Welcome to
The Essential Guide

A Survival Dispatch exclusive assembly of the vital survival info from the Insider issues packed into one convenient resource.

At Survival Dispatch, our goal is to equip you with the knowledge to create your own SHTF survival plan – one that will give you the ability to instinctively handle any natural or manmade disaster. The Essential Guide has been developed specifically to get the backbone of your survival plan in place before it’s too late!

This is the ultimate go-to beginner’s guide to get you dialed in on all things prepping right from the country’s leading seasoned experts in these fields. We have hand-picked our best articles that are jam-packed with the most useful information from previous issues of our exclusive Survival Dispatch Insider.

So, dive deep into this guide, strengthen your survival resolve and start preparing now!
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PRIMITIVE
FIRE STARTING
METHODS

BOTTOM LINE UP FRONT:

- Primitive fire skills form the foundation upon which modern survival skills are built.
- Man has used Every Day Carry (EDC) since the dawn of time.
- Use of fire predates clothing by a million years.
- Some primitive fire skills like flint and steel, char cloth, and burning lenses are easy! Give them a try.
- Modern man would be foolish to cast aside a heuristic tradition like fire by friction.

DEFINITION OF PRIMITIVE:

So what is your definition of primitive fire starting? For the purposes of this article, we’re going to define primitive as not a store-bought item designed or intended to start fires. I will also add that it won’t make me have to re-title the article to Field Expedient Fire Starting.

ITEMS THAT ARE OUT:

So what is your definition of primitive fire starting? For the purposes of this article, we’re going to define primitive as not a store-bought item designed or intended to start fires. I will also add that it won’t make me have to re-title the article to Field Expedient Fire Starting.

- MATCHES: Sulphur based matches have been sold commercially in China since the 1200’s. Chlorate based matches have been around since 1805, although they were expensive and a health hazard so they didn’t catch on. What we could probably consider modern friction matches were refined in a series of small breakthroughs over the next several decades.
- LIGHTERS: Come on.
- FERROCIUM OR FERRO RODS: It is understandable that they are often erroneously called flints since they are sometimes sold as such. Ferrocerium burns as hot as 5430 °F and is a metal alloy, where flint is a mineral. They were invented by the noted Austrian chemist Carl von Welsbach in 1903.
- BATTERIES: While they technically fit the definition, I’m going to leave them out because including them would make it necessary to re-title the article Field Expedient Fire Starting.
- POTASSIUM PERMANGANATE AND GLYCERIN: I’m going to leave this out for the same reason as batteries.
- GUNPOWDER, AMMUNITION, FUZES, PYROTECHNIC SIGNALING GEAR: Same as the two above.
- FIRE PISTON: To my knowledge, not readily improvised from nature and a bit of a stretch to imagine having supplies on me to make one.
- BATTERIES: Modern batteries aren’t ancient or natural.

ITEMS THAT ARE IN:

- GEOLOGICAL:
  When the extraordinarily well preserved glacial mummy known as Otzi the Iceman was found mostly encased in a glacier in the Italian Alps in 1991, he was found to be carrying a serious Copper Age fire kit:
  - Tinder Fungus (Fomes fomentarius)
  - A dozen species of Plants
  - Flint Knife
  - Iron Pyrite
  - Copper Bladed Hand Axe

5,000 years ago in the European Copper Age, it would appear that Otzi considered fire by friction to be just as time consuming as we do today. Instead of the expected friction fire set, Otzi was sporting a fire kit in his EDC that included the ancient equivalent of flint and steel! Kind of makes a guy wonder just how many times we have reinvented the same technology and taken credit for it.

Otzi’s geological fire starting system used the sharp edge of flint or chert to strike iron pyrite just like future Europeans would later strike carbon steel. This produces tiny flakes of iron which are rapidly oxidized or sparks.
Likely catching them in dried and/or charred tinder fungus that he was carrying, in a very similar fashion to how we catch sparks today in char cloth or char. Once a spark is caught in char, a little air flow will cause it to smolder.

Flint is a mineral and chert is a sedimentary rock. They are both very hard and can be found in an array of colors. A way to tell them apart in the field is that when a piece is flaked off, flint has a weathered crust that is typically light and dull compared to the darker shinier rock. This characteristic isn’t nearly as pronounced in chert as it is in flint.

Otzi’s spark would have been smaller but it’s cool that he was using essentially the same technology. The next time someone poses the question, “can flint and steel be replicated from natural materials?” you can confidently respond in the affirmative. Cite Otzi as an example and explain that essentially the same technology has been used for at least 5,000 years. So yes, you can find a reasonable facsimile of flint and steel in nature. You just need to keep your eyes peeled for a little flint or chert and iron pyrite.

**FLINT AND STEEL:**
The mechanism by which flint and steel is used to start a fire is nearly identical to the geological method described above. The difference is mostly in the materials rather than the process. Specifically, the carbon steel fire striker replaced the mineral iron pyrite and 100% cotton char cloth replaced tinder fungus.

Today most people make char cloth in a small metal tin with a tight fitting lid. A hole is punched in the top of the tin to allow moisture to escape from the char material when placed on a bed of coals to heat it. The hole can be punched with an awl, nail, or heavy sail needle. The box starves the char material of oxygen as it burns, turning it black as it’s charred in a process called pyrolysis. This is much the same way mounds are used to deprive charcoal of oxygen. It turns the coal into a hotter, cleaner, longer-burning, and more compact fuel source. Although metal tins are typically used today, any material that withstands the heat and seals out air can be substituted. A small clay or ceramic pot will do the job, as will soil with a high enough clay content and a straw. Cut the cotton cloth, creating stacks of squares or rectangles approximately 1” x 1” or the desired size. Place the stacks in the tin, close the lid then set it on the coals with a pair of tongs constructed from a green branch. Once the tin is placed on the coals, a jet of moisture will begin to shoot out of the hole in the lid or the tin as it’s removed from the cloth and it chars.

You don’t have to use cotton cloth. It gets so much use today because it’s inexpensive, abundant, and the fabric sheets are compact. It enables enough char cloths to light dozens of fires to fit in a small tin but many natural tinder materials or fibers can be turned to char. Some of the more commonly used materials are cattail down, various plant piths, and varieties of true and common tinder fungi.

Give char cloth a try if you haven’t yet. It’s a very important tinder to understand, especially since it works, even in high humidity which can be challenging.

**BURNING GLASS:**
The burning mirror or fire lens has been around at least since 424 BC, and possibly much longer. They were quite common and didn’t decline in popularity until reliable modern chemical matches were adopted. You may have seen them built into tinder boxes and snuff boxes from the 1800’s. As long as you have strong sunlight and bone dry tinder, starting a fire with a good lens isn’t difficult.

I carry a credit card FormFactor 4x Fresnel lens in my wallet and a quality 1 ½” 4x glass lens in my Survival/Self-Recovery Kit. I’ve been lighting fires with lenses since elementary school, as I’m sure most people have done at least a time or two. If you haven’t, be sure to give it a try. The lens is used to focus sunlight into a precise point that becomes hot.

Lenses can be formed from ice, water in vases, and even condoms. If you polish the concave bottom of a soda can to a mirror finish, it can be used as a burning mirror. It seems to be a popular trick to polish the can with a bit of chocolate bar just in case you happen to haul soda and chocolate everywhere you go. Just place the tinder precisely at the focal point and let the sun heat it up.

**FRICTION:**
Fire by friction encompasses a broad range of techniques and are by no means comprehensive. Every culture likely had some type of variation such as the fire saw and fire cord. Some variations use multiple people to get the work done faster. All friction fire techniques involve identifying bone dry splinters or plucks and baseboards of the most effective species. This should be done long before the sun goes down as it requires a little planning and elbow grease. Check out my One Match Fire article for some fire making tips.
Here are some of the primary categories of methods to try:

**Fire Plough**
Used in the Pacific Islands and Southeast Asia with old bamboo. A lot of work but good technique and tinder will save you some effort. Carve a groove in your plough board to form the track for the plough stick, to which it should be mated. A woodcarving chisel will save you a lot of work. I carry a couple of wood carving blades that I swap into a Solkko GRIPS-5 handle as needed. Holding the baseboard stationary and the plow at an angle to the board, apply downward pressure and plough through the track. As you do it, it creates a great friction and heat that will form embers which are pushed into your tinder bundle at the end of the track. Once you catch an ember, give it a little gentle air with a bellows, bellows tube, fan, or by blowing on it to make it glow until the tinder catches.

**Hand Drills**
You can make a basic hand drill or a thumb loop hand drill. I’m sure every culture on every continent must have been familiar with the hand drill. It’s called a hand drill because the process eventually creates a hole in the hearth board. A byproduct of the process is build up of very fine sawdust in the notch which is essentially char. Once the char in the hole reaches a certain temperature it begins to smolder, which tells you there’s an ember. The ember is very gently placed in the tinder bundle, then you can now use your bellows, fan, or breath to delicately stoke the ember to ignite the tinder. There are numerous excellent hearth board/spindle combinations. In general, lower density materials will require less pressure and work to achieve ignition. Talking to the primitive crowd in your area to see what works will save you a lot of work. Although it’s always fine to experiment on your own as well as there are benefits to doing so.

**Bow Drills**
A bow drill works just like a hand drill. It uses a fire bow with its string looped around the spindle to spin it faster with less work. There’s also a bearing block to regulate the downward pressure applied to the spindle.

**Pump Drills**
The pump drill uses a disc shaped weight to increase the mass and momentum of the spindle with a pump to achieve greater rpm with less work. A horizontal pump board travels up and down the spindle, parallel to the hearth board, as it’s pumped. The spindle passes through a hole in the center of the pump board. Cordage is run from the ends of the pump board to the top of the spindle so that it wraps around in a helix. This happens as the board is pushed toward the ground so that it spins the spindle as the cordage unwinds. The rotational momentum of the spindle then causes the cord to rewrap and drawing the pump handle back upward. The process repeats as the pump board is pumped over and over again, achieving high rpm.

**Final Thoughts**
Don’t be put off by a fire starting method just because it’s considered primitive. Many of our modern techniques are based off methods that have been used for thousands of years. It’s good to have the skills to start a fire even if you don’t have the tools commonly used these days
BUG OUT BAG:
BUILDING A PERSONAL FIRE KIT

Fire is one of the most important resources you’ll need in a survival situation. You’ll struggle to survive very long in the wilderness without it. Fire will help keep you warmer during cool nights, help illuminate the campsite, be a way to heat food and water, and also help keep biting insects away.

Given this, you’ll always want to have a personal fire kit on your person or in the bug out bag. You can purchase pre-assembled personal fire kits, but it’s easy to make your own. If you make your own, it can be customized.

THE FIRE TRIANGLE

You need three things to start a fire: OXYGEN, FUEL, and a HEAT SOURCE. These three items create what is called the “fire triangle.” Oxygen is plentiful, so you don’t have to worry about bringing it along. You can find plenty of fuel sources in most natural habitats as well as in urban areas. This can be wood, dry vegetation, scat, and other organic materials. So that means that the most important thing you’ll need in your personal fire kit is a heat source.

HEAT SOURCES

The heat source in your personal fire kit must reach high enough temperatures to ignite the tinder you’re using. Typically, woods must reach temperatures in excess of 400 degrees Fahrenheit to combust. Keep in mind the exact temperature at which combustion is possible varies from one wood to the next.

Tools that produce sparks are effective in this regard, as are cigarette lighters and matches. You can also use a friction fire kit of some variety to produce a coal then use it to ignite your tinder source. Each of these options presents different strengths and weaknesses, so be sure to select the method that best suits your needs.

Matches

Matches are perhaps the best ignition source available. All personal fire kits should include at least one or two matches. However, not all matches are created equally. Don’t rely on cheap, gas-station matches for your survival needs. Make sure you purchase water-proof, strike-anywhere matches. These will be a lot more likely to work when you’re shivering in a cold, dark forest.

Always use some type of waterproof container to hold your matches. A few zipper-style plastic bags will work if you have no other container for them. But a commercially produced cylinder designed specifically for the task is a better option.

Cigarette Lighter

A cigarette lighter is another option for your fire-starting needs. Although many survivalists may prefer lighters to matches, they are a riskier option. If the flint stops working or the lighter runs out of fuel, you’ll have trouble starting a fire. However, lighters are much more convenient to use than matches. Also you can keep a flame lit with them longer than with matches. This will make it easier to ignite stubborn tinder sources.

Spark-Producing Tools

Commercial fire starters are a very popular option among survivalists and campers. They are lightweight, easy to use, and they’ll work for years. However, there is a bit of skill involved in catching a spark with your tinder source and coaxing it into a flame. It’s always wise to practice using a fire starter before depending upon it.

There are a few different types of fire starters available. These include both flint and steel and ferrocium versions. Flint and steel spark generators work no matter how damp the conditions are. Keep in mind they require some skill to use. However, most modern survivalists prefer ferrocium fire starters as they’re easier to use. Additionally, ferrocium fire starters produce incredibly hot sparks that may exceed 5,000 degrees Fahrenheit.
Friction Fire Starters

Bow drills, hand drills, and fire saws have been used for thousands of years by primitive cultures. They remain a viable option for modern survivalists. These are all lightweight fire starting technologies that can be made from raw materials collected from the forest. However, they can be tiring to use and require considerable skill to generate a hot coal.

These types of friction based fire starters work poorly in damp weather. It’s typically wise to bring along a backup method in your bug out bag.

Fire Piston

A fire piston is a small cylinder with a plunger that fits inside it. When you want to start a fire, place a small amount of tinder in the bottom of the cylinder. The plunger is then pressed into the cylinder very quickly. This compresses the air trapped between the plunger and the cylinder. The air becomes very hot, which ignites the tinder and yields a coal.

Fire pistons are very effective fire starters but they can require a bit of skill to use. Be sure to practice using the piston before adding it to your fire kit. It’s imperative that you take good care of your piston as it will stop working if it becomes damaged or damped.

9-Volt Battery and Steel Wool

Touching the leads of a 9-volt battery to a wad of steel wool allows current to pass through the fibers. This will cause them to heat up enough to produce very small, short-lived flames. Touch the glowing steel wool fibers to a source of dry tinder until you succeed in getting the tinder to ignite.

It takes a bit of practice to get the tinder to ignite but it’s easy once you get the hang of it. The drawback to this method is that you need to bring along quite a bit of steel wool. Plus the battery will eventually lose all of its charge. This isn’t a great first line fire starter but it’s an ideal backup solution.

Magnifying Glass

You can start a fire by focusing the sun’s rays on something flammable such as a bit of tinder. However, this is a time-consuming way to start a fire and is only possible when the sun is shining. Accordingly, a magnifying glass makes a good backup ignition source but it’s not a great choice for your primary fire starting strategy.

Of course, magnifying glasses also have other uses so their value isn’t limited to starting fires. But because they are only somewhat helpful and fragile, you don’t want to depend entirely upon them.
TINDER

Usually you’ll be able to find plenty of tinder sources in most natural habitats but it’s always wise to pack a little bit of excellent tinder in your personal fire kit for emergencies. By its very nature tinder is lightweight and most types can be compressed into a very small space. You should always be able to fit a little of it into your kit.

Some of the best emergency tinder sources include:

- Gauze
- Cotton Balls
- Lint
- Hair
- Paper

You can pack any of these things in a waterproof container or plastic bag to keep them dry. Just be sure that you keep them completely dry so they’ll work when needed.

ACCELERANTS

Even those skilled in fire starting occasionally have difficulty and it’s wise to have a bit of an accelerant on hand to help get it started. Each of the accelerants listed below will help make it easier to get your tinder to ignite and burn longer. This is especially true in damp weather; when your kindling may need to dry out a bit before it will combust.

The most effective method is to simply add some of the accelerant directly to the tinder before exposing it to an open flame, sparks, or a hot coal.

- Hand sanitizer
- Candle Wax
- Melted Crayons
- Petroleum Jelly
- Cooking Oil

It’s smart to make your own fire starters by dipping or coating a tinder source in one of the accelerants listed above. Then simply remove one of your pre-made fire starters, light it with a match, and place it under a bit of kindling.

One of the easiest ways to make fire starters is by coating small paper squares with melted wax. The subscription cards from magazines are ideally suited for this purpose. These fire starters will light easily and burn long enough to get small kindling to combust, even if the wood is slightly damp.

MISCELLANEOUS ITEMS

Candle

A candle is incredibly helpful for starting a fire or keeping a flame going once you’ve generated one. For example, if you use a flint and steel fire starter, light the candle once you catch a spark and coax the tinder into a flame. If your tinder goes out before it can light the kindling, there’s a flame ready. Additionally, you can simply use the candle to directly light very small and dry kindling.

Flexible Piece of Plastic

Once you’ve got a small fire burning, increase its size by fanning the flames. Although you can do this with a bushy tree branch or article of clothing, a paper-sized piece of plastic is incredibly efficient. Cheap plastic placemats or cutting boards are ideal for the task, weigh almost nothing, and rarely cost more than a dollar.

Hands-Free Flashlight

You’ll often be building a fire in the dark, so a hands-free flashlight can help you see. Note that a regular flashlight that is designed to be held in the hand will be very difficult to use while trying to light a fire with a match. It’s essentially impossible to use while starting a fire with a friction tool or fire piston.

Sandpaper

A small bit of sandpaper can be used to create fine wood dust that can be used as tinder. Make your own impromptu fire starters by adding a bit of oil, fat, pitch, or one of the accelerants from your fire kit to the wood particles. Sandpaper can also help keep the wooden components of a hand drill, bow drill, or fire saw smooth.

Length of Leather or Paracord

A length of leather, paracord, or similar durable cordage is valuable for a multitude of reasons as it relates to fire-starting. Additionally they can all be used as a replacement string for a bow drill. The string is the most likely portion of a bow drill kit to fail so it makes sense to have a backup at the ready.

CARRYING CASE

Once you have assembled all of the things you need for your personal fire kit. This should include at least an ignition source, a bit of emergency tinder and a small amount of accelerant. Store all of this in some type of container. It will keep everything together and prevent you from having to search when getting a fire started. There are a variety of different containers and bags that can work well for this purpose. Make sure they’re waterproof and large enough to contain all of your fire-starting equipment. A water tight plastic container is usually a great choice but a glass jar or metal case works too as long as it’s waterproof. You could even use a nylon or leather bag but place the bag in something waterproof to keep your supplies dry.

FINAL THOUGHTS

Ultimately, remember that what is needed in a personal fire kit is up to you. It should suit your specific needs and the challenges you’re most likely to face. For example, if you live in an arid, desert-like region, a friction-based fire starter may present a good first-line strategy. You may not even need to pack any accelerant, but your biggest problem will be finding enough fuel. By contrast, someone living in a dense forested region will be surrounded by fuel at all times. But the ample rain will make it difficult to find suitable tinder. Such survivors would be much better served by a fire starter that will work while wet, along with plenty of emergency tinder and accelerant.
The four pillars of survival are food, water, fire, and shelter. This is because you can only survive three weeks without food, three days without water, and three hours without protection from exposure. The fastest way to get warm, and stay that way, in a survival situation is to build a fire. In addition to providing warmth, fire can help you purify water, cook food, ward off predators, protect against insects, and light your camp. It can be argued that building a fire should be your single biggest priority when trying to survive.

However, building a fire that will stay lit is not as easy as you’d think. Even with tools like matches, lighters, and newspaper, you can potentially light a fire only for it to go out seconds later. Even if you’re a skilled survivalist, there are times that the elements can prevent your fire-starting efforts. During my first winter survival challenge, I was facing sub-zero temperatures, 20 mph winds, and steady snow. I spent most of the day building my shelter instead of working on my fire.

About an hour before dark I started trying to light my tinder only to find that it was too damp to light. I searched everywhere for better tinder but it was too late. With no fire, I was able to avoid the first signs of hypothermia until around 1am. At that time, I had to tap out and head home. One week later I attempted the challenge again in similar conditions but was successful because of my ability to keep a fire going. In this article I will cover the basics of starting fires along with the best designs to keep your fire going.

SUPPLIES

Before you attempt to build a fire, you need to have the right supplies. The first and most important is a tool by which to start the fire. This can include lighters or matches for more modern fire starting tools. Be aware these do have their downsides. I like to carry a ferro rod with me which is waterproof, windproof, and requires no fuel. You can use a lens on a sunny day to start fire, or use a piston starter. If you have time and patience, use pieces of wood for friction fire. However, I will warn that it takes a great deal of practice for this method to work.

Next, you’ll need tinder. You can carry your own in the form of Wetfire Cubes, dryer lint, or cotton balls coated in Vaseline. For natural tinder you can use dry grasses, leaves, or pine needles. The best natural tinder will be substances that naturally stay dry or are waterproof. This include bird’s nests, cattail fluff, birch bark, and pine resin. These substances can be lit even in a pouring rain to get your fire started. Just shape your tinder into the shape of a nest and put the ember or flame inside. Ball it up gently and blow on it until you have large flames. You should have enough tinder to just barely fit both hands around it.

Kindling and fuel wood are the elements that you will use to construct the fire. Kindling consists of dry sticks ranging in size from a pencil thickness to the size of your thumb. Gather these from dead branches up off of the ground. Anything on the ground will likely have absorbed moisture. It should make a ‘snap’ sound when you bend it if it's dry. Fuel wood consists of larger logs. If you have the right tools, cut large pieces and then split them to expose the inner wood. Otherwise, you can use smaller pieces and just strip off any damp bark. You should have enough kindling to fit both arms around your bundle and the stack of fuel wood should be knee high. The general rule is to take however much fuel wood you think is needed for the night and double it.
TEEPEE DESIGN

The teepee fire design is the one that most people use when building a fire. It was the first design that I was taught in Boy Scouts and still use it frequently to this day. If I need a fire for a few minutes to a few hours, it’s about as effective as it gets. I also use this design in combination with others. Start with your smallest kindling and lean three sticks together to create a teepee shape. Then use kindling of similar size to build on your teepee and make it denser. Leave a small opening on one side so you can place your tinder bundle under the structure. Then move to thicker kindling and start adding it around your existing teepee structure. Continue moving up to the thickest kindling until you have a wide, solid structure. For the last step, I like to take just three pieces of fuel wood and lean them against each other above your teepee so that they will catch fire as well. Then light your tinder bundle and place it inside the teepee. That should be all you need to do to get the fire going. Then just add pieces of fuel wood to the teepee as the existing pieces catch fire.

LOG CABIN DESIGN

This design is meant to be more stable than the teepee design. You will find that at times a teepee will fall over leaving a mess of flaming sticks. The log cabin rarely falls over. First, you need to dig a small trench just large enough to fit your hand. Then lay two pieces of fuel wood parallel to the trench with one on either side. Next, pick two pieces of fuel wood slightly smaller than the first. Lay them perpendicular to the first two pieces to create a square. Place some small sticks across your square and place tinder on top of the rack you just made. Layer by layer build up the outside of your cabin continuing to reduce the thickness of the wood and moving towards the center. Place a bundle of small kindling inside and give it a roof of medium kindling. Light your fire starter and use it to ignite the tinder. Once it’s going, add fuel logs across the top alternating direction each time.

UPSIDE DOWN DESIGN

I wanted a fire design that would burn all night without any logs being when researching for a winter survival challenge. This was the design I found. The principle is to put lots of large logs on the bottom and small wood on top so it burns slowly. You also fill in all the gaps with dirt or sand to ensure the oxygen is limited as much as possible. It’s considered the opposite of a teepee fire. Start with a layer of sand or loose dirt and then a layer of large logs at least six inches thick. They need to be fairly round and straight so it’s easy to fill in the gaps. Next, put another layer of sand or dirt and then a layer of logs laid perpendicular to the first. Continue with four or five layers of large logs at least seven or eight across and then gradually use smaller logs. Finally, build a small teepee on top and light it to start the fire. It will slowly burn from the top down and will last anywhere from several hours to an entire day depending on the size of the structure, the size of the logs, and how well you control the oxygen.
TWO LOG DESIGN
This design is intended for heat only. You’ll not get much light, and the flames aren’t very large so cooking is difficult. First, lay one large log parallel to your bed about two to three feet away. It needs to be body length, round, straight, and at least six inches thick. Next, lay down a small layer of tinder and kindling along the length of the log. Find another log identical to the first and lay it on top. Finally, either use metal spikes to drive through the logs or wooden stakes on both sides of the logs to hold them in place. Light the tinder in a few places along the two logs and they will burn slowly from the inside out. This fire provides enough warmth to help you survive the night and should easily burn overnight.

SELF-FEEDING DESIGN
This is a more complex design, but if you want to be sure your fire will keep going all night it doesn’t get any better. For this fire you’ll need several large, round, straight logs of equal length. I suggest logs at least six inches thick and three feet long. You will need several longer, thinner logs to build ramps as well. Start by driving four smaller logs into the ground so they stick straight out three to four feet from the ground. Next, attach four additional smaller logs to the first logs at a diagonal with each side coming to a ‘V’. You may add two additional logs to the tops of your ramps for stability. Your finished ramps should be facing each other with each being at an opposing 45 degree angle. Next, set two logs in the bottom of the ramps so they’re even. Add logs running up each ramp to the top. Then build two small teepees on top of the bottom two logs or shove tinder in between them and light from the bottom. As the first two logs burn through, the next two logs will roll into place and so on.

BODY LENGTH DESIGN
This is a relatively simple design, but is great for keeping warm on a cold night. Start with several large, long logs stretched alongside your bed. They should be at least the length of your body, but should be far enough out to allow you to get out of the shelter if needed. Fill any gaps in between the logs with kindling and then build either two or three teepees along the tops of the logs. Light each one of the teepees simultaneously so that the logs below burn at an even pace. Before you know it, you will have a fire warming your entire body.

IN CONCLUSION
Any fire in a survival scenario is a good idea. However, knowing the proper design for your particular scenario is a huge advantage. I cannot tell you how many times I stayed up all night feeding logs to the fire because it was too cold to sleep otherwise. To be successful with survival, you need both sleep and warmth. Some of these designs can help you achieve both. Of course, with any survival skill you should get a great deal of practice. Some of these fire designs are fairly complicated and you’ll likely not get them right on your first try. On the next camping trip or even in your backyard, get some wood together to test out these designs. Collecting all of the supplies needed can be a great deal of work but it’s definitely worth the time and effort. The odds of survival will increase if you know how all of these designs work before your life ever actually depends upon it.
THERE ARE A NUMBER OF IMPORTANT THINGS YOU’LL WANT TO INCLUDE IN YOUR BUG OUT BAG, INCLUDING EXTRA CLOTHING AND THE TOOLS NECESSARY TO PURIFY WATER, START A FIRE AND TEND TO ANY WOUNDS YOU MAY SUFFER.

But while these things are certainly important — if not imperative — items to pack in your bug out bag, it is important to remember that shelter is usually the most pressing need in any survival situation. Without it, you can die from hypothermia or hyperthermia in only a few hours. You may need to use a tent in some cases, but more and more survivalists are moving away from commercial tents, and instead preparing themselves to construct a DIY shelter.

NOTE: Clothing is your FIRST line of shelter. Always leave home wear adequate clothing for your location’s weather.

However, while space in your bug out bag is often at a premium, it is often a good idea to make room for a sleeping pad and a sleeping bag, as these will help keep you more comfortable while waiting out the weather. They will also allow you to get a better night’s sleep, which will help better prepare you for the challenges you’ll face the next day.

TENT OR TARP

You can rely on a tent for your shelter, but commercial tents take up a great deal of space in your bag, and they are often quite heavy. This not only makes your bag more difficult to carry, it can slow you down when you need to cover miles quickly.

Instead, it is usually preferable to carry the supplies you need to make a tent in your bug out bag, rather than trying to fit a commercial tent inside.

However, there are a few scenarios in which a proper tent may be necessary. For example, it may be hard to construct a suitably insulated DIY shelter if you are stuck on a frozen tundra or high above the tree line. Therefore, you may need to pack a tent if you are likely end up in such a place. You’ll just have to consider the circumstances that you are most likely to face in a bug-out scenario and make the best decision you can.

MAKESHIFT OR DO-IT-YOURSELF SHELTER

There are a variety of ways you can make a shelter to help keep you warm and dry while out in the wilderness. Many can be constructed with only the natural materials you find around you, but it is very difficult to make a water-proof roof for your shelter from sticks and leaves.

Accordingly, you’ll almost always want to have some type of water-resistant material in your bug out bag, so you can make a shelter that will keep you dry (remember, being cold is one thing; being cold and wet is an entirely different matter). Some of the best options are detailed below.

Recommendations: A few of the best materials from which you can construct an improvised shelter include:

Tyvek – Made by DuPont, Tyvek is a paper-like material, created from high-density polyethylene fibers. Commercially, Tyvek is used to make a variety of products, including home wraps, envelopes and light-duty hazmat suits. But large sheets can also make excellent shelters for survivalists. Tyvek is very lightweight (you can make a tent-sized shelter from Tyvek for about one-fifth of the weight of a commercial tent), durable and it breathes well, which limits moisture problems.

Tarps – Tarps have been used to create makeshift shelters for decades, and they still deserve consideration by survivalists. Most tarps are made from polyurethane-coated canvas or polyester, and they are available in myriad sizes and shapes. Tarps are not as light as some other materials, such as Tyvek, nor do they breathe as well, but because they are inexpensive and readily available (tarps can be found in
sporting goods stores, hardware stores and big box retailers, as well as online), they are a popular choice for many.

**Cuben Fiber** – Cuben Fiber is a lightweight, rip-resistant, non-woven material used for a variety of different applications, including yacht sails and kites. Made from ultra-high molecular weight polyethylene and polyester, Cuben Fiber has recently caught the attention of ultralight backpackers and survivalists. Cuben fiber can be used to create a shelter in the same ways that tarps or Tyvek sheets can, but their incredible durability makes them a great choice for those trying to survive in rugged terrain.

**AMK SOL Emergency Shelter Kit** – Made for those who don’t want to create their own shelter kit, the AMK SOL Emergency Shelter Kit contains everything you need to make a rain cover or lean to shelter in a pinch.

The USA-made kit includes a 96-inch-by-60-inch, 2.5 mil survival blanket that serves as a tarp, four adorized aluminum stakes, four 96 inch long lengths of rope, four glow-in-the-dark tensioners and an instruction manual. Using a survival blanket as a tarp helps keep you even warmer than many other tarp-like materials, as they reflect approximately 90 percent of your body heat back at you, thereby keeping you much warmer.

**PONCHOS**

Because your bug out bag only has a finite amount of space, it is always wise to fill it with items that serve more than one purpose. Take ponchos, for example. They can be used to keep the rain or snow off your body, as is their primary intended purpose, but they can also be used to cover your pack, protect a wood pile from the rain, shield you from the damp ground, or they can be used as the roof of your shelter.

High-quality ponchos are water proof, and will keep you dry in even significant downpours, but note that sub-par ponchos are typically only water resistant. While you’d rather have a water resistant poncho than no poncho, it always pays to select a premium product which will keep you dry when it matters most.

**Recommendations:** There are a number of good ponchos available commercially, but two rise above the rest and provide superior performance at a reasonable price.

**US Military Surplus Poncho** – Because they are not limited by some of the budgetary and design constraints as military contractors are, a number of outdoor and survival product manufacturers produce tools and supplies that far exceed the performance of military-issue items. However, the US military still produces some of the best ponchos available.

In use since the 1960s, the standard military issue poncho can not only be used to keep your body dry, they can be used to make several different types of shelters.

Because these ponchos have grommets at the corners, they are easy to rig as a shelter with nothing more than a bit of paracord.

**Hazard 4 Poncho Villa** – A 21st century version of the classic military-style poncho, the Hazard 4 Poncho Villa provides everything that military ponchos do and more. These ponchos are constructed from a breathable, yet waterproof shell, and all of the seams are fully taped to ensure complete protection from the elements. The entire poncho can be stuffed into its front pocket for maximum space-savings and portability, and it features the same type of grommets that military-issue ponchos do, so you can use it to make a rain canopy or shelter.
EXTRA GEAR

If you are planning on improvising a shelter when TSHTF, you will not only want a tarp or poncho – you’ll also need a few other supplies to make your shelter-building efforts proceed smoothly.

**Paracord**  Paracord is a versatile cordage material that can be used for wrapping tool handles, lacing your boots and tying a poncho or tarp in place.

Paracord doesn’t take up much space and it isn’t very heavy, so don’t be stingy – always bring more than you think you’ll need.

**Trash Bags**  While trash bags aren’t as effective as ponchos or tarps, they can keep you dry in a pinch. They can also be used as pack covers, to collect water or used as a ground cover. Trash bags are light, space-efficient and darn near free, so you can bring several of them in your bug out bag.

**Mylar Blanket**  Also known as survival or space blankets, Mylar blankets are always wise to include in your bug out bag. Not only will Mylar blankets keep you warm when used as intended, but they can also serve as a rain canopy or shelter roof.

Because they reflect most of the infrared radiation striking them, Mylar blankets will help keep you nice and warm, whether you use them as a blanket or covering. Mylar blankets fold down very compactly and they weigh next to nothing, so there is no reason to leave them out of your bug out bag.

**Stakes**  A set of tent stakes are another good item to keep in your bug out bag. You can obviously use them to help set up your shelter and keep it stable in even the strongest winds, but you can also use stakes for a variety of other purposes if need be. You could, for example, use one as a makeshift digging tool, or you could use a couple to help set up some snare traps. Aluminum stakes aren’t very heavy, and they definitely provide a ton of value.

**Bug Net**  The worst biting animals you are likely to encounter in the wilderness are not bears, snakes or gators; rather, it is the tiny biting bugs that will cause the worst problems. Mosquitoes (and to a lesser extent other bugs) will be in full force throughout the spring and summer in most warm locations, and they are especially common around water sources. Not only can these blood-sucking bugs irritate you enough to keep you up all night, they can even transmit diseases, such as West Nile Virus and 71ka.

Accordingly, you will always want to have a bug net in your bug out bag. Some of the toughest bug nets may even work for other purposes. You could, for example, use one as a net to trap small fish or game, or you could form the net into a tube shape, and fill it with leaves to make a DIY sleeping pad.
I’ve had a rough history with my various winter survival challenges. The first attempt was an eye-opening experience. I had been planning this challenge all year, then it turned out to be the coldest week to date. I headed out early in the morning as the snow came down steadily. I started by working on my shelter during the day. My plan was to build a debris hut attached to a dome shelter. There would be a fire in the center of the dome. I could comfortably sit by the fire, but would scoot back into the debris hut when ready to sleep. Things didn’t work out as planned.

Unfortunately, I had planned a shelter design that was much too large and elaborate. Keep in mind that this was a long time ago and only the second solo survival challenge I’d ever attempted. The temperatures had started out in the low 20’s, and the wind blew hard most of the day. I cut down maple poles for the framework of the shelter and broke off juniper branches for the insulation. With only an hour of daylight left, I was forced to stop building and try to get a fire going. All of the wood and tinder were wet from recent rain and snow. After an hour of trying, it was dark and I had no fire. I knew it would be a rough night.

That night the temperature dropped to -15F with a wind chill of -20F. The walls of the shelter were too thin. Plus the overall structure was too large to block the wind or provide any insulation. There was no time to build a bed, so all I could do was wrap up in an emergency blanket and pray. I ended up tapping out around 1:00 am when my body temperature dropped to a dangerous level. Early symptoms of hypothermia were apparent, so I headed to warmth. A week later I tried the challenge again. The conditions were similar and it was successful only because I laid by the fire all night. My shelter failed again. My hands and feet tingled for at least two weeks after this challenge. In this article, I will cover how to build the ideal emergency winter shelter. I’ll also describe a challenge from January of 2017 in which it worked exactly as planned.

**WINTER SHELTER BASICS**

**Simple is Better** – As you can see from the above anecdote, a simple shelter design is always a good idea. The more complicated it gets, the less time you’ll have for building up insulation or other tasks. In addition, a more complex design means more materials must be gathered. More materials also means more calories that must be expended. There are really only three shelter designs that I use anymore. These are the lean-to design, the debris hut design, and the snow cave. This article will cover a version of the lean-to design because we’ll be discussing an option with a fire. Debris huts are designed for scenarios without fire. Snow caves are designed for scenarios without fire or debris but with deep snow.
Build a Bed – In the winter, it’s imperative that you get off the ground. The frozen ground will draw all of the warmth out of your body unless you have at least four inches of compacted insulation underneath. This means that you may have a pile of leaves that’s a foot deep, but they might compress down to four inches when you lay down. Being less than four inches from the ground won’t cut it. You can also use pine needles, spruce boughs, or any other dry material that will help hold air and create a barrier. You need to have a barrier between you and the ground. An ideal depth is more like eight to ten inches of compacted insulation. If you’re short on debris materials, build a frame and fill it with loose debris. Final step is to create a soft layer on top.

Use Lots of Insulation – When building a shelter, you always want to have at least six inches of insulation on the roof. However, with wet or cold conditions you need much more. I have built shelters with four feet of leaves on top. Take the time to keep piling on the dry debris so that your finished shelter will hold in heat and ward off rain.

Clear Plastic Sheet Over Entire Shelter – This step is absolutely vital. As heat from your fire radiates towards the shelter, it will pass through the sheet but become trapped inside. The plastic covers the entire shelter including the entrance. It will hold warmth plus keep out the wind, rain, and snow. This should go over your insulated roof if possible. I like to use a thicker sheet to ensure that it doesn’t melt.

Body Length Fire – In order for this shelter design to work properly, you need visible flames down the entire length. The fire should be built just far enough away from the plastic that it won’t melt. I like to stack four or five big logs at least six feet long. Then I stuff any gaps between the logs with debris like leaves or dirt to control the air flow. Finally, I build three upside down style fires on top at the head, feet, and middle. Simply layer smaller, shorter logs and fill in the gaps with more debris. Alternate the direction of the logs by 90 degrees for each layer. Then build a teepee on top and light the tinder bundle inside. The fire will slowly burn from the top down and will eventually catch the body length logs on fire. If the flames die down to coals only, you’ll need to add more wood to get the flames going again. However, if you build this design right it should last most of the night. You can also add a heat reflector to the opposite side of the fire. This is just a wall or emergency blanket that will bounce heat back to your shelter.

Pay Attention to Your Surroundings – Take your time when you start looking for a location for your winter shelter. I always like to consider at least three spots before making a final decision. A level spot, proximity to water and food are always important. However, it’s really important in the winter to pay close attention to the wind and sun. You want as much sun as possible beating on your shelter site, so the South or West side of a hill is best. As for the wind, try to find a spot where the terrain or the trees will help block it. Finally, be sure you are in close proximity to a large amount of dry firewood. Most of this should be up off of the ground so the interior wood is drier.
HOW IT WORKED OUT

My plan for this challenge was to head out on the coldest weekend of the year again. However, this time I would be on my uncle's property in the Ozark Mountains. I would be hiking several miles to the opposite side of our hunting property to find a good spot for a shelter. I brought three preserved deer hides along with the plastic sheeting needed for this shelter. My gear along with the internal frame pack weighed almost 50 pounds. I had done some serious hiking on my challenges but never with a pack this heavy. After making it deep into the wilderness, I ran across a spring that was surrounded on three sides by large bluffs. There was a large pile of debris nearby that would help block the wind. It would also provide a good amount of firewood and building supplies.

I hydrated at the spring and started building with a basic framed lean-to. Then I immediately started work on my bed. I’m a big guy, so decided to build a bed frame and fill it with leaves. Then I layered the deer hides on top to provide additional padding and insulation. It was by far the best and most functional bed I have made to date. Then I cleared out the area for where the fire would be and brought over some logs. With the few hours of daylight left, I hung up the emergency blanket under the frame, packed in roof insulation, and stretched out the clear plastic on the outside. My shelter was built so it was time for the fire.

I gathered the tinder and kindling needed and took the rest of my daylight to build the fire structure. Then I dug out the ferro rod from my pack and lit each teepee one by one. Within a few minutes I had three fires going and took a minute to hydrate again. There would be no food that night, so I would have to do some hunting the following morning. After cooling down from all of this work, I crawled into my super shelter. To my surprise, I was sweating within minutes. I made some adjustments to my clothing so I could regulate body temperature. I realized my new home was surprisingly comfortable. By 10:00 pm I was sawing logs which honestly never happens on survival challenges, especially in the winter.

There were a few downsides to this particular design. I had to get creative to figure out a way to keep my door sealed. There was a nasty draft at my head and feet, but not enough to keep me from sleeping. The other issue is that your fire design must be perfect or you’ll wake up shivering. As soon as your flames die down to coals, the temperature inside the shelter will plummet. The temperature was 5F that night, and it felt like my shelter dropped from 80F to 5F in about an hour. I needed to get up and put wood on the fire before dawn, but didn’t want to leave the shelter. That being said, it was the warmest winter shelter that I’ve ever experienced.

FINAL THOUGHTS

I woke up on my second day highly impressed with the night I had experienced. While it takes a few additional supplies to work, this is completely worth it when facing sub-freezing temperatures. The extra effort was definitely worth it to find a shelter that worked. I have a new idea for a sub-freezing shelter this winter, and am looking forward to seeing if anything can top the super shelter.
STRANDED IN YOUR CAR IN WINTER

What to do if you’re stranded in a car during a winter storm is a popular winter survival topic. It makes sense as our cars are the most used form of transportation. Unlike the summer, we are more likely to be in our cars when an emergency strikes during winter. Most folks don’t wander off into the wilderness in a winter storm.

BUT WE ALL WILL DRIVE THROUGH IT

There are numerous articles out there on how to survive being stranded in your car in a winter storm. They’re almost all the same. However, I feel they leave out some very important information. The first thing to consider when preparing to travel by car is having your car prepped for the journey. As a member of the Insider you have access to the calendar that gives reminders of when to prep for this very thing.

When winter is approaching we should have our vehicles prepped for emergencies before they happen. If you live in an area where snowfall is common, you should already have a kit placed in each vehicle. There are the obvious things, like changing out the tires and having snow tires put on. A set of chains should be stored in the trunk or tool box of the truck bed. I would also highly recommend a snow shovel and a tow strap. A marker panel is a good idea and can be found on Amazon. They’re a blaze orange panel that can be attached to your car’s radio antenna.

Usually when people are caught in a storm it’s because they accidently drove off the road and get stuck. The other most common mistake is traveling through unfamiliar areas and getting onto roads that aren’t used in times of heavy snow. Your GPS won’t know what roads to avoid due to snowfall. Google will lead you out onto a forest logging road in the blink of an eye. So, the simple solutions is to know where you’re going. Look into your planned routes and have alternates. Make sure they’re maintained roads that are actually possible.
You’ve looked into your route and have avoided wandering off into the wilderness on a logging road. But you’ve still found yourself stranded in a winter storm... What should you do now? First and foremost, stay with your car! All too often when people become stranded they panic and feel the need to walk out. Sadly, a lot of these people will either die in their attempt or suffer severe frostbite and hypothermia.

Now that you’ve accepted the fact your car is stuck and not going anywhere, it’s time to put your plan into action. Your car’s emergency kit should contain a sleeping bag for every person, a couple of wool blankets as well. They can be used to insulate the windows by draping over an open door and closing it. Proper footwear and gloves should also be included. Heavy wool socks for everyone is very important to prevent frostbite.

Run your car for about ten minutes every hour. With your windows covered with blankets and everyone in a sleeping bag, it will help to keep you warm. Make sure you get out and use your snow shovel to clear the exhaust pipe. If it becomes clogged with snow it will lead to carbon monoxide poisoning and you’ll not even know it’s happening. If you run the engine, make sure that exhaust is cleared.

Don’t run the car so often that you burn all of your gas. You may need it later to drive away when the weather improves or rescue arrives. Keep in mind your car can quickly turn into a refrigerator, so have another plan if it looks like you’re going to be there for a while. While the car seems like the most logical shelter, you need a way to heat it, burning candles and camping stoves in the car is dangerous. These too can lead to carbon monoxide poisoning and should be avoided. Not to mention only one careless moment could result in the car being engulfed in flames.

There is a safe way you can heat your car with fire. Tools to build a fire should be in your emergency kit as well. A small folding saw and maybe a hatchet or axe if you have the room. Lighters, matches, and a firesteel along with prepared tinder should be included in your kit. Open the doors on one side of the vehicle and build a fire outside the car. Construct a reflector behind the fire to direct the heat into the car. This can be done by starting logs or hanging a space blanket up as a reflector. Just keep the fire far enough away from the car so there’s no danger of setting your shelter on fire.
By doing this you will have a source of heat and a signal. Having the fire will also provide a psychological boost. You will be actively working to improve your survival situation. The effort to collect wood will help warm you and so will maintaining the fire. It also allow you to melt snow for water and cook food.

Keep a metal container in your car. A pot or water bottle will allow you to melt snow for water. Eating snow should always be avoided except under certain circumstances. The only time it’s okay to eat snow is when you’re outside working to improve your survival situation and need to avoid sweating. Sweating and wet clothes will almost always lead to hypothermia. So eat a little snow only if you’re outside sweating and need to lower your core temperature.

But first unzip your coat and remove layers as eating snow should be a last resort.

If you’re in an area of heavy snowfall you may not need to keep water in your car. Have a plan on how to melt and store snow. If snow isn’t common, then you need to store water. The rule of one gallon per person still holds here and you should plan on 72 hours. If temps routinely drop below freezing then throwing a plastic jug into the truck isn’t going to cut it as they’ll swell and burst. A cooler is a good way to keep them from freezing. Plus if the bottles did rupture, it would capture the spill.

Food is the other item we need in our kit. In sub-freezing environments keeping canned goods or even MREs is a bad idea. Neither of these should ever be frozen.

You can always carry freeze dried camping meals. Just have a plan to cook them. Things like beef jerky, nuts, protein bars, and the like are good no cook options. As are the lifeboat rations that are available. While the latter isn’t the most appetizing option, they’ll certainly keep you alive.

The act of digestion generates heat and helps to keep you warm. So a good way to stay warm when stranded is to have a belly full of calorie dense food. Your internal furnace will go to work and generate some heat. Here again, the lifeboat rations are perfect this. No cooking required and very calorie dense. Be sure to keep plenty of food in the vehicle kit so everyone can stay fed until rescue.
A last-ditch heat source are hand warmers. These are cheap and effective. Keeping a box of them in the truck is a great idea. We have to shift our ideas of warmth in situations such as being stranded in your car. It’s not so much about keeping the space warm as it is the person. We need to warm the person and not the space. Putting hand warmers in your coat or sleeping bag is a very effective method to add warmth. You can put them inside your gloves or in shoes as well. They last for hours and can prevent frostbite.

By now you’ve improved your car shelter by adding blankets over the windows. You’ve built a fire with a reflector and it’s keeping everyone warm inside. The marker panel has been hung from the radio antenna so you can see it. At this point you may start to get a little restless and think why isn’t anyone coming? You may start thinking about walking to find help. DON’T! Your best bet is to stay with the car. Continue to use your cell phone to try and reach help. If you can’t get a call out, try sending texts. They will continue to be sent until they go through and it uses far less bandwidth.

Staying with your car greatly increases the chances of rescue. It reduces the chance of cold related injuries and your car is a very valuable asset to keep with you. In a worst case scenario, you can cannibalize the car for everything from shelter material to insulation. You can even use the fuel for fire in an extreme emergency. Plus the spare tire would make a fantastic signal fire because it creates thick black smoke. Just puncture the tire first or you risk a serious explosion.

I cannot emphasis enough how important it is to have your car prepared before you travel in winter weather. Your kit needs to be stocked and in place. Let someone know where you’ll be, what route you’ll take, and any likely alternates. This is one of the best things you can do for yourself ahead of time. If something goes wrong, someone will let rescuers know where you’re most likely to be. Keep your head, stay calm.

**THE KIT:**
1. Snow tires
2. Tire chains
3. Tow strap
4. Snow shovel
5. Sleeping bag for each person
6. Couple of wool blankets
7. Metal container
8. Water (1 gallon per person)
9. Food such as lifeboat rations, jerky, nuts, candy bars, freeze dried meals
10. Coats. boots. socks. gloves.
11. Don’t forget your head! Beanies or other warm hats
12. Fire kit
13. Folding saw and hatchet
14. Roll of 1" (this will make life much more comfortable)
15. Flashlights and LED lantern
16. Marker panel
17. Flares (For signaling and emergency fire starting)
18. Hand warmers

**IF YOU’RE PREPARED FOR THIS IT WILL BE NOTHING MORE THAN AN INCONVENIENCE.**
USING AN ABANDONED BUILDING FOR SURVIVAL

Shelter is one of the most vital priorities in a survival scenario. In fact, in many cases it should be your top priority. If you’re wet or it’s cold outside, you can die from exposure as quickly as a few hours. Hypothermia is actually the number one reason for death in survival situations. Of course, every survival shelter situation is a little different. There are times you might be in the wilderness and be forced to build your own shelter. There are other times you might be in an urban environment in which there are plenty of existing shelters to use. In this article, we will cover the reasons why you might want to consider an abandoned building for survival along with the best process for entering and setting up your shelter.

WHY AN ABANDONED BUILDING?

If you are trying to survive and happen upon an abandoned building, there are several advantages and disadvantages to entering that building. We can start with the disadvantages. This really depends on the circumstances of your survival scenario. Abandoned buildings in cities are often targeted by looters and other people looking for shelter. You are more likely to be forced into a self-defense scenario in an abandoned building. If martial law is implemented, military sweep teams will likely be checking abandoned buildings for people. Even animals such as stray dogs will be trying to find their way into abandoned buildings.

In addition, the conditions inside an abandoned building can be sketchy. If there has been flooding or issues with air quality, you could end up getting very sick in certain abandoned buildings. These structures can be fire traps without basic firefighting services, so you should always be sure no surrounding buildings are burning. You also don’t know how strong the structure itself will be. Try to avoid stairs or elevators if possible. Be sure the building is structurally sound before you set up camp.

However, there are a few simple advantages to staying in an abandoned building. While you are more likely to have company in an existing structure, you typically have walls all around to help defend that structure. In some cases, you might even be able to get to a high point and defend the structure from above. The obvious advantage is that you get out of the weather. Most structures will block the majority of the wind and rain. Even dilapidated structures will have some level of insulation from the cold. Structures are the most likely place to find supplies like food, water, and weapons. You never know when you might stumble upon a home that was abandoned in a hurry. You might even get to sleep on a mattress or find some clean clothes.

Abandoned buildings can sometimes provide protection from contaminated water and air. This comes in handy if there are gasses floating around or flood water in the area. Obviously having a roof over your head will help protect from the sun. Finally, the most helpful aspect of using an abandoned building for shelter is that the structure is already there. In most other cases you would be forced to build a shelter. In this case, the majority of the work is already done for you.
WHICH BUILDING TO PICK

Anytime you pick a site for a shelter, I suggest considering more than one option. Sleeping in an abandoned building might be the best call, but you might find other sites that are every bit as good. If you have more than one building to consider, don’t ever just take the first one that comes along. Scope them all out from a distance and then check it out one at a time. If you want to avoid conflict, announce yourself from a distance as you approach each building. Be sure that anybody in the area knows you mean no harm. I find it best to move on to empty buildings and leave the occupied ones alone. You might find a good Samaritan, but you also might find a group that wants to steal your supplies.

Ideally you want to find a one-story building that is out in the open. These are the easiest buildings to defend. They are typically more solid than complex structures. Having a buffer zone between the building and the others will allow you to see threats before they’re on your doorstep. Of course, buildings with operational doors and windows are ideal. Bars on the windows are also a good thing. Instead of immediately doing a full sweep of each building, take a quick view inside a door or window then go to the next building until you make a decision. Then you can move on to a full sweep of the building that you chose.

Other considerations for your abandoned building would be traffic and proximity to specific businesses. I always prefer to have my shelter clear of any major traffic routes. This means that Main street in the middle of downtown is probably not a good idea. In addition, there are certain types of building that are prone to attack. This includes electronics stores, liquor shops, gun shops, grocery stores, gas stations, and government buildings. Try to be sure you are at least a block or two away from these types of buildings.

SWEEPING THE INTERIOR

After choosing a target building, be careful as you enter. There could be other people or animals in the building that would act violently if surprised. There might also be hazards that could injure you or other people in your party. Walk slowly and have weapons drawn if possible. If other people are with you, have them cover as you move into each room. Check any potential hazards such as broken glass, electrical hazards, fire hazards, and damaged parts of the structure. Also check closets and other hiding spaces to ensure nobody sneaks up on you.

Start with the front of the main level of the house then move to other floors. Be especially careful if there is a basement or if you decide to go upstairs. The whole house needs to be swept, but only send two people up or down stairs to avoid excess weight. Then once the whole house is swept, everybody needs to stay on the main level at all times. Since you are checking every room, have somebody gathering supplies as they move through the house. Supplies should all be brought to the main level for inventory after the complete sweep is finished.

SETTING UP CAMP

Once you’re done sweeping every room in the building, it’s time to secure the building and get organized. One of the keys to this process is setting a perimeter. First you want the building itself to be difficult to enter. Lock doors and windows wherever possible. Use boards or furniture to block off broken windows and doors so they aren’t easy to enter. You also want to set up an early warning system for the building. In most cases, it’s easiest to set up a tripwire system across any windows or doors that could be entered. Simply run wire, cordage, or fishing line across the opening then attach a can or jar with a few small stones. This should create noise when somebody tries to enter. You can accomplish the same thing with firecrackers, bells, air horns, or electronic alert sensors.

The best-case scenario for keeping everybody safe is to pick one room that is small, near an exit, and can be completely sealed off. A single entrance into the room means you only have a single entrance to defend against intruders. It also means that the exit is easy to find if you must get out quickly. This should be a room that is well insulated, but also has a way to ventilate if needed. Use blankets or other insulation around doors and windows to keep the room warm at night. Move furniture into the room so that people have a comfortable place to sleep if possible. Also move all supplies into this room in a specific location so you can keep an eye on everything.

If you don’t have water with you, there are a few places to check in the building. Water heaters and toilets often have water that can be purified for drinking. If the water lines are down, you might still have some water left in the pipes. Outside of these options, you may have to scout other buildings for water. Obviously check pantries in residential homes for food, but you may find food in commercial buildings as well. Check desk drawers in offices for snacks or look for vending machines. Also check to see if there is a break room where people may have stored snacks.

FIRE IN ABANDONED BUILDINGS

While fire is important for many different aspect of survival, carefully consider if you want to have a fire inside an abandoned building. If there is a fireplace or wood stove, that makes the decision much easier. These are designed to draw carbon monoxide out of the house while safely heating at least that particular room. If you have wood for a fire and a way to start it, this could be a safe option. Just be sure to smell for natural gas first.

However, even if it is freezing outside you may want to avoid building a fire randomly within the building. In addition to gas leaks, there can be several other materials in abandoned buildings that are flammable. If you do build a fire, try to make it near a window or door for ventilation. Carbon monoxide can build up and silently kill everybody in their sleep. Keep water close by to douse the fire if it gets out of hand. It’s best to build the fire inside a metal container such as a cooking pot, metal desk drawer, or wheel barrow. You’ll just need to be certain that everybody is careful around the fire and around flammable materials.
GUARD DUTY

Another piece of this process to consider is having somebody stand guard, especially at night. In a perfect world, there would be somebody on the roof watching the perimeter while you also have somebody inside tending the fire. Both should be considered priorities as it only takes a few minutes for a mob to gather or for a fire to get out of control. Sit down with everybody in your group and decide which shifts each person can take. Also determine what weapons are available for those watching the perimeter. Those that are sleeping will sleep much better knowing that somebody is standing guard and watching the fire. If you have a dog with you, it can help with guard duty as well. Just tie it in a good spot where you can hear the barking.

HAVE A PLAN OF ESCAPE

Unfortunately, no shelter is permanent in a survival scenario. You might stay in this building for one night or for several months. It just depends on your supplies, the quality of the building, and if any other threats come along. Once your camp is established, you should discuss a plan of escape with the whole group. Everybody should know where all of the exits are so they can grab their gear and go quickly. Also have a rendezvous point outside of the building in case you get separated in the scramble. This should be far enough that it’s safe, but not so far that it takes hours to get there on foot. A few blocks is normally ideal. If you need to abandon the structure, don’t hesitate. Just get everybody out safely and start over again somewhere else.
When you get into a survival situation, you will have several priorities. The four pillars of survival are food, water, fire and shelter. You see plenty of survivalists go after food right away, but why? You can only survive three hours from exposure to the elements. This means shelter and fire are vital. You can only survive three days without water, so you have to find and purify water. You can survive three weeks without food. So why does it matter so much?

**WHY FOOD?**

It seems that every time you watch a survival show or read an article they focus on hunting. They emphasize making a spear or making a bow to take down wild game. Food is important for more than just staying alive. As your body goes without food, it starts to eat itself. At first you will notice that the body burns fat reserves. You will get irritable and weak, with pain in parts of your body. Then, the body starts to consume muscle mass. You will become clumsy and unable to complete simple tasks.

As this process continues, your body will move on to consuming organ tissue. This can start to shut down your liver and kidneys, and will even significantly reduce your brain size. Severe depression can set in making it hard to reason. You could easily make a lethal mistake or decide to give up entirely. If not, organ failure can make it impossible to continue. Worst of all, food maintains psychological morale. If you get a meal at the end of a hard day, it can encourage you to keep pushing. Without that morale, it is tough to survive.

**WHY WILD EDIBLES?**

Finding food in a survival situation can be very difficult. Hunting can be dangerous, expend large amounts of calories, and has a very low success rate. Trapping requires a huge amount of skill, and still has a low success rate. Fishing is a good option where water sources are available, but is still very unpredictable. In addition, primitive fishing often requires you to physically get into the water. This can be dangerous in cold climates.

However, foraging for natural resources has a huge success rate. If you are simply trying to fill your belly with calories, vitamins, minerals and carbohydrates, foraging is the way to go. You can spend 20 minutes in the wild looking for food and come back with pounds of resources. While there is limited protein available in wild edibles, you can often find all of the other elements you need. It is not risky, not dangerous and not time consuming if you know what plants to search for.

The other beautiful aspect of searching for wild edibles is that you can do it while on the move and while working on other projects. You can simply pick plants as you walk through the wild and eat them or save them for later. However, if you do not know the plants in your area, you are better off leaving them alone. Eating the wrong plant can lead to illness or even death. Take the time to study the plants in your area, and you will always have a food source.
GENERAL RULES

There are plenty of survivalists that refuse to discuss this subject because the wrong information could easily kill a person. In addition, plant identification is largely regional. That being said, there are rules that apply to any region.

MUSHROOMS – My most general recommendation for mushrooms is to avoid them unless you are positive about your identification. There are several types of mushrooms that look alike, and I, personally, am not an expert. If you are like me, stick to just the varieties you know best. For example, I am positive that I can identify morel mushrooms and that they are safe to eat. Outside of that, I stay away. I was on a long distance survival challenge last fall and must have passed up at least a dozen different types of mushrooms because I could not positively identify them.

BERRIES – Many survivalists will go after berries because they are tasty and are a good source of sugars and calories. However, they can be just as deadly as mushrooms if you do not know your colors. Black or blue colored berries are alright to eat roughly 90% of the time. Red colored berries are a safe food source about 50% of the time. White or yellow colored berries are only safe to eat about 10% of the time. In our area I know that the safest bets are blueberries, blackberries, mulberries, autumn olive berries and strawberries. For example, during my first survival challenge I stumbled upon a grove of autumn olive trees. I must have eaten hundreds of those sweet, red berries because I knew what they were.

NUTS – Most nuts in the wild are either rotten or highly acidic. They are rarely toxic, but may upset your stomach. If they do not look rotten, try a bit on your tongue. If it is bitter, they need to be boiled and strained two or three times before being eaten. In many cases, they are not worth the effort. However, if you find a grove of trees producing nuts that are good to eat, then you have an excellent source of protein and fats.

LEAFY GREENS – There are dozens of leafy green plants that are fine to eat, but they are low in calories. Any plants that have a foul smell, waxy coating, or thorns are probably best to avoid. In addition, many plants are safe to eat, but so acidic that they could make you vomit. If it smells good and tastes good, it is probably okay to eat.

There are a few general steps to testing a plant before consuming large amounts. First, crush some up and rub the fluid on the inside of your wrist. Wait 15 minutes, and if there is no reaction apply the same fluid to your inner lip. If there is no reaction after 15 minutes, chew up the paste and spit it out without swallowing. If the taste is foul, you are probably best to move on. It may not kill you, but will likely upset your stomach. After 15 more minutes without a reaction, you are safe to consume a small amount of the plant. If you make it 15 more minutes and are not sick, you can consume a larger amount. However, when in the wild you should consume everything in moderation. If you have gone days without food or water, you can make yourself sick on any food source.
SPECIFIC PLANTS

While most plants are limited to a certain part of the world, there are a few exceptions. These plants are easy to identify and can be found in most of the world outside of frozen regions. It is helpful to know these plants in addition to the ones specific to your area. You never know when you might be forced to survive halfway around the world. Here are plants to which you should pay special attention.

DANDELIONS — These plants have a saw-toothed leaf and a bright yellow flower. The greens are often used in salads along with the flowers. The stems have a bitter taste, but do a good job of cleaning out your system.

OLOVER — This plant grows in patches and has three round leaves. During a short window in the summer it has a small, white flower. The whole plant is edible, but they are small so it takes a while to collect a decent amount.

PLANTAIN — This is not the banana-like starch found in the tropics, but instead a broad-leaved green found in sunny meadows. It often has waxy leaves and seed pods stretching high above the leaves. The leaves are safe to eat and medicinal, but are quite bitter.

CHICKWEED — This plant grows in patches close to the ground in the shade or sun. The leaves are tiny and often the shape of a mouse’s ear, white the stems are long and stringy. It is a tasty green and also a natural pain reliever. It even will grow under the snow.

WOOD SORREL — This is one of my favorite wild edibles as it has a distinct lemon flavor. The leaves are small and heart shaped, while the flower has several white or yellow petals.

HENBIT — This plant grows in the early spring with a tall stalk and a purple flower. You can see it turn the fields purple for a few weeks in my area. The whole plant is edible and the flowers are sweet. It will start growing in the winter, even under snow.

BURDOCK — This plant has long stalks resembling rhubarb that stretch several feet in the air. The leaves are huge and spade shaped. In some areas it has a spiny purple flower. The root of the plant is the only part that is safe to eat, and tastes like a cross between a potato and a carrot. It can be boiled or eaten raw.
**Bull Kelp** – This sea-born plant can be found along the shore in many parts of the world. It is typically yellow or brown, tubular and hollow. It can be eaten raw or cooked.

**Fiddlehead Ferns** – These immature ferns are found in forests rich in moisture. They are only a few inches tall and curled around like the head of a violin. These are considered a delicacy in most of the world.

**Wild Carrots** – The tops of these root vegetables looks much like a farmed carrot. However, there is a poisonous look-alike. Smell the tops and they will smell like a carrot if they are safe. You are best to just eat the roots, but technically the whole plant is edible.

**Violets** – These plants have heart shaped leaves and grow in shady areas. They have a mild flavor and grow a bright purple flower for a few weeks in the springtime.

**Wild Onions/Garlic** – These two plants look similar but have distinctive smells. The shoots stick well up above the other grasses and are hollow when cut. You can eat the tops or dig up the bulbs.

**Watercress** – This plant grows in streams along the bank in dense patches. It typically has round leaves, and its peppery taste is great for a salad.

**Miner’s Lettuce** – This is another round leaved plant, but grows in shady areas low to the ground. Sometimes the leaf is more spade shaped and has a small, white flower.

**Cat Tail** – This plant is often seen on the edges of bodies of water and has the distinctive elongated, brown seed pods. At the base of the plant is a tender, white shoot that can be eaten raw or cooked.
IN CONCLUSION

It is important that you become familiar with these plants well before you are forced into a survival scenario. Many of them can be found right in your back yard. Just be sure you do not pull plants that could have been exposed to any chemicals. There are two great ways to become familiar with these plants. You can start to incorporate them into your daily diet. Instead of buying spinach or other greens, go for a walk and collect some wild edibles. This will ensure you figure out which ones you like and which you do not. You can also go on camping or hiking trips and add to your meals by collecting along the trail. Practice is always the best way to ensure the knowledge sticks.

Also, be aware that some people could have an allergic reaction to wild edibles just like some people are allergic to plants from the grocery store. If you notice your lips swelling or your throat getting scratchy, take some Benadryl and do not eat any more. It is smart to use the plant testing method for each plant the first time you use it. Do not hesitate to see a doctor if your reaction gets worse. That being said, these plants are virtually all reaction-free. Take the time to get out there and learn about these plants, and they could save your life.
From the perspective of the average person today, it’s not just the survivalists, Navy SEALs and Girl Scouts who can subsist on twigs and berries when they get lost in the wild. Hell, we’re all supposed to be able to do it! Look at our beloved action flicks (particularly the survival themed movies) and even video games – these have drilled the myth of foraging anytime and anywhere into the pop culture zeitgeist. Even classic Dungeons & Dragons had a rule stating that a full-time forager can sustain 4-16 individuals (including himself) with each day of foraging (pretty damn impressive).

But enough about movies and games, let’s talk about the real world. How many edible plants do you really think are out there? Is there even a shred of truth to the idea that you could survive by foraging from the plant kingdom? And long could you last by being a weed eater?

Many of our modern forms of entertainment have depicted this “perfect” version of nature – a place where our heroes can easily forage for their necessary nutrition, regardless of season or climate! But is there such a time and place? Let’s explore the reality of foraging.
I teach foraging and write about it for part of my livelihood. That may seem like a conflict with some of the things I’m about to say, since I’m about to poke a few big holes in the art of gathering wild plants for food. But hang in there until the end – and hopefully you’ll grasp the irony and more importantly, you’ll have some takeaways.

Furthermore, foraging can be a dangerous endeavor — particularly for beginners. You may mistake a deadly plant for a wholesome one, or you may have a rare allergic reaction to a widely tolerated edible plant. Go slowly, triple-check everything, eat just one new plant per day, learn from the experts and remember that some blogs and websites provide wrong information (researching in reputable books is best).

I meet people all the time who have a different “plan B” for getting food. They’re usually the mouthy fools at trade shows. When I mention foraging to them, they say “Hell no! I ain’t eatin’ no weeds. I’ll just shoot a deer.” Well, that’s certainly a possibility in a wilderness setting, as long as your ammo holds out. And you might get lucky during the first few weeks of a collapse, but after that – I doubt there’ll be anything left alive to hunt. Take a look at your county’s deer population per square mile and then look at the human population per square mile. If just 25% of the human population engaged in hunting, how long do you think those deer (and other animals) will last? The correct answer is not long at all. We can see a scary example of the results of over-hunting by desperate people when we look at the Great Depression. In the 1930’s, whitetail deer were virtually extinct in my home state of Virginia. And those folks were in better shape than we are today. There were fewer people back then and 50% of them were farmers (they knew how to grow food). Even then, shortly after the depression started, the deer were all gone. It took almost 40 years for those animals to return to a stable population in the state. So here’s another big takeaway. Unless you’re just pretending to take survival seriously, you’d better learn to eat your weeds!

Now that I’ve dispelled your illusion of providing tons of game meat for your family after an EMP or some other “End Times” scenario, let me shatter your fantasy about gathering enough plants to survive, anywhere and anytime.
THE BASICS

The first thing you’ll need to do before popping a wild plant into your mouth is to identify it with ZERO doubt. This certainty should come from a place of experience. Training from an expert is the best option. VERY thorough book studies can get you there too, though it takes a lot longer (and not everyone is wired to learn this way). But don’t ignore the books. You’ll want 100% positive identification of the plant species before you throw it into the stew pot. I recommend taking “Peterson’s Field Guide to Wild Edible Plants” as a reference. This small book is packed with solid information, and it’s a backpack-friendly size. Yeah, I wrote a foraging book too. But in all honesty, Peterson’s beats the pants off my book. Once you’ve made a positive ID of the plant with a reputable field guide, here are a few more basics to consider.

- Learn about the poisonous plants in your area, so you can avoid them.
- Wash any plants that you are going to eat raw, to rinse off bird and bug poop. Cooking your plants is an even safer approach.
- Get off the beaten path to collect. Roadsides, parking areas, dumping grounds and conventional agricultural areas may have contaminated soil or plants that have just been sprayed with something nasty.
- Eat only small amounts of plants that are new to you, one per day.
- Learn which plants should be eaten in moderation
- If you have any doubts about the plant or plant part, DO NOT eat it!
THE HEAVY HITTERS

Nutrient density is the name of the game when it comes to foraging for survival. Learn to identify and use the following wild plant foods, and you’ve got a shot at having a full belly and ample calories.

TREE NUTS - These are the calorie powerhouses of gathering. Even the lowest calorie tree nuts are packed with macronutrients (fat, protein, and carbs), but not every tree nut wants to be your friend (buckeyes and horse chestnuts are poisonous). Rule out the bad nuts, and most of the other common nuts growing wild in North America are suitable as people food. In a “nutsHELL,” if there are nuts, you can live off of wild plants. If there aren’t, you might not make it on wild plants alone. Tree nuts are usually fully formed and ready to eat in early fall. Some may continue to be edible through the winter (even into spring). Don’t eat nuts that are moldy, decayed, riddled with insects or nuts that have a fermented smell. The nut meat should look and smell “right” for that species. Some are ready to eat right out of the shell, like hickory nuts, walnuts, pine nuts, pecans, beech nuts and hazelnuts. Hickory nuts are the top pick for food, as shelled-out nut meats contain over 190 calories per ounce! Don’t forget about acorns. They are one of the most plentiful tree nuts throughout the country, and even though they require special processing, they are worth the trouble. Just one pound of acorns can provide over 2,000 calories. To make them palatable people food, crack them into little pieces – discarding the shells and caps. Place the broken nut chunks into a pot of warm water and let them soak for an hour or two. This will remove some of the bitter and stomach churning tannic acid. Save the tea-colored water you dump off the first soaking, it’s an excellent skin wash for inflammation, rashes, sores and other irritations. Repeat the “soak and pour off” process until the bitterness is gone. This may take a few hours or days, depending on the species of oak and the amount of tannic acid those nuts contain.

SEEDS - Almost as nutritious as nuts, edible seeds can often be found in the summer and fall. Amaranth grows wild in fields and fallow farmland. One cup of the shiny black seeds contains 716 calories, 26 grams of protein, 30% of your daily calcium and almost your full day’s requirement of iron. Other edible seeds include lamb’s quarters, wild rice, numerous grasses, curly dock and dozens of other species. Seeds are best prepared when ground into meal and boiled as porridge, since their tough seed coat may not be dissolved by your digestion if eaten whole.

ROOTS - After nuts and seeds, roots are the next best bet for feeding your tribe. Cattail rootstocks contain a white starch that is 150 calories per cup. Burdock root needs to be boiled a few minutes in different changes of water (to remove bitterness), but then it provides 84 calories per cup and 14 percent of your daily allowance of Vitamin B6. Wild carrots can be eaten too, but watch out! They have two very deadly look-a-likes, poison hemlock and fool’s parsley. Because of the risk, I don’t recommend wild carrot collection for beginners.

BERRIES AND FRUIT - These are some of the tastiest wild edible plant parts. Most wild edible fruits and berries are delicious when they are fully ripe, which occurs between May and December (depending on your latitude and the species). Wild strawberries and blueberries ripen first, then come the mulberries, blackberries and raspberries. Mulberries, for example, provide 60 calories per cup, with 85% of your daily requirement of Vitamin C and 14% of your daily iron. Just make sure they are ripe and sweet, because under-ripe mulberries can lead to serious reactions. Cherries, paw paw fruit and many other berries and fruits ripen from mid summer into the fall. You’ll even find late fruits like rose hips and persimmons, typically at their best after the first frost and into early winter.
**THE BAD GUYS**

Just to remind you, we already mentioned buckeyes and horse chestnuts as poisonous nuts, but they’re not the only bad guys out there. You’ll also encounter poisonous seeds, roots, berries, fruits, leaves and other plant parts. So don’t get the idea that you can eat everything out there. Learn to identify each food species and each dangerous plant in your area.

So there you have it. You can survive off wild plants, while they last, if you are in a favorable location and season, and you know what you’re doing. Take away any one of those positive features, and you’re your chances of collecting enough plant foods to survive will drop accordingly. Remember the factors that you control your knowledge and experience. When you take the time to learn more of your local edible plants, you’ll have more chances of running across these plants. And the further you can roam, the more likely you will be to spot areas with food that you haven’t harvested before. There’s a reason that hunter/gatherer cultures were largely nomadic, it’s the only way to get enough to eat over the years and decades. So take the opportunity to perform hunting and trapping, along with your gathering, but don’t rely on hunting or trapping as your only back-up plan.

Here’s wishing you a fat little rabbit or squirrel in the stew pot along with your weeds. Good luck!
When you're prepping your home or bug out location for a SHTF scenario, there are many steps and points of focus to consider. One of your priorities should always be to build up a long-term food supply. However just keeping your pantry stocked is not enough. You need to know the right types of food to store and how to do it without breaking the bank. There are many DIY projects to take on to make sure that when things start to fall apart, you have the food needed to survive.

**HOW MUCH FOOD DO I NEED?**

This is a question that I hear a great deal from new preppers. How do you know how much food to store? The easy answer is that more is better. We're talking about storing dry food, canned goods, MREs, and other preserved foods so it's not in danger of going bad. However, even these foods have a shelf life. Canned goods last anywhere from one to four years on the shelf. Dried goods and MREs can last longer if they're kept in a cool, dry place. You do want to be cautious not to let your food storage get so out of hand that it's spoiling. Most experts believe that an average SHTF scenario will last anywhere from a few days to a few months. Using that estimate then you should have at least three months of food on hand. If you have a family of four and assume three meals a day, that comes to 360 servings of food.

**FOOD ROTATION SYSTEM**

When setting back food for storage, you really don't know how long it will be before it's needed. It could be 20 years or it could be next week. That means that if you just buy the food and let it sit on the shelf, it could be spoiled by the time it's needed. To solve this problem, you need to rotate your food. You need a system to ensure the oldest food in the pantry and freezer is eaten first. All food should be immediately dated once you buy it. Then put the newest food at one end of the shelf and the oldest should be at the other. When you cook meals, you should constantly be pulling from the old side. There are also rotation systems you can buy that load at the top and push the oldest cans to the front.

**RENEWABLE FOOD SOURCES**

While food storage is vital, so is having renewable food sources that can continuously supply you with fresh foods. There are plenty of SHTF scenarios in which you can still go outside to collect food. A garden is a great way to constantly have vegetables available for canning, drying, and for eating fresh. You can also plant trees so you have fruit on your property during the growing season. There is a stocked pond on our property so there's fresh fish whenever we need it. We also have let about half of our property grow up as a brushy area so there are rabbits and deer for hunting. For those that have limited land, I've seen people grow hydroponic gardens in their homes or raise catfish for food.

**DRY GOODS**

The backbone of your food storage should be dried goods. These will last the longest if they're kept dry and cool. You should keep them in airtight containers to avoid insects getting into your food. You can buy dry foods like pasta, flour, oatmeal, sugar, rice, powdered eggs, powdered milk, powdered potato, dried fruits, nuts, dried beans, onion flakes, jerky, and houlihn to name a few. To save money, I suggest drying your own foods whenever possible. You can use a food dehydrator, use your oven, or even dry foods over a fire. My family likes to dry vegetables from our garden as well as peaches and apples from our trees. In addition, we make jerky out of venison, rabbit, squirrel, turkey, and fish.
CANNED GOODS

You can always purchase canned meats, vegetables, and fruit to add to your food supply. However, with the limited shelf life of canned goods keep the amount of money you spend low. A better bet is to can your own foods. Between pickling, wet canning, dry canning, and pressure canning, you can preserve just about any food. However, canning is a true science. You need to know the right way to can each type of food so that it’s not contaminated with bacteria. If you’re not careful with your canning process, it could end up making yourself or your family very sick. My grandmother had a huge garden and canned everything from green beans to persimmons. She always had enough canned goods on hand to feed her and my grandfather for months.

FROZEN FOODS

Frozen foods are great for short term survival scenarios. You can freeze vegetables, fruits, breads, and soups but mostly meat. We have three freezers and keep them full most of the time. Unless it’s winter or live some place that stays cold year round, you’ll need electricity. Therefore if you plan to keep a large percentage of your food frozen, make sure to have both a generator and a backup. If you lose power during a SHTF scenario, keeping your food frozen should be one of the top priorities. Otherwise you’ll need to eat as much as possible and barter with the rest before it goes bad.

MRE’s

Meals Ready to Eat (MREs) are often what people picture when they think about survival food storage. These are entire meals that are preserved for long term storage and transport. They’re most often used by the military. It can consist of anything from nutrient pills and protein bars to full meals like spaghetti or beef stew. However, there are some major downsides to MREs. They typically don’t taste nearly as good as canned, frozen, or dried foods would. In order to preserve foods like this they have to add a huge amount of preservatives which limits the flavor. Plus another big issue is the price. The MREs that I own cost about $25 to feed one person for six days and the taste is rough. Compare this to canning or drying meat, vegetables, or fruits and it will make you wonder why buy MREs? I have them for my bug out bag or for situations in which I don’t have time to cook, but that’s about it.

FINAL THOUGHTS

There are many ways that you can build up your food storage for survival scenarios. The key is to get started right away. Don’t put it off until it’s too late. If you just set back one or two items every time you go grocery shopping, they’ll start to build up quickly. Build up dried, canned, and frozen food storage using your garden and other renewable food sources. Be careful to rotate your foods to eat the oldest ones first and you’ll be well fed whenever the time comes to rely upon them.
WHAT DOES PROPER FOOD STORAGE LOOK LIKE

By: Chris Weatherman

There is little doubt that food is the fundamental reason we prep. It was food, or the lack of it, that led to the agricultural revolution. Before that, man simply lived hand to mouth. As a result, early peoples were nomadic, following the great herds on migrations. But with the advent of agriculture, man was able to put down roots. Both figurative and literal.

Food is also the reason we plan for security, to protect it. It is a simple fact that humans have to consume food and water daily. Sure, you can go a while without it, but contrary to what a lot of the survival manuals tell you, it’s not very long. If a person was to sit down and do nothing, they could in theory, go a month without eating. But, in a survival situation we are not just sitting and waiting. We have lots of hard physical work to do, and that requires calories. Calories we have to store.

A perfect food storage would be packed with fresh fruits, vegetables and meat. Much like we already eat. But as know, these items do not store well and must be consumed fresh. Just like agriculture allowed man to settle, the invention of refrigeration allowed man the luxury of eating fresh food over a long period of time. But refrigeration is problematic for anyone trying to develop a food storage system. Mainly because it relies on the very thing we’re preparing to lose, the grid.

If we all had our own flux capacitor in a shed behind the house and created our own power, this would not be an issue. But we don’t and as a result, it’s an issue – a big one. So, with refrigeration out of the equation, what’s next? This is where history and the future meet. We can rely on the old methods of drying foods for preservation and it works well. But now we also have the advantage of freeze dried foods as well.
And it’s good we have different methods because different foods perform better depending on the method of preservation used. Meat is a good example. Drying meat is one of the oldest methods of preservation. It goes back to the earliest days of man. And it’s easy to do, simply cut the meat into thin strips and hang them up to allow them to air dry.

The problem with this method is what you can do with it when it comes time to consume it. Naturally it can be eaten like jerky. But if you intend to cook with it, about the only thing you can do is make a stew or soup. Freeze dried meat on the other hand, can be rehydrated and used in nearly any fashion you would fresh meat. In many cases, the reconstituted meat is indistinguishable from fresh.

I mention these two methods of preservation for a reason. **DONE PROPERLY, THE FOOD WILL LAST FOR DECADES.** Of course, modern canning will also produce a product that will last for a very long time as well. The primary difference is in the weight of the finished product. Canned goods will be heavy and bulky.

So, what should we be storing? The best food to store is the food you like to eat! During a crisis we are already under a lot stress. Introducing foods we are not accustomed to eating at the same time will further compound this and cause some gastrointestinal issues. And this is very important for kids. Food is not only nourishment but comfort. And introducing alien foods in a stressful time will only make matters worse.

That’s why it is not a good idea to go out and simply buy one of the years supply of freeze dried food. It will be full of things that you don’t eat and probably some stuff you sincerely dislike. Plus, if the pallet you bought contains prepared meals, you will quickly begin to suffer from menu fatigue. Yes, it’s a real thing. If you’re having to eat the same things for breakfast, lunch and dinner, every day, you will tire of it quickly. Meal time will cease to be a comfort and turn into a dreaded necessity conducted out of sheer need.

Remembering that, during an emergency, we will probably be more physically active than we are now, we need to make sure we’re storing food that can provide the calories we need. And this can be a problem. Of course, sugar stores well, as do starches like pasta and potatoes. But these simple carbs will not get the job done. We need complex carbs, we need fat.

Fat is very hard to store. You have to get a little creative to get the job done. I recommend storing pure lard. Not vegetable shortening, but lard. Stored properly it will last for many years and is cheap. The lard will be used in nearly everything you cook, to add the fat your body will need. It can also be used for other things.

Let’s say you killed a deer and dressed it. You have some of it in the smoker, some hanging to air dry. But you also wanted to eat some fresh. So, you kept a rear ham and cooked it whole. Everyone ate their fill, but there is still meat there and you don’t want to waste it. You can take the meat from the bone, put it in a bowl and pour rendered lard over it until it is completely covered. In this condition, it can sit on the counter, without refrigeration, and will not go rancid. **THE LARD KEEPS THE AIR AWAY FROM THE MEAT, AS WELL AS INSECTS.**
But we can’t live on just lard, we need other food as well. Canned meats are a good option. They contain fat and store well. There are no special considerations to using them, just pop the top and it’s ready to go. The downside is it’s heavy and worse, expensive.

This is where looking at the viability of freeze dried meats comes into play. They store longer and are lighter weight. They can be used in any method of cooking as well. Downside, this too is expensive.

Now, if you have your own **FREEZE DRY MACHINE**, like I do, you can freeze dry all the meat you want. The cost versus the return is something that will have to be carefully considered. But, it is the best method of laying in a solid source of protein at a reasonable cost. Conventional pressure canning can be used to store meat as well. This will produce a better product than commercial meats and you can control what’s in it. Decide what method works best for you and get started on your meats.

A proper diet needs more than just meat. We also need fruits and vegetables. Here again, dehydrated and freeze dried are the best options. Of course, you can get canned varieties as well. But the fruits will be packed with added sugar or fructose and the veggies will be loaded down with salt.

The freeze dried varieties will not have either of these in the single product offerings. I mention this because the prepared meals and desserts offered by a number of companies will have added sugar and salt. And some of them are packed with salt. Consuming a lot of salt when you’re very active outdoors isn’t necessarily a bad thing. Your body will sweat it out and it needs replaced. But too much salt can cause a host of other problems.

Additionally, we should store the kinds of fruits and vegetables that your family enjoys now. Canned vegetables and fruits have the same issue as canned meats, weight and contents. Commercially canned products will have preservatives, no matter how organic the label claims it is. A good option for adding veggies to your diet is to store any one of the numerous vegetable concentrations commonly called **SUPER FOODS**. I use a couple different varieties.

A single scoop of most of these products contains numerous fruit and vegetable varieties. Since they are already powdered they are perfect to store for long term. They can be added to anything you’re cooking to increase your intake of greens. And if times are hard, you can just mix it with water and drink it. It cannot be stressed enough, though, to store foods your family already like.

Then, there are the **STARCHES**. These provide needed simple carbs and act as a filler. The addition of rice or pasta can help stretch an otherwise meager meal. But storing these products does not have to be expensive, these are among the cheapest items to store. And you don’t have to buy it from the expensive long-term companies. Products like rice, instant potatoes, pasta or grits can be purchased at any grocery store. But when you buy these products, they are not ready for long-term storage. Pasta and potatoes come in boxes and composite paper bags. By purchasing these products and repackaging them at home, you can save money and get more for your money.
Watch for sales, BOGO’s and look at your local Sam’s or Costco to buy in bulk. Bring these items home and repack them in mylar. Include a food grade desiccant package to keep moisture out. Seal the bags and they’re ready to be put away for that rainy day. Another method of storing these products without spending a lot of money is to reuse two-liter bottles. Save your soda bottles or get them from friends and family if you don’t use them. Wash them out and dry them. Fill them with your rice, instant potatoes or whatever else and cap them. They’re now ready for storage.

Dry beans should be another portion of your food system. They are a substantial source of protein. They store well and are cheap. Plastic bottles can also be used to store these as well. Beans are a big part of my storage plan. They are simple to cook and can be used in any number of ways. To stretch your stored meats, use the beans as the basis of your meals and add meat for flavor and texture. Beans and rice makes a filling and satisfying meal.

But, with that in mind, let’s talk about salt. While we want to store other spices, salt is very important and should be stored in quantity. Not only for seasoning your food, but it can also be used for food preservation. And what could be one of the best qualities, it’s a barterable commodity. Very barterable. That’s why I say, store it in quantity.

**SALT** is cheap and can purchased nearly anywhere. I store large quantities of sea salt, I prefer it to table salt. But I also store iodized table salt. Iodine is a vital element that our bodies need and cannot synthesize. It was added to table salt in 1924. Since salt typically comes in either cardboard cans or boxes, we need to repackage it for storage. I pour the salt into mylar bags and add a desiccant package. Salt, like flour, will cake if you include an O2 absorber. So, do not include them.
Since we’re on the topic of flour, let’s talk about that for a minute. Flour is another component of a well rounded food storage system. The problem with flour is, it doesn’t store well. If you’re going to store ground flour, you should freeze it first. This will kill any pests or their eggs that are, and I do mean are, in the flour. Flour needs to be properly stored like everything else.

As I previously stated, do not add O2 absorbers. It will cause flour, sugar and salt to form into a solid block. While that’s not a big deal for salt and sugar, it will ruin flour and make it unusable. For salt and sugar, a common kitchen grater will return them to a usable state. Sugar used to be sold in solid cones wrapped in paper, so it really isn’t a big deal.

If you don’t want to deal with the ground floor, you can always store whole wheat berries. If you go this route, you’ll need a quality grain mill to grind it into flour. This is the best way to have flour long-term. The uses of flour are obvious. And if you don’t know how to bake bread at home, you better learn before the time comes, if you intend to have bread. Same goes with fresh pasta, which can also be made from your home ground flour.

Just like in our normal diet, these are the foundational stones of our food preparedness. But there is one more part this very complex, but easily accomplished puzzle, the sundries. I mentioned salt earlier. Salt is a vital element we need in our bodies. It’s so important, that in times in history, it was worth more than gold. Salt is cheap and easy to store, so get it!

But there’s more than salt. Spices have been traded since at least 2000 BC. And there’s good reason for it. There is a real condition that exists called menu fatigue. In other words, you can very quickly grow tired of eating the same thing day after day. Salt and spices can change the taste and flavor of anything we eat.

Take rice and beans for example. Can you imagine trying to eat bland rice and beans every day? A little salt can easily turn this simple meal into a satisfying dish that will be enjoyed, as opposed to having to choke down the nearly tasteless mass. As will other spices, which is why we should store those we use daily as well as more exotic varieties.

Weeks into an event that requires us to live off our food supply things will begin to become mundane. Imagine your simple dishes being converted with some curry powder, Old Bay (yes Old Bay, I freeze dry shrimp!), tabasco or any other of the countless spices that are so readily available. Do not underestimate the need to include spices in your storage system.

And in this line, there is yet more we need to think about. Baking Powder and Soda are both critical components that need stored. We talked about making bread earlier and if we intend to bake, we need these items. Another sundry that needs to be thought about is vinegar. This has so many uses, aside from food preservation, that it should be included. But don’t stop there.

Let’s not forget Dairy. Short of having your own cow, the only way you’ll have any dairy is to store it. Freeze dried butter isn’t hard to get. Neither is canned cheese, which would be a real treat when the time comes. Cheese can be had in either powdered forms or canned whole. Instant milk is also very inexpensive and most of the large freeze dry companies offer it.
GIVE ALL OF THESE CATEGORIES CAREFUL THOUGHT. Store foods your family already likes to eat to make the transition to utilizing your food storage easier. Get creative, food storage doesn’t have to be expensive. It can seem overwhelming in the beginning, but once you’ve established a system for building your food storage system, you will see it’s not that hard. The hardest thing about food storage is getting started. Pick a spot in any of the categories I’ve listed and get started. **YOU’RE NOW ON YOUR WAY TO A PROPER FOOD STORAGE SYSTEM.**
If you are one of those people who remembers going into grandma’s pantry and finding it filled with jars of fruits, veggies and jams, you are probably wondering whatever happened to those good ol’ days. Unfortunately, with microwave ovens, frozen meals and a faster paced way of living in general, people aren’t big on home canning anymore. It can be a time-consuming process and with busy lives, it is a skill that has been nearly forgotten.

Preppers know it is crucial to have the knowledge about how to safely can and preserve food. It can help you save money on your prepping by taking advantage of your ability to grow a garden and canning the surplus. It’s a quick, inexpensive way to bolster your stockpile. Buying in bulk is one way to save money and can bump up your stockpile with very little monetary investment.

It can also prove to be useful after a major disaster. Imagine life after a disaster and you need to be able to preserve your food for a long winter. Remember, you won’t have a grocery store to run to in the middle of December. It’s going to be whatever you have in your stockpile or what you can save from summer crops.

CANNING IS FAIRLY EASY. THERE IS AN INITIAL INVESTMENT TO GET THE RIGHT EQUIPMENT. YOU CAN BUY SECONDHAND AND SAVE A BOATLOAD OF MONEY.
EQUIPMENT FOR CANNING

There are some absolute necessities that you need and a few extra tools that can make the job easier in general.

PRESSURE CANNER—this is an absolute must-have to preserve vegetables, stews and meats. The temperature needed to kill all bacteria and safely store food cannot be achieved without a pressure canner.

JAR TONGS—not an absolute necessity, but they do make the process safer to add and remove jars.

WATER CANNER—helpful, but not a requirement. A water bath canner is essentially a large stockpot with a rack on the bottom. You can buy a rack separately and use your own large pot.

JARS—must have. You can certainly buy used, which is great. Jelly jars and other used jars may not be suitable for canning. They need to have the right size “mouth” that will fit the lids you will need to buy. Wide-mouth jars are ideal for things like meats, stews and larger food items. The wide mouth makes it easier to pack and easier to pour out when you’re ready.

BANDS—must have. They come in regular and wide-mouth. If you buy new jars, you will get bands. Buying used jars, you may not get the bands. You can buy them separately. If you have more jars than bands, a trick many people use is to go through the canning process with the bands and later remove the bands before storing the jars in the pantry.

LIDS—must have. These are sold in boxes. It is a wise idea to stock up on these now. You do not want to try and reuse lids. They are cheap enough that you don’t need to take the risk of a gummy seal being bad or some kind of bacteria being harbored on the lid.

JAR LADLE—when you are dealing with soups or jams, this is going to save you a lot of hassle and prevent liquids from spilling all over your counter.
Canning is a lot like cooking. Everyone has their own way of flavoring their food. That part is up to you. You can experiment with some of your own recipes or keep it simple with nothing more than plain water. There are some canning basics that everyone needs to follow to ensure the safety of the food you put on your shelves.

1. Have all of your supplies in the kitchen before you ever start the canning process. In many cases, the recipes have strict timing requirements. You can’t run to the store to get sugar or lids. Inspect your jars and look for any stress cracks. Once those jars go in the canner, the stress cracks are going to be exaggerated and there is a good chance the jars will break, ruining the food you are trying to preserve.

2. Disinfect your jars and bands by boiling them in water. Set them aside so they are ready to go.

3. If you are canning fruits and veggies, pick the best of the best. They should be almost ripe or right at ripe. You don’t want anything that is soft or on the verge of molding. You do NOT want to put that into your jars.

4. Go through the process of cleaning and hulling your produce. You’ll need to complete the blanching process which is essentially killing any bacteria on the produce, but not actually cooking the food by boiling it in plain water.

5. Add your fruits, veggies or whatever soup, stew or meat you are preserving to your jars.

6. Use a damp towel to wipe off the lids. The rim of the jar has to be clean to allow the lid to properly seal.

7. Place a clean lid on the jar and screw on a band.

8. Fruits and jams can be put into a water bath canner and processed for about ten minutes. All other food items will need to be processed in a pressure canner. Processing times depend on the food. You can expect times to range from about 40 to 60 minutes.

9. Once the processing is done, use jar tongs to remove jars from canner. Place on the counter and allow to rest. You’ll probably hear some popping sounds as the jars cool. This is a great sound and means the jars are sealing.

10. Check the seal on the jars by pressing on the lid. If it bounces, it didn’t seal. It should be sucked down. It can take a full twenty-four hours for the jars to seal.

11. Label your jars by writing on the lids or adding a label to the jar itself.
Canning is a great way to save money while giving you complete control of what your family eats. You’ll have the option of selecting the best produce and flavoring the foods the way your family likes.
The advent of the personal freeze dry machine has changed home food storage in a major way. No longer are we relying on the big freeze dry companies to package our long-term foods for us. Now, we can do it at home and control just what goes into our food. This alone is reason enough to purchase one of these machines.

Knowing exactly what is in your food offers a piece of mind that buying prepackaged foods cannot. And it’s not just knowing what’s in the food but having the ability to pack foods your family already enjoys is another huge benefit. During times of crisis we are under enough stress. Having to exist on a diet of unfamiliar or all together foreign foods will only add to it. Being able to reach into your food storage and pull out a package of lasagna that you prepared and stored will provide comfort and a sense of normality commercially produced foods cannot.

However, having the machine isn’t enough. You’ve got to use it and more importantly, learn its limits and the nuances of freeze drying. Safety is the biggest concern. The last thing we want is to make the entire family sick from eating improperly stored and prepared food. With this in mind, be sure to follow your manufacturers instructions and recommendations. If there is any doubt about the safety of something you’ve stored, throw it out.

THE FOOD

As already stated, the biggest benefit of home freeze drying is storing exactly what you want. Take some time to consider just what you’re going to store. When it comes time to acquire the food, buy the highest quality you can find. This goes for meats and dairy as well as vegetables. You want the freshest and best quality you can lay your hands on.

Don’t forget about leftovers! Freeze drying is a perfect way to deal with leftovers. Keep this in mind and prepare meals larger than you normally might so you can put some away for later. Afterall, the machine is always there and running it means you’re increasing your larder.
**THE PROCESS**

**FREEZE DRYING IS A SIMPLE PROCESS.** Water can only exist in a vacuum in two states— a solid or a gas. The machine will freeze the food to an extreme sub-zero temp. Once the food is frozen, the rack will slowly warm the food. The ice will begin to melt and turn to water vapor which then refrees to the inside of the chamber. This process is repeated several times until all the water is removed from the food.

When it comes time to get down to work, always observe proper food handling measures. Avoid cross contamination to prevent issues. For this reason, I try not to do meats and veggies in the same run. I also avoid doing raw meats with anything that is already cooked. If, for instance, you want to run a batch of raw ground beef, don’t toss last nights leftovers in. If you feel you just can’t run the machine with an empty tray, put the cooked food on the top rack as a precaution.

Surface area is the key to freeze drying. The more surface area the product has, the faster it will dry. I’ve personally done beef that was cut a half inch thick. These steaks came out great. But most often, I cube the meat up into pieces about three-quarters of an inch. Place the food on the tray so that the pieces are not physically touching, but as close together as possible.

I prefer to slice vegetables into pieces about a quarter-inch thick. And any vegetable can be freeze dried. I’ve run carrots, spinach, potatoes (these dehydrate nicely as well) asparagus as well as many others. Vegetables take very well to the process and finish quickly. Fruits can be tricky. We’ve probably all had freeze dried pineapple. But I have yet to turn out a good batch. There is a learning curve and you will have to figure out the tricks to your machine. Most fruit has a lot of water in it and it can take a long time to get the fruit completely dried. When the machine says it’s done, open it and check a piece. If it doesn’t snap like a dry twig, it’s not dry enough. You’ll have to run another dry cycle.

Meats take to the process at different levels. Almost all cooked meats will quickly dry and are rather straightforward. Raw meats however, take a little learning. Personally, I’ve found raw chicken takes quite a bit of time to get dry. Just check the largest piece in the batch for dryness. If it bends or seems spongy, run another dry cycle.

Other items like lasagna or cooked spaghetti take very well to the process as well. These are the easiest foods to preserve and prepare as well. Foods like these can quickly be rehydrated and prepared for a fast, fulfilling meal. Almost any meal your family enjoys now can be processed and stored.

As you begin your journey into freeze drying, you’ll learn a number of tricks that will speed things up and make a better finished product. One of the best ways to speed the process up is to pre-freeze the food. Load it into the tray and place the tray into the freezer. Give the food a few hours to freeze and start your machine. Once the temp is down in the chamber, transfer the trays of food to it and close it up. This will dramatically cut down the time it takes to complete a cycle.

The absolute most critical part of the process is when the machine finishes a cycle. You need to be there when it completes. When the cycle completes, the food itself will not be cold, it’ll be warm from the drying process. If you leave it too long it will start to freeze again and if you remove it, this cold food will condense and pick up moisture from the air. If this is the case, you will have to run another dry cycle.

### THE FREEZE DRYING PROCESS DIAGRAM

**Vacuum / Vapor / Dry**
- Once the food is frozen, the dryer creates a powerful vacuum around the food. Then, as the food is slightly warmed, the ice transitions into vapor and is drawn out of the food.

**Food in & Frozen**
- Fresh or cooked foods are placed in the dryer where they are frozen to -40°F or colder.

**Sealed**
- The freeze-dried food is sealed in moisture-and-oxygen proof packaging (e.g., easy close bags) to ensure freshness until opened.

**Just Add Water**
- When water is added to the food it regains its original fresh flavor, aroma, texture, and appearance.
Once the food is done remove the trays. Take the largest piece of each kind of food processed and test it for dryness. The piece should snap like a dry twig. There shouldn’t be any bending, the piece should not feel spongy or pliable at all. If the food breaks with a crisp snap it’s good to go. Now it’s time to package.

You can store your food in jars or mylar bags as you would anything else. If you’re using jars, you can vacuum them down and add desiccant packages as well. You can also use conventional vacuum bags. Just follow your normal process. It’s important to keep in mind that moisture is the greatest enemy to your recently dried food. With that said, oxygen and light are also the enemies of food storage so take the necessary precautions.

Now that your food is processed, you’re not done yet. You need to address the maintenance of the machine. It is best practice to drain the oil from your vacuum pump after each use. You can then filter the oil and put it back in, or you can replace it with new oil. When the system is running, the pump will pick up water and this finds its way into the pump. The water dilutes the oil and can also rust internal parts. It’s very important to get this done immediately after the process is done.

I use a filter to clean my oil. When the process is complete, I drain the oil into the top chamber of the filter. It will filter into the bottom chamber very slowly. This takes quite a bit of time to complete. To speed things up, I refill the pump with new oil. Once the oil in the filter was done, I pour it into a clean jar. Then, I drain the pump into the filter and pour the previously filtered oil back into the pump. Now, I am able to keep the pump going.

There will be a little oil loss to the filter so it’s important to have a jug of oil on hand to top off the pump. This is the most critical step in the maintenance of the system. There are in-line filters you can add. I had one for a while. But forgetting to turn one of the valves and starting the pump caused the front seal of the pump to rupture. It blew oil all over the kitchen, even the ceiling. It was then that I decided to use a manual filter. This takes more time, but there’s no chance you’re going to ruin your pump. With this in mind, it’s a good idea to keep some spare parts on hand for your pump. Check with your pump manufacturer for the appropriate parts.

Having your own freeze dry machine can greatly increase your ability to store high quality food. You will be in total control of what’s in the food you store. You’ll be able to store the foods your family like to eat and most importantly, ensure there are no allergy issues. Food is freedom and having the ability to freeze dry your own food offers you a significant level of security.
For those who regularly enjoy the rich and complex flavors of smoked foods, you already know how delicious they can be. But did you know that the technique of smoking food has more to do with food preservation than it has to do with taste? Exposing food to smoke can certainly improve the flavor of the food and change the color, but the things that really matter are the drying action of the smoke and the numerous antimicrobial compounds in the smoke. Smoking has allowed our ancestors to better preserve their meat and fish since prehistoric times, and it still works great today. Here’s how you can join this age-old tradition.

**UP IN SMOKE**

Smoke is the result of incomplete combustion, often created by attempting to burn tree bark, damp wood or pieces of fuel that are too big for the amount of heat your fire is producing. It’s also important to note that all smoke is carcinogenic (a cancer causing agent). But despite that unappealing health hazard, smoke can create wonderful flavors in food, and it can make your food last much longer than the same food that was not bathed in smoke. The chemical constituents in smoke are numerous and diverse. They will also be a little different based on the different fuels you might burn. In general, compounds like formaldehyde, phenols, carbonyls, acetic acid, other organic acids and wood alcohols float up through the smoke. These compounds create the signature flavor of smoke, and most of them show antimicrobial effects. This means that smoke is antibacterial; it also prevents fungal growth; and it can even inhibit viral activity. Many common food-borne pathogens like Listeria monocytogenes, Salmonella, pathogenic Escherichia coli and Staphylococcus are killed or weakened by these smoky substances. Of course, our ancestors had no idea about microbes or the chemical compounds that kill them. The old timers just observed cause and effect. Smoked meat and fish didn’t turn rotten as quickly or make people sick as often as air-dried meat and fish.
PICK A METHOD

There are two main ways that foods are smoked, with a hot smoking process and a cold smoking process. You can do either process on the same food, with the same smoke – the only real difference is the amount of heat that accompanies the smoke.

HOT SMOKING

Hot smoking involves more heat than cold smoking, enough heat to actually cook the food. With this style of smoking, you’ll use a closed area to hold in the smoke and the heat. For example, if you turned a shed into a “smoke house,” you could burn your smoke producing materials inside the building to generate temperatures in excess of 150F. The heat cooks the food and opens up the tissues for a faster smoke absorption (than cold smoking). The food is cooked by the heat and flavored by the smoke. Salt cured hot smoked fish, pork, sausages, fowl and red meat can last a week or more at room temperature – and the work of hot smoking can be complete in one day. Photo to right.

COLD SMOKING

Cold smoking happens when you force cool smoke into an enclosed area with the food for several days, up to one week. This method is performed for long term food storage, and it’s really more of a drying process than a cooking process. The temperature should never exceed 100F inside the smoker (since this would actually cook the food). Photo below.
You’ll need two things (besides your food) to do a hot or cold smoke process. You’ll need an enclosed space to hold your food and smoke, and you’ll need smoke producing fuels.

THE BOX

A smoke box can be almost anything. In colonial times, up until the 1900’s in rural areas, smoke houses were common fixtures on American farms. These were simply sheds that were tightly constructed, places where the smoke would stay contained and meat could be hung. The best smoke houses have a stove outside and stove pipes that bring the hot smoke into the smoke house. But, building a dedicated smoke house is a bit much for today’s survivalists and homesteaders, so start with something smaller. Virtually any box, container or tiny shed can become a smoker. I’ve had happy results in hot smoking using repurposed appliances (like old ovens) and satisfactory results in cold smoking with large cardboard boxes. To use an old oven (outdoors), you simply throw some embers and smoking material in the bottom, place your food on the racks and close the door. For something more elaborate, cut a hole in the bottom of the oven and put your embers and wood in the metal drawer underneath the oven. Since ovens can handle the heat, you could perform hot or cold smoking in this unit. Simpler still, a giant cardboard box or crate can be used for a fine cold smoker. Set it up on bare dirt by cutting out the bottom of the box or leaving it open on the bare ground. Build a rack that will fit inside the box, or poke sticks or metal rods through the box to make a food rack. Cut a flap in the side of the box for a door, and place a pan of embers and wood chips on the dirt floor inside the box. Replace the embers and wood as needed. As long as smoke is being produced, you’re doing it right.

THE SMOKE

I usually start a smoking fire by burning a little oak or some other hard wood to create a bed of coals, then I’ll add chunks or chips of smoking wood to create the needed smoke. Today, you can buy smoking chips at many stores, or you can chop your own chips with an axe or machete. Just soak them in water before burning, so they produce smoke instead of flames. Hickory and maple wood are favorites of mine, producing rich flavors. Fruit woods like apple make a sweet smoke that works well for pork and poultry. Mesquite wood produces a spicy earthy flavor in the smoke, and oak gives a strong and biting smoky taste. If you’re cutting your own chunks and chips, make sure you avoid any local species that are toxic. You’ll want to skip black locust, yew, buckeye, horse chestnut, rhododendron and mountain laurel. It’s also best is you skip the tar producing resinous woods like pine, cedar, cypress, spruce and other needle bearing trees.
PREP YOUR MEAT

Hunks of meat (such as beef, pork and venison) are usually left whole, making their prep for smoking relatively easy. Hang them on a hook or lay them on a rack and hit them with enough heat and smoke to match your intended product. When preparing fish, your cuts will depend on the type and size of fish. Smaller fish can be gutted and smoked whole, while larger fish should be cut into smaller pieces. This gives you more surface area and allows the smoke to penetrate deeper into the fillets and cutlets. Cut larger fish, like salmon, into “U” shaped steaks. These “horseshoe” shaped pieces can be hung on hooks or a pole inside your smoker. Medium sized fish can be filleted and left with the skin on, then placed on a rack (skin side down). Smaller fish, like trout, can be cut along each side of the backbone – leaving the tail attached – but removing the spine and head. This leaves you with two filets, connected by the tail – perfect for hanging up on a rack or pole! Any of these foods can be brined or salted prior to smoking (and most of them should be, they’ll last much longer).

FIRE IT UP

You’ve rigged up some kind of smoke box, cut up your meat and prepared your embers and smoking material – now it’s finally time to start smoking. Place your embers and damp wood chunks inside the smoker, along with your food. If possible, place a thermometer inside the smoker for occasional temperature readings. Better yet, use a thermometer that can leave the gauge outside of the smoker but put the probe inside. For example, poke a meat thermometer through the wall of your cardboard box smoker. You can read the dial without opening the box (which would cause loss of smoke and heat). The length of the smoking time for cold-smoked foods will be much longer than hot-smoked foods. Cold smoking is cool enough that the interior food temperatures don’t exceed 100F (at least not for any significant period of time). Keep the amount of embers low, and replace them often for cold smoking. This is a lot more work than hot smoking, since cold smoking may several days or a week – but it’s best for long term food storage. Hot smoking is done with more embers and a pasteurization temperature is reached, cooking the food. In either case, a combination of salt curing and smoking will be your best bet to create stable food that will last for many weeks at ambient temperatures.
In other articles, we have talked about inventorying your food, and other supplies. In this article we will discuss some ideas for storing.

Storing food is going to depend on the packaging of the food. Glass jars and canned food are going to require different storage needs than freeze dried or dehydrated pouches. #10 cans will need different storage than regular cans. We also need to consider the need to rotate stock, first in-first out. If we have cans stacked 15 deep on a shelf, this can be difficult.
COMMERCIAL CANS

Not all cans are the same, there are at least 15 different can sizes used in the American canning industry.

<table>
<thead>
<tr>
<th>Traditional name</th>
<th>Capacity in fluid oz.</th>
<th>Dimensions in inches</th>
<th>Can industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>202</td>
<td>4</td>
<td>2⅝ by 2⅝</td>
<td>202 by 214</td>
</tr>
<tr>
<td>Tall 202</td>
<td>5</td>
<td>2⅛ by 3</td>
<td>202 by 308</td>
</tr>
<tr>
<td>8-Z short</td>
<td>7</td>
<td>2 11/16 by 3</td>
<td>211 by 300</td>
</tr>
<tr>
<td>No. 1</td>
<td>10</td>
<td>2 11/16 by 4</td>
<td>211 by 400</td>
</tr>
<tr>
<td>Tall nu. 1</td>
<td>12</td>
<td>2 11/16 by 4 15/16</td>
<td>211 by 413</td>
</tr>
<tr>
<td>300</td>
<td>14</td>
<td>3 by 4 7/16</td>
<td>300 by 407</td>
</tr>
<tr>
<td>303</td>
<td>16</td>
<td>3 3/16 by 4⅛</td>
<td>303 by 406</td>
</tr>
<tr>
<td>Short no. 2</td>
<td>14</td>
<td>3 7/16 by 3⅛</td>
<td>307 by 306</td>
</tr>
<tr>
<td>No. 2</td>
<td>19</td>
<td>3 7/16 by 4 9/16</td>
<td>307 by 409</td>
</tr>
<tr>
<td>Tall no. 2</td>
<td>24</td>
<td>3 7/16 by 5 9/16</td>
<td>307 by 509</td>
</tr>
<tr>
<td>No. 2½</td>
<td>28</td>
<td>4 1/8 by 4 11/16</td>
<td>401 by 411</td>
</tr>
<tr>
<td>No. 3</td>
<td>32</td>
<td>4 ⅛ by 4⅛</td>
<td>404 by 414</td>
</tr>
<tr>
<td>Tall no. 3</td>
<td>46</td>
<td>4 ⅞ by 7</td>
<td>404 by 700</td>
</tr>
<tr>
<td>2 lb coffee</td>
<td>66</td>
<td>5 ⅛ by 6⅛</td>
<td>507 by 608</td>
</tr>
<tr>
<td>No. 10 (same as 3-lb coffee can)</td>
<td>105</td>
<td>6⅜ by 7</td>
<td>603 by 700</td>
</tr>
</tbody>
</table>

This doesn’t make it easy for shelf spacing, stacking or other storage systems.

https://sizes.com/home/cans.htm
The traditional way of storing is shelving. A lot of times shelves in your cupboard will hold a number of cans, but sometimes the construction may not take the weight so make sure your shelving is well constructed otherwise you might have a mess to clean up, especially if you are dealing with canned jars.

If you buy commercial shelving, buy the industrial kind, steel shelves are best. The plastic kind will bow even with books on. Heavy shelving is commonly available in large box stores like Costco, Home Depot, etc. This kind of shelving is good if you have space in a garage or spare room. The disadvantage with this kind of shelving is that it’s a little more difficult to rotate stock.

I’ve seen some really great floor to ceiling homemade shelving built into larders.

Shelving, especially free standing, **MUST** be secured to a wall, and especially if you live in any area that has the potential for earthquakes. In addition to securing to walls, you should also have something to keep jars and cans on the shelf. This could be elasticated cords or a wooden slat high enough to stop items falling. If you have small children, be aware that shelving looks like a climbing frame, so securing it to a wall is a must.
**WALL RACKS**

A wall rack allows you to take advantage of wall space that would otherwise not be used. There are commercial wall racks available, but some will only hold a few cans. There are also designs on the web to build your own wall racks. Wall racks are designed so that you can load cans from the top and take them from the bottom. You may have seen something similar in some grocery stores, especially with a specific brand of canned soup. The advantage in building your own is that you can accommodate some of the different sized cans. These are fairly easy to make but you do need to make sure that you have them secured to wall joists or studs.

The biggest advantage in building it yourself is you can make them to fit the space you have, whether it’s floor to ceiling, above another cabinet, one can deep or several cans deep.

Another type of wall storage I recently saw, and I think was homemade, holds canning jars by the rims. This would need significant support at the wall and this design hold only 3-deep and I doubt you could hold more. While I don’t think this is useful for long term storage, it might be useful in a pantry.
**BINS AND BOXES**

Bins and boxes are useful for packages, such as freeze dried or dehydrated food. Plastic bins with sealed lids allow you to store items that either come is smaller packages, or just don’t stack well. Your selection of bins, or boxes, needs to consider the potential for water damage (leaking roof, water pipes, etc.) as well as whether there might be an instance where you need to move it. I’ve found most of the clear bins, while great for seeing what is in them, are not as strong as some black bins I’ve found in the box stores. Size is also a consideration; you don’t want to pack so much in it that you can’t lift it. Bins should also be labelled. If everything in the bin is the same, then you can label it with that item; if it’s mixed, then a letter or number designation, with a corresponding list (should be part of your inventory method) can help keep track of contents.

When stacking boxes, consider what they are designed to take as vertical weight. While the sides may be strong sometimes the lids have a limit and you will find that if you stack too high, the bin will cave in on the bottom. If you are stacking them on top of each other, rather than on a shelf, place 2x4’s across the lids of several bins, then stack the next set on top. This spreads the weight and puts it on the rims rather than on the lid, which tends to be thinner. This especially goes for the 5-gallon pales or buckets.

Some items, such as large bags of toilet paper, can usually just be stacked on a shelf. However, as mentioned above, if there is ANY chance that water or other moisture, including broken jars, could come into contact with paper products you might want to store them in a plastic bin.

**MYLAR BAGS**

Many of us move 50lbs bags of beans, rice etc. into smaller 1, 2 or 5-gallon bags. Some of us pack the smaller bags into a 5-gallon bucket, or the whole 5-gallon mylar bag in a bucket. One reason is easier storage and portability, as mylar bags are slippery and don’t stack well. As mentioned above, you can stack the bins or buckets on sturdy shelving, or on top of themselves but use wooden beams between each stack.

**CANNING JARS**

Many times, you can repack jars into their original boxes. If you cut a slit in the plastic to remove them for use you can repack them and leave a significant portion of the plastic in place to help keep them in place.
#10 CANS

The large #10 size cans, coffee cans, tuna cans etc. are a little more difficult to store, as you usually find that the construction of the can doesn’t make them easy to stack.

If you get the canned items from the Home Storage Center of the Latter-Day Saints Church, you can get the boxes that are designed to hold six #10 cans and they stack very well. Otherwise, you will find you might be able to stack two or three high without risk of them falling over. If you are good with wood, you could construct a shelf with sides high enough for three or four cans and one wide, this would keep them from falling over. Again, make sure your shelving can support the weight.
LIMITED SPACE STORAGE

If you live in an apartment, you will have very limited space to store food, so you must become innovative. Under bed storage is one option. Raising the bed will give you more space, however make sure that it's stable.

Another option is self-storage lockers. In most areas of the country, you will want climate controlled to make sure your stored items are protected from heat as some of those lockers can get over 100 degrees or more, which is not good for most stored food.

As mentioned in one of the other articles, make sure you have an inventory of what you have, and where it’s at. This will help you rotate stored food as well as plan what to buy.

While mentioning heat, be aware that most items keep longer if they are stored in a cooler environment, this is especially the case with medications.

FINAL THOUGHTS

Serious preparedness means having food and other items for your family for a year, or more. This requires being innovative in storing. If you use a garage, monitor the temperature, as while it can provide a large amount of storage space, you do need to keep it cool.
For the greatest efficiency in foraging, you’ll want to focus on the most nutrient dense wild foods—namely seeds and tree nuts. These nutritious foods contain more fat and protein than most other wild edibles and they are key players for high calorie meals in the wild. When properly prepared, most of them even have a good taste and when these foods are abundant, survival gets a whole lot easier.

Just remember: if you’re not 100% certain that the plant you found is edible, don’t eat it! The wrong nuts or seeds could make you very sick (or even kill you).

And if you’re using any medication, consult with your doctor or pharmacist before foraging. Some plant compounds could interfere with your meds.
FOCUS ON TREE NUTS

Weighing in as our most calorie dense wild food, tree nuts offer the biggest “pay day” when it comes to foraging. Under the right conditions, just a few minutes of gathering and a short period of shelling will provide a person with all the food they’d need for a whole day. Some nuts can be eaten as soon as you shell them (like hickory, walnut, pine nuts and hazelnuts), while other nuts (like acorns) need to be processed by soaking. Whichever edible nuts you are lucky enough to find, they are all packed with the protein, fat and carbohydrates that are needed to sustain a survivor.

Keep in mind, however, that there are a few “bad nuts” out there. Several native species (the buckeyes) and one non-native species (the horse chestnut) have toxic nuts. Learn the difference between alternate and opposite branching, and you can avoid the bad nuts since they are the only ones with opposite branching. The edible nuts in North America come from alternate branching trees.

Once you’ve identified that you are looking at an edible species, the nuts are typically ready to eat when they are fully formed on the tree. For most species, this is when the nuts start to drop off the tree in the early fall. Depending on a number of factors, these edibles may continue to be edible through the winter and into the spring. But even when the species is right, discard any nuts that seem rotten, moldy or possess a fermented scent. The nut meat inside the shell should look and smell appealing (and have the correct internal structure for that species).

BEECH NUT: The beech tree (Fagus grandifolia) is native to the eastern United States and extreme southeast Canada. Look for these smooth barked trees in mixed woodlands. Their nuts are small 3-sided seeds in prickly husks. These nuts have 164 calories per ounce, 10 grams of carbohydrates and 2 grams of protein. You’ll have to hurry to grab this valuable wild food resource. The squirrels seem to love these more than any other tree nuts. Beech nuts can be shelled and eaten raw. Numerous American Indian tribes, such as the Potawatomi, traditionally ground the roasted seeds into flour.
**PINE NUTS:** Pines (the genus Pinus) are naturally found in the mountains and open woodlands throughout North America, Europe and Asia. Pines can be differentiated from similar trees by the needles. Spruce and fir trees grow solitary needles on their twigs, while most pine needles grow in clumps of two to five needles. Pine provides several survival staples, the most important of which is pine nuts. 100 grams of pine nuts have approximately 640 calories and 10% of your daily potassium. That’s not all you can consume. A spoonful of chopped pine needles can be steeped in a mug of hot water for 10-15 minutes to make pine needle tea, which is a Vitamin C powerhouse (one serving containing as much as four times your daily requirement). This tree can also provide pine bark flour, which was used as a starvation food in historic times. To make it, shave off the outer layers of bark (cut off the grey stuff and any green layer you find under it). Then slice or scrape off the rubbery cream-colored layer of bark that lies right next to the wood. Dry the strips until they are brittle and do your best to grind them into flour. One pound of this flour has roughly 600 calories of carbohydrates. This was historically used to extend the food supply of settlers and provide emergency food for Native peoples.

**Caution:** Women who are (or may be) pregnant shouldn’t drink pine needle tea from any species, as it may be abortive. And everyone should avoid the tea from loblolly pine in the eastern U.S. and the ponderosa pine in the American southwest. Recent studies suggest that they may be somewhat toxic.

**HICKORY NUTS:** Found throughout Asia and North America, hickories are deciduous hardwood trees that grow alternate compound leaves. Their nuts have a “double” nut, meaning that an outer husk that peels off with a hard inner nut shell inside. Be careful that you don’t collect any buckeye nuts with your hickories. These have a double layered nut shell like hickory, however buckeyes are toxic. Furthermore, hickory nuts have a multi-chambered inner nutshell (like a walnut), while the dangerous buckeyes have a solid nutmeat (like an almond). The nut meat of hickory nuts is the most calorie dense item on our list. A single ounce of hickory nut meat contains 193 calories, plus several minerals. Most species have a flavor reminiscent of pecan, the most famous hickory species. These high calorie nut meats can be eaten raw, right from the shell. Hickory nuts have also been cooked into porridge with water. A few species do have bitter nuts, which aren’t harmful to eat but are generally too bitter to tolerate.

**BLACK WALNUTS:** Growing throughout the eastern half of the lower 48 states, black walnuts (Juglans nigra) provide food, medicine and more. The nuts are easy to identify, looking like green tennis balls when they first fall from the tree, then turning black later in the fall and winter. The nut meat contains 173 calories an ounce, with some protein, magnesium, phosphorus, copper and manganese. The butternut walnut (Juglans cinera) can also be eaten like black walnut.

**Caution:** You’ll need to wear waterproof gloves when peeling the husks off black walnuts. The juice from the walnut hulls can stain your skin—and even cause a painful skin irritation in some unlucky people.
ACORNS: Growing throughout the Northern Hemisphere, the acorns from oak trees are one of the most common tree nuts. The trees themselves are incredibly diverse and there are roughly 600 species of oak found worldwide. Some of these trees are evergreens, some are found in warmer tropical climates and some are even found in north western Africa. Oak trees have simple alternate leaves but a startling variety of leaf sizes and shapes. North America is home to the biggest number of oak species, with an unexpected diversity of 160 species in Mexico. Certainly, the wood from the trees is useful, but by far, the nut of the oak tree is the most valuable resource to a survivor. With just a little patience and processing, these tree nuts can provide a nutrient rich wild food. After removing the shells, each ounce of acorn nut meat bears more than 100 calories. The only problem is the bitter tannic acid that they contain (in differing amounts, based on species and growing conditions). Thankfully, this acid is water soluble and it can be removed by soaking the nut chunks in repeating baths of warm water, one hour at a time, until the bitterness is gone.

Caution: If you don’t remove enough of the tannic acid from your acorns (or you eat some without soaking), the tannic acid can cause nausea and digestive distress. You’ll also want to make sure that you don’t accidentally pick up any buckeyes. Once they are free from their husks, buckeyes can look similar to acorns, but unlike acorns – buckeyes are toxic and unable to be leached.
BRANCH OUT WITH SEEDS

Ounce for ounce, these plants parts are almost as high in calories as nuts, but they are usually easier to collect and prepare. You’ll find edible seeds in the summer, fall and winter seasons. Most seeds respond well to grinding, and the resulting meal (coarse flour) can be added to baked goods or boiled as porridge. You could also boil them without grinding them. Simply cook them until their tough seed coat pops open (since your GI tract probably can’t dissolve their hard outer coat).

**AMARANTH:** Several species of amaranth (the genus *Amaranthus*) can be found throughout the U.S. They all bear small shiny seeds (most of them black or tan), and this is one of the most commonly ignored wild foods. When the seeds are fully formed, they fall off the plant easily. Collect them by bending the plant tops over a large bowl and tapping the seeds head. Each cup of these nutritious seeds will contain 716 calories, 26 grams of protein, 30% of your daily calcium and almost your full day’s requirement of iron. Boil the seeds until they pop open in water or grind them into rich wholesome flour. As a bonus, the leaves are edible too. They can be eaten raw or cooked, but are very low in calories (one cup only has six calories).

**CURLY DOCK:** Also called curled dock and “yellow dock,” curly dock (*Rumex crispus*) is a non-native perennial weed which is in the buckwheat family. The large ruffled leaves give way to a 3 foot seed stalk covered in brownish papery outer seed husks. At first glance, the large wavy leaves resemble burdock, though curly dock leaves are hairless. Once formed and dry, curly dock seeds can be rubbed in the hands to remove the papery chaff, and then winnowed to separate the seeds. You can then grind the seeds into flour or cook them like a cereal grain. Once the chaff is gone, you’ll notice that the small seeds are caramel colored, shiny and three sided (like other buckwheat family members). Young, tender leaves can also be eaten, raw or cooked and the root can be a source of medicinal tannic acid (though it is not edible).

**PLANTAIN:** This global lawn weed is a low growing plant that is found almost everywhere. It is an annual herbaceous plant with pronounced parallel veins on smooth “rubbery” feeling simple leaves. If you tear a mature leaf, you’ll often see the stringy fibers that hide inside those parallel veins. The green seeds of this plant grow at the top of a slender seed stalk, and they can be eaten raw or cooked. These seeds are high in B vitamins. Some people even claim that consuming them will act as an internal bug repellent (I have not enjoyed this alleged benefit). Tender, young leaves can be eaten raw or cooked, and older leaves are best when boiled as a cooked green. It’s also important to note that even though the seeds are valuable, the crushed plantain leaves are one of the best plant remedies for venomous stings and bites from insects and arthropods. Crush the leaves until the juice comes out and place the mashed leaves directly on the bite or sting. Keep them in place until the pain and swelling are relieved. English plantain (*Plantago lanceolata*) and seaside plantain (*Plantago junceoides*) can be used just like common plantain (*Plantago major*).
**LAMB'S QUARTERS:** This herbaceous plant (Chenopodium album) is found globally in fields and farming areas. It can grow fairly tall for an annual (up to six feet), or it can be a small plant. You may also hear it called goosefoot or pigweed (which is also synonymous with amaranth, though they are not related). But like amaranth, lamb's quarters plants will bear small, shiny black seeds in seed heads at the top of the plant. These are easy to remove when ripe, by shaking them over a large bowl or in a paper bag. Each large plant can produce tens of thousands of seeds in late summer. These seeds contain protein, vitamin A, riboflavin, calcium, phosphorus, manganese, and potassium. You can also collect the tender, young leaves for a salad or cooked green. You’ll need a lot to cook them, however, since the leaves cook down in volume significantly (like spinach).

**WILD RICE:** Growing in the marshes and wetlands of North America and China, wild rice (Zizania spp.) grows happily in shallow water, less than one yard in depth. There are several species of wild rice that are edible to humans. The largest can grow up to nine feet tall with leaf blades that are up to four feet long. North American wild rice is not directly related to Asian rice (Oryza sativa), but it has similar nutrition. Three and a half ounces (100 grams) of uncooked wild rice contains 101 calories, several B vitamins, iron, potassium, magnesium, phosphorus and manganese. Traditionally, wild rice is collected from canoes that are paddled underneath the rice seed heads. The seed heads are then tapped with a stick and the rice will fall into the open canoe.
The success of a garden hinges on a lot more than putting the right seeds in the ground and hoping for the best. There are many factors to consider when it comes to thinking about how you will provide enough food for your family today and in a world when grocery stores and other modern conveniences are not an option. A garden should provide enough food for you to eat when it is in season as well as extra for you to preserve to eat during the winter.

Your garden isn’t necessarily going to be your only food source. However, it is going to be your main source of fresh food that contains vitamins and other necessary nutrients that your body is going to need to stay healthy. Fresh fruits and veggies can keep up your immune system and prevent you from getting every little virus that comes around. This is going to be critical to your long-term survival in a world where medical care is not readily available.
THE FOLLOWING EIGHT TIPS ARE WHAT YOU NEED TO BUILD YOUR OWN SUCCESSFUL GARDEN.

1. PLAN THE RIGHT LOCATION

Your garden is going to need plenty of sunlight. When you are looking at your property trying to determine where to put in the garden, you need to evaluate the area for a full day. Check the area in the morning, midday and again in late afternoon. Identify any areas where there is shade. If the garden isn’t bathed in sunlight for a good majority of the day, you will want to look elsewhere or consider removing the barriers that are creating the shade if possible. A little shade in the late evening is okay. Your leafy veggies will appreciate the break from the sun.

2. SOIL

Good garden soil is essential to healthy, thriving plants. You can use a test kit to see what you are working with whether the soil is acidic or alkaline. These are easy fixes and with a little animal manure or lime, you can quickly balance it out and make it perfect for your plants. You also want to know if your soil is sandy or loamy. Dig a small hole, pick up a handful of dirt and make a fist. If it blows away, it is too sandy and is going to need compost and manure to give it some substance. If the dirt holds in a firm ball, it has high clay and/or moisture content. A little gypsum and improving drainage will do the trick. Dark loose soil is ideal for the roots of your plants. Earthworms in the dirt are an excellent sign of good soil.

3. PLAN YOUR GARDEN LAYOUT

This is crucial to a successful garden. It not only uses every inch of space, but it can also be beneficial to your plants. Some plants enjoy being next to each other and sharing a space, while others will fight for nutrients and end up stunting the growth of one another. Plan based on sun exposure and make sure you don’t put corn in an area that is going to cast a shadow on the plants next to it. Plants that need full sun and those that need a little cooler conditions should be planted based on the location map you did in the first step.
4. BUY QUALITY SEEDS (HEIRLOOM VARIETIES PREFERABLY)

Buy seeds from a reputable dealer with good sprouting percentages. You can’t expect every seed in a pack to sprout and go on to thrive, but you can expect at least ninety percent or better to sprout. Read the packs and do your research online before putting out any money. Check dates on seed packs. Seeds that are a year or two past their intended planting season may not be viable. If you can, buy heirloom seeds. These seeds grow fruits and veggies with seeds that can be harvested and used in the garden next year. Yes, they cost a little more up front, but you won’t need to buy seeds again. Hybrid seed varieties will not produce fruits that seeds can be harvested and used for planting. Those seeds might sprout, but they will not produce the same kind of harvest.

5. KNOW YOUR ZONE

When buying plants and seeds, choose varieties that will grow in your hardness zone. The warm climate in Florida is going to need different varieties than up north. In some areas, it is really futile to try and grow certain veggies. You need to know your growing season. Don’t waste your time with a vegetable that takes one hundred and twenty days to harvest if you only have a ninety-day growing season. Do some research on last frost and first frost dates. A late frost can wipe out a month’s worth of growing in a single night. Only put out plants and plant seeds when you are relatively certain the frost won’t bite them. Be prepared to cover plants with sheets or plastic if there is a chance of a late or early frost.

6. WEED CONTROL

Weeds are the bane of every gardener’s existence. The darn things grow ten times as fast as a vegetable seedling and in many cases, the weeds in the garden will mimic your vegetables and you don’t realize it until the weeds have choked out your plants. The only way to stay on top of this is a visit to the garden every day for some manual weed pulling. You can help cut down on the work by using mulch and weed barriers. However, this can be expensive and isn’t a hundred-percent effective. Be wary of using weed killers that could damage your plants. Your best option is to stay on top of the weeding.
7. PEST CONTROL

These little bugs are worse than the weeds. They will sneak in and kill a crop before you even know they are there. You must be vigilant. Watch for ants, slugs and beetles and do your best to prevent them from discovering the garden. Using herbs, like mint, around the perimeter of your garden is an excellent, safe deterrent. Marigolds are another option for keeping pests away. Manually removing the bugs is an option, especially with potato bugs that will cling to potatoes and tomatoes. A plant that is being decimated by pests needs to be pulled and removed from the area right away. Birds, deer and other animals that want to feast on your garden can also be an issue. Put up high fencing and if necessary, cover with netting to keep birds from dining on your garden.

8. WATER

Obviously, every garden needs water, but it isn’t quite so simple. It requires the perfect balance. Too much water and the roots will rot. Too little water and the plants will starve. Ideally, water that is delivered directly to the roots via a drip line/soaker hose is your best option. This conserves water and keeps water from sitting on leaves and the fruits causing spots and damage. Set aside a time, late evening or early morning, to water the garden for a set amount of time. This will ensure you don’t overwater. It is important you consider rainfall in your watering routine, so you don’t overwater.

These eight tips can help you build a strong, healthy garden that will provide plenty of food for you and your family. Study companion planting to help you take advantage of your garden space. Talk to those in your area who have been successfully growing food and get tips about when to plant and typical frost dates. The locals will always be a better source of information than the Almanac.
At **SURVIVAL DISPATCH**, we want to educate you on how to best prepare for when SHTF and our YouTube page includes all the info you need.

We post a few videos every week that cover a ton of topics including EDC, reviews on the latest and greatest survival gear, food prep, COMMS, and the best survival tips from our experts on how to prepare for any SHTF situation.

Each week, we’ll send you an email recap with our latest videos so that you’ll never miss out on our new content.

**CLICK THE LINK BELOW TO CHECK IT OUT!**
Beware water treatment chemicals are dangerous, safety first! Use them in a well-ventilated area and wear appropriate PPE such as eye protection.

Instructions vary. Do your research and store instructions with treatment methods.

WHY CHEMICAL DISINFECTION?

The major public health organizations all preach that boiling water is the “preferred” emergency water treatment method. Admittedly, chemical water treatment methods do you have some drawbacks:

- Some water treatment chemicals have limited shelf lives. This varies greatly depending on the form of chemical and method of storage.
- Instructions differ from chemical to chemical which makes it difficult to remember. Concentration and contact time also vary with turbidity (cloudiness) and temperature.
- Some chemicals are less effective against parasites.
- Effectiveness can vary with pH.
- Water treatment chemicals are dangerous if used improperly.
- Some chemicals are not accompanied by adequate instructions even when packaged and marketed for water treatment.

The upsides of chemical water treatment are too great to overlook:

- Chemicals are lightweight compared to filters. This makes them ideal for inclusion in Personal Survival/Self-Recovery Kits.
- Some water treatment chemicals are multi-use.
- Filling up a heat source to boil water may not be practical, possible, or safe in an emergency.
- If the power is out, boiling water uses valuable fuel that may be difficult to replace during or immediately following an emergency.

WHY CHEMICAL DISINFECTION?

Regardless of the chemical used, follow the directions that come with the product. Treated water must be stored in a clean container. Contaminated containers must be cleaned with treated water before use. They must also be disinfected before treated water is stored in them.

Here are some general guidelines. After the chemical is added to the water, wait at least 5 minutes for it to completely dissolve unless it is effervescent. Shake or mix well. Then disinfect any canteen thread, caps, taps, closures valves, etc. Loosen caps or closures just enough for water to pass. Hold the caps or closures in place while briefly inverting or shaking the vessel to wet them. Make sure all surfaces that may come in contact with the water are coated with the treatment solution. If the vessel has taps, like a Lister bag, make sure you flush them. Otherwise the treated water may be re-contaminated by pathogens on untreated surfaces.
Some product instructions are overly simple and don’t take turbidity or temperature into account. A rule of thumb is to double exposure time for water that is cold (5°C/41°F or lower), double the chemical dose for water that is turbid, and do both for water that is both cold and turbid. The water may taste bad, but at least it will be safe. If you are in a hurry, doubling dosage cuts exposure time in half at the cost of taste.

If strong chemical taste is an obstacle to hydrating, use powdered drink mix to mask the taste. Don’t add anything until after exposure time is completed. Adding drink mix before this point will diminish effectiveness.

**CHLORINE-BASED CHEMICAL WATER TREATMENT METHODS**

Chlorine-based chemicals are widely used in water treatment plants and have been in use for more than two centuries. Use chlorine-based treatments immediately once opened. Instructions for most products may list shorter exposure times, but four hours of exposure time is recommended. This additional time is for maximum efficacy against Cryptosporidium. Chlorine concentration varies from 2-4 ppm for clear water and 4-8 ppm for turbid water, depending on the public health organization making the recommendation. Filtering water before chlorine treatment lowers the amount needed, shifting it towards the lower end of that range. Free chlorine drops substantially within 30 minutes, which is another reason to let water sit after exposure. The CDC considers residual concentrations up to 4ppm safe to drink.

Chlorine-based water treatment products typically affect taste and odor more severely than iodine-based products. However, the ability to taste and smell chlorine varies from person to person. After adequate exposure time, water treated with chlorine-based products can be aerated to improve taste and odor. Pour the water back and forth between two clean containers several times, then let it stand for several hours. The effectiveness of chlorine-based products is significantly diminished by biomatter and other debris.

One benefit of chlorine is that it can often be used by people who are iodine intolerant. Chlorine is more effective against giardia and Cryptosporidium than iodine. Although insufficient concentration or contact time, aged disinfectant, turbidity (cloudy water), cold or high pH can prevent effective disinfection depending on the product used.

**COMMON CHLORINE-BASED WATER TREATMENT PRODUCTS**

Chlorine-based products may come as liquid, tablets, effervescent tablets, or powder sachets.

**Some of the more common products are:**
- Trichlorocarbonyl Sodium or Sodium Dichloroisocyanurate (NaDCC) Tablets
- Potable Aqua™
- Aqua Mira™
- Resinet®
- Pyramid Binox®
- Usp Laboratories®
- LY-Tab®
- LY-Powder®
- Katadyn Micropur®
- Oasis®

8.25% SODIUM HYPOCHLORITE CHLORINE BLEACH SOLUTION

Same as above, but use 2 drops per quart or liter.

1% BLEACH OR BLEACH OF UNKNOWN CHLORINE CONCENTRATION

Same as 5-6% solution, but add 10 drops per liter/quart.

**CHLORINE DIoxide**

Chlorine dioxide has different properties than other chlorine disinfection products and is effective at lower ppm. Don’t store opened tablets or powder or re-pack as ClO2 reacts with air. More effective than chlorine against oocysts, Legionella, and at higher pH (above 7). If need is not urgent, waiting 4 hours will ensure maximum efficacy.

**CHLORINE BLEACH SOLUTION - 5-6%**

Chlorine bleach is multi-use and important to have on hand for hygiene. Dose 2 drops per liter for filtered water or 3 drops per quart or liter of tap water at 15°C/60°F. Shake or stir. Let stand for a minimum of 30 minutes. Double exposure time if water is cold (5°C/41°F or lower), double number of drops for turbid water. House-
SODIUM TROCLOSENE OR SODIUM DICHLOROISOCYANURATE (NaDCC)

Typically come in effervescent tablet form. NaDCC solution can also be used for disinfection of infected wounds, instruments, equipment, linen, floors, and surfaces. Tablets are tiny so they fit in the smallest mini survival kits and pocket kits.

IODINE BASED WATER TREATMENTS

Iodine shouldn’t be used by people who are iodine intolerant, pregnant, have diseases of the thyroid, or hyperthyroidism. Iodine should not be exposed to sunlight. To get rid of the nasty taste iodine impart to water, crush a tablet of vitamin C and add a little (approximate 50 mg) to treated water after exposure time has elapsed. If you add it too soon, the disinfectant process will be stopped in tracks. Powdered drink mixes containing vitamin C have the same effect.

COMMON IODINE PRODUCTS USED FOR WATER TREATMENT:

- Potable Aqua®,
- Globaline®,
- EDWGT®
- Povidone-Iodine Solution/ Betadine® Solution
- Tetraglycine Hydroperoxidide Tablets
- Iodine Tincture 2%
- Iodine Topical Solution 2%
- Lugol’s Solution® 5%
- Iodine Crystals (Polar Pure®)

POVIDONE IODINE SOLUTION 10% PREP PADS

I have seen some bad information being passed around about this. Some survival kit manufacturers will toss a PVP prep pad in and call it a water treatment method. They give instructions to add half a pad to a quart of water. The problem is that the amount of iodine in pads varies widely (from .67ml to 10ml) when new and dries out over time.

If you have to use a prep pad, wring it out into the water, counting the drops. If it didn’t have enough drops, look at the pad and judge how many drops of PVP iodine are still in the pad as best you can. It will be very few, so add the pad or a portion thereof to introduce the number of drops indicated.

2% TINCTURE OF IODINE OR 2% IODINE TOPICAL SOLUTION

Add 5-8 drops per quart, stir, let stand for 15 minutes exposure time. Double dose for cloudy water. Double dose and dose for cold or cold and cloudy water.

POVIDONE IODINE 10% SOLUTION/ BETAINE® SOLUTION

4 drops per quart, other than that, same as 2% tincture or topical solution. Povidone iodine is preferable to tincture of iodine or Lugol’s Solution® for austere medicine. This is due to greater stability and longer lasting anti-septic effect.

LUGOL’S SOLUTION® 5%

Alcohol-free aqueous solution. 4 drops per quart, other than that, same as 2% tincture or topical solution.

IODINE CRYSTALS (POLAR PURE®)

Follow instructions on bottle. Fill bottle with water and shake, then wait 1 hour. Add number of capsules indicated on bottle then swirl. Wait 30 minutes for warm water, 60 minutes for cold. 15ml solution for clear water, 30ml for cloudy.

POTASSIUM PERMANGANATE CRYSTALS OR TABLETS

If tablets, then crush and use as crystals. Add 2-4 tiny (<1mm) crystals per liter until water turns a light pink color. Wait 30 minutes.

Add crystals until darker pink for wound irrigation. Remove 1mm from the corner of an MRE hot beverage bag or plastic bag and squeeze gently to develop pressure for irrigation. Add crystals until red for canker sores & anti-fungal treatment. Add until deep red or purple for signaling on snow. Add a little glycerin and a violent exothermic reaction will occur that can start a fire if needed.

CONCLUSION

EVEN THOUGH CHEMICAL WATER TREATMENT CAN AFFECT THE WAY YOUR WATER TASTE AND SMELLS, IT IS HIGHLY EFFECTIVE AT MAKING IT SAFE. JUST MAKE SURE YOU STORE AND HANDLE IT PROPERLY. BE VERY CAREFUL TO FOLLOW INSTRUCTIONS AS IT CAN BE DANGEROUS OTHERWISE.
Aside from oxygen, water will typically be your most pressing need in any survival situation. Shelter may occasionally represent a more pressing need if you find yourself trying to cope with temperature or weather extremes, but even in these scenarios, water will become your most urgent need once you’ve satisfied your shelter requirements.

Given this, most survivalists try to store as much water as they can. This is certainly wise, as your taps may cease to function during a SHTF situation, and even if they continue to work, you won’t know if the water is safe to drink. It doesn’t take much rain to overwhelm some treatment facilities, which can result in bacteria-laden water pouring from your home’s pipes.
But, while it is a good idea to store plenty of water, you have to do so in a safe and appropriate manner. Otherwise, you may find that all of your preparatory efforts were in vain, and the water you stored has become unsuitable for drinking.

We’ll explain some of the most important water-storage principles and practices below, so that you can be better prepared for emergencies.

**WATER STORAGE BASICS**

First of all, it is important to understand that water does not “go bad” or spoil. If you put a sample of water in an inert, hermetically sealed container, it’ll last for decades. Problems only occur when water is stored in a reactive container, or it is allowed to become contaminated with bacteria, viruses, algae or other potential pathogens.

This helps to illustrate the three primary things you’ll need to keep in mind when trying to select a water-storage vessel:

- You must begin with potable, treated water.
- You must use a sealed container to prevent pathogen exposure.
- You must use a container made from a safe material that will not leach harmful chemicals into the water.
STARTING WITH CLEAN, POTABLE WATER

If you are proactive about storing water, it is very simple to obtain clean water. You can either purchase drinking water from the store or use the municipal water from your tap. Both of these water sources should be free of dangerous bacteria or other pathogens, and completely safe to drink.

However, if you fail to prepare in advance, or you have to grab your bug out bag and flee, you’ll need to learn how to make untreated water safe for drinking. There are a few different ways to do this:

USE A FILTER

Most filters will eliminate bacteria, sediments and protozoans, but some viruses may be able to slip through. You’ll have to use your judgment to decide whether this is an acceptable risk, given your circumstances.

For example, if you are trying to treat rainwater you’ve collected, the chances of the water being contaminated by viruses is pretty low. On the other hand, municipal water supplies may be contaminated with viruses if their filtering and treating processes fail.

If you are planning to treat the water via some other method, and just want to remove large particulates, a piece of clean clothing (such as a bandana) will work well.

BOIL THE WATER

Boiling will kill any pathogens lurking in the water, but it won’t remove sediments or particulate matter. Accordingly, many people will filter water first, and then boil it to kill any remaining organisms that slipped through the filter. Some people complain that boiled water tastes a bit odd, but that’s easy to remedy with a few drops of lemon juice.

DISTILL THE WATER

Distillation – boiling the water, then collecting the condensed steam—is the gold-standard for treating water. It not only eliminates all pathogens, but it will also get rid of things like salt or sediments. It can, however, be tricky to rig up a contraption to allow you to distill a large quantity of water.

If you are just trying to distill small quantities of water, consider the following trick: Tie a cup to the handle of the lid for a pot. Pour the untreated sample of water into the pot and begin heating it. Place the lid upside down on the top of the pot, so that the cup hangs directly below the handle (do not allow it to become contaminated by the untreated water). When the water boils, it will condense on the inverted lid, roll down to the lowest point and drip into the cup.

TREAT THE WATER WITH CHLORINE

Chlorine will not address any sediments in the water, but it will kill any pathogens living in the water, as long as it is used in the correct ratio. Just use a household bleach (without any added fragrances, soaps or detergents) that is comprised of 5.25 to 6.0 percent sodium hypochlorite.

Mix in 16 drops per gallon of water and let it sit for 30 minutes. It should have a slight bleach odor; if it does not, add another 16 drops of bleach and let it sit for 15 additional minutes. If this fails to produce a bleach-like odor, discard the water and find another source.
SELECTING A SUITABLE CONTAINER

There are a variety of different containers you can use to hold water, but they all have two things in common: They are made from food-grade materials, and they’re specifically designed to hold potable water. You can re-use commercial water bottles, just be sure to clean and disinfect them before use.

However, the better option is to purchase 5- to 55-gallon water jugs. These containers are made from food-grade plastics, and most are opaque, which will help prevent algae from forming inside the container.

Many people like to use the 55-gallon containers, but it is often wiser to use ten 5-gallon containers instead. The smaller containers are much easier to fill or empty, and they are much easier to transport or bring with you if you have to bail. Five-gallon containers of water are already heavy enough – most weigh about 40 pounds. A 55-gallon container of water would weigh nearly 450 pounds.

Note that you’ll need to purchase special hoses to use the water from a 55-gallon container, as they don’t offer easy access to the water in any other manner. You’ll also want to purchase hoses that are specifically designed to carry potable water, rather than simply using your garden hose.

UNSAFE STORAGE VESSELS

There are two commonly cited water storage places that you should avoid using at all costs: Your bathtub and your backyard pool.

Many people think that their bathtub is a good place to store water (most tubs hold about 100 gallons), but this is not a good idea (for potable water anyway, there’s nothing wrong with storing water in your tub for hygiene or other needs). For starters, your bathroom is unlikely to be clean, and it may even have dangerous chemical residues that could contaminate the water.

If properly maintained and treated, your pool water should actually be safe to drink, but it won’t stay that way for long. First of all, in an emergency situation, it is unlikely that the pump and filter mechanism will be operable, meaning that it will quickly become filled with sediment and pollutants. Additionally, because chlorine evaporates rather quickly, it will not remain safe for drinking unless you continue to add fresh chlorine.

HOW MUCH WATER SHOULD YOU STORE?

Most Americans are thought to use well over 100 gallons of water per day, which may make the notion of storing enough water to allow you to survive an emergency seem farfetched. However, most of this water is used for things like washing dishes, watering the lawn and laundry – things that you’ll do far less of in an emergency.

This means you don’t have to worry about storing this much water to get through most emergencies. Instead, you’ll only need enough water to satisfy your hydration needs, as well as basic hygiene.

The rule of thumb is that you’ll want to store one gallon of water, per person, per day. This will give you about half of a gallon per day for drinking and half a gallon for basic hygiene needs.

So, if you and your spouse may need to survive for one week without access to municipal water supplies, you’ll need approximately 14 gallons on hand. If you are trying to plan for a family of four, you’d need twice this much. Just remember that this is a minimum guideline for your water needs – if you have the space, it doesn’t hurt to double or triple this figure.
As you can see, storing your water properly isn’t terribly difficult. Just make sure that you address your water-storing practices now, so you won’t have to worry about water-safety issues in the middle of an emergency. Hopefully, you’ll never need your stored water. But if the need arises, you’ll want to be sure you are well prepared.
PORTABLE WATER FILTERS

Choosing a Portable Filter

I’ll just get this out of the way right up front because if you take one thing away from this article this should probably be it: Be wary of the claims made by water filter manufacturers.

First thing to do when researching and deciding on a portable water filter is to consider what your use is going to be? Some manufacturers make absurd claims about filter life, like stating that theirs will last for 100k gallons of water. I steer clear of companies who make laughable assertions about products my life depends on and recommend that you do likewise. In my opinion, it is reckless and reprehensible to tell consumers that a hollow microfiber mini filter will do 100K gallons of surface water. It would take over a year of non-stop testing. Add in backwashing, it needing to be reversed, and this filter wasn’t even around long enough when they made that claim.

CERTIFICATIONS

It is easier to trust companies that test extensively and advertise realistic results published by accredited 3rd parties. I’m a technical guy, with a high tolerance for tech-babble, but also see it for what it is. Some filter companies are getting their filters tested by little labs in far flung corners of the world or by universities with water labs you have probably never heard of. They make up high tech sounding names for “new technologies” or reference features like extremely small pore sizes. None of this means anything if the filter erodes, develops tiny cracks, or gets clogged long before it meets some theoretical end of life.

The only certifications that I can see really mean anything are NSF/ANSI and EPA standards. Anything else may just mean the manufacturer paid some lab or know somebody at a university lab.

TECHNOLOGY

Generally I’m wary of any claims of special new technology. The whole filter has to work, not just one cool feature. If it stops working, the only way you’ll know is when you get sick with a waterborne illness.

One technology especially that I would steer clear of is a hollow microfiber filter. Especially if you live anywhere with freezing weather. Even microscopic amounts of water will crack microtubules when it freezes and there is no way to tell that this has happened until you get sick.

WHICH FILTER TO BUY VS HOW TO USE IT EFFECTIVELY

Most folks focus too much on which product to buy and not enough on how to use it effectively.

If you have a sound understanding of water treatment and preventing waterborne illness, you are better off than an uneducated person with a great filter. For instance, you’re as likely to be infected with giardia from not washing your hands before eating from drinking untreated surface water. Giardia cysts are in fecal matter and they’re pretty much everywhere.
FILTER USE — A few pointers will reduce pathogens before the water ever gets to your filter which will also extend filter life.

- Wash your hands frequently with soap and water. After relieving yourself, before eating, after handling or preparing food, and before you handle your filter. Wash between fingers, the backs of your hands, under fingernails, and then dry your hands.

- Most parasites and pathogens are too small to see. The fact that water appears clean and inviting doesn’t mean it isn’t contaminated.

- The water that goes into your portable filter will impact the quality of water you drink. Mud, minerals, and biomatter clog filters and wear away at them. If you need your filter to last extra long, remove water with a bucket or basin, strain it through a couple layers of cloth, then let it settle.

- When drawing water from a natural source, don’t draw it right at the surface. The surface tension and proximity to oxygen supports greater bio-density, including all sorts of pathogens. Don’t put a filter intake on the bottom or it can suck up mud or silt. For this reason, some quality filters come with adjustable floats on the intake hose.

- If you filter from fast moving water like a river, don’t draw it from the center because the water will churn up the bottom. Draw it from a slow moving, although not stagnant, spot near the bank. Don’t get too close though because there will be more biomatter.

“FIRST VS THIRD WORLD COUNTRIES” AND VIRUS PROTECTION

At least one popular filter manufacturer seems to think that while developing nations are ankle deep in raw sewage, viruses simply cannot survive in water here in the USA. It’s true that children in developing nations are hardest hit by waterborne illnesses, but I’m pretty sure that pathogens do not respect geopolitical boundaries.

The USA is only over a pandemic, cyberatttack, EMP, nuclear conflict, or financial collapse away from being a developing nation again. So keep that in mind when you are sizing up portable filters and weighing whether you want it to kill viruses. Pore sizes in filters elements are typically too large to filter out all viruses. Filters effective against viruses typically employ some type of chemical treatment to do so. Some models have replaceable filter elements or add-on virus protection. Adding protection against viruses typically means increased cost and decreased flow rate, but this is a small price to pay if you need protection against viruses.

PORTABLE FILTERS TYPES

It used to be that portable filter users had three or four different form factors to choose from. They all used different (and proprietary) filter elements. Now filter manufacturers apply modularity to filters (which I am such a huge fan of that I pioneered the modular survival kit and still do).

You can now buy a single filter that can be used in several form factors or a specialty filter in a form factor that you prefer:

- **FILTER STRAW** — While I don’t recommend doing this in crocodile or alligator country, filter straws enable you to kneel at the edge of a water sources and drink from it. It involves sucking water through a straw-like tube. The tube can be the filter body itself or a tube connected to the input of a multi-use filter.

**PROS**
- Some models are small enough to realistically carry in your Core Layer of Survival/Self-Recovery (SSR) gear.

**CONS**
- Models small enough to include in your SSR Core Layer or Go Bag should be used alongside chemical disinfection for suspect water.

- **GRAVITY FILTER** — You fill a bladder container with suspect water and elevate it. Suspect water trickles down a hose to the filter by gravity. Then treated water flows out of the filter via an output hose into a second bladder that is situated at a lower level.

**PROS**
- You can let gravity does the work if you have time.
- You can add whatever functionality you like to some models. This can make these one of the most flexible option available.

**CONS**
- Some models aren’t all they advertise and so they fall short.

- **IN LINE FILTER** — This type of filter can be installed in a water bottle or between a hydration bladder and the drinking tube. Some models now feature a bladder that can be pressurized via a bulb pump or bladders that connect directly to the filter body. It can be pressurized by squeezing the bladder or setting a rock on top of it.

- **BOTTLE FILTER** — Just what it sounds like, a filtered water bottle.

**PROS**
- Simple to use.
- Doesn’t take up extra space if you carry a water bottle.

**CONS**
- I’ve never seen a model I would buy because the water bottles are plastic.
- Most people need a filter with flexibility and when you add accessories, this form loses its appeal.

- **MECHANICAL FILTERS** — Mechanical filter that achieve comparatively fast throughput using a manual pump mechanism. The input hose typically has a strainer, float to keep it off the bottom of the lake or stream, and can be use with a pre-filter to extend the life of the main element.

**PROS**
- Fast
- Models that add a mechanical pump to an inline that can also be used as a gravity filter and attached to a bladder offer unsurpassed flexibility.

**CONS**
- Pump and accessories add bulk.
HUNTING / FISHING
When it comes to gathering food in a survival situation, a significant component is going to be hunting. Hunting isn’t easy, but it’s a lot harder if you go with the wrong tools. Today we are going to talk the right tools. And by tools, I mean guns and calibers. I’ve chosen my top three choices, but I’ve also listed an alternative to each. Call it my way of over-delivering.
The Chiappa Little Badger is everything a survival rimfire rifle should be. It’s lightweight, super handy and folds in half. This mini rifle sports a threaded barrel for a suppressor, adjustable sights and one of the barest bone designs I’ve ever seen. The addition of Picatinny rail allows shooters to mount a simple red dot if the sights aren’t doing it for them. The rifle is as skimpy as it gets. It weighs under 3 pounds and folds into a super compact package. It comes in 22 LR, 22 Magnum and 17 HMR. For survival purposes, I’d go with the 22 LR model due to ammunition availability and how cheap 22 LR ammo is. The rifle’s design makes it perfect for the small game like squirrels, rabbits and birds on the ground. Naturally, when stomachs start grumbling, you won’t be so picky, and this gun has no issues with possums, raccoons, and other small, nontraditional food game.

The gun is hammer fired and a single shot. The simple design aids in reliability and you don’t have to worry about malfunctions. When the barrel is broken open, the ejector pushes the round upwards and makes it easy to pull out. This is a must for cold environments where you are wearing gloves. Trying to pry out teeny tiny 22 shells without an ejector is a significant hassle.

The rifle has a few downsides. First, this will never be a gun you’ll ever feel super comfortable with. There is no cheek rest, and the stock is indeed minimal. However, the almost zero recoil from rimfire rounds never makes it painful or difficult to shoot.

If you want a more “Made in America” option, the Ruger 10/22 has long been the standard in which semi-auto 22s are built. These robust little guns have been around for decades and come in every make and model you could ever dream of. For survival, I’d suggest the Take-Down variant. The Takedown variant allows you to remove the barrel from the receiver and store them separately. This makes it a small package that’s relatively easy to fit in small places.

Ruger is now producing 15 and 25 round capacity magazines that are extremely reliable and just as robust as the guns. These magazines give you a substantial amount of firepower, and, in a pinch, could make the Ruger 10/22 a defensive weapon. It’s not optimum for defensive use, but it works.

As a hunting rifle, it covers all your small game needs and does allow you to take a quick second shot if you need it. Because these rifles are so popular, there are also endless options to customize the gun to your liking. It’s much easier to add an optic than the Chiappa and is a lot more comfortable to shoot. Of course, it’s also bigger and bulkier.
The Mossberg 500 is America’s shotgun. The gun has been pumping out of New Haven since 1960 and has been used by hunters, trap shooters, police officers and Marines. This pump action shotgun is well proven for getting game of all kinds. Taking advantage of shotgun ammo versatility will allow you to take ducks in the morning and deer in the evening. The Mossberg 500 is a pump action shotgun that has a capacity of anywhere from 3 to 9 rounds depending on the option chosen. Barrel length can also range between 18.5 to 28 inches on conventional models.

The benefits of a pump action are numerous. As a repeating firearm, it’s very quick to reload, and since it’s manually operated there is less room for failure. Another benefit to a manually operated gun is that it can handle any light loads or reduced recoil loads without stuttering.

I’d recommend something in the middle or even go with an 18.5-inch model. You’ll lose sight radius, but have a more compact package. If birds are a significant source of food for you, then a longer barrel may be a better option for taking the swing and follow through needed for bird hunting.

The Mossberg 500 uses an aluminum receiver that helps reduce weight, and the lighter models can weigh only 7.5 pounds. The Mossberg 500 can even be easily converted into a slug gun with a rifle’s barrel, and cantilever scope mount as well a black powder muzzle loader with a simple barrel swap. The gun is another model that can be converted and customized to an insane degree.

If I could only choose one caliber and weapon for hunting when SHTF, it would be a 12 gauge. I have my own bias, and I live in the swamps and not the mountains, so that plays a role too. The round is insanely versatile and can be used to kill bear, deer, as well as birds and squirrels. 12 gauge is a powerful close-range round that is also incredibly common and easy to find. Downsides include a short effective range compared to a rifle, sharp recoil and heavy ammo.

The single shot shotgun is an efficient choice for a survivalist looking to either trim weight in his packet or keep the weight in his wallet. Any half decent sing shot will work, but I know for a fact the H&R Single shots are well-made, affordable and available. I like the Pardner model and find it to be robust and dependable.

This gun rocks a 28 or 32-inch barrel, but because it’s a single shot it’s only about 43 inches overall. It’s also lightweight at only around five pounds. With the lack of a pump, a magazine tube and big receiver, the gun is svelte and doesn’t take up much room. It’s easy to strap to a pack and forget about.

As a single shot, it can eat everything, from your standard 3 inch magnums to those tiny Aguila Mini Shells, without issue. These are rugged and straightforward guns that are perfect for hunting. When combined with shell inserts you can even convert the weapons to fire 20 gauge and 410 safely. If you aren’t planning to use the shotgun defensively, then the H&R Topper is an excellent choice.
When it comes to rifles, you have hundreds of different calibers. The 308 is my choice for a few reasons. First, it is a powerful round that can reach out and touch a target. It excels with medium to even some large game, and it’s super common. New cartridges like 6.5 Creedmore are great but haven’t reached the same level of commonality as the 308. The 308 Winchester is a game-getter, and there are plenty of affordable FMJ and purpose-built hunting rounds floating around.

The AR-10 is the big brother to the AR-15. This full powered semi-automatic rifle is magazine fed and is an outstanding hunting rifle. One of the benefits of this platform is it could be a great defensive weapon as well. A good number of companies produce AR-10s, and the DPMS models are some of the most affordable, but I have a preference for the Stag Arms 10S model.

As an AR platform, there are lots of accessories, options for upgrades and mounting optics is super simple. With a modern version like the 10S, it’s also easy to mount accessories of all kinds onto the platform. I chose this platform in particular because it’s superbly simple to use, lightweight, and thoroughly modern. In a hunting situation, you have a rapid follow up shot that may be necessary when hunting animals like hogs who tend to travel in herds and be aggressive. The semi-auto design makes it easy to use in close range.

When it comes to bear, maybe one 308 won’t do it, but a handful usually will. In terms of long-range power, the 308 has what it takes to deal death at standard hunting ranges. As a more prominent and heavier round, it’s also less determined when going through light vegetation.

The AR-10’s semi-automatic action also takes some sting out of the recoil of the 308 and with modern muzzle devices, it’s not hard to reduce recoil and muzzle rise even more. The AR, as a platform, is very easy to shoot, aim and point. The design allows you to break the weapon down to a smaller size and make it easy to carry in a pack.

The Mossberg MVP is a simple bolt action rifle that’s thoroughly modern and very precise. If you want a bolt action rifle in 308, the Mossberg MVP is hard to beat. Even though it’s a bolt action rifle, the M1AM14 styles rifles and SR25/AR10 different configurations, but I’m partial to the Patrol rifle model.

It uses a shorter 16.25-inch barrel, has a medium profile barrel and is threaded for attaching flash suppressors, compensators and more. The guns weigh 7.5 pounds and have a length of 37.5 inches. The Mossberg MVP is optic’s ready, and Mossberg even has scope combos with Vortex scopes. One of the big reasons I like the Patrol models is the inclusion of iron sights.

Bolt action rifles are manually operated rifles making it extremely reliable and simple to use. It’s slower than a semi-auto, but more precise for more extended range shooting. The MVP is a robust rifle built for dangerous tasks. There are more affordable options, but I find the MVP to be the most robust for the money.

The MVP also comes ready for everything. This includes scopes, slings, suppressors and more. Out of the box, you’ll never need to gunsmith anything. That’s valuable as far as I’m concerned.
Final Thoughts

There is never a perfect answer for what’s the best hunting tool. That’s why we listed three – well technically six. There are tons of guns out there, and maybe none of these are right for you, but they should give you an idea of what works and why it works. I’d love to hear from our readers what you think, what are your caliber choices and what are your top three hunting rifles.
It is two days before I head into the wilderness for my summer survival challenge. Unlike all my previous challenges, a larger burden rests on my shoulders for this one. Two of my nephews are coming with me. Jay is 12 years old and Dre is 10. Neither of them have ever done anything like this before.

I promised their parents that I would take good care of them, and that I would make sure they are fed, hydrated and warm. That is a tall order for a survival challenge. I am both excited and scared to death. They are just excited. They have no idea what they are about to endure.

In any survival scenario, there are four pillars of survival. These are food, water, fire and shelter. Without any of these priorities, long term survival is impossible. However, there is a different sense of urgency for each of these pillars. You can only last three hours in cold weather without shelter or fire for warmth. You can only last three days without water. You can last three weeks without food. In terms of time frame, this makes food the lowest priority. **So why so much emphasis on finding food?**
WHY FOOD?

It seems like every survivalist on television is seen fashioning a spear and hunting for meat. Is this for ratings and entertainment or is food more important than we think? Survivalists appear to spend time searching for food from day one. Why is this? If you can survive for three weeks without food, shouldn’t survivalists be spending their time on the other pillars of survivals? Food has so much more value than just keeping you alive. The first fact to understand is what happens to your body when you do not consume calories. When you burn more calories than you take in, your body is in a state of caloric deficit. Initially, your body will burn fat to give it the energy needed to keep going. However, very quickly the process of your body cannibalizing itself progresses. It starts burning muscle and organ tissue in order to survive. This includes attacking brain tissue.

As your body starts to eat itself, several side effects set in. You will first notice a general weakness and lack of coordination. A constant, splitting headache is a common symptom of this process. Memory loss and confusion are also noticed as the body starts to dwindle. As the brain drastically reduces in size, an overwhelming depression sets in. These symptoms can have dire consequences in a survival situation.

Being weak and uncoordinated makes the physical nature of survival very difficult. It becomes much more likely that you injure yourself with these symptoms. Confusion and memory loss can lead to a victim getting lost while working away from camp, and can make it difficult to even remember what needs to be done. Depression and cause a person to lie around all day and avoid needed tasks, or can cause the person to give up entirely. Food has numerous benefits other than keeping you alive.

IN ADDITION, FOOD IS VITAL TO THE MORALE OF A SURVIVALIST. When you spend your day working to the bone trying to stay alive, a hot meal is a great way to wind down before bed. When you are stressed to the max and on the verge of tears, food can keep you going. When you have hiked for miles and do not think you can take another step, eating can replenish the energy you need to push on. This may be even more important than the physical benefits of finding food.
WHY TRAPPING?

There are several different ways to collect food in the wild. Probably the easiest is gathering wild edible plants. However, this provides a limited amount of calories and almost no protein. You also must have the knowledge to avoid poisonous plants.

Hunting with a spear or makeshift bow is what we all envision ourselves doing, but in most cases, it is not a good idea. Tromping through the woods all day burns a huge number of calories, takes up all of your time, and risks injury from the terrain or the animal itself. Your odds of success are very low as well. Fishing can be hit and miss, plus many forms of primitive fishing require you to get wet. This does not work well with staying warm.

THAT LEAVES TRAPPING.

When you are in a survival scenario, you really need protein to keep going. In addition, you need a way to collect it that does not burn up all your time and energy. Trapping allows you to set up several traps and then simply check them once or twice a day. The rest of the day is yours to work on other priorities.

However, trapping is a skill that takes years to hone. In addition, more is better. Many people set one or two traps and are surprised when they do not get any meat. For regular success, I suggest 20 to 30 traps. You do not need to set them all at once, but eventually that should be your goal. Once a successful trap line is established, you can count on having meat on a regular basis.

HOW TO SET TRAPS

There are a few general rules that apply for any type of trap. One is that bait is always a good idea. No matter what animal you are trapping, adding an incentive for the animal to come to your trap is a good idea. For land animals, there are a few options that always work well. For most small animals, peanut butter, cheese, and fruit are a hit. Do not get too hung up on what you choose for bait. Any bait is better than an un-baited trap.

If you do not have bait, the location of your trap becomes that much more important. Locating a game trail or other sign of activity is vital. Game trails are paths worn into the floor vegetation showing that animals travel that path on a regular basis. You can also look for the home of that particular animal. Tracks and scat can tell you what animals are around and where they like to walk. With or without bait, these are the best areas to set your trap.

When setting your trap, it is important to make it look and smell as natural as possible. Before you head out to set or check a trap line, you should mask your scent. In the wild, you can use the oils from evergreen trees. You can also use soot from your fire to cover up your human odor. Pay special attention to your hands as they can leave a scent on the trap itself. In addition, use leaves and twigs to cover up the appearance of your trap. This will ensure that your animal does not get spooked.

It is also important that you funnel your animal into approaching the trap in the right way. Your trap is often only designed to hold or kill an animal if it approaches a particular spot from a particular direction. By using sticks and leaves, you can block other paths and force the animal to approach in that way. This ensures that you have the best possible chances of catching an animal.
When setting primitive traps, there are a few basic designs that make up the majority of your options for construction. Snare traps are one of these. A snare works by using a slipknot to tighten a loop around the neck or limb of an animal. You can use cordage, wire or natural materials. The advantage of wire is that it allows you to mold the shape and position of the loop for optimum performance. In addition, it is harder for the animal to wriggle free or chew its way loose.

Basic snares are one of the easiest traps to set. It starts by creating a slipknot in your line. On one end of the line, fold over two to three inches. Then tie an overhand knot to create a loop. Feed the other end of the line through the loop and you have your slipknot. You can then secure the loose end to a rock, tree, stake or any other structure.

With these snares, it is vital that you get the size of the loop right. This type of snare works best to target the head of your animal, so the size of the loop should be just larger than the head that animal. In addition, you want to position the snare so that it is perpendicular to the ground and at head height for your target animal. You may have to use sticks to prop it up and achieve this position.

One effective way to use basic snares is to build a squirrel pole. For this trap, you will need to find a large tree preferably near a squirrel nest. Find a pole that is about four feet long and a few inches thick. Tie several snares to the pole with wire and lean the pole against the tree at 45 degrees. Then, position your snare loops so that they sit vertically on top of the poles. Squirrels are prone to take the easiest path, so when climbing a tree, they will often choose to run up your pole. As they do, one of the snares will catch its head. When it falls off of the pole, it will hang itself ensuring that it cannot get free.

You can make a more aggressive version of a snare by adding a spring pole. This sets up a trigger mechanism that breaks loose when the snare is moved. The spring pole jerks the animal up into the air tightening the loop and preventing the animal from getting free.

To build this trap, find a springy sapling and either set the trap next to it or cut it and drive it into the ground near your spot. Find two sticks of reasonable thickness and cut ‘7’ shaped notches in the side of each. Sharpen the other end of one of the sticks and drive it into the ground. Use cordage to connect the other stick to the end of your spring pole. When you pull down the spring pole and fit the two sticks together at their notches, it should hold everything in place. You can then tie a standard snare to the end of the spring pole and place it on your trail in an optimum position.

DEADFALLS

While snares snag an animal and hold it in place, deadfalls are designed to injure or kill an animal until you can reach it. Deadfalls normally use bait to draw an animal underneath a large, flat rock. Then when the trap is tripped, the rock comes free and crushes the animal. For this trap, I prefer a rock around two feet across and only a few inches thick. Get two sticks, with one having a slight curve. The straight stick needs to have one end rounded, while the curved stick needs one end sharp with the other end flattened. Use a knife to make these adjustments.

To set the trap, shove your bait onto the pointed end of the curved stick. Lift up the rock and press the flat end of the curved stick against the underside of the rock so it positions the bait towards the back of the trap. Then, press the rounded end of the other stick against the flat part of the bait stick, and use the stick to prop up the rock. When an animal goes for the bait and moves the bait stick, the prop stick will come loose and the trap will fall. Test it out a few times to ensure that the sticks to not get caught up preventing the trap from falling.
FINAL THOUGHTS

The one thing I must emphasize about primitive trapping is that it takes a great deal of practice to get it right. While it is very possible to have success in the wild with primitive traps, you need to learn what works and what doesn’t before your life depends upon it.

Find an area near you that allows trapping and get a line set up. You will probably notice at first that traps will be tripped, but with no catch. This is very common and means that you need to adjust your design and how you are setting your trap. Make the needed adjustments and try again. If you are able to become proficient at trapping, you will have the confidence that food will not be a problem in a survival scenario.
For much of my life, fishing was very hit and miss. I remember plenty of frustrating times fishing with my father and my uncle and catching nothing while they pulled in fish after fish. I never understood what I was doing wrong. Then we purchased a property with some good bass water on it. I switched up my lures and technique and was able to start getting some excellent action in the springtime. Part of this was due to the thunderstorms in the spring causing a lower barometric pressure. This allows the stomach of the fish to expand even if they have recently eaten. The other reason I had success in the spring is that these same storms would wash food sources into the water causing a feeding frenzy just afterward.

However, the summer and fall months were still a challenge. I would catch a fish every once in a while, but I never had the success that I had in the spring. I tried fishing early in the morning and late in the evening. I changed up my bait and lures. I fished from the shore and fished from a boat. I even tried night fishing with a light to draw in the fish. Nothing gave me the results that I loved from the spring months. After much frustration, I decided to do some research and figure this thing out.

In this article, we will cover tactics you can use in the summer and fall to keep reeling in those fish as you do in the springtime.
FALL TACTICS

Fishing in early fall can be very productive when fishing in shallow water. The fish are found in these depths for a few different reasons. One of the main reasons is that they are hunting shad that like to spawn in shallow waters and the back of coves. When you have lower temperatures at night, the water temperature will start to drop. Fish are always active in the early hours of the morning, but with these temperatures, they will move to shallow water. The shallows are the areas that will warm up first when the sun comes up in the morning. Any time you know where you will find the fish, you have a significant advantage. Then you need to know how to fish for them.

Typically, when I fish shallow waters, I like to use crankbaits, big plastic worms, or jigs. I have good results with these lures, but by the summer and fall, the fish have seen them all. By this point, smart fish know to look for other food sources, so they don’t end up in a frying pan like their friends. Two tactics for catching fish in shallow water in the fall are the wacky rigged soft bait and the drop shot. For years the drop shot technique developed for fishing in deep water was only used in deep water. However, with a few tweaks to the rig, you can adapt this technique for shallow water. You just need to adjust the distance between the hook and the weight for shallows.

DROP SHOT RIG

To rig this up, I typically use a medium-length, medium-action rod with a spinning reel. An eight-pound test fluorocarbon line is ideal. If I feel that fish are getting away because there isn’t enough sensitivity, I sometimes switch to a lightweight rod with a five-pound test line. The fluorocarbon test line is vital because it is less visible in the water. Keep in mind that fish will be able to see better in shallow water. There is more sunlight present around your line, so you don’t want to give the fish any reason to spook. For this rig, a smaller octopus hook or a wide gap hook works well. You will want to use a Palomar knot to tie the hook to your line. You only want about eight to ten inches of slack between your hook and your weight. You want to attach about a ¼ ounce weight at this point on the line.

For lures on your hook, try a Green Pumpkin sinking minnow or a PowerBait Finesse Worm. Both of these soft lures work well for a drop shot rig. Cast your lure where the fish will be hanging out. In the springtime, fish will congregate around structures like sunken logs or large rocks. They also like depth changes, so any drop-offs on the bottom are ideal. Fish like to sit in these spots to hide their location while they hunt for food. Once you have your lure in a good spot, shake the rod tip a bit. The weight will keep your lure in an ideal location, but a little shake of the rod tip will make the bait move and look alive. As you reel in your lure, move it a few feet and shake the rod tip again. Continue doing this before you give up on the spot and move on.
**WACKY RIGGED SOFT BAIT**

This is another good option to target fish in shallow waters in the fall. An excellent example of a lure to use for this rig is the PowerBait Fat Dover Crawler. This rig will let you keep the lure in the ideal spot longer as it also creates more movement on the end of the line. To compare, if you rig a lure straight and twitch it one time, it will move two to three feet. This makes it very difficult to keep your lure where you want it. With the wacky rig, you have more resistance in the water. The lure will push against the water and move around much more without changing location.

To set up this rig, I use the same rod and reel as listed above. However, I will sometimes step up to a 10-pound test line. For your hook, there is a specific wacky rig hook you will want. It is a short shank, wide gap hook with a rounded bend. You can use this rig with live bait as well. To weigh it down, you will want to use nail weights if you can find them. You can even use finish nails to weight it down if you can’t find nail weights.
SUMMER TACTICS

One of the toughest times of the year to catch fish is in the heat of the summer. You can gain a slight advantage by fishing early in the morning, but you still have to change your tactics. You will find early morning fish in the shallows if you get there right as the sun is coming up. A tactic mentioned above is the drop shot technique. However, you are best to change this up a little for the summer months. Many people will use this technique in moving water or thick vegetation during the summer months. This modification is called Hog Shotting.

HOG SHOT TECHNIQUE

I read a story at some point in a fishing magazine that talked about a journalist riding along in a fishing tournament on the Potomac River. The fisherman was working a standard Texas-rigged plastic worm but was not having much success. He then pulled out a rig that the writer had never seen before. There was a soft bait on the end of a four-foot leader with a weight attached at the same point. The angler dropped the lure on the upstream side of a sunken log and let it drift over the log to the downstream side where fish like to hide. He set the hook and reeled in a monster on the very first cast. This was the first time the writer had ever seen a drop shot like this.

One effective application is targeting thick vegetation where fish will hide before or during a storm. What you will find is that cold front fish will often stay suspended a few feet off of the cold bottom. If you use a standard straight Texas rig, it will pass right by the fish and sit on the bottom a few feet below. The hog shot technique drops the weight to the bottom but leaves the lure floating above where the fish are located. You will also notice that fish move to thick vegetation when you have heavy boat traffic. In the early summer months, popular fishing spots get beat up pretty good. You can use this tactic in hyacinths, hydrida, Kissimmee grass, and milfoil.

To set up the rig, you will want to use a one to two-ounce bullet weight and tie it point down so it will push through the thick vegetation. You can use the same hooks and soft lures you would use with traditional flipping, but a heavier test weight line. The length of the leader you attach will depend on the depth of the water. You will want the bait to be moving right below the surface of the water. Drop your weight to the bottom and then lift it slowly. This movement will attract the fish to your lure.

WIGGLE RIG TECHNIQUE

Another good way to fish in thick vegetation in the summer months is by using the Wiggle Rig made by Mojo. The rig has a 3/8 ounce weight as well as wire extensions. You will want to bend the wire out and throw the weight near a hole in the vegetation. The wire extensions will keep the weight sitting in the vegetation, while the lure will be free to fall into the hole. This rig has an elastic section that creates a very lifelike movement on your lure. It allows you to keep the lure in one location while still making it wiggle all over the place. Fish cannot resist it. You can use this rig for casting and vertical fishing.
OTHER TIPS

While these rigs are great for inexperienced or frustrated anglers, you do need to be attentive to a few other points. It is difficult to mess up the movement with these rigs because they stay put even while creating a lifelike action on the lure. Try out these additional tips for maximum success:

1. Pick your color based on the clarity of the water. If you are fishing in murky water, you will need to use a dark colored lure that is more visible. A black plastic worm is an excellent choice for murky water. If there is good clarity in the water, you want to use something that will sparkle in the sun. A light blue worm is an excellent choice for clear water.

2. Avoid the splash. Especially in shallow waters, a lure smacking the surface can potentially scare away fish. If you cast overhand, you will likely create a splash. Stick to a sidearm cast and slightly pull back just as the lure reaches the water. You should also pick lighter weight lures that will have less momentum. You should have plenty of momentum from the weight you attach to the line, and the weight is small enough to avoid a splash.

3. Be careful with boat movement. Shallow water fish spook easily. If you power through prime areas, you will likely scare them away. Use only your trolling motor when you can. Even better would be to drift once you have some momentum. Also, avoid any electronics on the boat that will make noise.

As we have detailed, you have lots of new options to try out in shallow water. No matter what the season, these tactics can help you score fish with a presentation that they have never seen before. Fish get used to seeing the same thing over and over. A change is always good.
It happens to dozens of people every year in the US. They go for a hike, leave the trail, and can never find their way back. Maybe a hunter decides to track his deer past sundown, and everything starts to look the same.

YOU FIND YOURSELF LOST IN THE WILDERNESS.

Whatever the reason, you must take action. If you have friends or family that knew where you were headed and when to expect you home, your best bet is to stay put. After just a few hours, most people will have a search party looking for them. However, you should not just sit there. You may find rescue in a few hours, or it could be for several days. In some cases, it takes weeks to be rescued.

In any survival scenario, the four pillars of survival are your main focus. These are food, water, fire, and shelter. The ‘rule of threes’ states that you can survive three hours without warmth from fire or shelter, three days without water, and three weeks without food. However, you can start to feel the negative effects of hunger within 24 hours. Hunger makes other survival tasks very difficult. As your body goes without calories for an extended period of time, it starts to literally eat itself. It begins by burning fat reserves for calories. Then it moves on to muscle and organ tissue. Starvation can make you clumsy, easily confused, and depressed. It can make your whole body hurt and cause an intense headache and stomach ache. Just getting to your feet to go find water or firewood can be difficult.

There are plenty of ways to find food in the wilderness. The easiest option is foraging for wild edibles. However, most wild edibles provide minimal calories and no fats or protein. Going after animals for fats, protein, and calories is your best bet. In most cases, you will not have a weapon with you, so trapping is your best bet. If you had any food for bait, you probably would eat it before using it as bait, so trap placement becomes very important. A trap in the wrong spot is a waste of time and energy. However, a trap in the right spot could get you a meal on the first day. Snares are the easiest and most effective trap to set.

In this article, we will cover how to find game trails and where to set your snare traps in a survival situation.
WHAT ARE GAME TRAILS?

To understand game trails, you must first understand the mindset of the animals you are targeting. Most land mammals are creatures of habit. They have three primary points of focus on a daily basis. These are food, water, and bedding.

In most cases, they follow the same path from their bedding area to their food and water sources every day. This is a huge advantage for primitive trapping. Without any bait, you need your snares to be placed on a path where an animal is very likely to walk.

For larger animals such as deer and wild hogs, game trails will be worn into the forest floor. You can see on the ground exactly where these animals have walked day after day. Often on my survival challenges, I will follow these game trails because they are typically the path of least resistance. With smaller animals, the paths are not so clearly defined. With animals such as rabbits, raccoons, and possums you may notice that tall grasses are parted from where they have traveled every day. You may notice that dry leaves on the forest floor have been disturbed in a straight line. One of the best spots for a snare is a place where the floor vegetation goes from short to tall. Often you will see a hole in the taller grasses where the animal has pushed its way through. **THIS IS AN EXCELLENT LOCATION FOR A SNARE.**
ACTIVE VS INACTIVE

Just because you see a game trail does not mean that it is an ideal location for a snare. Not all game trails are currently being used. In most cases, game trails will grow back to more of a natural appearance over time once they are no longer in use. However, for the first few months, they may appear to be active even if they are not. You want your snares to be on game trails that are still traveled on a daily basis.

There are certain signs you can look for to determine if a game trail is active. Tracks are an excellent indicator. If you see animal tracks on the game trail, there is a very good chance that the trail has recently been used. Tracks are a short-term indicator. They will fade with the first rain in most cases. The same goes for scat. Animal scat, or droppings, are another sign that will show that your trail is in use. These are both universal signs that apply to any land mammal. It is a good idea to learn how to identify different tracks and scat so you can tell what species has been using the trail. It is not uncommon for more than one species to use the same trail, so be aware of this.

Larger mammals have more species-specific signs for which you can look. Whitetail deer will leave both scrapes and rubs in the fall around their rut period. Scrapes are spots where a deer has scraped away leaves and vegetation from the ground. Rubs are low hanging branches and small trees that have had the bark rubbed off using the antlers of a deer. Both of these are ways that bucks will mark an area prior to mating season. Wild hogs are ground feeders and like to root around in the mud and leaves. You will often see areas where they have used their snouts to dig around on the ground looking for food.

**THESE ARE ALL GOOD INDICATORS THAT A GAME TRAIL IS ACTIVE.**

FINDING GAME TRAILS

To find a game trail, you have a few options. Oftentimes, I just stumble upon game trails when I am hiking off trail through the woods. As long as you keep your eyes open and know what to look for, this may be an option. You can look for game trails while you collect firewood, go for water, or forage for wild edibles. However, if you want to go scouting specifically for game trails there are a few options.

Think back to the three priorities of any land mammal. These are food, water, and bedding. Food is difficult because most land mammals have a variety of different food sources. It is tough to pinpoint exactly where an animal will be looking for food. However, bedding and water are more specific. For large animals, you can see bedding areas because the grasses will be flattened in large spots, or the leaves on the forest floor will be disturbed in a large area. For smaller animals, you may see a hole in the ground or a hollow tree. Once you find a bedding area, start your search for a game trail to see where they are headed.

Water sources are by far your best bet. Often, there is only one primary water source in a given area. This might be a pond, lake, stream, or river. If this is the case, you can bet animals are headed that way every day. Searching up and down the water line is a great way to find a game trail. Not only will you find trails, but you will often see tracks in the mud on the edge of the water. This will verify that your game trail is active.

**I ALWAYS TRY TO SET A GOOD PORTION OF MY TRAPS NEAR WATER SOURCES AND BEDDING AREAS.**
MORE IS BETTER

The one point I need to emphasize more than any other is that you want to set as many snares as you can. Often you see people on television set one or two traps and expect a meal. This is simply not realistic. You might get lucky if you have some bait, but without bait, you must play the odds. Even if you find a game trail and it happens to be active, the odds of an animal ending up in a single trap are not great. Trapping is a numbers game.

So how many traps do you need? A good number to shoot for is 20 to 30 traps in a trap line. If these traps are all placed on active game trails, and they are set up properly so animals do not get loose, you have a good chance of a meal on any given day. I know this seems like a huge project, but you do not need to set them all up at once.

What I like to do is to find my active game trails when I am out looking for water, collecting firewood, and foraging for wild edibles. Once I know where they are, I will set up a handful of snares each time I go back into these areas for supplies. If you set up five snares in the morning and five snares in the evening, you have 20 traps set after just two days. Setting up five basic snare traps is not very time consuming if you already have an active game trail.

CHECKING YOUR LINE

Once you have your traps set, you are not quite done. It is vital that you check your traps once or twice a day. If you are lucky enough to snag a meal, you have some variables working against you. The longer that animal stays stuck in the trap, the more time it has to chew its way out. This is one reason I like using copper wire for traps instead of cordage when possible. Even with wire, animals can pull loose. More importantly, an animal in distress is an obvious meal for predators. If you leave an animal in a trap long enough, it will end up as a meal for another animal. This is especially true if you leave it there overnight. I like to check my trap line in the morning and again before dark. Often I will set up a few more snares when I go to check my trap line. This continues to give me better odds every time I go out.
BE SMART ABOUT YOUR SNARES

Keep in mind that these animals spend their time surviving every single day. They have incredible eyesight and a great sense of smell. It is important that you disguise your trap so it will not be noticed. Use grasses or leaves to cover it up whenever possible. Cover your scent with ash from your fire, dirt, or pine needles before you set your traps. This will ensure the animal does not sense that something is out of place. You can also use debris to guide animals into your snares. At the point of the trap, place debris on both sides of the game trail. This will ensure that the animal walks exactly where you want it to walk.

FINAL THOUGHTS

To sum it up, trapping with snares is a logical task. Your goal is to find a path where animals walk every day. Then, set up as many snares as possible to ensure that the odds are in your favor. If you take the time to find active game trails and build up your trap line every time you venture out, your chances are solid that you will be eating meat for dinner instead of just leafy greens.
Not every Get Home bag is going to look the same, nor should it. Each person has different goals and locales they need to plan form. With this in mind, there is not one bag that will rule them all.

I have tried numerous bags of all shapes and sizes over the years. For this article, I have complied my current five favorites. Each bag has a different size and design based on its purpose. All of these bags are offered in a wide range of colors, so you can find a color that works best for your location.

**Mountainsmith Vire Lumbar Pack**

I know we said goodbye to fanny packs in the 90s, but this lumber pack from Mountainsmith serves as a great small size GMH. If you are located a short distance from your home, you probably don’t need a 45-pound pack.

You don’t need a tent or a way to procure food, you just need a small bag to hold a few extra items and a couple of packs of emergency water to get you home. The Vibe holds these items without sticking out at all.

You can even place it at the 12 o’clock position and pull your shirt over it. Remember the more you blend in, the less likely the chance that you will run into problems.

The Vibe is built out of 610 Cordura and will hold up for years. Its small size makes it great to throw into a backpack, or even a desk drawer to always have it close by. For $30 it’s hard to beat. This pack sits at the bottom of my EDC backpack, and most of the time I forget that it is even there.
OSPREY DAYLITE

If you are looking for a small lightweight pack to throw in your car, the Osprey Daylite is the perfect option. This 13 Liter bag gives you two shoulder straps to carry a larger load. The built in Hydration pocket, makes it easy to carry water for a little bit longer trek. It has plenty of space for your gear and an extra layer of clothes during colder months. I use this pack in the winter when I want some extra layers with me at all times. The external pockets can either be used to carry additional water bottles or gear. The Daylite is made out of 210 Ripstop Nylon - it's light weight and I have never had any issues with rips or tears.

This pack might look small, but it can definitely carry a load. The Daylite is small enough to throw under the seat, or in the trunk of your car. This bag is big enough to fit your gear, but small enough to force you to pack light and stay mobile. You can easily cinch down the waist strap if you need to take off to evade trouble.
MAXPEDITION FALCON II

The Falcon II is one of the most popular options on the market for Get Home Bags. This 23 Liter pack just feels like it was made for this task. The slim width profile makes it feel like a much smaller pack, and the large number of compartments keep all of your gear organized and easy to get to.

If you are a Molle fan, then the Falcon II is for you!

Attaching additional pouches to the front or sides of the bag is simple, and lets you customize the bag for your needs. It can hold up to a 3 Liter water bladder, and the compression straps help cinch the bag down.

If you are looking at a 2-3 day journey to get home, this is a great pack to fill that need. The shoulder straps have nice padding, and the waist and sternum straps helps keep the pack in place if you had to make a run for it.

These packs have been so popular, that a few other companies have tried to copy the design...but the Falcon II is still the best. Like all Maxpedition gear, the 1050 Denier fabric is not only water resistant, but also close to bomb proof. The Falcon II has a bit more of a tactical look than other options, but in grey or black they blend in pretty well.
MYSTERY RANCH SCREE

When I saw that Mystery Ranch was coming out with a less expensive overseas-made product line, I was skeptical at first. But after using the SCREE for close to a year now, I’m sold! This 37 liter bag is lightweight, and the signature 3-ZIP design makes it easy to get your gear out. There is nothing that I don’t like about this pack. The 420D nylon fabric keeps this larger pack light weight without giving up any strength. Weighing in at 3.1 pounds, it is hard to find another pack this size with a lower weight. The adjustable Yoke shoulder harness system helps this pack fit just about anyone. The side pockets and waist belt pockets are ideal for holding essentials like water bottles and navigation gear.

This is the current pack that I am using now for my long distance GHB. It is comfortable for long periods of hiking, and I just feel like the bag fits me perfectly. I can’t think of a Con for this pack! At $179 this pack is worth every penny!
KELTY REDWING 50

If you have travel large distances for work or are taking a road trip vacation, you are going to need to look into a larger pack. The Kelty Redwing 50 has been in my backpack collection for years, and I have hiked hundreds of miles with it.

The 50 Liter capacity lets you carry just about everything but the kitchen sink, yet the pack is still comfortable while you are on the move.

Everywhere you look inside and out, you will find pockets and organizational panels. This gives even the most OCD person a level of comfort!

The Redwing 50 is made out of 420D polyester, and is very light for such a large bag. It weighs in at only 3.11 pounds.

I can’t say enough good things about this pack. The shoulder straps and waist belt make this a very comfortable bag to carry, and Kelty has thought out every area of this pack.

The front compartment is easily accessible to get to your gear quickly, and the side/main compartments are big enough for any large item you might want to carry. For $139.99 this is a great pack that will last you for many years!
A warm sleeping bag that packs down small? Check. Rugged water bottles and an effective water filter? Check. How about a laminated picture of your loved ones to keep you motivated for survival? Uh, no, I don’t have that in there...

When using your Get Home Bag to slog home during a grid down situation, you’ll want to be prepared for as many contingencies as possible. Even though we can’t carry the kitchen sink in there, we can take some small items that would make a big difference to our survival. Take the photo of your loved ones as an example. Think of the value of a waterproof picture of the people you care about the most in this world. The picture weighs nothing. It takes up no room in the pack, but it can take the weight of the world off your shoulders. Thinking about loved ones can keep you going when every muscle in your body wants to quit. That photo is an example of the unexpected items we’ll be talking about in this article. Let’s pray we never have to put these items to work outside of training.

**MOTIVATIONAL ITEMS**

The motivation to survive is one of the key elements in the mentality of a survivor. So ponder long and hard on the things that would keep you encouraged during a bug out worthy crisis. For many people, the motivation to survive an insufferable situation can come from thoughts of their loved ones. As mentioned already, a photo of your spouse, children, family, friends, or even pets can put a fire in your belly to keep pushing forward. Faith in a higher power is another powerful ally for motivation. They say there are no atheists in a foxhole. I would say that this extends to most life or death situations. A small book of faith or a token of your religion can be a tangible way to reach out to the intangible during times of weakness, doubt, and fear. Of course, there are many other things that motivate people, since we are such complex creatures. You’ll know what makes you tick better than most other people. By adding something to your GHB that will give you mental and emotional strength, you’ll be better prepared for the psychological rollercoaster of a crisis.

**LIGHTNING IN A BOTTLE**

Here’s one of those bizarre items that you might not think to carry, some form of caffeine. If you are a caffeine addict like most folks then a concentrated energy drink, no-doze pills, or even a bottle of Excedrin will fuel you like Popeye’s spinach. Particularly when your normal coffee and soda pop aren’t available. Use it if you need to stay up late for the night watch or you’re just running out of steam. Pop a pill or drink a 5-hour energy shot to get back on track and avoid that painful caffeine withdrawal headache.
SWEETS

Keep some hard candy in your GHB, for energy and as a motivator. Sugary treats are a great short-term fuel for your body. A few candies can lift the morale of both grown-ups and kids. Be choosy when you plan your snacks. Pick a candy that won’t melt and can also be eaten if frozen. Another consideration is that the candy is easy to divvy up or ration. Finally, select a candy that everyone in your group will like. You don’t want to be the guy handing out black licorice during the end of the world. Gross.
DENTAL CARE

Your mouth is the gateway into your body, and you’ve got real problems when something goes wrong in there. You should definitely have dental floss for cleaning your teeth, and 100 other uses. A toothbrush and toothpaste are great items too, but also consider a tiny dental emergency kit. Pain relieving toothache drops and a cavity filling product may keep your mouth operational until you can get to dental care or forget desperate enough to pull that bad tooth. For the INCH (I’m Not Coming Home) bag crowd, expand the kit with a few extraction tools. These are a lot less likely to break or splinter your bad teeth than your trusty Leatherman or standard pliers.

PAPERS PLEASE

If you evacuate from your home during a SHED situation, there’s no guarantee that you’ll get to go home. There’s also no guarantee that your personal records will still be around if you do make it back. Consider a digital backup of all your important documents and family treasures. This could be a thumb drive with your bank info, insurance documents, wills, family photos and videos, birth certificates, tax receipts, land deeds, insurance documents, and other papers that would be handy after law and order returns. Use an EMP proof bag to store the drive. Guard this drive with all due care since this is a treasure trove for identity thieves. Don’t leave it in the GHB in your car, a likely place for theft.

STOMACH MEDS

An army moves on its stomach but you won’t be leaving the latrine with major digestive distress. Consider adding some fiber tablets, Pepto Bismol, anti-diarrhea medicine, and laxatives to your bag of OTC and prescription meds. Chances are good that you’ll be eating differently. Chances are even better that you’ll be dealing with stress and dehydration which are frequent causes of constipation. Dirty hands, mishandled food, and lack of water can send your bowels the other direction too. You’ll likely be in need of anti-diarrhea meds.

FOOT CARE PRODUCTS

Gridlock after grid-down? You won’t be driving anywhere, you’ll be walking. This makes your feet more important than you can imagine. Spare socks can keep your feet cleaner and drier. Moleskin can be used to treat blisters and hot spots. Foot powder and other foot care products can prevent fungal infection, diminish sweat, and prevent other debilitating foot issues. You won’t make it far if your feet give out.
MULTI-USE SUPPLIES

To a creative survivor, almost anything can be used for multiple tasks. These following items seem to work a little harder than most:

ALCOHOL. A little bottle of liquor can be a great addition to your kit, even if you’re a teetotaler. A little splash can get the campfire going, and a sip may put a little courage in your veins. It could also make a very popular trade item for bartering. It can disinfect wounds (wuuuu!), sterilize various things, deodorize, treat fungal infections, and perform many other tasks that would be useful during an emergency.

NOTE PAD. You can communicate or signal for help, keep a journal, take handy notes for your survival situation, use the paper as tinder, wipe your butt with a crumpled sheet, etc., etc., with just a simple notepad. Add a pencil or two as well. These can be sharpened with a pocket knife and won’t dry out like pens.

CIGARETTES. Even if you don’t smoke, think of all the smokers out there who would instantly become your best friend if you had spare smokes to hand out. They also make for good, lightweight tinder. Cigarettes are an excellent fuel for most optical fire starting methods. Tobacco can also make insecticide and bug repellent by soaking a few cigarettes in a quart of water overnight to leach out the nicotine. Spray this around your camp area or apply it to clothing.

DON’T DO IT!

I like where your head is at but these following items just aren’t very practical! Read along and you’ll see.

BONKERS FOR BOW DRILLS. Sure, bow drill sets can make fire. Any replacement parts you might need can be collected and replaced in the wild. But let’s embrace our century, shall we? I’m as big a fan of friction fire as anybody. I even teach people how to do it for part of my living. However, it’s just not a practical bug out fire starter. I don’t carry a bow drill in my GHB or BOB. For the weight and space a kit takes up, carry something easier to use like a lighter or three. Even a great bow drill kit isn’t foolproof. You won’t be grinding out a bow drill fire with a broken arm or during a downpour of rain. Just bring several lighters, some matches, and a spark rod for a back-up.

A MEAL OF MEAGER CALORIES. Your bag should be stuffed with high calorie foods. There’s no guarantee you’ll be able to find food during your travels. Skip those little granola bars and go for some jars of peanut butter.

BLANKET BLUNDERS. A space blanket may keep you alive on a cold, wet, windy night. But you’ll need a sleeping bag to actually get enough sleep to recharge your body. That flimsy foil sheet will be flapping in the wind all night causing a lack of sound sleep. This will have a major impact on your alertness and effectiveness the next day. Believe me, carry some decent bedding. You can put up with a lot during the day if you’re able to sleep well at night.

CONCLUSION

Everything that goes in your GHB needs to be carefully thought out. Choosing an item you won’t use adds unnecessary weight and takes up space. It could also mean that a necessary tool gets left out. However, not every single item needs to be utilitarian. Don’t forget the items that will keep you going when things get hard. The small items that could make a difficult journey just a little easier. That item may not make sense to anyone else, but if it gets you home, stick it in your GHB.
The Rule of Threes for Your Get Home Bag
By: Tim MacWelch

Apart from the prepping community, few people seem to understand just how quickly an emergency can turn deadly. How vital it is to prioritize the hazards you’d be facing in an ugly situation. Thankfully, I know I’m preaching to the choir in this publication. Still, I would like to give you some tips for packing your Get Home Bags (GHB) based on the Survival Rule of Threes. Survivalists and wilderness wanderers have prioritized their physical needs for decades with a handy generalization, the Survival Rule of Threes.

This Basic Guideline States That You Can Live:

- **3 Minutes without Air**
- **3 Hours without Shelter**
- **3 Days without Water**
- **3 Weeks without Food**

While these numbers are not absolute rules, they’re a reasonable simplification of the length of time the average person could last without these resources. I know that some guy claims to have gone a week without water. The Rule is a basic guide for the average person, not for superman. Let’s put this concept to work in your GHB.

3 Minutes without Air

The rather grim projection of 3 Minutes of life without air typically refers to an event where you’d be drowned, strangled, or otherwise asphyxiated. I told you it was grim. It’s not very practical, or low profile, to walk around town in scuba gear. However, a respirator is a preparedness item that does make some sense. This catch all term could mean anything from a flimsy little dust mask from the dollar store all the way up to a full face respirator or actual gas mask. Now I’m not suggesting that every GHB contain a full respirator, but I am suggesting you think long and hard about the most likely disasters in your area. If pandemics are on your mind, an N99 mask will filter out 99% of the droplets that carry viruses and bacteria into the lung tissue. N99’s will also screen out a great deal of dust and other particles. They’re more expensive than the common N95 masks but well worth the money. For the city dweller, you may need something more to cover your bases in the event of a dirty bomb or some similar attack. Grab some N99s and a half mask respirator at any home improvement store. Buy a filter cartridge that deals with dust and one that deals with multiple gasses as one cartridge usually won’t do it all. Of course, these Home Depot specials aren’t as effective as a proper gas mask for NBC (nuclear, biological, and chemical) threats but they’re better than nothing. In a top loading backpack, keep your respirator right on top since you may have only a moment to put it on. Just understand that any of these masks, even the papery dust ones MUST make a good seal around your nose and mouth. This means that those of us with mighty beards are screwed. Keep that in mind. Guns don’t kill people. Beards kill people.
3 HOURS WITHOUT SHELTER

The Rule states that you have 3 Hours without shelter. That’s a little optimistic in cold wet conditions that could take you out of the game in less than 3 hours. What kind of shelter do you need? As I’ve preached for years, shelter can mean many things. Your clothing is a form of shelter from cold, sun, and shame. Your vehicle could be a shelter if you’re stuck in a remote location. The list of shelters can go on and on. For our purposes, we’ll look at shelter items that will fit in a GHB. These items should be easily accessible in your bag, especially the rain gear and any spare outerwear. Don’t keep these items buried in the bottom of the pack.

RAIN PROTECTION
Getting wet makes you colder. One key form of shelter is rain protection. Consider something that will keep you dry in camp and also while walking. Something like a poncho. Resist the urge to get one of those super thin and cheap emergency ponchos. They just won’t hold up. Go for something a little more durable even though it will be heavier. A poncho can be used for far more purposes than a rain jacket.

TARP OR TENT?
If you’re building a GHB on a hard budget, maybe think about a tarp for a shelter. Practice setting it up quickly and learn different configurations. But as soon as you have the funds, hit the backpacking store and get the lightest tent they carry that’s a top quality name brand. This tent will protect you far better than a tarp, especially when it comes to snakes, spiders, and other unpleasant bed companions.

CLOTHING OR OUTERWEAR
Keep a spare set of clothes in the bag and adjust them quarterly to match the current season. Your Daisy Duke jean shorts won’t help you much in the winter. Keep outerwear in the bag as needed.

WARMTH
Start with a space blanket or two if you’re broke. Add an emergency bivy when you have more funds but keep the space blankets in there. Add an ultralight sleeping bag when you can afford it. Experiment with hot water bottles for additional nighttime warmth. Practice making mattresses out of vegetation and urban debris like cardboard. This means you won’t have to carry a bulky sleeping mat. Keep your spare clothes in a sack that can double as a pillow.
3 DAYS WITHOUT WATER

Three days without water. That’s all you’ve got. You may not even have that much time in a hot dry climate. Even though some gurus advise us to save weight in our go bags and only carry a water filter, we can all imagine scenarios where there isn’t any water available to be filtered. Carry some water with you! I recommend 2 quarts of store bought water. These are packaged for long life and are in lightweight bottles. Add a one quart single wall stainless steel water bottle as a boiling and storage vessel. Of course, bring disinfection gear. Water treatment tablets are ultra-lightweight. I prefer chlorine based products because they kill the broadest range of pathogens. A small water filter will last longer than a pack of tablets, though products like LifeStraw don’t filter out viruses. Why not carry both? Water bottles and related equipment should be easily accessible, ideally in an outside pouch on your backpack.

3 WEEKS WITHOUT FOOD

Three weeks without food. Or was that three months? I can’t throw stones at anybody from my fat house. I’m overweight and so are a lot of preppers. You could speculate that we are preparing for leaner times but I don’t think that’s it. From my observations, I believe that preppers simply love life and great food is one of life’s true pleasures. Whatever the case, I could probably last a lot longer than three weeks. This doesn’t mean, however, that we should go on a starvation diet in a crisis. Stock your bag with food that’s easy to eat, even while walking. These foods should have a high calorie value and a long shelf life. Also consider items that will help you prepare food and acquire more. A small cook pot and small fishing kit may make sense, especially in an INCH bag or DOD. But for a GI ID, who’s going to have time to stop and go fishing in the middle of mayhem? Bring food with you, as much as can be reasonably carried. Believe me, a lighter backpack is nice but not at the cost of starvation. If you’re looking for gear to stuff down into the bottom of your bag, food and cook pots are great candidates. You’ll need them, but not in a hurry.
MORE TO THE RULE

So obviously, the Rule of Threes isn’t an airtight recipe for a bug out bag or get home bag. More complete gear checklists and suggestions can be found throughout the Survival Dispatch Insider publications and website. But I hope the Rule has helped you understand why you need the things we’re recommending. As a final thought, take a look at the modern art of backpacking. The market is packed with tough yet light equipment. Plenty of people are using that gear to walk across entire states and even continents. If you want to see somebody who has the art of living out of a backpack down to a science, observe what the through hikers are doing and what gear they are using.

STAY SAFE OUT THERE.
GET HOME BAG CHECKLIST

By: Bert Ingleby

When it comes to putting a Get Home Bag together, many people just don’t know where to start...or what areas they need to cover.

Your GHB needs may be different based on your location, or how far you anticipate having to travel.

Here is a quick checklist to get you thinking about what you might need in your bag.

REMEMBER THIS IS JUST A STARTING POINT!
**GET HOME BAG CHECKLIST**

**CLOTHING**
- Base Layer
- Pants
- Light Jacket
- Poncho
- Hiking Boots
- Hot/Watch Cap
- Socks
- Gloves

**WATER & HYDRATION**
- Nalgene Bottle
- Sawyer Mini/water Purifier
- Coffee Filter
- Water Purification tablets
- Metal Container to boil water

**SHELTER & BEDDING**
- Tarp
- Poncho with grommets
- Paracord
- Mylar emergency blanket
- Escape Bivvy

**FIRE STARTING KIT**
- Lighter
- Waterproof matches
- Fire starter
- Tinder-Quik
- Trioxane bars/Insta-Fire
  - Small folding knife

**HYGIENE**
- Wet wipes
- Microfiber towel
- Toilet paper roll

**SELF-DEFENSE**
- Handgun with night sights
- Weapon light
- Folding knife or fixed blade knife
- 2 spare magazines
- Pepper Spray
- Fixed Blade Defense knife

**FOOD & FOOD PREP**
- Life Raft emergency ration bars
- Energy drink like 5-hour Energy
- Candy bar
- Protein Bars
- Dried meat
- Freeze Dried food/ MREs

**MEDICAL & FIRST AID**
- Ibuprofen
- Anti-Diarrheal
- Israeli Bandage
- QuikClot Gauze
- Shears
- Tourniquet
- Blisters Kit
- Nitrile Gloves
- Boo-boo Kit (bandages, ointment, etc.)

**TOOLS**
- Folding knife
- Fixed blade knife
- Multi-tool
- Duct tape

**LIGHTING**
- Flashlight
- Headlamp
- Glow sticks
- Extra batteries

**COMMUNICATIONS**
- Cell phone
- Signaling mirror
- Whistle
- Two-way radio

**NAVIGATION**
- Area map
- GPS
- Compass
- Ranger Beads

**ORGANIZATION & MAINTENANCE**
- Quality backpack with padded shoulder straps and a hip belt
- Dry bag
CLASSES OF LICENSE

First, there are no longer any Morse code requirements for any of the license levels. There are now three (3) license levels. They are Technician, General, and Amateur Extra (often just called Extra). There are still some Advanced license holders, a class that was between General and Extra, but the license is no longer issued.

STUDYING

There are numerous tools to study for your license, these include web based and smartphone applications with flashcards. There are also practice tests as well as study guides and textbooks in a number of different formats to suit your learning style. There are also some very good videos on YouTube. You can also find local ham clubs that offer classes in a number of different format. For more information on studying see the article BEST WAYS TO PREPARE FOR YOUR HAM RADIO LICENSE.

FINDING AND TAKING A TEST

The entry exam for Technician level is 35 questions taken from a question pool of about 450 questions. There are local clubs or test teams in most areas that offer exams on a regular basis. They are coordinated through Volunteer Exam Coordinators (VEC’s). The VEC’s have agreements with the FCC to have local teams and to send the applications to them. There are 14 VEC’s and the FCC allows them to charge up to $15 for exams. The Laurel VEC is the only one out of the 14 that doesn’t charge for exams. Their website lists teams and test dates. Other test sites can be found on the Amateur Radio Relay League (ARRL) site. Laurel teams will usually have your new call sign issued by the FCC the next business day. Other teams can take 10-14 days or more.

A COOL CALL SIGN

Your new call sign is issued sequentially based on the geographical region you are in. It will typically be a 2x3 format that is two letters, a number for the region you live in or the address you provide, and three letters sequential from the list. For example, KEOPDQ.

A vanity call sign is one that you choose once your licensed. This is free through the FCC Universal Licensing System (ULS) website once you’ve decided what you want. The best place to search for available call signs is www.radioqth.net.
YOUR FIRST RADIO

Many people get a radio before they have a license. This lets them listen and learn how to use it. This is perfectly OK as long as you DO NOT transmit without your license. If you have a friend that is a ham, you can use their license as long as they’re nearby.

The most common mode that ham radios are used in is analog FM. There are a number of digital modes and repeaters that you’ll likely come across but that’s beyond the scope of this article. The two most common bands that new hams use are the 2-meter (144.0 – 148.9MHz) and the 70-cm band that is often called the “440” band (420.0-450.0MHz). Most ham radio manufacturers offer dual-band handhelds with these two in them.

Many people buy a handheld radio as their first one. It’s easy to carry with you everywhere. The Chinese Baofeng radios are very popular with new hams due to their low price. The current models are the UV-5R V2+, BF-F9 V2+ & UV-82 V2+. The UV-5R V2+ are about $35, but older model UV-5R’s can be found for less on sites like Amazon. The UV-5R and BF-F9 mostly have interchangeable accessories. Beware of sellers on eBay and from China as there have been numerous reports of products not arriving.

The Baofeng radios will transmit outside of the ham bands, such as on the General Mobile Radio Service (GMRS), Family Radio Service (FRS), and Multi-Use Radio Service (MURS). The radios aren’t certified or approved under the FCC rules for those services. That being said it’s not a bad idea for a prepper to have a number of these stored away in a Faraday cage/box for emergencies. The Baofeng’s can be a little more difficult to program than a standard ham radio, see more in Getting On The Air below.

As with computers, memory capacity usually drives up the price. The Baofeng radios usually have 128 memories. The entry level ‘ham’ radios, such as Icom, Kenwood, Yaesu, Alinco, etc. have 200. The next level up usually have around 1,000 memories.

For example the Alinco DJ-500T, which is on sale right now at Ham Radio Outlet (HRO) for $92.95, has 200 memories. This is an excellent entry level radio.
The **YAESU FT-60R** is their ‘entry level’ radio, has 1,000 memories, and costs about $154.

As with any radio you buy, make sure you can get battery packs that hold AA batteries in order to use rechargeable ones.

Other radios you might consider are those with the 1.25-meter band (222MHz). It’s a very under used ham band and therefore offers some discrete capabilities for group communications. For more details on communications for your group see the article [DEVELOPING A COMMUNICATIONS PLAN FOR YOUR GROUP AND CODES AND CIPHERS.](#)

**BTECH** has the **UV-5x3**, modelled on the Baofeng UV-5R, which is a tri-band with 2-meters, 70cm (“440”), and 1.25-meters. It’s available for about $60.

The nearest tri-band radio made by traditional ham manufacturers is the **Yaesu VX-6R** for about $240.

Additional accessories you should consider for your radio will be discussed in another article.
GETTING ON THE AIR

The two primary methods you'll use are simplex and through a repeater. Simplex is where you talk and receive on the same frequency. It’s sometimes called ‘direct’ as one radio is talking directly to the other. The distance you can talk on simplex depends on the power of your radio, the efficiency of the antenna, and the terrain or objects in between the two radios.

Repeaters are essentially two radios working back to back. The repeater receives on one frequency and transmits on another, the radio operates likewise. The repeater typically receives the lower power signal from the radio and re-transmits it anywhere from 30 to 100 watts. This means it covers a large area.

There are standard simplex frequencies, chosen so they don’t interfere with any repeaters. Repeater frequencies are usually coordinated so they don't interfere with another repeater on the same frequencies. A list of repeaters for any area can be found on www.repeaterbook.com.

A search will give you the information that’s needed to program your radio - see diagram to the right.

The FREQUENCY is what you program as the receive frequency in your radio.

The OFFSET is the difference between the receive frequency and the transmit frequency and the – in front indicates that it’s negative. In other words, when you push the transmit button the radio will transmit 0.6MHz below the receive frequency. The offset varies with different bands or frequencies. Most radios manufactured for the ham market know that specific frequencies have a positive offset and the other a negative. There are some repeaters in certain areas that don’t follow the normal pattern and you have to manually change that setting. Baofeng radios are not pre-programmed with this offset information. You have to program both the offset amount and the direction manually with those.

The TONE is a sub-audible tone that is transmitted with the radio signal. It’s used to prevent interference on the repeater as the repeater needs to ‘hear’ the input signal as well as the tone in order to operate.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Offset</th>
<th>Tone</th>
<th>Location</th>
<th>County</th>
<th>Call</th>
</tr>
</thead>
<tbody>
<tr>
<td>145.1150</td>
<td>-0.6 MHz</td>
<td>100.0</td>
<td>Fort Collins, Horsetooth Mountain</td>
<td>Larimer</td>
<td>W0UPS</td>
</tr>
<tr>
<td>145.1150</td>
<td>-0.6 MHz</td>
<td>88.5</td>
<td>Pueblo</td>
<td>Pueblo</td>
<td>ND0Q</td>
</tr>
<tr>
<td>145.1300</td>
<td>-0.6 MHz</td>
<td>88.5</td>
<td>Colorado Springs, Cheyenne Mountain</td>
<td>El Paso</td>
<td>KB0VJJ</td>
</tr>
<tr>
<td>145.1450</td>
<td>-0.6 MHz</td>
<td>107.2</td>
<td>Idaho Springs, Squaw Mountain</td>
<td>Clear Creek</td>
<td>W0CRA</td>
</tr>
</tbody>
</table>
There are several different types of tone:

**CONTINUOUS TONE-CODED SQUELCH SYSTEM (CTCSS)** is an analog frequency. There’s a standard list that is in most radios that you select from. CTCSS is also known as “PL”, which is a reference to Motorola’s name for CTCSS, and “tone” a generic name. Depending on the radio and the capacity of the display this can also be abbreviated.

**TONE SQUELCH (T-SQL)** is a tone you set in your radio so that it only hears signals with that specific CTCSS on. Some repeaters send the tone with their transmitted signals, others don’t. Unless you’re experiencing interference, and are sure the repeater sends the tone, leave it off.

**DIGITAL CODED SQUELCH (DCS)** is a digital version of CTCSS that puts a continuous stream of digital data on the transmitted signal. As with CTCSS there’s an industry standard list. As with the tone squelch there is a digital version.

If you click on the frequency on the repeaterbook listing it will show additional information about the repeater.

In the example below the TONE IN/OUT indicates that the repeater is sending a tone when it transmits so you can use the tone squelch option.

The CALL LINK provides a link to the club that owns the repeater. If you use a repeater regularly, think about joining the club as your dues contribute to the operation of the repeater. Some clubs maintain a number of repeaters.

WIDE AREA indicates that due to the location of the repeater, it covers a large area. I know some along the Rocky Mountains that cover from the Colorado/Wyoming border to almost the southern Colorado border.

ECHOLINK is one of a number of different voice over radio linking methods that allows a user to connect one repeater to other repeaters anywhere in the world. However, this is beyond the scope of my article.

**PROGRAMMING RADIOS**

Ham radios allow you to store repeater and frequency information in memories for quick access. There are two ways to program repeaters and simplex frequencies that you want. One is direct entry from the keypad. This can take some learning until you understand how the menus are laid out. You’ll also need to know any abbreviations the manufacturer uses for such things as the CTCSS. However, you should know how to program your radio from the keypad.

Another way is with a computer program. There is a free open-source program called CHIRP that will program the basic information into many radios. You do need to make sure that it’s the right programming cable. There are reports of issues with some cables working with CHIRP.

RT SYSTEMS develops software for most radios and it allows you to program some of the other features of the radios, such as display colors, etc. The format is a spreadsheet type layout that allows exporting and importing. This makes it very easy to put the same program in different radios.

Read the article BEST WAYS TO PREPARE FOR YOUR HAM RADIO LICENSE for information on studying and finding a test near you. Once you’re license and have chosen a radio, get on the air and practice. Become familiar with your radio and what the coverage is of the repeaters in your areas. Read the article DEVELOPING A COMMUNICATIONS PLAN FOR YOUR GROUP so your family and friends can keep in touch in an emergency.

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**Frequency:** 145.1150
**Tone In/Out:** 100.0 / 100.0
**Location:** Fort Collins, Horsetooth Mountain
**County:** Larimer
**State:** Colorado
**Call:** W0UPS
**Use:** OPEN
**Op Status:** On-Air
**Coverage:** Wide area.
**Sponsor:** Northern Colorado ARC
**Features:** 7,230', 120 watts, e-power, closed autopatch.
**Echolink:** 4236
We have written several articles on programming and using the Baofeng radios. In this article we will focus on some key information as well as some valuable tips for using the radio. Most of the basic menu functions in the Baofeng are the same in the BTECH brand, although BTECH mobile radios have additional menu items.

**VFO VERSUS MEM**

When you turn the radio on it will usually say “FREQUENCY MODE” or “CHANNEL MODE.”

Frequency mode is the same as VFO, so the orange button will switch you between frequency mode and channel mode (“MR” on the VFO/MR button).

FREQUENCY MODE allows you to program a frequency into the radio, as well as other variables, discussed below.

CHANNEL, OR MEMORY, MODE (MR) is where you can select a channel that you have previously programmed into the radio. A channel contains the frequency, offset, shift, CTCSS and other parameters to access a particular repeater, or it can be a simplex frequency that you have saved.
**MENU**

The menu button gives you access to the functions of the radio, such as frequency shift, CTCSS, etc. Each function has a menu number which is displayed in the upper right corner below the battery indicator. Menu items can be selected by the up and down arrows or by entering the menu number.

When the menu item is selected press **MENU** again to make changes to the menu item.

**SAVING TO MEMORY**

If programming from the keypad and you wish to save what you have entered in frequency mode, you must first delete the existing contents of the memory location before you can save.

Delete memory/channel (**DEL-CH**) is menu 28

Save to memory (**MEM-CH**) is menu 27

**RECEIVE FREQUENCY**

The receive frequency (output of the repeater) or simplex frequency is entered on the keypad when in channel mode.
OFFSET

The offset is the shift, or difference between the receive frequency and transmit frequency. The standards are 2m = 0.6MHz (or 600kHz), 70cm = 5.00MHz, 1.25m = 1.6MHz, OFFSET is menu 26

The OFFSET DIRECTION + or – must be set manually. SFT-D is menu 25

When you look repeater information up on repeaterbook.com you will usually see the (radio) receive frequency with a + or – after it to indicate the shift direction.

CTCSS OR DCS

A repeater may have a tone that is required to access it. It will either be an analog tone or a digital tone. There is a standard table and it is built into the radio memory. An analog tone will have a decimal, i.e., 123.0. A digital tone will be three digits.

Analog tone is menu 13 T-CTCS Digital tone is T-DCS menu 12

You will see R-CTCS and R-DCS – these are receiving tones. Some repeaters send out a tone that you can program in. In most circumstances it is best to leave it set to OFF unless you get interference. This is the most common problem when people say they can’t hear the repeater, they have a receive tone set when the repeater doesn’t transmit on.

EXTERNAL ANTENNAS

If you are connecting an external antenna to your handheld, you should use a strain relief cable. This is a short, thin length of coax with a SO-239 connector on one end that connects to the antenna cable and a SMA-M connector that will connect to the radio.

I would be negligent if I didn’t mention that the Baofeng and BTECH radios will transmit outside of the ham bands. The FCC rules for FRS, GMRS and MURS (frequencies the radios can transmit on) have specific requirements and features for radios to be approved to operant on these frequencies. One rule is that a radio cannot operate in any other band, another is power restrictions.
FINAL THOUGHTS

The Baofeng and BTECH radios have significantly reduced the cost to enter into ham radio. They offer some unique capabilities for post SHTF. Their low costs allow you to purchase a number of them and store them away in Faraday bags.

You need to know how to use them, you need to know how to talk on the radio, therefore I cannot urge you enough to get a ham license if you do not already have one.

Search for your local ham club and see if they are offering classes. There is also a large amount of free material to study your Technician license, including written material and videos.
In the movie, our hero is moving through various landscapes, using his wits and tactical superiority to stay one step ahead of his aggressors. One thing that fell short to lazy movie writing is his tradecraft, at least his tradecraft within the reality of his situations. To explain, his capabilities seem to center around technology, financial superiority and brute force. Within our real world, tactical superiority will come from our utilitarian methods and the ability to mask any tools to maintain that advantage over our adversaries rather than being good at fighting. Physical force to evade a situation works well in movies, but in reality, the chances of success are so miniscule, the risks far outweigh the benefits.
A few years ago, I had a conversation with a close friend that works in some of the worst places on Earth for an alphabet agency. He asked me for some ideas or resources for a small kit that he could carry in the middle east that would assist him in the event he was detained. Sure, any kit you carry can be easily found by a skilled abductor, but the question was: would the benefits of carrying such a kit outweigh not carrying one? This planted a seed in me that I have carried to this day. I immediately started researching, brainstorming from actual travel experiences and planning how to build such a kit. What I came up with was simple, easy to duplicate and had about a 1% chance of success. When you are isolated, being chased and in extreme danger, 1% is 100% better than nothing. So here is what I did.

When traveling in the states or abroad, I found quickly that different countries had various levels of security within their airports. Airports are pretty much the rubric for which we work because traveling by ocean just isn’t practical anymore and air travel has taken the market in mass transit across the ponds. I needed a kit that I could conceal within my clothing or belongings that would be easy to access if detained but not detected by metal detectors or scanners. What I learned is that I needed to imbed any items of need into my wardrobe, all of which were of non-metallic construction and would be easy to hide in shoes, pants or jackets and be accessible both from the front or back in the event my hands were tied. Now, you need to understand that these items are not meant to defeat a set of handcuffs while you are sitting in an airport police department, but rather against any aggressor that most likely is a bad guy rather than local law enforcement just doing their jobs. If you do get detained in an airport or law enforcement agency, best to rely on a good lawyer or embassy attaché rather than attempt a flamboyant escape that will surly get you shot or beaten down.
Starting at the feet, I found a source online where I can get Kevlar shoe laces. I have been using them for the better part of a year and can say, they don’t actually work as well as a good pair of sneaker laces but if you are tied via nylon flex cuffs or duck tape, they can be removed and used as a saw to defeat the restraints. You better be prepared to fight if you do defeat these type of restraints though, there are no guarantees of success on the package. Next, I secured small nylon handcuff keys, both at the 12 and 6 o'clock positions in the belt loop seams of my dungarees. The material at the tops of most pants are doubled, leaving folds that can be accessed with a small razor and the handcuff keys sewn in with a nylon lanyard with a small bead to give you a bit of grip. If you’re handcuffed by an untrained amateur, you may very well have the dexterity within the cuffs to access the keys and gain the freedom of your hands. A good cop on the other hand will have your palms facing out and its almost impossible to get a key in the cuffs. Again, you better be ready to fight as escape is only the first part of a rapidly escalating situation.
Next, I thought about a cutting tool. Metal is a no-go in airports, I wouldn’t even attempt to take any sort of blade other than a TSA approved credit card sized metal tool. I have one, but it has no sharp edges and have had it looked at a few times by TSA and been allowed to keep it. With a little internet searching, you can find small ceramic blades, not more than a centimeter or two in length that can pass through with ease. No worries from the coppers on this one and if properly hidden, may provide a decent cutting tool to defeat duct tape or rope with a good amount of effort. These too can be sewn into your clothing with a small bead attached to allow you to get a hold of it when needed. If you happen to be going to a more primitive country, the crotch is a heavily respected region of the body and rarely will anyone do a full on grope and peek at your junk, giving you an area to pay attention to when you kit up for movement. This is where me and my agency buddy came up with the “ball sack bag.” You’re laughing, and that is totally okay. I’m laughing too, but I assure you, it works. A couple of large adhesive bandages, around two by two inches, placed on top of one another creates a pocket that you can adhere to your inner thigh, right up next to your family jewels or holiest of holies for you gals. You’re still giggling, and that is okay, we are in the big survival leagues here and there is no shame. Inside the pouch, you can place nylon handcuff keys, small piece of Kevlar string for cutting, ceramic blade or even a lock pick set if you are not traveling through metal detectors. Slap this bad boy or girl into place, and move throughout your day, replacing the bandages daily. Be mindful that this is not an easy area to access when detained or being actively monitored as your hands will be bound either in front or behind you at the waist level. Digging into your bottom for an escape tool will be easily noticeable so be discreet or wait till you are alone to remove and re-stash your items for future use.
Finally, this brings us to the actual attempt of freeing yourself. Defeating handcuffs, while handcuffed, cutting duct tape or rope restraints is difficult, especially under duress. You have to practice. The same applies to lock picking. If you don’t have formal training, it’s useless. Plan some training time, and outfit yourself as you would be traveling and attempt to escape different bondage techniques. Be prepared that it is extremely hard. You may want to invite an interested friend to train with you so that your wife doesn’t come home to find you handcuffed in the living room with your hands down your pants attempting to dig out an escape tool. If you do, show her this article and apologize for me.

Urban survival or any survival for that matter, can boil down to what YOU are doing differently than everyone else, how skilled you are and how much you train for such an event. Again, a 1% solution is 100% better than no solution. Free yourself from bondage, fight hard and escape and evade utilizing the skills you have learned. Train your body and mind for a fight, it will be coming. Win, get home and do it all over again.
While the danger of nuclear weapons gets all the headlines, one of the greatest potential threats we face is the possibility of a weaponized EMP attack or naturally occurring solar flare hitting our power system.

In either case, the entire power grid could be shut down. You may not think that the power grid is that vital compared to the threat of natural disasters or missile attack...but it has been predicted that a full scale grid shutdown could take three years to repair.

With the loss of our power grid, cell towers and power plants could well be out of commission for a long time.

That’s why savvy survivalists make preparations for such an event by purchasing stand-alone devices like solar chargers, walkie-talkies, ham radios and other communications gear.

Just having a few inexpensive pieces of tech can give you a massive advantage when everybody else is without technology.

But they won’t be any good to you if they getfried by the initial EMP or solar flare.

It’s vital that you protect your critical stand-alone devices so you can use once the danger has passed.

So how do you go about protecting your important gear?

In many cases the answer is a Faraday Bag. These are inexpensive solutions that can protect all of your personal devices from outside threats.

WHAT IS A FARADAY BAG?

A Faraday Cage can be created by constructing an enclosure built with sheets of conductive materials, or by creating a continuous cage of conductive materials. When an electromagnetic pulse hits the cage, it is easier for the pulse to travel through the conductive materials than it is to pass into the interior of the cage.

The nature of the cage protects devices and people inside from radio waves or even from lightning bolts. It also prevents devices inside from transmitting outside of the cage.

A Faraday Bag is simply a smaller, more portable version of a Faraday Cage. It works in exactly the same way.

It can block an EMP blast from frying your electronics, or can protect them from a lightning strike. It can also protect against hackers or thieves trying to access the information on your devices or cards.

There are medium sized bags that are ideal for tablets or laptops...and smaller bags for cell phones and wallets.

Cell phones in particular have GSM, 2G, 3G, 4G, CMDA, Wi-Fi, Bluetooth, GPS, and NFC radio devices all built into one phone.
Each of these radios sends and receives sensitive information by way of radio emissions through the air on differing frequencies. Your phone itself will not stop its normal operations in a Faraday Bag.

But when it listens for transmissions it will not receive any, and when it sends transmissions they will never leave the bag.

This gives you complete protection on all of your portable devices.

**HOW SHOULD I CHOOSE ONE?**

First and foremost, choose one that is large enough to fit your devices. These bags come in all different shapes and sizes, so you should either take some measurements or test the bag out before you buy it.

The second point to make on these bags is that each one is designed for a certain range of frequencies. Not all of them block the same types of radio and electrical waves. Depending on the frequency and power of an EMP blast or a solar flare, the bag may or may not work.

In addition, each one of your devices transmits on a specific frequency. You have to be sure that the bag you choose will block your particular device.

To test your bag simply put your phone inside and try to call it from another phone. If the bag is working, it should go straight to voicemail.

Next, try to message your phone on Facebook or another platform that relies on internet data. Again, if the message does not go through then the bag is working.

**HOW CAN I USE IT?**

In addition to containing sensitive texts, emails, and other documents, your portable electronic devices can be hacked to spy on you in several different ways.

*It is vital that you have control over the way your cell phone communicates.*

To really understand how a Faraday Bag accomplishes this, let’s look at a sample scenario.

Imagine that you have been targeted to be robbed, kidnapped, or even killed. I know this may seem outlandish, but bear with me.

An hostile actor has hacked your phone and learned your account balances, your personal contacts, business you are in, where you live, where you work, and any other pertinent information.

Based on this, they have determined that you should be a target for them. The criminal can then use all of your phone’s radios and sensors to get additional information from third parties, such as your cellular carrier.

This will give them a constant read on your location and allow them to listen in to your conversations live.

A cellular phone is one of the most useful devices that law abiding citizens have in our modern society. It is lousy to think that we have to limit our usage just to prevent a criminal from using it against us.

This is where a Faraday Bag can provide some solutions.

If you are on a business trip or on vacation, this is a prime opportunity for you to be targeted. From the point where your plane lands, to the Uber ride you take, to the hotel you check into, a hostile actor can know your every move.

As you hit the town for dinner, drinks, or dancing, they will know exactly where you are.

Instead of leaving your phone in your hotel to prevent being tracked, you can put your devices in a small Faraday Bag to carry it with you. No data will be transmitted and nobody will have access to third party services, so your phone or other devices will be completely off the grid until you remove it from the bag.

It would be as if your phone did not even exist.

If you need to use your phone in an emergency, you’ll have it with you. But it won’t be able to be used against you while you travel.
EMP PROTECTION

We’ve already discussed how an EMP event could radically change our country in one fell swoop.

As part of your prepping, you may want to have a large bag set aside with items specifically for this possibility. In the event of a grid shutdown, cell towers and power plants would be fried. This means you need stand-alone electrical devices in your bag.

Some good devices to consider instead of a cell phone would be a solar charger or a battery pack. A set of walkie-talkies would still work fine if they were in your bag.

For entertainment you may want an IPod, a laptop, or a kindle that can be used without internet or any kind of a signal. A solar calculator might even be a good idea since you will not have your phone. Consider adding these items to a Faraday Bag as part of your prepping.

FINAL THOUGHTS

It is scary to think about all the ways that things can go wrong in a society that relies on technology. I have personally done everything I can to prepare to live without technology, and I am very careful with the tech I currently use. We have to be realistic about the threats we face today and the threats we will face in the future.

You cannot be cautious enough with the portable devices you own that can transmit sensitive information. These devices such as your cell phone know everything about you. When somebody wants to track you down or steal what is yours, your cell phone is the best tool they have. If you are going to use these devices, you have to use additional precautions to ensure you are protected. In addition, we never know when an event will occur that wipes out any unprotected technology. There are several ways this could happen, so it is vital that we have a way to protect our stand alone devices to be used after these events.

Just having a few inexpensive devices in a protected area could make all the difference when everybody else is completely without technology.

A Faraday Bag is the answer for all of these concerns. It can limit the risks you have when using a cell phone or laptop, and it can also protect stand-alone devices from outside threats.

These inexpensive bags come in a variety of sizes, so you can find the one that perfectly fits your needs. Take the time to do some research, read some reviews, and make sure you are prepared.

In the end, I can assure you that you will not regret your decision to make an investment in a Faraday Bag.
It’s a **ONE-STOP SHOP** for all of your survival needs including food prep, COMMS, tools, clothing, etc. At Survival Dispatch, we want to educate you on the items that will prep you for when SHTF, and **THIS STORE INCLUDES ALL THE GEAR THAT YOU MAY NEED.**

We’ve included pretty much every product that we’ve used, reviewed, blogged about, written about, shot video about, etc. including any gear mentioned in the monthly Insider.

Each month, we’ll keep it updated as we release new content on our site so that you never miss out on the latest and greatest gear.

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[Available at Amazon](https://www.amazon.com)
It’s inevitable that security comes up when we’re talking prepping. It comes up for good reason as it’s level of importance cannot be overstated. No matter what aspect of preparation you point to, security is the unmentioned component. There is no sense in having things if you can’t protect or defend it. This isn’t to say we’re preparing for war, which is an entirely different topic. What I mean is that security primarily comes down to situational awareness and making some plans accordingly.

**Physical Security Is Typically Broken Down Into Three Rings.**

This can sometimes seem very military in nature. While that’s not the intention, it only makes sense that the very essence of the military is this very topic. But don’t get lulled into the bravado of entering into what can be perceived as a military exercise. Most of us are civilians. As such we don’t possess the tactical expertise to form a physical security plan. I hope to help form the basis of what a physical security plan should look like with this article.

Before we get into the actual three rings, there are a couple of things that you need to define. The first is, what is your AO or area of operation? Yes, there is one of those military terms but for the purpose of this article they’re necessary. Think of your AO as your area of influence. This is the area in which you plan to project force. More on force later. The second is, how many people do you have at your disposal to accomplish this mission? These two things are directly related. The size of one will dictate the size of the other. Just as the limits of one will dictate the limits of the other.

We’re going to begin with the third ring of security. This is the farthest layer of security for whatever it is you intend to protect. For the sake of simplicity imagine a large gated community. One where the one percent of the nation lives. There is a main gate to get into the community and each estate also has a gate. Each house also has a front door. This is in essence your three rings.

Now imagine this in your neighborhood. Where is your main gate? Considerations for this exercise are, how far from your house is it? What is your transportation plan? Do you have enough manpower to man this outer ring? Provide a QRF, or quick reaction force, to come to the aid of those on the outer ring should they find themselves in a violent encounter?
Your third ring is the farthest point from your base of operation. This is usually your home in most cases. Unlike the other rings, the third ring doesn’t necessarily have people in static positions. Quite the contrary in fact. On your third ring you want mobile elements that make foot or mounted patrols at random intervals and in random patterns. The biggest threat to your third ring is the establishment of a pattern.

But, there is always a but, at times you may want to establish a temporary OP, or operational post. The impetus for this may be seeing signs or activity in your area. It may then be necessary to establish an overnight OP to see what’s happening in the dark. This shouldn’t be used for more than an overnight operation.

That is the reason static positions aren’t the best for the outer ring. A static position is easily spotted and therefore evaded. If you’re in a fixed position, you’ve already done a third of your oppositions work for them. Now, all he needs to do is close with you to destroy. That last thought is the very reason for the third ring. Its purpose is to disrupt the opposition’s ability to close with your position without your knowing.

We’ve established then that the third ring is the area in which you plan to deny anyone the ability to operate without your knowledge. Now, this doesn’t mean no one is there. Your third ring could very well encompass several other homes where you’re all working together to provide mutual support and security to one another. Which brings us to the relationship of area you intend to patrol and the number of people at your disposal to do so.

The smallest element that should ever be sent out on a patrol is three and even this is pushing it. Four is better. In a three-man team if one person becomes injured, be it from gun fire or simply rolling an ankle, the other two are now combat ineffective. They now have to carry the third person out. Forget the Rambo dreams of carrying your brother-in-law out over your shoulder like a fireman. Moving a person over any distance is a very rough job. One that would be so difficult for two people as to be near impossible. If you add in the possibility of being pursued and shot at, before the end of the day you’ll have three casualties in short order.

The job of your three or four-man team is to project force. Remember that if you’re not putting boots on it, you don’t own it! No amount of observation from distance can make up for standing on that same ground. From a distance you cannot see footprints. You cannot see where someone may have moved through. You cannot see where they’ve snuck in at night and built a hide to allow them to observe your position to develop an assault plan. You have to walk the land.

**THE CRITICAL ASPECT OF THIS IS THAT ANY PATROLS IN THE AREA ARE RANDOM.**

Going back to the idea that your AO encompasses several homes, you’ll have the manpower to do so. Maybe each place has a three-man element that can conduct a patrol. These are organized so that at random times each unit conducts a patrol. Since they’re leaving from their compound it won’t be from the same location as the others. They take a different route, patrol a different section of the AO. This is the best way to ensure you’re not establishing a pattern.

The last piece of the third ring equation is the ability to support the elements that are patrolling the AO should they get in trouble. That means a QRF standing by, ready to deploy immediately. The QRF cannot be engaged in anything that takes them away from their ability to react immediately. Not working in the field for instance. Now, that doesn’t mean they have to be sitting in the truck waiting to go. They just need to have their gear staged and be able to drop what they are doing at a moments notice to back-up the patrol elements.

The primary concerns of the third ring are, what do you intend to project force on? Do you have the manpower to do so? Can you provide a QRF to support the patrol elements? There are a couple other elements as well, but they also apply to other elements of your security that will be covered later. But the number of people you have is the primary concern and one that needs to be carefully thought out.

Let’s move on to the second ring. Unlike the third ring, your second ring is the place for static positions. These are typically referred to as OP’s or LP’s, listening posts. Typically though, they’re combined into LPOP’s. For our purpose here, I will simply refer to them as OP’s. Going back to our gated community example, the second ring is the fence around the estate. Whereas the third ring is designed to deny the opposition to close with your position unnoticed, the second ring is where you’ll stand and fight.

OP’s need to be established in a manner that allows them to support one another with interlocking fields of fire. So that should one come under attack, at least one other can provide fire support. The field of vision from any single OP needs to also be taken into consideration. The key here is that there be no blanks in the visual coverage that would allow someone to approach without being observed or heard.

It’s here in the second ring where **FORCE MULTIPLIERS** come into play. A force multiplier is anything that gives you an advantage over the opposition. Optics, binoculars, night vision, thermal optics are all things that will provide a distinct advantage to your second ring of security. In this game, you want every advantage for your side. With that said, in this article we’re not going to cover warning devices. I will address that in another. For now, just keep in the back of your mind that you would also want to incorporate signals that could alert to someone’s approach.
OP’s are most effective if they’re manned. But don’t underestimate the value of creating a very obvious OP. The psychological aspect of seeing what is an obvious reinforced position will force anyone thinking of attacking to alter their plans. But at the end of the day they are a ploy and the opposition could call your bluff. That is why it’s imperative that every manned position be able to support one another and there be no blind spots.

Unlike our decoy OP, we want our manned positions to be as concealed as possible. There are a number of great videos on YouTube on how to construct these. Constructing concealed locations is a skill that takes time to develop. This is a vitally important step. Use the natural elements to your advantage. I’m not going to do this if your OP is constructed of cut material, it will need to be replaced every other day or so. A large clump of brown in the middle of a green tree line would be too obvious. Pay attention to what it’s made from. If you can get military or even commercial camo netting, they’re a great addition. But camo netting alone is not enough. Natural material needs to be added and replaced as necessary.

The next primary concern is access. Not only into the OP proper, but even the routes taken to access it. The routes to the OP need to be varied. A beaten path of bare earth leading to your OP will render its effectiveness to near nothing. The idea is to be able to see them before they see you. The same goes for access into the hide. This will be more difficult because there are only one or two ways to physically enter the space. You can mitigate the issue to a degree by using burlap or a tarp at the entrance that will help protect the immediate area. Just pay attention to this as it’s important and very difficult to deal with.

Ideally an OP would be manned by two people. This would allow for breaks from the optics while also providing fire support and the ability to provide comm support. We’ll talk about comm later. With that said though, a single person will do. It will just require the shifts in the OP to be shorter. Which brings us to an important point. Ideally, shifts in the OP should be around two hours. When I worked in the physical security world there were a number of studies done to determine how long and how much one person could watch while still being effective. It was determined that people began to lose effectiveness after two hours. While two hours is ideal, it may not be practical and longer shifts required. However, a shift should never be more than four hours for a single person.

I’ve had this discussion with numerous people and most of them, in my opinion, are very naïve in their perception of the group’s capabilities. I’ve had people tell me they would do twelve hour shifts in an OP. While it’s possible, it’s a terrible idea. No one sitting in a cramped location for twelve hours will be very effective. The possibility of someone falling asleep goes up exponentially. Which is also why it’s a good idea to have two people in the hide, to wake you up when you fall asleep!

The duty of those in the OP is to look and listen. In the extreme, it’s also to shoot. But this is a last resort. The first time you pull the trigger from inside the OP, you’ve just burned it and will have to move. If it comes to it, your OP’s are a prepared defensive location to engage from and should be equipped as such. Extra ammo, water, food, and signals should all be kept in the OP. Ammo cans are a good way to do this. This also reinforces the fact that your team should have standards on weapons. A can full of AR mags in the OP will be useless to the guy that shows up for his shift with an AK.

Should your OP be forced to engage, the ammo stored in the OP should be used first. Because if things don’t go your way and you have to fall back, the shooter should have a full load of personal ammo. In addition to ammo, flares, smoke grenades, and signal panels are all good items to keep in the hide. I wouldn’t store medical items there as they’ll be exposed to the elements. Plus all your personnel should have an IFAK on their person.
Design your hide to have enough room to be comfortable but not so much as to allow people to fall asleep easier. Creature comforts are important, just remember you want it uncomfortable enough to keep them awake. This is very important, remember it.

To recap, position your OP’s to provide interlocking fields of fire and visual support. Camouflage cannot be stressed enough. Build them accordingly. Alter the routes to them and take measures to protect the entry points. Stock them with needed materials. Make them comfortable, but not too comfortable. Amplify the effectiveness of your OP with the addition of optics.

The third ring of your security is the Alamo. Typically, this will be your home or whatever structure you’re living in. The first thing to establish at the Alamo is your emergency exit routes. If you’re pushed back to the Alamo and then forced from there, you’ll need a way to get out. By a way out, I actually mean several ways out. Look at it as though you’re going to assault it. Consider every approach an adversary is likely to do and then plan escape routes. Remember, a static target is just that, a target.

Reinforce your Alamo. Modern construction in America is not at all designed with ballistic protection in mind. Unless you have a block home with poured walls, even a .22 is a threat. Establish fighting positions. Sandbags are the easiest way. While no one wants a pile of sandbags under the living room window, you’ll need the cover. Another consideration is placing sandbags on the outside of the house to create the same ballistic protection.

At the Alamo everyone is a shooter. If they’re old enough to hold a rifle, they’re part of the defense. Even elderly or handicapped people can aid in the defense as this is a static position and will be defended to the greatest extent possible. The alternative of being overrun is not acceptable.

The Alamo is also where all the important work takes place in regard to the three rings. Maps should be up on a wall in an area designated as the CP or command post. The importance of maps cannot be stressed enough. Information is a weapon and a more powerful weapon than any rifle. It will allow you to make decisions on when and where to engage, or whether to even do so. Having detailed maps is critically important. After every patrol, the personnel should be debriefed in front of the map and any intel gathered should be updated on it.

This also brings us to comms. Communication is probably the most important component to a security plan. There are a number of ways to do this. Radios are the obvious choice. Your patrols and OP’s should all be equipped with radios. All communications should be routed through the CP. That means that someone should be on duty 24/7 in the CP. The good thing is, that’s the only person that needs to be on duty. Should things turn western, your patrols and OP’s should be able to alert the CP who can then rouse the defense.

Another valuable item at the CP is a good quality scanner. Most people will be using cheap radios from Walmart or Amazon. A scanner like the Bearcat Home Defense will pick up on these transmissions. This is a two-way street though. The opposition could very likely be using scanners as well. We’ll cover signals security in another article.

A good choice for OP comms are old military field phones. The benefits are a direct line of communication to the CP that cannot be intercepted. If these are used, a radio should be kept in each location as a back-up. Communication needs to be structured and constant. Patrols should have checkpoints when they will call in. The duty person in the CP would then mark on the map where the patrol made contact from so that in the unfortunate event you lose them, you have a place to start looking.

That means having a plan. If we’re doing things such as establishing OP’s, the world has changed. In that world, nothing is done without a plan. Patrols are planned in the CP. The routes are marked on the map with checkpoints when the patrol will call in. Duty rosters are coordinated at the CP and posted. The OP’s should likewise call in to the CP. There’s a couple of reasons. First, to ensure those on duty are still awake and doing their job. But also to ensure they’ve not been compromised. I won’t go into codes and such in this article. However, having codes is also very important to ensure the integrity of your security plan.
To recap the first ring. It's the Alamo where the final stand will take place. That's where all your gear and supplies are as well as the most important aspect, the people you're trying to protect. Every member of your group is a member of the defense. If they can hold a rifle they're a shooter. If not, they can provide other support like carrying ammo or simply watching the rear. The Alamo is also the CP where all command and control takes place. All comms are routed through there and the CP desk is manned at all times.

As we now see there is a lot that goes into establishing a security plan. I hope this article gives you the information to get started developing your plan. If you're feeling overwhelmed and not sure where to start, start with comms. Get a comms protocol established and acquire the equipment. Next, work on your optics. If you can't see it, you can't do anything about it. Do your research on how to construct your OP's. And lastly, work on your PT. All of this is hard work. Patrolling takes a physical toll and it will do no one any good if you have to be carried back from the field.
HOW TO BUILD A PREPPER GROUP

If your plan is to run into some random people during the apocalypse and form a cohesive group of skilled survivors, think again. Great teams don’t just spring into existence. They are built. The time to build your doomsday dream team is now, not during a disaster.

PREPAREDNESS STARTS AT HOME

The most practical place to start building a group is within your immediate family. Since these are likely to be the folks that you’re trying to provide for and protect, why not involve them in the preparation process? Even the young and very old can play a role. While some family members will want nothing to do with a prepper group or self-reliance, some of them may go along with it due to a feeling of familial obligation. If you’re lucky, some may become motivated contributors. Anyone that engages will be bettering themselves and it’s a win in your book. You can also reach out to extended family and trusted friends to gauge their interest level in participating. An easy way to break the ice is to host a family event, offer food and then practice a skill. As an example, I rounded up a group of older family members and brought in a first aid trainer last year. We had a nice meal and everyone had a lot of fun learning some new medical skills. At the end, we all had a chance to relax and chat about preparedness plans. It was time well spent. Since it’s dealing with family, you may really have to bite your tongue at times. At first, make sure these gatherings are perceived as family events and fun activities. But secretly provide useful prepper skills since you don’t want to upset or drive off timid family members with a gloom and doom show. Once you figure out who is onboard, be more overt with your group gatherings. With any luck, there will be a great role for all who want to contribute. Prepper group members don’t all have to look like John Rambo. Even a wheelchair-bound granny can contribute by sharing hard earned wisdom and watching over the young ones. Together your group can make plans for yourselves and plans for the family members you’re willing to support after a crisis hits. Even if everyone isn’t willing to contribute now.

The benefits from building this prepper group of loved ones are obvious. The people you were planning to care for anyway are now taking the initiative to provide for themselves. Each member is better prepared for the uncertainties of the future. These activities and the time you spend with each other may even bring the family closer together. Of course there is that odd chance that family members will butt heads, over preparedness plans or personal squabbles. But fights happen in every family and the pros of building this group far outweigh the cons.
ADD TO YOUR GROUP

With the help of family members, start screening and recruiting new members for your group. Ideally these would be local people with a valuable skill. Group members who could provide security and medical care on a professional level would be highly valuable in a disaster setting. This could include people with military, law enforcement, and medical training. People with these skill sets are typically on your top tier of importance. Secondarily, each group would also need people who can cook for an entire group, possibly without utilities. Cooking may not seem like a high priority at first glance, but it's surprisingly important since an army moves on its stomach and unskilled food prep could sicken the whole group. I'd place off-grid cooking and farming skills as a second tier since they are the skills to feed the group. These farming skills can include animal husbandry and growing crops. A third tier of skilled people could include those with building, repair, and communication skills. This is the broadest group. It can include anything from automotive repair to carpentry to HAM radio experience to home building. Certainly, there are plenty of other skills that people can pick up along the way, things that anyone can do. Water procurement and disinfection is a vital topic. So is sanitation. But these aren't skills that take years to learn. The prized skills that we have discussed require years of experience and specialized training. But don’t be a skill snob. Don’t ignore people with no skills as group members. Every person has the potential to be a talented and valued group member, as none of us know it all. Those who are willing to work hard and eager to learn may end up becoming some of the most valuable members of your group someday.

deal of wasted time. You can put your emergency plan to work right away instead of wondering what and when to do things. This brings sanity and a greater margin of safety to dangerous situations. Your prepper group needs a unified and integrated plan for the most likely disasters your region would face. Here are just a few of the issues that your group should discuss and decide upon in order to build disaster plan.

- What EXACTLY is the group preparing for?
- Who should know about your group and who shouldn’t?
- How long of an emergency are you planning to ride out?
- How much food and other supplies will your group size require for that time?
- How will you resupply?
- How will you communicate, even if the phones are out?
- Who will assist family members who have mobility problems, medical issues, communication difficulties, or special needs?
- What are the rally points and will one of your houses be Headquarters?
- Where EXACTLY will group supplies be stored? All in one place or modular? Who will have access to them?
- Who will maintain, inspect, and rotate any group emergency supplies such as non-perishable food, water, first aid, lighting, and communication equipment?
- What are your plans for bugging out, with and without vehicles?
- What are your plans for bugging in?
- Where is your water coming from and what is the back-up?
- Who will care for pets and livestock? How will they care for them?
- Are there self-sufficiency skills and supplies that the group needs?
- What are the evacuation plans and routes if you have to leave your home?
- When will you schedule training and drills?
- What are the roles and chores of each group member?
- What’s the chain of command or form of group leadership?
- What are the group rules, who will enforce them, and how will they be enforced?

So how do we benefit from a group emergency plan? This plan is your framework for survival. It tells each member what to do and when to do it. The multitude of time consuming emergency decisions have already been made. This allows your group to function fluidly without stopping to argue over all of the minutia of every choice. By allowing the group to have input, many minds are more powerful than one. Group members may think of things that never occurred to you. Of course the plan will have to change based on the exact emergency and who is present for it. However, it’s far better to have a plan that needs adjustment than to build a plan from scratch during a crisis.

And what are the benefits of expanding your group? Diverse skills sets and experiences make any group better prepared for the unknown. These people may end up becoming your fast friends. Finally, you’re likely to experience a greater peace of mind and a sense of comfort from adding skilled people to your group. It’s hard to put into words, though it’s something like finding an important item that you’ve lost. Relief is the closest feeling I can explain.

MAKE A PLAN

If you’re to the point of building a survival group, chances are good that there are already emergency plans for your own household. But what about your larger group? In the event of an emergency, a well thought out set of plans can reduce stress, limit confusion, and save a great
(write family name above)

Family Emergency Plan

This Plan belongs to:

(write family MEMBER name above)

From the Pleasant Grove 1st Ward

Key:

W/S = Work or School
Add = Address

www.PG Ward.org for more info or to download a digital version.

Emergency Family Plan Kit Steps

When you’re done your whole family will have their very own booklets.

My 72-Hour Kit Location:

1. Fill in all each page with the information, which only applies to the whole FAMILY including Block Captains. Contact Clark & Linda Winegar Fidjiti@Fidjiti.com if you are not sure who your block captains are. Fill in anywhere it says Family or where the info would be the same for each family member including pets.
2. Discuss & fill in your Family’s Reunion Points & Security Words
3. Get Wallet Size Pictures of all of the people you’ll be including: your family, contacts or friends. (2”x3” picture or smaller will fit perfectly.) Glue them down!
4. Make 1 copy for each family member. (i.e. 5 people in your family = 5 Copies.)
5. Fill in the spaces which apply to each individual person. Personal Info Page, Health & Medical Info, and Relation spaces in each contact sheet. (i.e. Molly Mormon, DOB 1/1/80, Favorite food is tacos, she works at the mall on 123 State Street in Orem, allergic to nuts, Dr Niceguy…)
6. Cut each quadrant into 5.5” x 4.25”, put in order, Staple & put in a zip-lock baggie for protection.
7. Put each persons copy in their 72 hour kits. You can make extra copies for the car or kitchen if needed.

My Personal Info

Date of Birth:

Social Security Number:

Home Phone:

Cell/Other Phone:

My Eye Color:

My Hair Color:

My Height/Weight:

My Home Add:

My Email:

My W/S Add:

My W/S Phone:

My W/S Evacuation Spot:

My Health & Medical Info

My Dr Name:

My Dr. Phone Number:

My Pharmacist:

My Pharmacist Phone Number:

Family Insurance Company:

Family Insurance Phone Number:

Family Insurance Policy Number:

My Medical Conditions:

My Allergies:

Blood Type:
BUGGING OUT with a Large Group

INTEGRATING PRIMITIVE AND MODERN BUGOUT STRATEGIES

Survivalists operated from the Rawlsian paramilitary survival group paradigm for decades. They based group bug out strategy and tactics on what they knew, which was the US Infantry Squad. The Infantry Squad Model has lightweight infantry humping packs weighing upwards of 100 lbs and isn’t a great fit for the average prepper. This model and your bug out will break down in short order if you throw a 120 lbs pack on a guy who works a desk job, his wife, 2.5 kids, grandma, and his golden retriever.

The problems don’t stop there either. Survivalists have different group makeup, missions, and goals than the military. Survivalists trying to survive more often achieve this end by avoiding combat. The military’s objective is typically to take and hold ground to one end or another.

The US military is dependent on a superpower class logistics infrastructure with half a dozen personnel in the logistics tail for every soldier at the tip of the spear. Survivalists simply cannot duplicate this in any meaningful way.

The glaring issues with my field’s accepted best practices send me back to the drawing board. I found that small indigenous nomadic groups the world over are similar in strategies, tactics, objectives, and have nearly identical group makeup as survivalists.

I ended up blending modern tactics with primitive strategy and tactics to adopt a hybrid primitive/modern model. This combines the most effective aspects of each. There was no sense throwing out modern combat tactics and equipment as they port over to survival with minor modification.

FAST & LIGHT SCOUT/SECURITY ELEMENT

Most cultures I studied divided their group into a lighter, faster, better armed scout/security element and a slower moving supply train. The most fighting fit folks go into the former and grandma, the kids, and the golden retriever go into the latter. The slower group often uses traios, handcarts, pack animals, wagons, etc., to tow grandma and the supplies along. This allows them to go at a slower, more realistic pace.

The scout/security element forges ahead and clears the way for the main body, leaving trail signs for them to follow. If they encounter enemy forces, a small reconnaissance team surveys the enemy from a distance. Ideally they go unnoticed and the bulk of the element leads the main body away in another direction. Hopefully, safely bypassing the threat. When the security element does engage the enemy the aim is typically to harass and distract them. They’ll draw them away from the main body then use speed, mobility, and small size to slip away.

SLOWER MOVING MAIN BODY ELEMENT

The main body moves supplies, wounded, infirm, and members of the group who are outside the military age range. They do this using mechanical advantage to carry more weight at a slower pace. The main body is more lightly armed and follows behind the security/scout element, interpreting trail signs then scattering them.

In some cultures, the main body steps into the footprints of those ahead of them to conceal their numbers and confine spore to a smaller area.
RAPID REACTION FORCE

If the group is large enough in size, then scout/security element often benefits by further dividing. It can be divided into scout/security and a separate rapid reaction force which responds when the scout element contacts enemy forces. The role of the reaction force is typically to hit the engaged enemy in the flank. This allows the security force to break contact whereupon both forces infiltrate the area in different directions. If one force gets into trouble, the other can return.

BUGGING OUT ON FOOT

Foot travel is the most reliable form. If you have feet, you’re in business. Foot travel should be planned even if Plan A is to travel by vehicle. Every member should be prepared to Escape & Evade (E&E) their way to a rendezvous with other survivors at hole-up sites. These sites should have cached supplies and be along the bug out route.

TACTICS FOR BUGGING OUT ON FOOT

- **POINT** – Experienced scout/trackers should walk point, reducing exposure of the scout/security element and the group. Each element should have both lead and rear security.

- **CAT’S PAWS** – The point man, scout/ tracking element, or even the entire group can employ felt soles worn over boots to minimize visual sign. This enables them to virtually disappear on some types of terrain, especially as far as the average citizen is concerned.

- **WALK RANGER FILE** – Walking with spaced intervals between each member of the group reduces exposure to attack. If a column walks with 2m between each member and a grenade explodes on the trail, multiple fatalities could result. If they’re spaced at 20m apart it’s likely that only one would be injured. Intervals can be adjusted to between 10m and 100m depending on the terrain.

- **REAR GUARD** – A rear guard polices the trail for signs, provides security, and guards against attack from the flanks.

- **IMPROVISED MUNITIONS/BOOBY TRAPS/IED’S** – Few things demoralize and slow down an enemy like booby traps. When quickly and expertly deployed, booby traps can buy time and create wounded for the enemy to carry.

LINES OF DRIFT & CHOKE POINTS

Lines of drift are paths of least resistance that people tend to walk along. Travel expends energy, so people and animals alike tend to take the path of least resistance. Travelling along lines of drift makes people vulnerable to ambushes, booby traps, and IEDs. Bodies and wreckage will pile up along lines of drift in time of conflict.

EXAMPLES OF LINES OF DRIFT

- Roads & Highways
- Rivers, Canals, & Lake Shores
- Logging Roads, Trails, & Game Trails
- Railroad Traks & Lines
- Mountain Ridges
- Mountain Valleys
- Fence Lines & Hedge Rows

Bugging out on foot enables groups to leave main lines of drift where ambushes are most common. Criminals or enemies won’t waste time and resources manning ambushes in the middle of nowhere.

Choke points are geographical features where lines of drift merge to pass some type of obstacle. This can be narrow mountain valleys, passes, or bridges. Choke points and intersections of key arteries of transit are also ideal places to set up ambushes. As you plan bug out routes make sure to check choke points and other likely ambush spots so they can be avoided.

NIGHT TRAVEL ON FOOT

Night travel on foot using night vision and thermal imaging enables groups to detect others at a distance. The assess their strength and intent to make better informed decisions. Provided others aren’t similarly equipped, night vision and thermal imaging technology is an effective force multiplier.

LEAVE EARLY

Normalcy bias, analysis paralysis, and lack of preparation combine to slow the unprepared. This gives prepared groups an edge when the time comes to bug out. By hitting the trail or road while others are still packing, your group can avoid checkpoints and ambushes. Criminals and law enforcement alike will establish them once people realize the gravity of the situation.

Roadblocks were established in the aftermath of Hurricane Katrina. Roads were blocked by parishes that feared that a great horde of refugees would plunder their homes, overwhelm local infrastructure, and spread disease. They barricaded hurricane victims inside a flooded New Orleans.
BUGGING OUT BY VEHICLE

Bugging out by vehicle may go smoother if you leave soon enough. Traveling by vehicle will be risky once the populace realizes the situation they are in travel. A large group mitigates some of the risks but also gives others time to react. Plus, it won’t easily slip through unnoticed, especially if few vehicles are on the road.

Keep in mind that convoy tactics and vehicle modifications offer solutions to many problems encountered while bugging out by vehicle.

RETHINK DRIVING STRAIGHT THROUGH

Reality will set in for the general populace that they’re in a large scope, long duration, grid down survival scenario. Then roadblocks will be put in place and cities might isolate themselves. Once this happens, a straight drive through to your destination is unlikely. Every city you roll through will represent potential problems.

Intelligence must be collected. Much of this will probably happen by radio. Your group will have to contact people in every town along the route or at least those who have recently passed through. This will give you a better understanding of road conditions.

When approaching towns where the condition is unknown, you may decide to stop. Set a camp and probe the airways to ascertain what conditions are like. If someone is shot with a modern rifle in austere conditions, then chances are that they’ll die. Take the long way around as it will often be the safer course of action.

VEHICLE MODIFICATIONS TO CONSIDER FOR LARGE GROUPS

- COMMUNICATIONS
  Communications in large groups is extremely important. This should include direction finding equipment for a large group.

- ARMOR
- BLACKOUT SWITCH
  Blackout switches turn off all visible lighting and make a vehicle less of a target at night.

- CONVOY LIGHTING
  Shrouded lighting that’s only visible from in front of or behind the vehicle at relatively close range. This helps camouflage the convoy while still making vehicles visible to one another to prevent accidents. Plus vehicles can see when a member stops or leaves the roadway.

- IDENTIFICATION FRIEND OR FOE (IFF)
  Members of the group need to be able to tell each other and their vehicles apart from enemies with just a glance.

- CREW-SERVED WEAPONS
- FIRE FIGHTING EQUIPMENT
• CREW-SERVED WEAPONS
• FIRE FIGHTING EQUIPMENT
• MEDICAL KIT
• CABLE CUTTER OR RAMP – A cable cutter or ramp is designed to mitigate risk from cables stretched across roadways. They push the cables harmlessly over the vehicle or cut them. Thin cables are strung to decapitate enemies riding in open vehicles or on motorcycles. They can be extremely difficult to spot at speed. Thicker cables are sometimes employed diagonally across roadways to lull vehicles over the edge of cliffs. Sometimes several vehicles fall victim to the same trap.
• TOW HOOKS
• RUN FLAT TIRES – Run flat tires are designed to keep vehicles rolling at low speeds until they’re out of the kill zone.
• EXTENDED RANGE FUEL TANKS
• EXTRA FULL-SIZE SPARE
• COVERT & OVERT CAMOUFLAGE – There are times when overt camouflage is necessary and times when it will get you shot at first. Just like choosing clothing, convoy vehicles can be painted in low glass earth tones capable of blending into a natural setting. Elastic bras front and rear can quickly cover reflective or shiny surfaces. Multispectral camouflage hides vehicles while maintaining a nondescript overall appearance.

CONCLUSION
Having a group greatly increases resources and capabilities during a survival situation. They also have a tendency to draw more attention. It’s important to have a plan so that everyone understands their roles, especially when moving as a group. Some planning and simple modifications can be done to avoid unnecessary attention and the danger it brings.

EXPERT TAKEAWAYS
• Tribes of Native Americans, pioneer handcart, wagon train companies, and nomadic cultures the world over have solved the same security and load bearing problems faced by survivalists today. The best way is to break up groups into scout/security and main body elements.
• Bodies pile up along lines of drift and at choke points like bridges in conflict. Stay off lines of drift if you want to keep your group alive.
• Probing towns by radio is safer for groups than on foot.
• Take advantage of that fact that the sheep will be in analysis paralysis. Get out of Dodge before they recover. Your group may arrive at its destination before roadblocks and ambushes pop up.
Key Roles And Team Dynamics
WITHIN THE SURVIVAL GROUP

When it comes to survival, our basic individual mission is to remain above room temperature and stay effective.

However, you’ll need the benefits from building relationships to be the most effective in survival. Being part of a group helps us to stay fed, sheltered, and safe.

When writing THE SURVIVAL GROUP HANDBOOK, I discovered a concept called the independence conflict. The independence conflict occurs when preppers don’t want to depend on the government or anyone else in hard times but then want to form a group to do just that. So how does a person decide to trade their individual independence for the security of a group? When writing about the benefits of forming a group for survival, I continually had to reconcile why it was such a good idea to be in a group. The issue of remaining independent has been a challenge for groups everywhere. Why should I join a group and be subject to someone else making decisions for my family? I still hold that there are great benefits to grouping together. One such benefit is to accomplish tasks that would be too difficult, if not impossible, for any individual to successfully complete alone. Too much individualism can be dangerous, especially in survival. Creeping narcissism and selfish indifference to the needs of others can cause us as self-proclaimed survivors to be isolated. Such blind spots in our thinking can have disastrous effects. With TV shows and the casual reading of endless internet blogs, people tend to overestimate their survival skills. Sometimes those who are only semi-prepared aren’t in a better position than the unprepared masses. We are in danger of situating ourselves at the precipice of total failure if actually presented a true survival situation.

So the question becomes, can we be individuals in a survival group? I believe the answer is yes. How is this possible? As individuals we can prevent groupthink by bringing our different experiences and skills to a group. We can share innovations by making improvements on what works and what doesn’t from our own individual experiences. Just as each person is different from one another, not every group is the same. One of the benefits of groups is that we can determine our level of participation, our physical distance from each other, our beliefs, ideals, and methods. To be an effective group we should find a way to integrate our methods but it’s a rare instance in any society where everyone is in total sync all the time. This should give us confidence that there is a way to make it work no matter how hard things get. Finally, at the end of the day, we all know that there is a benefit to numbers.

THE SURVIVAL GROUP HANDBOOK
HOW TO PLAN, ORGANIZE, AND LEAD PEOPLE FOR A SHORT OR LONG TERM SURVIVAL SITUATION

CHARLEY HOGWOOD
FOREWORD BY JOE ALTON, M.D. & DR. BONES
AUTHOR OF THE SURVIVAL MEDICINE HANDBOOK
The ugly fact is there are some challenges that cannot be solved by going it alone. To truly thrive we need the ability to scale our efforts, overcome personal biases, and rise as one to meet the big challenges. This level of cooperation will require more than lip service. We will need to align ourselves with those chosen to be a part of our group. We will need to be in sync with our vision, personalities, and skills to align effectively. As a survival team we need to identify our strengths and weaknesses. Great teams find people who complement the existing skill sets and fill the positions of weakness. This is where filling the roles of the group comes in. Everyone knows the basic roles for survival such as the tactical guy or the gardener but what about the mediator, the negotiator, the logistics person? These are all important roles of a group and the trick is filling them with the right people. The survival group is a complex organization made up of volunteers with various motivations. As such, the key positions within the group should be chosen with care. Group business should be conducted with the best interests of all members in mind.

We need to back-up a few steps to talk about decision making and organization before we can throw warm bodies at the problem. If we aren’t organized, there will be all kinds of group dysfunction. Regardless of total size the following thoughts should be implemented in to the group in some fashion.

For the average survival group, I recommend a council based leadership group with a chairperson/facilitator to manage strategic decisions and policy. Committees or work groups dedicated to specific tasks should manage daily operations. This arrangement reduces and distributes the common ground operations to those who are best qualified or suited to those tasks while reducing bureaucracy. Once councils have been established, they designate committees or work groups of core importance. These committees should report regularly on the status of their work and on how the committee is functioning.

The leader must make sure that everyone involved is completely clear about their roles and responsibilities as related to the task at hand. I cannot emphasize enough how important this is! This topic is so important that it can literally be a matter of life and death. How many times in your daily life have you run into conflict because 1) you were reprimanded, or 2) you reprimanded another because something wasn’t done or not done right? This is not uncommon, and even if it’s not a life or death situation there can be consequences that affect everyone in the group. For example, if you were finally able to get your teenager to do laundry but they didn’t separate the light and dark colored clothes so there was damaged clothes and angry family members. Not a capital offense but still a waste of money. On the other hand, if a gate guard didn’t count every member of a patrol coming back in from the field and an extra person walked into the perimeter. If they began shooting, a simple lack of communication has now become deadly. This has happened more often than we care to think about.

When assigning a task, make sure to use reflective listening and get feedback after you explain. This will help make sure everyone is crystal clear on what they are about to do and what the intended final result should be. If the objective includes a sequence of tasks, finish up the directions with a plain language description of what it is that you’re trying to accomplish. In the military this concept is the last part of an Operations Order called the commander’s intent. All this does is describe what we’re trying to accomplish in plain and simple English. Take a few minutes to ask each member what his or her role is then make them vocalize it. You’ll get a pretty good impression if they were paying attention and understand what is expected of them.
3 Things That Happen When Roles Are Unclear:

1. **GAPS.** If no one was specifically assigned to a certain task, there will be a gap in performance. Whether or not anyone notices the gap, no one will step forward to do anything because it wasn’t their job. This will lead to blaming each other because someone should have just done it or at least said something. The leader may also be criticized for not properly assigning the task. This can happen when the person assigning the task is a poor leader or makes assumptions that everyone just knows what to do.

2. **OVERLAPPING RESPONSIBILITIES.** If multiple people think they are responsible for completing the same task, there may be a duplication of efforts which wastes time and resources. Also, one person may do the task differently than the other causing hostility when he or she feels the other performed the task incorrectly. Another problem comes when a member feels undermined or as if they are considered incompetent. A simple assignment of responsibility has now become a personnel conflict. This could lead to tension, unhappiness, and a break in group dynamics.

3. **FRUSTRATION AMONG GROUP MEMBERS.** In the first example, a task wasn’t properly assigned so a member jumps in to take responsibility. Then they get in trouble as because they’re needed in another area. Another example, everyone knew a task needed to be done but no one was doing anything about it. In either case, someone has trespassed on the responsibility of another or there’s been a complete lack of initiative among the responsible members.

Roles and responsibilities are a two-way street between leaders and subordinates. An effective leader will strive to completely understand what is needed to be done and what is needed to get it done. Communicate with your people, gather information, ask for feedback in areas you’re not clear on. Make sure to clearly identify what you want someone to do. Never ever assume that someone can read your mind or should have known something. Don’t worry if the team is coming together at a snail’s pace as they take a long time to develop and form deep trusting bonds. These things don’t happen automatically, they take time and practice. Here are the key areas to consider when building your survival group.
Core Committees/Work Groups:

**FOOD MANAGEMENT**
Responsibilities include:
- Agriculture
- Food inventories
- Creating surplus
- Food preservation
- Drinking water management and storage
- Organizing members for group/community food projects and events

**ENGINEERING**
Responsibilities include:
- Building and maintaining shelters, structures, and containments
- Maintenance of equipment
- Special projects
- Design and construction of infrastructure
- Energy production
- Salvage

**MEDICAL**
Responsibilities include:
- Support chief medical officer or community medical personnel in conducting health operations
- Emergency medical response
- Health monitoring
- Contagious disease support
- Support tactical operations
- Sanitation design and monitoring
- Home and elderly care
- Fitness programs
- Nutrition classes
- Medical prevention programs
- Medical training of members

**SECURITY**
Responsibilities include:
- All security operations
- Access control
- Perimeter monitoring
- Deterrence
- Threat monitoring and assessment
- Tactical operations
- Recon/patrolling
- Investigations
- Background checks
- Quick reaction force
- Protection of assets
- Convey planning and security
- Training of members in security and self defense

**COMMUNICATIONS**
Responsibilities include:
- Planning, constructing, and maintaining the Commo net
- Establish and maintain contact with key stations for information gathering and early warning of crisis events
- Staff the warning point/command area for all group Commo operations
- Work to protect all communication and electronic hardware from energy pulses
- Survey community to establish dependable communications to and between each hamlet
- Maintenance and inventory of various radio systems, towers, and antennas
- Liaison with security in all communications and data requirements

**PLANNING**
Responsibilities include:
- Recommending group initiatives to the council, including but not limited to the following areas:
  - Physical site layout
  - Nutrition needs and storage
  - Water management
  - Land management
- Strategic use of various resources
- Group events
- Research to support council policies
- Development of various contingency and emergency plans

**TRAINING AND EDUCATION**
Responsibilities include:
- Scheduling all training classes and exercises
- Coordination of subject matter experts
- Training logistics, materials, and locations
- Coordination of meals and lodging as needed
- Training safety and provision of medical support
- Management of child education, daycare, and learning spaces
- Coordination and representation of teachers and childcare givers

**NEW RESIDENTS/MEMBERSHIP**
Responsibilities include:
- New member investigation committee
- Vetting of new candidates
- New member sponsors
- Properly establishing new members into the group
- Probation reviews
- Promotion of group to the community (if desired)

**FINANCE**
Responsibilities include:
- Tracking and care of group finances
- Bill payment
- Purchasing
- Budget preparation
- Reporting
- Management of any member dues or payments

**VOLUNTEER**
Responsibilities include:
- Coordinating work schedules
- Group needs and event staffing
- Point of contact for all labor needs and offers

**MEDIATOR**
Responsibilities include:
- Mediate between members
- Serve as liaison in case of member tension
- Elevate conflicts to council as needed
- Make recommendations on expulsion
- Clarify rules and bylaws to members
- Crosses over to conflict negotiator between groups

This isn’t an exhaustive list but a representation of the core committees that we recommend for group success. This is if the group grows beyond more than a few families. It will become obvious when some of these tasks become needed. This list can also be used as a troubleshooting guide and as information to support growth goals of a group.
Below are some additional overlooked skill sets that all successful groups should include if possible:

MECHANICS AND MECHANICALLY INCLINED PERSONNEL
There will always be a problem with something that requires a repair or MacGyver type of solution. Never underestimate the person whose mind understands how things work. The tinkerer will save the bacon many times over. Sometimes they aren’t social butterflies but leave them to their work and you will see great things. A good mechanic has the skills needed to get things rolling and engines working. This will be handy when dropping the old car off for a repair isn’t an option any longer. Keep in mind that dealership mechanics have relied on computers quite heavily. You may need the hobbyist or the older guy who can tell what’s wrong with an engine by listening to it and not by plugging it into a computer.

CHILD AND ELDERLY CARE
Most groups will have children or perhaps elderly members that will need care daily. The reason for dedicating a role to this is so that parents can free up time to work on other things throughout the day. When children are old enough to hold responsibilities, they should participate in group duties when not learning skills or taking part in education sessions.

EDUCATIONAL STAFF
Teachers bring a unique benefit to a group. In addition to teaching, they usually have skills and experience in dealing with difficult people. They may be useful if there’s a need for a voice of reason or mediator between group members. Teachers also know how to approach training from an organized perspective. They can layout a lesson plan that should adapt to any topic if you provide them the information.

SCAVENGERS
These are the people that you hand a shopping list to and somehow they bring things home. They are a special breed of people with initiative and the thrill of the hunt. They usually work with the tinkerers and understand the multiple uses of things. These types will probably need to be told where to not go because nothing is off limits when they are on the hunt. This would be important should they choose to take the wrong stuff, like supplies from military units or militia groups. If they get caught it could end badly for everyone else. Army Scouts are exceptionally good at this, as are some teenagers.

SEAMSTRESSES
Clothing will begin to fall apart if the survival situation lasts more than a few months. This is especially true in damp or swampy environments. Sewing skills will keep the troops clothed and teach those that missed out on home ec class how to handle a needle and thread.

TOOLMAKERS/ENGINEERS/BLACKSMITHS
There will be a need for tools. Since it’s unlikely the hardware store is an option, you may need to make your own tools. Engineers do have a use in the aftermath, even if there are no computers or CAD programs for them to use. One thing to consider is that engineers, like some military types, tend to have a rigid way of thinking. It’s hard to achieve perfection in bad conditions and that could throw them for a loop. They will be more useful down the line when making calculations and building things.

GUNSMITHS/EXPERTS IN AMMO RELOADS
The gunsmith will be able to repair and improve firearms. This may be valuable when people are carrying them around every day. The Reloader may have a spot in the group if there are tools and supplies to support his work. It ammo is scarce the Reloader can be a valuable asset.

We’ve begun to see a major drift away from the collective in many areas of our lives. Most visually, we see this in geopolitics with the disruption and decay of world governments, political parties, and religion. People are choosing to question the old ways, the party lines, and those who represent us. The days of working for one company, getting a gold watch and retiring comfortably are long gone. It isn’t uncommon to hold multiple careers in different fields these days. The spirit of entrepreneurship has rescued many of us from the failings of corporate uncertainty. The struggle between individuals and groups is seen everyday.

The big takeaway from all of this is that every group operates most effectively when teams are well considered, well trained, and well cared for. They will bond as a cohesive unit if everyone is treated as a valued member and provided with opportunities to be successful within the group. That is of course only true if you were careful of those invited to join in the first place.
PATROLLING, RECONNAISSANCE, AND SCOUTING

Before SHTF

By: Cache Valley Prepper

Patrolling, reconnaissance, and scouting are key situational awareness tools. They take patience and focus that’s alien to the ever increasing segment of society addicted to a constant supply of information fed to them via technology. Some of my pioneer ancestors would wait seasons or months for news from a few states away and years for a letter from family in the Eastern US or Europe.

There is a perceived urgency attributed to news that is often out of sync with reality. In disasters that disrupt the grid, survivors can be isolated by gridlocked transport and by lack of information. I have studied many instances where survivors have endangered themselves and loved ones to obtain information of no survival value. That in some cases even turned out to be false.

While accurate intelligence can help survivors make effective decisions, you won’t see news listed in the Rule of Threes or any other list of survival priorities. Lack of news doesn’t directly kill survivors. Understand what information is relevant to the survival of your group and what is just nice to know. Patience and restraint are warranted in post-SHTF intelligence gathering efforts.

ImpaTComeRy of STarting To Patrol Before a Catastrophe

Get to know the areas around your residence, work, properties, and other areas you spend time. Also, get to know the people who live in it pre-SHTF. Establish a baseline beforehand so you don’t miss important observations immediately before the SHTF. You’ll have little opportunity for a baseline of comparison post-SHTF. Realize that although survivalists often refer to SHTF as an event, and catastrophes are sometimes triggered by specific events, it’s more often a process. Most people are indecisive and vulnerable to normalcy bias. According to Dr. John Leach, author of Survival Psychology, as much as 80% of survivors freeze as they succumb to analysis paralysis. Again, the breakdown of society is typically a process and not an event. Noticing changes early on may give you valuable time to gather loved ones and get off the mat. It will let you gather last minute supplies, make other lifesaving preparations, or execute a plan of action.
TYPES OF PATROLS

Some types of patrols, as defined in US military doctrine, have more relevance than others to post-SHTF survival. This is important to keep in mind. While there are several types of patrols, they generally fall into two categories: combat patrols and reconnaissance patrols.

COMBAT PATROL – Under U.S. military doctrine, combat patrols employ more manpower than most survival groups have at their disposal. The military has a great deal more infrastructure backing their patrols than survival groups do. There is still value in survivalists training for combat patrols and raids. Keep in mind that conventional military action against modern military forces by a survivalist group would result in high casualty rates and would likely mean the end of the group. A lot of conditions would have to be met to justify a survival group running combat patrols. If you’re part of a group that can field a platoon or company-sized force and call in indirect fire, rapid reaction forces, armor, air evac if they get in trouble, and hospitals to treat the wounded, then feel free to engage. But at that point you’ve become the institution and probably don’t need to be reading articles about patrolling. If survivalists go to war post-SHTF, they should concentrate on high leverage guerilla warfare.

CLEARING PATROL – Clearing patrols are typically done to secure an area. They have more use for survivalist groups than offensive combat patrols.

STATIO PATROL – A statio patrol isn’t what most folks would imagine when they think of a patrol, but it’s useful to survivalists for gathering intelligence and protecting camps or fixed sites. Static patrol establishes an Observation Post or OP. A good OP should be positioned where it can observe the sector it’s responsible for watching, provide good cover, and concealment. It should also cover the routes to and from the OP.

RECONNAISSANCE PATROL – The recon patrol also has value to the survivalist. Make sure the tactics are adapted to the needs and objectives of the survivalist as opposed to those of the military. The primary objective of the recon patrol is to gather information. Because of this objective, recon patrols are smaller in size than combat and clearing patrols.

KEY ELEMENTS OF PATROLLING

- Planning
- Small Unit Tactics
- Fieldcraft
- Movement
- Reconnaissance
- Trucking
- Debriefing

MAPS

Maps are an important part of emergency planning and are useful whether you patrol or not. They’re vital for planning patrols. Mapping sites and software are a huge help in creating a detailed map of your neighborhood and surrounding areas. This can be done at any budget and even without spending any money. Counties keep records of property lines and landowners which is very helpful in most areas. This is particularly helpful in rural, semi-rural, and suburban areas.

It used to be that survivalists would put the USGS topographical map up on the wall that contained their homestead and then fold the borders in on bordering maps. This meant retreats had up to 9 maps on a broad section of wall just to display the immediately surrounding area. Today, most universities can custom print a map centered on whatever point you like. It will be on water-resistant paper and can apply whatever layers of data you like very inexpensively. The last one I purchased ran about $6 dollars each for maps about 3’x5’.

There will be resources should you need to start over post-SHTF or are caught without maps for some reason. Check out homeowners associations, hotels, churches, phone books, ranger stations, and government offices.
RECONNAISSANCE

Reconnaissance should focus on life saving and mission critical information for group survival. Recon patrols or scouting missions typically rely on stealth and avoid contact with potential enemies. Information can be gathered using the five senses, optics, sensors, by talking to people when appropriate, and by tracking.

OVERT CAMOUFLAGE, COVERT CAMOUFLAGE & TRANSITIONING

In urban areas, it’s often easier to hide in plain sight using overt camouflage by looking like everybody else. Don’t stand out and try to blend into the crowd. In wild areas, overt camouflage is used to blend in with the terrain instead of the populace. While traveling, it’s necessary to transition between overt and covert camouflage. Clothing and equipment should be purchased with transition in mind. Reversible clothing and layered clothing are especially useful for transitioning between the two environments such as in get home and bugout scenarios.

FIELD GUIDE

I carry a large letter-sized notebook for emergency planning and a smaller 4”x6” notebook for in the field, along with pens. It’s so useful that I bought a wire-o binding machine to create my own. I use it for all kinds of things but it’s crucial for recon. Here are some of the most critical notes:

- Emergency Plans
- Recon Notes
- Checklists
- Range Cards
- Sector Sketches
- Ballistics & Ranging Tables
- Land Navigation
- Footprint Cards for Tracking
- Reference Material
- Communications Plan
- Patient Treatment Forms
- Mass Casualty Triage
- Training, Firearm and Adventure
- Journal Notes
- Forms

DIRECTION SAMPLING SEARCHES

Direction sampling searches are a key tool for foraging and identifying resources. You could think of them as recon patrols adapted to survival. They’re useful in both wild and built environments. Decide which direction is most likely to yield the resources based on what you know. Reconnoiter that direction, foraging resources, fishing, setting traps, or hunting as you go. Walk as far as is reasonable and return to camp. The next time you take a direction sample, go a different way. Eventually you’ll complete a systematic survey of the lands around your camp or fixed site.

This is useful in determining when an area has been tapped of resources and when it may be necessary to move camp to survive. Sitting, sleeping, and starving until you get picked up is only possible on survival TV. There is little sense in staying in an area that has been over foraged, hunted out, overfished, and trapped out. For this reason, most hunter gatherers are migratory to some extent. At least try to have winter and summer camps, fishing camps, hunting camps, and so on.
SCOUTING

The objectives of scouting are generally to find the enemy or observe terrain to find a path through it. Scouting parties are typically small, about squad size or two man scouting teams. The USMC fields scout/snipers and many services employ special forces. There is a great deal of overlap between the two roles, so the designation of scout/sniper is a logical one. Scouting has utility for the survivalist both with fixed sights and while moving.

PRIMARY SKILLS FOR SCOUTS

- Land Navigation
- Rangefinding
- Fieldcraft
- Tracking and Countertracking
- Camouflage
- Route Selection
- Night Vision
- Reconnaissance
- Patrolling

SCOUTING ON THE TRAIL AND FOR NOMADIC OR DISPLACED GROUPS

This is where we depart from modern military strategy and must look to primitive strategy. Cultures all over the planet have dealt with the problem of providing security. They also scouted routes for the larger traveling groups of displaced persons, nomadic tribes, migrants, and emigrants all throughout history.

The problems faced under these circumstances cannot be resolved by paging through military manuals. Modern militaries have different goals, resources, structure, and force makeup. Also, the only military march in U.S. history that comes anywhere close would be the first leg of the march made by the Mormon Battalion in 1846. To say that the longest march in the history of the U.S. military was an anomaly would be an understatement.

Most survivalists say that they’ll never be refugees or displaced persons in mil-speak. However, most survivalists who can envision a circumstance where they might be compelled to bugout on foot will have a lot in common with a tribe of Native Americans, a band of Bedouins, or a handgun company of pioneers crossing the plains in the 1800’s. They likely won’t have as much in common with an infantry squad, which is what most model their groups after.

None of these groups accomplished what they did using the modern infantry squad as a model. Like survival groups, they didn’t have 6 guys in the logistics tail for every guy at the tip of the spear. They couldn’t have duplicated modern military logistics infrastructure in any meaningful way. Each of these groups understood something many survivalists don’t and compensated for it. The reality is that if you put 100 lbs packs on a guy who works a desk job, his wife, 2.5 kids, grandma, and golden retriever, they won’t make it to the end of the block much less a faraway bugout property.

All the groups mentioned employed a simple strategy to deal with the problems they faced. They divided their groups into a scout/security element and a slower moving supply train. The scout/security element could move fast and light while the supply train moved slower with wagons, animals, the elderly, heavy gear, and so on. The scout/security element also scouted ahead and cleared the way for the supply train.

If the scout/security element encountered the enemy, they went around or caused a distraction to lead them away from the supply train. They left trail signs to communicate with the main body, which they in turn obliterated. Some groups also stepped into the footprints of the person ahead of them on the trail to disguise their numbers.
IN CONCLUSION

Understand the difference between lifesaving intelligence and nice to know information that simply feeds the habits of the addicted. There is no sense in risking lives for the latter. Before the SHTF, get out in your neighborhood and pound the pavement to establish a baseline now. Once you have your baseline, a field guide is a key tool for recon. It should focus on life saving and mission critical information that is difficult to remember. Don’t only study military strategy as you’ll have more in common with groups like the pioneers. Look to the many cultures that divide into faster scout/security and slower supply elements. Then the scouts should choose and clear the path for the slower movers.
MOST SURVIVALISTS LIKE TO THINK THAT WE COULD GO IT ALONE IN A SHTF SCENARIO.

However, the reality is that any help is welcome when your life is on the line. There are fire, paramedic, and supply services in place to help when disaster strikes and communication is critical. You need to know when it’s safe to leave your home, when help is coming, and how to get to that help. There may be a way for them to come directly to you. However, you may have to hike several miles to get to help. This knowledge is vital to your survival.

The very nature of many of these SHTF scenarios is that communication gets cut off. Winds, flooding, earthquakes, wildfires, and heat waves can take out power stations, cell towers, radio towers, television stations, and satellite dishes. In addition, other SHTF situations such as foreign attack and martial law can leave communication damaged or completely disabled.

I have always had theories about how communication would work during and after a disaster. The recent hurricanes gave me a first-hand account from a friend that survived and witnessed how communication actually works. This man lives in Puerto Rico and his home was devastated by hurricane Maria. They’ve been without clean water for months and are still lacking other basic services. Thankfully he has been vocal about his experiences so we all can learn from them and be more prepared.

DURING THE EVENT

When a disaster first strikes and often throughout the duration, there are several options available to keep you informed about the situation. The national weather service is one of the most reliable services and can be accessed with any weather radio. We keep one by the side of our bed to ensure we’re informed if any nasty storms are headed our way. Both cable and satellite television services provide valuable information for disaster situations. However, heavy rain can often knock out a satellite signal temporarily. On many channels, the Emergency Broadcast Service will cut off normal programming to inform the public about emergency scenarios. Until they’re no longer working, these services are likely your most reliable options for staying informed during an emergency.

There are some other options you shouldn’t forget about for staying informed. Most cellular carriers will send out an alert to all users on the network in the event of a disaster. In addition, HAM radios and other types of radios can allow you to reach people outside of the affected area for information. Finally, the internet is an ample source of information. You can always find dozens of sites provide updates on disasters but be sure to vet your sources. There is a great deal of inaccurate information floating around on the internet these days.
**DIRECTLY AFTER THE EVENT**

Depending on the severity of the scenario, some or all of these services could be shut down after an event. My source from Puerto Rico says that he laid down to take a nap while listening to the National Weather Service. By the time he woke up there was a complete radio, television, cellular, and internet blackout. There was absolutely no information coming in or out for at least a week. All of the power stations and towers were knocked out. He said it was one of the scariest and eeriest experiences of his life.

**DURING RECOVERY EFFORTS**

As you move past the disaster itself and start looking towards the rebuilding efforts, there are several parts of the timeline to think about. You need to know when water will be restored, when electricity will be restored, when radio towers and internet service will work again, and when the entire retail and relief supplies will begin shipping again. My friend is still living without clean water, without regular shipments of gasoline and food several months after Hurricane Maria. He just had the internet restored this week. Most people are living off of generator electricity as power has yet to be restored.

With a generator, you’ll have options like internet and television sooner than those that must wait for the power grid to be repaired. Radio towers may or may not have been damaged, so radio communication could possibly be an option. Whether a person is filthy rich or dirt poor, everybody is just trying to survive during this recovery window. FEMA trucks finally arrived and provided cases of food for families to take home. If you find ways to stay informed, it’s easier to be prepared to take advantage of these types of services when they’re available.

**VETTING INFORMATION**

When you’re receiving information about a disaster, it’s important to consider the source. There are sources that you can trust to be fairly accurate. If you’re listening to the National Weather Service, watching the Emergency Broadcast Service, or getting alerts on your phone then the information is probably legit. However, any services that are privately owned such as news channels could have their own agenda when providing information. I would like to think that news stations would give solid information, but you simply cannot be sure on that.

The internet is another great example of sources with agendas. It seems like every year that passes, the internet becomes less and less legitimate as a source of information. There is plenty of fake news out there and the people posting information on the internet can literally say whatever they want without consequence. Finally, think carefully about getting information by radio. If you’re under martial law, the US government may modify radio broadcasts to ensure that the public cooperates. If we’re under attack from a foreign nation then international radio communications could be skewed to accommodate them. Never assume that any source is accurate without looking at the motives of the people supplying the information.
IN CONCLUSION

It has been invaluable learning from those that are struggling to survive the aftermath of disaster. It seems like each year the natural disasters we face get worse and worse. Hurricanes are becoming more frequent and more intense. Wildfires and drought are out of control in some parts of the world. In other parts, flooding and mudslides are tearing apart communities. Seismic activity is becoming more common with some countries being devastated by earthquakes and tsunamis. All of these disasters could easily limit or eliminate your options for receiving information.

In addition, other threats have become more and more likely. With the volatility of countries like North Korea and Russia, it’s not unlikely that we could face foreign attack in the future. This could be a conventional attack or could consist of nuclear, biological, or chemical elements. With the social unrest we have faced in recent years, it could also be that martial law shuts down communication in our country. Finally, you must consider that pandemics are becoming more and more likely. This is another scenario that could shut down communication.

All of these situations require that survivors stay informed. Is it safe to leave my home or should I keep bugging in? When will I have clean drinking water? When will my power be restored? When will my cell phone work? When will I have internet? Is help coming or am I on my own? Do I need to leave the area to stay safe? These are all questions that could be answered if you have quality sources of information. However, always take the time to vet those sources. Stick to the ones that are most likely to provide valid information and you will be much more prepared. In the end, finding that valid information could end up saving your life.
THE RIFLE IS THE BACKBONE OF THE ARMED FORCES FOR A REASON.

Your modern fighting rifle is a jack of all trades weapon. It excels in both close quarters shooting as well as engaging targets out to 300 to 500 yards. A fighting rifle should be a part of any preppers home and self-defense setup. The real question is, how exactly do you set up a fighting rifle?

WHAT'S A FIGHTING RIFLE?

A modern fighting rifle needs to be a semi-automatic rifle chambered in an intermediate to full power cartridge. This means the gun is at least chambered in 5.56. The gun can be chambered in .308, 7.62x39, 300 Blackout, 6.8 SPC, 6.5 Grendel, etc.

Preferably the rifle will have a detachable magazine. There are some issues with less free states that restrict rifles with detachable magazines. In those situations, it’s understandable to restrict yourself to a fixed magazine. The rifle should be adaptable and should have the ability to attach accessories in a stable manner.

EXAMPLES OF MODERN FIGHTING RIFLES:

- AR 15
- SIG 556
- AKM series
- CZ Bren
- FN SCAR

I’m personally not an accessory junky. My rifle shouldn’t weigh 10 pounds because I attached as much crap as possible to it. I like a light rifle but there are some upgrades necessary to setup my fighting rifle.

THE NECESSARY FIGHTING RIFLE UPGRADES:

SLING

A sling is one accessory you shouldn’t just always have but also invest in carefully. The purpose of a sling is to keep the rifle attached to your body at all times. This allows you to have greater freedom of movement. It’s easier to climb, crawl, duck, and dodge when you can let go of your rifle without worrying about dropping it.

Additionally, should the rifle run dry you can drop the rifle and transition to your handgun without missing a beat. You can establish a two-hand hold on the handgun and let the rifle hang. Lastly, should someone try and take the rifle they’re going to have a hard time if it’s attached to your body. The sling also prevents the weapon from being turned back on you.

The one point, the two point, and the three point are the three main types of tactical slings. Each offers some advantages, but ultimately I believe a modern two point is the best available. A one point offers maneuverability but hardly supports the rifle. The three point supports the rifle extremely well but can be a mess of straps and buckles. A modern two point allows for easy carry, good support, and excellent maneuverability.

My sling of choice would be the Blue Force Gear Vickers sling. It’s robust, modern, and the choice of over 100,000 Marines and Soldiers. The quick release pull tab instantly changes how the sling can be used and makes it maneuverable. Runners up would be the Haley Strategic D3 and the Magpul MS4.
QUALITY MAGAZINES:
A magazine isn’t necessarily an accessory but I’ve seen lots of people cheap out on them. Cheap mags are fine for the range but have no place on a fighting rifle. Stay away from companies with poor reputations like Pro Mag. There are tons of excellent magazines out there and most cost under $20 apiece.

AN OPTIC:
Regardless of how fast and accurate you are with iron sights, I guarantee you’ll be faster and more accurate with an optic. Iron sights always work but an optic allows you to get on target faster and potentially see further. Optics are generally easier to use at night and in low light conditions. The military forces of the entire western world have turned to optics over iron sights because they’re a force multiplier.

The Marine Forces in Fallujah equipped with ACOG rifle scopes were investigated due to how many headshots they scored. Marksmanship scores in the Army and Marines both improved drastically after the adoption of optics.

A good optic is key and you can’t settle for cheaply made Chinesium junk. You are going to have to spend money to obtain a quality optic.

There are several types of optics out there but for a fighting rifle there are three types I’d recommend. Red dots, fixed power magnified, and low power variable.

RED DOTS - Red dot optics are non-magnified optics that utilize a single red (or green) dot as the reticle. A red dot optic is designed for close range shooting and are largely instinctive devices. Put the red dot on the target, pull the trigger, and if it’s scored properly you’ll hit the target. Quality red dots come from companies like Vortex, Aimpoint, Fotech, and Meopta.

FIXED POWER - Fixed power scopes offer shooters a slight magnification but not enough to make them difficult to use in close quarters combat. The right fixed power optic allows you to engage targets out to 500 yards. These optics are typically 3 to 5 power and come equipped with ballistic drop reticles. Companies with quality optics include Trijicon, Primary Arms, and Steiner.

LOW POWERED VARIABLE - Low power variable optics allow the user to change the magnification levels typically between 1-4x or 1-6X. These optics are compact and offer a greater degree of versatility. Optic with an illuminated center reticle can be used as red dots at 1x. Then they can be zoomed outwards for more precise, long range shooting. Quality optics come from Leupold, Trijicon, Nightforce, Steiner.

IRON SIGHTS:
We just waxed poetically about the value of optics but that doesn’t mean we toss iron sights out the window. Optics break, batteries die, and Tritium fades. You need something reliable to fall back on in those situations. The simplicity of good iron sights can’t be underestimated. They are a necessary backup on any fighting rifle. Your modern backup sights have the ability to fold out of the way when they aren’t needed. This places them out of the way and gives you a clear line of sight through your optic.

Once needed you pop them into place and start shooting. With the right optic and sight combination you can count on. This means look through your optic to use your sights. Quality sights come from companies like Magpul, Yankee Hill Machine, Troy, and XS. You may even consider a night sight variant with a glowing front sight.

A WEAPON LIGHT:
We don’t have the advantage of getting to choose when a fight starts, all we can do is react. The fight could come day or night and you should be prepared for both. This is just one reason why every rifle, and every fighting gun period, needs a white light. A weapon light allows you to not only see your target, but to actually know if there is a target. Positive identification is critical before you mash that trigger and send lead downrange.

YOU MUST DETERMINE IF THE THREAT IS AN ACTUAL THREAT BEFORE YOU SQUEEZE THAT TRIGGER.
Weapon lights need to match the terrain you’re fighting in. If your rifle is for use inside a home, you likely don’t want or need 800 to a 1,000 lumens. That much power indoors could actually cause you to be slightly blinded and distracted as it bounces off reflective surfaces. For indoors you likely want something between 200 and 400 lumens. If the rifle is for outdoors use, crank it up to 800 or 1,000 lumens.

You also may want to look into a pressure pad switch. This connects to the light and turns it on as soon as the switch is grabbed. This allows you to quickly turn the light on and off. Quality weapon lights come from companies like Inforce, Streamlight, and Surefire.

**OPTIONAL UPGRADES:**

Those are the necessary upgrades to a fighting rifle. The following are optional but always handy to have. They improve the weapon’s handling and overall ergonomics.

**A COLLAPSING STOCK:**

A collapsing stock is on the list for one simple reason, body armor. Most preppers I know have a set of body armor, and with it being so cheap why wouldn’t you? The thing with armor is that it adds inches to your width and depth. This may make a rifle that feels great when you aren’t wearing armor start to feel a bit long when you are.

A collapsing stock allows you to shorten the stock just a bit until it’s comfortable against the body. Most AR 15s are equipped with 6 position stocks and these are perfect for a fighting rifle. Unfortunately, some states do prohibit collapsing stocks so be aware of that.

**RED DOT MAGNIFIERS:**

If you’re rocking a red dot sight, think about adding a magnifier. A magnifier allows you to add a bit of extra power to your red dot. Most are 3x power magnifiers that are simple to install and use. In a flash they can be flipped over and out of the way for close quarters shooting. This little extra power helps with longer range shots and to better observe targets. Magnifiers are made by a variety of companies and work best with full sized red dots. A good swivel mount is a must have when it comes to a magnifier.

**WEAPON FOREGRIP:**

A weapon foregrip is a simple addition to the front of your weapon to give you a 90 degree or slightly angled grip. The 90 degree grips were popular when weapon accessories were massive and rails were small. Since most of the rail was taken up by lights and lasers a vert grip offered shooters the ability to maintain control in a comfortable manner. A 90 degree vertical grip helps me maintain control over my gun. It’s personal preference but I find my rifle is more comfortable and easier to use with a vert grip.

Angled Foregrips are an additional option. These are designed to be used with a thumb over bore grip to help mitigate upward rise of the muzzle. These grips are newer and growing in popularity. They claim to be more ergonomic, I don’t personally have the experience to know if they are. There are several designs out there but the Magpul AFG 1 and AFG 2 are by far the most popular.

**SUPPRESSOR:**

The last optional accessory I want to talk about is a suppressor or silencer. These are heavily restricted items and if they’re legal in your state, you have to jump through federal hoops to obtain one. This includes some paperwork, a long wait, and a $200 tax stamp. They do offer substantial benefits to the prepper and shooter though. Obviously, they reduce noise. This helps preserve hearing and is a lifesaver indoors. The concussion of an unsuppressed rifle indoors is substantial and will result in permanent hearing loss. A suppressor allows you to avoid this. They reduce the noise substantially, although the crack of a supersonic round is still pretty loud. Movies make suppressors out to be magic but they simply don’t work that way.

The best way I can describe it is they turn BANG into Bang. They also reduce flash, have a noticeable effect on recoil, and muzzle rise. A rifle equipped with a suppressor is simply easier to shoot and way more effective. If you’re willing to deal with the wait, tax, and the paperwork a suppressor can be an invaluable piece of gear for your fighting rifle.

**THE MOST IMPORTANT FIGHT RIFLE FACTOR:**

Training. Pure and simple. You can set up your fighting rifle a hundred different ways but if you can’t properly use the gear, it doesn’t matter. Once your rifle is set up you need to get out there and train with it. Training is where you discover and correct weaknesses with your system.

Learn to not only master your rifle but also the optic, sling, light, sights, and anything else you’ve tacked on. You need to know how the gear works inside and out. At the end of the day a thousand dollar rifle isn’t worth anything if you can’t use it, and neither is a thousand dollars worth of gear.

**USE IT, ABUSE IT, AND MASTER IT.**

Your life may just depend on it!
It’s always a good idea to bring along a few key items when heading into the wilderness or packing a Bug Out Bag. Most outdoor adventurers and survivalists will remember to bring all of the basics. The basics being a good knife, a fire starter of some type, and some first aid supplies. However, many will forget to pack a signaling kit. This is unfortunate and can leave you in a very precarious position if there’s trouble on the trail.

Signaling kits give you a way to communicate with others and request help if needed. They usually include at least two or three different types of signaling devices. Different types of signals work depending on the circumstances and any tool can break at a very inopportune time. Let’s discuss the types of signaling devices you’ll want to include in your signal kit.
DIFFERENT TYPES OF SIGNALING TOOLS AND DEVICES

1. CELLPHONE OR SATELLITE PHONE

There’s no need to get cute or overthink things. You use your cellphone for most daily communications. If you’re in an area with service, a cell phone is still the very best way to communicate with others. Remember, you can use a cell phone to send a text message if that’s more appropriate for your circumstances. Texts may also go through in bad service areas, and can be an easier way to communicate with people.

Cell service can be spotty in remote areas as anyone who’s tried to use a cellphone in a wilderness area already knows. Opt for a satellite phone if you’re willing to invest the necessary funds to do so. Satellite phones don’t require cellular service and work just about anywhere on the planet.

You’ll need battery power to operate either of these devices, so it’s wise to keep the battery disconnected when the phone isn’t in use. It’s also a good idea to bring a backup battery or a portable solar charger to keep the phone operable for as long as possible.
2. RADIO

Hand-held radios aren’t quite as helpful as cell phones or satellite phones but are still very effective communication tools. They’ll allow you to transmit plenty of information to nearby rescuers or residents. Since radios aren’t as ubiquitous as cell phones are, focus your efforts on communicating with those who are likely to hear you. This means first-responders, rangers, park staff, truck drivers, and others who often carry and monitor common radio frequencies.

The range at which various radios are effective varies from one product to the next. Because this is for emergency use, it makes sense to select the product with the best range you can afford. As with cellphones and other electronic devices, you’ll want to pack a backup battery or some type of solar charger to keep it operable.

Learn Morse code since static and language barriers can make communication difficult. Most radios include a function designed for sending and receiving messages sent in this manner.

3. FLARE

Flares are an excellent way to make yourself visible to rescuers or to communicate messages across long distances. Flares come in two primary styles:

- Flare guns that shoot a bright, sparkling ember high into the air
- Hand-held flares that shoot off very bright sparks for an extended period of time.

Both types of flares are best suited for different applications. Flare guns are typically used by those stranded in or near the water. Because they shoot high in the air, they’re typically visible from longer distances than hand-held flares are. However, they can be a fire hazard so never use a marine flare gun over a wilderness area. Also, most are only visible for a brief time.

Conversely, hand-held flares are less likely to catch the attention of distant rescuers. The hand-held advantage is that they usually produce sparks for longer than flares fired from guns do. While you don’t want to aim a hand-held flare at a pile of dead leaves, they’re suitable for use on land.
4. FLAGS

Flags are great signaling devices that can be used in either active or passive fashion. For example, you could stand atop an exposed rocky outcropping and wave the flag from a long stick. Theoretically, you could even use these flags to communicate with distant rescuers. You could also tie the flag to the top of a tree before moving on to other duties. This approach may be less likely to draw the attention of rescuers but allows you to attend to other necessities.

Try to select a flag made of a conspicuous color. Blaze orange with a bit of black trim to help improve its visibility in some cases is the best choice. A few manufacturers even make signaling flags emblazoned with SOS. If you have to choose, one big flag is probably more helpful than two smaller flags. There are some occasions in which it may make sense to cut the flag in half so that you can signal from two different locations.
5. WHISTLE

Like signaling mirrors, whistles are excellent for use in the wilderness as they don’t require anything other than lung power. A good signaling whistle can be heard from a very long distance. Keep in mind that the exact distances the sound carries will vary based on the geography and local conditions.

Whistles are also very light and small, which makes them easy to pack. Most come with an attached lanyard so you can sling them over your neck and keep them handy. Give three blasts in quick succession for the international signal for help.
6. FLASHLIGHT

Flashlights are excellent tools for signaling, although they only work at night. This isn’t necessarily a bad thing as many other signaling devices are only effective during the day. It’s nice to have both situations covered. They also require batteries except for kinetically or solar powered models. Batteries increase their weight and the amount of space required in your pack.

On the plus side, flashlights are often visible from great distances. Many outdoor models now come with strobe modes and colored filters. Simply point a flashlight in the likely direction of assistance or slowly turn with the light to help expand the number of potential eyes you’ll reach. You can even use a flashlight to help communicate via Morse code. Just turn the light on and use your hand or some other opaque device to block the light as necessary.

You’ll probably already have a flashlight, but it’s usually wise to include a dedicated signaling light. Pack it next to your other signaling devices. Obviously use your standard flashlight for signaling in a pinch but it’s best to pack both.

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7. MIRROR

Signal mirrors are effective for catching the eye of locals or rescuers, and they’re quite easy to use. Essentially, you’ll aim the mirror in the appropriate direction to reflect the sun’s rays. Point it in all directions to attract help from those you may not be able to see. The light reflected by signaling mirrors is often visible for more than a mile, and occasionally much farther.

Signaling mirrors are one of the most ideal tools to pack in your Bug Out Bag or backpack. They’re small, lightweight, and don’t require any electricity. You’ll probably want a more effective signaling device as your first-line tool, but a signaling mirror is an excellent backup. Sunny days are best for using a signal mirror, but they also work when it’s overcast. They obviously won’t work at night so plan to have more than one signaling tool in your kit.
FINAL THOUGHTS

You don’t need to pack all seven of these items in your signaling kit. There’d be little room for anything else in your bag if you did. Try to pick three or four different tools that seem most appropriate for your likely adventures. Or misadventures as the case may be...

Just be sure that they work in different ways. Don’t pack three light producing signaling devices. Instead bring an electronic device, a sound producing device, and a light producing device. This way, you’ll be better prepared to signal effectively in a variety of circumstances.

Finally, don’t forget to pack all of your signaling gear in an appropriate container. A waterproof container is imperative if your kit includes electronic or combustible devices. It’s actually a good idea to use a waterproof container for all signal kits. If nothing else, just keep the entire thing in a sealed plastic bag. Use a rigid case rather than a cloth bag to protect your signaling devices from damage if possible. The key here is to have a signaling kit that’s accessible and in working order for a worst-case scenario.
There are three words to live by when you’re talking rescue signaling. They are **COLOR, CONTRAST, AND MOVEMENT.** These words are also the gospel in camouflage. It makes sense that the same three categories should be used if we want to be seen. The same principles that will keep you hidden can also help you be seen. In a survival situation where life and death may depend on being observed, we need to have an understanding of these concepts.

Movement is the quickest way to be seen. I keep a marker panel in my kit that is blaze orange on one side and pink on the other. It can fulfill two of the three categories as it’s brightly colored and can be attached to a pole as a flag. This is key as combining these categories together you increase your chances of being spotted. Take the flag for instance as its much more effective with movement. You’ve cut a smalling then made your flag, it’s at the ready in case you see someone and need to try to get their attention. Don’t just lean it against your shelter when it’s not in use. Go to the highest point in your immediate area and put the flag up. Just like traps will still hunt while you tend to other tasks, the flag will also signal while you work to improve your situation.

So now we have color and movement, how can the effectiveness be increased? In prepping we often talk of the rule of three which says two is one, one is none, three is for me. The same rule applies in signaling. Three of anything is a universal signal of distress. With three flags, you’ve just increased the odds of being seen by a factor of three. You’re using internationally recognized code even if they’re not all the same color. Placing three signals in a triangle is also a distress signal.
Let’s say you’re in a landscape that provides nothing to build from, like a desert. How can you build a signal here? You can’t hang a flag as there isn’t anything to cut for a pole. This is where contrast comes into play. A large X is the universal signal for I need immediate help. Do three X’s to really get the message out as the rule of three applies here too. In a barren area where there is nothing to use you can still make these signals by digging.

Dig out a large X that’s ten feet from tip to tip. Orient them so that the long axis is on an east/west line, assuming you’re in the northern hemisphere. Pile the dirt on the southern side of the trench. This will create a shadow in the bottom of the trench for contrast. Again, make three of them.

Three large X’s in an open area will provide significant contrast. Not only will this work in a desert, it will also work in a snowfield. Enhance the effectiveness of the contrast by piling any form of vegetation you can find into the bottom of your trench to create more contrast.

You can simply stomp to create your X in the snow. Walk back and forth to compact it into a trench to make the contrast. This same contrast can be achieved by piling rocks or logs in the shape of an X. Size does matter in this situation, so the bigger the better. If all you have is shrubbery, then use it. Shrubbery can be cut then piled high and long in the same universal shape. If using this method, turn the material upside down so that the undersides show. The undersides of leaves are usually lighter in color than the top, so it provides more contrast. There is always something you can use to generate contrast against the terrain.

Add other signals if there are resources available. Three signal fires along with your three trench X’s will make you hard to miss. If you have plenty of materials at hand, light your fires and keep them going at all times. Keep plenty of wood on hand to sustain the fires. Use plenty of green material to generate the smoke that is the most visible part of the fire.

To sum it up, remember the three keys of color, contrast, and movement. Try to combine all of these in as many combinations as possible. Use contrast to create an obviously manmade object that stands out from the terrain around it.

My most important tip would be to always carry a signal panel. There isn’t an excuse not to as they’re light and cheap. Coyote River Gear sells a pack of two 3’ x 8’ panels. That’s a lot of surface area to be seen! They’re designed to be able to set them up in an X on the ground. There is so much material there you could make three sets of three flags. Anyone who sees these will immediately know that there is someone there and they’re trying to get attention.

Understand the principles outlined here and they just could be what gets you rescued. Also, by understanding these principles, you could be the one to realize there is someone in trouble and could save the life of someone else. While the ideas listed here are simple, they’re worth committing to memory. Carry some signaling gear with you or at the very least, a way to make signals.
I love spending time in the woods but getting lost is always a risk. It can be easy to get turned around even when following clearly marked trails. Every year thousands of hikers and campers get lost in the woods, some of them never make it out alive. The scary part is that most of these people are within a mile of their trail. Even wandering a few dozen yards in the wrong direction can mean disaster in a dense forest. The key to ensuring that this doesn’t happen to you is having solid navigation skills.

Unfortunately, this is becoming a lost skill. These days most people rely on GPS on their phones to get where they need to go. The ability to use a paper map and compass has almost disappeared. I worked for a company 10 years ago that required us to route out 30 stops per day and then visit those properties. I was one of the only people that used a map while everybody else relied on GPS. We all worked at about the same pace under normal circumstances but when their GPS battery died or lost reception they were done for the day. I quickly appreciated my old paper map. So, let’s cover how to use a map and compass when navigating the wilderness.
USING A MAP AND COMPASS TOGETHER

Combining a map and compass is the most accurate way to navigate in the wilderness. This is because there is absolutely no need for landmarks if you know your cardinal directions and have a map. If you’re lost in the woods, first find a flat area for your map. Unfold the map and spread it out on the flat area. You’ll notice a legend in the corner that has the four cardinal directions labeled. In almost every case, North and South will be the top and bottom of the map. East and West being the right and left sides.

Get out your compass next. Make sure it’s oriented so that North is at the top of the dial. Set the compass down on the map next to the legend. Keep in mind that it’s vital the map be on a flat surface parallel to the ground. You’ll see the compass spin a bit until finally it will settle on a particular direction. Next rotate the compass so that due North is lined up with the red arrow. Now you have your cardinal directions. Spin the map underneath the compass so that North on the map legend lines up with North on the compass. Your map is now oriented, and you can review where you might be. Finally, you can start to plan your route of travel. Look for the closest trail, landmark, road, or body of water and note the cardinal direction in which you need to travel. As you travel, keep the compass out to regularly check your direction. Stick to this direction and you should be able to reach your destination.

In addition to using the cardinal directions on the legend, you should be familiar with the other tools it provides. The legend will show you different markings for water, trails, gravel roads, paved roads, campsites, parking lots, private property, national forest land, bathrooms, ranger stations, and historical sites. One of the most valuable parts of the legend is the scale indicator. This will show you what length on the map equals a particular distance on land. For example, one inch on the map might equal one mile on land. This can tell you how far to travel to reach your destination. Then you can use time to estimate your arrival. For example, on moderate off trail terrain I travel around 3 miles per hour. If I have to travel six miles, it should take me about two hours without any breaks.
**USING A COMPASS ONLY**

While it’s ideal to have both a map and a compass, you can still get benefit out of just having a compass. As a general rule, I note what cardinal direction in which I am travelling when starting a hike. On my last camping trip, I travelled due North from the parking lot as I approached a river. If you note this in advance, it can likely help find your way home.

When you become disoriented, simply pull out your compass and place it on a flat spot with the dial showing North at the top. Once the needle stops you will rotate the compass to line up North with the red needle. This will show you which direction is South. Travel back in that direction and you should be fairly close to your departure location. Just take it slow and look for familiar land features. Being off by just a few degrees over several miles can cause you to miss a specific spot like a parking lot. You’re better off to shoot for a linear feature like a road, trail, creek, river, or lakeshore. That way it’s almost impossible for you to miss your target.

**USING A MAP ONLY**

Navigating the wilderness with a map and no compass is probably the most difficult of these options. You have to have a way to orient the map or it’s worthless. However, there are ways to do this without a compass. The easiest way is to find a high spot like a bluff, hilltop, or treetop. Look for landmarks from there. These include rock formations, bodies of water, roads, or buildings. Using these landmarks and their location, you may be able to orient the map to figure out your location and destination.

You can also use your environment to determine approximate cardinal directions. You can build a sun compass, watch compass, or water compass. You can look for consistent moss growth on one side of a tree to find North. If you find a tree out in the open by itself and the branches are primarily growing on one side, that side is likely facing South. Finally, you can just rely on the fact that the sun rises in the East and sets in the West to help you get roughly oriented.
IN CONCLUSION

When spending time in the wilderness, there aren’t many tools as valuable as a good map and compass. However, they’re worthless if you don’t know how to use them. Last year I was hiking in one of my favorite parks and ran across a group of teenagers on an orienteering course. Unfortunately, all of them were using digital GPS to find their checkpoints. GPS isn’t always reliable, so don’t rely upon it. Take the time to practice with a map and compass. Be sure to pass the skill on to the next generation. There will never be a replacement for these vital tools.
Planning is important, and you should have a number of different plans: communications, getting home, bugging out, supplies purchases and rotations, etc. In this article, we are going to look at a getting home plan in the context of civil unrest.

Civil unrest can present with some challenges, but nothing that we can’t factor into a good plan. It will require us to do some homework, or intelligence gathering.

When planning routes home there are several different factors that we need to consider, such as: different routes, possible threats such as gang and drug areas and activities, known safe areas, resources such as gas stations, grocery and fast food, police and fire stations, hospitals, types of roads such as asphalt or dirt, etc.

**THERE ARE A NUMBER OF DIFFERENT SOURCES WE CAN USE TO GAIN INTELLIGENCE AND INFORMATION.**
OPEN SOURCE INTELLIGENCE (OSINT)

GOOGLE and DUCKDUCKGO search on keywords like ‘gangs’ (don’t just use one search engine) – you can probably find city maps with neighborhoods marked as to which gangs operate or ‘claim’ them. You can also find pictures of various gang signs which you should add to your intel packet and look out for in your area.

GOOGLE ALERTS (www.google.com/alerts) will send you daily emails on what you tell it to search for, such as news on gangs, or power outages, etc.

LOCAL CITY WEB SITE will also give you demographics, addresses for police and fire stations and other public buildings. Your emergency management agency page might give you information on CERT teams and other programs.

HUMAN INTELLIGENCE (HUMINT)

Drive different routes or through areas you could possibly use to get home. Use a dash camera to record the area you are driving through (they are fairly cheap these days). You can then review the routes and will be able to identify things that you may not have noticed when driving. Using a dash camera is much less conspicuous that holding your cell phone and filming while driving.

Stop in to the grocery stores and gas stations to get an idea of who lives in the area by observing who is there. Drive through at different times, especially late evening and night.

SIGNALS INTELLIGENCE (SIGINT)

Investing in a scanner, such as the HOME PATROL 2 (highly recommended). It will provide you with sources of information such as what local law enforcement are responding to, much of which doesn’t get into the papers or police blog, plus you’ll be hearing it real time. It’s important to take the time to listen before SHTF so you learn their ‘language’ such as codes, districts etc.

Check www.radioreference.com for your area – it will tell you what kind of radio system your local police, fire etc. are using. In many areas, they are using trunked radio systems, which will require a trunk capable scanner such as the Home Patrol 2.

You can also find the frequencies for utility companies, such as power, which can provide you information when the power is out. News agencies frequencies will also be listed: you may hear chatter between the reporters in the field and the studio before they go on the air, as well as their studio dispatching them to incidents.

This information will give you information on what is going on – having a portable scanner will allow you to be aware during civil unrest and make changes to your route as needed.
IMAGERY INTELLIGENCE (IMINT)

Maps are like gold, the more you can find the better, although it’s getting harder to find them. Truck stops and larger gas stations on interstates are usually great places to find maps. You can usually find the large book maps for your state, you can pull the marked pages out when needed. Online sources include:

- Use [www.USGS.gov](http://www.USGS.gov) and [www.mytopo.com](http://www.mytopo.com) for topographical maps
- Imagery maps from Google Earth (one of the best image resources)
- Street maps from Google maps, Garmin [OpenStreetMap](http://www.OpenStreetMap.org) and other sources
- Garmin Basemap (software for their GPS units)

Mark up paper maps with your different routes. Use color pencils to mark the different routes, but first check which ones you can still see under a red night (saves your night vision). You will probably find that red colors will not be visible, so use other colors. Highlighters tend to bleed through, so be careful if using a map that is printed on both sides.

Garmin’s Basemap program allows you to create routes and waypoints for your GPS (I have the Garmin 64ST hand held and it’s great for this). Once you create different routes, you can save them to your device, again using some kind of color or other code reference.

The images of the area allow you to make resources and threats. You can use a color coding to indicate the level or threat.

**RED** – threat, such as gang areas

**YELLOW** – moderate areas, gas stations, stores and other resources. You would still have to use extreme caution as the situation could change.

**GREEN** – These folks support the rule of law and may be willing to help. This could include friendly neighborhoods.

**BLUE** – these are Patriots, members of family, friends or others who would be willing to assist you.
GEOSPATIAL INTELLIGENCE (GEOINT)

Geospatial intelligence is intelligence about the human activity on earth derived from the exploitation and analysis of imagery. It is closely tied to imagery intelligence. Using sources such as Google Earth can provide some very good images of the buildings, fences, road types, alleys, etc. Combined with the information from other mapping programs you can build up a very good map of the routes, terrain and other obstacles.

When creating your maps and routes, consider different routes for walking versus driving. Also consider whether it is a route you should only take during the day or at night. You may also need to include routes that stop by locations to pick up family members, such as your spouse’s place of work or children’s schools. Obviously, the area of disturbances, roads closed by police or local neighborhoods will all factor into your decisions and some of this may not be known until the situation occurs.

Color coding or otherwise marking your routes will allow you to communicate that to other family members. You might not want to tell everyone what you are doing (operational security (OPSEC)). Using names for your routes that you can use in a normal conversation over the radio is a good idea. Such as “I’m going to stop by the pizza place and pick up a large meat pizza” where the type of pizza is your route, allows you to say this over ham radio.

CACHE

You should consider caching some supplies depending on the distance you might have to travel and your routes. In urban areas this might not be possible, unless you have friends or family along the way. It might be easier if you have rural areas that you pass through. Make sure you know where you have placed caches, record it both on paper and any GPS unit.

Cache items might be food, such as protein or granola bars, emergency ration food bars, dehydrated food, etc. Water might also be an option if you use cans or the mylar pouches. You could add the beverage powder from MRE’s but don’t store MRE food. You could add batteries appropriate for your ham radio and/or flashlights. Perhaps a spare ham radio already programmed would be useful as well.

While there are commercial tubes for caches you can also make them from large diameter PVC pipe with a seal end stop one end and screw cap the other. If you are over cautious (you should be) you can put a smaller pipe inside or pack in Food Saver or other well sealing bags to further protect.
CONCLUSION

Keeping plans up to date is also important, especially with road construction/repairs, new housing developments etc., so have a regular cycle to update GPS units and your maps. Subscribe to any local sites that provide information on construction in your area.

Planning routes home is as important as any other aspect of prepping.

Remember "TWO IS ONE, ONE IS NONE."

However, in cases of civil unrest, we should have at least two number of possible routes home, some of these might take us away from home to get around the situation. Instances of civil unrest are always a very dynamic and rapidly evolving situation. Situational awareness must be maintained at all times, moving carefully and deliberately avoiding dangerous areas. Careful reconnaissance and intelligence gathering of all the possible routes and areas will give you a much better chance of getting home.
A few years ago, I traveled to Guatemala with my church to help with a building project in a small, isolated village. Upon arriving at the departure gate, I was horrified that the team leader handed out bright, fluorescent yellow t-shirts so that he could easily identify the group while traveling. I was mortified. The shirts may as well have had “KIDNAP ME” in big letters across the back. While I have never had any formal training in being the “Grayman,” I had plenty of training and experience in working locations that exhibit high risk capture to travelers. We were breaking the first rule.

**THE ART OF BEING INVISIBLE OR FORGETFUL TO THE LOCAL POPULOUS** is truly a game of skill, practice and luck, with a splash of common sense. I have traveled through many countries in my life and can say without hesitation that the first thing I notice on someone I meet on the street is their attire.
WARDROBE MALFUNCTIONS

We all have a style, some clothing combination that gives us identity, or makes us comfortable, or maybe it gives us piece of mind by its utility design. After all, we are human and most of us desire attention of some sort, and our closets are the first place we go to achieve this. In general, I can’t remember ninety percent of the people I see in a day, but sometimes, someone is wearing something so outrageous for the situation, it sticks with me even today. An example would be tactical Timmy. We all know him. Tactical pants, blurred boots, Velcro, and aggressive military themed tee shirts. Rolling around town looking like that is well and good when we are home and the locals would expect no less, but in an SHTF scenario, you will be looked at for one of two things. Someone to hide behind, or trouble. Keep it toned down. I stay away from anything of any brighter colors and absolutely no logo or designs on shirts or hats. I also wear pants, even in summer as skin draws attention. Along with wardrobe, I leave the heavy metal necklaces, diamond studs and the Rolex at the house. Flashy jewelry says “I’m wealthy and important.” I don’t want to be either in this situation. I wear sunglasses on a daily basis, even in cloudy weather. I find that the UV light coming through the clouds diminishes my vision so a good pair of sunglasses feel good on the eyeballs. When traveling on a cloudy day in a city, I watch what everyone else is doing. If they wear sunglasses, so do I. Additionally, I stay away from brightly colored frames and lenses and stick to gray and black in some fashion. If I am not wearing sunglasses, I try not to make eye contact.

YOUR ABILITY TO REMEMBER SOMEONE INCREASES MASSIVELY WHEN YOU MAKE EYE CONTACT. The last thought on wardrobe is concerning color. I recently was working a protection detail for the media during a neo-Nazi and Antifa demonstration. I wore jeans, dark sweater and black coat. Unfortunately, I was easily mistaken as a demonstrator for one of the groups due to the color of my clothes. A quick removal of the jacket may have saved me from a beat down by the local police or an attack from the rival march. Something to think about before you head out.
TRAVELING AGAINST THE CURRENT

When crowds of people are moving in one direction, I have found that it is best to travel with them. Even if I am attempting to go in an opposite direction, swimming with the current is absolutely critical to keep from being noticed. To clear away from the crowd, the best method is to slowly move to one side of the group or the other and just slide into an alley or a shaded exit. I am sure you are asking yourself, “why shaded? Are we back on sunglasses?” No. Think of it as Positive and Negative space. Positive space would be any well lit, open area with clear view from the surrounding areas. Not where you want to be when you duck off in a violent protest to flee. We as humans are visually attracted to positive space. Lights, color and noise, are all triggers that grab our attention. Think Vegas. Negative space, on the other hand, is a space that is in the shadows. Keeping our bodies in the shadows will diminish our presence and physical features. Trained snipers use these techniques to be the true masters of being grayman. Along with using negative space, the way we move can be just as an attention grabber as wearing a sign. Harsh, jerky movements in a crowd will draw gazes, and stopping causes fender benders with everyone walking in the same direction.

REMEMBER THAT WHEN TENSIONS ARE HIGH, PEOPLE ARE NATURALLY ATTRAIGHTED TO QUICK MOVEMENTS THAT WOULD SUGGEST A FIGHT.

WALKING TALL

The last consideration we will talk about is demeanor. How we carry ourselves, you know, strut! I am a people watcher. Guilty. What I have found, though, is that it has given me a great ability to read intentions. I can pick out concealed weapon imprints, clip on pocket knives, guarding behavior (someone keeping a hand near a pocket that very well may conceal a weapon), and aggressive capability a mile away. A cocky strut with your chin up says you can handle yourself. WALKING WITH A SLIGHT SLOUCH, CHIN DOWN, HANDS RELAXED BY YOUR SIDE SAYS YOU ARE A NOBODY OR A GOOOL OUGUMBER. I prefer the latter.
I am not going to go into the contents of your kit, we can save that for another article. I want to talk about how you carry your kit. I’m a big fan of low profile. I steered away from using tactical back packs almost as soon as I left the military. While I do appreciate the function of M.O.L.L.E. and Velcro, I found that I really don’t use either function of the bag anyway. Plus, when I see a tactical back pack, I immediately wonder what’s in it and what the intentions of the wearer are. For me, a good quality black day pack blends in and looks like I could be carrying a laptop as easily as bug out supplies.

**In Conclusion,** being grayman needs to be mastered if you are planning on escaping or evading a large demonstration unscathed. The great thing about this skill is that you can train starting tomorrow. No drive to the range, no class full of tactical “Timmys,” and no $300.00 registration fee. Get up in the morning, go to the closet, and plan to gray out.
A mountain of rope isn’t much help, if you don’t know how to tie knots and lashings. Our ancestors have been roping things together since the remote past, and to this very day, knot tying is an invaluable skill set for survivalists and outdoor enthusiasts. There are hundreds of different knots you could learn, but I find that I only use just a few on a regular basis. These are some of the most reliable and handiest knots and lashings that we can use in the wild.
**SQUARE KNOT**

When you need to connect two separate lines together (or just the two ends of the same rope), the square knot is a dependable choice. It’s very useful when rejoining cut pieces of rope back together for a longer rope, or when you are tying a rope around something (like a bundle of firewood). The square knot is the right choice when the two ends that are being joined are the exact same diameter and texture. This knot is often confused with the “granny” knot, but it’s fundamentally different. Start out like you’re tying shoe laces, by lapping one line around the other. Next, tie an overhand knot so that the finished knot lies flat and the ropes are parallel (if you tied a “granny,” the loose ends will naturally stick out perpendicular to the main lines). Another way to view this knot is a pair of rope loops that grab each other. Make sure that both loose ends are on the same side of the knot, and you’ve done it perfectly!

**SHEET BEND**

This strange knot is perfect for joining dissimilar ropes and materials together. It’s also the best knot for joining different thicknesses of rope (unreliable with most knots). To tie a sheet bend, take the thicker rope and curve it into a fish hook shape. Pass your smaller rope through the curve of the “fish hook” from behind, wrap around the entire fishhook once and then tuck the smaller line under itself. This knot is almost a square knot and would be if you passed the tag end back down through the “fish hook.” But bylooping the tag end under itself, the knot will work on different diameter materials. For added security, I typically tie an overhand knot in the loose end of the rope that threads through the fish hook. This way, if the more slender line starts to creep around the bigger line, it will hit the overhand knot and stop moving.

**BOWLINE**

For a fixed loop at the end of a rope, the bowline is a great choice. Many folks teach this knot by telling a story about a rabbit coming out of a hole, going behind the tree, and so forth. This is one of the hardest knots to explain in words, and it often takes people several tries to get it right — but it really is worth the effort. One of my mentors once said, “…if you get to the end of your rope, tie a bowline and hang on!” Good advice! To tie this odd knot, form a loop on top of your rope near the end. Thread the free end of the line through the loop from behind, leaving a loop roughly the size you will need. Next, bring the end of the rope behind the standing line (this is the part where the “rabbit” goes around the tree). Bring the end of the line down through the original loop, and pull the standing line (the long end of the rope). If you did it right, the second loop you made will become your fixed loop (neither closing or opening when pulled).
TIMBER HITCH

To tie a rope to a log or post, the timber hitch is a solid way to secure a line to a cylindrical object. This hitch has been used when mules and horses once pulled logs out of the forest, and it’s a handy way to begin a diagonal lashing. To tie this hitch, pass the free end of the rope around the log, post, or tree. Wrap the free end of the rope around the standing end of the rope. Finally, spiral the free end of the rope around itself four or five times. Once you tighten the timber hitch, loop and wraps will pull tight and secure the hitch. As with the sheet bend, add an overhand knot to the loose end of the rope for an “insurance policy” against unraveling.

TAUT LINE HITCH

For adjustments on a tarp shelter or rainfly, the taut line hitch is a knot that can act like a metal or plastic sliding lock to tension or loosen your line. As long as the hitch carries a load under tension on the “taut” side, the hitch will grip. And if you take the tension off the line, you can slide the knot back and forth to tighten or loosen as needed. When tying the taut line hitch, first wrap around the item (such as a tent stake). With the free end of the rope, wrap around the line twice, going in the direction of the stake twice. Then bring the free end of the rope over the two wraps, towards yourself. Spin the end one time around the rope and cinch these wraps down tight. You should have three wraps in a row. Tighten everything and pull on the standing line (the load bearing part). If you did it right, the taut line hitch should grip the line that’s under tension.

SQUARE LASHING

Lashings are one of the places where we really put those knots to work. A lashing is the way to fasten together things with rope (rather than nailing or screwing them together), and the square lashing is ideal for fastening together poles that are perpendicular. With a tight square lashing, you can build shelters, furnishings, and many other camp constructions. Start by tying a line to one of your poles, near the place where they cross. Your initial knot can be a clove hitch (popular among Scouts), a timber hitch, or my favorite - the square knot. I prefer to leave several inches of rope dangling free to tie back to this knot when terminating the lashing, but most other people just tie a second knot to finish the hitch. It’s up to you. Once you’ve tied to the first pole, wrap your line around the two poles where they cross. As you face the lashing, you’ll need to wrap under the lower pole and on top of the top pole. Wrap around the items, three or four times. This part of the lashing is called the “wrapping,” and it should be pulled tighter with each wrap. The next step is to wrap between the poles, biting onto the previous rope wrappings to tighten them. This part is called the “frapping.” Once you have frapped the wrappings, tie the end of the line to one of the poles to secure the entire lashing. Or do as I prefer, tie square knot between the tag end of the first knot and the end of your line.
DIAGONAL LASHING

With a minor change of the wrappings and frappings, you can take what you’ve learned with the square lashing to connect poles that are not at right angles to each other. You won’t need this lashing as often as the square lashing, but when you have to lash crosspieces at an angle, this is the right lashing for the job. Start out by tying a timber hitch around both poles, pulling them tightly together. Wrap four times vertically around the poles, then make four wraps horizontally around the lashing. Make several frapping runs between the poles, to tighten the wrappings, and finish the lashing by tying to the tag end of line to the poles (or to the tag end of the timber hitch that started it all).
More Knots and Lashings

By: Tim Macwelch

It's been said that "if you don't know knots – tie lots!" Well, this statement may be cute and rhyme, but it's dead wrong. Any survivor worth their salt will know how to tie at least a few knots correctly, and understand the proper situations to use these knots. Picking the right knot, hitch or lashing for the occasion is just like choosing the right tool for a task. You won't cut many boards with a hammer, or drive many nails with a saw blade. But with the right "tool" at your disposal, the job gets done quicker and it gets done right. Add these knots to your "tool box," practice them regularly and you'll have even more tools for survival situations.
WATER KNOT

Ever wonder how to join flat ribbon-like materials? They don’t exactly tie together like normal rope with normal knots, but the water knot safely secures webbing, belts and straps together. As a bonus, it’s easy to tie! Start by tying a loose overhand knot in the end of one strap. Pass the other strap in the opposite direction, mirroring the route of the first overhand knot. Hold the ends of the two straps and pull the knot tight.

PRUSIK KNOT

Need to climb a rope, but you don’t want all the pain and embarrassment of middle school gym class? The Prusik knot (also known as a triple sliding hitch) allows you to create a sliding loop on a rope, with just a small piece of a separate rope. Developed for mountaineering in 1931 by the Austrian climber and doctor Karl Prusik, this “slide and grip” knot can be used to climb, or as a “descender,” or to just add a loop to an existing rope when neither end of the line is free (i.e. the rope is in use). To make a Prusik, you’ll just need a short length of rope. This can be the same diameter as the rope you are climbing, or slightly more slender. Tie a square knot in the short rope to create a sturdy loop. Then, wrap the loop around the long rope three times, making certain that each wrap lies flat against the long rope. Pass the loop of short rope under itself and pull it tight. As long as there is weight on the loop, the Prusik will grip the long rope. You can also slide the Prusik up or down the long rope by taking the weight off the loop and pushing the wraps up or down the long rope.

BLOOD KNOT

For all its flexibility, monofilament fishing line can be surprisingly stiff when you’re trying to tie knots in it. Few knots play to the strengths and surmount the weaknesses of this clear plastic line, but the blood knot is one of the rare and reliable fishing knots that can be used to secure two pieces of fishing line together (particularly useful when you have to mend a broken line).

To tie a blood knot, start by overlapping the two lines, and wrapping one free end around the other line five or six times. Next, you’ll need to slide the free end between the two lines. Take the other line and wrap it the same number of times (five or six), and tuck the free end back between the two lines in the opposite direction of the first “tucked” end. This knot can be tied in rope, but it’s meant to work with fishing line.

KNOT TYING TIP: When working with fishing line, the friction of pulling a knot tight will heat up the plastic, making it brittle and more likely to break where heated. Prevent this by spitting on the knot right before you pull it tight. This will lubricate the line and reduce friction damage.
**IMPROVED CLINCH KNOT**

Sometimes called the fisherman’s knot (incorrectly), the improved clinch knot is one of your best choices when tying monofilament fishing line to an object (like a fish hook), which is a challenge to tie with most other knots.

Run the free end of the line through or around the object to be secured, for example – through the eye of a fish hook. Wrap the free end of the line around the other side of the line about five or six times. Pass the free end of the line through the opening next to the object being secured. For your final pass, run the free end of the line through the larger loop that you just created. As with the blood knot, when tying this one with fishing line, spit on the line before tightening to lubricate it so that the friction does not cause heat damage to the line. Tighten the knot, cut off any extra line and good luck fishing.

**DOUBLE SHEET BEND**

The sheet bend is a weird knot that can join dissimilar ropes and materials together, and when you need a little more strength, you can modify it to become the double sheet bend. Here’s how.

Take your thicker rope and bend it into a “J” shape (this is called a bight). Run the tail of the smaller rope through the “J” from behind, then wrap it twice all the way around the bight in the larger rope. Pass the tail under both wraps so that it comes out on the same side of the knot as the tail from the “J,” and this is a double sheet bend. When tied properly, the tail of the small rope and the “J” will be on the same side. If they are on opposite sides, the knot is less trustworthy.

**SHEEPSHANK**

Part magic trick and part survival hack, the sheepshank allows you to effectively shorten a line without having to cut it short (you get to keep your rope in one piece!). You don’t even need to have a free end of the rope available to tie this odd knot. I like to use the sheepshank when I miscalculate how long a rope should be, as it’s ideal for taking up slack.

There’s a little learning curve to tying the sheepshank, but hang in there, you’ll get it. Start by folding your rope to the new length you need. Create a loop in the continuing rope and tuck one of your rope folds through it. Create another loop at the other end of your folded section of rope. This one should twist the opposite way, and pass the remaining fold through it. Tighten the whole thing very slowly. If each loop is twisted the right way (away from each other), then they should each tighten on a folded section of rope and hold the sheepshank tight. As long as there is a load on the rope, the sheepshank will hold steady. This can all be undone by taking the tension off the rope and giving it a couple shakes. The sheepshank will fall apart and the full length of the rope will be available again.
CLOVE HITCH

While the clove hitch isn’t technically a knot, it’s an easy way to secure a line to a tree or post. It’s also the basis of many Boy Scout approved lashings.

For a proper clove hitch on a tree, make a loop of rope around the tree. Then make another loop and pass the free end of the rope under the second loop before tightening. It’s very simple!

A WORD OF CAUTION: The clove hitch isn’t my favorite when using stiff ropes in cold weather or if the tension on the rope comes and goes. Since it’s a friction hitch, it’s not actually a “knot.” It can slip! I have really seen it fall when securing things with 550 cord in sub-freezing weather, so choose something stronger than a clove hitch or don’t use it as a stand-alone “knot.”

TWO HALF HITCHES

I use this hitch all of the time, especially when putting up shelters. Tent lines and tarps are well secured when you use “two half hitches” to fasten the line to stakes, trees or poles.

This one is simple (and stronger than a clove hitch). Wrap your line around the stake, post or tree. Then wrap your free end of the line around the standing line and up alongside the post (inside the encircled rope). Wrap around the standing line again in the same direction and pass the free end of the rope through the loop you just created. That’s your second “half hitch,” thus completing two half-hitches. For insurance, I often tie a simple overhand knot in the free end of the line – just in case my two half hitches might slip. The overhand knot will hit the hitches and prevent the knot from unraveling.

MAKE IT THREE: I have no problem wrapping around the standing line once more to essentially create “three half hitches.” I’ll do this when there will be a lot of weight on the line (like me in a hammock).

BARREL HITCH

The barrel hitch is little seen today, but it was once a common sight on sailing ships and construction sites of the past. This hitch gives you a way to fasten a rope onto barrel, bucket or other cylindrical object to lift it.

To tie the barrel hitch, run the rope underneath the barrel or other object to be lifted – leaving enough slack to complete the hitch, yet staying near the end of the rope. Next, tie an overhand knot across the top of the barrel. Open up the overhand knot and slide it down the sides of the barrel until it wraps around the top sides of the barrel. Tie the “tag” end of the rope to the standing line (the part of the rope that will lift) and hoist away.

TIE IT RIGHT FOR SAFETY: To avoid undue hazard, tie this hitch high on the sides of the barrel and above the center of gravity. If you tie it too low, the barrel may flip over and if you tie it too high, it may slip off the top of the barrel. Keeping the horizontal wraps about ¾ of the way up the side of the barrel is usually best.
TRIPOD LASHING

It’s the basis of any sturdy tipi, as well as dozens of camp fixtures like cooking stands and drying racks. The tripod lashing shares a few traits with the square lashing, but you’ll soon see the difference.

Start with your three poles to be joined together, lying on the ground side by side. Tie any knot or hitch to one of the end poles, and then wrap around all of the poles three or four times. These are called the “wrappings.” Next, wrap the line between the poles – twice between each pole – to compress the wrappings. These are called the “frappings.” Finish the lashing by tying the free end of the line to one of the poles (or as I like to do, tie to the free end of the knot that started it all, bringing the lashing full circle). Spread the legs on the tripod and set it up for camp usage.
A blacksmith is a person who creates objects from iron or steel (the “black” metals). This is a trade that dates back at least 3,000 years, and in order to be a modern-day blacksmith (even as a hobbyist), you’ll need the same things our ancestors needed. You’ll have to source some basic tools and build some kind of forge to contain the heat of a fire.

**ASSEMBLE YOUR GEAR**

Thanks to popular TV shows, childhood cartoons and numerous movie scenes, we all have the same image of an anvil on our head. But that’s just one iconic style—a very particular kind of anvil. You don’t necessarily need the classic “London” anvil with a tapered waist and a pointy horn. Finding an anvil or some anvil alternative can be the only hard part in setting up your backyard forge. A chunk of railroad track or steel “I” beam can make a nice anvil for many projects. Large cubes and bars of steel and iron can also work well as anvils. For my classes, we use several anvils that are steel chunks—3 inches thick, 1 foot long and 8 inches wide. These provide more than enough steel to act as an anvil, and they are more than the first blacksmiths had to use. The earliest anvils were rocks! The point is, don’t get hung up on finding the same kind of anvil you see on TV. It will likely be expensive due to the current resurgence of this craft. And whatever you end up using, make sure it sits securely on a stump or other support, with no risk of toppling over, and make sure it sits at a comfortable height. The face of the anvil (top) should be right where hands would be when you are standing next to it.

In addition to the anvil, you’ll also need a few basic tools. Two or three-pound hammers and long-handled piers can get you started. And you can add in an assortment of blacksmith’s tongs and other tools once you determine what kinds of projects you’ll be doing. Eye protection, hearing protection, gloves and leather aprons are all necessary protective equipment, and thankfully they are affordable.
STOCK SOME CONSUMABLES

What will your forge burn? I prefer to use the same fuel that frontier blacksmiths used — hardwood charcoal. You can make your own by tossing a few buckets of water on a well-established campfire, or building a mud furnace to burn charcoal from raw wood, or you can just buy it. Natural charcoal does burn up fast, and it’s not as hot as other fuels, but it’s commonly available. It doesn’t burn up your metal as often as coal and the price is right. It also burns very clean. I actually like to cook over the forge when I’m on a break. If you need more heat, you could also track down some bituminous coal. This is much better than the anthracite coal that old fashioned home furnaces burn. Bituminous coal can reach temperatures of 4,000 degrees Fahrenheit under ideal conditions, so watch out! Your hard work can melt in seconds when ignored in the forge (“too many irons in the fire”). Keep in mind that you can even use dead dry wood in a pinch, if you can blow a lot of air into a contained wood fire. I made my first knife years ago with a little cement lined coffee can forge which I ted (constantly) with little chunks of hardwood.

And what steel will you use? Plain old mild steel is available at most home improvement stores and it’s a very forgiving material to work. Get an assortment of round rods, square stock and flat bars in different sizes and you’ll be ready to tackle a wide range of projects.

BUILD A FORGE

All the tools, high dollar steel and fancy fuels in the world won’t help you if you don’t have a forge to contain your fire (but lucky for you, there are several ways you can make one). The two styles that I frequently use in classes are an in-ground pit forge and a trench forge. The pit is my favorite, as it really holds in heat, but it’s not great in wet weather (the pit can fill with water). The trench forge keeps your fire at the ground level, and it’s much easier to heat long objects, but it doesn’t hold heat as well.

To make a pit forge, drive a two-inch thick stake (about 2 feet long) into the ground at an angle. Wiggle it around and pull it out (to make sure that it will come out). Then put the stake back into its hole and start digging a small pit that will intersect with the bottom of the stake. When your shovel hits the bottom of the stake, clean out the hole and you’re almost done. Pull out the stake, pipe in airflow from a hand crank blower if you’re off the grid (or shove a hair dryer in the stake hole if you have power). Place some tinder and kindling in the bottom of the pit, add charcoal and light it. Start pushing air into the pit and soon your forge will be roaring.

To make a trench forge, simply line up some fire-proof rocks (collected from a dry area) to make two stone “fences” about two feet long and 10 inches apart. Plug cracks and gaps with mud and run a one-inch steel pipe under one wall in the middle. Attach your blower to the steel pipe and fire it up. For something above ground, I’ve also had decent luck with a small hamburger grill lined with rocks and mud. For air, tape the hair dryer to a steel pipe that is butted up against the air intake at the bottom of the grill.

As you can see, forges are really simple. You just need a place to safely contain your fire and a source of forced air. Get creative, and see what you can invent!
MANAGE YOUR RISKS

Before you light the first forge or swing the first hammer, you need to know the risks. Forging involves the use of heat and tools to hammer, bend, cut, and shape the metal; and all of this activity is inherently dangerous to many parts of your body! Your lungs, skin, eyes, and ear drums (among other parts) are at risk. Please use all due caution, wear protective gear and work in a well ventilated area.

HOT STUFF You’re working with fire and glowing hot metal. Burns are inevitable, but that’s no excuse to work bare handed or while wearing sandals. Wear leather boots, leather gloves, and a leather apron while you’re working. You also need to wear cotton, wool or other natural fiber clothing under your protective gear (synthetics are too flammable). Wear eye protection. Steel toe boots are never a dumb idea in the forge. You’re going to get burnt — that’s just a part of this art form — but it doesn’t have to be bad enough to send you to the burn ward at the hospital.

SMOKE UP Charcoal is the cleanest fuel you can make or find in the field, but it burns up very quickly. If you’re using coal (anthracite, bituminous coal or commercially processed coke) as a fuel source, use extra ventilation. Breathing coal smoke has been proven to be dangerous, and high Sulphur coal can sting the eyes and nose. Always wear glasses or preferably tinted safety glasses when working at the forge. Make sure everyone watching you work has eye glasses and/or safely glasses on because hot metal and scale will fly in many directions. Never look into the fire when white hot unless wearing protective shaded glasses.

CAN YOU HEAR ME NOW? The sound of the anvil ringing has been likened to a singing voice, but it is not good for your hearing. Always wear earplugs. Metal workers commonly experience some hearing loss due to hammering metal on the anvil. Try putting a magnet on the side of the anvil to help deaden the ring; the more bottom surface that sits on the block/stump helps. You can also mount your anvil on a lead sheet, piece of leather or silicone caulk before tightly fastening it to the anvil base. A chain around the waist of the anvil that is used as part of the fastening system will help.

THE ONLY FREE CHEESE IS ON THE TRAP Be very careful if you decide to work unknown scrap metal. The price may be right on scrap metal (a few pennies per pound, or completely free), but certain alloys and treated metals will release poisonous fumes. “PawPaw” Wilson, a beloved blacksmiting mentor in North Carolina, died in recent years after heating up some galvanized scrap metal in his forge. Zinc plated metal releases zinc fumes (which are also toxic). Never heat galvanized metal or metal with a bright finish in your forge. The fumes from these coatings are very toxic and can even contaminate your equipment. Old wrought iron work may have lead paint on it as well. The best advice was given by Master Blacksmith David Tucciareno (“If you don’t know what it is—don’t forge it”). Understand that even mild steel has manganese in it, which has been linked to Parkinson’s disease. So make sure you work outside in fresh air — and be careful.

DO YOUR RESEARCH

Blacksmithing has enough subtleties and complexities that you could spend the rest of your life and not master them all. To save some of that painful learning curve, you can study with local smiths and read up on the subject. Some of my favorite books on the subject are Edge of the Anvil by Jack Andrews (helpful metallurgy info), The Blacksmith’s Craft by Charles McRaven (nice beginner book), The Home Blacksmith by Ryan Ridgway (great pictures) and The Art of Blacksmithing by Alex W. Realer (excellent historical reference). These books provide a lot of information and can help you take the next steps in the art of “heat, beat and repeat.”
LIVING WITHOUT POWER
DURING STORM SEASON
By: Tim McWelch

Most people never stop to consider their emotional attachment to the electrical grid, but I think it’s safe to say that we are in love with it. It’s not fleeting like the way you love that new song, rather it’s a lot deeper than that. We LOVE that million miles of tangled wires, poles, and all of the power plants that feed it. Maybe that’s why we get so emotionally distraught when the lights go out. Our love has left us and we feel spurned! This situation may happen when a summer storm knocks out the neighborhood distribution lines or to an entire region when a disaster strikes. If you live in a rural area, it may even happen on a sunny afternoon. Either way, you’ve got to figure out what to do with your giant freezer full of melting ice cream and thawing TV dinners. You’ve also got to come to terms with reality. Unless you’re hooked up to an electrically powered machine that’s keeping you alive, you don’t need power to live. Power is a luxury. I know that’s not a lifestyle concept that the average modern push-button person wants to explore because it rubs their nose in the fact that we are spoiled rotten by electricity. But there you have it, you (probably) don’t need electricity to live, and I’m going to prove it to you! Or at the very least, make it bearable.

PRE-GAME BEFORE THE LIGHTS GO OUT

A lot of preppers are worried about an EMP taking out the power. You’ve probably already had the unsettling realization that an event like that could happen in any season, day or night. Similarly, hackers and solar flares could knock out our power at any time. While these threats are on the radar, we also need to focus on natural disasters as they’re the most likely to take down the grid. All major weather events can kill the power, but for the purposes of this article we’ll focus on the Atlantic hurricane season (June- November) and tornado seasons (spring and summer). Before or at the start of these seasons, it’s a smart move to make a plan for when the warm glow of electricity is cut off.
BACK-UP LIGHTING – The most dramatic way that we know the electricity is gone is when being unexpectedly plunged into darkness. If a storm takes out your power at night, you won’t be very effective stumbling around in the dark. Place flashlights or headlamps throughout your home and make sure you have some in the vehicles too. Candles are sexier, but you know what’s not sexy? How about burning down your house after the structure successfully survived a hurricane or tornado? Skip the mood lighting. Go for non-flame light sources. Grab a few chem light sticks as back up for your battery powered lighting.

PACK YOUR PANTRY, NOT YOUR FREEZER – So many people lose their food in a power outage. The average fridge and freezer is packed with items that need to be kept cold or frozen in order to be safely stored. Instead of stuffing your freezer and refrigerator with cold stuff as the weather gets warmer, you’ll be better shape to focus on shelf stable foods and beverages. I recommend that the main item in every freezer should be plastic containers of solid ice. Just pour tap water into plastic tubs and set them in your freezer to become ice blocks. These can be moved to the top shelf of your refrigerator during an outage to turn it into an old fashioned ice box. Leave the ice in the tubs and once it’s melted, you’ll even have some safe drinking water. It’ll be funny tasting but safe.

ASSEMBLE THE BASICS – When the power’s down most stores probably won’t open their doors, and they definitely won’t be processing credit card sales. Instead of wandering through the land with a wad of cash, why not get everything you might need BEFORE mayhem strikes? Buy a weather radio, jugs of water, no cook foods, lights, and all the other typical disaster supplies to prepare for power outages and so many other scenarios. One frequently forgotten thing to have in a power outage event is a way to charge your cell phone besides the wall outlet. Solar chargers are a nice investment. AA battery cell phone chargers are cheaper and more commonly available than solar. You could use a car charger for devices for as long as the gas holds out in your vehicle. A larger solar panel, about briefcase sized, will charge devices like phones and iPads though maybe not laptops. Assemble the basics and do it now while the sun is still shining. You owe it to yourself and your family to take this seriously before the storms hit.
**WEIGH THE PROS AND CONS** – Yes, you could buy a generator powered by a noisy gas engine or strap some very obvious solar PV panels on your roof. These will certainly allow you to provide your own power in an outage but there’s a catch. These items along with the fact that your house is lit up at night will advertise to the whole community that you have a major power source. As desperate people become more frantic, they’ll begin to wonder what else is in your home if you’re prudent enough to have the equipment to make power. I’m not saying don’t have self-reliant power, I’m simply reminding you of the age old strife between the haves and have nots. You’ll need to determine whether it makes sense to even have power when your neighbors don’t have it. If you decide the answer is yes, consider if that power should come from a high profile source like that loud generator. In my mind, low profile is better than something attention grabbing.

**PRIORITIZE YOUR POWER FAILURE**

Once the electricity is out, it’s time for you to make thoughtful choices and follow a practical plan of action.

**DAY 1** – Hopeful that the power will return soon, work your way through the house unplugging appliances and equipment powered by electricity. This includes your electric range, refrigerator, computer, TV, sound systems, etc. Doing this will protect them from an electrical surge which may occur when the power is restored. Check your phone or listen to your battery powered radio for local and regional news pertaining to the disaster. Plan a meal from your most perishable foods such as fresh meat, cut vegetables, and so forth. Have an epic dinner after the meal with all of your ice cream, popsicles, and other frozen treats. Keep the fridge and freezer closed as much as possible to keep them cool. Get creative with your menu as long as it keeps food safety in mind. Cook your frozen pizzas outside on a propane grill or make a big pot of stew in your Dutch oven with charcoal briquettes as fuel. Plan additional meals that use up all of your remaining fresh foods quickly. As the hours tick by, periodically move some of the ice blocks you made in your freezer onto the top shelf inside your fridge to keep things cool. Place a thermometer in the fridge so you can keep track of the interior temperature. Try to keep it around 40°F if possible, adding more ice as needed. If you have municipal water for your home, fill up as many buckets, plastic bins, and jugs as you can. There’s no telling when the water will stop flowing. In rural areas your well pump stopped running with the power, so you’ll have to provide your own household water once the pressure tank, the pipes, and the water heater have been drained. I’m on a private well and so are most Americans. I keep several 5 gallon water cooler jugs on hand to kick start my water supply, and have several back-up plans for water procurement and disinfection. You should too.

**DAY 3** – Your family should have polish ed off everything in the fridge and freezer by now. Dry goods, canned goods, and other staple foods should be the main ingredients for meals along with any food grown on your own property. Throw away any questionable fresh foods that have a funny odor, off color, or odd texture at this point. The municipal water tower may be empty. Without generators running the pumps to refill it you’ll have to source your own water as your cousins will do in the country. If the outage is localized and severe, you may consider leaving the area for a destination that hasn’t been affected. If it’s regional and severe, you may not be able to escape your fate. Fuel is likely to be running low in your propane grill, so it might be time to figure out alternative cooking methods. The average household will also be running out of food, candles, batteries, and sanity by now. Hopefully you’re better prepared than them.

**DAY 10** – Desperate neighbors will be banging on your door because they’re out of food and not sure how to take care of basic needs. You’ll have tough decisions to make as to who you’ll help and who you won’t. The people you refuse to help won’t forget it. The people you do help probably won’t keep their mouth shut about it. Most people will spend all of their time trying to beg, borrow, barter, or steal food and bottled water. Aid may have come in from other areas by now, but it will be slow to reach smaller communities and spread too thin in larger communities. However, you don’t need to go stand in line for care packages. You’re sitting on top of several weeks or months’ worth of food and supplies. Your main concern will be the behavior of the people around you who were woefully unprepared. Will they try to take what you have carefully put aside? When and how will things take a turn from civility to bedlam? This is a much darker and more nebulous issue than picking which water filter to buy or deciding how many sacks of rice to get. You need to plan for this grim issue as well as for all other aspects of self-reliance. Hopefully you’ve built a group of trained and motivated individuals and families. You’ve all kept your mouths shut about your preparations and rallied at the most defensible home. This will make you much better off than the lone wolf prepper who has bragged to all the neighbors about all of his supplies and food stockpile.
ADJUST TO THE “NEW NORMAL”

Once the electricity is out, it’s time for you to make thoughtful choices and follow a practical plan of action.

After a few days of involuntarily living off-the-grid, you’ll probably have your system of self-reliant chores down to a routine. Your neighbors will either start catching up to you or they’ll be a total wreck. I fear that most people will fall into the latter category. They’ll be sick from eating bad food. They’ll be dangerously dehydrated from going without water. They’ll have filled their toilets up with piss and shit, then started crapping on the floor since they don’t know what else to do. You’ll definitely have to protect your family and team from people who are desperate, off their meds, or just plain evil. You’ll also be able to see who’s getting their act together and figuring out how to live with the new normal. They’ll be fishing in the local creek and carrying buckets of water back to their houses. They’ll be setting up fire pits in their backyards and burning wood to cook their meals. The people who knew how to go camping or just paid attention in history class will be putting the pieces together. Maybe you can help them figure out the parts that they’ve missed, rebuild your community, and get strength in numbers in the process.

In summation, you don’t have to grow a ZZ Top beard and try to infiltrate the Amish to live without electrical power. You simply need to gather the tools and supplies to provide for your family. It’s good to gather together with some like-minded people, and live like they did 150 years ago until the lights come back on. Or they don’t. That’s it.
STAYING CALM WHEN YOU FIND YOURSELF LOST

By: Ryan Dotson

You’re hiking deep in the wilderness and decide to leave the trail to search for food, water, or camp. After an hour or two it starts to get dark. You go to hike back to the trail but aren’t sure which way it is. You find nothing when trying to head back in the same direction. You keep hiking and everything starts to look familiar as it gets dark. Still, you find no trail. You’re definitely lost in the woods. This scenario is some people’s greatest nightmare.

The next morning you hope things will be clearer, but they aren’t. Again, you start to hike in the same direction. At this point it’s been almost a whole day since you’ve seen a trail or any sign of civilization. You start to think about your family and if you will ever see them again. You start to lose hope. It’s important to discuss how to stay calm if lost in the woods so you’ll know what to do if it happens.

**DO NOT PANIC**

The absolute worst thing you can do in this scenario is panic. Like with any animal, you have a flight or fight mechanism when threatened. Your body fills veins with adrenaline to prepare you for the upcoming challenge. Unfortunately, this also clouds your ability to think clearly. This isn’t a situation you can fight or run your way out. Keep your head clear and calm. Take deep breaths to lower your heart rate before you make any decisions. Remember that the vast majority of hikers lost in the woods make it home just fine. Losing your head won’t help you in any way.

**STOP WALKING**

One of the worst mistakes that you can make when lost in the woods is to try to hike their way out with no strategy. You’ll walk aggressively with no particular direction in mind when panicked. This makes your panic worse and often moves you further away from rescue. In addition, it depletes valuable calories and dehydrates you. The best thing to do when lost is to sit down where you are. Take a good long break and catch your breath. As your mind clears, think back to the last time you knew where you were. Think of any clues that might help you get back there. In many cases, your best bet is to actually set up camp right where you are and wait for rescue. Without a strategic plan, continuing to hike will accomplish nothing.
ASSESS THE SITUATION

To effectively find your way back to civilization, calmly look at where you stand. Look around at the environment. Are the topography and foliage the same as the last place you remember knowing where you were? Listen to the sounds around you. Can you hear any traffic, people, planes, or water? Look at the ground. Do you see any game trails or boot prints? Smell the air. Do you smell any exhaust? These can all be valuable clues.

Check your pack and pockets to inventory the resources that you have on hand. Think back to the last time you drank water or ate anything. Check to see if you’re sunburnt or injured in any other way. Think about who might know that you’re hiking in this area or anybody that might notice you missing. Finally, check the sun to estimate how much daylight you have and potentially your cardinal directions. This can be a lifesaver.

To estimate daylight, hold four fingers at arm’s length between the sun and the horizon. Each finger is about 15 minutes. For example, if you can fit your hand between the sun and horizon four times then you have four hours of sunlight. Build a sun compass or just consider that the sun rises in the East and sets in the West to estimate cardinal directions. Think about a map of the area in which you’re hiking. Think about whether you turned right or left off of the trail. You might be able to remember a cardinal direction to take back to the trail or to a large water source or road.
DEVISE A PLAN

Often your best plan is to stay where you are. It’s very common for people to become lost less than a mile from their trail. Any way you have to signal for help will be effective in this case. You can build a signal fire and find litter to make the smoke black. Use anything reflective to signal vehicles if you’re out in the open. You can always yell for help, but a signal whistle is less taxing and louder. Anything brightly colored can be used as a flag for signaling. You can also use natural materials to spell out a giant SOS in the open. Make sure to use dark materials on a light surface or light materials on a dark surface.

If you genuinely have a solid plan to find civilization, take the proper precautions. This means you have a specific direction of travel along with a target to reach and enough daylight to reach it. For example, you remember that your trail was primarily heading West to East from the parking lot. You turned right off of the trail and walked perpendicular to the trail. Right now the sun is showing that you have three hours of daylight and it’s hanging to your left. This means walking forward will take you North. In theory this will take you back to the trail. You can hike three miles in an hour with your pack, so that’s nine miles before dark. You know that there is no way you could have been lost for nine miles. Now you have a solid plan for hiking out.

Make a large distinct arrow on the ground that shows your direction of travel before you leave. In addition, you need to blaze your trail. This means using your blade and chopping a section of bark off of a tree every 20 to 30 yards. This exposes the white inner bark and acts like breadcrumbs to help rescuers follow your trail. You can also use this to find your way back to the original spot if there’s a navigation error.

Whatever plan you choose, stick to your plan as long as possible. Having accepted a plan will give you a calming effect that will prevent panic. If the decision is to stay put, keep doing that until you are running out of resources and have no option but to hike out. If you decide to hike out, keep to your plan unless new information shows a mistake. Uncertainty breeds panic. Don’t let that happen.

IN CONCLUSION

Sure, being lost in the woods can be scary. Remember that bravery isn’t the ability to avoid fear. It’s the ability to feel fear and move forward anyways. Slow down, take a deep breath, and remain calm. Take the time to run through these steps before you actually become lost. The right plan will come if you’re able to control your emotions and think clearly.

Survival Dispatch Insider
SURVIVING
AN EMP ATTACK

The real question is... when an EMP blast happens will you be prepared?

Before you can know how to prepare for an EMP, you must first understand how it works. You must get a feel for how it might occur and the damage it might cause.

This is a weapon that has never been used on a large scale, but most countries have the technology to create a far reaching EMP event.

Experts say that this is the most likely tool for large scale attacks because it creates as much damage as nuclear weapons, but without all the messy radiation left behind.

WHAT IS AN EMP BLAST?

In the broadest possible terms, an EMP blast typically refers to an event that causes a widespread shutdown of the power grid. This phenomenon is also sometimes called a Transient Electromagnetic Disturbance and consists of a short, but strong burst of electromagnetic energy.

Many people know that an EMP burst can fry electronic devices and power lines, but it can also do other physical damage. When a thunderstorm produces a bolt of lightning, this is a side effect of a type of EMP burst. If you have seen what a tree looks like after a lightning strike, you know that this is a powerful phenomenon. It is also possible for EMP bursts to come from space. Anytime a large piece of debris slams into the earth’s atmosphere, it can cause an EMP burst as it breaks apart.

One of the more likely forms of an EMP burst is from the sun. Solar flares are explosions of gas on the surface of the sun, and they seem to be getting more intense with every year that passes.

If there is a really large explosion, it could easily create a blast strong enough to destroy our current power grid.

Nuclear EMP blasts are created in two ways. A larger blast is created from the initial explosion. Then a secondary EMP blast is created from the ionization process of the surrounding air.

Electrons are pulled from the structure of the atoms and then pushed back together resulting in a secondary pulse. All nuclear bombs product EMP blasts, but a NEMP or nuclear EMP blast is designed to create most of its damage through the EMP, and not through the explosion.

These nuclear EMP blasts could be unleashed off the coast in a boat or over a major city in a plane. It would not even have to touch mainland soil to shut down a major chunk of the power grid.

HEMPs are blasts detonated at high altitudes and work very differently. These blasts flood the upper part of our atmosphere, the stratosphere, with gamma rays that cause the same ionization process we mentioned above.

The atoms actually react with the gravity of the earth to magnify the strength of the blast felt at ground level. One of these types of EMP blasts could shut down a 700-mile radius in one moment. It would take only two to shut down the United States or all of Europe.
NNEMPs (non-nuclear EMPs) create an EMP pulse with no nuclear explosion. They create a more focused assault as they have a small radius and are perfect for attacking a specific target.

These devices still require a chemical reaction, but the blast can be delivered with a missile or a drone. This makes them ideal to shut down a single ground vehicle or aircraft.

It should also be mentioned that hackers can create a similar effect without ever setting foot in our country. Most experts think that our first major EMP event will come from hackers.

With our electrical grid, our nuclear power stations, and virtually everything else connected to a computer, it is only a matter of time before somebody decides to use all of that against us.

**WHAT TO EXPECT AFTERWARDS**

So what exactly will life look like after an EMP blast? I used to picture a temporary power outage. We would light candles and listen to the radio until the power came back on.

*I was wrong...this is not that kind of power outage.*

You can expect there to be chaos within minutes of the blast. These EMP blasts generate a surge in current that can fry anything electrical. This includes cellular phones, computers, cars, subways, planes, televisions, and radios.

Because we are dealing with large-scale permanent damage to power lines, power plants, and the overall infrastructure, it could likely take years before the grid was functional again.

What you really need to think about is how this will affect you short term. Cellular phones and televisions going down are an inconvenience, but an EMP event could result in people dying in the first few days.

No power means water sources, refrigeration, air conditioning, heating, and lights would all be down. People could die from dehydration, exposure, or starvation. All funds in the bank would be gone, so most people would not be able to buy supplies from the store. This is when people will really start to panic. You can expect riots and looting in the streets.

Any supplies still available would be stolen within a few days. Hordes of people would ransack houses trying to find food, water, and firearms. Prisons would shut down with no power, and inmates would either be released or would break out.

Law Enforcement would not be able to keep up with the violence and would have to contend with taking care of their own families as well. Nursing homes and hospitals would shut down and the deaths would be severe as breathing machines and other life saving devices shut down.

Critical prescriptions would be unavailable and many more people would die in the coming weeks.

The first major blow would fall from the sky as roughly 500,000 people would die in the first hour just from planes crashing. Without power, every single plane would fall to the ground or coast into populated areas killing and injuring more people.

Fishing boats and other vessels would be stranded at sea with no communication to get them home. People in cars would be on the side of the road, and would be forced to walk to help.

That being said, being indoors would not be a picnic either. Elevators would shut down trapping thousands of people inside. With no light and electric doors, people would be trapped inside the buildings they work in.

There are currently 99 nuclear reactors in the United States alone, so the fallout would be massive.

As we approach the one-month mark, disease would become an issue. Cholera in particular would be a problem as it starts by consuming tainted water. With no power, the majority of our water would go unfiltered.

Those that are still alive after the first month would have probably gotten to that point by drinking whatever water they could find...clean or not.

This disease would likely kill more people than any other aspect of an EMP blast.

*Experts have estimated that 90% of the affected population would be dead within one year of a major EMP blast.*
HOW TO PREPARE

Unfortunately, an EMP attack is very likely to occur during our lifetime. Thankfully there are things we can do to be more prepared for this kind of disaster.

If you frequent survival forums, you’ve most likely heard of Faraday cages and blackout bags. These are structures designed to protect electrical devices from an EMP blast.

Without these structures, it is likely that only very small devices could still function after an EMP blast.

These structures are made with either solid metal or wire. An EMP pulse will always take the path of least resistance. In this case, that path is through the metal around the cage instead of straight through it.

I must stress that all electronics must be unplugged for this to work or the pulse can travel through power cords or any other cords connected to the device.

You can purchase small blackout bags and boxes that are perfect for cell phones, flashlights, radios, inverters, and solar chargers. It is important that with any faraday cage there be a layer of non-conductive material inside the cage but surrounding the items.

This will ensure that the pulse stays out of the center of the cage. You can build larger faraday cages with metal filing cabinets or metal swing door cabinets. You can even line an entire room with sheet metal, a rebar cage, or metal wiring.

Faraday devices are highly useful, but the best preparation for an EMP blast is to ween ourselves off of reliance on electronic devices. Do not misunderstand me, I use my laptop and cell phone every day. However, I have devised other ways to survive without electricity.

Most preppers and survivalists have already started this process. To be truly prepared, you need to have access to food, water, fire, and shelter without the use of electricity or outside resources.

At our home, food comes from a variety of natural sources. We have a large garden as well as peach trees, apple trees, mulberry trees, and grape vines. We have a pond stocked with plenty of fish and woods full of deer, rabbits, and squirrels. We also have our pantry stocked with canned and dry goods. In the event of an EMP blast,

we should have food for years without needing to rely on outside sources.

For water we have a well, a pond, and water storage. We have several filters to ensure that the pond and well water is always safe to drink.

Currently we use a pump, but it would be no problem to switch to a bucket and rope. For shelter, our home is just fine. It is secure to keep out trespassers, and is an earth contact home so it stays cool in the summer and warm in the winter.

There are plenty of windows for light, and it protects us well from the elements.

For fire we have several options. I have a fire pit with plenty of split wood as well as charcoal grills and smokers to cook and preserve meat. I have a propane grill with several extra bottles of propane. I also have a smaller camp stove that can be used inside if needed.

We have lots of warm blankets and clothing to stay warm without having to have a fire inside, but we have a fireplace in case we need to use it.

Some other items to consider stocking up are first aid, toiletries, communication, and self-defense. We use walkie-talkies around our property to keep in touch.

We always have a first aid kit on hand, and a stockpile of toilet paper, soap, and toothpaste. In addition, we have a gun safe full of firearms and ammunition as well as plenty of bows, crossbows, and large blades.

FINAL THOUGHTS

An EMP blast is a scary thought, but one you need to consider if you are to be truly prepared. If the grid goes down affected areas will essentially be sent back to the Stone Age.

In order to survive, you must have some practice living in a more primitive way. Do not wait until it is too late to prepare yourself. Take small steps towards being more self-reliant in providing for your family, as you will never regret your preps if an EMP blast puts the world in darkness.
We’re once again approaching what most consider to be natural disaster season. This past year was one of the worst hurricane seasons on record, and they were almost all between June and November. Plus, it seems like these hurricanes are more powerful than ever. These storms rip apart homes with high winds and drive families onto their roofs with flooding.

Seismic activity seems to gradually be increasing. This makes earthquakes and tsunamis more common and more powerful than ever. These forces have leveled entire countries over the past few years and caused thousands of deaths.

While it may seem strange, both droughts and flooding have increased simultaneously. The lack of rain we’ve seen in the West and Southwest have dried up crops and turned the area into a dustbowl. Dried out forests have become tinder for wildfires. On the other hand, heavy rains in other parts of the country have swallowed up entire towns. In addition, sudden rains in California have caused mudslides that have swallowed homes and caused entire streets to drop into the ocean.

Since I live in tornado alley, hearing the sirens sound has been a regular part of life. However, the number and strength of tornadoes has increased over the last few years as well. Now we’re seeing these storms in places they’ve never been seen. They seem to pop up like popcorn across the weather map of the country.

An example of the severity of tornadoes can be seen in Joplin, MO. This 2011 storm came in with 200 mph winds leveling both the school and hospital. On that day, 161 people were killed and 1,150 people were injured.

I’m sure everybody has stories like these of how natural disasters have affected their loved ones. The point is that we need to learn from these sad stories. In most cases, people weren’t fully prepared for these events.

With some simple but rigorous preparations of your home and family, you can be sure that these natural disasters cause as little damage as possible. In this article, I will break down the suggested plan of action for the worst of these disasters.
HURRICANES/FLOODING

Believe it or not, hurricanes and flooding are disasters for which one truly can prepare. People in hurricane and flood zones know that they live in areas that are at risk. In addition, these storms take days to develop. You can see them coming from hundreds of miles away. However, thousands of people are caught unprepared every time one of these events takes place. After every flood, you see people throwing out ruined furniture. Every time there is a hurricane, you see people stuck on their roofs begging to be rescued. Here are the steps you can take to prepare your household for hurricanes and flooding:

1. **KNOW YOUR UTILITIES** — One of the biggest issues with any type of flooding is the damage to utility lines. If you know flooding is going to be an issue, shut down your power and gas. You need to know where these cut-offs are located in order to do this. Furthermore, you should have a family meeting to be sure everybody knows how to shut down your utilities.

2. **HAVE A WAY OUT** — I recently read a story of an elderly couple that stayed in their home during Katrina. They ended up forced into the attic because of high waters below. They had no way out of their home as the waters continued to rise. Thankfully, they were able to break open a vent and escape, but this scenario should never happen. You should always have a rescue axe or some other tool to bust out of your home.

3. **PREPARE LOWER LEVELS** — Basements and ground level floors are the first to be swallowed up by flooding. Be prepared to move furniture or any valuables off of these floors if at all possible.

4. **PROTECT WINDOWS AND DOORS** — For hurricanes, you should always have plywood or particle board on hand to board up all of the windows and most of the doors. Of course, always leave yourself a way out of the house, preferably on high ground.

5. **CONSIDER THE YARD** — Many people have furniture, grills, and toys that are left on patios and in the yard. Try to limit the value of these items, and immediately move them inside when a storm is coming.

6. **HAVE A PLAN TO GET OUT** — I cannot emphasize this enough. If a hurricane or flooding is headed your way, you should have several days to prepare. Most people will wait for an evacuation order before leaving their home. Don’t make this mistake. By this time, highways are jammed up and gas stations are dry. Have a backup location outside of the flood zone and get there before everybody else starts to panic.
TORNADOS

Unfortunately, tornados are not quite as cut and dry. Normally you only have a few minutes of notice. However, there are preparations that can be made for this scenario. Here are the preparations you can make for tornados:

1. **IDENTIFY A SAFE ZONE** – In this case, “safe” is a relative word. However, in any home there are rooms that are safer than others. A basement or root cellar is always going to be the best location. Moving underground has saved many people’s lives. If this isn’t an option, get to an interior bathroom. The piping in the walls and lack of windows make it your second best option.

2. **IF YOU LIVE IN A TRAILER, HAVE A PLAN** – Trailers are death traps in tornados. If you live in a trailer, plan to have a solid structure close to your home in the event of a tornado.

3. **WATCH THE WINDOWS** – In most cases, you’ll not have enough time to board up windows. That being said, you do need to be aware of the glass. Stay far away from windows and cover them from the inside if possible.

4. **DISCUSS A PLAN WITH YOUR FAMILY** – The most important thing with tornados is knowing what action to take. Be sure your family knows to listen for tornado sirens, listen to weather radio, and watch the weather on TV. Ensure everybody in the family knows what room to go in. Discuss duck and cover using items like cushions and mattresses to protect from debris.

5. **KNOW YOUR UTILITIES** – As with flooding, damaged gas and electric lines can be a huge issue after a tornado. If the home is damaged and everybody is unharmed, your next job should be to shut down the utilities.
EARTHQUAKES

Seismic activity can’t be predicted like weather. Therefore, you have zero warning during an earthquake. All of the work must be done in advance.

1. **SECURE YOUR FURNITURE** – One of the most important preparations you can make for earthquakes is to prevent falling furniture. All tall items such as bookshelves and wardrobes should be anchored to the wall. You may also want to secure glass covered pictures on the wall and avoid having too many items on high shelves. Falling debris is one of the biggest risks of an earthquake.

2. **HAVE A PLAN** – In the case of an earthquake, your plan of action is more important than most other scenarios. Discuss with your family how to drop, cover, and hold. Have them avoid windows, hold onto something solid, and get on the ground without trying to walk anywhere.

3. **HAVE SUPPLIES** – There is a good chance that you could be trapped in your home after an earthquake. You’ll need plenty of water, food, blankets, and flashlights along with a first aid kit.

4. **METHOD OF COMMUNICATION** – There has to be a way to reach emergency services or family in the event that you’re trapped. This could just be cell phones but having a backup such as a radio is a good idea.

5. **UTILITIES** – Again, know how to shut off the electricity and gas.
LANDSLIDES

These nasty events can be caused by a variety of different catalysts, but they all are related to ground structure. The best thing to do to avoid a landslide is do your research before you buy or rent a home. You can then avoid the issue altogether. If you’re already living in a landslide zone, here are a few preparations you can make:

1. CONSIDER YOUR LAND — To help prevent landslides, you can make modifications to your yard. Be sure to have some sort of ground cover planted on any slopes. Having trees and a thick lawn can help as well. You may also want to use retaining or diversion walls to protect your home and keep the earth in place.

2. MODIFY THE HOME — There are modifications that can be made to your home to make it more resistant to landslides. Flexible fittings for utilities is just one example. See a contractor for more options.

3. HAVE A PLAN — You’ll need to treat a mudslide like an earthquake. When you feel the ground rumbling, get down, secure, and take cover. Stay away from glass and possible falling debris. Shut off utilities, and have a way to call for help.

DIGGING DEEPER

The type of preparation you need to make for tornadoes is vastly different than what you need to do to get ready for potential flooding. The information provided above will give you some quick suggestions for basic survival, but it is by no means conclusive.

In the next few sections, we will dig deeper, taking a closer look at lifesaving tips for each natural disaster. In addition, we will cover common myths and misunderstandings that can cause more harm than good.
It’s the time of year that need to start thinking about spring and summer storms. We’re fortunate to live in a time when we get plenty of advanced warning of a major storm is headed our way. It could be a hurricane, tropical storm, or severe thunderstorm that kicks up some wild tornadoes.

THE GOVERNMENT RECOMMENDS EVERY FAMILY HAVE ENOUGH FOOD, WATER, AND EMERGENCY SUPPLIES TO LAST AT LEAST THREE DAYS. That’s based on how long it takes to mobilize aid to a hard hit area. Three days may not seem that long right now, but three days with no power, running water, heat, or shelter is no joke. Imagine telling your children you don’t have a blanket for them to lie on, food to give them, or something as simple as a flashlight when it’s completely dark outside.

Don’t count on the government showing up in exactly three days. Prepare now! Don’t wait until you hear the warning on the radio. It will be too late at that point. Everyone else would have heard the same announcement and will be rushing out to buy the things you need to get by until help arrives. It can get ugly in stores just hours after one of those warnings rings out. People are crazy and, in some cases, violent. Protect yourself and your family by preparing now.

THE FOLLOWING PAGES ARE THE TEN THINGS THAT ARE GOING TO DISAPPEAR FIRST WHEN THE STUFF IS ABOUT TO HIT THE FAN:
**1 - BOTTLED WATER**

Bottled water is going to be flying off the shelves. Don’t wait. Get a few cases tucked away now. You need water to drink and maintain good personal hygiene. You cannot drink the water that comes from the tap after a major storm. There is a good chance the water treatment plants aren’t going to be functional. If you’re on a well, you may be without power. You’ll want to plan on having a minimum of one gallon of water per day for each family member. It is better if you store a little more than that to ensure you have enough water to wash your hands, dishes, and for cleaning up around the home. If you have pets, store water for them as well.

**2 - BATTERIES**

Batteries are another important item to stock up on now. You will need batteries for your flashlights and radios. Reduce the amount of batteries you’ll run through by using LED flashlights and lanterns. These are extremely bright and use very little battery power. Have at least one flashlight for each family member and a lantern on standby. Having portable battery packs for your cellphones is also a good idea. You’ll want to be able to be in touch with family members that aren’t in your house. Portable chargers should be kept charged and ready to use. Have several on standby to make sure your phone will last a minimum of three days. Keeping a solar battery charger on hand is also a good idea. These are inexpensive and can charge small electronics. You’ll appreciate being able to keep the kids occupied with their favorite tablet or other handheld game.

**3 - GENERATORS**

Portable generators are going to go fast. While this is a bigger purchase, it’s an investment that can keep your family out of the dark and keep food safe from spoiling. You can expect to spend a couple hundred dollars on a generator, but it’s well worth the cost. Buy one now, get familiar with it, and make sure you have everything needed to make it run smoothly. Make sure you have the oil that’s needed to keep it running. Constant running will require you to add oil every fifty hours or so.

Because this is a high value item, it’s also a good idea to have a bolt and chain to secure it. Generators can help minimize the inconvenience of a power outage. When setting it up, be aware that they tend to be loud. They’re also a magnet for those who weren’t prepared and are willing to steal. Keep it out of sight and locked down. Building a box out of plywood around the generator can help muffle the sound, keep the generator out of the elements, and out of plain sight.

**4 - FUEL**

Fuel for your generator and car is another hot item that’s going to go very fast when people learn of a storm headed their way. Filling your car’s tank is a good idea in case you need to escape a storm. You may ride out the storm at home but may need to leave after if the damage is severe. When the power goes out, the gas pumps won’t operate. Keep in mind you might not be able to use a credit card even if the gas station has a working pump. There may also be caps on how much gas you can purchase. You’re better off storing gasoline.

Depending on the size of generator you have and how much of a load it’s carrying, you should plan to use between twelve to twenty-four gallons of fuel per day. It all depends on the size of the generator. You’ll want to give your generator breaks throughout the day, which will save fuel.

You can safely store fuel for six months or up to twelve months if kept in a cool, dry environment. Add some fuel stabilizer to the tanks. Don’t be one of the hundreds stuck in line at a gas station for hours trying to get a couple gallons of fuel.
5 - PLYWOOD

Plywood should be at the top of your list of needs to survive a disaster. If you live in an area prone to hurricanes, buy enough plywood to board up your windows now. Home Depot and other home improvement stores are going to sell out fast when it becomes clear a storm is headed your way. Spend fifty dollars now and store the plywood in the shed or garage. This can save you thousands of dollars in home damages caused by a hurricane. This is something you can store for years without it rotting. Don’t forget to have a hammer, screws, and a portable drill to hang the plywood.

6 - BREAD AND FOOD STAPLES

Bread is going to fly off the shelves. Cooking might not be an option during a storm so you need foods that are ready to eat. Sandwiches are quick, easy, and require no real clean up after you make them. Unfortunately, bread isn’t something you can stock up on and save for weeks in your pantry. However, you can pop the bread into the freezer and pull it out when there is an impending disaster. Canned foods along with packaged goods like crackers and jerky are good options too. The goal is to have a supply of ready-to-eat, non-perishable food items on hand.

7 - TARPS

Tarps are going to be very important as well. If your roof is damaged, you’ll need to do your best to protect the home by covering the hole. Tarps can be used to cover broken windows as well. It can take weeks or longer to get a contractor out to fix your home after a disaster. Your home won’t be the only one damaged and everyone is going to be scrambling to protect their homes with tarps. A tarp can also come in handy if you need an emergency shelter for your family. These inexpensive items are going to be extremely valuable after a disaster. Get a few stored away now. Have a few bungee cords and/or ropes to use with the tarps.

8 - TRASH BAGS

Trash bags are going to make your world much easier and a lot more sanitary. If you happened to miss out on getting plywood and/or tarps, big black trash bags are the next best thing. The bags can be used to seal up a broken window or a hole in a roof when combined with duct tape. You can protect items like your cameras, laptops, and precious family photos from water damage by placing them inside plastic bags with a tight seal.

They’re also going to be useful when it comes to cleaning up after the storm. You may be using paper plates and plastic utensils while waiting for power and water to be restored. The extra trash generated needs to go somewhere. You also have to prepare for garbage services to be delayed for a while until roads are cleared. Garbage isn’t only unsightly, it can be a serious health hazard. Try to keep your home and outdoor area clean to prevent pest infestations. Also, a heavy duty lawn bag can be used in a bucket for a makeshift toilet if the sewer system is damaged or you don’t have running water.

9 - TOILET PAPER

Toilet paper isn’t something many people think of when they rush to the store hours before a major disaster. Just because there is a raging storm, it doesn’t mean the human body stops working. Save yourself a lot of trouble by stockpiling the stuff now.
10 - BLEACH

Bleach is going to be a necessary item to prevent your family from getting ill. It can be used to purify water should you run out of bottled water before help arrives. You only need a few drops of bleach to purify a gallon of water. After a storm, there is a very good chance the sewage systems are going to be down. There could be contaminated flood waters surrounding you. If you have to leave your house, thoroughly bleach shoes before going back inside. Wiping down countertops and bathroom areas is also going to help cut down on the risk of someone getting sick. Sanitation is one of the biggest concerns after a disaster. Bleach has a shelf life of about a year so be sure to include it in your rotation.

CONCLUSION

Buying these items now helps lessen the hit to your wallet and ensures you have everything needed to get through the next storm. A good strategy is to buy at least one item every week and set it aside in a closet or pantry. A little preparation can go a long way to ensuring your family has what they need until help arrives.
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