

Survival With Style - Preliminary

By David B. Kuzara 1996

The concept of survival insinuates that the situation under consideration is potentially very dangerous or life threatening. Therefore, by definition, one cannot 'survive' a minor inconvenience. However, one may wish to complete the experience with as little discomfort as possible. This book covers the full spectrum of situations, from the most minor to the most catastrophic. While some concepts covered here may seem extreme, the situations they are designed to deal with are just as extreme and are, after all, quite valid possibilities.

This book is intended to be a guide to survival of a disaster, whether natural or man-made, and not just survival, but, as the title implies, Survival With Style. Survival With Style means not only to make it through a disaster, but to make it through with your civilization intact. Of course all eventualities cannot be anticipated, and you cannot walk around all day with a disaster pack on your back. However, if you are as prepared as is practical, your chances of survival will be much greater. In fact, your preparations need not impact your daily routine at all.

Remember, preparation is not just in the material things we discuss in this book. The packs and supplies are only half of the preparation. The other half is attitude and information. The best disaster pack in the world is useless to someone who gives up before they start or who doesn't know how or when to use the pack at all. The idea is simple. Prepare for the worst, be informed, accept what happens, and Survive With Style. Remember, no matter where find yourself, there you are. Deal with it.

Attitude

An attitude is something you have to provide yourself. An attitude cannot be bought. Your attitude toward your situation will determine how well you deal with it. If you are informed and prepared, your attitude will be one of confidence. If you are uninformed and have not thought about what to do in a disaster situation, and if you have not made the important decisions ahead of time, the uncertainty and indecision could make you feel helpless and confused and could lead to fatal mistakes. Remember, the middle of an emergency is no time to make emotional decisions that may subvert your chances for survival.

Your attitude towards your own abilities will change as you learn that you have it within yourself to be much more than you ever thought possible. Many people go through life saying, "I can't do this" or "I can't do that" because they haven't tried, and they are afraid to try because they think they might fail. It's easier to let someone else do it than to face the possibility of failure. How do you know if you don't try?

In this book I will show you how to survive. I will give you the tools and the information to do it yourself. Humans are survivalists. This is proven over and over by the amazing stories of survival of ordinary people thrust into extraordinary circumstances. I will show you how to trust yourself. Armed with the right information, and backed by preparation, you will know that you can do it. Preparation and information always breed confidence. Confidence gives you the ability to act quickly and decisively in an emergency. You will learn that some very small things will make a great difference in how you are able to handle a situation.

Information

If you have the information you need to make intelligent decisions, your chance of success greatly increases. Again, the middle of a disaster is no time to start searching for information. If you don't know what you need to know when disaster strikes, you may not have time to look it up. However, since no one can remember everything they need to know, you should keep books that have the information you need in a place where they can easily be found, preferably in the disaster pack. Disasters of a magnitude that create life-threatening situations will almost certainly include the failure of such resources as TV news and the Internet. In Appendix B you will find a list of books I recommend. The fact is, when all the technology had collapsed, books will still be the most important resource available. These books will include those that are easy to understand and

contain concise information, rather than anecdotes and humorous rhetoric.

The recommended first aid book is one that can be used by anyone. It is easy to follow and has lots of solid life-saving information. If you have a first-aid book that says "dial 911" for every injury or illness, it won't do you much good in a real disaster. If your phone is working and an ambulance is available and they can get to you quickly, it's not much of a disaster, is it? Keep in mind, no matter how much first aid you know, if you are the one injured, someone else may have to care for you. You may not be in a condition to guide them. The book you select should be able to be easily used by anyone, even if they don't know anything about first aid.

In any case, a good place to find books on outdoor first aid and wilderness survival is at a backpacking store. They usually have a much better selection of the right books than even the largest bookstore.

DISASTERS

A disaster may come in any level of severity, from a minor inconvenience to national devastation. Being prepared for the worst makes surviving the least severe easy. Being prepared for the least, makes surviving the worst unlikely.

Minor Inconvenience

A minor inconvenience is when basic services (water, gas, electricity, and phone) are interrupted for a few days or less. Emergency services are still available, if on a limited basis, and civil authority is still in control. It will probably be practical to remain in your own home under these conditions. Actually, it is preferable to remain at home, if possible, for several reasons.

Safety is the first reason. It is generally safer to remain at home with the doors locked and the windows closed. Closed windows will keep out most of the airborne contamination created by explosions, fires, or chemicals. Local emergency authorities should warn residents if they must evacuate for health reasons. Also, during larger-scale catastrophes when police protection is spread thin or unavailable, and looters and roving gangs may be out, it is easier to defend a home, than a street corner or a tent. Also, neighbors can band together for protection.

The second reason is convenience. At home is where everything you will need can be stored, in quantities far greater than you could hope to carry with you. Even in severe weather, most people should be able to manage quite well for a few days without electricity, gas and water. The food and drink normally kept on the shelves should easily last a few days. If it's cold, wearing extra clothes and using more blankets should be sufficient for the short term. Listen to the disaster station on your emergency portable radio for any pertinent information.

When local devastation is minor or non-existent, but services have been interrupted because of destruction in other areas, the same rules apply. One difference is that you probably won't have to worry about danger from fire or falling debris.

When damage is more severe, and services are cut off for several weeks, but it is still practical to remain in your home, the extent of your preparations will be the deciding factor in how comfortable you are. The more food and water you have stored away, the easier it will be to hold out until things return to normal, if they ever do. (That is the subject of another chapter.)

MAJOR DISASTER

A major disaster is when the disaster is so great that local authorities are so overwhelmed by the amount of damage and chaos that they cannot cope with it and lose control. In the big earthquake in Los Angeles in January of 1994, many parts of the city, especially Northridge, were thrown into chaos. Emergency services were overloaded. Fires burned buildings to the ground because there were not enough fire crews to go around. Injured people could not get to hospitals because traffic got snarled and roads were closed. People caught in buildings that had collapsed remained trapped for hours or days because rescuers were few or could not get to the scene. And all this with less than 3% of the city affected, less than 1/2 of 1% of the buildings

damaged, and less than 1% of the freeways damaged.

SUPER-MAJOR DISASTER

Can you imagine what would have happened if only 10% of the city was destroyed? How about 25%, or 50%? And what if the disaster was not totally localized? What if the National Guard and other agencies that would normally rush from other parts of the country are not available? What if you are alone with only your wits and your preparations to see you through? That is a super-major disaster.

The disaster may encompass a whole city, several cities, or, in the worst case, a large portion of the country. In a super-major disaster, civil authority will be non-existent, or so crippled and spread so thin that for all practical purposes it does not exist. In a super-major disaster you will be on your own.

DIFFERENT TYPES OF DISASTERS

What are the differences and similarities between quake, tornado, hurricane and flood and other disaster preparedness? Preparing for different types of disasters may be the same in some respects, but radically different in others. A boat may be handy in a flood, but probably not much use in an earthquake.

Earthquake

People are amazed and overwhelmed by the massive destruction of earthquakes. Actually, they should be amazed that quakes are not more frequent and more powerful. While contemporary earthquakes can be awesome, there exists the potential for earthquakes far, far more devastating than what the Earth has experienced in the last millennium.

Earthquakes come in all sizes from barely noticeable tremors to destruction of entire cities. The destruction is usually moderate over a wide area, with sections of more severe damage. Earthquakes usually give no warning at all. They strike quickly and are usually over in just a few minutes. Aftershocks can usually be counted on to occur within a few minutes and may continue for a day or so, and are particularly dangerous because they can collapse buildings weakened by the main quake, and because people alarmed by the main quake may move away from a relatively safe area into a more dangerous area just in time to be injured by an aftershock.

Be prepared for heavy localized damage with mild to moderate damage over a wide area if the quake is moderate. Local services will probably be disrupted for a short time and access to certain areas may be difficult or impossible for a few days, but protective services will be intact and only delayed by lack of access and initial overload.

Communications will be disabled, partly because of damage, but mostly because of overloading by people trying to find out if their loved ones are all right. This is normal and has happened in all major and most minor disasters. And don't think that cellular phones will not be affected. They are subject to the same rules as standard phones when it comes to disaster.

There will probably be fires at random spots around the area. Because they are buried in the ground, gas lines are easily broken in an earthquake and fires from broken gas mains are fairly common. Even if there is no fire, if you smell gas, leave the area. Gas fires can be extremely dangerous and may be accompanied by explosions.

Earthquakes can damage electrical equipment or bring down power lines. Either situation can cause a fire. Stay clear of downed power lines, even if they don't appear to be sparking. There is no way of knowing when and if power will be restored to the lines. Electrical fires are dangerous because continued sparking can reignite the fire after it has been extinguished. Of course, there is also the danger of electrical shock from exposed live wires. Stay clear of any exposed or sparking wires or electrical equipment until you are certain that the power to that equipment has been disconnected.

However, when the big one hits, and someday it will, things will be much different. All services will be cut off

for an extended period of time. There will be no electricity, gas or water. Outside and internal communication will be non-existent. Police and fire crews will be disabled or spread too thin to be effective. As in the LA riots, they will probably stay back and patrol the intact borders of devastation. Fires will be widespread and looting certain.

Tornado

A tornado will cause massive destruction in a narrow path. While one area of a town may be heavily damaged, other parts of the same town may be totally unharmed. And while emergency services may be strained, they should be available only minutes away. The exception to this may be when an area is hit by a swarm of tornadoes, and many areas are hit at once. Damage may include total destruction of buildings, wind damage to buildings, blockage of roads, crushed automobiles, and disruption of power, water, and gas services. There may also be fires and flooding. Typically, tornadoes strike with little or no warning and pass in just a few minutes, although the storms that generate tornadoes may give some warning. And there are certain times of the day when they are most likely to occur.

Although most tornadoes occur in Oklahoma and Kansas and in an area dubbed 'Tornado Alley', tornadoes have been known to strike almost anywhere from California to New York, in the deserts and the mountains, in some very unusual places. But, although these 'Maverick' tornadoes are generally not as fierce as the 'Alley' variety, they can still be deadly. Most people who do not live in tornado country have little to fear from tornadoes, but it is important to know of the possibility so that you can recognize a tornado if one appears and react accordingly. In November of 1996 a tornado touched down in Los Angeles and tore apart several buildings. It was seen by several people and the resulting damage was unmistakable. However, for some reason the authorities refused to recognize it as a tornado and called the incident "high wind damage". What did Shakespeare say, "A rose by any other name...". In any case it doesn't do any good to pretend something does not exist. If a tornado drops in, no matter how unlikely, deal with it appropriately.

If you do not live in an area with a high incidence of tornadoes, specific preparation for them is unnecessary. If you do however, there are some things you can do to minimize damage and maximize survival. Low profile homes are more likely to survive than two or three story homes of the same material.

If practical, a tornado shelter in your basement is preferable. If you are home when the tornado strikes, that is the best place to be. But it is wise to also note where all the community shelters are near where you work or shop or play.

Since it is not the purpose of this book to go into detail on the types of preparation that are obvious or that are covered in standard disaster books, I will not go into more detail here.

Hurricane

A hurricane, on the other hand will always cause massive destruction over a wide area. Emergency services may not be available for hours, or even days, depending on how large of an area is involved and how powerful the hurricane is. The wind damage will be similar to that of a tornado, but less violent and sustained over a longer period of time. Generally, there is plenty of warning for a hurricane, and even though the exact path of the storm cannot usually be predicted, the more cautious citizens have plenty of time to prepare or evacuate.

Be prepared for an extended period of time with limited services, power outages, lack of clean water, gas and electricity and lack of shelter. However, it is likely that protective services such as fire and police will be intact and available after a short time. If the damage is severe it is likely that National Guard and other outside services will be brought in also.

Flood

A flood will cause moderate damage over wide area. There is usually plenty of warning because of the storms needed to generate the amount of rain necessary to overload the drainage systems of the area. Current reporting

of flood conditions is usually adequate to give enough warning to save lives, but often not much can be done to save the property. Most flood related deaths are caused when people who refuse to leave when authorities recommend, when people are out of touch and do not hear the warnings, or when debris clog up drainage systems and allow water to back up until the mass of the water overcomes the blockage and is released all at once. The only recourse for flood is to move to higher ground, in time. In serious flood conditions, makeshift dams and barriers rarely if ever succeed in protecting property or lives.

Fire

Fire, as we discuss it here does not mean one or two houses, or a forest fire in a remote location. The fire we are concerned with is one that covers a large populated area, or springs up in hundreds of locations all over town. Fire will probably be caused by another disaster, the worst being earthquake, terrorism, or war. Because of the storms and water associated with them, floods, hurricanes, and tornadoes usually don't spawn massive fires.

Massive, prolific fire is probably one of the hardest disasters to cope with. In addition to the other problems created by disaster, such as loss of services and civil protection, fire creates unique problems of it's own.

One of these is being trapped by being surrounded by several fires that are expanding and cut off avenues of retreat. The other is that fire will always deteriorate the quality of the air you need to breathe. The combination of smoke, poisonous gasses and heat can be fatal in a very short time. It is the probability or reality of fire that is one of the strongest reasons to beat a hasty retreat in a disaster. This is one instance where a good radio tuned to a disaster station and a pre-planned escape route can be vital. Remember, if you live in a city of a million people, most of those people will be on the freeway trying to get out if the city is on fire. Your escape route should be carefully planned to take you where you will meet the least amount of resistance and the maximum distance from the city center, preferably in a direction that will take you to an area you can survive in, if needed.

In a major disaster of any kind, the fire crews will be able to do little more than attempt to fight an advancing fire at it's perimeter, and due to lack of water and accessibility, will not be very effective at that. Remember, most city fire departments are equipped to fight fires in less than 1% of the city at one time. Any major disaster may easily have ten to fifty times that many fires at once.

Civil Unrest

Civil unrest is the polite term for riots, looting, burning and general mayhem that occurs when civil authority breaks down and gangs and hoodlums roam the streets without challenge, taking by force what they are too lazy to earn for themselves. Riots and looting usually accompany natural disasters, but can also be generated by political, racial, or socio-economic pressures. Whatever the cause, make no mistake, they can be as deadly as the most fearsome natural disaster.

It may be helpful to understand the nature of the beast to know how best to defend against it. Most people caught unprepared during a major disaster will switch to survival mode. When everything around you is in chaos and everyone else is fighting for survival, it may be easy to forget that outside your pocket of devastation, law and order, such as it is, still exists. The rationalization for looting is that since everything is being destroyed anyway, why not grab what you can now before someone else does and it's all gone. This is not to be confused with a common burglar who steals because he is lazy and wants an easy buck. During the looting following a disaster, some people who would not normally steal a candy bar will feel justified in taking anything they can get their hands on because everyone else is doing it.

But as you have seen on news programs about riots and looting, the thinking of the looters is not rational, it is flawed. Some people will take food, clothing and blankets, which they will need for survival. Others, however, will take TV's, cameras, stereos and many other items that will do them no good for survival. Although these items may be desirable to have after the disaster is over, they will be useless while services are cut off. The purported 'survival instinct' under which this type of looting is done has been misdirected by mindless greed. Since these people are actually now just common criminals whipped into action by irresistible opportunity, they

can be very dangerous. They may fight to the death over a \$50 camera that they don't even need. The more severe the disaster, the more likely that looters will go after necessities like food, water, medicine, clothing, and firearms. It is important to understand this to know what you should be wary of during such an emergency. Although there will probably be few organized gangs roaming the streets at first, the longer civil authority is absent, the more gangs there will be. While individual looters will most certainly be wary, seeking concealment and challenging no one, gangs will not be so meek. Gangs may be well armed and merciless, if they think there is no one to stop them. Confronting a looting gang would probably be fatal.

One of the most important things to understand about this situation is that, in extreme situations, where a disaster is so great that recovery looks hopeless and a return to normal does not seem like a possibility, the only rule will be the rule of survival of the fittest. Or the best prepared. If you need food, water, medicine, clothing or anything else, you take it or you do without. Again, this may sound extreme. But as we have all seen, it really doesn't take very extreme circumstances to bring basic survival instincts to the surface. We should all be aware that, should the right circumstances arise, we would all be subject to the same rules. Call it the law of the jungle or survival of the fittest; it will be the law of the land. Raiding the local grocery store may be the only way to get food and other necessities.

Be aware that owners of small businesses under these circumstances may fight to the death to protect what is theirs. The struggle for the basic necessities of life during prolonged civil disorder will produce many more casualties than survivors. In these first stages, events are unpredictable and therefore doubly dangerous. One of the surest ways of being a survivor under these circumstances is to not take part in the initial exchange. Being prepared allows you to sit out this most violent period in relative comfort until order is restored. If the worst happens and the catastrophe is nationwide or global, things will stabilize somewhat after the weak, the timid, the unlucky and the unprepared have fallen.

Some people will say that they would not want to live in a world like that so why not die right away and get it over with. Those same people will fight just as hard as everyone else when it comes down to it. In any case, civilization has a way of forcing itself on humans. Regardless of how bad it gets, eventually it will get better and possibly even pleasant. Imagine a world with only twenty percent of the population left.

Volcano

This particular disaster will probably not affect many people. Those living near enough to a volcano to be affected probably know what to do in the event of an eruption, RUN LIKE HELL!! But realistically, it largely depends upon which potential volcano you are near, how close you are, and in which direction. Mt Rainier has been called the most dangerous volcano in the USA, not because it is likely to spew lava all over the area, but because it would probably create mud flows that will totally engulf nearby towns such as Tacoma and Orting. The incredible heat will melt all that snow, ice, and frozen mud, creating an avalanche of mud capable of burying entire towns. Most volcanoes will produce a pyroclastic flow that can flow down the mountain at over 600 miles per hour, totally destroying everything in its path.

So, the key to survival of a volcanic eruption is to pay attention to warnings. Although it may be inconvenient to travel to a safer location each time a warning is issued, it is a LOT more inconvenient to be caught in a massive mudflow or pyroclastic flow.

SURVIVAL

What is survival? It depends on what you are trying to survive. If you are just trying to survive another day at work, survival is relatively easy; do your job, avoid hassles, and go home at the end of the day. If you are trying to survive the holidays, that may take a bit more work. But if you are trying to survive a major disaster, that takes planning.

Many people are not prepared for a disaster, let alone a major disaster. Some people are prepared for a what I call a minor inconvenience. A very few people are prepared for a real emergency or a major disaster.

If you have gathered together some blankets, pillows, Band-Aids, flashlights, food and water, you are prepared for a minor inconvenience, maybe.

Short Term Survival

Short-term survival is making it through the first hours and maybe the first few days of a major disaster. This period is critical. Most of the decisions you make during this time will have dramatic consequences later on. The secret to making the right decisions during this crucial time is to make those decisions ahead of time, when you can think clearly, and write them down. Then all you have to do during the emergency is stick to the decisions you made when you had time to think. There won't be any long-term survival if you don't make it through the first day.

Long Term Survival

Long-term survival is living until the disaster is over and what we call 'law and order' is restored. It won't do much good to survive the first day if you are not prepared for the long haul. Every eventuality cannot be anticipated, but adequate preparation can improve your chances immensely. Flashlights and blankets won't do it. You have to have some serious survival gear in your corner if you want to get out of this alive and well. Decisions, Decisions, Decisions!

It is of paramount importance that you make all of the important decisions in advance. I cannot stress this enough. The middle of an emergency is no time to make emotional decisions that may subvert your chances for survival. It is a well documented fact that people have risked their lives, and lost their lives, going back into a burning building for items that could be purchased for a few dollars. The most important, and hardest decision you will have to make is the decision to stick to your pre-plan. That is not to say that events will not develop that will obviously require a different course of action. But the basic plan should still be valid. Use as much of it as you can. Don't decide at the last minute to take 30 pounds more food than you have already determined you can carry.

Weapons

This is a very controversial issue, and although a defensive weapon may be vital for survival under very extreme conditions, it remains a personal choice. It is, however, an issue that should be seriously addressed during the planning stages. It is the one decision that I concede may be changed at the last moment as the gravity of the situation sinks in. Although non-violence is an admirable philosophy, it may not be very practical when you are set upon by thieves who will kill for a loaf of bread without a second thought.

There are some practical considerations that you might want to be aware of. If you plan to carry a pistol, it would be convenient to have a holster. However, you will discover that you cannot wear a standard belt holster or shoulder holster while wearing a backpack. What you will need is called a tactical thigh holster like the SWAT teams wear. It has straps that circle the thigh to hold it in place with another strap that attaches to a wide flat belt around the waist to hold it up. The backpack belt can be worn over this flat belt, and the pistol is free of encumbrance by the backpack.

If you plan to carry a rifle or shotgun, it should have a sling. With a backpack, the sling is awkward to use but still useful as it frees up your hands. When you're not wearing the pack, the sling will be very handy. Of course you could strap the rifle to the pack, but it might take too long to get to it if needed in a hurry.

As to what caliber to choose, overall, the .22 Cal long rifle cartridge is the most practical for pistol or rifle under these circumstances. These bullets have good penetration, and they are plentiful, cheap, and lightweight (3.3g) as well as quieter than most other rounds. They are excellent for killing small game and can be used for self-defense. A .22LR can penetrate some bulletproof vests and other materials that will stop a .32 or a .380.

For heavier defense I recommend 9mm Parabellum. 9mm has good penetration, is very plentiful, and of medium weight, although still many times heavier (13.6g) than a .22LR. As noted elsewhere, weight will

become a major factor if you are forced to move. I recommend staying away from 'heavy' bullets like .45 or .357 Magnum and odd or exotic rounds. Fancy weapons are useless without ammo so stick with the most popular rounds, they'll be easier to find.

Comfort

Don't underestimate the importance of comfort. I'm not talking about the Hilton Hotel. I'm talking about a few basic comforts you can provide for without sacrificing safety. In extremely high stress situations, small comforts can go a long way toward soothing the spirit and may be the key to maintaining a cool head and a balanced state of mind. Something as simple as a cup of hot tea can be just what you need, and a tea bag weighs only 3 grams, or about 1/10 of an ounce.

Small irritants can quickly get under your skin. A toothbrush, even without toothpaste can help remove irritating, and potentially medically critical debris from between teeth. If you will be outdoors, sunscreen may be a comfort, but could become a necessity. Bad sunburns can make you ill and could get infected.

Necessities

Don't confuse necessities with comforts. Salt may make food taste better, but it is also a necessity. Most prepared food has salt added. If you are living off natural foods, you probably won't be getting enough salt. Warmth is essential, especially in high stress situations. Proper clothing and blankets are essentials if temperatures are going to drop. Hypothermia, or loss of body heat, may be difficult to avoid, especially for people who are not accustomed to temperature extremes or being outdoors without protection. One of the symptoms of hypothermia is the degradation of reasoning capacity. That is why hypothermia can easily lead to death. If you live in an area that can get extremely cold, appropriate preparations must be made. Survival, even for a few days, at or below 0°F, will depend on preparation.

And don't forget a hat. Even if you're not a 'hat person', you may find a hat to be essential. Because of the large blood supply to the brain, more heat is lost through radiation from the head than any other part of the body. As simple as it sounds, a warm hat can cut the heat loss from a clothed body by half.

Medicine

We probably do not fully appreciate the value of modern medicines because they are so easy to get, and we are not often in a situation where we need them. In the wilderness you may be faced with many situations that, untreated, are deadly. A small cut, infected and untreated can be fatal. Antibiotics, especially, will be irreplaceable in the wild, and essential. Of course antibiotics can be obtained only by prescription in the USA, so getting them, and keeping them fresh in a pack, can be difficult. However, I consider them an 'essential' for extreme emergencies so if you can get them, do so. In addition, they could be one of your most valuable 'trading' items, so get plenty, and bring all that you have. If you have prescription medications, take all that you have on hand, not just a week's supply.

PREPARATION

This next section on preparation may seem extreme, and it is. The preparations described are for extreme circumstances that may never occur. However, if you are prepared to 'Grab-and-Run', then you are certainly prepared to stay and stick it out. All preparations described below are for the most severe disasters where it is not practical to stay with your home. However, you will notice that those same preparations will work just as well if you stay at home. And if conditions change, which they can easily do, you'll be ready. The thing about disasters is you never know what to expect, so expect the unexpected.

Prepare Your Home

Since you will probably be able to live through most disasters in your home, it is important to have your home prepared to weather the disaster.

All members of your family should know where the gas, electric, and water shut-offs are and how to turn them

off. Also be sure there is a gas shut-off wrench near the gas shut-off valve and easy to spot. An appropriate wrench should be located near the water shut-off valve if needed. You may not have time to look for one in an emergency. In the event of an earthquake it may be wise to shut off everything at first to prevent damage from fires, water, or electrical shorts. The water and electricity can be turned on later if it is deemed safe to do so. The gas should be turned back on only by an employee of the gas company unless you really know how to restart all the gas appliances in your home safely.

Your pantry should be stocked with enough food for the whole family for one month. The canned food should be basic items such as corn, beans, peas, potatoes, and tuna and easy to prepare items such as soup, beef stew and spaghetti. Dried foods such as beans, pasta, crackers and rice should be additionally sealed in large zip-lock bags. All food should be dated with a magic marker and rotated regularly to keep it fresh. Make sure there is a good variety. You may not be able to go shopping for a while. Avoid stockpiling large quantities of fresh or frozen food for this purpose. If electricity is off for long, all that food will spoil in just a few days.

Keep extra water in bottles stored in a place you think may survive a disaster. Unless you use special heavy-duty bottles, most plastic jugs will be crushed easily. When you have emptied a household bleach bottle, you can fill the bottle with purified water without rinsing it. The small amount of bleach left in an empty bleach bottle will keep the water safe to drink for about a year, and you get a free bottle to boot! Date the bottle. Most homes will have sufficient bedding and clothing to take care of any emergency so this is not usually a problem.

Maintain several fire extinguishers in good condition, sufficient to put out a medium fire. I recommend at least one 10 to 15 pound dry chemical and one 15 pound CO2 extinguisher. A two-pound 'thermos bottle' size fire extinguisher may also be handy for small fires, and will prevent discharging one of the large extinguishers. Some extinguishers will begin to leak once they have been discharged, even if only a small amount is used. Keep them handy, but away from any area likely to start a fire, such as a kitchen or a furnace room or near a water heater. I've seen people who keep a fire extinguisher on a shelf above a cook stove. In case of a real fire on the stove, they couldn't get to the fire extinguisher. Have the extinguishers serviced regularly. A non-functional fire extinguisher is worse than no extinguisher at all because it wastes valuable time.

Besides their use for disasters, its wise to have adequate fire extinguishers around the home anyhow. Learn how to use them. Proper use of a fire extinguisher may not be as obvious as it first appears.

If you have a large yard, keep it free of dry brush that could help spread fire. Also trim large trees that can crush your house if brought down by strong winds or earthquake. If your house is at the bottom of a large slope or embankment, make sure it is not in danger of being crushed by landslide or mudslide. You can get help with determining this from city officials at no charge.

PREPARE IN LAYERS

When experienced hikers journey off into the mountains, they know that it is most efficient to dress in layers. As the day grows warmer, layer after layer can be removed with out actually 'changing clothes'. As the day grows colder, layers can be added to match conditions. Layering allows what is appropriate for the conditions to be available when needed.

Preparing in layers for survival is similar in function. It means having what you need for any situation planned for and ready, with the ability to add layers if the situation warrants without repacking. The first layer is a pack that has basic essentials in it ready to 'Grab-and-Run' with. The second layer is what else you can take if you have a few hours to get ready. That would include, of course, the first layer. Layer number three is what you would take if you could take your most practical vehicle. Layer three includes layers one and two.

Layer One - Backpack

Obtain a backpack, the kind that has a waist belt that allows you to carry most of the weight on your hips. It can

be internal or external frame and should be about 1 to 2 cubic feet capacity. 1.5 cubic feet is a good size. It is important to use a backpack so that your hands can be free for other things, like balance, tools, or weapons. Also, you can carry a lot more weight over a much longer distance in a good backpack than you can in a hand carry bag. It is also much easier on your back and arms.

The items packed in the backpack will be the basic item you will want to have in a disaster. These will include the items essential for survival, and the comfort items that may help to calm the spirit in a high stress situation. Remember, this may be the only thing you can take with you if you have to leave, so consider its contents carefully. It must be ready to grab and run with, no stops.

This pack should include extra clothes, dry food, batteries, flashlights, first aid kit, maps, compass, waterproof matches, a tent or shelter, sleeping bag, water purification tablets, one canteen of water, and any special medicines needed by you or anyone who will be with you. Also, it should include any items specific to your area or the types of disasters you expect to encounter. A complete list of the minimum emergency pack is included in Appendix A. A list of and a photograph of the authors pack is also included in Appendix A.

This pack can be kept in the home if you spend a lot of time there, or most of the family is around the home a lot. If you are single, or are away from your home a great deal, you can keep this pack in the trunk of your car. If there are several family members, each can have a small basic pack kept wherever it is convenient or appropriate. Don't bury the pack where it cannot be used if needed. It doesn't have to be out in plain sight, but should be easy to get at if needed. If the pack is large, I recommend that it be stored in a place that allows you to back up to it, put your arms through the shoulder straps, and walk away with it. That means about 3 feet off the floor, depending on your height, and facing the wall, with the shoulder straps out if possible.

Weigh Everything

In Appendix A of this book is a list of common items and their approximate weight. Also in Appendix A is a list of what I have in my personal Emergency Pack.

Determine what you can comfortably carry in a backpack. Start at about 30 lbs and take it for a ten mile hike. Most adults in good physical condition should be able to carry about 35 to 50 pounds.

Weigh everything so you can make a choice of what to pack. Make your choices now. When disaster strikes is no time to try to make those decisions. Review your choices every six months to make sure they are still valid. When you leave, stick to the choices you made.

It doesn't do any good to try to take more than you can carry because not only will you probably injure yourself, but you will eventually have to abandon the extra items anyway. The pioneers found this out when they journeyed west in the 1800's. Many found their wagons overloaded and had to throw out furniture, tools, even food, and abandon it beside the trail. Many small towns along the way profited from the miscalculations of the inexperienced pioneers by going out to the trail and simply picking up the abandoned goods.

Remember, this is for survival. A real emergency is where you will not be able to count on help from anyone else, especially the 'authorities'. Food and water and medicine may not be available.

Some people are not prepared at all. Some people who think they are prepared are only prepared for a minor inconvenience. A few people are prepared for a real emergency. Be one of those people. Remember, if a Band-Aid will fix the problem, you really don't need the Band-Aid. If you need a trauma dressing, you need a trauma dressing. Have one ready.

Layer Two - Pantry

If you have an hour to pack and get ready, there are some things you can add to your pack. These will include items from your pantry list such as fresh food, canned food, extra batteries from your refrigerator, 2 meter radio,

cellular phone, fresh water, or other items you want to take but that are used daily around the house and you don't want to keep packed. Make a list and keep it tacked up inside a pantry door where most of the items are stored, or you can keep the list attached to the outside of your backpack if you don't want it on your pantry door. Mark the date of purchase on canned goods with a magic marker. Rotate the food in your pantry so that what you take with you will be fresh, not outdated and spoiled.

A recommended list for layer two is included in Appendix A.

Layer Three - Automobile

If it is clear that you will be able to take your vehicle, and you have the time to do so, you can take a lot more with you. You can take heavier items like larger tents, larger stove, a lot more food and water, and more clothes and blankets.

You may also consider taking extra gasoline, but be very careful, as gasoline is dangerous to transport in a closed vehicle, not just from the danger of fire, but because of poisonous fumes and contamination of the rest of your belongings. Gasoline carried outside the vehicle in steel 'Jerry Cans' with proper brackets is the safest, but difficult to implement on many cars. Never use glass containers, and use plastic containers with extreme caution.

Take something to trade.

In a real emergency, money, even gold may be worthless. But, food, water, antibiotics, weapons and communications devices will be very valuable. Take some extra to trade for something you need. A one ounce bottle of penicillin could buy a two man tent. Some things may not be available at any price.

Radio

A small portable radio is important. It will allow you to hear the latest information on the severity of the disaster, where and what kind of damage is in your area, progress in restoration of services, and other necessary information. The radio doesn't have to be fancy, just a basic AM/FM model will do. A waterproof radio is even better. While most radios will work if water has gotten inside them and then the radio is dried out, it is difficult to get all the water out. And most radios will short out and be damaged or destroyed if they are turned on while they are wet. You may not always know if there is water inside. Many companies make radios perfect for the job, usually advertised as 'sports' models and often bright yellow in color. However, it is prudent to check the manual to make sure they are actually supposed to be water proof, not just 'splash proof'. Also, you may want to test the radio by submersing it in 6 inches of water in a sink for 5 minutes, then drying off the outside and opening it up to see if any water got inside. During an emergency will be a bit late for testing.

In addition, the radio should use the same type of batteries as the flashlights or other battery operated devices you intend to use. The reason for this is that as the situation changes, different things may become more important, and it may be very useful to be able to borrow a battery from one device to use in another, especially if the disaster lasts a long time and supplies begin to run low.

Flashlights

Flashlights are also very important. In any dangerous situation, being able to see what is happening may be vital, especially in rescue operations. Also, a little light in dark conditions can be psychologically very comforting. The flashlight need not be either big or powerful. You will seldom need a 100,000 candlepower 'flame-thrower' that will allow you to illuminate everything for a mile around. And you won't be able to carry the batteries needed to operate such a device for extended periods of time.

Backpackers have known for years that even when walking at night you need only a very small light. And a small light will prevent you from being blinded and allow your eyes to adjust to darkened conditions, whether walking or cooking, or reading or just taking care of the business of survival. It is better to have several small, light, waterproof flashlights, than one large heavy one. It is also handy to obtain at least one LED light that uses

a single AA battery. That way, if all you have left is one battery, you can still have light. Check carefully that it uses AA, not AAA. Your AA batteries will be useless in a AAA penlight. Most L.E.D. lights use a single AAA or two AA batteries, so shop around and find one that uses one AA. Also, an L.E.D. 'headlight' or flashlight mounted on a headband will free up your hands. That feature could also become very important. Try to get one that has a red L.E.D. Red light at night helps you to maintain your night vision and still be able to light the path ahead.

If possible, all your flashlights should be L.E.D. lights. Batteries in an L.E.D. light will last about 20 times longer for the same amount of light, and the L.E.D.'s are tough and very long lasting.

Generally, you won't need more than a penlight for most things, the standard penlight that uses two AA batteries. If you feel you must have a large flashlight that uses D batteries, get a good one, waterproof if possible, but be prepared to carry the heavy batteries.

Batteries

I recommend AA size batteries for everything. Although the price per watt is much higher than for 'D' or 'C' cells, the power per weight is about the same and it is a very handy size to use. You can buy AA batteries in large economy packs of 10 or 20 or 40 at some very reasonable prices, especially in the 'warehouse' stores. You should store most of your batteries in the refrigerator. They stay good a lot longer if kept cold. You can also keep a few packed in the pack. It is not generally recommended to keep batteries in unused flashlights or radios for long periods of time, but in this case at least one flashlight should be kept ready. You may need it to find the batteries for the others. Just make sure you check the batteries every six months minimum, and rotate them once a year. Take the old batteries out and put them in something you use around the house and put new, fresh batteries in their place. You can also keep track of usage by marking the batteries with date of purchase and/or date of installation, using a magic marker.

Never put damaged or dented batteries into any device unless absolutely necessary and only if you are going to use the device immediately. Damaged batteries may leak and can render most devices useless in a very short time.

Rechargeable battery technology has come a long ways, and new rechargeable batteries last as long as alkaline batteries and can be reused. The problem is recharging, so unless you can obtain a solar battery charger, or can charge them in your vehicle, rechargeable batteries would be of little use. However, with solar charging, your batteries will last as long as you need them.

This means that, properly prepared, your chances of surviving a super-major disaster are greatly increased, and surviving a major disaster can be done with relative comfort and minimal loss. Style. Like the movie hero who walks out of the airplane crash with his hair combed and his clothes still pressed, you can survive a major disaster intact and unruffled, if you are ready for it.+