foot on the side holding the firearm slightly back of the other. Practice until it feels right for you.

- Never twist to shoot! Pivot to face the threat as your firearm comes up. Maintain your balances stance. Think of this like a tank gun on a turning turret.

5. **POINT** (Engage): You have identified a true threat and engaging

with the intention of firing (unless they immediately run or surrender and disarm) in self-defense.

- Move your finger to the trigger as you raise the firearm to eye level while maintaining stance and locked arms

6. **SIGHT:** This is the first time your firearm comes into your view. All the previous steps are done automatically while you focus in the threat source, movement, safety, tactics, etc.

- As the firearm comes into view between your eyes and the threat/target's torso you change focus to the front sight.

- You should see just the front and back sight. NOT any part of the sides or top of the firearm. That's all you need.

- CAUTION: This view should come automatically. You do not have time to analyze a "sight picture"!

7. FIRE:

- Pull the trigger (don't jerk it) two times. Two shoots have much greater chances of hitting and stopping an opponent than just one.

- NOTE: Steps 1 through 7 can all be done as one continuous motion in one or two seconds.

8. **FOLLOW THROUGH**:

- Even if the threat/target is down keep your firearm aimed at him/her while maintaining your ready position. Is he/she still a threat?

- If the threat continues to try to aim their weapon or does not go down following your first two shots, follow with an aimed head-shot or two.

- Hold on the threat/target while kicking away and removing his/her weapons.

9. **SCENE EVALUATION**: It's not over yet.

- Having neutralized the primary threat/target, consider the possibility of other threats. Continue to search, clear and secure rooms, and areas.

- Always identify friend-or-foe before engaging

- Who needs help? Who may be injured?

10. **ESTABLISH SAFETY**: Before you relax.

- Don't get shot by or shoot at a family member or responding police officer! IDENTIFY YOURSELF.

- Safety and secure your firearm. DO NOT have it in your hand when the police arrive.

- Avoid the combat (crime) scene as much as possible. Do not move anything or disturb any evidence.

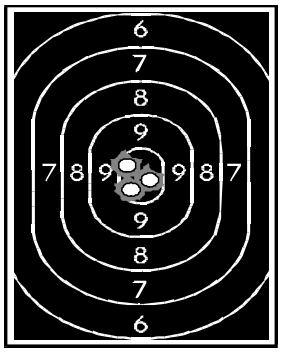
Putting It Together

In actuality there are two sets of actions going on simultaneously. There are the conscious events and decisions, and then there are what should be the unconscious actions that come from your training and preparations. The table below illustrates these parallel steps

	Conscious Actions & Events	Automatic Actions & Events
1	Alarm! Hear, see, and sense threat. Think!	Acquire or draw firearm, safety off
2	Analyze! What could it be? Where are the family members? Can I just escape? What are my options?	Grip, Guard, Stance, Movement to find threat or escape if possible
3	Identify! Threat viewed and confirmed as dangerous	Point, Sight, Fire two shots
4	Target neutralized?	Maintain guard. Head shot if necessary
5	Disarm threat, Look around for more threats	Maintain guard.
6	No more threats. Family safe Help is called	Safety weapon, Secure crime scene ID yourself to police

Practice, Practice, Practice

Repetition of the ten steps will assure swift and effective action under the stress of real combat The best option is live-fire training in a safe combat range. The next best thing would be going through the steps in paint-ball are soft-air combat games. If these options are not available you can go through the actions at home using dry-fire with your real firearm or a soft-air replica. **BE SURE IT'S NOT LOADED!**



Weapon Selection

The selection of a handgun for home defense is the subject of considerable debate. Revolvers are simple and reliable. Automatics are a bit more complicated and require a bit more care, but provide more rounds. Larger calibers such as 9mm, 45-cal, and 357-magnum have much greater stopping power, but require more training to get hits. Smaller calibers such as the 22-long rifle, 38-special, or 380 cal. are easier to get two shots into the center-of-mass for the untrained citizen defender. For the average person, 38-caliber revolver or a 380 auto-pistol could be a good choice. Don't rule-out the 22-LR. Almost anyone can put 2 rounds (or the whole magazine) into a 12 x 12 target at 10 or 20 feet with a 22. The 22 round tends to bounce around in the target (criminal) and do a lot of damage without going through to hit other people.

Combat Tips and Tactics

This subject can and does take up whole books but here are a few points.

1. Know that most interior furniture, walls, and doors provide only "concealment." They can keep you (or your enemy) out of sight but they are not "cover" that will stop a bullet from reaching you. Brick walls, heavy furniture, machinery, etc. should be sought for a defensive position if possible

2. Be aware of your shadow. Lights and windows behind you can give away your presents and silhouette you as a target. Avoid doing this but consider positions that force your opponent to do it.

3. Move slowly while maintaining your guard position. Move and stop, look, listen, then move again.

4. Never extend your firearm around a corner or through a door ahead of you until you are sure no one is there. They can grab your weapon.

5. As you approach an open door, be ready to sight and fire. Look into the room over your sights as you slowly move along the wall opposite to the doorway. You move in an arc starting on the wall near your side of the doorway but back from the edge. You see the opposite inside of the doorway and room. As you move away and out from the doorway step-by-step you see

more wedges of the room. You end up on the other side near wall. This is called “cutting the pie” and allows you to maintain readiness to fire while observing the room. Obviously there is furniture and closets, etc. so you may still need to enter the room to be sure it’s clear.

6. If a door is closed you can push it open while staying clear to the doorknob side. Then jump back and cut the pie.

7. If a door opens in towards you, you can just wedge or block it closed

8. Never leave an uncleared door or stairway behind you if you can avoid it.

9. Approach corners are like doorways. Keep your sights on them as you move closer, well away from the blind corner until you can see completely around the corner

10. Obviously this is all very dangerous even for trained professionals. The best tactic is to avoid and escape an armed combat situation. The next best thing is to assume a defensive position to protect yourself and your family.

Conclusion and Comments

Home invasions, kidnapping, rape, and other forms of violent crime will be a continuing threat to the life and property of every citizen. The court and police try to catch and punish criminals, but they seldom actually stop these crimes in progress. In general the crime rates are higher where firearm possession and self-protection are the most restricted. The right to defend ones, life, liberty, and property are recognized as primary human rights. It follows that you have the right to have and use the means to defend-yourself. When the good citizens are known to be unarmed the streets and homes belong to the gangs and thugs. Millions of crimes are prevented each year by the actions or potential actions of armed citizens. Firearms can be kept and used for home defense safely if you take the time to train, and you handle and store them responsibly. Defend your rights to be armed and to defend yourself. It’s up to you. You can be a subject and victim or you can be a prepared and free citizen.

House Entry and Clearing Survival

Introduction

House entry and clearing is one of the most hazardous activities anyone can undertake. Once initiated, the potential for the unexpected and fatal scenario is high. Even the most well trained military and police personnel are frequently wounded or killed while storming a building. The military and police only undertake this activity after extensive planning and use a very well trained and equipped team. Building assault by one or two untrained individuals would be extremely hazardous and should be a last resort.

Alternative Tactics

Before you commit to an assault consider every alternative tactic.

1. Can you afford to wait till they come out in the open? Can this be done without risking harm to the personnel or property you need to rescue?

2. Can you drive them out with smoke, gas, or other methods? Can this be done without risking harm to the personnel or property you need to rescue?

3. Can you deceive or lure them into leaving or surrendering?

4. Can you reduce their numbers or effectives through sniping, etc.? Can this be done without risking harm to the personnel or property you need to rescue?

Keep in mind that tactics 3 – 4 will give away any advantage of surprise you may have.

Identify Your Objective

If you must go in you want to clearly identify the object and select tactics and plans that will achieve the objective with the minimum of risk.

1. Do you need to drive them out (leave an escape route) or do you need to trap and eliminate them?

2. Do you need to clear the whole building or just get in and out with the person or item you need?

3. Do you need to hold the building after it is clear or keep moving?

Reconnaissance

Before you go in you must gather as much information as possible through observation. Try to do this without giving away your presence. Good reconnaissance and planning is the only hope for a successful operation. Be able to answer as many of these questions as possible before planning.

1. How many hostile personnel are in the building?

2. What kinds of weapons do they have?

3. Where and when do they sleep?

4. Do some of them come out or leave for supplies, etc.?

5. Do they have radios, phones, etc. to contact outside support?

6. Are they alert and expecting trouble?

7. Do they have lookouts and/or patrols?

8. Are there others in adjoining buildings or terrain that could come to their aid?

9. How many doors are there?

10. What is the layout of the house?

11. What cover and concealment can you use in your approach?

12. Are there background noises that could help conceal your approach?

13. Are there innocent people in the building, and if so where are they located?

You need to do two types of reconnaissance:

- Area Reconnaissance: this should include a thorough check of the 360 degrees surrounding the target building. All adjoining buildings and terrain that could be used by you or hostile personnel should be observed and inspected.

- Target Reconnaissance: this is a 360-degree in-looking reconnaissance of the target building to gather information.

Night vision and infrared equipment is highly desirable. A good pair of binoculars is a must. Be careful not to be observed or leave signs that may tip-off the hostile personnel of your presence. Be especially cautious to avoid sunlight reflecting off binocular lenses or other shiny objects. Obviously your vehicles should be parked well out of sight and hearing of the target.

Planning

After you have completed your reconnaissance and secured the surrounding terrain and buildings, you need to carefully plan your assault. While no combat plan ever survives the first few seconds of contact, you are doomed without one. Make your plans carefully and consider everything that can go wrong because it will. Keep your plan simple and be sure that everyone understands it. Be sure you have some basic hand signals established before you start. A few questions you need to ask in making your plans are:

1. Do you need to block escape routes or leave them open?

2. If you cannot approach undetected can you use smoke, distractions, or covering fire to reach the doors?

3. Is a night assault practical? Between 3 and 5 AM is best.

4. How can you make the best use of available weapons and personnel?

5. Can you use diversions such as lights, fireworks, etc. to divert attention away from the point of attack?

6. What situations would cause you to abort the attack?

7. Is there a clear chain of command in case the assault leader is incapacitated?

8. Your plan must avoid any chance of accidental encounters with other team members in this environment. There is a great danger of friendly fire casualties in this kind of operation.

9. Is there a clear follow-through plan to secure or evacuate the building after the attack?

Going In

Every building is different and every situation is different. Every doorway, stairway, and hall will offer unique hazards. There is no way to predict how hostile

personnel will react or where they will be positioned. The tactics for entry and room clearing are subject to debate among various police and military organizations. To cover every conceivable situation would fill a book. Good planning and quick thinking plus some luck will be required to survive and succeed in this situation. If you have to think about it you are probably already dead. Here are a few general rules to keep in mind as you go in:

1. Your main advantage is shock (surprise and speed) to paralyze the hostile personnel before they can react. Shock will only last a few seconds before they start to react. Crash in with the maximum noise and clear as much area as you can in 15 to 20 seconds. If the house is small and there are enough team members you may be able to clear the whole house in this time. After having secured the entry, use a careful and methodical approach to clearing the remainder of the building.

2. Consider how the doors hinge and plan to get your entry team inside and clear of the doorway as fast as possible.

3. The entry team should be against the wall on either side of the door looking 180 degrees (or more) and up and down (cutting the pie) for threats.

4. The entrants must observe for locations that could conceal hostile personnel, doors and entrances that could be sources of threats, loopholes in walls or ceilings that hostile personnel could fire through, and booby traps.

5. Once the room is clear and any doors into the room are covered the team calls, “Clear” and additional team members (if any) can enter.

6. If the above is completed in a few seconds teams can begin clearing the adjoining rooms fast, but if the initial assault was delayed you must assume that each room contains an armed and ready opposition and more cautious and methodical approach may be required.

7. As you move through the building be sure you do not leave any uncleared room or stairway behind you.

8. If you cannot clear a room, block the door with wedges or furniture until you can clear it.

9. In rooms and hallways with multiple doors, one team member must cover them while the other one clears each room.

10. If you do not have anyone outside to secure the exterior, keep in mind that hostile personnel could go outside and fire in at you from windows.

11. Do not poke you weapon around corners or into doorways where hostile personnel could grab it or knock it out of your hand.

12. Stay close to walls and low when possible.

13. A quick (very quick) peek into a room prior to entry can give you important information on what to expect as you go in.

14. Consider mirrors and shadows that could give you away before you enter a room.

15. Be sure to avoid entering a dark room from a lighted one, making you a blinded silhouette as you enter.

16. Consider wearing earplugs to avoid being temporarily deafened by any gunfire inside a building.

17. Keep in mind that concealment may not be cover. Most modern construction wall (paneling, plaster board, etc.) will not stop bullets so its only "concealment." Older (over 50 years) construction walls of lath and plaster will stop some bullets and are better "cover." Heavy furniture or appliances will stop most light caliber bullets but only brick walls offer reliable cover.

Conclusion

The most valuable lessons you may gain from the above considerations may be in knowing what to expect from those who could assault your home or business. In those nations where private gun ownership has been restricted or eliminated there has been marked increases in home invasions and gang activities. Once assured that the home and business owner has no effective means of defense, gangs and terrorists are free to assault these locations and rob, rape, and murder at their leisure. Obviously, if the occupants know what to expect and are prepared they can have some hope of a successful defense.

EMERGENCY SHELTER

Water is generally accepted as the most basic need in survival. You can usually survive about 3-days without water, but under many conditions you will die in less than a day without effective shelter. Adequate shelter can conserve water, and prevent sunburn and hypothermia in hot conditions. A good shelter can conserve body heat, contain heat from a campfire, keep you dry and prevent hypothermia in cold conditions. Shelters can also camouflage you from view, protect you from hostile gunfire and even reduce the effects of radioactive fallout. Along with water, food, first aid, and defense, shelter is one of the prime components of every emergency plan and survival kit. The shelter we carry, the shelters we build, and the shelters we find are seldom going to be as adequate or effective as the one we normally occupy. This is one of the reasons why evacuation should always be a last resort. Nevertheless, one must have that option in the event that home is untenable, destroyed, or unreachable.

Sheltering at Home

Before we talk about shelters on the road and in the woods, let's consider the challenges of maintaining your home as an effective shelter through a disaster. A storm, bomb blast, or civil disorder may damage your roof and blow out your windows. Nearby fires may throw sparks and embers to ignite your home. Looters may attempt to invade your home or set it on fire. Interruption of gas, water, sanitation and electrical supplies may make your home difficult to live in. Assuming that you have plenty of water and food stocked at home, you will need to be prepared to:

(1) Replace all "normal" services with alternative methods. Have water gathering and water filtration methods. Stock plenty of food and medical supplies. Have a generator and fuel. Have a safe alternative heating system for heating part of your home.

(2) Replace fire and police services with your own capabilities to extinguish small fires and deter would-be looters and miscreants. You can only hope to deter random small bands of criminals and extinguish small accidental or spark created fires. General mass disorder and/or spreading unchecked structural fires in your community will be beyond your capacity to stop. This is why you should be ready and able to evacuate with what you can carry. If these two scenarios are developing, don't wait until it's too late and safe routes are no longer available. Multiple fire extinguishers and adequate firearms may be enough to secure your home against limited threats. The fewer adults or children over the age of 14 you have, the harder it will be to fight fires and defend against intruders. Anything less than four active defenders will probably be overwhelmed and should consider evacuation in all cases.

(3) Repair and reconfigure as needed to prevent damage and provide shelter throughout the crisis. This means having a good supply of heavy-duty plastic sheeting, lumber, nails, tape, and tools. If you have room to store plywood that would be recommended. You will also need a ladder for reaching

the roof. Have a plan and the supplies needed to seal-off and heat just one or two rooms. If flooding is a danger, or you depend on a sump pump for a dry basement, you should have a generator just big enough to maintain the pump or have a plan to clear out and write-off the basement.

Worst Case "I Got Nothing"

So, if all efforts to stay at home fail or you were caught away from home in some kind of emergency such as a storm, terrorist event, or you just got lost out there, you need to know how to find or make a shelter. Let's start with the "worst case" scenario. You were out to a "suit and tie" event and then you know what hit the you know what. You have no survival kit, no Space Blanket ™, no cordage, no fire starter. You just have a small pocketknife because I told you ALWAYS CARRY A KNIFE. Let's say it's cool, calm with rain in the forecast and you will have to cross country gathering supplies as you go. Since you are obviously still in a developed area, all you need to do is start looking for dumpsters, junk piles, construction sights, etc. where plastic sheeting, tarps, awnings, etc. can be found. This is also where you can find a variety of rope, string, wire and other survival materials. A 12 x 12 ft. section of plastic or canvas and some cordage and you are in business. If that option fails, look for unoccupied buildings and vehicles for temporary shelter. Remember that in survival situations you may have to break-in to live. Other sources of shelter may include underpasses, bridges, culverts, open barns; storage sheds, even burrowing into a haystack.

What About The Car?

The automobile is the most ubiquitous and available shelter to be found in any part of the populated world. In many scenarios you would already be in a motor vehicle when the survival emergency begins. They are waterproof and windproof and usually fairly comfortable. But, they are poorly insulated metal and glass boxes that radiate away your heat in cold weather and become solar ovens in hot weather. Still, they will provide better and faster wind and rain/snow protection than most improvised shelters you could build so unless you have the alternative of a shelter and fire combination or a good tent, a vehicle is a good shelter. You can use your survival kit items (Space Blanket ™, blankets, etc.) to improve warmth and a few candles will raise the temperature significantly. The location of the vehicle is also critical. If you want to be rescued stay on main roads and stay with the vehicle, but if things have gone very bad, you want to get off of and out of sight from any main road, then camouflage it with snow, foliage, etc. Under civil disorder conditions, don't even consider staying in your vehicle or an abandon vehicle on a main road or urban/suburban street. You are in a big flammable tin target. In hot weather use the vehicle only for shade and to tie your shade canopy to.

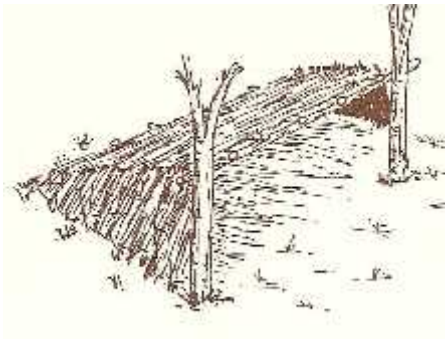
Building Survival Shelters

Assuming that you have neither a building nor a vehicle as shelter options, you are going to have to use material you have with you (e.g. tarps, plastic, etc.) or natural and manmade materials at hand. Select your site with care. Avoid hill tops that catch

wind and avoid low areas that may flood and will hold cold air. Take advantage of any natural windbreaks such as thick trees, bushes or rock outcroppings. Below are a few shelter illustrations. There are many more possible designs. Use your imagination.

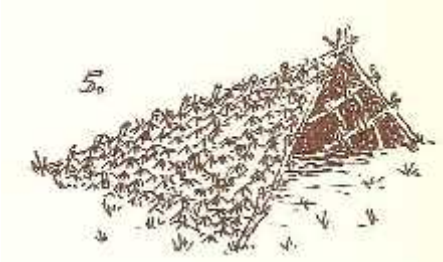
Live Free member demonstrates a small canvas lean-to shelter. Note the prepared fire reflector in foreground.

The lean-to shelter is the most common form of shelter. This shelter can be thatched with natural materials (branches, pine boughs, grass) or a tarp. If a tarp or plastic sheet is used, no frame is necessary. They are best when you are able to put a campfire and reflector in front of them. The ideal use is to build two opposite facing lean-to shelters with the fire in between. This captures much more of the heat and provides good shelter for several people.

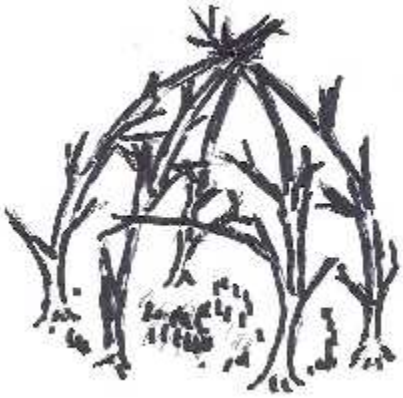


Typical lean-to shelter made from natural materials

Tripod shelters are strong and fast to put up. They are better at conserving body heat, but do not reflect and gather heat from a campfire very well.



The dome shelter is strong and can be built with or without an open side depending on whether you will have a fire or be conserving heat inside. All you need to do is find bendable saplings. You can cover it with natural or manmade materials. One of these that I built lasted over two years.



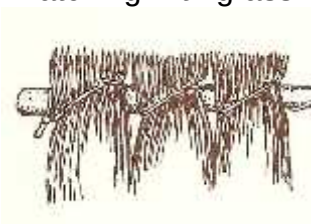
The teepee is strung, but you need to find or cut a good number of long poles and they will leak at the top/center. Off course you can put a small fire in the center for warmth, insect repellent, and the updraft tends to deflect light rain

Live Free member with branch covered teepee shelter. Note smoke from fire inside

Most debris and bough shelters will leak in a heavy rain. If large sections of bark or very large leaves (tropical) are available, they can be overlapped 50% from bottom to top to provide a fairly dry shelter. Remember that rain usually comes with wind. Your shelter must face away from the most likely storm winds and be sturdy enough to survive. Material just spread over a frame or a tarp just strung between trees is not going to survive. True thatching will provide a good waterproof shelter, but takes a great deal of time and material.

Classic example off tight thatching on a hut I photographed in Hawaii

Thatching with grass



Conclusion

While you can carry a knife, flashlight, whistle, fire starter, and many other survival items in your pockets, shelter materials are not so convenient. Shelter materials such as tarps, tents, plastic sheeting, and Space Blankets™ should be part of every survival kit, evacuation pack, and vehicle emergency kit, but you need to be able to find shelter or make shelter from what you can forage. The choice, location, and design of a shelter depends on the nature of the hazards (e.g. heat, rain, cold, hostilities, etc.), the material at hand, and the time and manpower available. We have only explored a few options and a few basic methods here.

WATER, WATER EVERYWHERE

"Water, water everywhere and not a drop to drink" was the lament of the ancient mariner becalmed and thirsty in a sea of undrinkable saltwater. Today, water comes from a faucet or is purchased in bottles, clean and (arguably) pure. But what if it doesn't? Next to air, water is the most critical life sustaining substance. The human body can survive much, much longer without food than without water. In the long-term you can't even produce and cook most foods without access to water. Your cleaning, decontamination, first aid, sanitation, and fire control also depend on water. Wars have been fought over access to water sources and whole cultures have risen and fallen with the flow of rivers and springs. Water supplies are major targets for terrorists and are vulnerable to all manner of natural and manmade disaster. Not only will safe water be critical to your family's survival, it could be a more valuable trade commodity than food or medicine. The water pumps are the heart of urban/suburban civilization and without it they would die in a matter of days. Compared to water, oil is hardly significant. Truly, he who controls the water controls life and he who has his own water is free.

Depending on age, health, and level of activity and environmental (e.g. temperature and humidity) the average person can only survive about three days without water. The average person under normal conditions requires at least on quart of drinking water per day. When reasonable sanitation and cooking needs are added, a half-gallon per day is a good rule of thumb for emergency storage. If you have elected to store quantities of dehydrated foods, you need to remember to store more water for rehydration. For this article we will classify water as:

- Stored Water: This is drinkable water that is deliberately stored for emergency use.

- Available Water: This is water that may be in or near your home, but is not generally thought of or stored for emergency uses.

- Accessible Water: Water that can be accessed or gathered for use in emergencies.

Use some common sense. During the Gulf War people suffocated to death in improperly used gas masks rather than breathe air that *might* be contaminated. If you are very thirsty and have no prospect of safe water being available soon you should drink the safest water you have even if it's not 100% certified clean. Unless you *know* it's poisoned or contains a fatal contaminant do the best you can (if anything) to purify it and drink it. Never ration water. Water is better in the body than in the bottle. There is no long-term advantage to being thirsty. Yes, you may run out of *stored* water sooner, but that water will be in your body doing its job. You should conserve the water stored in you. Obviously, try to avoid sweating if possible and never mop it away. Do not consume caffeinated or alcoholic beverages that increase urination and

actually take water out of the body.

Stored Water

While in theory you can never store too much water, it is heavy and takes up a lot of room. Sorry, there is no such thing as dehydrated water. If you anticipate that you will be staying at home and that your home will be safe from fire, floods, etc. then you can store your water there. If, however, your home could be damaged or inaccessible you should consider storing water in a safer but reachable location. Consider whether you may need to carry your water. A 55-gallon drum of water in your basement would be of no use if you have to evacuate. Plastic containers that were designed to hold water, juice, or soft drinks are good for storing water. Milk containers can be used but are flimsy and hard to get clean. Never use containers that originally help soaps, solvents, or other chemicals. Containers should be rinsed thoroughly with clean water and the soaked in a mild (10%) bleach solution and then, as soon as you dump the solution out, fill the container with clean water and seal tightly. Most municipal waters can be stored without additional treatment. If you are storing well water or other water you are unsure of, add 4 or 5 drops of household bleach to each gallon. Of course you may simply want to buy bottled water at the store. Five gallons of stored water per person should be sufficient for most basic emergencies.

If you have an early warning that there may be a water shortage you should collect as much water as possible while it is still flowing. Fill your bathtub, fill sinks, pans and other containers, fill your washing machine but do not add soap. Fill any children's wading pools and tote bins that may be available

Available Water

If you have failed to store enough water, or you find yourself in a location were no stored water is available you may need to use water from other sources. Not all of these sources are drinkable, but they may provide water for other needs. If you have your own well you have the water problem solved if you have a backup power supply for the pump. If not get one! The toilet flush tank (not the bowel) contains several gallons of clean drinkable water. Do not flush the toilet with this clean water! Scoop it out and use it for drinking and cooking. You can flush the toilet with used, dirty brown water from washing or with water that is unsafe for drinking anyway. Water Heater water. Turn off the main water valves and gas and drain the 20 to 60 gallons of good water from the tank. Water pipes in a building contain gallons of water after the supply has stopped. Turn off the main valve to prevent drain-back and contamination and drain the system from the lowest faucet. This is usually the laundry room sink.

Swimming pools and garden ponds can hold hundreds of gallons of usable water. In fact they may be considered as family emergency water reservoirs. Properly maintained swimming pool water may be used for dinking and cooking but the chlorine content will affect the taste. Even a small pool will supply lots of water for cleaning and flushing. If left uncovered they can be contaminated with airborne biological, chemical, and radioactive materials. Most biological contaminants can be killed through boiling (a rolling boil for 30 minutes). Nuclear fallout can be removed through filtration. Decorative garden ponds may contain debris, animal and bird feces, etc. and would require filtration and bleach treatment or boiling before use

Sump Water

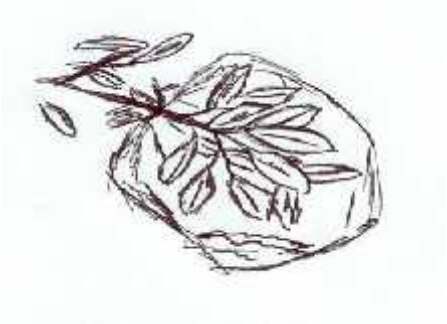
Many homes have a sump pit and a sump pit in the basement. These function to pump away ground water seepage before it can flood the basement. Ground water is not well water and is often contaminated. A prudent homeowner would have a battery powered backup pump or a generator to assure that this pump will run during a power outage. Assuming that if your water city supply is gone so is your electricity you will need to pump or bail this water out regularly. This can be a supply of water for flushing, cleaning, or watering plants. As a last resort you could filter, bleach, or boil this water for drinking.

Accusable Water

Roof water. In the old days people had gutters running to rain barrels to gather water for home use. Large plantations had cisterns to collect rainwater in the wet months for use in the dry times. Rain on a house roof in one storm can provide enough water for weeks. Even dew and frost melting into the gutters can produce several quarts of water each morning. Consider having the necessary gutter piping to divert this into containers. The water will be contaminated but can be filtered, bleached, or boiled for use and drinking.

Rivers and streams today are almost always contaminated. Even in wilderness area animal feces and carcasses upstream may polluted the seemingly clean water. Consider open stream and drainage ditches as a last resort. As is it can be used for watering plants and fire protection. If you have no other alternative you can filter, bleach, or boil it for washing and drinking. Beware of water sources that have no plants growing near them, have odd smells or colorations, or near which you see dead animals. These sources may contain man-made or natural (e.g. arsenic,) contamination that cannot be easily removed.

Water from plants. Most plants transpirate (sweat) water every day. Wrapping plastic bags around heavy hanging foliage will collect this water in the low corner of the bag



Mopping up the morning dew from rocks, metal surfaces (e.g. cars, boats) etc. with sponges or rags and wringing it into a pan can gather a considerable amount of water. Water trapped in soil and mud can be placed in cloth or a clean sock and squeezed out

Wringing Water Out Of Mud

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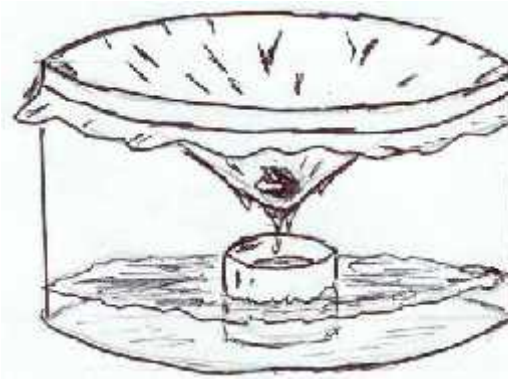
The so-called “desert still” was designed to distill small amounts of water from seemingly dry desert soil and cactus pieces in an emergency. This same system can be used to distill much more water from moist soil and foliage. A similar still can be constructed to render drinkable water from saltwater as illustrated below.

Right: “desert still” consists of a hole about 15 to 20 inches deep and 18 to 24 inches in diameter. A water collection cup or pan is placed in the bottom along with any available plant material. A clear sheet of plastic is suspended with slack over the hole and held in place with rocks. A small rock is placed in the center to create a low center point. As the sun heats the hole, water gathers on the inside of the plastic, runs down, and drips into the cup. In the evening remove the cup of safe water



Left: A solar simple still made from a round pan and clear plastic. Place a weighted (so it won’t float cup in the center and saltwater in the pan. The sun will distil the water into the cup without the salt.

Now that you have water you need to know how to filter it, purify it, and conserve it

Filtration

The filtration of visible (muddy, murky) gross contaminants can be accomplished using such items as coffee filters, clean cloth, or clean sand. This does not make the water safe to drink. You must boil and treat the water before it is safe. Cartridge filters are designed to remove virtually all-biological, chemical, and particulate contamination from water. Most camping and outdoor sports stores sell these units for from $30.00 to $60.00. These units are portable and can filter hundreds of gallons of water per filter. You simply must have several of these.

Distillation

Boiling water into steam and then condensing it into clean water provides water free of biological and particulate contaminants. Some volatile chemical contaminants can remain with the distilled water. Distilled water often tastes flat. Shaking it to aerate will restore a normal water taste. Stills can be improvised, but having the components ready and tested is better yet.

A still system consists of:

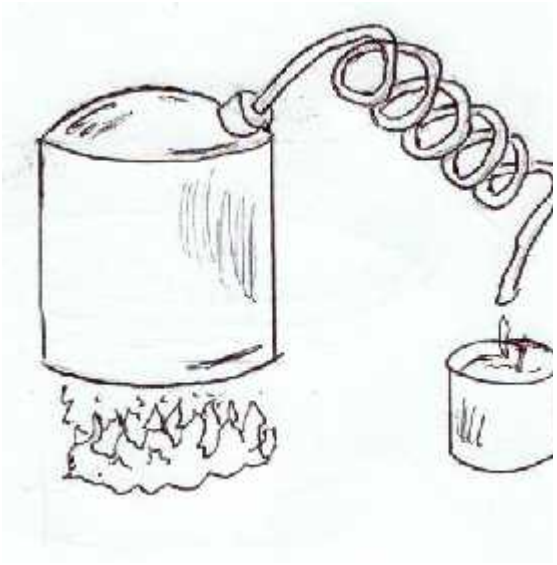
1. heat sources such as a stove, or fire

2. A closed tank or pot to boil the contaminated water in

3. A long tube or coil to take the steam away and cool it

4. The tub can be cooled by air (coiling) or water. Wrap the coil in cloth kept wet

5. A container to catch the water



Treatment

When other methods are unavailable water can be made safe through boiling or treating with chemicals. Bringing water to a rolling boil for 3 to 5 minutes will kill all biological contaminates ad drive off many volatile chemicals. Filtering it through a coffee filter will remove most particulates

In general, 8 drops of household bleach will kill biological contaminants. 10 drops of tincture of iodine will do the job as well. You can use up to 10 drops if the water is severely polluted. Mix in the bleach or iodine and let it stand for an hour before drinking.

Water purification tablets are available from camping supply outlets for about $5.00 for a 50-tablet bottle. These are very small bottles that can be carried in pockets and survival kits

Conservation

Water that is not safe to drink may be okay for washing clothes or watering plants. Water that has been used for washing or is from an unsafe source can still be used to flush the toilet. Think. Try not to use drinking water for anything but drinking,

food washing, hand washing, and medical care.

Winter Survival

If your survival preparations don't cover subfreezing conditions you are only 50% ready.

The great majority of survival skills and survival equipment work well in dry and temperate weather. In the dry summer conditions you can survive for a while by simply not doing anything stupid. Moderate clothing and basic shelter items will get you through the chilly damp conditions of late spring and early fall. At home, mild weather survival focuses on having safe water and enough food. But winter conditions make survival anywhere an immediate and constant challenge. In winter, Mother Nature tries to kill you. Cold takes no prisoners. Whole armies have been wiped out by General Winter. The survival battle comes down to maintaining the body's temperature. This is accomplished in four actions:

1. Generating heat internally through the consumption and metabolization of high calorie food and the necessary water to process it. Consider this fueling your furnace. Food requirements are much higher in cold weather.

2. Keeping cold out of the body. Eating cold food, drinking cold liquids, and breathing in cold air quickly lower the body's temperature.

3. Preserving body heat. Breathing out warmed air, standing in cold winds, contact with the cold ground, getting wet, not wearing adequate clothing and failure to cover the head will burn away calories (heat) and lead to hypothermia.

4. Gathering heat from external sources. Getting into a warm place, standing in the sun, drinking warm liquids, eating hot food, standing by a fire and breathing warmed air reduces heat loss.

Civilization has focused on providing a warm environment. Our homes are heated. Our vehicles are heated. Even in winter our exposure to cold is brief. Well-fed and warm most of the time, we are all in poor condition to survive long-term cold under survival conditions. When we think of survival we think of winter fire, but all animals and some human cultures survive the harshest cold conditions without any form of external heat. They depend on heat conservation and high calorie food metabolism. Two things are certain:

- Inadequately fed and clothed humans who are exposed to severe cold or chilly wet conditions for too long will die.

- If you live in most areas of the United States and Canada and have not acquired the skills and equipment for long-term cold weather survival you are at high risk 20 to 70% of the year.

The body loses heat in 5 ways:

1. Respiration: Breathing in cold air, heating it in your lungs, and then exhaling the warmed air back out is a significant source of heat loss. A simple facemask, ski mask, or muffler over the nose and mouth can conserve some of this heat.

2. Evaporation: Sweat and dampness on clothing evaporates and carries away heat. Alcoholic beverages give the illusion of warming while evaporating through the skin and taking away more heat. Rain, snow, and even fog will dampen hair skin and clothing to take away your heat.

3. Convection: Air (wind) passing over the skin carries away heat. That's great on a hot day, but deadly in the cold. Get out of the wind ASAP! On the move wear a wind proof poncho.

4. Conduction: Nature hates an imbalance. If you are in contact with ground, rocks, metal, snow, etc. that are colder than you are, energy will flow from you to the cold surface. Minimizing contact and good insulation are the keys to preventing this heat loss. Wet clothing loses 90% of its insulation value with water having 240 times the heat conductivity of dry air. STAY DRY!

5. Radiation: the whole body radiates heat/energy into the environment. Adequate clothing is the only way to reduce this radiation. Since heat rises, the head and shoulders are the greatest source of heat loss and since the brain is most heavily supplied with blood circulation, the head is the last part to *feel* cold. Listen up! Hoods, stocking caps, and those big fur caps will save your life. One day we were out in 10 below zero winds. We entered an unheated building and just took off our caps. We immediately started to shiver until we put them back on. Another device for combating radiated heat loss is the "Space Blanket." These aluminized blankets can be used as ponchos or rigged as shelters. They reflect body heat back to you. They can also be used to catch and reflect campfire, stove heat, or solar warmth onto your body. I have recovered from damp cold clothing in this way.

The two chief dangers of cold exposure are hypothermia and frostbite. A person who is exhausted, hungry, or sick is more susceptible to both of these life and limb threatening conditions.

Hypothermia

Hypothermia occurs when the body's core temperature begins to fall. This happens when the body is no longer able to generate or hold more heat than it is losing. Being exposed to cold, wind, and rain with inadequate shelter, clothing, and food are prime causes of hypothermia. Shivering is the warning sign of impending hypothermia. The body is using the heat generated by shivering as a last ditch effort to

maintain its core temperature. This occurs as the body temperature drops towards 90 degrees. Below 90-degrees slurred speech, dulled comprehension and jerky muscle (staggered walking) movements indicate the need to immediately get this person out of the cold and introduce warm liquids. At 80 to 85-degrees the victim will lose contact and drift into a stupor. Pulse and respirations slow, indicating advanced hypothermia. At this point the person will continue to decline even with external warmth provided. In advanced hypothermia, the cells reach a point where they are too cold to produce heat therefore creating a progressive condition that only a hospital can reverse with warm IVs. This is why it is important to recognize hypothermia at its earliest stages and act. At 80 to 78-degrees the victim will become unconscious and will suffer cardiac failure and hemorrhage into the lungs resulting in death. In addition to getting the victim into a warn environment and giving them hot sugary liquids while they are still conscious, you can rewarm them by placing heat packs under their arms and on both sides of the neck. Forearm emersion in warm water is another effective rewarming method. Simply place both forearms under warm running water or wrap both forearms in warm damp towels. Caution: A person who has reached the advanced (semi-conscious) stage should not be rewarmed too fast externally as this may drive the cold external blood into the core and cause cardiac fibrillation. Of course if immediate hospital treatment is not available you cannot wait to rewarm.

Frostbite

Frostbite Is the actual freezing of external body tissues. Frostbite can result in loss of body tissues, amputations, gangrene, and death. Fingers, toes, and ears are the most often frost bitten, but prolonged exposure can result in the loss of larger (hands, feet, legs) body parts. Any part of the body that feels very cold can suffer frostbite if it is not protected and warmed promptly. The sensation of cold turns painful as circulation stops. As nerves freeze the sensation is lost and nothing is felt. The skin becomes gray or yellow-white and ridged to the touch. Do not rub the part or forcefully remove shoes or gloves. Once the victim is brought into a warm environment and the area begins to thaw it will become swollen, red, and painful. If the color goes to black, tissue loss is probable. Frozen body parts can be thawed by emersion in warm (not over 105 f) water or placing them in the armpits. Never expose a thawed body part to potential refreezing! A previously frozen tissue is much more susceptible to refreezing and the loss of that tissue is much more likely after a second freeze. Damaged tissues should be wrapped in soft, thick, sterile (if possible) bandages and kept warm. Seek medical attention as soon as possible

Wear thermal socks in cold weather and have a spare pair handy. Tight fitting gloves actually make the fingers more prone to frostbite. Wear insulated gloves and in severe cold wear mittens.

Winter Survival At Home

Fortunately survival threats like civil disorder and terrorist attacks are less frequent in cold weather, but power outages, fuel, and food shortages are greater. When balancing the hunker-down vs. hit-the-road options, staying home as long as possible may be best. Even an unheated house is better than a tent. You may be able to ride-out the situation, or at least hang on until the weather improves before

evacuating. You must be set up to get by without any utilities (e.g. gas, water, electric) and support (e.g. medical, fire, police, groceries) for several months. It is highly unlikely that you will be able to store enough fuel to run a generator and heat your whole house for several winter months. So you will have to adopt a “camp at home” configuration.

Camp at home simply means that you will reduce your needs by utilizing camping supplies in the home. You can take an interior room and seal it off with plastic sheeting. This will be your one room shelter for the duration. You may be able to have enough fuel for a small camp heater to help heat one room. Even better, put up a tent in your living room and stay in there. A small tent will be easy to heat and will conserve body heat as well. The best way to stave off the effects of cold is to heat hot food and drink hot liquids. A good camp stove with lots of fuel cylinders is a must. Get good sleeping bags for everyone! An army surplus “mountain” rated bag is good to about 10-degrees above zero and costs about $40.00. In an unheated house, on a mattress with a few blankets it will be good at colder temperatures. For about $180.00 you can get the army surplus “extreme cold/arctic” bag rated to 40-degrees below zero. Of course, commercial bags are available at higher prices with equivalent ratings.

The body burns a lot more calories in cold weather, so you need to have hearty foods stored away. Fortunately, the food in your freezer can be kept frozen or at least refrigerated for some time if the power goes off. You will need to have a strong animal proof box to store this food outside in the shade. You can store food in an unheated garage or shed, or in large metal ammunition boxes like the ones designed for 40mm rounds. If you have a wood stove or fireplace, stock up on wood. Stoves are efficient to heat a room or two, but fireplaces without a running fan are not much help. You will need a good camp heater to keep your indoor tent or sealed (not air tight) room warm. A Coleman ™ 3000 BTU heater will run 7-hours on one 16 oz propane cylinder. That’s enough to heat a tent or small room for part of each day. You are going to have to spend about 12-hours a day in those sleeping bags to conserve your own heat and energy. The heaters will have to be turned off when you’re in your bags. Even so, you will need to have 50-100 cylinders to heat and cook with through the worst of the winter. You will want to have hand-crank powered flashlights and radios, but in the case of winter survival, candles and gas lanterns are sources of heat as well as light and should be used safely. Keep your carbon monoxide detector and smoke detector working. Have fire extinguishers handy. Avoid leaving unattended candles, stoves, and lanterns. Although the camp heaters and stoves are generally safe for indoor use they are hot and they burn oxygen, thereby creating a hazard you *must be aware of.*

While the survival pack and the ability to survive on your own is an essential, if your home gets below freezing for any length of time the water pipes will freeze and burst, causing flooding. If you cannot keep them warm, let the water trickle from each faucet. If that fails, turn off the water and drain the pipes. The prepared home is a key element of independent, self-reliant survival capacity, abandoning the home is always a last resort. This is especially true under winter weather conditions.

Vehicular Retreating

If you must leave home and you can drive your vehicle to a safe destination

that is what you should do. You should have your survival packs in tote bins ready to load in the vehicle. Other tote bins should have your additional sleeping bags, tents, stoves, heaters, fuel and food. The scenarios to follow assume that you will either not be able to drive out or will have to abandon your vehicle at some point. This is a possibility you must consider.

Short Distance Retreating

If you cannot stay in your home you will want to minimize the distance to a safe place. Your good weather destination may be too far to carry what you need for winter survival, so you may need to have a short-term site within a few hours hike to hold-up in until the weather improves. Abandoned buildings, barns, sheds, stored boats, or motor homes, etc. may be considered. If you have a roomy vehicle and a place to hide it off the main roads that may be your optional shelter for a while. Things like tents, heaters, sleeping bags and food can be hauled a short distance to establish this temporary retreat.

Load Sharing

If you have a large family or group your chances of a survival in winter are greatly improved. By spreading the loads of extra shelter, fuel, and food over more people you can all be warmer and better fed. Sharing body heat in shelter will also be a big help.

Sleds and Snow Shoes

If there is more than 4-6 inches of snow on the ground, walking with a full pack will be difficult, but pulling a sled becomes a good option. If heavy snow is frequent in your area, you may want to get into snowshoeing or cross-country skiing as a healthy sport. It's great exercise and gives you mobility others will not have. Pulling any kind of toboggan or sled will let you carry along what you really need for winter survival.

Caches

If safely stashing extra supplies of food, fuel, blankets and shelters along your route are an option, do so. Unfortunately, there are few safe places to stash anything today and locating your cache in winter may be challenging. Buried stashes may be hard to remove from snow covered and frozen ground. Depending on these life saving items being there when you arrive cold and hungry could be risky.

Using Natural Resources

One of your best options is learning "back-to-basics" survival skills. The pioneers and the early explorers *did* survive winter after winter without most of the "survival" supplies we now take for granted as necessities. They hunted, fished, trapped, and foraged for food. They used hides, and bark, and branches to build shelters. They made fires and kept warm. They made beds from pine branches, grass, and leaves. They were not "comfortable" and they were not "well fed", but they *did* survive through winters. If you acquire some of these basic "wilderness survival" skills combined with your pack full of modern survival equipment you could survive through a winter without additional supplies. I must point out that the having a good knife,

sharpening stone, hatchet, small shovel, fire starters (flints, magnesium, etc), fish hooks, line, and of course, a small caliber (22) pistol or rifle in your gear would be essential to using natural resources for food, shelter, and warmth.

Conserving Body Heat and Energy

Always be prepared for what the weather could be for the time of year, not what it is. Those nice warm fall and spring days can turn into cold, wet windy days that can bring on hypothermia in a few hours. Even a summer night can be deadly for someone in shorts and T-shirt. The old theory that if you fall asleep in the cold you will never wake up is a myth. Yes, if you exhaust yourself fighting a storm or you allow yourself to get wet (rain or sweat) and tired *before* you stop and fall asleep, you may not wake up. But if you stay dry and conserve your body's heat and energy supply, your chances of survival are actually improved. Generally, a sleeping person will wake up when the body gets too cold and move around just enough to generate a little heat. There are cases where survivors huddled together under a few tarps or dug into a haystack and dozed on-and-off for weeks before emerging to be found. Always have a rain poncho available in your pocket, purse, locker, and glove compartment and of course a good one in your pack.

The greatest heat loss is through to top of the head. The body supplies the brain with warm blood and heat rises, so the head seldom feels cold, but it is sucking heat from the rest of your body. The neck also radiates a lot of heat that can be conserved with a turned up collar and/or a scarf. A wool cap or ski mask is a must have item.

Another big source of heat loss is respiration. You breathe in cold air that then sucks heat from inside the body which you blow away when you exhale. A simple facemask or the ski mask can help conserve some of this heat. So a pocket poncho (or large plastic bag), a dust mask, and a wool cap alone could save your life if caught in bad weather. Keep a pair of thermal socks under your shirt when out in winter. If your feet get wet you have dry socks. If your gloves are lost, you can use them as mittens.

Don't eat snow. Dehydration is a real danger in cold weather. The humidity is usually low and moisture is lost through respiration. Plan on drinking plenty of liquids, but not cold liquids. That will lower your body's core temperature. Stop and heat water. Make tea or coffee if you have it. Warm, sweetened liquids will add heat and energy.

Avoid long exposure to wind that will take heat from you by convection. Avoid long-term contact with the cold ground or objects such as rocks, metal, etc. that will pull away heat through conduction. Avoid sweating or becoming wet from snow and rain as this will ruin the insulation value of your clothing. Stay dry! Avoid drinking alcohol. That takes heat away as it evaporates through the skin. Do increase your food intake and drink hot beverages to fuel your body's heating system.

Winter in Camp

Camping out for extended time in winter is a last resort. The requirements for adequate food, water, fuel, and shelter are much higher than for mild weather. Most people will not be able to haul the necessary weight far from their vehicle (road). Large groups will be able to do better than small families or individuals under these

conditions. Camp locations must be selected with care. Select a site that is sheltered from the wind and has adequate access to fuel (wood) and water. Cold air travels down, so avoid valleys and ravines. Camp in the lee side of ridges. If you can build up a sleeping platform a few feet off the ground it will be 5 – 10 degrees warmer. Underground shelters and basements are miserable in cold weather. Most “camping” tents are designed for mild weather. They are well ventilated. This is great for hot weather, but not so good in cold weather. Look for “expedition” or “mountain” tents that are designed to withstand wind and have smaller closable vents. Select a tent that is just a little bigger than the number of people who will occupy it. If there are two of you, get a “three-man tent”, etc. Too large a tent will be impossible to keep warm. Too small a tent will bring you into contact with the cold walls and not let you do anything but sleep in it. If you can have only one tent and it is a warm weather tent, consider making up a cover for the ventilated roof. Better yet, cover the roof under the rain fly with reflective Space Blankets to reflect the heat back into the tent. Years ago, I spent two very cold nights in an improvised dome shelter made from clear plastic tarps spread over bent saplings. It was quite warm at night and was a greenhouse of warmth when the sun came out. Clothing, blankets, and sleeping bags become damp from outside moisture and sweat. This causes them to lose significant insulation value. They should be dried each day by hanging them out in the warm sun or letting them freeze and then beat out the ice crystals each day.

Conclusion

Winter survival is all about energy (food & fuel) management. You must be able to internally and externally create more calories of heat than you lose staying warm and doing work. You must create, gather heat, and save heat. Summer forgives errors, winter does not.

PRACTICAL HAZMAT PROTECTION

A much abridged version of Live Free's standard NBC Protection course.

Let's look at some practical considerations before we begin. Unless we are in the military or reside near a government or military installation, the chances of our being subject to a chemical weapons attack are extremely slim. This leaves us with possible exposure from an accidental or deliberate chemical plant incident. This would affect a fairly limited area downwind and downhill from the source for a short time.

A limited nuclear exchange outside the US (say between Pakistan and India) would produce only limited fallout in the US. In the 50s the US was testing dozens of atomic weapons in Nevada and in the pacific and there is only slight evidence of any increase in cancer and no radiation sickness. A so-called "dirty bomb" would only affect a small area near the detonation. A massive Chernobyl-like disaster could affect a considerable area, although there would be adequate time for evacuation. Only the improbable multiple nuclear detonations within the US would necessitate in-place sheltering and multiple decontaminations.

The first phases of a biological outbreak would not be recognizable. Only after thousands become symptomatic would an epidemic or attack be suspected. We also can consider any area that has been subjected to devastation from civil disorder, war, or natural disaster as a probable biohazard zone after a few days.

This leaves us with the need for short-term protection against radioactive fallout and long-term protection against biological agents. So, we will limit our discussion to the most likely scenarios and the most practical and effective methods for protection and decontamination.

Rules of Nuclear, Biological and Chemical Survival

1. Keep the contaminant (chemical, virus, bacteria, and fallout) out of your body.

2. Keep the contaminant (chemical, virus, bacteria, and fallout) off of your body.

3. Get out of the contaminated area as fast as possible.

4. Get the contaminant (chemical, virus, bacteria, and fallout) off of your body and covering as fast as possible.

5. Isolate yourself from people and material that are contaminated as soon as possible and for as long as possible.

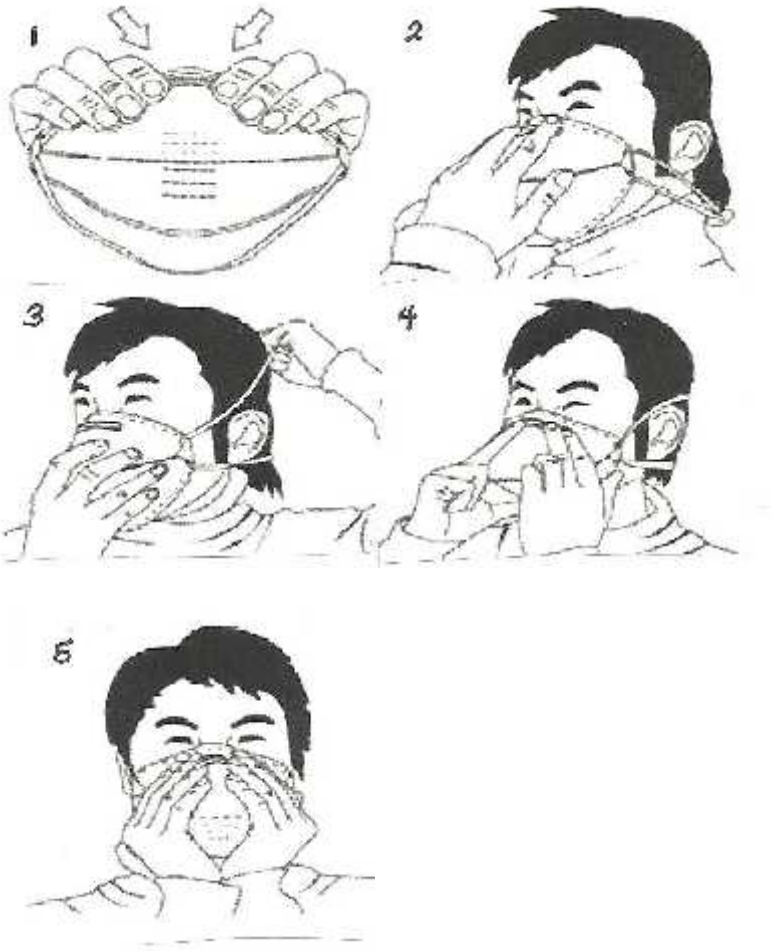
6. Treat the symptoms of chemical exposure, diseases, and radiation as effectively as possible

Respiratory Protection

Ninety percent of the immediate harm from biological agents, chemical agents, and radioactive fallout is from inhalation and ingestion of the contaminant. Skin exposure must be decontaminated as soon as possible, but what you have breathed and swallowed is irreversible harm. It is unlikely that you will have an M-17 or an Israeli gas mask handy when the NBC event happens. You may be at your job, at school, shopping, or on the road. Even if you have full NBC masks and gear at home you may well breathe a lethal amount of contaminant before you get there. Remember: "It's not what you *have* that saves you, it's what you *have with you.*" Fortunately the N95 dust/mist masks sold in most hardware stores for painting is all the protection you need from biological threats and nuclear fallout. These mask cost less than $2.00 each. They also can protect you from chemical contaminated dust and soot created by bombs, fires, and storms. These masks are small and light enough to carry everywhere. You should have at least one in every jacket, purse, glove box, briefcase, and pack. Have more of them at home. It is critical that you keep them in a sealed plastic bag so that the inside of the masks are not pre-contaminated before you put it on. It is also critical that you fit it properly according to the instructions. Air and contaminants will not go through a filter if they can go around them. Be aware that all bets are off if you have a beard or heavy facial hair. You may need to consider packing a plastic razor with the mask. The mask will keep biologically contaminated air and mists out of your lungs and will keep radioactive dust partials out of your body where Alpha and Beta radiation do the most harm. The N95 is not rated for chemical protection, but does provide limited short-term reduction in exposure. There are also some N95 plus masks that have a charcoal impregnated layer for improved protection against chemicals. **So, you'r most important and effective step to NBC protection is stocking-up on N95 masks and have a least one with you and every family member wherever you go.**

Instructions for Fitting N95 Dust/Mist Masks.

1. Mold the nosepiece to the shape at your fingertips, allowing the headbands to hang below your hand.
2. Press the respirator against your face with the nosepiece on the bridge of your nose.
3. Place the top band high on the back of your head. Move the bottom band over your head and position it below your ears.
4. Using both bands, mold the nosepiece to the shape of your nose.
5. Test the fit. Cup both hands over the respirator and exhale vigorously. If air flows around your nose, tighten the nosepiece. If air leaks around the edges, reposition the bands for better fit.



If you are concerned about chemical agents, consider purchasing a mask designed for pesticide spraying. Most chemical warfare agents are based on pesticides and these masks will work well enough for you to evacuate the affected area. You will also need a pair of chemical goggles to protect your eyes. Both of these are usually available at garden supply stores.

Home Made Mask for Biological Agents

Mix 1 tbsp. of bicarbonate of soda to 1 cup of water. Mix the solution well and soak a cloth or handkerchief in it. Wring out till damp and secure over nose and mouth.

Protective Clothing

In the case of biological agents, you generally will not be wearing protective clothing. However, clothing worn in public (stores, buses, etc.) where it may have been contaminated by coughing, sneezing, contact with furniture, etc. should be removed wearing gloves before the mask is removed and laundered thoroughly.

Your best protection against biological hazards is the ability to stay completely isolated from the public until the epidemic has run its course. That means having

enough food, water, and other supplies to eliminate any need to leave home for from two to six weeks. During this time you will have to treat every approaching person (friend and family member) as a threat to your life to be turned away. Decontamination will not save you if the “visitor” is already carrying the contagion. Remember that a person may be contagious long before showing symptoms. In fact, biological warfare agents are designed to work just that way. Once the epidemic has started, anyone and anything that enters your home must be decontaminated with a 10-percent bleach water solution. Even though you may still have running water it may be contaminated or even the source of the epidemic. Boil all water for 5-minutes or add 8-12 drops of bleach per gallon. Never run out of bleach. **Have at least five extra gallons on hand at all times and rotate frequently. You will need it for water purification, decontamination and body waste disposal throughout any emergencies**. All potentially contaminated food containers (cans, bottles, etc.) that were recently in public places (stores) should be wiped down with a 10% bleach solution or soap before opening.

Having kept the hazardous material *out* of the body, we can move to how to keep them *off* of the skin and hair. There are three situations where body protection may be necessary:

1. Situations where heavy biological contamination exists, such as hospitals, dead bodies, or areas where biological agents have been dispersed.

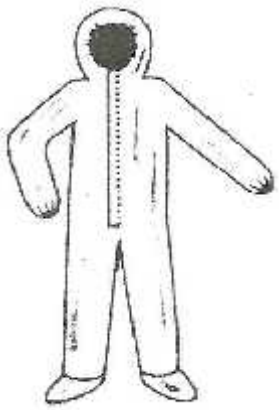
2. Situations where airborne chemical contaminants are present, such as downwind of a chemical spill. Or in building debris.

3. Any area in the downwind “footprint” of fallout from a nuclear detonation for at least two weeks.

Fortunately, again there are fairly simple and easy solutions available. You do not need heavy NBC suits and masks. These products are designed for the military and industry to fight, and work for extended periods in high-risk environments. You just need immediate protection long enough to get out of the contaminated area or reach a fallout shelter.

You can improvise a protective suit from plastic bags rubber bands and a pair of surgical gloves. Latex gloves are a handy item that I keep with each mask. The suit below consists of two large bags used as a skirts and head/body cover and four small ones used to cover arms, legs and shoes. It is important to note that any form of non-porous covering is better than none. Even just the one big bag covers 50% of the body. A raincoat or poncho is far better than nothing.

A step better is the basic Tyvek ™ chemical protective suits with the hoods and feet. These are cheap (around $12.00), light, and easy to carry. I keep one in all my survival packs. These too are often available in hardware stores and are used by painters. They are a bit bulky for the pockets, but fit well in the glove box, desk drawer, or locker.



Cheap Tyvek ™ suit.

Decontamination

Now that we have kept the bad stuff off of our skin and out of our lungs, we need to be able to remove the contamination and contaminated coverings without transferring it back into and onto our bodies. This process is called decontamination. Of course, we want to do this when we are outside of the danger zone or at the entrance to more effective shelter (underground for fallout, enclosed from biological or chemical) locations. Ideally, this is a two-person job, with both wearing protective clothing. It should be done in a location that will not permit contaminated run-off, spray mists or dusts to contaminate other areas.

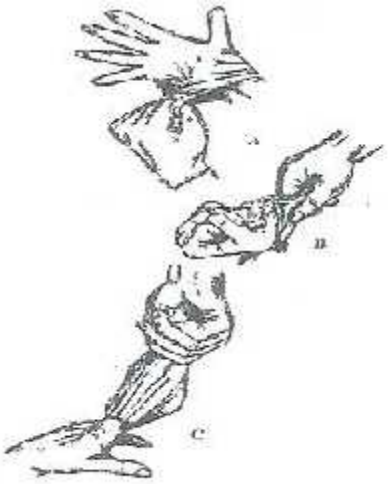
There are five steps to effective decontamination

1. **Gross decontamination** involves simply brushing off or rinsing

off any surface contaminants as well as dumping any contaminated gear that will not be needed.

2. **Thorough decontamination** is accomplished by the use of pressurized water (not high pressure) with a neutralizing or disinfecting solution. A 10-percent bleach solution is best for biological contaminants. Soap and water will clear most chemical and fallout materials. Plain water used copiously will be less effective, but may be adequate. The best device for spraying is a commercial pump garden sprayer. Keep a clean one handy at home. They are also good for fighting small class “A” fires and general hygiene tasks.

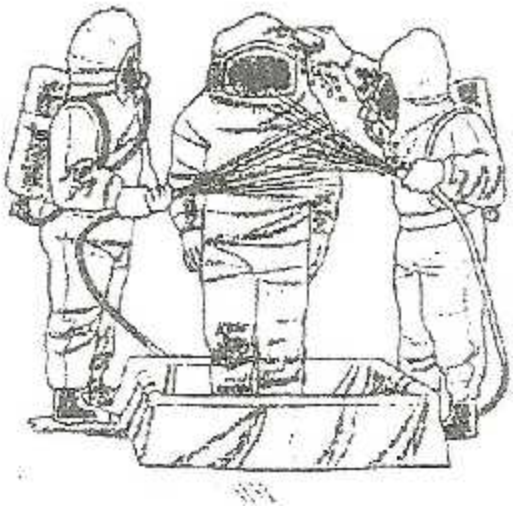
3. Next you need to **“peel of” the protective clothing** minimizing any contact with the clean clothing and skin underneath. Step out of the foot coverings* onto an uncontaminated surface. Remove the face mask and then peel off the gloves



Degloving procedure. At no time does the hand contact the outside of the glove.

4. If any clothing was potentially contaminated before you put on the protection it must be removed and any **skin, or hair must be rewashed before dressing and entering the safe zone or shelter**.

5. Finish up by bagging all contaminated materials and containing all contaminated waters. **Remember; the decontamination area is now a hot zone that cannot be entered without protection**. Be sure your selected decontamination area does not block exit or entry routes for uncontaminated people.



The illustration above shows professional HAZMAT decontamination at the highest level of protection, but the principles are the same. Get it off, take it off, and leave it there.

Conclusion

Your improvised emergency protection may not be as effective as professional and military equipment, but you are more likely to have it and use it when and where you need it. Used quickly and with care, these techniques will be effective enough to save you from the effects of exposure to radioactive fallout, biological contamination, and most chemical exposures. It is recommended that you have at least one N95 mask and a pair of latex gloves in each jacket and survival pack. Have enough plastic bags and/or chemical suits to protect every family member handy.

NOTE: The plastic bag suit, chemical suit and dust mask are all useful for cold weather survival situations and should be part of every survival pack.

Homemade Baking Powder

Commercial baking powder consists of baking soda, one or more acid salts (cream of tartar and sodium aluminum sulfate), plus cornstarch to absorb any moisture so a reaction does not take place until a liquid is added to the batter. Most baking powder used today is double-acting which means it reacts to liquid and heat and happens in two stages. The first reaction takes place when you add the baking powder to the batter and it is moistened. One of the acid salts reacts with the baking soda and produces carbon dioxide gas. The second reaction takes place when the batter is placed in the oven. The gas cells expand causing the batter to rise. Because of the two stages, baking of the batter can be delayed for about 15-20 minutes without it losing its leavening power

Note: The general rule of thumb for amount of baking powder in recipes: 1 to 2 teaspoons (5-10 grams) of baking powder leavens 1 cup (140 grams) of flour.

Common low-temperature acid salts include cream of tartar (potassium bitartrate), calcium acid phosphate, calcium acid citrate, or sodium pyrophosphate.

High-temperature acid salts are usually aluminum salts, such as calcium aluminum phosphate or sodium aluminum sulfate (alum). Concerns of possible Aluminum toxicity caused Aluminum salts were phased out of most baking powder formulations in the 1980's.

Substitution for 1-teaspoon commercial baking powder:

Note: Begins to react immediately when it is added to moist batter, so it must be baked immediately.

A. 1/4 teaspoon (1.25 grams) baking soda, 1/2 teaspoon cream of tartar plus 1/4 teaspoon of cornstarch

B. 1/4 teaspoon (1.25 grams) baking soda with 2 teaspoons of vinegar, citrus juice,

C. 1/8 teaspoon (0.75 grams) baking soda with 3 tablespoons (18 grams) natural cocoa powder (not Dutch-processed).

D. 2 teaspoons (10 grams) baking soda to 1 cup molasses

E. 1 teaspoons (5.0 grams) baking soda to 1 1/4 c Brown sugar

F. 1 teaspoons (5.0 grams) baking soda to 1 cup maple syrup

G. 1/2 teaspoon (2.50 grams) baking soda for every cup of honey used

H. 1 teaspoons (5.0 grams) baking soda to 2/3 c. orange juice

I. 1/4 teaspoon (1.25 grams) baking soda plus 1/2 cup (120 ml) of an acidic ingredient:

a. buttermilk, sour milk, sour cream or yogurt

However, if the mixture is acidic, baking powder's additional acids will remain unconsumed in the chemical reaction and often lend an unpleasant chemical taste to food. High acidity can be caused by ingredients like buttermilk, lemon, yogurt, citrus, or honey When excessive acidity is present, some of the baking powder is replaced with baking soda once a can is opened, fresh baking powder should be good for 3 to 6

months.

To test baking soda's effectiveness: mix 1/4 teaspoon baking soda and with 2 teaspoons of vinegar the mixture should bubble immediately

I am glad to see this confirmed, I have tested baking powder stored in my basement for 9 year old and found it functioned perfectly. Ken

Effect of long-term storage on baking powder functionality

Baking powder is widely used to leaven baked products. The industry standard for baking powder shelf-life is eighteen to twenty-four months, but little information is available on baking powder functionality when stored beyond this time. A longer shelf-life would prove beneficial in certain situations, such as personal food storage, disaster relief efforts, and space missions.

The objective of this research was to determine the effect of long-term storage on baking powder functionality

Six samples of double-acting baking powder in original commercial packaging were obtained from donors and two fresh samples were purchased. Samples ranged in age from 0.25-29 years and were stored in cool (15-25 ºC) and dry conditions. Percent moisture was determined gravimetrically. Baking powder samples were reacted with 100% phosphoric acid in a closed vessel and the total carbon dioxide evolved was measured using a CO2 extraction line. Biscuits were made following standardized procedures and measured for height, diameter, and surface crumb color.

Moisture content of baking powder samples ranged from 1.4-3.2%. Total CO2 ranged from 18.8-21.9% of sample weight and did not significantly decrease over storage time. Average biscuit heights ranged from 3.0-3.4 cm, with the control made without baking powder averaging 2.1 cm. The average volumes (calculated from the average measured heights and diameters) ranged from 66-79 cm3, with the control averaging 47 cm3. Average height and volume did not decrease over storage time. Mean L*a*b* color values for biscuits ranged from 66.0-70.5, 4.0-7.4, and 25.9-31.2, respectively, with control biscuits averaging 70.6, 1.5, and 18.6, respectively.

Under optimal storage conditions, it appears that baking powder retains its functionality as a leavening agent for many years and can be included in applications requiring long-term food storage.

The Survival Camp

Live Free, USA has field- tested all levels of survival camping including the construction of a full base camp under simulated hostile conditions. The photos in this article are from those exercises.

In past chapters we have looked at survival packs, home survival plans, evacuations, urban survival and a wide variety of survival emergency scenarios. Under most emergency situations it is best to remain in the shelter provided by your home and use the supplies and equipment there. Once you have elected to take to the road, you are placing yourself and your family at the mercy of the environment and a variety of hazards with the limited supplies you can carry. Unless you have a well-

established route to a well-established and supplies retreat, you should regard taking a hike as the last resort. There are several scenarios that would justify or even necessitate evacuation and relocation under emergency conditions. Your home could be in imminent danger of destruction from floods, fires, or looters. You may run out of supplies. Roving gangs or spreading epidemics could make the area unsafe. Some kind of “police state” action could make moving to the hills preferable to remaining in towns.

So let’s look at the various types of camps or bivouacs one might establish. There are three basic kinds of camps one may establish or be involved in establishing. There is the “hasty camp” that you put up nightly while on the move or when weather forces you to halt. There is the “Survival Camp” that an individual or family establishes where they intend to stay for a while to shelter, rest, gather food, and perhaps meet others. And there is the full-blown “Base-Camp” where a group of families or an organization sets up a long-term base to provide all life sustaining supplies and services for an indefinite time. Each of these camps requires shelter, water, food, warmth, sanitation, and security. In many cases camouflage and concealment will be beneficial to survival.

The Hasty Camp

The hasty camp can take many forms, depending on the weather, location and outside hazards. Since such camps are inevitably established in close proximity to routs where others desperate people may be moving, concealment and security must take a high priority. The immediate availability of water is not necessary since you should have been gathering water on the march and you will be doing so the next day. So you should select an area well away from your trail or any other trails or roads. If there is any possibility of a hostile population you should have a dark cold camp with no fire and no candles or lanterns. Use small mini-lights or red-lens flashlights if you must, but try to have everything set up before dark. If you must have a fire to cook or boil water, do so before dark and minimize smoke. You should locate a site well before dark and scout the surrounding area to be sure that you are truly in a safe spot. There could be a road, or occupied camp just over the hill. Of course, you should select a thicket or natural concealed spot. Abandoned buildings or natural shelters can be used only if they are well off main roads. Remember, if you think it’s a good place to go, so will others.

Regardless of how well selected your camp is you must put security first. After-all, if it was safe out here you would be home in bed. Unfortunately, there is not much time to “fortify” a hasty camp. Be sure you establish your escape routes before dark. Use brittle twigs and branches to put up natural looking barriers that will make approaches difficult and noisy.

A hasty abates of deadfall and branches can slow down intruders and make approaches noisy

Have your weapon(s) immediately at hand. Have all of your supplies not used for shelter, packed to go. If you have to run you will know where you are going, have your weapon and most of your supplies with you. In fact, you should never have any survival supplies you are not immediately using out of your pack. Of course, if you are not alone, take turns on watch through the night. Minimize your impact on the camp area and cover up or carry out any waste or trash. Signs of a well-supplied camp could make others want to follow your trail. In a hasty camp you have your water and food packed in. You may be lucky enough to find some edible plants, catch a fish, or small game, but that's not the priority. The hasty camp is about shelter, warmth, security, and preparing food that you have. While you still need to bury human waste, sanitation is not a serious problem in a short stay.

Note: The above assumes that "hostile conditions" exist. Under such conditions any campfire and smoke can be seen for miles and will attract serious trouble. Of course if "rescue" is needed and/or concealment is not necessary, a campfire may be desirable. Extreme cold may justify the risk of a small fire if it is in a pit or well surrounded by logs. Remember that the fire will light up overhead trees and branches like a sign advertising your location.

With more time, sharpened branches can prevent infiltration or rushing attacks on your camp

The Survival Camp

The Survival Camp is a much more complicated proposition than the Hasty Camp. While it starts out based on what you have brought with you, its success depends on a good location, available water, food sources, building supplies, and many other considerations. Unless there are prepositioned caches of food, tools, and other supplies, it will require hunting, foraging, improvising, and building skills. You need to spend more time on selection of a site. You may need to try several “hasty camps” before you are sure that a location is safe for this more permanent campsite. In this case, you need to have access to water and be able to hunt, trap, fish, and forage for food in the area. You may also need to “forage” in nearby towns and abandoned buildings, etc. for materials such as wire, plastic, cloth, rope, containers, metal, and other materials. Depending on the situation you may or may not want to interact with other survivors or occupants in the area. Remember that these folks may be in desperate situations and may not welcome your foraging and hunting in the same area. Of course, there may also be openly hostile and criminal groups roaming about that you want to avoid. You camp should be located well back from any trails, roads, or occupied areas. In this case, you probably will be needing to have fires, and some noise and odors will be unavoidable. But keep fires and smoke to a minimum and do not wear trails to and from your camp. Worn trails, trash, signs of foraging will all attract attention. These are particularly troublesome in fall and winter when there is

less foliage and tracks in the snow are very hard to conceal. The gathering of firewood and building materials will soon clear the area of deadwood and branches, giving more evidence of your camp. After a few weeks your impact on the area will be hard to conceal. Two solutions to these hazards are:

- Move your camp every few weeks. Doing this gives you fresh foraging and hunting territory while reducing your risk of being raided by hostile groups. You should search out and designate your next campsite as soon as you settle in the current one. You may even want to cache some supplies there and make it your emergency evacuation assembly point.

- If constant moving of the camp is impractical you can minimize your foraging, hunting, and other activities within a few miles of the camp and go out on foraging and hunting expeditions to remote areas well away from your camp.

Another feature of the survival camp is that it justifies the time and effort to establish basic fortification. You should be able to setup and man a lookout post that will spot intruders well before they can detect the camp. You can use deadwood, branches, ditches, and other material to slowdown any form of intrusion long enough to be identified, resisted, or for you to evacuate. You should consider having trenches or other bullet resistant “cover” available for all camp members. Finally, you must have a plan for evacuation and a plan for camp defense established and practiced.

Larger camps attract more skills like field dentistry and medical support

Sanitation is another issue that becomes critical in a long-term camp. Human

waste, cooking waste, the offal from cleaning fish, and game will attract unwanted insects, animals, and disease that will soon render the camp untenable. These wastes must be buried well away from the occupied camp and water supplies. Clear procedures must be in place as soon as camp is established. Since waste disposal and personal hygiene issues will probably be addressed outside of the camps main defensive perimeter, it will be necessary to have an armed guard accompany anyone visiting these facilities. It is a standard procedure for a hostile intruder to take down a person who is outside the camp and then infiltrate in their clothing as if returning.

A base camp will require a dedicated security force and 24-hour guarding schedules

The Base Camp

This is a large multi-family camp like those used by refugees, survivors, and resistance groups in recent wars. Some of these were occupied by several hundred people and included shops, hospitals, farms, and schools. These camps operated in the same forests for several years. While these worked well in Europe in World War Two, they may be impractical if (1) there is a hostile force in existence and (2) the current level of technology (e.g. infrared, spy drones, helicopters, etc.) is still functional. Such a camp would leave too big of a “foot print” and have too much impact to be secure for long. So to consider this kind of a “Base Camp” we have to assume that there is a reasonably friendly environment and/or a non-functional or over stretched technology. In other words, a friendly or at-least neutral population and a friendly or non-functional state. Under these circumstances, a base camp could offer significant long-term survival and recovery hope far better than smaller camps. The capacity to provide specialized skills and group efforts in such areas as food

procurement, medical aide, security, and equipment repair would attract more and more survivors from surrounding areas.

Trenches and shelters can link various parts of the camp and provide shelter and escape routes for emergencies

There are a number of challenges and hazards to the existence of a large base camp. A leadership structure, organization, and rules must be established. Theft and other transgressions must be dealt with. Who can come in and who cannot come in may be an issue. There is a real danger of would-be warlords and demigods taking control. The local population may become hostile to the camps occupation of land and use of resources. Obviously, the goal of the camp is to preserve freedom, security, and safety for its occupants, but joining the camp will inevitably require voluntary agreement to abide by some rules and contribute work and skills as needed.

Established camp sites allow time to build more permanent shelters. Note the support for a radio antenna in the background

Urban Survival Camps

A “camp” could be occupied structures in a suburban or urban area. Most of the same rules, techniques, and cautions would apply. If you are located deep in an urban area you might have to hasty camp in town for several days until you reached more open country. In the end you might even have to set up a semi-permanent camp in a building or wooded area in town. One part of town may be untenable, but another area may be defendable and relatively safe. For example: industrial areas could offer shelter and lots of usable supplies, and are usually unoccupied after a disaster.

Conclusion

The evolution from hasty camps, to survival camps, to base camps depends on the length of time that “emergency” conditions exist and the extent of the “disaster zone.” The average “survival pack” will support survival on-foot for from three to six days. A few more if the weather is mild and some additional food can be had. So an emergency that last less than one week or where safety and supplies can be reached in less than 100-miles would consist of a series of hasty camps. When there is no sign of relief or rescue within a few days or a few dozen miles, one must start planning for a more established survival camp. Base camps would develop in a number of ways.

They might evolve as more and more survivors get together and pool resources in an area. This certainly would start to happen within a few months if conditions did not improve. Base camps might be preplanned by organizations that established supply caches, plans, and communications networks around a predestinated site. Base camps could also be established by surviving local and county governments to help survivors while maintaining sanitation and safety for the area. Of course, anything established to confine survivors and confiscate supplies is a “concentration camp” regardless of what they call it. While we can hope that Americans are never driven to become desperate refuges wandering the roads and trails to escape a destroyed or degenerating civilization, it has happened over-and-over again throughout the rest of the world and it is not as far-fetched as it was just a few years ago. Once you have accepted the need to have a “survival pack,” you must then accept the need to consider the possibility of using it in an evacuation and to camp until civilization is reached or recovers.

Homemade and Expedient Desiccant Packets

If you have purchased, salvaged, or made your own bulk desiccant you will need to make your own packets with measured amounts of desiccant. How much you need depends on the size of the container and the type of desiccant used.

Filter paper, cheese cloth, thin loosely woven cotton sheet, nylon pantyhose material, and fine fabric screen are all permeable to moisture but it is tight enough not to let the desiccant grains out. Edges can be glued and or sewn together.

Using Desiccants

Use the charts below to determine how much of the particular desiccant you will need for the size of the storage containers you wish to keep dry. Desiccants begin to adsorb their moisture as soon as they are exposed so you want to keep out in the open air for any longer than fifteen minutes or so.

TYPES OF DESICCANTS

SILICA GEL

The most commonly used desiccant is silica gel. It will work from below freezing to past the boiling point of water, but performs best at room temperatures (70-90º F) and high humidity (60-90%). Its performance begins to drop off over 100º F, but will continue to work until approximately 220º F. It will lower the relative humidity in a container to around 40% at any temperature in its range until it is saturated. Silica gel will absorb up to 40% of its weight in moisture.

INDICATING SILICA GEL

This is ordinary silica gel with the colored specks being coated with 0.3 – 0.4 % of cobalt chloride. When the gel has absorbed approximately eight percent of its weight in water, the colored crystals will turn from blue to pink making an easy visual indicator of whether the gel has become saturated with moisture. The indicating silica gel will still adsorb up to 40% of its weight in water vapor like the non-indicating type will, but once it has gone past the 8% level and the crystals have turned pink there is no way to tell how close it is to saturation. When saturated, both varieties of silica gel can be dried out and used again by heating the crystals in an oven at a temperature of no more than 300° F for approximately three hours or until the crystals turn blue. Spreading the desiccant in a broad pan in a shallow layer will speed the process. Heating to 325° F can damage the gel and render it unable to absorb moisture. Spread the packets so they are not touching and keep them at least 16 inches from any heating elements or flames.

CLAY DESICCANT

The material is Montmorillonite clay, composed primarily of magnesium aluminum silicate, a naturally occurring mineral. It works well at low and room

temperatures, but has a rather low ceiling temperature. At 120º F it will begin to desorb or shed the moisture it has adsorbed. This is an important consideration for storage in hot areas. Subject to a degree of variability for being a natural material, clay desiccant will adsorb approximately 25% of its weight in water vapor at 77º F and 40% relative humidity. When temperatures rise above 120° F, Bentonite Clay releases the moisture it has absorbed back into the air. As a result, this desiccant can be reactivated to be reused many times.

CALCIUM OXIDE

Quicklime is a slow, but strong adsorbent, efficient at low humidities and can drop moisture vapor to below 10% relative humidity. Qucklime is caustic and must be carefully handled, particularly with regards to dust inhalation and exposure to skin and eyes. It expands as it soaks up water vapor and this must be taken into account when packaging it. It will adsorb up to about 28% of its weight in moisture, but does it slowly over a period of several days rather than a matter of hours like other desiccants. It is most effective when used in high humidity environment where a very low humidity level is desired. It will release a fair amount of heat if exposed to direct (liquid) moisture or extreme humilities. Calcium oxide can be recharged by roasting at fire temperatures.

CALCIUM SULFATE

Also known as the mineral gypsum and commercially as Drierite, calcium sulfate is another naturally occurring mineral. It is produced by the controlled dehydration of gypsum (CaSO4). It is chemically stable and does not readily release its adsorbed moisture. For expedient use, gypsum is commonly used in household drywall and Kearny mentions using this source in his Nuclear War Survival Skills. This makes only a so-so desiccant but the low cost of calcium sulfate must be weighed against its equally low adsorptive capacity; it adsorbs only up to 10% of its weight in water vapor but in an emergency it can get the job done. Gypsum or Drierite regeneration: spread about 1 inch deep in shallow pans and heated in an oven at 450° F for 2 hours to achieve complete dehydration The temperature at which Drierite desiccants are regenerated is crucial in restoring it to its original condition. Absorbed moisture is water of hydration and is chemically bound to the calcium sulfate and temperatures in the range of 400° - 450° F are required to break these bonds and release absorbed moisture. Lower temperatures, regardless of heating time, will not regenerate. Do not to overheat Drierite Desiccants as high temperatures can alter the crystal structure and render the desiccants permanently inactive.

Dry Wood

Dry a piece of wood in the oven until it is bone dry then put it in your container and seal it. The wood will suck up available moisture, up to 14% of its weight in moisture, depending on species. Low density, non-resinous woods with coarse, open grains work the best. I could not find temperature it will begin to "desorb," but it might be fairly low. Some empirical experimentation would be in order before relying heavily on it.

Desiccant Needed to Adsorb 6 Grams of Water Vapor at 40% relative humidity at 77º F.

Silica Gel 15 grams

Indicating Silica Gel 15 grams
Montmorillonite Clay 24 grams
Calcium Oxide (quicklime) 21.5 grams
Calcium Sulfate (gypsum, Drierite) 60 grams
Wood 43 grams

To maximize surface area for optimal adsorption, desiccants are granular or powder forms.

REQUIREMENT CHART

Container Size							
Gallons	Cubic Ft.		Cubic In.	Grams of Silica Gel Desiccant			
1.1	or	0.14	or 237	Grams	needed	=	5 *
2.1	or	0.28	or 476	Grams	needed	=	10
3.2	or	0.42	or 714	Grams	needed	=	15
6.2	or	0.83	or 1,428	Grams	needed	=	30
12.5	or	1.67	or 2,856	Grams	needed	=	45
18.7	or	2.5	or 4,284	Grams	needed	=	60
25	or	3.33	or 5,712	Grams	needed	=	90
37.4	or	5	or 8,568	Grams	needed	=	135
50 or 6.66 or 11,424 Grams needed = 180							

*Silica Gel 15 gr = Montmorillonite Clay 8 gr = Calcium Oxide 7.2 gr = Calcium Sulfate 20 gr = Wood 14.3 gr

Humidity Indicator Card.

These cards are made to show various humidity ranges and can be had from many desiccant and packaging suppliers. They will help you find the actual humidity in your storage.

WHERE DO I FIND DESICCANTS?

Indicating silica gel: is sold in one and five pound cans for flower drying.

Silica gel: A number of companies in the US market use 100% silica gel crystals in their cat litter; include Clorox (Fresh Steps Crystals), Nestle-Purina (Tidy Cats Crystals)and Amazing Cat Litter are all 100% silica gel crystals granules.

Montmorillonite clay: in shipped containers coming in from overseas, bags as large as a pound.

Gypsum: from drywall and Plaster of Paris, reprocessed to make your own desiccants.

Calcium oxide (quicklime): produced from limestone (calcium carbonate) or slaked or pickling lime (calcium hydroxide) by roasting to drive off the adsorbed water and or carbon dioxide. Note: calcium oxide is caustic and hazardous, handle with care.

MAKING LIQUID CHLORINE BLEACH http://www.waterpot.org

INSTRUCTIONS FOR MAKING LIQUID CHLORINE BLEACH FOR EMERGENCY WATER

SANITATION AND SANITIZED DILUTE SALT SOLUTIONS FOR TREATING CHOLERA <http://www.waterpot.org/BLEACH_HOW_TO/>.

STEP 1 Four 75 mm X 150 mm plates of graphite or titanium—titanium sheet metal can be quickly sheared and flattened.

Do-It-Yourself" liquid chlorine bleach for sanitizing and/or protecting drinking

water is made using salt, cells costing about $20.00 in US. and 12 Volt DC electric power from a car battery. Recharging may be by a battery charger, or solar cells, or a car alternator belt-driven by a bicycle wheel.

STEP 2 Plates assembled 6 mm with wood or plastic spacers and clamped or bound in position with twine.

STEP 3 Assembled Electrolysis Cell - Plastic or glass container with salt water or one part sea water with two parts freshwater containing one teaspoon of salt per liter of water. THE ELECTRODES ARE SUSPENDED ONLY 75 MM INTO THE SALT WATER SO THAT THE POWER IS JUST RIGHT FOR A 12 V BATTERY. (deeper immersion may draw too much power for a home style battery charger.)

STEP 4 Connected to a 12 V battery and battery charger. Example of Bicycle battery charger <http://www.waterpot.org/Exercise/exercise.html> for use where electrical power is not available. RESULTS- USUALLY, THIS SETUP PRODUCES BLEACH OF ABOUT 5000-6000 PPM CHLORINE AT THE RATE OF I LITER /30 MINUTES. IF THE CELL CONTAINS 2 LITERS IT TAKES AN HOUR. IT WORKS EVEN BETTER AT HIGHER pH FROM ADDING 'just a little bit' OF LIME OR CAUSTIC SODA IN THE SALTY WATER BEFORE HOOKING UP THE POWER. THE ADDITION IS SO SMALL THAT THE ADDITION TO DRINKING WATER IS HARMLESS.

Using the Dilute Bleach

In the USA, household bleach is 5.5% chlorine. A great many people of all educational levels in large quantities use it, and one rarely hears of accidents damaging to users or their children. The bleach generated in the cells described herein is usually 0.5-0,6 & chlorine, only a tenth of the strength of household bleach. For use in sanitizing water, instrumentation for testing for residual chlorine is of great help. In the absence of test kits, another way is available. The US Navy' has used bleach on ships for many years and much information is available on the Internet under the name of sodium hypochlorite. If in doubt, check the EPA site from which the following information is condensed as: For water sanitation, one typically adds so many drops of bleach to a gallon of water, waits 30 minutes, and smells the water. If the bleach is detectable by smell then there is enough residual chlorine that bacteria in the water were killed, (but not parasites which must be filtered out or killed by pasteurization or boiling.) If the smell is too strong, dilute the treated water by a measured amount, mix. Wait 30 minutes and try the smell again. If there is no chlorine smell, add another measured amount of the bleach, mix. Wait another 30 minutes, and smell again. This trial procedure establishes a safe level by experience without the use of instrumentation or test kits, and even when the initial strength if the bleach is not known. It is tedious and boring at any time and can be very irritating if one is thirsty, but it works. When, after that 30-minute wait period, the residual chlorine is detected by smell, then there is enough residual chlorine to give all of the benefits possible. For removal of parasites, building and using slow sand filtration units is well within the skills of at least some inhabitants of most villages.

Notes For Emergencies

A rounded teaspoon of table salt weighs about 10 grams. Dissolve this amount in a liter of water to make an (approximately) 1% salt solution. Sea water contains about 2.75%. by weight of sodium chloride, plus other salts. Sea water may be used

directly, but dilution of sea water with twice its volume of fresh water makes a solution much like the 1% salt solution. This works well for sanitation of glass, plastic, metal surfaces, and clothing and bedding, but caution is advised when considering continuous use
in drinking water.

Cholera: Emergency Saline Solution.

Diarrhea causes massive loss of fluids and salts. Drinking one to two liters, per person, of a saline solution containing about 0.9% sodium chloride is often used in replacement of these losses. While standard saline solutions contain ingredients in addition to salt, in an emergency, plain salt water is better than nothing at all. Two liters of a 0.9 to 1% salt solution made with filtered water may be sanitized in a minute or less by using the cell. Remember to "smell test" the solution just like drinking water. Wait the full 30 minutes for the chlorine to act and see if the chlorine smell persists. If there is no smell, treat it more, and repeat the smell testing. If the smell and taste are too strong, dilute with more of the solution, mix, wait 30 minutes, and smell again.

Electric Power Sources

The objective is to have equipment and operations requiring skills comparable with those of bicycle and auto mechanics, and to use commonly available materials to the full extent possible. Cell dimensions were matched to the capabilities of a 12-volt car battery. Sodium hypochlorite forms when salt water is electrolyzed using Direct Current (DC). The theoretical voltage drop across a single cell is below 3 volts, but in operation it is about 3.3 to 4.0 volts depending on resistance losses in the wires and electrodes, the salt concentration and temperature of the solution, and the spacing of the electrodes. The 10-12 volt drop for a 3-cell electrolysis unit fits well with the 1 2 volt D.C. battery typically used in cars. Car batteries are charged (recharged) using a source of DC power at about 14 volts. Battery chargers converting AC to DC are common, and there are also solar cell chargers. For a true "'do-it-yourself" power unit we chose to use a car alternator, or generator, and to drive it by a Vee belt using the driving wheel on a bicycle. The rate of rotation of the bicycle wheel is matched to the characteristics of a particular alternator or generator. A typical alternator from a mid-sized American car will produce about 7 amperes at 1500 revolutions per minute (rpm) and the power output increases as the rpm are increased. The size of the pulley used on the alternator is chosen to meet the preference of the bicyclist to produce the necessary 1500-2000 rpm. Charging to maintain battery capacity is usually carried out during the bleach making so as to avoid drawing the battery down below the full 12 volts operating capability. Alternators require voltage regulation. They may have a built-in voltage regulator or they may require a separate one and it is necessary to know which design of alternator is being used. Generators require a separate voltage regulator. We find that producing the 7-10 amps at 14 volts common for battery' chargers is well within the comfort range for even lightly built teenagers. They report that producing a charger output of 7-10 amperes feels comparable to pumping a bicycle on level pavement at about 12-15 miles per hour. Geared bicycle drives allow adjusting the pedaling rpm to an individual's comfort range. In the USA the cost for all components, including, a rebuilt alternator, and a voltage regulator V- belt, and used bicycle components is on the order of $ 100-150 per charging unit. This "first generation" cell will serve to get the program started. Ingenuity and feedback from

practitioners and interested volunteers will bring forth improvements and adaptations to better fit various local conditions. Full success of the program depends on these ideas from the field. Graphite and/or titanium were chosen for the electrodes because of their known properties availability and acceptable costs. Commercial electrolysis units commonly use plated titanium to allow long use before maintenance or replacement is required. This extra expense for coating is not cost effective where labor costs are low and there is a need to minimize the cost of imports. An assembly of four electrodes is clamped with the faces parallel. Plastic strips that do not conduct electricity, and about 2.5 wide x 7.5 cm long x 6 mm thick, are placed at the top of the electrode assembly to provide a 6-mm spacing between electrodes. A 3-cell unit with a voltage drop of 10-12 volts is formed by clamping 4 electrodes with faces parallel, and with a 6 mm spacing between the faces, as shown in the photo. Power is supplied only to the outside electrodes with the two inner electrodes providing two working surfaces each. If a coating forms on the electrodes, reversing the wires cleans the electrodes. Electrode dimensions of 7.5 cm x 15 cm were chosen to fit the power output ranges of different size batteries. For this assembly the depth of immersion of the electrodes can adjust the amperage required by the cell. Immersion to 7.5 cm. in a 1% salt solution typically draws 9-11 amperes. Of course changing the salt content of the solution also changes the electric characteristics of the system. The container can be any glass or plastic. A 2-liter plastic soft drink bottle works well. A working capacity of about 1.5 liters is available when the bottle top is cut off just above the label. Active chlorine produced depends on the power source, the strength of the salt solution and the electrode area submerged as well as the length of the time period during which power is applied to the cell. The hourly chlorine production can be varied within the range of 600 parts per million, (PPM) to 6000 PPM. Even the lower concentration is enough to sanitize and protect several hundred liters of drinking water.

Experience with this simple unit has demonstrated that making usable solutions of bleach is well within the capability of persons having commonly available skills.

A rounded teaspoon of table salt weighs about 10 grams. Dissolve this amount in a liter of water to make an (approximately) 1% salt solution.

SALT WATER (10 GRAMS OF SALT /LITER OF WATER) OR SEAWATER DILUTED WITH 2 PARTS FRESH WATER--NOTE--A LEVEL TEASPOON OF TABLE SALT IN ONE LITER OF WATER IS ABOUT 900-1000 PPM SODIUM CHLORIDE. A 12 VOLT CAR BATTERY AND CHARGER OR ALTERNATOR AND A SIMPLE CHEMISTRY CELL PICTURED BELOW USE EITHER GRAPHITE OR TITANIUM FOR ELECTRODES, USE NOTHING ELSE—OTHER MATERIALS CAN PUT DANGEROUS METALS INTO THE BLEACH. A "CHLORINE TEST KIT" HELPS BUT IS NOT ABSOLUTELY NEEDED BECAUSE THE PROPER AMOUNT OF CHLORINE CAN BE JUDGED FROM THE SMELL AND TASTE OF TREATED WATER. Because the bleach you make will be only a tenth as strong as household bleach, for first trial, add about 19 times as much

This is an overview of the modified exercise machine... The pedals drive the high ratio pulleys that drive the alternator. The alternator charges the battery. The battery powers the "Bleach Making Cell" that was demonstrated at the Third NSF Symposium.

sources for graphite plates on-line:
http://www.fuelcellstore.com/cgi-bin/fuelweb/view=NavPage/cat=58
http://www.acp-composites.com/acp-gp.htm
http://www.andale.com/store?view=CAT_HOME&catId=1259918&sid=176000&mode=1

USING ROPES AND LINES

Ropes can be made from any pliable, fibrous material producing strands of sufficient length & strength. Nylon rope has the advantage of great inherent strength, lightness, resistance to water, insects and rot. However, nylon rope should not be the automatic choice if choosing equipment. Nylon has the disadvantage that it can melt if subjected to heat and friction on a rope produces heat. It is also slippery when wet. While its tensile strength is good, nylon also tends to snap if subjected to tension over an edge—it does not have to be a very sharp edge either, so BE CAREFUL of this.

CHOOSING ROPE:

Match type, thickness, and length of rope you carry to the demands you expect to make on it. Nylon will have advantages in very damp climates and when weight is critical but REMEMBER its drawbacks. Thickness of 7mm (5/16in) and below are difficult to handle. Rope about 9-10mm (3/8in) is usually recommended for Lashing & Throwing. It is not thick enough for a hand over hand and foot grip. A length of 30-40m (100-125ft) would then be as much as can be carried without encumbrance.

TAKING CARE OF ROPE:

Rope MUST BE protected from unnecessary exposure to damp or strong sunlight and in case of natural fibers from attack by rodent and insects. If it does get wet do not force-dry it in front of a fire. Do not unnecessarily drag it along or leave it on the ground. Dirt can penetrate and particles of grit work away at the fibers from inside the rope. If weather conditions will make drying possible, it is worth it to wash a very dirty rope in clean water. Whipping the end of the rope will prevent fraying. To prevent a rope becoming tangled, store and carry it in a coil or skein. It will be easier to handle and to pay out when needed. Rope is a valuable equipment kept in good condition.

SIMPLE COIL:

Make a coil of rope 14-18in in diameter, keeping each circle of the rope alongside the next without twisting or tangling. Leave a length at each end ready for fastening.

1) Bend one end back along the coil and wrap it with the other end.

2) Feed the "wrapping" end through the loop and pull to secure, tie off with a reef knot shown later.

FOR LONGER ROPES:

If you wish to carry long ropes over your shoulder or suspended from a belt or from a pack, form a skein. Loop the rope backward and forward over your arm, letting it hang down about 18-24in long. Leave the ends free Take both ends together and wrap them several times around the skein. Make a loop and take this through the top part of the skein and finally pass the ends through this loop. Now tie off on to your pack with a reef knot.

THROWING A ROPE:

It is easier to throw a coil of rope than to attempt to sling a loose end—whether you are throwing upwards or outward—and it helps to split the coil so that it does not tangle. Have a large knot or weight on the throwing end. MAKE SURE that you keep hold of the other end! Think about the anchored end and what will happen to it when

the other end reaches target. If throwing a line on water anchor the end to a tree or weight. ALWAYS over-throw a line so that the recipient stands a good chance of catching part of the rope. Coil half the rope on to the fingers and the palm of the right hand, then raise the index finger and coil the remainder on the other fingers only. Pass the second coil back to the left hand. As you throw release the right-hand coil a split second before the left. Anchor your end if you think there will be sudden strain on it and your position is **his grip on the line will save him from being washed downstream then he can regain his footing and proceed.**

FOR A LONG THROW:

Tie a suitable missile to the end of the rope. Coil the rope carefully on the ground or loop it loosely over the other hand so that it will pay out freely as you throw the missile. Don't risk losing your end of the rope. Tie that to an anchor, a heavy stone for instance. If throwing a weighted rope over a branch, keep out of its path as is swings back towards the throwing point

TO GET A ROPE ACROSS A NARROW DEEP RIVER:

Fasten a stout stick to the end of the rope. The rope MUST BE in the middle of the stick. Select a forked tree on the opposite bank. Throw the free end of the coiled line with the stick across the river to the tree. After many casts, when it has caught, test it with 2 or 3 people to MAKE SURE the line is secured. Fasten the near end of the rope to a convenient anchor and then the person crossing the line, the lightest of the party hangs onto the line, lifts his legs, and hooks them over the rope with his feet toward the opposite bank. By this means he can work himself across the river and do all the work which has to be done on that riverside.

SAFETY LINE FOR RIVER CROSSING:

A bush rope can be spun to serve as safety line for crossing flooded or fast rivers. The rope is taken across by a team member and fastened to an anchor on the opposite bank. As a safety line it should be above the water level. The person crossing should stand on the downstream side of the rope and face upstream, and he crosses by moving his feet sideways one step at a time and holding all the time to the rope which helps him keep his balance if by chance the current is so strong that it sweeps him off his feet

FISHING KNOTS:

HOOK ON TO GUT = TURTLE KNOT:

Soak the gut. Thread it through eye of a hook. Make an overhand loop and pass a bight through it to form a simple slip knot. Pass hook through slip knot and pull tight around shank.

HOOK ON TO NYLON #1 = HALF LOOP KNOT:

Tread end through eye. Make 4 turns around standing part. Pass live end through the loop formed nest to the hook. Pull taut and sniff off fairly close to end.

HOOK ON NYLON #2 = TWO TURN TURTLE KNOT:

Thread the hook. Pass the live end around the standing part to form a loop and through it. Twist live end around side of loop. Hold the loop and pull the twist tight. Pass the hook through the loop. Pull on standing part to tighten loop on hook.

JAM KNOTS:

For securing improvised hook to guitar or cord.

WITH AN EYE:

Thread gut, make 2 turns around hook and bring live end up through turns. Ease tight and test for strength.

WITHOUT AN EYE:

Make a loop around lower part of shaft. Make 2 half-hitches from upper end downward and pass live end through lower loop. Pull on standing part to tighten.

LOOP IN NYLON #1 OR DOUBLE OVERHAND LOOP:

Double the line to make a bight. Tie an overhand in it. (A). Twist the end through again (B) Pull tight (C) and snip off end.

LOOP IN NYLON # 2 = BLOOD BIGHT:

Form a bight. Twist the end of it back around the standing part (D) Bring end back through new loop (E) Pull tight and snip off the loose end.

JOINING LOOPS:

Can be used in nylon line but will work for different strong material. A fishermen's knot is recommended for gut, which probably could not stand the strain of this method.

WITH FREE ENDS:

Pass each line through the other loop and pull tight.

WITH ONLY ONE FREE:

Make loop on one line. Take the live end of the other line through the loop, around it, and back through and then tie off with either of the knots for hooks on to nylon.

JOINING NYLON = DOUBLE 3 FOLD BLOOD KNOTS:

Place ends alongside and twist one 3 ties around the other. Bring live end back and pass it through the space where the 2 lines cross over the other line and under its own standing end. Do the same in the opposite direction with the other line. The live ends end up pointing in opposite direction Ease tight

NETTING

USES: Confection of nets, hammocks, snares. Knot 2 different size of ropes. #Fold the strand the small one under the big one Grab the fine cord and coiffer its end. Then pass the big strand in the loop thus formed. Pull taut by pulling.

NETTING TIP 2:

Hammocks and nets are made by the use of netting needle and a mesh stick. Either of the 2 types of netting needle shown in fig 1 are suitable and easily made from a thin piece of hardwood or bamboo. The netting needles may be about 8 to 9 inches long and from 3/4 to 1 inch wide. The mesh stick may be about 5 inches long oval 3/4 X 1/4 the netting cord is put on to the netting needles as for an ordinary shuttle with needle B & with needle A the cord is looped round the pin in the center of the eye. At one end of the string tie a loop and place the knot on a conveniently high nail or hook. The mesh stick is put under the loop and the needle with cord passed through. The needle and cord are passed in front of the loop formed and under the original loop while at the same time the other end of the cord is held on to the mesh stick with the thumb of the left hand. The knot is pulled taut. A succession of these loops are formed until the requisite width is reached then this first series of loops are placed through a rod or cord and the loops are netted on to them until the requisite length is reached.

NET & SNARE MAKING

Net can be made either by making knots along a pre-cut lengths of line of by

knitting mesh row by row. They are not only USEFUL for fishing. A gill net can also be hung between trees to catch bird and purse net, made from twine can be placed over animals burrows .Use the same technique to make a hammock from strong twine.

GIL NET:

Make this from parachute cords or from two thickness of twine. Parachute cord consist of inner core of fine line within an outer core. Pull the fine inner line out and cut it into manageable and equal lengths or cut lengths of thinner strings. Their length will determine the depth of your net, which will be about 3/8" that of the length of the line. Decide how wide you want you'r net and set the 2 poles that distance apart. Tie a length of parachute cord outer or thicker twine between the 2. Cut a piece of wood about 3-5cm (1 1/4in) across. Use this as a gauge to space out the thinner vertical threads (inner core). Fold each length double and use the bight to make a Prusik knot over the top cord and repeat across its length. Slide the Prusik knots along to space them out equally using your gauge. For the first row, working form left to right, ignore the very first individual strand, but take the second of the pair. Hold it with the first strand of the next pair and tie both together in an overhand knot. Take the remaining strand with the first of the next pair and knot. Continue along the line, using your gauge to control spacing. Proceed to the next row in the same way but this time include the outside lines to produce a row of diamonds. Continue until the line is used up. To finish off the bottom, stretch another thicker line across between the supports and tie off all the infers (or thinner strings) in pairs around it. Carry leach pair around it twice, Separate the pair and tie off around the pair. Complete the pair by securing the top and the bottom lines at each corner of the net so that the net will not slip off the ends. Any surplus can be used for attaching the net to supports and weights to keep it in position when in use.

KNITTING A NET:

A method suitable for nylon fishing line or any other fine line. You need a horizontal string between posts, a main gauge, and a needle. Make the needle (A) about 15cm long by 2.5cm wide (6 X 1in) from hardwood or bamboo. Make a notch at either end and wind line around the whole needle; or try something more traditional like the lower drawing. The needle MUST BE smooth. The line is gradually unwound as you make the net.

To make the net, tie a top of required length between uprights. Begin by tying a clove hitch thinner line take the needle behind the top line and bring it forward to make another clove hitch. Repeat along the line, spacing the knots out with your gauge. When the rope row is complete go to the other side of the post (easier than working backward) and make the next row. Make each new loop large enough to form a square of mesh (half square at each side). Take the needle through the loop of the row above from behind, round the back of the loop and then through the front of the loop it makes. Adjust the depth with your gauge before you tighten. Switch sides again and work back in the opposite direction for the next row and continue until the nest is the required length. Tie off the bottom line with another thicker twine using the make knot but keeping the line straight without loops. Leave some free line at both ends. Tie in the ends at the top corners and the net is completed.

NET HAMMOCK:

Make a net about 2 1/2 ft across and wider than your height. Use a good strong

twine or rope for the loop and bottom lines- double twine would be a good idea. The ends have to carry your weight. Leave those ends long enough to suspend the hammock by. Cut two spacer bard to keep the hammock open. Notch the ends and slip the cords into the notches. To simplifying hanging the hammock you could tie each pair of end lines to a fixed loops such as a Bowline. Then fix one end with a round turn and two half-hitches, the other with a quick release knot in case you ever need to leave the hammock in a hurry.

FOOT LOCK:

By means of the foot lock you can climb to any height on the ropes, stopping to rest when your arms tire. The foot lock is made by holding onto the rope with both hands lifting the knees and kicking the rope to the outside of one foot. The foot on the opposite side to the rope is pointed so that the toe picks up the rope which is pulled over the foot which was against the rope and under the instep of the foot which picked it up. The 2 feet are brought together and the rope is now over the instep of one foot & under the ball of the other. Then to secure the grip and lock the rope the feet are place one on top of the other so that the rope is clamped down by the foot on top. By straightening the knees and rising the hands the body is lifted and a fresh grab taken for the next rise. In descending the body is bent the hands lowered and the foot lock released and a fresh grip taken with the feet at a lower level on the rope. It is advisable to wear boots or shoes when climbing bush made ropes. This method of descending is much SAFER than sliding. In sliding there is grave risk of bad rope burns to hands or legs.

SETTING A ROPEWALK:

When spinning ropes of 10 yards or longer it IS NECESSARY to set crossbars every 2 or 3 yards to carry the strands as they are spun. If cross bars are not set up the strands or rope will sag to the ground and some of the fibers will tangle up with grass, twigs or dirt on the ground. Also the twisting of the free end may either be stopped or interrupted and the strand will be unevenly twisted. The easiest way to set up crossbars for the rope walk is to drive pairs of forked stakes into the ground about 6 feet apart and at intervals of about 6 to 10 feet. The crossbars MUST BE smooth and free from twigs and loose portions of bark that might twist in with the spinning strands. The crossbar is supported by 2 uprights and pierced to take the cranks. These cranks can be made out of natural sticks, mortised slab and peg or bent wire. The connecting rod enables one man to turn all cranks clockwise simultaneously. Crossbars supporting the strands as they are spun. A similar crank handle is supported on a fork stick at the end of the rope walk. This handle is turned in reverse (anti-clockwise) to the cranks to twist the connected strands together. These are laid up by one or more of the feeders. ALWAYS MAKE IT A RULE TO TURN THE FIRST STRAND CLOCKWISE; then the laying up of the strands will be done anti-clockwise and the next laying will again be clockwise. Proof that your rope is well made will be if the individual fibers lie lengthways along the rope. In the process of laying up the strands, the actual twisting together or laying will take some of the original twist out of the strands which has not yet been laid. Therefore it IS NECESSARY to keep twisting the strands whilst laying together. When making a rope too long to be spun and laid in one piece, a section is laid up and coiled on the ground at the end of the rope walk farthest from the cranks. Strands for a second length are spun and these strands are

married or spliced into the strands of the first section and then the laying up of the second section continues the rope. The actual marrying of the strands is done only in the last lay which when completed makes the rope. The ends where the strands are married should be staggered in different places. By this means rope can be made and extended in section of great length. After your complete length of rope is laid up. Pass it through fire to burn off the loose ends and fibers. This will make your rope smooth and most professional looking.

LAYING THE STRANDS:

The strands lie on the crossbars as they are spun. When the strands have been spun to the required length which should be more than about a 100 feet they are joined together by being held at the far end. They are then ready for laying together. The turner who is facing the cranks twists the ends together anti-clockwise at the same time keeping his full weight on the rope end which is being laid up. The layer advances placing the strands side by side as they turn. Laying up is very fast when the layer is experienced. He quickly gets the feeling of the work. It is important to learn to feed the material evenly, and lay up slowly thereby getting a smooth even rope. Do not try to rush the rope making. If you do you will have uneven, badly spun strands and ugly lays and poor rope. Speed in rope making only comes with practice. At first it will take a team of 3 or 4 up to 2 or more hours to make a 50 yard length of rope of 3 lays, each of 3 strands. That is 9 strands for a rope with a finished diameter of about 1 inch. With practice the same 3 or 4 people will make the same rope in 15 to 20 minutes. These times do not include the time for gathering the material. In feeding the free ends of the strands twist in the loose material fed in by the feeder. The feeder MUST move backwards at a speed governed by the rate at which he feeds. As the feeder moves backwards he MUST keep a slight tension on the strands.

MAKING ROPE WITH A SINGLE SPINNER:

2 people can make a rope using a single crank. A portion of the material is fastened to the eye of the crank as with the multiple crank and the feeder holding the free end of this trend against the bundle of loose material under his arm feeds in, walking backwards. Supporting crossbars as used in ropewalk are required when a length of more than 20 or 30 feet is being

SURVIVAL EQUIPMENT

The more you know the less you need, but having “the right stuff” is still very important. The old adage “better to have it and not need it, than need it and not have it” is very true. Many publications focused on selling stuff for their advertisers or showing expensive stuff that many readers could not afford. Not having any advertisers or much money, our chapters are unbiased and practical.

Coat Pocket Survival

There are all kinds of “survival kits.” There are big tote bin kits for the home emergency, survival backpacks for when you need to head for the hills, survival kits for the belt, purse, or briefcase. But no survival kit will help you if you don’t have it with you when you need it most. There are four very inexpensive items that should always be in your pockets. These are the “very least” you should have with you “just in case.” The first item is a pack of common safety matches or a butane lighter. This is the only case where smokers have a survival advantage. Yes, waterproof camp matches are better, but the box is bulky and you may not want to have them in every coat and pair of pants you have. The second item is a few paper napkins. These are always handy, cheap, and have many emergency applications. Third is a small plastic sandwich bag. The bigger the bag the better, but we are talking about your pockets not a backpack. Finally, have a few heavy-duty rubber bands. You can distribute these items throughout your pockets so you hardly know they are there. There is nothing here that should cause any problems going through security inspections. Here are just a few of the emergency uses for these items:

MATCHES

- 20 chances to make a fire
- 20 emergency flairs or on big one
- 20 x 20 second lights

PAPER NAPKINS

- Improvised dust, mist, and soot mask
- Improvised water filter
- Wound dressing / blood stopper
- Fire starter / torch
- CPR mask

PLASTIC BAG (small)

- Water container
- Keep matches and wallet dry
- Wound cover
- Eye protection
- Hand cover for blood, etc.

RUBBER BANDS (heavy Duty)

- Hold napkins over mouth
- Hold plastic over eyes
- Hold wound dressing in place
- Burn hot and smoky

Of course a few more items would help. Any kind of small pocketknife could be important in a survival emergency. Larger trash bags can be used to protect against wind, rain, and chemical agents, and even keep radioactive dust off your clothes. A few Band-Aids are a good pocket item. A small square of folded heavy aluminum foil can also come in handy. But the four items listed are dirt cheap, easy to carry, and just enough to give you the survival edge in a number of emergency situations. Don’t leave home without them!

WHAT'S IN YOUR BEDSIDE DRAWER?

We spend about one-third of our lives in bed so there is a thirty-percent chance that the life or death emergency will strike while you are in bed. In that moment everything will depend on what you can reach right now. Think about it. You wake up in the dark and the house is shaking from an earthquake, a bomb blast, or a tornado. You wake up in the dark and smell smoke or noxious fumes from a chemical incident. You wake up in the dark to the sounds of an intruder or the screams of your family. No time to get out your survival kit or look in your survival manual. You may suffocate, be trapped in the rubble, or be attacked in the next few seconds. You open the bedside drawer and find ----. Okay. First of all, only emergency items should be there. You don't want to be wasting precious seconds rummaging around in there for what you need. First, you should have two key items right on top of the bedside table. Your cell phone should be placed there every night. Don't depend on a landline phone for emergencies. The landline phone may be dead when you need it most and you cannot take it with you if you are forced to flee for safety. Your car keys should also be on the table. If all else is lost, at least your vehicle will be available and you can also use the button on the remote to set off your car alarm as another way to call for help. Imagine escaping into the night and realizing that you cannot use your vehicle and you do not have a phone!

Now, here are some suggestions for what should be in the bedside drawer. You should have a **good N-95 dust mask** in there. It will not protect you against poison gasses or carbon monoxide from a fire, but it will offer some protection from soot and smoke and hot air as you escape. It will also protect you from dust in a building collapse.

Of course, have a **good flashlight.** It should be one of the new LED lights that go a long way on a few batteries. Don't be cheap. The light may have to penetrate smoke and dust. It may be needed to signal rescuers to your location or to blind a would-be assailant. Make it bright and tough.

You should also have one of those **small, flat crowbars** like the Stanley Wonder Bar ™ or the combination hatchet, hammer, pry bar survival tool to smash windows, open jammed doors, chop through plaster-board walls, and pry yourself out from under things. It's not a bad weapon either.

Your cell phone should always be there so you can call for help even if the power and the landline phones are gone. If your family is spread out in the house **a whistle and walky-talkies** might be worth considering so you can activate the appropriate emergency plan.

If you are 50-years of age or older you should keep a package of aspirin in that drawer. Many victims of heart attack wake up in the night with chest pain and don't survive long enough for help to get there. If you awaken with chest pain, you swallow the aspirin immediately and call 911 on that phone you have right there. Your chances are significantly improved.

And last but not least, a **defensive weapon**. If you have family members that come and go at odd hours, you may want to have a less-than-lethal first response

weapon such as a police size, 200 gram pepper spray or a taser ™. The choice of lethal weaponry is up to you, but it must be reliable, handy, and easy to use. A 38-caliber revolver is one good, simple, and reliable choice. Anything in a good quality 380, 40, or 45 caliber auto pistol should do well. In this case, you don't need to put out lots of rounds of high-velocity, high penetration rounds. You need to stop one or two intruders in close quarters without shooting family members and neighbors in adjoining rooms or houses.

If your wear **glasses** keep them there along with **your wallet**. These are items you will need to survive also. You may want to throw in a few light sticks and a good knife to complete the bedside drawer and you are one ready guy or gal when trouble come in the night.

Keys and cell phone placed on the table every night. Flashlight, respirator and escape tool are easy to access. Nonlethal peppergrass shown here can be replaced or accompanied by a reliable handgun based on the individuals situation and preferences

What's In Your Survival Pack?

Survival is 50% what you can do and 50% what you can do without.
Self-Reliance is 50% what you have and 50% what you know.

Why Have a Survival Pack

The contents of what is known as "the survival pack," "the evacuation pack," or the "bugout bag" is the subject of countless articles and lectures, but there continues to be a demand for guidance as new "survivalists" and "concerned citizens" seek to become more prepared. Having some emergency stuff scattered about the house is just an indication that you are worried, but having a complete survival pack is proof that you are ready for whatever happens. With the great variety of manmade and natural disaster potentials increasing every year, failure to have a "survival pack" is inexcusable and irresponsible. The "survival pack" provides the ability and means to live and operate independently of the social, economic system for extended periods of time. While this may never be necessary, the very existence of this pack confers a state of independence and liberation upon its owner. The owners of "survival packs" have certified their responsible citizenship by their actions. These are the people who will not need to panic or become criminals in order to survive a disaster or hard times. These are the folks who will have the best chance to survive and help their neighbors. The well-stocked and organized "survival pack" is an insurance policy and a declaration of independence that is well worth the investment.

Pack Selection and Placement

The reality is that most people will never actually carry their packs very far. In most cases they will open it up and use the contents while remaining in their homes or nearby shelters through an emergency. It may be carried only a few blocks to a safer location or thrown into the family vehicle for the drive to safety. But one should prepare it for the "worst case" situation, where it must be carried on the back for miles and provide at least the minimum needs of survival under all anticipated hazards to life. I have seen people with packs they could barely lift much-less carry. I have seen people who needed medical attention after trying to carry their packs a few miles on a test hike. If you are in the military or you are a frequent backpacker, you can probably carry 50-plus pounds of gear, but the average citizen will need to keep the pack weight down to 20 to 30 pounds maximum if they are going to cover any distance without exhaustion or injury. Supplemental food, shelter, and equipment can be kept in duffle bags next to the survival pack to be used in stay-home or vehicle transported situations, but the pack alone must provide all needs (water, food, shelter, medical, etc.) for 3 to 5 days. I do not recommend an oversized pack since one is tempted to fill it up. A pack that is about 20-inches high, 10-inches wide, and 8-inches thick, with plenty of side pockets and padding should hold about 18 to 25 pounds of gear and supplies. The pack should include external tie-downs or straps to attach a blanket or light sleeping bag as needed. Zipper pockets and gear clips on the waist belt and shoulder straps are recommended for keeping items you need to get to quickly. The color depends on the area you will be surviving in. A camouflage pack may be normal

in some environments, but may attract attention in others. Black, brown, or dark gray are recommended alternatives. Good quality packs of the kind described above cost from $75.00 to $150.00. If you cannot afford that much, checkout military surplus stores. The BTN rule applies to all survival equipment. The BTN rule is that if you cannot find or afford the ideal item, then get the best you can because anything is **B**etter **T**han **N**othing when it comes to survival. You can probably get an "adequate" pack for $20.00 to $40.00. I also recommend that you keep your survival pack inside a plastic tote bin when not in use. This protects it from all kinds of hazards including, dirt, water, and curious hands. The tote bin can also contain supplemental belt and pocket items that will go with the pack such as knives, firearms, field clothing, canteens (kept full), energy bars, etc. Unless you live alone you will need to consider packs for each family member above the age of ten. These packs should have all the essentials (water, shelter, food, medical, sanitation, and clothing) that your pack has, but does not need to duplicate things like stoves, water purifiers, tools, etc. So they can have extra food and shelter items.

Where you keep the pack may be important. If your garage burns down you still have the supplies in your house, but if your house burns down or cannot be accessed you will really need your pack. So maybe you want to keep the pack or a second pack in a shed, garage, or other location separated from your house. That's up to you.

Belt and Pocket Items

These are items that would not normally be carried inside the pack, but you would need to have with you if you use the pack. These items should be stored right alongside the pack in a bag, so you can quickly grab them as you put on the pack and then put them on your belt or in your pockets as soon as you can. These items may include a Multi-tool or Swiss Army knife, large belt knife, N95 respirator, canteen (filled) with belt hanger, handgun or pepper spray, ammunition magazines, small flashlight, sunglasses, cap, gloves, fire starter or waterproof matches, evacuation route maps, personal medications, spare eyeglasses, compass, small first aid kit, etc. I carry a Smith and Wesson brand KABAR style knife with a 6-inch blade or an Air Force survival knife with a 5-inch blade and a 14-function Multi-tool with its pliers, saws, files, screwdrivers and blades.

About This Pack

The pack to be described below is a compromise based on what the *average* person can afford and carry. It is intended to provide all the basic needs for one person for 3 to 5 days and provide considerable support beyond that time. One would need to seek improved shelter and food sources as soon as possible. Foraging, fishing, and hunting skills would be needed to extend independent survival. Carrying a tent and sleeping bag adds more weight than most evacuees could carry, so the shelter and warmth components are minimized to save weight. However, this limits the range of weather conditions one can expect to be comfortable in. The use of foraged, natural, and manmade materials would be required in severe weather. One should be comfortable in warm dry weather, adequate in cool and damp weather, and survive in cold (below 40 degrees) weather, but in conditions of severe cold and wind the BTN

rule applies. It may be advisable to reconfigure the pack in late fall with more weight for warmth and less weight for other items. I have redundant systems for shelter, fire, food, and water purification because these are the most essential needs. There are expectable substitutes for every item depending on one's preferences and budget. Some items can be bought off-the-shelf or made at home. Some items that can be replaced with very high-end products are cheap BTN substitutes. One may want to put together a "starter pack" that covers each need with some items and then upgrade to better products as soon as possible. Remember that a fair survival pack you have ready is going to do you a lot more god than a great survival pack you are planning. Survival is 50% what you can do and 50% what you can do without. So think about each item you put into the pack and how you will use it. You want to breath clean, drink clean water, eat safe food, stay warm and dry, stay healthy, and protect yourself. That's it! Everything else is secondary.

Air:

In many survival situations you may need to improve the air you are breathing. The air may be filled with dust or smoke as you escape a disaster area. It may be very cold and breathing through a mask may help pre-warm the air and reduce your heat loss. There may be biological organisms in a populated area that carry deadly diseases. For all of the above hazards I have several N95 and N99 soft respirators in the outer pack pockets. N95 masks are rated as 95% effective at filtering 3-micron particulates, but are proven effective at much smaller sizes. The chances of encountering a chemical agent (poison gas) situation are very small, so for most of us the bulk and weight of a military or civilian chemical mask is unnecessary. However if your are concerned about such a threat you may want to have one of the masks available for use in spraying pesticides and a pair of closed goggles that are available in most home improvement stores. But when properly fitted the N-95 and 99s are adequate, as well as cheap, light, and small.

Water:

The most common and essential survival need is water. I include a quart filled water bottle for immediate use, an Xtreme (tm) water purification filter system that will purify 1000 gallons of water, and water purification tablets that will purify 25 quarts more. All are available at any sporting goods store.

Shelter & Warmth:

Most tents are just too heavy and the weight and space would reduce food capacity. I carry a 1-mil thick 10 x 20 foot tarp (drop cloth) that is big enough to provide full shelter in most conditions. It may not last more than a few days under some conditions, but it is light. Then I have a good quality military rain poncho that can be worn in bad weather or used for a shelter or ground cloth. I have the military poncho liner to go with it as a blanket. You can get equivalent ponchos and light blankets or bags at sporting good and surplus stores. Finally I have included a high-quality space blanket with its quilted and reflective surface. I have slept out in a plastic shelter with an army blanket and a space blanket at below zero wind-chills. Yes it was cold. I slept on and off with all my clothes on, but I survived. This is survival, not a stay

at the Ritz.

Food and Food Preparation:

Most Americans are accustomed to eating whenever they are hungry and will often eat a lot more than the recommended 2000 calories per day. In theory, you can live several weeks without any food at all, but one's endurance and judgment can begin deteriorate after a few days without nourishment. You can go a long way on survival rations of much less than 2000 calories per day. Carrying and consuming 2000-calorie meals for 3 to 5 days would take up unacceptable weight and space. My food choices are based on what would keep me going for long enough to establish other food sources. Obviously, any additional food I could forage or hunt would extend my rations. I have also included a slingshot, snare wire, and a fishing kit with hooks, line, sinkers, and other items to help gather food. The miniature survival book illustrates ways to catch fish and game and how to identify some edible plants. I also have a slingshot for taking small game silently without using ammunition. Finally, my firearm offers the opportunity to take small game. I always have 1 or 2 self-heating meals in my pack. They are a bit bulky, but they provide two hot meals of over 500 calories each without the need to build a fire. Military MRE meals with self-heaters are okay, but a bit heavier. Next, I have 4 freeze-dried camp meals. These are very small and light, but take longer to cook. I also carry 18 Lifeboat Ration Bars that are 200 calories each. They are not all that tasty, but they will keep you going. Some coffee or tea bags and sugar add little weight and provide much comfort. Lastly, I throw some trail snacks and energy bars in with the pack to go in the pockets.

To prepare food, I have a standard camping mess kit and a miniature Ezbit ™ stove and 24 fuel tablets that burn 9-minutes each. This is just in case I cannot make a campfire. Of course I also have a knife, fork, and spoon set.

You may want to save money by packing foods like rice, pasta, beans, cornmeal, and oatmeal along with dried fruits, nuts, and packaged jerky. That's what they did in the old days. Even packages of instant oatmeal, macaroni and cheese, and Rice-A-Roni ™ can work. It takes more time and energy to fix these and is a bit heavier, but it is an alternative. These foods do need to be rotated and replaced at least annually, since they don't keep like the freeze-dried rations.

Heat & Light:

This is another place where you want redundancy. You want to have one of those small LED flashlights. These are brighter, lighter, and last a whole lot longer than the old bulb flashlights. Add a couple of chemical light sticks and a few of the small "tea candles" that burn for up to 4-hours and you have reliable light. For fire starting, I have several packs of waterproof matches, butane lighter and the last resort: a Gerber ™ magnesium fire striker. I have also found that a cheap welding striker with extra flints is a very reliable fire starter.

Sanitation and Personal Hygiene

A small bottle of liquid soap, a washcloth, and a small towel will permit hand and face washing and even sponge baths as needed. A travel-size toothbrush and toothpaste, razor, and an unbreakable camp mirror complete the kit. A bottle of good

insect repellent is highly recommended. There may be a few other items to suit your personal needs.

First Aid and Health

I carry a 15-gram package of Celox ™ blood stopper. This stuff will stop heavy arterial bleeding. My first aid kit includes several 3 x 3 inch gauze pads, an assortment of Band-Aids ™, a 2-inch wide elastic bandage, a pair of latex gloves, a CPR mask, small tubes of Neosporin ™ and Hydrocortisone, about 6 antiseptic wipes, packages of Tylenol, Advil, * Aspirin, Antacid, and a small bottle of eye wash You must also include any prescription or over-the-counter medications you require for your individual health conditions. Remember that the pharmacies will be closed or looted. Also include a dental kit to make temporary filings or a denture repair kit if you have dentures. Finally, have a spare pair of eyeglasses in a well-padded location. You will need to do a lot of careful work and be reading the small print on your maps and survival instructions. That role of electrical tape (see next paragraph) can also be used for holding bandages, so I do not add a role of medical tape.

*The combination of 3 Advil and 2 Tylenol can be taken safely and will provide ten times the pain relief of the same taken separately. This is for severe pain where prescription pain relievers are not available.

Miscellaneous Must Haves

You should have a good map of the area within a few hundred miles of your home. Have a good quality compass. Neither one of these will be of much value unless you take the time to learn how to use them. I have a very small Tasco ™ 8 x 12 monocular, but you may want to carry a small pair of binoculars instead. Anything that lets you see the route ahead will save you time and energy. Anything that lets you see who is coming or who is at the place you are going to before they see you could save your life. A whistle is a must for those cases where you do need to attract attention. I have a small AM/FM/Weather band radio. Even though you may need to be on your own, it is important to know the weather and what threats are developing and where. A role of electrical tape is great for making all sorts of repairs. I have a small sewing kit with needles, thread, safety pins, and scissors for clothing repairs. The needles, pins, and scissors are also handy for some first aid procedures. There is 50-feet of nylon parachute cord for shelter building, animal trapping, and many other emergency needs. Even experienced “survivalist” don’t remember everything they need to know, so I have included a copy of the GEMS ™ miniature SAS Survival Guide that contains loads of information on first-aid, foraging, trapping, fishing and shelter building. I don’t have room for a change of clothing, but I have included a wool cap because the body loses most of its heat through the top of the head. The pioneers used to say that if your feet are cold, put on your hat. They were right. But just in case, I have two pairs of extra socks as well. I also managed to stuff in one Tyvek ™ chemical suit. This does not weigh much and can be used for a nuclear, biological, chemical protection outer garment or an alternative garment to wear while drying or cleaning your main clothing. I have a very small folding shovel attached to the pack. This is required for

sanitation, clearing ground for a camp and digging a shelter if necessary. You may want to save money and weight by just carrying a good garden trowel.

Weapons

A subject of endless controversy. Some may want to go without a firearm. Okay, carry a good-sized can of pepper-spray and hope for the best, but this is survival and less responsible (using kind words here) citizens may be quite prepared to take what you have by force. Depending on your environment, you have two options for carrying a firearm under survival conditions.

If you are going to be evacuating through reasonably civilized areas you may want to go for a concealed carry (permit or no permit) with a small handgun inside the pack or in a pocket. A small .22 caliber hand-gun in the pack with a few hundred rounds will give you lots of small game hunting potential and some deterrent to would-be attackers. A .380 automatic in the pocket gives you a little more power, but is still easy to conceal. If law and order has broken down or you are moving directly into a rural or wilderness environment, you may as well carry a full size 9mm or .40 caliber handgun on your belt and/or a rifle or shotgun in your hand. Selection of “survival” arms at this level is a subject for another time.

Surviving with Your Pack (A Scenario)

February 18th 20__. It has been 12-days since the first signs of the epidemic were recognized. You wisely stocked up on a few items you did not already have before the panic started. You also filled up every container you could find with water and fueled up your vehicles. 8-days ago the hospitals started to get swamped and the stores were bought out of food, bottled water, medical supplies, flashlights, firearms and generators. All of the people in those stores only accelerated the spread of the unknown virus. The government is not sure whether the source is a terrorist attack or some new mutated flu virus. They have called out the National Guard and requested that all non-essential persons stay at home. You have been able to stay in your house because you had enough food supplies, but 3-days ago the electric power went off because the power company employees stayed home or were sick. Police, fire, and emergency medical services are no longer functioning and criminal attacks and looting is breaking out in your community. You can see smoke from uncontrolled fires a few blocks away and you hear shooting. You have been using some of the items from your survival pack already, but you have kept it packed and ready. Today the water stopped running and a fire is spreading down your street. You through your pack and a few other items in your vehicle and tried to drive out to a safer area, but after a few miles disabled vehicles and gang activities blocked the roads. You had to abandon your vehicle and take your pack and a rifle down alleys until you reached an abandon railroad right of way that is on your map. The first night was spent in an abandoned building where you drank from your canteen and ate one of your heater-meals. You wrapped in your space blanket and got some sleep. Eating an energy bar, you continued your evacuation. You wear your mask and clean your hands frequently to avoid contamination from others who may have been in the same locations. Once, several teenage gang members who wanted your pack confronted you. A few warning shots were enough to send them running this time. You use your binoculars to avoid

hazards and find safe routes ahead. You walked far enough to get out of the suburban area, into a semi-rural area where there are some wooded areas. You selected a well concealed location and set up a camp. The plastic tarp seals your improvised shelter, you are able to use your stove or build a small fire to cook your food. Water gathered from a nearby creek is filtered with your water purification system and you are reasonably warm with your survival blanket and insulated liner. You listen to your small radio and find out that epidemic is slowly diminishing. Hundreds of thousands have died of the disease, rioting, and starvation. Most of those who were able to stay isolated for 30-days or more were able to avoid contamination and the violence. You elect to stay in the woods for another 10-days using your pack equipment to hunt and fish.

Of course this is one of the “worst case” scenarios and does not involve the more complex issues of a family, but try running this or any other serious disaster scenario without that “survival pack.” You are out there hungry, freezing, thirsty, getting contaminated, fighting, getting injured, being desperate. Having a lot less options.

* Keep your fires small and use the stove after dark. A fire and smoke can be seen for miles and will attract unwanted visitors.

Two “survival packs”. Left: military surplus “ALICE” pack is low cost, durable, and has lots of compartments, but is not comfortable for most civilians. Right: commercially available hunter’s pack has a better profile, more padding, and is easier to carry.

A typical “survival pack outside of its protective tote bin. Associated weapons alternatives are a .22 caliber pistol, .22 caliber survival rifle and a .12 gauge riot gun. The larger crank/solar radio and fire extinguisher are for home use, not from the pack.

What's On Your Back?

Over the years I have written several articles about what goes into a "survival pack". The contents of the pack are the subject of many articles, books and lectures. But what about the pack itself? The pack you select can greatly impact how much you can comfortably carry and how far you can carry it. I have had five survival/evacuation packs in my life. The first one was the very basic World War Two GI or Boy Scout style rucksack. This was a simple, square canvas bag with a flap and shoulder straps. No padding, no external ties, and no compartments. You had to organize well to have what you needed on top. One member inserted a homemade cardboard liner. This protected the contents, made it easier to get stuff out and served as a simple pack frame. In the 70s I was into some serious backpacking and rock climbing. I bought a big, tall aluminum-framed pack that was double the size of my old pack. My sleeping bag was lashed below the pack and my ground pad was on top. It was fairly comfortable and I lived nicely out of this pack in all kinds of weather for many days. It was a bit clumsy to get on and off and it tended to get hung up in thick woods.

By the 80s I was thinking more in terms of "grab and go" survival mobility. I went to the well-known Viet Nam "ALICE Pack" (Medium). It was better designed for survival with its low profile and outer compartments. It was not as big as the aluminum-frame pack so I had to get more creative in what I put into it. I didn't get the frame and strap assemblies for it, but I probably should have. There is also large version of the ALICE pack available. These are still a good choice for survival packs and are available in prices ranging from $40.00 to $75.00 at surplus stores and catalogs.

In 1996 I bought a Northwest Territory ™ camouflage pack for about $35.00. It is a well-padded, teardrop shaped bag with net side compartments and extra tie downs. It holds everything I need for survival under most conditions for 4 to 6 days. Note, I said "survival" not comfort. It was a good pack for the money and more realistic for an older civilian. I would have liked a few more compartments on the outside for small stuff.

I currently have a CamelBack ™' Commander Pack It has a secure section for my poncho and liner, lots of compartments and has well-padded shoulder and kidney straps. There are pockets and ties on the front shoulder and waist straps for a few items. I removed the water bag tubing from it, since I am not going to be in a desert environment and I carry water bottles and a filtration unit in my water rich environment. The CamelBack ™ cost about $90.00 and is a bit heaver empty than the $35.00 Northwest Territory ™ pack that holds about the same amount of gear.

The size of a survival pack depends on the person who is going to carry it. The size of the ALICE pack "medium" at 19" x 20" x 11 is about right. If you are in good condition a pack the size of the ALICE "large" 21' x 26" x 11" may be for you. My current CamelBack ™ pack weighs 21-pounds fully loaded and contains everything I would need for water, shelter, food, medical aid, NBC protection, first aid, and other needs for up to 7-days. I consider wide well-padded shoulder straps and kidney (belt) straps a must. Plenty of large outer compartments and tie-down straps are also a

must. I recommend a long tear drop shaped bag that conforms to the profile of the body. This shape will not interfere with movement through tight areas in an urban or wilderness environment. A pack that rides high and hangs more than 8 to 10 inches from the back will pull on the shoulders on put you off balance. The definition of camouflage is that which is not noticed. In an urban environment a black, gray, or tan bag much like many students carry would attract less attention than a military looking "camouflage" pack. Even wheeled luggage with carry straps might work in downtown areas. Just as long as it does not scream "survival pack!". In the far suburban and rural areas a true camouflage pattern may be common and work best.

I have not found the perfect "survival pack" on the market. Most packs are designed for backpacking, combat, or hunting. A true survival pack would have to combine some features of all and a few extras. First it is "grab and go" so everything needs to be in one grab. The shoulder straps should have places for cell phones, GPS, compass, radio, etc. The Kidney straps would have places for weapons, knives, ammo, water, and first aid kits. In fact, a small chest pack for access to essentials while on the move would be even better than strap compartments. There would be ALICE type compartments around the main compartment for smaller items. Good tie straps for sleeping bags. A variety of camouflage covers for various environments, including some to make it not look like a survival pack at all.

In addition to sporting goods stores, you can find a good selection of commercial packs listed in the Campmor catalog www.campmor.com, 1-800-230-2153. for military surplus ALICE packs go to Golden Nugget Army Surplus at www.goldenuggetetsurpluse.com, 1-800-942-8769

As an extra precaution, I keep my pack in a tote bin along with all the extra stuff that would go into my pockets or be carried by hand. I have everything in one place. You may want to keep your hiking boots and chosen weapon there also. This is "grab and go" not "grab and look around for your stuff."

Classic ALICE pack "Medium"

ALICE pack “medium” on left with Northwest Territory ™ pack on rig

The Survival Micro-Kit

I am sure most of you are well acquainted with the many survival kits that have been developed over the past ten years. Let’s review them briefly, remembering that the smaller the kit the more skill and imagination is needed to survive with it.

Survival Packs are intended for the home or vehicle. It is a backpack or combination of packs and web gear weighing at least 15 to 20 pounds. These kits contain just about everything (food, shelter, medicine, weapons) to facilitate long-term survival on the move.

Compact Survival Kits are usually belt mounted or fanny-packs that can fit into glove compartments, briefcases, or lunchboxes. These kits contain *basic* items to get you through short-term (1-2 day) emergencies.

Mini Survival Kits are pocket-sized collections of items you would like to have in an emergency. A tiny flashlight, matches, whistle, etc. The value of this is in the fact that it will always be with you.

Storm Kits consist of some form of shelter (plastic sheet, survival blanket) fire starter, and maybe some sugar or candy.

The Micro-Kit is intended for beginners who want to have *something* on hand without spending a lot of money and for those with some survival training as a backup kit or a gift kit for friends. The Micro-Kit fits nicely in your wallet or purse.

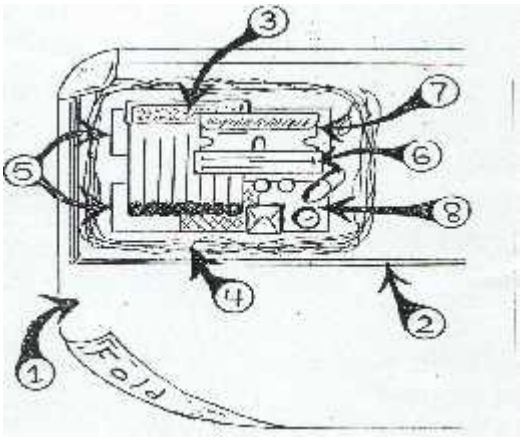
Making the Micro-Kit

You will need the following materials to make your kit(s):

1. Heavy Duty Aluminum Foil, 12”x 8”
2. Wax Paper, 4”x6”
3. Book matches, 1 layer from a book with the sticker glued on*
4. Snare or picture wire, 3 feet coiled to 2 inch diameter
5. Band-Aids
6. Straight pins or safety pins, 2 or 3
7. Single edge razor blade,

8. Pain medication or prescription medication (your option)

*Waterproof camping matches are better.



Packaging the Kit: Be sure to cover the razor blade with cardboard so it won't cut its way out and tape the pins next to it for the same reason. The pills should be wrapped in plastic and sealed from moisture. An extra wrapping for the matches is also a good idea. Finally wrap everything up in the wax paper and then the foil to form a flat package about 2 ½ x 3 1/3 inches.

You now have a kit that can provide signaling, light, heat, medical aid, repairs, and other survival needs at a very basic level. Don't leave home without it!

Nuclear Biological & Chemical Protective Gear from Commercial Suppliers

For obvious reasons there has been a great deal of interest in chemical, biological, and nuclear (fallout) protection in recent months. What was considered paranoid “survivalist” thinking is now normal “main stream” interests. Surplus stores have sold out virtually every NBC suit and gas mask they had. Time Magazine publishes evaluations of gasmasks and antibiotics. With most of the good military surplus NBC gear gone, civilians will need to turn to industrial safety suppliers for quality equipment. These suppliers are giving first priority to orders from the military and government agencies before filling private orders. Commercial gear is of excellent quality to meet OSHA and NIOSH standards, but it is also more expensive than surplus and not designed for camouflage or combat. Before recommending some specific items and sources it is important to understand the hazards and limitations related to this equipment.

- No filter respirator will save you if there is insufficient oxygen to keep you alive. You cannot survive in a smoke filled building or one with high concentrations of carbon monoxide.

- The filter will do no good if your mask is not sealing all around your face. Read the instructions and practice proper fitting and seal testing. Put on the mask and then pour some vinegar. Move your head and talk. If you cannot smell or taste the vinegar you probably have a good fit. Sorry, if you have a beard it will have to go.

- Half masks are cheaper and easier to carry but do not protect eyes (goggles help) and skin against many chemical agents so full facemask are preferred.

- Dust mask are better than nothing and you can always have them with you. They are not designed for chemical and biological agents, but are good for keeping hazardous dust, fallout, soot, and splashed biological contaminants (blood, etc.) out of your lungs and GI tract.

- Filter masks can protect you against radioactive dust and chemical agents, but offer only limited protection from biological agents. Only the costly positive pressure HEPA filter systems are effective against these extremely small contaminates.

- In addition to respiratory protection, you must protect your skin and hair from contamination. A full covering suit, rubber gloves, and foot covering is needed. In an emergency you can use rain suits, rain ponchos or

even plastic trash bags to improvise some protection. Obviously military or commercial NBC suits are preferred.

- You can't live in masks and suit for very long. You will freeze or cook in your own perspiration in a few hours. Do what you need to do (rescue, secure) and get out of the contaminated area as fast as possible.

- After you are out of the contaminated area you must decontaminate every inch of your mask, protective suit, and any exposed skin. A clean (inside) garden sprayer is good for spraying soap solution (for chemicals) or bleach solution (for biological) to decontaminate. Lastly, you must peel out of your protection without touching it and step into a clean area.

- Keep in mind that virtually all biological agents and a few chemical agents are undetectable without sophisticated equipment. To be effective you must 1) know the hazard is there and 2) have your protection with you.

Knowing the entire above here are some specific NBC items and sources you may wish to contact.

Sources:

- Lab Safety Supply, 401 S. Wright Rd., Janesville, WI 53546, 608-754-2345

- Direct Safety Co., P.O. Box 27648,Tempe, AZ 85285, 88-528-7405

- Chemical and Biological Defense Information Analysis Center, www.cbiac.apgea.army.mil/

Protective Equipment:

- A compact dust mask that offers some protection from chemical fumes is the 3M #8576, P65 particulate/acid gas respirator at $37.00 for a box of ten

- Half face respirators are much better but not so handy. The Wilson, Triple Seal half mask respirator with appropriate filters* costs $31.25 each

- The much preferred full-face version of the above respirator comes in sizes S, M, L. costs $130.35

- Recommended filters for anticipated chemical agents would be

the Unisorb or other “multi gas” chemical cartridges Gto8 at 10 for $54.90 combined with the $2.10 prefilter retainer and N95 dust filter at 20 for $22.50

- Dupont Tychem SL hooded coveralls with boots and hood in sizes M – 3X is the recommended body protection at $19.35 each.

- There is a wide range of available gloves in all sizes. Recommended brands are “Sol-Vex” nitrile rubber, “Silver Shield”, and “Barricade”

- The very best protection against both chemicals and biological agents is the SABRE respirator system that pulls air through chemical and HEPA filters with a battery powered blower unit. These cost around $800.00 each.

Emergency Survival Kits & Preparations

One needs only to watch the nightly news or read the morning paper to appreciate how dangerous our world has become. You must also notice that the great majority of the victims (casualties) are civilians. Our heroic police, fire, and other emergency response personnel do their best, but the civilian casualties keep increasing. In addition to the acts of terrorists, we have to face street crime, new diseases, economic instability, power failures, natural disaster, and manmade disasters. It is obvious that we cannot depend on others to always be there to save and protect our families. It is obvious that trading our rights and freedoms for promises of protection is not the answer. The responsible citizen is obligated to defend life, liberty, and property through self-education and personal preparedness. This book is intended as a guide for those responsible and freedom loving citizens. One of the most common subjects of survival preparedness article's and classis is what to put in your survival kit. There are literally hundreds of suggested lists. What is recommended depends to a great extent on the author's perception of the kind of emergency that needs to be survived and what the survivor can afford and carry. To be effective, a survival kit must meet four requirements.

1. It must contain the items needed to survive the anticipated emergency for as long as the danger exists or until the danger can be escaped.

2. The components must be realistically affordable and readily available to those who are preparing the kit.

3. It must be storable and survivable enough to be ready when needed.

4. It must be portable enough to be with the survivor when it is needed. The more portability that is needed, the lighter the kit needs to be.

So, before you can put a survival kit together you need to determine: what the most probable hazards are going to be, where you will need the kit, and how you might need to carry it*. I have organized kits

A Class and Level System: This permits customizing kits based on the severity (level) and anticipated length (class) of the emergency.

Modular Units: Add on kits that can be added or substituted depending on the current anticipated hazard scenario, For example: you might add a cold weather module, or a nuclear, biological, chemical module, or a combat and self-defense module.

Redundancy: Where possible critical need items such as shelter, fire, water, defense, medical, and food are distributed between pockets, belt kits, and main kits to

provide some protection or part of the system is lost.

Mobility: To be of any value your survival kit items must be with you. Even if you intend to stay-put in an emergency, that may not be an option. You must be ready to roll or run with your life support and defense system at any time.

The table below illustrates the Classification/Level system. Each kit must be able to provide the following survival needs under the anticipated conditions (class) for the required time (level).

1. Air free of chemical, biological, and nuclear hazards. This includes smoke, carbon monoxide, etc. Needs may range from a dust mask to a full-face filter respirator

2. Shelter from cold, heat, rain, wind, sun, chemicals, fallout, and biological agents. This can be a plastic poncho, plastic bags, space-blankets, or protective suits.

3. Adequate safe water. Stored water for short term, but filters and purification systems are needed for medium and long term survival

4. Rescue and navigation aids: In most scenarios finding help or making it possible for help to find you will be your best hope for survival. This can be fire, flares, whistles, maps, etc.

5. Fire/Heat: in many scenarios this will facilitate warmth, water purification, safe food, and signaling for help. Water proof matches and a variety of fire starting devices should be included

6. Food: Not needed for short-term survival, but critical in a few weeks. You must be able to carry some, but be able to access stored supplies, forage, and hunt for more. Various freeze-dried items combined with fishing kits, snares, edible plant information, etc. must be considered

7. Medical Needs: First aid kits, over the counter medications, and a stock of needed prescription medications must be included. Antibiotics, and pain relievers are a big plus if available.

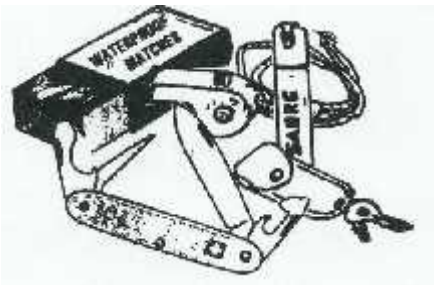
8. Self-Defense: Under many scenarios the potential for attack by criminals, rioters, or even wild animals must be anticipated. You have things they want! Pepper spray may be an effective and appropriate force level for some situations, but not having the options to use deadly force (e.g. a firearm) in the last resort can be deadly for you and your family.

	LEVEL 1 Basic situations such as storms, lost in the woods, power outages, etc.	LEVEL 2 Regional emergencies such as terrorist incidents, riots, natural disasters	LEVEL 3 Catastrophic events such as war, revolution, economic collapse, environmental disasters
CLASS 1 For immediate survival, escape only	Pocket items, belt kits, etc.	Pocket items, belt kits, etc.	Pocket items, belt kits, etc.
CLASS 2 Short term (24-36 hour) basic protection	Belt kits	Belt kits with additional module	Back pack with additional module
CLASS 3 Medium term (1 to 2 weeks) all necessary life sustaining needs	Belt kit puls backpack	Belt kit plus backpack and additional items	Belt kit plus backpack and additional items
CLASS 4 Long Term (2 + months) of total self-reliance	NOT REQUIRED	Belt kit plus backpack with additional supply caches	Belt kit plus backpack with additional supply caches
CLASS 5 Indefinite self-reliance without any outside sources	NOT REQUIRED	NOT REQUIRED	Belt kit plus backpack with additional supply caches and a stocked retreat

Taking this approach to multi-level preparedness and self-reliance we can build a series of “survival kits” that bring us from limited risk, short-term survival to a high level of preparedness and self-reliance under any situation. Here are four kit descriptions.

Pock-Kit

This is items that could be carried in pockets, purses, briefcases, etc. The goal is to provide immediate survival, escape and rescue only.



Items	Use and Notes
Miniature flashlight (key chain size, Micro-Light ™ LED, etc.)	Light when power goes out, assist in escape and rescue
Small whistle (Fox ™ 40, Windstorm ™, etc.)	Assist in rescue much better than shout
Miniature pepper spray 1 ¼ oz.	Self-defense. Suggested
Folding dust mask	Dust, fire soot, biological agents, limited protection for chemicals and fire gasses. Escape only! Suggested Survivair ™ 1930M, etc.
Bandages or tape	Wound care, repairs
Miniature multi-function (Swiss Army ™) type knife	Lots of emergency applications
Plastic bags (optional if you have room)	2 or 3, 30 gallon size plastic trash-bags can provide substantial protection from wind, rain and contamination
Cell Phone	In these situations communications and rescue is essential. Even a cheap cell phone with no service will get 911

Belt-Kit

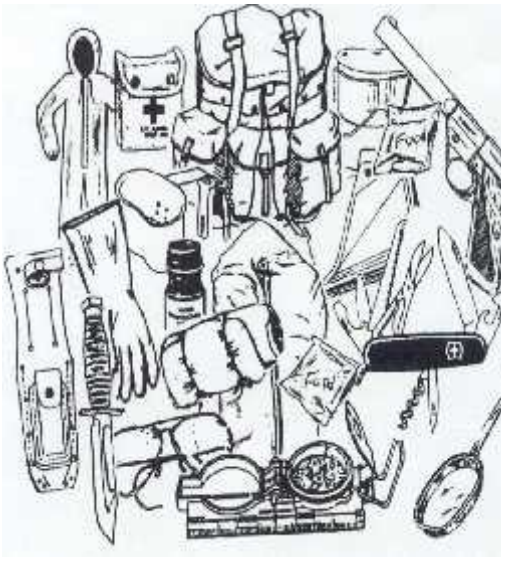
These items will greatly increase the chances for survival and rescue in just about any emergency. This kit can be kept at your job or in your vehicle. Because it is a belt/fanny-pack system you can (and should) have it with you when hunting, fishing, or any activity that separates you from access to life protection (food, water, shelter, etc) systems.

Items	Uses and Notes
Small flair gun or colored smoke	Skyblazer ™ Available in boating supply stores
Whistle	At any camping store
Small pepper spray	2 oz. or larger with belt pouch
Multi-function knife/tool	Leatherman ™ type with pliers, saw, etc. etc.
Water proof camp matches	Suggest addition of a few fuel tabs or fire starter
Water bottle and purification tablets or filter straw	Available at any outdoor store
Small flashlight	Suggest LED types that burn up to 75 hours on one set of 4, “AAA” batteries
Rain poncho	Very light plastic with hood
Space blanket or emergency blanket	“Space Blankets” are low cost ($2.00), low weight reflective plastic. “Emergency Blankets” are more expensive ($12.00) and bulky but much stronger
Survival information cards	Play cards, learn survival and carry the information
Miniature (pin-on) compass	You do need to know how to us it!

First aid kit (see list)	You can buy a prepackaged outdoor kit or put one together yourself
Electrical tape	Great for repairs and bandaging, etc.
Disinfectant towelets	Available everywhere
Pencil and paper	So you can leave notes about where you are going and when you plan to return, etc.
Aluminum cup	Sierra type with long handle to heat water, etc.
Food (non-perishable)	A few energy bars, granola and/or Mainstay ™ long life rations
Dust/mist respirator	Suggested: 3M ™ #8210 or equivalent. Good for NBC protection and also to reduce heat loss from respiration in cold conditions
Latex gloves	Common medical type

Back-Kit

At this level you have moved from just basic survival to serious preparedness and self-reliance. This unit will provide all anticipated need for from five to ten days. Backed up by additional caches of supplies and/or foraging for more food, the items can extend independent survival for months if needed. Although you may not intend to evacuate or head for the hills, you should still have the items in a good pack that you can carry. Be sure you can carry your back-kit with reasonable comfort. Weight is a major consideration and you may have to sacrifice field comfort (e.g. shelter size and weight, stoves, etc) for carry-comfort.



The Philosophy and Psychology of the Survival Pack

You may or may not ever have to pick up your survival pack and depend on it to stay alive and free in a dangerous and hostile world, but knowing you can provides a sense of strength and independence for everyday life. A prepared citizen is not easily panicked or mislead by the media and politicians. The survival-pack in the closet provides peace-of-mind and confidence for its owner. The survival-pack says “I am ready,” “I am responsible,” “I will survive,” “I will stay free.”

Items	**Uses and Notes**
5 to 7 meals that do not require	Energy bars, granola, dried fruits, Mainstay ™

cooking if you need to keep moving (1000 calories or more)	long life rations, etc.
5 to 7 large meals that can be cooked (1000 to 2000 calories)	Freeze dried meals weigh about 4 oz for 500 calories = about 5 lbs. for 5 days
Water purification system Removes 99.9% + of bacteria, viruses and cysts, and protozoa	Suggested: Ketadyn ™ Mackenzie will filter 26 gallons (4-6 weeks supply)
All weather fire starter	At camping supply stores
Chemical or rain suit	More durable and easy to wear than a poncho. Add gloves, a respirator, and seal the cuffs with tape for chemical and nuclear protection. Also good as spare clothing while drying wet clothing
Spare socks (2 pair)	Prevent foot problems. Also can double as mittens in emergencies
Spare glasses	An old prescription is better than nothing if your primary pair is lost or broken
Changes of underwear	Your choice
Toilet paper (1 plug)	Camping supply store
Washcloth and small towel	Camping supply store
Soap in soap container	Camping supply store
Toothpaste and tooth brush	Camping supply store
Female hygiene items or razor	Personnel choice
Miniature stove and fuel tablets	Suggested: Esbit ™ folding stove with 6 to 12 Trioxane ™ fuel bars
Cooking kit	Camping supply store
Fork and Spoon	Camping supply store
Sewing kit (see list)	Assemble your own
Fishing kit (see list)	Assemble your own
Snare wire	You can also get pre made snares such as the Speedhook ™ but they cost more and have only one use
Emergency blanket	These are heavy aluminized layered plastic with grommets
Tarp (10 x 10 foot min) or small tent	Rip-Stop ™ nylon is lightweight. More shelter = more weight use you judgment
Light weight sleeping bag	You must balance weight and bulk against comfort. You can get a bag that is good down to about 20 degrees F. and weighs only about 3# for about $200.00
Insect repellent with	Camping stores
Sun burn cream	At local pharmacies
Foot powder	At local pharmacies
Candles	6 to 10 tea candles burn 4 hours each in their own holders

Small flashlight	Suggested: LED or Xenon with alternate red lens
Advanced medical kit (see list)	What you have depends on your skill levels. Add a small first aid manual if you have room
Prescription medications	Stock-up on what you need. Keep extra pain killers and antibiotics if safe
Rope Line (50 Ft., 500# test minimum)	For rigging shelters, traps, etc.
Heavy duty knife (5 to 7 inch blade)	Ka-Bar ™, Air Force survival knife, etc.
Paper and pencils	Maps, notes, etc.
Monocular or small binoculars	Selection of safe routes, spotting game, see trouble before it sees you.
Radio (very small)	Keep informed, weather, civil defense, etc.
Compass and maps of the area	Military type lensatic compass and topographic maps of the areas you anticipate being in
Small survival manual	Suggested: SAS Pocket Survival Guide
Electrical Tape (one role)	Repairs of all kinds, medical uses
Fire arms: Your choice	
Alarm devices	Under many situations you may want to sleep without being surprised by wild animals or roaming criminals
Smoke bombs (assorted colors)	Can be used for signals, or escape smoke screen
Folding shovel and/or axe	For digging shelters, sanitation, rescue, etc. There are several shovel/axe combinations. The weight if this item may be prohibitive

Tote-Kit

Once you have belt-kits and back-kits for you and your family members, you can build for longer and longer self-reliance with tote-kits. Tote-kits are intended to be used where they are or transported by vehicles. If you intend to stay home, that's where you keep them. If you anticipate evacuation, you can keep them at a safe location in the countryside. If you can travel 50 miles on what you have in your pack, then put your tote-kits within that range. These tote-bins range from easy to handle

10-gallon sizes to big 45-gallon wheeled units. The emphasis in tote-kits is food, fuel, sanitation, warmth, light, and increased levels of protection. Each tote should add 20 to 30 days of survival necessities to the 5 to 10 days of the pack.

Items	**Uses and Notes**
Flashlights and batteries	Heavy Duty, 3-4 “D” cell, Mag-Lite ™ etc.
Candles	50 -100 tea candles or emergency candles
LP gas lanterns and fuel	At any camping store
LP Gas camp heaters	At any camping store
LP Gas camp stove	At any camping store
Multi-Power (solar, crank, battery) emergency radio (AM, FM, SW)	Lots of choices available
Large capacity water filtration system	In addition to lots of stored water you need a pump filtration system and cartridges to filter several hundred gallons of water. Suggested Pure Voyageur ™ etc.
Chemical toilet with chemical and toilet paper	These range from bulky camp more compact folding units with chemicals and paper included. Suggested: compact unit that uses a 5 gallon pail
Fire Extinguisher	A small one (2 lbs.) ABC, in the tote a big one on the wall at home
Extra blankets or heavy sleeping bags	To supplement what you have in/on your pack
Survival manuals and first aid books	Suggested: SAS Survival Handbook or Bruce Clayton’s Life After Terrorism. AMA Handbook of First Aid, etc.
Shovels, axes, crow bars, etc.	Camp size. They still need to fit in the tote
20-30 full meals (2000 calories)	MREs are good but are heavy and take up a lot of room. Freeze dried meals are much

	lighter and smaller. Also consider dried beans, rice, cornmeal, oatmeal, and pasta, etc. but they need to be used and replaced every few years.
Heavy plastic and duct-tape	4 mil plastic or better to seal broken windows, roof repair, shelter, etc.
Full NBC Defense Kits	If you anticipate this hazard. See list.
Defense firearms and ammunition	Depends on situation. See list
Garden sprayer	Great for small class “A” fires and for decontamination
Heavy trash bags	For sanitation, protection, shelter
Spare clothing, underwear, and socks	As needed

What Is Camouflage?

When selecting fanny-packs, belt-packs, backpacks, etc. you should consider what kind of camouflage to use. In rural areas where hunting and fishing is common and military or hunting camouflage designs are common your kits should use these designs. In urban and suburban areas where classic.

Camouflage may actually *attract* attention. Consider the black, tan, grey, etc. packs often used by students and tourists to carry books, etc. The same rule applies to clothing. Woodland or bark patterns may be unremarkable in rural Tennessee but blue jeans and a grey work shirt may be a better choice for Chicago.

The Survival Imperatives

As you build each kit remember the survival priorities

Priority	Survival Need	Time You Can Survive Without It
1	Will to Survive	Zero
2.	Self-Defense	Less than **Three Seconds** if attacked
3.	Safe Air	About **Three Minutes** if deprived of oxygen or safe (uncontaminated) air
4.	Medical Care	**Three to Five Minutes** if bleeding heavily, not breathing, or no pulse.
5.	Shelter	About **Three Hours** in extreme cold or hot environment
6.	Water	**Three Days** or less depending on environment and activity
7.	Food	About **Three Weeks** depending on physical condition and activity

Survival Kit Modules

Below are listed more detailed descriptions of the kits within the kits. There contents may vary, depending on you anticipated needs and skill levels.

Basic First Aid Kit

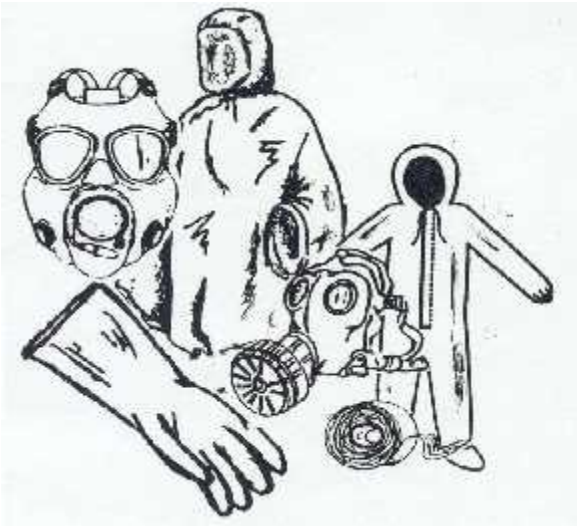
(10) Bandages 1 x 3 inch	(4) Antiseptic wipes	(6) Antacid/Stomach reliever (Pepto-Bismol ™)
(2) Bandages 1 3/4 x 4 inch	(4) Triple Antibiotic 1/32 oz. packs (Neosporin ™)	(3-6) assorted size safety pins
(2) Gauze pads 3 x 3 inch	(2) Hydrocortisone, 1% 1/32 oz. packs	Small splinter tweezers
(4) Alcohol cleansing pads	(6) Aspirin or other pain relievers	CPR face shield with one way valve

Advanced Medical Kit

Wound Care Items	**Medications**	**Instruments (one each)**
(20) ¾ x 3 adhesive bandages	(10) antiseptic towellets	Stethoscope
(10) Fingertip bandages	(5) benzoin or iodine swabs	Blood pressure cuff
(5) knuckle bandages	(1) small eye wash solution	Oral thermometer
(10) 2 x 2' gauze pads	(10) packets, triple antibiotic ointment	Sterile scalpel #11 blade
(10) 3 x 3' gauze pads	(6) packets 1% hydrocortisone ointment	5 ½ EMT shears
(10) 4 x 4' gauze pads	(6) packets burn ointment	5" Kelly forceps
(2) 2" x 5 yd. gauze role	(3) sting relief pads	
(4) 2" x 5 yd. cohesive bandaging. (e.g. Coban ™)	(1) Oil of cloves (for tooth ache)	3 /2 splinter forceps
(10) butterfly wound closure strips	(2) pkgs. Oral rehydration salts	
(1) 3" elastic bandage	(1) tube of glucose (for diabetics)	Oral airway set
(1) 4" elastic bandage	(50) Extra strength Tylenol ™ or equivalent pain reliever	Penlight
(1) role 2" x 5 yd. 3 cut tape	(10) Mylanta, etc.	Magnifying glass
(2) Triangular splint bandages	(10) Antihistamine	Assorted safety pins
(1 or 2) 4 x 5 instant cold compress	(10) Laxative	Disposable eye shield face mask
(1) 4 x 4 ", water gel burn dressing	(1) syrup of ipecac	Latex gloves (your size)

(1) Large occlusive dressing. Or substitute plastic wrap or foil	Antibiotics if available	CPR rescue mask
(2) sterile eye pads	Strong pain relievers if available	20 cc irrigation syringe
(1) SAM ™ splint. If there is room	Prescribed medications for your family	NOTE: if trained to use them, consider addition of a 5" needle holder and some 3-0 and 5-0 nylon suture w/needle sets

Nuclear, Biological, Chemical Kit



Full face respirator with multi-contaminate cartridge Commercial made such as Survivair ™ or surplus such as US Military M17, Swiss or Israeli civilian masks	Container of bleach to make up 10% solution for biological decontamination	Container of liquid soap to make solution for chemical and fallout radioactive decontamination
Nitrile rubber gloves (Baracade ™ , SolVex ™ ,etc.) with sleeves to overlap protective suit	Dupont Tychem ™ or equivalent protective suits (Size M,L , XL?) with hood and boot covers	Duct-tape to seal gloves to suit, etc.
Latex medical gloves to go under rubber gloves	Assorted sponges and brushes	Garden sprayer (clean) to use to spray decontamination solution

Fishing Kit

Assorted fish hooks	A few floats	XX test fishing line
A few assorted lures and rubber worms	A few sinkers	NOTE: you already have a knife and pliers

Sewing Kit

Assorted needles size 5 through 20	Heavy thread for leather and canvas repairs	Assorted size buttons
10-15 assorted size safety pins	Medium Thread for clothing repairs	NOTE: you already have an awl and scissors

Personal Hygiene Kit

Soap or liquid hand cleaner	1 or 2 disposable razors	tweezers
Tooth paste (travel size)	Small stainless steel camping mirror	Nail clippers
Tooth brush (travel size)	Comb	Hygiene products as needed
Mouth wash (travel size)	Nail file	NOTE: shave cream is too bulky. Use soap to lather

Survival Firearms Selection

Your choice of firearms for survival will depend on the hazards you can realistically anticipate and what you can carry. Arms and ammunition are heavy and their weight will add to fatigue and will reduce the food you can carry. On the other side, there is no use having other survival gear if you cannot defend your life from criminals*. You need to select a reasonable and effective weapon that you can carry along with enough ammunition for any anticipated situation. Remember that you are not Rambo! You are avoiding combat and only shooting as a last resort to defend your life, liberty, and property. There are three basic scenarios that would guide you selection of firearms:

- **General Survival Defense and Small Game Hunting**

A 22 LR auto pistol such as the Ruger ™ are a first choice. A few hundred round of 22 LR ammo will take up very little room and add very little weight to your pack. With a little practice you can take small game for food and “in the gravest extreme” put accurate headshots into a hostile intruder at close range. Survival rifles such as the collapsible, floating AR-7 in 22LR or the Air Force’s folding, single shot 22 mag/410 combination are also worth consideration

- **Urban Escape and Defense**

The 22 LR is still worth consideration because it can lay down a lot of accurate suppressive, covering fire for your limited ammunition weight, but you may need more stopping and penetration power. While the relative merits of

various ammunition can be debated indefinitely, the 9mm is suggested because of its high availability and commonality to many firearms you might acquire. A good 9mm self-loading (semi-auto) that has a 10 to 15 round magazine is recommended. The Beretta 92/92S is a good example. For this situation you will want to carry at least 2 extra magazines and several hundred rounds of ammunition. Be aware that larger caliber pistols require more training and practice to achieve reasonable accuracy. A short stock, short-barreled 12-gauge shotgun with a modified chock firing #2 to #4 buckshot is worth consideration. Of course an AK47 or maybe a Mini-Uzi would be ideal in urban combat, but your first job is to *escape* with your survival gear and loved-ones, not take down the bad-guys.

- **Long Term Outdoor Field Defense and Food**

Unless you can have weapons cached away from your home, weight and bulk are factors. Weight will limit the amount of large caliber ammunition you can carry. The shotgun with a variety of slogs and buckshot provides a good range of hunting and defensive options. The 22 LR rifle and/or pistol is still valuable because they are quiet and you can carry lots of ammunition. If you feel you can carry a hunting rifle or a big HK 91/93 and hundreds of rounds of ammunition along with your survival supplies, you should acquire them.

The above recommendations are made to be compatible with the concept of flexibility and portability. There may be better choices for the home or field under other conditions. If you truly will not be able to practice shooting or firearms maintenance, you may want to consider to more reliable 22LR or 38 cal revolvers

* *A person who has chosen not to be prepared and under emergency conditions chooses to take what he or she needs from others by force is a criminal*.

Knowledge Weighs Nothing

Survival kits are a must, but they have limitations. 10 days food lasts 10 days, but knowing how to hunt and forage can extend that food for months with no additional weight. Combat skills can greatly increase your survival chances without additional weapons. Medical skills can increase the effect of your limited medical kit many times. A kit item that may seem to have one use could have dozens of applications for the well-trained survivor. The more you know the less you need, but with both knowledge and equipment your chances to survive and your opportunities to come through and thrive are unlimited.

Some skills you should consider acquiring are listed in priority below.

1. First aid medical skills: Take local Red Cross first aid classes or contact a local hospital about First Responder or Emergency Medical Technician courses.

2. Unarmed self-defense: Take a self-defense course or even take

up one of the martial arts as a healthy sport.

3. Armed self-defense: Before you acquire a firearm of any kind take a basic safety course. The National Rifle Association and its local affiliated groups offer a wide range of courses on safe use of firearms.

4. Nuclear, biological, and chemical protection: You should be able to identify these hazards, take protective measures, and decontaminate. There are some books available

5. Edible and medicinal plant identification and use: There are some schools and lots of books, but you need to go out and practice

6. Escape and evasion: Hope you don't need this one, but there are some books and even a few survival schools that teach this.

7. General outdoor survivals skills: This covers fire building, water finding, shelter building. There are lots of books and tapes available and a few good schools.

8. Navigation: Global Positioning Systems are great, but you should know how to get around with and without a compass and a map if necessary.

Live Free; USA offers training programs in most of these subjects in some areas.

Sources

While the great majority of the items and books listed in this article can be acquired at local sporting goods stores, the following companies carry the listed items and many more alternatives for survival kits and survival education.

- **Safety Central** (the Preparedness Superstore) has a full line survival supply catalog. 1-800-782-5396, www.safetycentral.com, 1100 W. El Camino Real, Mountain View, CA 94040

- Brigade Quartermasters **catalog features new military related survival items. 1-800-338-4327,** www.actiongear.com**, 1025 Cobb International Drive N.W., Street 100, PO Box 10001, Kennesaw, GA 30152-4300**

- **Cheaper Than Dirt** has a catalog of military surplus survival equipment.
  1-800-421-8047, 2524 NE Loop 820, Fort Worth, TX 76106-1809

- Golden Nugget Army Surplus carries a good variety of items at

fair prices. 1-800-942-8769, www.goldenuggetsurplus.com, 215 Globe St., Radcliff, KY 40160-9504

- **Paladin Press** markets hundreds of books and tapes related to all survival and combat subjects. 1-800-392-2400, www.paladin-press.com, Gunbarrel Tech Center, 7077 Winchester Circle, Boulder, CO 80301-3505

Conclusion

Any responsible citizens should be able to begin a comprehensive emergency preparedness and self-reliance program with the information provided here. Building from the smaller kits to the larger packs and totes over time should not be financially unacceptable. Most families spend more on CDs and video games in a year than is needed to provide the above items. These are the lifesaving, freedom maintaining actions of a responsible citizen of a free country.

***** *I have written several articles on personal hazard analysis and developing your own survival threat matrix that may be of value in determining you real needs.*

Always Carry a Knife

By Jim Jones

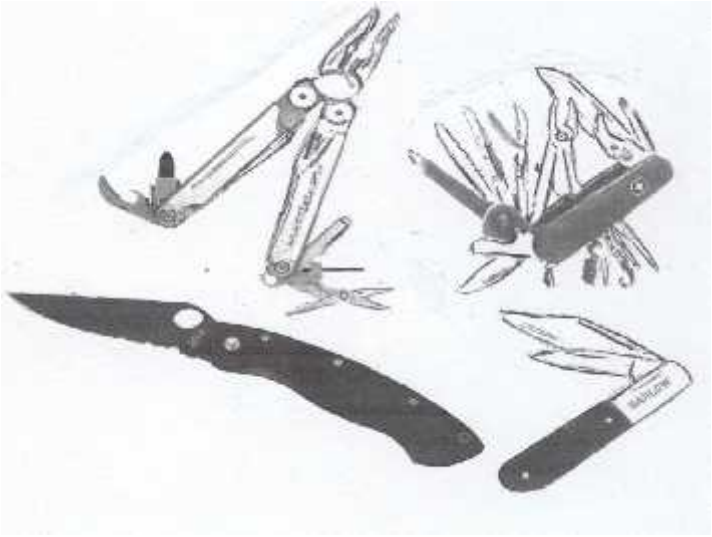
There is probably no single item that defines, establishes, and sustains an individual's survival, self-reliance and freedom potential more than the knife. The knife and its modification the spear was in use long, long before the arrow, sling, or firearm. Flint blades predate almost any other manmade device. The name "Saxon" in "Anglo Saxon" comes from the name of the long, heavy bladed knife called the "seax" carried by the Anglo Saxons. Carrying the seax was the mark of a free man. Slaves, of course, were prohibited from carrying arms. As we know, being prohibited from caring arms is still the mark of a slave.

Today, virtually everyone uses some kind of knife at least a few times each day. The possession of a knife imparts a huge survival and self-defense advantage to anyone. If you have nothing else with you, a knife gives you a chance to survive. Not carrying a knife of some kind is surrendering your survival potential to luck and the whims of nature and man. The prepared person will carry a pocketknife or a pouch knife throughout the day. He or she may keep a larger "survival knife" or "hunting knife" in their vehicle or other accessible location. Of course, there will be well selected small and large blades for outdoor activities and stashed in the survival/evacuation pack. One may carry a heavy bladed 6 to 8 inch blade length belt knife for heavy work. A small thin-bladed pocketknife for fine work and maybe a Swiss Army type knife or Multi-Tool with a variety of blades and gadgets as well. Some Multi-Tools even have an LED flashlight included. Some "survival knives" come with a match compartment in the handle and a compass in the butt. These are good for backup caches or extra knives, but most are weakened by the hollow handle and may break in heavy survival use. The exception will be covered later in this article.

You may want to consider one of the military bayonet/knives that work with the sheath to cut wire. Going cross-country in most areas will mean crossing a lot of wire. The M9 and M10 and the AK47 bayonets have wire cutters. Small sharpening stones are often included in a pouch right on the sheath. This is a highly recommended feature. The knife is *not* where you want to go cheap! A blade that goes dull or breaks when you need it most is no bargain, but there are over-priced knives where you are paying for style or a name. We are not talking about knife collecting or knife show knives here. We are talking about reliable use and abuse blades. Ultimately, you have to select your knife set based on as much quality as you can afford. Survival and self/reliance knives can be classified as pocketknives, pouch knives, sheath knives, and combat knives. The following are some recommended selections from several knife experts.

Pocketknives are single or several bladed knives that fit into one's pockets comfortably and unobtrusively. In the past almost everyone carried a pocketknife or "pen knife" to sharpen quill pens, clean pipes, and perform other daily tasks. For our purposes a pocketknife is a single or double-bladed knife of no more than 3-inch blade length. You want this knife to be thin and light so you will carry it comfortably at all

times, but also strong and sharp. Some good choices are the Spyderco ™ Native folder at about $78.00, the Kershaw ™ Combo Edge folder and the Gerber ™ Mini Covert folder at $36.00. The Smith and Wesson ™ S.W.A.T. frame lock folder and Black Ops folder priced in the $25.00 to $35.00 range are good values as well. If you want more than one blade, the Swiss Army ™ Soldier knife (the first Swiss Army knife) with a blade, can opener, bottle opener, two screwdrivers and an awl point fits in the pocket for about $25.00.



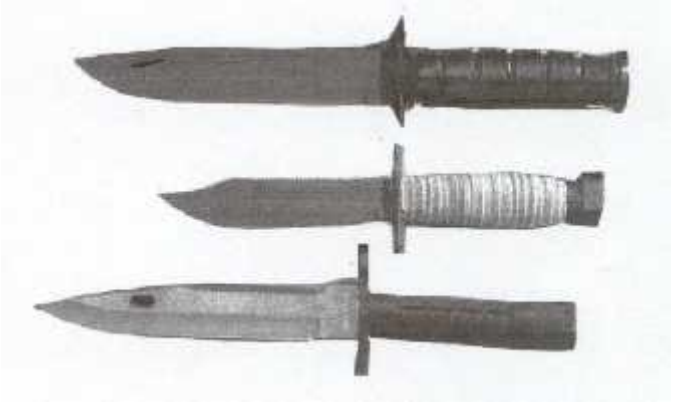
Top: Multi-Tool, Swiss Army style knife. Bottom; pocket knife examples

Pouch knives are those that are carried in a belt pouch or may be kept in other places, but are too large for comfortable pocket carrying. This includes large folders, Swiss Army Knives, and Multi Tools. If your normal apparel is work clothes or blue jeans you may be able to wear a belt pouch without attracting any negative attention. This provides the opportunity to carry larger and more versatile knives. Things get more complicated here because you have to choose between one big strong blade with limited uses or several smaller blades and tools with multi-use capabilities. In the Multi-Tool category there is the Leatherman™ New Wave tool with over a dozen functions at $75.00, the Gerber ™ Diesel multi-tool at $53.00, and scores of other models to meet your requirements. Some even include LED flashlights, fire starters, whistles, and magnifying glasses. The drawback to the Multi Tool concept is that the primary tool is usually pliers rather than a knife blade, and getting to the knife blade is a bit slow and troublesome. Once deployed, the knife blade of a multi-tool is rather clumsy to use compared to a folder. You may still want or need to carry a pocketknife along with the multi tool. The Swiss Army knife is a knife first and a tool second and the traditional Swiss Army ™ knife also offers a great variety of choices. The ones with 6 to 8 blades and devices are more compact and easier to use than the puzzle-like multi-tools. The Swiss Army ™ Ranger with its 20 tools is a good choice for about $40.00 or you can go all out for the huge (and clumsy) Champ selling for close to $80.00. Some have 20-30 devices, but are bulky and awkward. Avoid cheap imitations. Stick with brand names and be sure of a good strong pouch that will not tear or come off your belt. Large folders with blades of about 4-inches offer the blade

of a sheath knife in a more compact form but they cannot be as strong for some applications. Consider the KA-BAR ™ Mule folder at about $48.00 or one of the popular Buck ™ large folding knives.

Sheath knives are larger sheath-carried blades ranging from the short bladed USAF Survival Knife (5”) and U.S. Marine KA-BAR (6”) to machete lengths of 12”. The actual military surplus USAF Survival Knife and U.S. Marine KA-BAR are good values at about $40.00, but KA-BAR ™ brand makes a variety of KA-BAR variations selling in the $50-$60 range. Smith & Wesson ™ offers the KAB-BAR like “Search and Rescue” sheath knife with an excellent sheath and sharpening stone for under $30.00.If you do elect to go with a hollow handles, Rambo style “survival knife” you will need to spend some real money to get strength and reliability. Chris Reeve ™ makes hollow handles “survival knives” from a single bar of A2 tool steel with a handle cavity sealed with an “O” ring to keep matches and other items dry. These knives sell in the $200 to $400 range. For value and quality there are several good choices among military bayonets. The M-9 and M-10 are good choices.

Knives of over 14-inches over-all length become impractical for most folk to carry on a belt ankle of harness sheath. If you anticipate some serious chopping and hacking you may want to consider carrying a heavy bladed knife in or across the back of your pack. Consider the Ontario ™ RTAK-II Bush knife with its 10” blade and 17-inch over-all length for about $90.00 ™ or even a military surplus Machete on the market for as little as $20.00



Top to bottom: Classic KA-BAR, US Air Force survival knife, M-10 style bayonet

Combat knives are those specially designed for fighting. They are not usually ideal for other survival uses. These range from small concealable 3” blades and throwing knives through boot knives and commando knives. While knife fights are possible, they are not probable, so put survival knives ahead of combat knives in your priorities. In certain situations and urban environments, a well-hidden combat knife could be just what you need. You may want to add something like the OSS Spike dagger that is carried on the wrist or the Special Ops ™ 5-inch blade boot knife selling for about $24.00. There are variations of the famous Applegate-Fairbairn ™ World War Two style combat knives selling for from $50.00 to $100.00

Applegate-Fairbain type combat knife (top)
Typical "boot knife" (bottom)

This chapter would not be complete without a few tips on the care and sharpening of your knives. Leaving knives out is an invitation to trouble. They can be lost, stolen, damaged, picked up by children, or even used against you. Keep them in their sheath or pouch and in a safe location when not in use. Clean and lightly oil multi blade knives so they open freely when you need them. Knives are not intended for prying or hammering. Keep your knives sharp and clean. Sharpening techniques would take more room than we have in this book, but there are some devices that are recommended. Cabala's offers a wide variety of electric and hand sharpeners ranging in price from $20.00 to $400.00. You can get a good diamond stone for $30 to $60. and these come with instructions. The Gatco ™ Edgmaster sharpening system will do a good job for $40.00. The Edgemaker ™ device is handy for fast restoration of a blade.

Your choice of a knife system will depend on your anticipated every-day uses and your worst-case emergency needs. No one knife will be the best for every situation. You should have at least one high quality pocketknife, pouch knife, and sheath knife, and carry all three if possible when in a potential survival threat situation. Carry more than one knife if possible. Cheaper backup knives stashed in various locations (e.g. vehicle, office, pack, etc.) will be way better than nothing if you are unable to access your primary blade. In some cases what you want and what you can legally and practically carry will be a compromise, but always carry a knife. We invite the reader's input and comments on this subject.

Binoculars: Seeing the Hazards First

One item that is often overlooked in packing a survival kit is the inclusion of some kind of monocular or binoculars. Large powerful binoculars add too much weight and take up too much precious space in your pack that is better devoted to food, shelter, and other critical items. But small monocular or compact (opera-glass size) binoculars can be well worth carrying. In fact, even the cheapest toy binoculars give you a big advantage over the naked eye. If you are dug-in at home you can spot floods, fires, and rioters sooner. Being able to identify these hazards 4 to 10 times sooner than if you had to wait to see them up-close could give you the time you need to react and survive. Are those people in the distance some of your neighbors or are they armed looters coming your way? The sooner you know the better. Let's say that you are on the move. Being able to examine the route ahead of you could save miles of wrong-way and dead-end travel. Is that bridge clear? Are those buildings occupied? Are those National Guard troops up there or are they something else? Nice to know while you are out of range! Also, the possession of monocular or binoculars can help you locate campsites, shelter, and game that you would otherwise not see. Being able to "reach out" and see hazards and opportunities in advance is an advantage you cannot afford to ignore.

You can get good small monocular and binoculars in most sporting goods stores. The Alpine ™ 10 x 25, monocular is 1 ¼ x 4 3/8 weighing only 5 oz, at $18.00. The Carson's ™ Raptor 7 x 12, binoculars are 4 ¼ x 3 ½ and weigh 10 oz, costing about $100.00.

Rain Barrels

Water is the most important of all survival needs under most circumstances. In some situations shelter, medical aid, or defense may be more immediate, but water is the number one need for survival over a few days. Hopefully all of our readers have stored at least ten gallons of water per person in the household and have a stock of water filtration devices and bleach to make more water available. If the interruption of water supplies last more than a few days you are not going to want to use your precious drinking water for washing and cooking. You certainly will not want to use it to make the toilet flush or water your vegetable garden. Those living in "traditional" suburbs and semi-rural communities where houses are fairly large, well-spaced, and on larger lots have the potential for attaining water self-reliance through the use of rain barrels. They also can raise a significant part of their own food by converting that lawn to vegetables. One would be well advised to start gardening now and acquire the necessary hand tools (there may not be any gas) to expand the garden as needed. Learning to can and dry foods would also be well advised. Back to water! One of our members who lives in a suburb of a large metropolis actually cut off his "city water supply." The town was baffled when they noted that his water meter readings were

zero month-after-month. The town harassed him, and dug up his lawn looking for the illegal bypass pipe they were convinced that he had. They tried to force him to use water based on the municipal code requiring running water for occupancy. They also had a problem because they could not charge for sewer services. As with most towns, the sewer charge is based on the water (in = out) usage. They lost the suit and made sure that the whole issue got no publicity. He simply gathers all the rainwater from all the roof areas, runs it to a basement tank, filters it, and runs a pump to his pipe system.

When I bought my house the detached garage had no gutters and the rain falling from the eves could flood the floor in heavy rains. I installed gutters that solved this problem, but put both downspouts at the rear of the garage. I then bought readymade 55-gallon rain barrel tanks that cam fitted with a screened inlet, overflow hose, and bottom hose that links to any garden hose. I ran the two downspouts into the two 55-gallon tanks that are elevated about 3-feet off the ground. My wife suggested “it will take a while to fill those big tanks.” The first night we had less than ½ inch of rain and they were both half full. A few days later we had a modest storm and they both overflowed. The garage is about 20-feet square. That will catch about 100-gallons of water from a ½-inch rain. So for my small investment (less than $100.) I now have a renewable 100-gallons of emergency water. Of course it would have to be filtered and treated for drinking, but can be used as is for other purposes. I can use it to keep my two 200-gallon ponds full and water my vegetable garden. Based on the average rainfall for this area I can get about 1,750 gallons of water per year just off of the garage roof. That’s about 5-gallons a day for use. The house is at least four-times the size and would provide an additional 20 gallons per day in a long-term emergency. While I may not place rain barrels at all of the house downspouts now, I do intend to stock the necessary gutter fittings to cut and install spouts to catch rainwater there if necessary in the future. If this is a practical option for you, you should do it.

Highly urbanized and densely populated environments such as townhouse developments, apartment buildings and inner-city neighborhoods’ will not be configured to gather rainwater and the ratio of people to square feet of rain gathering surface would not provide enough water for those living under it. When primary services like water, sanitation, and power fail for more than a few days, these populations will experience a meltdown followed by civil unrest (riot) and then a massive exoduses of survivors seeking water, food and shelter.

Homemade Big-Berkey style water filter

By John Bock

Large scale water filtration for less than 2 cents per gal.

Clean, potable water is critical to survival in an emergency as we all know. You can make potable water most commonly by chemical means or filtration. Big Berkey water filters are considered among the best, proving themselves capable of gravity filtering a lot of water day in and day out for a long time. Each element will filter over a gallon an hour and will last 3,000 gallons or more with proper care.

Here's how to make your own Big Berkey-style filter at home for about $100 to $150.

First, you'll need:

* A pair of Black Berkey replacement filters ($80-$100 online) or Super Sterasyl Ceramic filter elements (about $35 each online - similar filtering results in quality and quantity)

* Berkey Light spigot (about $7)

* A minimum of two white, virgin plastic 5-gallon buckets (food grade HDPE) (about $3 each at Lowe's) and a pair of white, virgin plastic lids (also about $3 each)

Step 1: Tape the lid for the lower bucket to the bottom of the upper bucket, then drill two one-half inch holes through the lid and the bottom of the upper bucket approximately 5-6" apart. NOTE: This plastic was brittle and you should push very gently on the drill bit or it will plunge through the plastic and break it, leaving you with a ragged hole that the washer won't cover—or worse. My advice, buy twice as many buckets as you intend to use to ensure you don't screw up in less than ideal conditions. Buckets are cheap. Life is precious.

Step 2: Remove the lid and install the filter in the bottom of the upper bucket.

Step 3: Drill a three-quarter inch hole in the side of the bottom bucket so the bottom of the hole is about 1/2 inch above the bottom on the inside of the bucket. This will allow room for the washer. Install the spigot (use the washers on both sides of the bucket wall).

Step 4: Drill a small weep hole in the lid for the upper bucket to ensure that the lid doesn't seal and cause a vacuum and stop the filtration when nobody is looking.

Step 5: Sanitize the lower bucket with a bleach solution and rinse before use. 1/4 cup of bleach in 5 gallons of water for ten minutes should be fine after you've washed it out with soap and water.

Usage: If you're filtering turbid water, be sure to pre-filter using coffee filters or other crude filtration to extend the life of your filters inside the Berkey. If you need faster filtration, you can use additional filters in the top bucket (three or four). Under ideal conditions, you can get over 7 gallons per hour with four filters.

Simply fill the top with clean, but suspect water and clean water will dribble into the bottom container.

Be sure to buy additional containers to hold the filtered, pure water for later consumption!

Making Your Own Laundry Soap

You can make your own laundry soap at home for a tiny fraction of what you would pay for brand name soaps like Tide. As an added bonus, this home-made soap doesn't have brighteners or fragrances, so it's ideal especially for hunting clothes.

If you buy three bars of Fels-Naptha, along with the single box of Borax and

Super Washing Soda, you will have the materials to make soap for about 576 standard loads of laundry for about $11 worth of ingredients (Rural King prices).

All three ingredients can be found at Schnucks and Rural King and they may all three be available at other stores in the laundry aisle as well.

How does it work? I've been using it for a month now and am pleased. I've heard back from a couple of other *Guns Save Life* members who've tried it and they are impressed as well.

Step 1: Finely grate approximately 1/3 bar of FELS-NAPTHA bar soap and put it in a sauce pan with six cups of hot (not boiling) water. Keep hot and stir until soap melts.

Step 2: Add one half cup of BORAX laundry booster and one half cup of WASHING SODA to sauce pan. Stir until dissolved.

Step 3: Add four cups of hot water into bucket (two gallon minimum), then add soap mixture. Stir briefly to mix.

Step 4: Add 22 additional cups (1 gal, 6 cups) of room temperature water. Stir to mix and let stand for 24 hours or so. Contents of bucket should gel.

Use one half cup of final product per standard load.

If it doesn't gel, it will still work fine. Store product in a closed container or the water will evaporate out of the mix.

Survival Shotguns

We hear a lot about the handguns and the rifles that are recommended for home defense and survival, but the shotgun is often overlooked. However, the shotgun may be the best and most versatile survival weapon of all. Okay, it's not easy to conceal and it's hard to employee in tight spaces, so it's not ideal to foil street crime or carjacking. However, for home defense and urban and suburban civil disorder situations the shotgun has great advantages over handguns and carbines. Just the sight of that big barrel and the sound of a round being jacked into the chamber can be enough to discourage most thugs. One shot puts multiple projectiles downrange in a pattern that has a much better chance at a first shot hit than any other firearm. A direct hit at close range will positively stop the criminal D-E-A-D in his tracks. A few rounds sending dozens of projectiles downrange will stop a whole gang. Lower velocity "law enforcement" rounds are ideal for close quarters and indoor encounters since they have reduced recoil and less likelihood of injuring innocent people further away. In the street you are getting off about six rounds to the handgun's one or two. Shotguns have amazing versatility. You can perforate a vehicle with buckshot or stop it with a slug or armor-piercing round. You can use breaching rounds to open doors or use exploding or incendiary rounds to discourage attackers or clear your escape route. Of course, once you are safe you can still bring down game for food with shot and slugs. Compared to good handguns and combat rifles, shotguns are relatively cheap. You can get a good, new combat style pump, shotgun for around $300.00 to $400.00 dollars. Shotguns are often less regulated than handguns and rifles, and attract less attention. I do recommend that you replace the stock with a folding or collapsible stock for close situations. You may also want to add a shell holder for quick reloads or to keep special rounds handy. Other customizing options include a magazine extension, barrel shroud, flashlight, and lazar pointer. Accessories are available for most Mossberg, Winchester, and Remington shotguns from Advanced Technology of Milwaukee Wisconsin and at most sporting goods stores.

A wide variety of ammunition is available for all occasions. Shown here are: law enforcement rounds (short), double-ought buckshot, slugs, armor-piercing, flamethrower, fireball, breaching, and non-lethal rubber rounds.

Mossberg 500, 12-gauge “camper” model came with a pistol grip (no stock) This was easily replaced with a Advanced Technology folding stock and a 5-round shell holder

Ithaca “riot gun” designed for police use outdoors. A little less maneuverable indoors and not as convertible. Though you could saw off the stock and refinish the pistol grip.

Survival Shovels

When I was a kid just after World War Two every kid in the neighborhood had an “Army Shovel.” These were childproof and child sized digging tools. The result was that every vacant lot was a warren of trenches and underground tunnels. Unfortunately, a few kids did get killed in cave-ins.

The shovel of the static trench warfare of World War One was the M-1910. This was just a small “T” handled spade. World War Two was a more mobile operation requiring the soldier to dig quickly in any kind of soil and then move and dig again. The M1943 folding shovel was strong enough to dig in frozen and rocky soil and included a pick to chop and pry. It was a bit heavy, but troops were generally tucked for long distances. This was the shovel that somehow came home after the war. The very similar M-1951 served through the Korean War and Vietnam. There were and still are a wide variety of commercially made imitations of this well designed tool. The tri-folding shovel with its triangular grip handle came into use late in the Vietnam conflict. It is a much more compact and lightweight tool than the M-1951, but a bit less capable.

Shovels have somewhat limited use in urban area where an axe or pry bar may be of more help, but they are a must once the brick and concrete are left behind. Uses include: digging shelters, digging fire pits, burying waste, drainage trenching, building defensive positions, and making animal traps. There may be the need to clear ground and shovel snow for cold weather camps as well.

There is a variety of small “camp shovels” on the market. You choice depends on how much weight you can add to your survival pack. The two main designs are miniaturized version of the old M-1951 and the current tri-fold designs. If you are really pressed for space and weight, a good quality garden trowel gives you a limited digging capacity. Of course you may want a bigger shovel in your vehicle or survival cache.

Special Ops Gear ™ shovel fully deployed

Two versions of the ubiquitous Army Shovel of WW Two vintage

Folding shovel takes up little room

Sturdy camp shovel on left. Note the “saw teeth on the blade.

Tri-fold shovel offers better grip and larger spade

Machetes as Survival Tools

I have always considered the machete to be a jungle survival tool. They are generally seen being used to hack trails through tropical rain forests and jungles. Most North American forests are more open and have plenty of trails and game trails for passage. I was recently scouting a site for future training activities. The area included a lot of high grass and thick sapling growths. I had to wade and push through these obstacles. I realized that a machete would be ideal for clearing paths, campsites and training areas. I would never advocate a machete as a replacement for a good survival knife, but if you anticipate surviving or just camping in swamps, marshes, grasslands or thick growth areas a machete may be a better choice than an axe. Not only can this tool be used to clear trails and campsites, it can quickly cut grass and rushes to thatch a shelter or cut light firewood. What it lacks in weight it makes up for in velocity for cutting. You can clear a campsite and build a shelter much faster with the big blade of a machete than with a knife. In general the bigger 18-inch blade machetes are not as handy unless you are only going to be clearing grass and brush. The shorter 12-inch blades are easier to use, safer, and better for axe work.

These big blades need to be respected. The wide swing arch makes them a hazard to the careless user and anyone nearby. The wide blade can deflect off of hardwood and do serious damage. Some machetes come with a full “D” handle while

others provide a safety strap. You can get a good machete for about $25 to $40.00. Beware of cheap ones with flexible blades and unsafe handles. I selected a Gerber ™ machete with a thick 9-½ blade and a strong composite grip. The full length saw blade on the back will be very useful for the more precision cuts and notches required for building shelters, traps, rafts and other survival devices. As a weapon, the machete is somewhat clumsy, but very intimidating and lethal. It may not be a “must have” item, but it’s not a bad investment if you anticipate operations in the backcountry.

Tarps (tarpaulins) for Emergency Protection

The lowly tarpaulin is an often-overlooked necessity of disaster survival and recovery. These sheets of material can protect you, your equipment, and your supplies from rain, sun, wind, cold, and even some airborne contaminants. Having the right kind and the right-sized tarpaulin in the right place will be critical in many aspects of survival and property protection.

Survival Uses for Tarps

Field Shelter: A tarp is just a tent without a shape. Carrying a large enough sheet of plastic or other waterproof material can provide you with a wide variety of shelter options. It can also be used to gather water, cover a solar water still, or make an improvised rain poncho. A Space Blanket ™ is just a small reflective tarp. If weight and space is an issue you can easily fit a 10 x 20 ft. x 1 mil thick plastic painter’s tarp into any survival pack to provide short-term protection. I usually carry a Space Blanket ™ and some kind of tarp in all my survival packs a kits. I can set up a variety of shelter configurations depending on conditions. The tarp can also just be thrown over me as a hasty shelter if necessary. I keep a heavier 15 x 20 nylon tarp in my vehicle. I use it to cover the entire vehicle when camping.

Home Survival: Tarps are an absolute necessity on any home survival supply list. Even the lightweight plastic painter’s tarps can be effective in closing off a single room to preserve heat or reduce infiltration of hazardous dusts and mists. It’s easy and fast to put up with masking tape or duct tape. Heavier polyethylene tarps can be used to cover broken windows or damaged roofs. Make sure that the tarps are over the roof peek or tucked under the shingles at the high end to keep water from running underneath. In a worst-case scenario they can be used to make a shelter away from the house if it’s no longer safe.

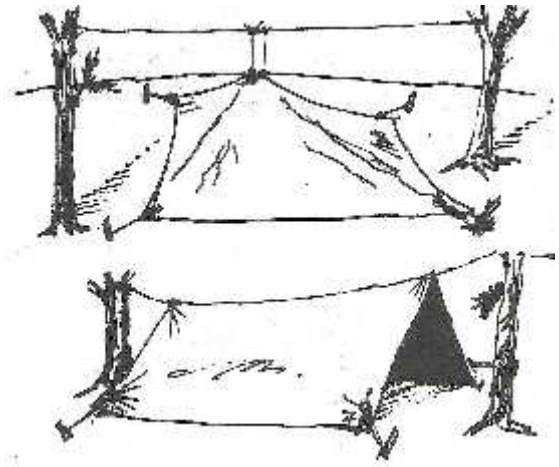
Damage Reduction: Tarps are designed for damage reduction and are ideal for covering stuff you cannot keep inside like firewood, machinery, and bulk supplies.

Using a stone as a grommet: Most tarps come with grommets for tying them down, but some (like the cheap plastic ones) do not. Also you may want to shape the tarp into a tent or shelter with ties in the center. There are several devices for this, but you can simply take a rounded stone, wrap the tarp material around it, and tie a line around the bulge as shown below.

Types of Tarps

Clear Plastic Painters Tarps: Thin plastic painters tarps are cheap and lightweight. A 9 x 12 foot x 1 mil thick tarp cost only about $2.00. These are great for indoor room sealing and for fast one-time shelters. They do not hold up well in strong winds, but they are just as waterproof as any tent. One of these should be in every survival pack. I recommend the 12 x 20 size. I have built hasty dome like shelters out of 3 mil plastic in the winter that were proof against cold winds and snow. They also had the added benefit of greenhouse-like solar heating on sunny days. It was at least 20-degrees warmer inside. I left one up for a year and used it again the next fall.

Opaque Plastic with grommets: These are the ones designed for covering things outdoors. They are heavier and come with grommets on the edges. You can get them in camouflage designs, green, or brown and with reflective material on one side. An 8 x 10 foot brown/reflective tarp cost just $7.95 or 12 x 16 for just $15.95. Used as a lean-to shelter in front of a campfire, the reflective tarps can greatly increase warmth. This is also effective as an outer covering for tents in winter. They can be formed into all kinds of shelters.



Examples of tarps rigged for shelter

Canvas Tarps: These are rather heavy and expensive, but are more durable and will resist wind much better. They generally come in white (for winter), green, and

gray. They are far too heavy for a backpack, but are good for home and vehicle. An 8 x 10 canvas tarp will cost about $40.00. They are the best for shelters if you don't have to carry them far.

Top: Cheap 3 mil. , 12 x 20 ft. Polly drop cloth on top of heavy canvas painter's tarp. Below: Black and aluminized (heat reflection or absorption) polyethylene tarp next to brown and green polyethylene tarp

Scavenging Tarps: In a real emergency you do what you have to do. Polyethylene and Polypropylene tarps are used for covering construction materials, swimming pools, and yard furniture and as covering for shipping products. It can often be found in dumpsters behind appliance stores, carpet stores, and building sites. As long as you have a knife you will be able to scavenge what you need for shelter. Remember Rambo making that vest out of the old canvas he found in the dumpsite.

Conclusion

Shelter is one of the prime necessities of any survival situation. Tarps offer a reasonably priced method for protecting yourself, your home, and your property from the elements. Having the appropriate type and sized tarp in the right place when you need it definitely could be a lifesaver. The prepared family should consider their possible risks and purchase the appropriate tarpaulins before they are needed.

Three kinds of tarp shelters in use at a Live Free USA survival camp

Staying Afloat In a Survival Boat

While water is essential to survival, too much water in the wrong place can be deadly. Flash floods are a real danger in many areas. Storms, hurricanes, and tsunamis kill thousands each year. Terrorists could easily target flood control dams to wipe out large areas downstream. The changing climate makes coastal areas and lowlands high-risk areas. You could be trying to evacuate an area struck by chemical, biological, or nuclear contamination and find that the bridges are blocked by the military or by gangs. In such cases the ability to float yourself, your family, and your survival gear will save your life. You need a boat! Not everyone can afford to have that 60-foot cabin cruiser sitting in the driveway. Even small boats and canoes are costly and difficult to transport under emergency conditions. Fortunately, most sporting-goods stores and surplus stores sell small one, two, and three-man inflatable rubber boats. These are designed for hunting and fishing and are usually camouflaged and well built. They are equipped with rubber oarlocks and handling lines. While the one-man models are lighter to carry, they are very small so I would recommend the two-man models for each person and their gear. The two-man boat is about 18 x 18 x 1 inches and 5-pounds deflated. This gives you a 75-inch long by 45-inch wide craft capable of carrying two people with a little gear or one person with full survival gear for a long distance. The boats cost around $25 to $50 dollars. That's not much cost considering the survival advantages they can provide. Three-man boats are a bit heavier but inflate to a 90-inch x 53-inch craft to carry two people and all their gear. You could inflate these boats by mouth but you really should have a good foot pump if you can afford the weight. Oars can be improvised if you cannot carry them. A patch-kit and 100-feet of rope is a wise addition. There are many survival uses for these handy craft. Here are the top ten.

1. Obviously useful to get across rivers and canals when bridged routes are unavailable.

2. A lifesaver when flooding occurs in your area.

3. Gives you the capacity to rescue others trapped in flooded homes or sinking vehicles, etc.

4. Gives you the option of using navigable stream, rivers, lakes and marshes for evacuation, escape, and evasion if necessary.

5. Gives you the ability to reach remote areas and islands to establish safe survival camps

6. Gives you an advantage in foraging, hunting, and fishing for food.

7. Can be used as a quick shelter or bed.

8. Can be used to gather rainwater.

9. Can be used as a rescue litter to carry injured victims.

10. And last but not least! You now own a boat so you can call yourself “Captain.”

Typical two-man inflatable sports boat has many survival applications

Trash Bags Emergency Uses

By Ken

Large, contractor grade, 42-gallon lawn, trash, and leaf bags are priceless. These heavy bags have the durability that is needed to survive the abuse you will put them through out on the trail and their merits in a survival situation are only limited by your imagination. Never leave home without several in your BOB, pack, car, or on your person. A box of 20 can be had for $7 if you shop around. There are so many uses for these things.

1. **Functional Raincoat and Emergency Poncho-** Although it does not breathe, it beats the alternative of hypothermia. Cut a hole for your head and holes for your arms.
2. **Emergency Winter Coat** Staying warm is about wearing layers. Cut a hole for your head and holes for your arms, then fill the bag with leaves, duff, lichens, or any other dry material that can trap pockets of air in the bag. Tuck the open end of the bag into your pants. The stuffing serves as insulation and the bag acts as a moisture barrier.
3. **NBC Suit-** Five large trash bags will produce a protective suit for most adults, a bandana/scarf/cloth and a pair of gloves will complete the protection needed during a Nuclear/Biological/Chemical assault, where the goal is to keep dust and floating debris particulates off your skin. By placing one trash bag over chest, one on each arm and leg, and one overhead, covering face and head with scarf and wearing gloves, a person stands a fighting chance in any of these situations. If you have duct tape you can improve your protection by taping the ends of the bags.
4. **Gaiters-** Protective clothing for a person's ankles and legs below the knee for hiking in snow, and to prevent mud, snow, etc. from entering the top of the boot.
5. **Water-proof Waders-** To keep pants and socks dry when walking in wet areas or wading in shallow water.
6. **Emergency Patch-** When combined with duct tape, a piece can be pressed into patching. A ripped sleeping bag, tent, jacket, or pack can all be temporarily repaired.
7. **Rain Cover for Your Backpack-** By tucking the open end into available compression straps and loops, you may just be able to pull the open end of the bag over your pack. In more extreme weather you can cover the bag and tear out holes for your suspension system. Although this will keep your pack drier, the moisture barrier it forms on your back could make you very sweaty.
8. **Bevy Type Shelter-** Using two bags, cut the bottom out of one, then duct tape the two together to form one long bag.
9. **Moisture Barrier for Natural Shelter**- In a snow cave or a lean-to you can use your trash bag to prevent rain from coming through the thatching of the roof. Cut the bag so it forms a large sheet and position it accordingly.

10. **Drop or Ground Cloth-** Deter ground insects or stop excess moisture. If the bag isn't long enough then cut the seams so it makes a long sheet.

11. **Canopy for a Shelter-** Used with chord or rope and some duct tape.

12. **Mattress protection underpads-** For ill, injured, elderly, or small children. Placing a small piece of cloth on top of a trash bag under a person will provide a waterproof, fluid containing area to change dressing and clean wounds, saving on bedding.

13. **Mattresses or Blanket-** Warm, soft, & insulated when filled with dry leaves or pine needles.

14. **Windshield Covering-** Prevents freezing ice and frost on cold winter days with a garbage bag tucked into the corners of your car doors and hold the edges down with your windshield wipers.

15. **Dry Sack-** The best way to store your gear if you are paddling or hiking in a wet environment. Double wrapping is even better, but don't expect your gear to stay dry if the bag gets fully immersed in water, say if your canoe turns turtle.

16. **Storage Bags-** Use grocery sacks to hold an assortment of dry foods, animal feed, or enough feed for your pets for a day which are placed into trash bags, tied and suspended above the floor. This keeps them off the floor, allowing for more space and out of reach of mice and other vermin

17. **Make Shift Bear Bag-** By carefully tying with cord, you can suspend your makeshift bear bag to store meat from a game kill out of the reach of both small and large critters. The plastic will mask most odors, but because the bag lacks a seal, it won't be perfect. Also, make sure that smaller critters can't drop down onto the bag and chew through the plastic

18. **Bag to Keep Firewood Dry-** Cover or store firewood to keep it dry from the heavy dew and rain for starting a fire with.

19. **Bag to Keep Weapons and Ammo Dry-** From heavy dew and rain or condensation when brought in a warm house from the winter cold.

20. **Emergency Dromedary Bag-** You can't fill a 42-gallon trash bag with 42 gallons of water as it can stretch and break due to the density of the water, but it will hold a couple of gallons easily. Double line black trash bags, place into pillow case, fill until water is about 10 inches from the top of the pillow case, take the top and fold side to side keeping the folds upright, tie with a string, fold over and tie again then tape. Place a larger string/rope around the fold and hang. By hanging you take the pressure off the bags which keeps the water from leaking. Unless it is absolutely necessary, never use a trash bag for long-term water storage as chemicals can leech into the water.

21. **Water Stills-** Large black trash bags are great to use for solar collection of water. Dig a hole deep enough to hold some type of container then place a bucket, bowl, or other container in the center of the depression. Loosely stretch one large garbage bag across the depression so that the center drops slightly towards the container in the bottom. Once the center

has been determined, cut a small hole that will be centered over the depression. Replace the bag over the container, making sure the corners are fixed with posts, sticks, or stakes…whatever you can to keep the bag in place. Next, the second bag is placed over the top and stretched taut. This provides the heating required to suck the moisture out of the air and into the bag which drips into your container.

22. **Seal for a Sucking Chest Wound-** Having a sheet of clean plastic around is critical for dealing with collapsed lungs and major abdominal injuries. In the event of a major emergency you can cut a section off of your bag and press it into service to keep wounds clean, hold vital parts in place, or help a person breathe.

23. **Plastic Blister Moleskin-** To reduce friction on a blister, apply Vaseline based ointment to blister, then tape multiple layers of plastic over blister.

24. **Expedient Blackout Covers-** Slit open the bags, tape together if needed, and staples or tapped over the windows inside.

Grocery Store Survival Foods

Recent events have made many citizens think about stocking up for emergencies. There is nothing paranoid about preparedness. In fact, being able to survive hard-times and disasters is just responsible citizenship. After storing plenty of water the next priority is food. The average American home has from two to four weeks of assorted canned, frozen, and dried foodstuffs in stock. An emergency that lasts more than a few weeks or that requires the abandonment of the home requires the stocking of storable and portable foods. You can build up a six-month food stock by buying a few extra items each week. If you have room and you are sure you will be able to stay home throughout any emergency, you can build up stocks of canned goods and dried foods (e.g. corn, wheat, beans, rice, etc.) and rotate in fresh supplies as you use the older stock annually. If you have limited space (living in an apartment) and/or may need to carry your stocks to a safer location your priorities change. You will want to have the most nourishment with the least weight and size. The more food value you can actually carry the longer you will be able to survive.

While the *theoretical* standard for daily meals is 2,000 calories and about 300 grams of carbohydrates. The fact is that lots of people get along fine on much less. This is survival, not gourmet dining! An initially healthy well-nourished person can get along for many months on 500 to 1000 calories per day. Of course, food requirements can vary greatly depending on the individual metabolism, weather conditions, and level of activity. If you are hunkering-down in a nice warm shelter you will need a lot less food than if you are on the march in winter conditions. You can add more items to the quantities listed in this article (e.g. oatmeal and Power Bars) if you feel you need to. Keep in mind that the more food you add to the pack, the more weight you are carrying and the more energy you burn carrying it. There is also the potential of supplementing your stock by foraging, hunting, and fishing. All of the items in the table below are found on typical grocery store shelves for any citizen to pack into their survival packs. Where items are sold in 12 packs, etc. the price and other data is from the smallest packaged unit. Some packages contain more than one serving but it is assumed that the whole contents will be used as one meal under survival conditions.

Item & Price *	Weight & Size	Calories	Carbo-hydrates	Protein	Shelf Life **
Quaker Instant Oatmeal Individual packages 40 cents	1.5 oz. 31/2x31/2x 1/2	160	3g	4g	5 plus
Beef Jerky Small pkg. $3.29	2 oz. 4x5x1/2	80	5g	14g	2 to 5 years or more
Power Bars	2.3 oz.	240	45g	7g	5 year plus

$1.50	4x11/2x1/2				
Knorr Soup Mix (Tomato Beef) $3.95	1.8 oz. 4x4x1/2	120	27g	6g	5 years plus
Nature Valley Granola Bars (2 pack) 26 cents	1.5 oz. 31/2x11/2x 3/4	180	29g	4g	5 years plus
Swiss Miss Hot Chocolate 25 cents	.55 oz. 5x3x1/4	120	22g	2g	5 years plus
Lipton Rice Mix $1.35	5.6 oz. 6x5x1/2	590	141g	15g	5 years plus
Lipton Noodle Mix $1.39	4.3 oz. 6x5x1/2	600	84g	18g	5 years plus
Ramen Noodle Soup Mix, 50 cents	1.8 oz. 4x4x1/2	190	26g	4g	5 years plus
Trail Mix, Dried (fruit & nuts) $1.99 pkg.	6 oz. 5x5x1/2	130	16g	2g	About 5 years
Zatarain Jambalaya Mix (use with jerky) $1.69	8 oz. 4x6x11/2	780	147g	18g	5 years plus
King Oscar Anchovies $3.00	2 oz. 31/2x2x3/4	50	0g	6g	5 years plus

** Prices may vary. Families and groups can save substantially by buying in bulk at discount stores.*

** Based on personal use of products stored in survival packs. While these foods were edible at 5 years, most were not edible after ten years. Rotation every 2 to 3 years is recommended. Nutritional value and taste will deteriorate somewhat over years. A dry cool storage environment is required.

Depending on the weight of the pack one is willing to carry, five to ten days rationed can be packed and carried along with other survival supplies (e.g. shelter, medicine, clothing, etc.) Up to 30 days rations could be packed into a 12 x 18 x 24 inch plastic tote bin that can quickly be loaded into an escape vehicle.

Oat Meal

Pound-for pound, oatmeal is probably one of the best survival pack items. It is cheap, light, high in calories and vitamins. I have used packages of Quaker Instant Oatmeal that were stored over six years in the bottom of my survival pack. Oatmeal stored over ten years had become stale and inedible.

Here are four sample ration-packages I assembled from the items in the table. There are sufficient items in each package to provide three meals of varying food value. The tea candles and matches added to packages #1 and #2 make them more

independent “survival kits.” Tea candles cost about 5 cents each (bag of 50) weigh about .3 oz and provide light (and some heat) for 4 hours each. Package #2 is designed for circumstances when cooking is not an option. All of the foods in that package can be eaten on the move. The addition of a 24 x 24 inch folded piece of heavy aluminum foil to and package can be folded into a makeshift cooking pot if nothing else is available. A few sealed handy-wipes can add comfort and sanitation without adding much weight. All items listed below are single packages.

Unit#1: Knorr soup mix, Granola bars, Oatmeal, Power Bar, Swiss Miss Chocolate, Candle w/ matches. Weight 8 oz., Calories 800, Cost $6.75

Unit #2: Beef jerky, Granola bar, Power Bar, Anchovies, Candle w/ matches. Weight 6.5 oz, Calories 550, Cost $8.29

Unit #3: Oatmeal, Lipton noodle mix, Granola bars, Anchovies. Weight 7.7 oz., Calories 990, Cost $5.39

Unit #4: Beef jerky, Power Bar, Oatmeal, Ramen noodle soup mix, Swiss Miss chocolate. Weight 9.3 oz., Calories 790, Cost $5.99

It is recommended that each meal unit be placed in a sealed plastic bag. To assure that you are never completely without food, it is recommended that rations be carried as follows.

- Pockets: One Power Bar, or Two Granola Bars, or One package of Jerky
- Belt Pack: One complete ration as per unit #2
- Back Pack: Five or more complete ration-packages

MREs and Freeze Dried

Military MREs (Meals Ready to Eat) are well-designed, nourishing, and last well over ten years. They are expensive and heavy to carry. MREs are highly recommended for home and cache food storage. Freeze dried foods from the camp supply store are costly, but are lightweight and keep well over ten years. If rotation is not practical, these may be a good choice for the survival pack

Having your food stocks and other survival items ready to go can bring security and peace-of-mind to the responsible citizen in dangerous times.

MISCELLANEOUS SURVIVAL STUFF

These are short, but worthwhile items that were hard to categorize or too short to enter into the previous sections.

BASIC SEVEN SURVIVAL REQUIRMENTS

#1: WILL TO SURVIVE; IF YOU HAVE NOT ALREADY MADE THE DECISION TO DO WHAT IT TAKES TO SURVIVE YOU ARE ALREADY DEAD.

#2: SELF DEFENSE: AN UNDEFENDED PERSON CAN BE KILLED IN 3 SECONDS. Everyone should be armed in some way. At least, never go anywhere without a knife. Under threat conditions carry pepper spray or a handgun. Have a firearm and ammunition safely stored in your home.

#3: AIR: YOU CAN LIVE 3 MINUTES WITHOUT AIR. Smoke, biological, chemical, or nuclear contamination must be considered. In many cases N95 rated dust masks kept in your pocket, vehicle, or survival pack will be much more useful than a big gas mask at home. New gas masks cost from $150.00 to $400.00 each. If you purchase a gas mask, follow the instructions and practice fit testing it before you need it.

#4: SHELTER & WARMTH: YOU CAN LIVE THREE HOURS WITHOUT SHELTER AND WARMTH IN A HOSTILE ENVIRONMENT. Shelter may be a tent, a storm shelter, a fallout shelter, shade, a sleeping bag, or “cover” from flying projectiles. If you are breathing, everything else can wait. As they say, “Seek shelter immediately.” Shelter must keep you dry and out of the cold wind, out of the hot sun, sealed from chemical, biological, and nuclear contamination, or protected from flying and falling debris. In most cases you will not have time to go to a shelter you must carry it or use what is nearby. Think!

#5: WATER: YOU CAN LIVE THREE DAYS WITHOUT WATER. Store at least 1 gallon, 2 quarts for drinking, 2 quarts for cleaning, and bathing. We normally use about 140 gallons per person per day for cooking, washing, drinking, and bathing. Store water in clean, opaque containers. Food grade, tap water does not usually need treatment, but you can add 12 drops of 2% tincture of iodine per gallon or 4-8 drops of household bleach for long term storage.

#6: FOOD: YOU CAN LIVE THREE WEEKS WITHOUT FOOD AT REST IN MILD WEATHER. The FDA recommends 2000 calories per day, but healthy people can survive for a long time on a lot less. You should try to maintain a 2000-calorie stock per-person for as long as you anticipate a homebound emergency. You may

have to compromise on a lower calorie intake per-day for evacuations where you have to carry your food. Store canned-goods at home (they already have water in them). Keep dried beans, pasta, rice, instant potatoes, powdered milk, and oatmeal. Stock up on canned meats. For evacuation kits, buy dehydrated camp meals, dried trail mixes, and jerky. You will need a camp stove and sufficient fuel for cooking.

#7 SANITATION: OFTEN OVER-LOOKED, KILLS THOUSANDS IN A DISASTER. **You must have bleach for disinfecting bodily waste, purifying water, and decontaminating clothing and equipment as needed. You also need to have hand soap and laundry soap, toilet paper, towels and washcloths for sponge baths and decontamination. Insect spray and insect repellents are important also. Chemical toilets or a 5-gallon pail with a heavy plastic bag for home.**

Organizing a Survival Self-Reliance Team*

Remember the story of Goldilocks? Some things were too big and some things were too small, but some things were "just right." While national organizations like ours are essential for networking, support, training and advocacy, they are too large to implement effective emergency plans and mobilization when truly large-scale disasters occur. In a truly serious event, transportation systems (e.g. roads, etc) and communication systems (e.g. internet, phones, cell phones) will breakdown, making the coordination, and gathering of people outside of walking and short driving range impossible and dangerous. Even group training and supply distribution under normal conditions becomes difficult past the county area range. Furthermore, current trends in fuel prices and economic conditions will make national and even regional gatherings more expensive and difficult. On the other hand, single-family survival and self-reliance efforts are severely limited in terms of finances, manpower and range of skills. This is especially true when you consider the possibility of large groups of looters and criminals that may be encountered in a crisis. So what's "just right"? Probably the most effective size for a survival, self-reliance team is from 5 to 20 families spread no further than 40-miles apart. The group should be no larger than 40 families (over 100 people) and no further than 100-miles apart. Such teams do not need to be "stand alone" organizations. They can be developed within an existing community, fraternal, veterans, or religious organization, or networked with adjoining teams. Of course, they can also be organized "from scratch" starting with one family or just a few individuals.

How formal an organization you create depends on how large you get and how complex your activities will become. If you get too complex to work well in normal times, it will fall apart in a disaster. The old "KISS" (keep it simple stupid) principle should be a rule when it comes to organizations and plans that have to work under emergency conditions. How you organize is also a decision for the group, but you do need to have some structure. You will need to have a designated leader (president, coordinator, leader), and several designated officers that will take over if the leader is not available. The last thing you need is "who's in charge" conflict in the middle of an emergency. In fact, you need to be sure there is no ego driven, "I'm the boss" types in your group. Good leaders are good listeners and good followers too. While each individual and family is expected to achieve a high level of self-reliance and survival capacity on their own, they are enabled to do this more effectively with the support of the team. Furthermore, each family is interdependent and mutually supportive for key services and support that would not be available to the lone citizen. Specialized tasks can be distributed among the members or assigned to the best-qualified individuals. There are at least three important tasks that require special designation of responsibility.

Planning

Someone needs to be in charge of analyzing the potential hazards and developing detailed emergency plans for each situation. These plans must take into account the geography and demography of the area and the capacities of the group's members. This person will need to conduct tabletop and, when possible, field tests of

the plans. These plans should cover anticipated natural disasters, economic deterioration, political and social upheavals, epidemics, and any combination of situations. The team should also have plans to help fellow members with individual and family emergencies.

Purchasing

There are two kinds of purchases that the group will make. First are purchases of bulk quantities of supplies such as food, medicine, clothing, fuel, ammunition, and sanitation supplies. Provisions have to be made for storage and distribution as well. The group can save money on non-emergency items as well. Secondly, there are those items that are too expensive for one person or family, but important to have. These can range from large generators and water purifiers to military surplus tents and even heavy-duty four-wheel drive trucks. Maybe you need to share food dryers, grain mills, and smokers. You may also want to consider stocking up on various barter items to facilitate an emergency economy. This initiative can go as far as establishing a business that improves the economic security of the whole group.

Training

The subject of survival and self-reliance is so broad that no one can be an "expert" on everything. One of the main values of a group is that each individual has or can acquire special skills to share with others. There are three ways to build the skill level of the group.

- Internal education through sharing of existing knowledge. This can be facilitated through book swapping, showing and discussing educational videos, taking turns doing short classes, and through show-and-tell at meetings.

- Group participation in local and regional education programs such as first aid, self-defense, firearms instructions, gardening, and other self-reliance related subjects.

- Sending one member to advanced survival, medical, defense, or other training programs with the understanding that they will return to share what they learned. The group should share at least 50% of the costs.

If your group is big enough to require dues, you will need to elect a treasurer. You may need to have a communications coordinator if you are going to use radios for internal or external communications. If you are not fortunate enough to have a doctor or a paramedic in the group, you definitely need to assign someone to get all the possible medical aid training they can and stock up on medical supplies and medications.

Community Outreach & Responsibility

One of the most important decisions the group needs to make at an early stage is whether to be a "closed" or an "open" organization. This will depend on the

concerns of the group and the culture of the surrounding community. Many communities today welcome and respect self-reliance and preparedness groups, but not everyone has accepted this view. You can limit your recruiting to a person-to-person approach or to just members of your parent organization. This may limit your access to some highly qualified members, but will also improve your security. If you are going to go public, you should do so through well-managed outreach activities such as doing preparedness programs at local fraternal, community, or religious groups. You may want to consider purchasing a post office box and printing some flyers stating your groups' mission and benefits. Some groups even set up tables at gun shows and have booths at county fairs. If you are "public," your members should build the groups relations and reputation through participation in the local Crime Watch, Civilian Emergency Response Teams, Red Cross, Scouts, and other survival related organizations.

Conclusion

As survival and self-reliance become more popular and urgent in our society, the need for and the potential for organized local groups will become more apparent. Our experience is showing that a growing percentage of the population is interested in becoming part of local organizations dedicated to helping them prepare for future emergencies and cope with ongoing challenges. In many cases there are dozens of interested people and families waiting for *others* to step up and start a group or offer a program. Live Free USA and Live Free members are uniquely qualified to be the "others" who act and lead in their communities and existing organizations. Being part of a small local group can greatly enhance each member's security, and survival capacity. Marinating a clear idea of the group's mission and responsibilities is critical to the long-term survival and success of any organization.

We welcome the readers' comments, experiences, and suggestions regarding this subject. We will be happy to assist anyone contemplating the organization of a survival, self-reliance related group. The following may be used as a guide to building a team (group) mission statement.

The Mission of a Survival-Self-reliance Team*

1. To mutually support each-others efforts to achieve greater levels of self-reliance and independence.

2. To mutually support each-others effort to prepare for emergencies and disasters.

3. To cooperate in the acquisition of survival and self-reliance equipment, supplies, and training.

4. To develop mutually supporting emergency plans for all perceived disasters and threats.

5. To participate in and support local and community emergency

response and survival education programs.

* Call it a team, chapter, unit, group, club

Standing Orders of the Fire Watch

On most of our outdoor training operations it was standard practice to have at least one member awake at all times. This assured that the campfire did not go out on cold nights and provided security. While it was unlikely that a camp would be assaulted while we slept, it did establish a good practice for some future time when such assaults might be more probable. Since the military has “standing orders,” why not have one for civilians under dangerous conditions? So here they are as published in the first year of Directions newsletter.

1. I will remain fully alert and ready to defend the lives and property of my fellow members (citizens) at all times.

2. I will be appropriately armed and equipped (for the circumstances) at all times.

3. I will take up a position that best enables me to watch and protect the (area) camp.

4. I will at all times put my responsibilities before my comfort.

5. I will carry out such duties as may be required (e.g. fire maintenance, radio checks, etc.).

6. If required, I will conduct periodic patrols (at irregular intervals) of the (area) camp perimeter.

7. I will challenge and identify anyone who approaches the (area) camp.

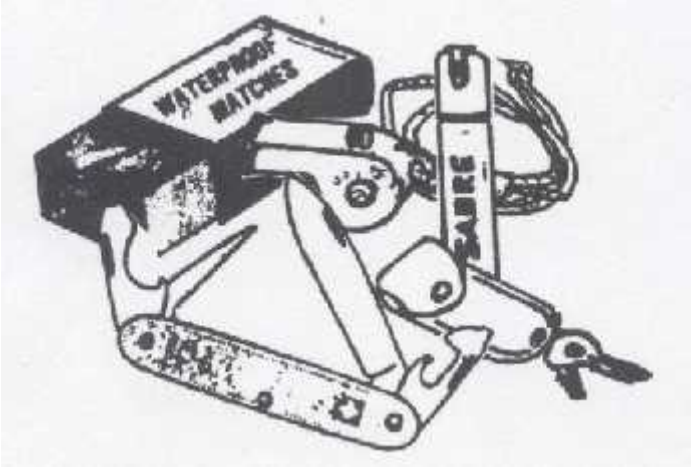
8. I will immediately notify the leader of the watch team of anything suspicious.

9. If the camp (area) is attacked (or endangered), I will do all in my power to repel or delay the (hazard) attack.

10. I will remain always alert and ready at my station until relieved by the next watch.

Survival Lists

There are so many publications with so many lists that I generally avoid doing lists. But the lists below are from actual packs and supply stocks we have tested and adjusted over thirty years. The reader will select items for pocket, pack, home and vehicle based on anticipated emergencies, weight, health and budget. These lists are intended as guides, reminders, and suggestions. Remember that what you “intended” to get is useless. What you “have” with you, not what you left at home is what counts. Anything (even cheap or improvised items) is way better than nothing. Don’t let the size of the lists be an excuse for not getting started.



Things You Should Carry In Your Pockets

These are items that can get you through many short term emergencies. Empty pockets are an invitation to becoming a victim.

1. Small pocketknife (if legal)
2. Miniature LED flashlight (key chain type)
3. Miniature pepper spray (key chain type)
4. Fold-flat N95 dust/mist mask
5. Pocket size bottle of hand sanitizer or alcohol prep pads
6. A few Band-Aids
7. Tylenol (2-pack) or other painkiller
8. A few tissues or napkins
9. A book of matches or a miniature lighter

Things On Or In The Bedside Table

Disaster can strike at any time. You awaken to the smell of smoke, the sound of an intruder, the town storm siren. You need these items NOW!

1. Car keys with alarm activator remote
2. Cell phone
3. LED flashlight (battery or crank)
4. N95 dust/mist respirator
5. Whistle
6. Survival-tool, mini-pry bar or equivalent
7. Handgun* or at least large size pepper spray

*Selection depends on personal size and level of training. A .38 caliber revolver is a good choice for the untrained because of simplicity and reliability. A small .380 caliber auto-pistol is easy for most to us. A 9 mm, or .40 caliber auto-pistol is best for those who can practice. If children are ever in the home keep them locked or otherwise safe from access by children.

Things You Should Have In Your Survival/Evacuation Pack

Every family member should have a survival/evacuation pack. Even if you do not evacuate, the items in it will be of great help for home survival. Having such a pack is insurance and peace-of-mind in troubled times. If you need it and don't have it, it will be too late to get the items and pack them up. Having a survival pack is the duty of every responsible citizen and the hallmark of a patriot. The pack items are packed in a CamelBack ™ Commander, but also fit into a Northwest Territory ™ backpack or the military ALICE pack "medium". They would weigh about 25-pounds fully loaded and contains everything I would need for water, shelter, food, medical aid, NBC protection, first aid and other needs for up to 7-days. You will note double and triple items to cover water, fire, food and shelter.

Stuff kept with the pack that goes on the belt or into the pockets

1. Document Package with copies of birth certificates, insurance papers, property titles, wills, medical information, critical phone numbers, etc.

2. Emergency plans and maps of routes and safe areas
3. Field boots for hiking. If you need your pack, chances are you are not going to be wearing street shoes or flip-flops where you are going
4. Some energy bars, trail mix, or jerky for the pockets
5. A full 1 quart canteen and pouch to carry
6. A field knife such as the USMC KA-Bar, USAF Survival Knife, or S&W Search & Rescue
7. Small binoculars or monocular to view your route
8. Multi-tool (e.g. Swiss Army Knife, Gerber, etc.)
9. Sunglasses
10. A weapon. Pepper spray if all other options are unavailable. A good handgun (Ruger 22 LR, Glock 9mm or .45 caliber, etc.) with holster and extra magazines is recommended where legal. Henry™ 22 LR, U.S. Survival Rifle with its compact size and ability to float could be worth carrying. You can carry several hundred round of 22 LR ammunition in your pockets.

Pack Contents

Outer Compartments

1. Water purification device. Katadyn ™ Hiker, Extreme ™ etc.
2. Magnesium fire starter. Gerber™ Strike Force etc.
3. 6–9 LED Flashlight. Battery or crank
4. Compact camp shovel or garden trowel
5. Miniature crank radio with AM/FM/WB
6. SAS miniature Survival Guide book
7. 2 large smoke bombs
8. 100 ft. utility cord.

9. Wool watch cap
10. Lensatic compass, military type
11. Pkgs. of energy bars and trail snacks
12. Blood stopper (Cellox ™ or other)
13. Spare prescription eyeglasses
14. Prescription medications (reserve supply)
15. Water purification tablets
16. Waterproof matches
17. (2) N95 0r N99 dust/mist respirators
18. Small role of electrical tape
19. Notebook and pencil

Main Compartments

1. HD Rain Poncho (on top for quick access)
2. HD SpaceBlanket ™ aluminized with grommets
3. Insulated blanket or light sleeping bag tied to outside of pack
4. Tube tent or 12’ x 12’ 3 mil, plastic tarp
5. Lg. Tyvek ™ chemical protective coveralls with hood
6. 2 Chemical Lightsticks
7. 1 small towel
8. 1, 12’ x 24’ HD Aluminum foil
9. 1 cooking kit, German WWII (should include one deep pot)
10. 1 folding stove MRE™ Pocket Rocket
11. 2, 3.6 oz. Gas fuel cylinders for stove
12. 1 pkg. Fire starter bars
13. 1 Knife, fork and spoon set
14. 3 Mountain House ™ freeze-dried meals
15. 16 oz. dried lentil beans (or corn meal, oatmeal, rice, pasta, etc.)*
16. Ramen ™ noodle soup mix
17. 16oz. Spam ™ canned meat
18. 5 oz canned sardines
19. 18-bar pkg. Datrex ™ marine e-rations (last resort food)
20. 10 single serve coffee bags and sugar pkgs*.

**use a vacuum sealer to further extend the shelf life of dried items*

Kits Packaged in Plastic Bags In The Pack

These are items packaged in small nylon bags, pouches or plastic bags

Personal Sanitation Kit

1 Liquid soap 2 oz.
2 Hand sanitizer 2 oz.
3 Toothpaste travel size

4 Toothbrush
5 1 or 2 razors
6 1 pair of latex gloves
7 1 lg. Washcloth
8 1 1.25 oz. insect repellant
9 Nail clippers
10 small stainless steel camp mirror

First Aid Kit
Commercially available kit or:

1 Assorted Bandages (Band-Aids ™)
2 Blood stopper (various brands)
3 4, 3-inch gauze pads
4 Eyewash (1.2 oz.)
5 Single edge razor blade
6 Splinter tweezers
7 Small scissors
8 Neosporin or triple antibiotic cream
9 Hydrocortisone cream
10 Antacid tablets
11 Laxative tablets
12 Tylenol, Advil, etc.
13 2 pairs latex gloves
14 1-role self-adhesive tape

Sewing Kit
Commercially available kit or:

1 Assorted pins and safety pins
2 Assorted needles
3 Assorted small roles of thread
4 Assorted buttons
5 Thimble

Fishing Kit

1 Assorted fish hooks
2 Fishing line
3 Assorted sinkers
4 2 corks for floats
5 Plastic worms and other lures

Caches

Caches are items stored in locations away from home. They contain no perishable items, but must be stored in weatherproof containers in locations that you can access, where they will not be found and looted by others. Caches may not be practical for everyone. The contents of a “survival cache” fall into two categories. First is the “backup” cache that would contain a complete (but perhaps smaller) survival pack in the event your home pack is lost or inaccessible. Second would be the “supplemental” cache that would contain items you would need for extended survival beyond what you have in your pack. The contents of a supplemental cache could include: a tent, blankets, tarps, food, fuel, tools, ammunition, clothing, and medical supplies.

What to Have At Home

In most cases it will be safer and more desirable to stay home and ride out an emergency. If things get really bad you have your packs, but here are some of the items you will want to have at home. The goal is to be able to hold out for 30-days without outside sources of food, water, fuel, defense, medical aid, heat, or power. A “list” of exact items would depend on the number of people in the home, the climate, the available family budget, and the location. So the following guide is provided.

Water: While 30-gallons of water per person is recommended, it may not be practical. 5-gallons for each person stored in one or more plastic containers with 4-8 drops of bleach added to each gallon is recommended. Keeping water in anything over 5-gallons is not recommended. What if that one big barrel leaks? What if you need to move the water supply? You also have drinkable water in your hot water heater. You just cannot have too much water purification capacity.

List:

1. 10 x 2-gallon full water jugs and 2 x 5-gallon full water jugs
2. 2, 1 oz. 50 tablet iodine water purification tablets
3. 1 MSR ™ or Katadyn ™ water filtration system with extra filters

Water purification: There are all kinds of water purification systems available.

Tap water may be contaminated and you may not have fuel to boil it. You may have to use rainwater, pond water, river water, or sump water. A good water filtration and purification system will be critical for emergencies lasting longer than 4-5 days. If you do not have a filter system, you can use coffee filters and add 8-drops of bleach per gallon.

Food: You probably have 5-8 days of canned and frozen food in the house normally. You can go with costly dehydrated foods if space is a problem, but otherwise go with dry and canned foods you can rotate. Dried fruits, beans, lentils, rice, corn meal, oatmeal, nuts, wheat, pasta, sugar, coffee, and other long term storable foods can be further preserved by vacuum packaging*. Canned vegetables and meats (Spam™ corned beef, beef stew, chicken & dumplings, pork & beans) usually have a two-year marked shelf life. They actually keep longer, but rotation is recommended. Powdered milk or condensed milk. Things like honey, molasses, vinegar, and syrup, last indefinitely. A 30-day supply of meals at approximately 2000 calories per day is recommended. Below is just a sample list of items to consider.

List:

1. 10 cans of Spam or other canned meats
2. 10 cans of sardines and tuna
3. 10# of powdered eggs
4. 20# of rice
5. 20# of potato flakes
6. 50# 0f Red beans
7. 50# of lima beans
8. 50# of wheat
9. 50# of oatmeal
10. 50# of dry milk powder
11. 50# of white beans
12. 50# of rye
13. 50# of corn meal
14. 20# of raisins
15. 20# of figs
16. 10# of prunes
17. 10# of mixed nuts
18. 20# of coffee or tea
19. 20# of sugar or honey

* Vacuum packing devices and reusable bags are available at most hunting supply stores and kitchen supply stores ranging in price from $50.00 to $400.00

Sanitation Supplies: You are going to need bleach for water purification, sanitizing body waste, and possibly decontaminating equipment. Have at least 3-4

gallons on hand at all time. Rotate to keep a full strength supply. Hand soap, toilet paper, dish washing and clothes washing soaps, clothes line, clothes pins, tooth paste, and mouth wash are other things you should always be overstocked on. Have a package of heavy-duty plastic bags and a shovel. Remember the toilet may not work and the garbage will not be picked up.

List: 4-gallons of bleach, 10 rolls of toilet paper, 10 bars of soap, 2-gallons of laundry detergent, 50 feet of clothes line, 50 clothes pins, 6 boxes of large trash bags, 4 bottles of dishwashing liquid.

Heat: Most furnaces will not run if the power is off and a generator big enough to power the furnace fan will eat a lot of gasoline. You can light your oven (if you have gas) manually to heat the kitchen. Buy 2 or 3 good camp heaters and lots of fuel cylinders. Have a good two-burner camp stove.

Light, etc.: Several good LED flashlights are a must. Crank powered flashlights, lanterns and emergency (AM/FM/ Weather) radios provide long term light and information without needing extra batteries. Stock up on good long-burning candles and matches. Good glass enclosed candle lanterns are recommended for safety.

Electricity: Electricity is a luxury not a necessity. You need enough power to run your refrigerator and/or freezer until you use up the contents or the power comes on. You may need power for a sump pump or water pump. Stay small and stretch your fuel supply. A 2000 – 3000 watt generator should be plenty. Even a 1000 watt generator will run a sump pump and alternately run a small deepfreeze. Don't get dependent on a generator for long term situations as fuel may not be available or may be too costly.

Shelter: Have lots of plastic sheeting and duct tape for covering damaged roofs and windows. Pick one room in which you will live, cook, eat, and sleep. Seal this room off to maintain heat from your heaters. You cannot heat your whole house with your limited heaters. Use them to heat one room and keep pipes from freezing if you can. Have good sleeping bags for every family member capable of keeping everyone warm down to the lowest temperatures in your area. Consider having a dome-tent that can be put up inside your house. It will be much easier to keep one room warm, light, and safe than the whole house.

Fire Protection: You cannot afford a fire! Using candles, camp stoves, and heaters greatly increase the risk of fire and of carbon monoxide. Be sure your smoke and CO detectors are working in the living area. Have several ABC fire extinguishers on hand. A garden pump sprayer filled with water is good for putting out wood, paper, and brush fires.

Defense: Choice of home defense weapons depends on where you live. While you may need to consider the weight of the weapon and ammunition for the pack, this

is not a problem for home defense. If you live in the city or semi-urban areas where crime and looting are the main concern, a combination of a large caliber handgun such as a Glock, SIG-Sauer or Smith & Wesson in 9 mm, .40 or .45 caliber and a reliable (e.g. Remington, Browning, etc.) pump, 12-gauge shotgun. For home defense, select shotguns with 24" barrels. You will want at least two extra magazines for the handgun and lots of extra ammunition for both weapons. If you live out in the country you probably already have some firearms. If you have just one weapon, make it a 12-gauge shotgun. Any length is okay since you will probably use it for hunting also. A reliable handgun to carry is still recommended, but a good rifle is more practical in the countryside. This is way too broad a subject to cover here, but select a reliable rifle for which parts and ammunition will be readily available. This means 5.56mm, .223 Rem., .308 Win. 30-30, 7.62x39mm, for rifles like the AK-47, Mini-14, and AR15.

First Aid:

First and foremost, stock up on your prescription medications. Acquire any antibiotics and pain killers while you can. Although most medications expire in 2-years, they are often effective for much longer. Especially if vacuum packed and kept cool. You must have a basic first aid book to assure proper procedures. The following is a partial list that could be expanded depending on your needs and skills.

List:

1. 1, Pkg. Blood stoppers (Celox ™, QuikClot ™, and HemCon ™) powder or dressing
2. 1, 8oz. tube, Antibiotic ointment (e.g. Neosporin)
3. 1, 8 oz. tube, Hydrocortisone Cream
4. 1, 8 oz. tube Burn Ointment
5. 1, bar, Antibacterial Soap
6. 12, Alcohol swabs
7. 1, bottle, Nonprescription pain medication (e.g. Tylenol ™)
8. 1, bottle, Non Prescription antacid
9. 1, bottle, Nonprescription antidiuretic
10. 1, bottle, Nonprescription laxative
11. 1, bottle, Nonprescription cold and allergy medications
12. 1, 3 oz. Eye drops
13. 1, 2-inch elastic bandage
14. 1, 3-inch elastic bandage
15. 2, triangle (cravat) bandage/sling
16. 24, Assorted small bandages (Band-Aids ™)
17. 12, 2"x2" gauze pads
18. 12, 3"x3" gauze pads
19. 12, 4"x4" gauze pads
20. 12, Safety Pins (large)
21. 1-pair, EMT Shears
22. 1-pair, Splinter forceps and/or tweezers
23. 4, Single edge razor blades or scalpel blades with blade holder
24. 1, Toothache kit (available at drug stores)

25. 6-pair, Latex gloves your size.
26. 1-role, 1’” self-adhering tape
27. 1-role, 2” self-adhering tape
28. 1-role, ½ “ medical tape

Note: Excellent first aid kits can be purchased from: Adventuremedicakits.com, 1-800-324-3517

Miscellaneous: Hopefully you have a stock of tools at home, but you may need big crowbars, good shovels, hand saws, heavy hammers, axes, and tools that do not require electricity. **Be sure you have the right wrenches to turn of gas and water valves in a hurry.** A chain saw may come in handy (while you have fuel) to clear fallen trees and cut firewood. Have an old-fashioned coffee pot to replace that useless coffee maker. If your basement floods or you get your water from a well, you need to consider hand and/or solar powered pumps for long-term use.

What to Have In Your Vehicle

Getting stranded in a storm or finding that a natural or man-made disaster will prevent you from reaching your home or other emergency supply sources for some time is what this survival kit is designed for. These can be kept in a duffle bag or a small backpack for easy access and (if necessary) movement from your vehicle.

1. Jumper cables or a charged battery booster
2. Fix-A-Flat ™
3. A small fire extinguisher
4. Road flares and or reflectors
5. A small folding shovel
6. A blanket
7. Heavy gloves
8. A flashlight, preferably with an orange flasher attachment
9. Bottled water
10. Energy bars
11. A stocking cap
12. Extra socks
13. Candles and HD aluminum foil to set on dashboard for light and some heat
14. Matches
15. HD Tow rope
16. Pen and paper to leave notes on the vehicle (where did you go? How can you be contacted?)
17. Pocketknife or multi-tool knife
18. Small first aid kit

Outdoor Butt Pack

This is a pack that you might carry on hunting or fishing trips or maybe as a light backup survival pack. This could be your “starter” kit until you can build up a full survival pack. It is designed for short term (a few days) all weather survival, with the goal of reaching help or being rescued. These supplies would be carried in a multi-compartmented butt-pack or light daypack. This is a maximum size kit. You may want to trim it (pick and choose items) for your own needs, but do not overlook shelter, warmth, water, and signaling capabilities.

List:

1. 1 qt. (minimum) water
2. 1 bottle of water purification tablets and/or water filtration straw
3. 1-miniature survival manual or survival cards
4. 1 Miniature (pin on) compass
5. 1 signal whistle
6. 2 flares and/or orange smoke bombs
7. 1 Multi-tool or Swiss Army ™ knife
8. 1 durable “Space Blanket “or disposable “Emergency Blanket”
9. 1 plastic rain poncho
10. 1 stainless steel Sierra ™ Cup or canteen cup (to heat water, etc.)
11. 1 can of Sterno ™ or 6-8 heat tablets
12. 1 Magnesium fire starter
13. 1 small LED flashlight
14. 2 Tea candles
15. 1 Pen and 6 index cards (to write notes, e.g. “I headed north at 3:00 PM”)
16. 1 12” x 24” sheet of folded HD aluminum foil (mirror, heat reflector, etc.)
17. 2 Vacuum packed energy bars and/or candy, bullion, jerky, etc.
18. 1 N-95 dust/mist mask (dust, cold air, etc.)
19. 1 small first aid kit with assorted bandages, pain relievers, antiseptics, etc. in a plastic bag

Optional (if room)

1. 1 Wool stocking cap
2. 1 pair of heavy socks
3. 1 weapon (e.g. pepper spray, .22 caliber pistol, etc.)

Inspect Your Emergency Supplies Regularly!

There is nothing much worse than reaching for your emergency equipment when you really need it and finding that critical equipment and supplies are not usable. Batteries leak and decay, food goes stale and losses nourishment, plastic, cloth and rubber can weaken. Dampness and mold can get in. Inspect your emergency supplies at least every 6-months. Replace and rotate in fresh items as needed. Update your equipment. There are newer and better items coming out all the time.

Sources

Here are a few sources for the items listed above. Send for their catalogues or shop online.

Emergency Essentials
Be Prepared.com
1-800-999-1863
653 N. 1500 West
Orem, UT 84057

Campmor
Campmor.com
1-800-226-7667
P.O. Box 600
Mahwah, New Jersey, 07430-0680

Cheaper Than Dirt
Cheaper Than Dirt.com
1-800-421-8047
P.O. Box 162087
Fort Worth, TX 76161

Golden Nugget Surplus
GoldenNuggetSurplus.com
1-800-942-8769
215 Glob Street
Radcliff, KY 40160-9504

Brigade Quartermaster
BrigadeQM.com.
1-800-338-4327
1025 Cobb International Dr.
Kennesaw, GA 30152

Cabela's
Cabelas.com
1-800-237-4444
One Cabela Dr.
Sidney, NE 69160

Paladin Press (survival books, etc.)
Paladin-press.com
1-303-443-7250
Gunbarrel Technical Center
7077 Winchester Circle

Boulder, CO 80301, USA

RECOMMENDED READING

I am frequently asked “What books would you recommend for me to learn more about survival?” After 40-years of study many of the books I started with are out of print. I have a few hundred on the shelves and more in tote-bins. I tend not to buy the newest books because most of the information is already on my shelves. Since there is such a great variety of survival concerns and every person and family will have a unique set of attitudes and challenges, there can be no one or two books that will contain everything you need to know. Some books are dry manuals, others are pure data, and some contain survival information in a narrative or as a novel. The reader should seek out the information that fits his or her greatest concerns and is the most readable and understandable. This list is not completed and will continue to change as newer publications are added and others are deleted. I have categorized my recommendations for your convenience. I welcome the reader’s comments and further recommendations.

Outdoor & Wilderness Survival

How to Survive Anything, Anywhere, by Chris McNab a well-illustrated readable manual that covers outdoor survival, survival psychology, kits, and some urban survival situations. A very good starter manual. 7 x 9”, 320 page, soft-cover,
$14.99 from McGraw-Hill publishing

The Encyclopedia of Survival Techniques, by Alexander Stilwell. A nicely illustrated outdoor survival manual covering survival techniques by region. Desert, tropics, polar, and mountain survival are well covered. There are sections on natural disasters and first aid as well. 7 x 9”, 192 pages, soft-cover, $19.95 from The Lyon Press.

SAS Survival Guide: (colleens Gem Edition): This 383 page miniature 3” x 4” paperback book is loaded with information on food, water, shelter, navigation, first aid, shelter construction and other survival skills. A must for your pack. $8.00 from Harper Collins Publishing.

Wilderness Survival, by Gregory Davenport. A well-illustrated manual on basic outdoor survival techniques, 5 ½ x 8”, 129 pages, soft-cover, $19.95 from Stackpole books, www.stackpolebooks.com.

Surviving Cold Weather, by Gregory Davenport. Lots of photos and drawings to illustrate the hazards and techniques of cold weather. 5 ½ x 8”, 240 pages, soft-cover, $14.95 from Stackpole books, www.stackpolebooks.com.

Urban Survival & Self Protection

The Urban Survival Handbook, by John Wiseman, A good survival and safety manual for anyone living in town. The book covers a lot of basic home and street safety information as well as emergency plans and disaster survival. There are some well-illustrated self-defense techniques and lots of information on crime prevention. 9 x 9", 316 page, soft-cover, $20.00, from Harper Collins publishers.

Ragnar's Urban Survival: A good manual for those who would stay in an urban area under desperate circumstances. Covers ways to forage, find water, avoid troops and gangs, and much more. 5 1/5 x 8" 200 pages, soft-cover, $20.00 from Paladin Press, 7077 Winchester Circle, Boulder, CO., 80305, USA, 1-800-392-2400, www.paladin.press.com

Jane's Citizen Safety Guide: A guide for preparedness and planning for wide variety of emergencies. Focuses on immediate and short-term survival and escape. 7 x 9", 200 pages, soft-cover, $19.95 from Jane's Information Group

Military Manuals

FM 21-76 "Survival" or "Survival Evasion and Escape". Mine are from 1957 and 1969, but newer versions and reprints are available. These books cover outdoor survival under a wide variety of conditions such as arctic, swamp, jungle, desert, and ocean. Lots of information on water sources, edible plants, trapping, and shelters. I have seen reprints of this manual at Borders and at gun shows.

General Preparedness & Self-Reliance

Dare to Prepare, by Holly Drennan, Deyo. A big 8 x 11", 624 page, soft-cover, fully indexed, illustrated, home preparedness manual, including scores of data tables on food requirements, food storage, fuel needs, etc. etc. A must have. Published by: Dayo Enterprises LLC, P.O. Box 7711, Pueblo West, Colorado, USA, 81007, $42.98 + P&H, www.daretoprepare.com

Back to Basics, edited by Abigail R. Gehring. An extremely well-illustrated and narrated how-to guide to twenty six basic self-reliance skills. Subjects include keeping bees, milking cows, planting gardens, canning, pickling, preserving, using natural energy (wind, water, sun), and much more. The perfect book for anyone trying to become more self-sufficient. Back to Basics, 354 pages, hardcover, $24.95 from Skyhorse Publishing, Inc.

How to Survive Anywhere, by Christopher Nyerges, A well-illustrated and readable book that combines a variety of outdoor and home survival skills and projects. Some things you can get started on with little cost. 259 pages, 5 ½ x 8' soft-

cover, $19.95 from Stackpole books, www.stackpolebooks.com.

Backwoods Home Magazine: Most of the "survival" magazines of the 80s have been replaced by the internet, but Backwoods Home still puts survival and self-reliance information on paper. Lots of well-illustrated stuff on alternate energy, food, water, and backwoods living. There are regular articles by Shooting expert Massad Ayoob. Being produced in a small town in the northwest, there is little that relates to urban survival. Six issues per year for $24.95 from Backwoods Home, P.O. Box 712 , Gold Beach, OR 97444. www.backwoodshome.com. They also offer a complete list of back issue anthologies for $21.95 each.

Tough Times Survival Guides Volumes 1 and 2: These small books cover subjects like bartering, hiding valuables, improvising, and foraging not always seen in other survival books. Stuff you can use now and stuff you can use in emergencies. 8 ½ x 11, 160 page soft-cover, from Paladin Press, 7077 Winchester Circle, Boulder, CO., 80305, USA, 1-800-392-2400, www.paladin.press.com

Living off the Land in the City and Country: The title says it all. While not covering everything, it does have a lot of information on self-reliance that can be used in most environments. 5 ½ x 8", 270 pages, soft-cover, from Paladin Press, 7077 Winchester Circle, Boulder, CO., 80305, USA, 1-800-392-2400, www.paladin.press.com

Wilderness Living, by Gregory Davenport. Basic information for those contemplating retreating to the backcountry. 5 ½ x 8", 240 pages, soft-cover, $18.95 from Stackpole books, www.stackpolebooks.com.

Survival Combat

Combat Leaders Field Guide: A compact combination survival manual and combat guide. Covers navigation, tactics, field fortification, weapons, first aid, and more. 4 x 6", 268 pages, soft-cover, $7.95 from Stackpolebooks, P. O. Box 1831 Harrisburg, PA 17105.

First Aid & Emergency Medicine

Most "survival" books contain basic first aid so I have not included basic first aid books here.

US Army, Special Forces Medical Handbook, by Glen K. Craig. Diagnostic and treatment instructions for a wide variety of medical emergencies. Includes primitive medicine, veterinary medicine, and obstetrics. 4 ¼ x 7", 608 pages, soft-cover, $30.00 from 7077 Winchester Circle, Boulder, CO., 80305, USA, 1-800-392-2400, www.paladin.press.com

Ditch Medicine, by Hugh L. Coffee. Well beyond "first aid". Illustrated

procedures for amputations, intubations, suturing, and deep wound management. 5 ½ x 8", 213 pages, soft-cover, $24.95 from Paladin Press. 7077 Winchester Circle, Boulder, CO., 80305, USA, 1-800-392-2400, www.paladin.press.com

Emergency War Surgery: A revision of a NATO handbook 5 ½ x 8", 391 page, soft-cover, from Desert Publications, Cornville, AZ 86325. Advanced techniques for care of wounds, burns, and chemical and blast injuries.

Do It Yourself Medicine, by Ragnar Benson. Ways to find and use various antibiotics and anesthetics without prescriptions. Necessary information as the medical care system collapses. 5 ½ x 8", 126 pages, soft-cover, $20.00, from 7077 Winchester Circle, Boulder, CO., 80305, USA, 1-800-392-2400, www.paladin.press.com

Survival Story Novels (Fiction & Non-fiction)

Note: I am not including any "survival novels" that are just for recreation. These books have heavy content of practical information and/or tactical lessons.

Defiance, by Nechama Tec. This is the story of how Jews who fled from cities under Nazi occupation in Poland during World War Two we able to escape, evade, resist, and survive for years in the Nalibocka Forest. They established a fully functional survival camp with shops, infirmaries, school and of course a military force in "defiance" of all attempts to exterminate them. Stuff other books only guess about. 369 pages, 8 x 5' soft-cover, $15.00 from Oxford Press.

Patriots, by James Wesley Rawles, A multifaceted novel of people and families escaping and surviving a general collapse of civilization. Scenarios include long foot-marches through hostile country, establishment and defense of a well-stocked survival retreat, and reestablishment of community security and self-reliance. The book is heavy on philosophy and detailed data on how to do things and what to have. A highly readable story and a manual combined. 400 pages, 81/2 x 6" soft-cover, $14.95 from Publisher Group West.

Survival Psychology

Deep Survival, by Laurence Gonzales. This book uses true stories of endurance and survival to illustrate how people think under stress and what kinds of mental techniques and philosophies work. Highly readable and highly educational. 299 pages, hard cover, $25.95, published by W.W. Nortons & Company of New York

Collapse, by Jared Diamond. A Pulitzer Prize winning author and professor of geography uses historic examples and scientific data to predict the inevitable and already in progress collapse of civilization as we know it. This is *the* most compelling argument for survival preparedness. 5 ½ x 8", 573 pages, soft-cover, $17.00 from Penguin Books.

The Unthinkable, by Amanda Ripley. An in depth analysis of how people respond to disasters. The author takes us through the experiences of people who have survived a variety of real disasters to illustrate how the mind goes through three stages before acting to survive. The book explores why some people freeze and die while others act and live. *The Unthinkable, Who Survives When Disaster Strikes, and Why,* By: Armanda Ripley, 265 pages, hardcover, Crown Publishing, $24.95, ISBN 978-0-307-35289-7

The Long Emergency, by: James Howard Kunstler. We are going to run out of oil and natural gas within the next few decades. There is no effective replacement that can sustain the existing population or the existing level of comfort and security we now enjoy. The ultimate result will be economic collapse, social turmoil, depopulation, and a return to early 1900s life amid the ruins of our cities and suburbs. The author provides statistical, engineering and historic proof of his predictions. The Long Emergency, by James Howard Kunstler, 307 pages, hardcover, from Atlantic Monthly Press. $23.00. available for less as overstocked books because few want to know the truth.

Survivors, by John B. Letterman. 23 of the most brutal tales of true survival known to man. Starting with the epic journey of Alvar Nunez Cabeza de Vaca who was stranded in Florida in 1528 and managed to reach Spanish colonies in Texas in 1536. Moving through shipwrecks, arctic expeditions, POW escapes, to modern air crashes. 460 pages, hardcover, $26.00 from Simon & Schuster

The SAS Mental Endurance Handbook, by Chris McNab. Based on various British Army methods for staying focused and handling stress. Illustrated tests and examples. A good section on surviving prison camp. 7 x 9", 190 page soft-cover, $19.95 from The Lyons Press, Gilford, CT , www.lyonspress.com.

THE END
Till The Next Edition