

BUG OUT AND LIVE!



Gary Thaller

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Introduction

Emergencies happen quickly in life. Some are survivable with minimum preparation but become deadly with no preparation. I cannot prepare you for everything so I focused on likely scenarios. Most people WILL have one survival situation in their lifetime.

I had mine being stuck in the snow on a remote road in Colorado. My son had his when he slid off the road and down an embankment during a blizzard in Colorado. The car was not visible from the road and he could not climb out. In both cases, we spent a comfortable night because we had survival gear in the car.

Hurricane Katrina and Hurricane Sandy were perfect examples. With days of notice, people chose to remain in their homes. Why? Some thought nothing would happen. Others did not have the money to leave. Dying for a lack of money is not a good way to go. With bug out bags, they could have had a comfortable 3 day stay in a shelter.

This summer in Waldo Canyon, Colorado there was a forest fire that burned a group of homes. The fire advanced very quickly. Two people died when they could not get out in time.

Many of the homes at the bottom of the hill were destroyed shortly after this picture was taken. Incredibly, some

people were just starting to evacuate at this time.



Various agencies were scrambling to find shelter and food. It was summer. The weather was great. How hard would it have been to camp out for a few days while these agencies got organized?

Earthquakes and tornados happen. Having a bug out bag makes the initial 72 hours easier. It often takes that long for real relief to come. Even if it saves the cost of a week in a motel and eating out, it is worth it.

What does not happen often is a meltdown in society. This book is not for that situation. Surviving off the land is not realistic for people who have not practiced.

Who am I to be writing a book on a bug out bag? I have 47 years of hiking and backpacking experience. I have learned it is easy to live outside with minimum preparation. I also graduated from Air Force survival school.

I am cheap. You can prepare a simple system for about \$25 that will get you through most emergencies. If you want to prepare to sleep outside, you can prepare a system for under \$250. This is because much of it will use things you already have around the house. The cost will be for a pack, tent and sleeping bag.

Commercial bug out bags look good to people who have never been backpacking. To me, they look expensive and contain many things that will never be used. The pack we make ourselves will be less expensive and work better.

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Chapter Automobile Survival

1:

Introduction

In 1983, an Air Force Academy cadet and his girlfriend were stranded in their 4-wheel drive vehicle on I-70 near Goodland, Kansas. They drove around the barricade in Colby, Kansas at about 2:30 PM. According to their diary, they were stuck around 9:30 PM. They were found dead from carbon monoxide poisoning.

In October 1997 over 400 cars were stranded along Interstate 25 in Colorado during a massive blizzard. The storm was not forecast to be bad. Everyone survived.

In 2006, my son drove to Gunnison, Colorado leaving around 8 pm. He did not check the weather. There was a blizzard in Monarch pass. Around midnight, he slid off the road and about 200 feet down a steep embankment. The car was not visible from the road. He was unable to climb out because the snow was too deep and the embankment was too steep. He was rescued around 5:30 after someone noticed the light from his flashers.

Why do some survive and some die?
Preparation and knowledge is often the key.

Any car trip can turn into a survival situation for a few hours. Most times, it is simply boredom while we wait for help. Other times, things can get quite serious.

Prevention

First, take care of the simple things. Do not run out of gas. Replace your radiator hoses and fan belt every few years. The old ones look just as good before they leak as they do when they are new. Check your oil with every fill-up. If you hear a squealing noise when you start your car that disappears in a few minutes, it may be your water pump getting ready to fail. Usually this happens around every 90,000 miles. If you have a timing belt, replace it at the recommended intervals. Replace worn tires.

Make sure everyone who drives the car

knows how to change a tire. Practice a few times before the real thing. Have the number for roadside assistance in your car. Typically it is inexpensive from your insurance company.

Do not drive in bad snowstorms. It is better to stop early and get a motel before the evening rush.

If your engine starts to turn over sluggishly when starting your car, have your battery checked. Sometimes cleaning the terminals and battery cables is the problem. They will do this free at AutoZone. Carry jumper cables and know how to use them. Check your owner's manuals. Some recommend against jumpstarting a car.

Chapter 2: Stranded in the Snow or Cold.

Introduction

How many times does this story have to be repeated?

A woman is dead after she tried to walk for help when her car got stuck during the snow storm in southwestern Utah.

Washington County Sheriff's detective Nate Abbott says the woman and a man were driving when their car got stuck

in rural Washington County Tuesday night during the storm that hit the Rocky Mountain region.

He says the pair started walking for help, but the woman couldn't go any farther and sought shelter while the man continued on.

He eventually took refuge close to a reservoir and stayed there until morning when he located some snowmobilers.

Search and rescue crews who used snowmobiles to look for the woman found her dead in the snow, a few miles from the car.

An autopsy is planned. No names were released.

This woman did not die from freezing to death. She died from a lack of knowledge and preparation. Trying to walk even a quarter of a mile in the wrong clothes and conditions can kill a person.

How well can you survive in a car? When I was young and dumb in 1974, a friend and I decided to sleep overnight in my car at the Monarch Ski area. We had high quality sleeping bags. In the morning, the temperature was 25 below zero. We slept comfortably in the car. We never started the car for heat. In the morning rescue came. Someone

reported we were dead. That was interesting.

That same year, the same friend and I decided to take a “short-cut” back from skiing. The snow got deeper and finally impassible. At about 10 pm, we decided to stop and spend the night in the car. The next morning we got the car turned around and headed back. Again, we were completely comfortable because I carried sleeping bags in my car all the time. He had a camp stove and we even made coffee.

Eventually, SOMEONE who reads this book will be stranded in their car. After you survive, please give this book a great review.

The first thing to conquer when stranded is fear and uncertainty. Decide right now you will stay with the car unless there is another life-threatening situation like someone who is seriously injured. This decision is easy to make when you are prepared.

In all winter survival situations, you have to do the same general things to survive.

1. Stay calm
2. Stay warm
3. Stay dry
4. Stay hydrated

5. Stay fed

6. Stay put (most times)

If you can do these for a week, you will likely survive.

What to do when you first get stranded

The first thing many people do is panic. So go ahead and panic. Have your panic take the form of drinking some water and eating something while you think. If you would rather cry or shout curses, do it and do it loudly.

Call for help if the cell phone works. Sometimes a text will work even though you cannot get a voice signal. Text someone you know and have them send for help. You may not receive the reply.

Keep track of exit numbers if you are traveling on the interstate. It is pointless

to call someone if you do not know where you are. 911 services and towing services can sometimes track your cell phone GPS. Know how to change the settings on your phone so they can easily do this.

Warmth

The first priority is staying warm. You will need a means for everyone in the car to stay warm. Ideally, everyone would have a \$500 down sleeping bag. This is unreasonable. Most days, I can find thick down comforters in thrift stores for about \$10. They are around \$160 new. They are too hot to use in bed, so people often give them to thrift stores. Buy two of these if you ever have anyone in the back seat. If you never do, one is good. Buy a blanket at the thrift store to put under you.

The comforters are bulky. You can put them in a garbage bag and suck the air

out of them with a vacuum cleaner hose. Either tie them with some rope or put duct tape around them in a couple places. If you never use the back seat, keep them behind the front seat so they are accessible without getting out of the car. Fluff them up before use.

Have hats and mittens that always stay in your car. You can get these at a thrift store. Wool socks are a good substitute for mittens. I would also suggest a pair of work gloves in case you have to change a tire.

Change of clothes

Tires generally go flat when the weather is bad. It is only an inconvenience if everything goes well and you change the tire successfully. However, if something goes wrong, you will be wet and cold.

Clothes

My father used to drive with the window part way open year round. I often drive with it all the way open. This is extreme. At least carry enough clothes to keep you warm if you have to walk a short distance or spend the night.

Sign

If you have a sunshade, paint “Call 911” on the back. If you want to get fancy, use reflective tape so it can be seen at night. The reason I say “Call 911” instead of “Help” is people you do not want stopping will think someone has already called for help. If someone you do not trust stops, tell them someone just stopped and called 911. That will likely discourage them.

Water

Keep 3 gallon jugs of water in your trunk. They will freeze and thaw but that will not hurt anything. We can endure cold better when we are well hydrated.

Melting Snow

During the day, the car will likely get warm enough to melt snow even if it is still cloudy or still snowing. Put snow in the jug with some water and shake it gently. It will melt easily. Keep doing it until the jug is full. Start doing this as soon as you start drinking if it is feasible. Keep the water in the car with you and it will have less chance of freezing.

If your water freezes, you may have to eat snow. Do this very carefully or it will make you cold. It is a last resort. Take a teaspoon at a time and let it melt in your mouth. Then wait until you are

warm before taking the next teaspoon. It is not optimum, but it will work. It is no different than eating ice cream.

Do not warm the water bottles near your body or keep them under your comforter. Water will condense on the outside and get the comforter wet. If it is near your body, it will make you wet.

Food

It takes 3 to 5,000 calories a day to keep warm in cold weather. The food should have a high fat content as it will keep you warmer. This drives you to nuts or seeds. Potato chips work well, too.

Hot food and drinks can be a HUGE morale booster. You can get a few MRE's or you can cook hot cereal. If you choose to cook, I recommend a Coleman type stove with propane canisters. Always cook outside the car so you do not get carbon monoxide poisoning. Put three cigarette lighters inside the stove and leave them there. One always seems to break.

Keep a journal

Maybe you can sell the movie rights when it is over. Seriously, one of the big problems will be boredom. Keeping a journal is a good way to relieve the boredom and reduce anxiety.

Flashlight

Use a flashlight with some sort of generator. Walmart has models with a crank. At the truck stops, you can get a flashlight you can shake for a couple minutes and it gives 5 to 10 minutes of good light.

If you run out of gas

Do NOT use a siphon hose. If you inhale a few drops, it can kill you. If you are the type that might run out of gas, they sell hoses with pumps at AutoZone or similar stores.

Sleeping

You are not going to freeze to death in your sleep without waking up first. I have trouble driving on the interstate alone. I stop often in rest areas to take a nap in all kinds of weather. When I start to get cold, I wake up and go a little further.

Smoking

If cold is a major factor, try not to smoke too much. It tends to make you colder.

Toilet paper

Enough said.

Feminine Hygiene

Keep a supply of what you use in the car.

Think short term

If you are stranded, thinking of the whole situation at once can result in anxiety and bad decisions. Think through the whole situation just once. That once should occur BEFORE you become stranded. Then think in 15-minute intervals and try to keep busy. Give yourself a task for each 15 minutes. If there is nothing else to do, read the car's owner's manual. If you are the type that panics, make a checklist while you plan and keep it in your glove box.

Conclusion

If you carry these things, you are prepared for any reasonable situation. If the time comes where you need it, relax and enjoy it. At least you do not have to go to work that day.

Chapter 3: Stranded in the Desert

Introduction

Being stranded in the desert can have elements of cold weather survival and hot weather survival. The cold weather part will not be serious and the comforters will be plenty. Prevention is key. Understand normal car tires are rated at 90 mph in normal conditions. When the road is hot, slow down to 65 mph between about 10 and 2. Use an hour of that time to take a lunch break if

you like. When you stop for gas, open the hood and check for any leaks in the radiator hoses. Also check for green fluid under the front of your car. Check for green fluid as you park so you do not panic over someone else's problem.

Death by GPS

If it does not look right, turn around.

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Five harrowing days after becoming stuck on a remote backcountry road in Death Valley National Park in August 2009, Alicia Sanchez lay down next to her Jeep Cherokee and prepared to die. Then she heard a voice.

"I called as I approached, asking if she was okay," wrote Ranger Amber

Nattrass in a park report. "She was waving frantically and screaming, 'My baby is dead, my baby is dead.' "In the SUV, Nattrass found Sanchez's lifeless 6-year-old son Carlos on the front seat. "She told me they walked 10 miles but couldn't find any help (and) ... had run out of water and had been drinking their own urine," Nattrass wrote. "She turned down a wrong road," Nattrass said in a recent interview. "She said she was following her GPS unit." Danger has long stalked those who venture into California's desert in the heat of summer. But today, with more people pouring into the region, technology and tragedy are mixing in new and unexpected ways.

Water

Plan for 2 gallons a day per person. If you are stranded overnight, you may be able to wipe dew off the car in the morning.

Heat

This will be the big problem. It will not be possible to stay in your car on a hot day. If there is no shade, you will need to make a shelter from the sun. You can use a large bed sheet for this. The trick is how to set one up using the car as one side.

Put a rock under the sheet, put a loop of rope over it and pull it tight. Make three of these and close them in your windows to anchor the rope. Do the same thing on the other side and use three tent stakes to anchor them. It will be more comfortable if you have a lawn chair.

In extreme conditions, if the sand is soft,

dig a hole a little bigger than your body.
Set up the sheet in a low pup tent style
over it. You will need to carry poles.

These last two ideas take practice
before it happens.

If you have to walk out

Think very carefully before doing this. Things appear closer in the desert. Drink as much water as you can before leaving your car. Carry water with you. Walk in the cooler part of the day. Do not walk on the pavement. It is cooler a couple feet off the pavement.

The only times I would do this would be if I was on a dirt road or a untraveled secondary road and I knew with certainty it was not that far.

Do not take a short cut cross-country. Arroyos can make the trek more difficult then they appear.

Conserve perspiration, not water. Walk at a meandering pace so you do not perspire as much. Drink enough to stay hydrated.

Keep your shirt on. You will be cooler and you will avoid sunburn.

I live in the high plains desert and walk long miles in the heat of the summer. Because I am used to this, I may be minimizing the dangers for those not familiar with the desert.

Conclusion

I have not found any cases of people dying in the desert along well-traveled roads. I was stranded in the desert once on my motorcycle when it broke down. I had water and food with me, so it was only a matter of waiting a couple hours for a tow truck.

Chapter 4: 72- Hour Bug Out Bag - The Basics

Introduction

I have 47 years of all season backpacking and hiking experience. I have learned being outside is the same as being inside. It is just different skills. Life is much simpler outside.

Backpackers and hikers often use specialized gear. I am what is known as a “Dirt bagger.” I substitute where I can. I do without things that are not

needed. I do not have any real expensive gear. I will recommend gear that will work so you can have family camping trips and hiking trips for practice.

72 hours is generally enough to get through the initial disaster. After 72 hours, food and other assistance start to come. Although I will recommend gear for sleeping outside in reasonable weather, the real goal is to be self-contained in a shelter of some kind.

I will assume the worst case where you do not have a car.

Conquering Fear

In most cases, fear is simply a lack of knowledge. What is the difference between traveling to a motel for vacation and bugging out? Nothing. They are the same thing. In one case, you bring what you want. In the other case you bring only what you need. Bugging out is easier.

Once you prepare your bags, practice with them a few times. It can be a fun family adventure. You do not have to sleep outside. Take a 5-mile hike with your family and camp in your house. If you want to be adventurous, camp in your backyard. This is especially

important if you have children. Children will take their cues for fear from their parents. If everything is under control, the kids will have fun.

These practices are important for finding out what is missing for YOUR situation. I can only explain MY situation.

Family assembly point

Have a place for the family to assemble in different situations. If a house catches on fire, have everyone assemble at a point a safe distance away. It would be a terrible tragedy to lose a parent trying to save a child who already left the house.

Sometimes things can happen while the children are at school. It can happen either at the school or at home. Have a safe place to assemble a few blocks away from each if something happens. It can be a McDonald's or a convenience store. Have an alternate and more distant assembly point for situations such

as tornados and earthquakes where the near assembly point is not possible. Use judgment for younger children and elderly people.

Leave early

Hurricanes are the best example of this. Those who choose to leave early can get far away by car or to a safe distance if they walk. What stops people? Mostly money or the feeling it will not be bad this time. We cannot cure the second. We can cure the first if people are not afraid to spend one or two nights in their car. Sometimes work prevents someone from leaving. Make separate plans and let those who can leave go. Screw school. I would take the kids out if I felt the need to leave.

Be self-contained

Each able person in the family should have a complete bag and know how to use it. Those with young children will have to adapt. Those with elderly people in the home will have to do the same. Most people are capable of surviving for a few days on their own if they know how.

Think cheap

People survive all the time. They do not call it survival. It is simply living. Most people have enough clothes almost ready to throw away to make a bug out bag. There is a difference between survival and living. In survival, you may have to carry your gear on your back, so it needs to be lightweight. This is more a matter of knowledge than having specialized gear.

Think light

Many people cannot walk 15 miles. With a 50-pound pack they might not make it down the street. My emphasis will be on taking ONLY what you need for a realistic situation.

Practice, practice, practice

What is practice? It can be dramatic with a surprise camping trip. Alternatively, plan a weekly walk in the neighborhood with the family so everyone gets used to being outdoors.

Have a plan and stick to it if possible

The time to discuss the plan is before something happens. Changing in the middle of a situation often leads to mistakes. If nothing else, it will lead to family fights. Involve the whole family in the planning stage. Let children know it is not likely to happen for real, but you will be practicing for fun. NOBODY in the family is THE expert. Try to include everyone's opinions. Having a good plan is usually better than arguing over a perfect plan.

Where to keep your bug out bag

If you live in an area where there are no tornados or earthquakes, in a closet near the front door is a good place. Taking the bug out bag is NOT a priority if there is a fire. Only take it if it is completely safe. There will be help if your house burns down.

In areas where there are earthquakes, many people make a storage box outside. In hot areas, be sure it is in the shade.

Tornados are more difficult. It should be reasonably safe if you dig a hole and

make a box leaving only a few inches above the ground. Make sure the box is waterproof.

Keeping a bug out bag in your car is not a great idea. It gets hot in the summer and water freezes in the winter. You will have separate survival gear in your car.

Be versatile

My recommendations work because all the gear works together. If you make significant changes to the basic concepts, test them in actual conditions. This is only one way of doing it. There are other ways.

Think in systems

Gathering all the gear at once is overwhelming. If a person starts gathering what looks good, they will likely end up with too much weight and gear that is not functional. In the following chapter, I will break it down into systems.

For each system, I will point out things that do not work and suggest things that work better. Backpackers will disagree with many of my choices and they should. I am using three criteria. First, the gear must be functional. Second, most gear should be something people already have. Third, it has to be

inexpensive. Making bug out bags for a family of four can be expensive if people buy the best gear. Practice will be a part of the plan, so it has to work. It does not have to be stylish or suitable for a long backpacking trip. It will be suitable for an overnight trip.

One key is keeping the weight as low as possible. An adult can usually carry 30 pounds comfortably. My 4-day pack is 21 pounds including food and water for a day. The difference between 30 pounds and 21 pounds is things I do not take. The reason I do not take them is I would not use them if I did. My target for the bug out bag is 30 pounds for adults, 25 pounds for the early teens and 20 pounds for pre-teens. One mistake

people make is thinking men can carry more, so they load comfort items in his pack. The limiting factor is often the weight on the shoulders.

Chapter Backpack

5:

Introduction

Most bug out packs I see are too small. They work fine if the goal is to walk to a shelter and depend on help from others. They do not work well if you have to spend a night outside or the shelter you find has no supplies.

I will recommend packs that will work for most situations.

Weight

New backpackers seldom think of the weight of the pack. Any pack you select should be 4 pounds or less. This excludes all adult external frame packs. It also excludes many big packs.

Size

I can backpack with a 44-liter pack. This is too small for an inexperienced person. The reason is their sleeping bag and clothes will be bulkier. New people tend to put in extra items they do not need. I am recommending a pack between 60 and 70 liters. This is HUGE for a backpacker, but the weight penalty is small. The key is you do not have to fill it. If you decide to fill it for all situations, you can discard what you do not need when the real thing happens.

Comfort

A pack needs to be the right size and style to be comfortable. The key measurement is torso length. This is the distance between the bone at the bottom of the neck and the bone at the bottom of the spine. Keeping it simple, people taller than approximately 5'8 should use a men's pack. People less than 5'8 should use a woman's pack. The styles are usually identical, so nobody will notice that a man is wearing a woman's pack. People less than 5'3 should use a youth pack. If the pack is a little big, that is not a major problem.

Pack Styles

There are two main styles of backpacks: internal and external frame.

Internal frame pack:



Notice the waist belt. This helps take some of the weight off the shoulders.

This is important for packs above about 25 pounds. The disadvantage to this style pack is everything must fit inside. That means either buying compressible gear or buying a bigger pack.

External frame pack:



This type of pack was popular in the 70's and 80's. Unfortunately, they do not make many models anymore. If you find a used one, it will likely be heavy. I usually use this type of pack. The advantage is, you can tie the sleeping bag on the bottom and put the tent on the top. This means you can carry bulkier items that are still lightweight.

Expense

I have never had a pack wear out. This is one time you do not get what you pay for. More expensive packs may only be more expensive because they are a newer model with new features. However, many packs at the lower end of the price range are too heavy. Many packs at the higher end are too big and heavy. It does pay to buy a brand name as they will likely be a good balance between quality, weight and function.

Military Packs

Military packs are made for carrying a heavy load. The frames and material are heavy. I do not consider them useful for a bug out bag.

Final choices

I have settled on two packs, one for adults and one for youth or short adults. Both are a little big for backpacking and most backpackers will disagree with these choices. When I balance all the factors, I feel they are great for a bug out bag for people who do not have experience.

The adult pack is the JanSport Katahdin 60 liter pack. JanSport makes very high quality packs. They have a lifetime warranty. Just return them and they will repair or replace the pack. The only disadvantage to this pack is it weighs 4 pounds.

At this time, they are \$119.90.



The youth pack is the JanSport Scout. This is a popular pack for Boy Scouts. It is too short for tall adults. It costs \$100.



I suggest buying a pack at a store that has a liberal return policy. You can buy these from REI. They have a lifetime

return policy for any reason. If you buy a lifetime membership for \$20, you do not have to save receipts.

Where to shop for a pack

Stay away from the box stores like Walmart, Sport Authority and Big 5. I like REI. Another option is Campmor. You can order online from these stores and return the packs easily. Some people order two packs at the same time and return the one they do not like. You can also check a locally owned gear store. The prices are usually the same as you find online. They may have other brands that are just as good.

Chapter Footwear

6:

Introduction

For clothing, I will start at the feet and work up. Footwear includes shoes, socks and inserts if needed. This is the most important part of your gear for comfort. You will have to test whatever you choose. I will include both the good and bad choices. Keep in mind; you will have to keep your choice packed in the bag. In addition, keep in mind, the footwear only has to work for 72 hours. Most likely, you already have old shoes

that will work.

Socks

Cotton white socks

These may be the worst choice. Cotton tends to create blisters when hiking. If you are prone to getting blisters, I suggest avoiding them.

Wool socks

I like two brands: SmartWool and Thorlo. They are very comfortable and you can usually find them in box stores. The socks wick moisture away from the feet. The disadvantage is if they get wet, they stay wet for a long time. I always carry an extra pair. Another

disadvantage is they are a little heavy. They are my first choice for day hikes and backpacking.

Be sure your shoes fit with thicker wool socks if you choose these.

Nylon socks

A thin pair of nylon socks may be the best choice if you do not get blisters. They are light, washable and dry quickly on your feet. Some people find they need to wear nylon socks under wool socks to be comfortable.

Shoes

If you already have running shoes or any other type of shoe that is comfortable for walking, use those.

There are some bad choices. Any heavy leather boot will likely be uncomfortable unless you break them in well. Even after you break them in you need to use them frequently to keep them broken in. Each boot has a different treatment recommendation.

Since you may be practicing on trails, I recommend hiking shoes. Any inexpensive hiking shoe will work if it fits well. The reason I recommend hiking shoes instead of running shoes for

trails is they grip better on trails where there are hills.

Many backpackers use trail runners because they are light.

Some people may be concerned with how shoes will work in snow. I find my feet stay warm in hiking shoes until I stop. Then it helps to change my socks if they are wet. Others insist on some sort of boot. The key is testing what you choose.

Chapter 7: Pants

Introduction

For a bug out bag, the clothes should be lightweight, compressible and inexpensive. They must be suitable for a wide range of conditions.

I will give some bad choices while listing the disadvantages and a couple options for good choices. Since you will be wearing something when you leave, you can discard an item to save weight once you get started.

Cotton Kills

You will read this eventually. I am going to wave the bullshit flag as we used to say in the Air Force. I went through Air Force survival school with cotton fatigues. WET COTTON kills. Wet cotton is also heavy and uncomfortable, but from the waist to the ankles it is not especially hazardous. In fact, I never wore anything but cotton hiking and backpacking until a couple of summers ago. Before you close the book and post the one star review, please read on. I had to get this out because it is a pet peeve of mine.

Blue Jeans

I am purposely starting with blue jeans because most people hate them for backpacking. Since many people wear blue jeans at home, they may think they are suitable for a bug out bag. We may as well eliminate those from the start

Blue jeans are hot in warm weather. The definition of warm is a little different for hiking as we are generating heat. For me, it starts about 50 or 60 degrees. When blue jeans get sweaty, they start to bind on my legs and make hiking a little harder. If it does rain and they get wet, they take forever to dry. In humid climates, the problem is worse.

They are also heavy when wet. They are not an optimum choice for hiking when the temperatures above about 20 degrees. Somewhere around 70 degrees they get uncomfortable.

Blue jeans are more comfortable in camp in areas where it gets cool at night unless they are wet from an afternoon rainstorm.

If you are hiking in cold weather in the snow, blue jeans will get wet around the ankles. However, they will be warmer than lightweight pants.

Blue jeans are heavy and bulky, so they are not great to keep in your pack. This is the biggest reason I reject jeans. They

add too much weight to your pack,
especially if they get wet.

Light Weight Cotton Pants

This is where I end up in trouble with the “Cotton kills” people. By lightweight I mean something like lightweight cargo pants or even something like an old pair of Dockers. I often wear these because they are comfortable. If they get wet, they dry as quickly as synthetic pants. However, they are not as comfortable to wear while it is raining in mid-temperatures. Say 30 to 50 degrees. In this situation, they can get you in trouble if you do not have rain pants. I find lightweight cotton pants more comfortable in warmer

temperatures.

Cotton pants do have another advantage for sleeping. They give some additional warmth at night if they are dry.

Lightweight cotton cargo pants are my first choice if coupled with other clothes.

Synthetic pants

Any pair of lightweight synthetic pants will work well enough. If you have some used running pants, they are great. The advantages for synthetic pants are they are lightweight and they dry quickly.

Running Shorts

Running shorts can double as underwear and shorts when the pants are too hot. Be sure the liner gives adequate support.

Military fatigues

These are durable, but heavy. They are not as cool as other options in hot weather. They are warmer in cold weather.

Long Underwear

Now we are starting to move into the concept of layering clothes. Instead of one layer that does the job for a particular temperature range, layers give us options for a wide temperature range and different weather conditions.

Except in winter conditions, I do not bring long underwear bottoms. I may change this if I start wearing shorts.

When it gets cold, I wear synthetic long johns under my pants. This combination works to about zero degrees.

In general, when it is cold, anything close to your skin should be synthetic

wicking material. The cheapest option I found is military issue CWU 43P long johns. You can Google them to find a source. They usually have new ones in Army surplus stores. The cost is about \$10.

They are made of Aramid, otherwise known as Nomex. They are warm and wick moisture well. They are lightweight. The bottoms are 8.5 ounces in the extra large. You may want to cut the loops off the bottom of the legs if you find them uncomfortable.

Rain pants

I seldom actually wear my rain pants but I always carry them. They give an extra 10 to 15 degrees of warmth if I wear them over my pants. This is because they stop the wind. I can also wear them while I am washing my other clothes on long backpacking trips.

It is easy to buy junk in cheap rain gear. It will generally fail in the first couple of uses. I find Dry Ducks raingear is fine for a bug out bag.

Conclusion

Each layer adds a bit of warmth or protection. In hot weather, I might start with the shorts or pants. As it gets colder, I would add either the rain pants or the long underwear. In the coldest or wet conditions, I would wear the rain pants.

Chapter 8: Waist to the Head

Introduction

The clothing from your waist to your head is the most critical for comfort. It is also the clothing that can put you in some danger if you make inappropriate choices. Still, there is some latitude for substitutions. The clothes need to work together so they work in all weather. The combination needs to work for YOU. Everyone is different.

Layering

The biggest problem is keeping our body at a comfortable temperature without perspiring in cold weather. While we are walking, our body generates a lot of heat. It makes a difference when the sun is shining. I have hiked in the sun at 15 below zero in a short sleeve shirt. With a combination of cloudy, high humidity and wind, I sometimes bundle up at 40 degrees. When I hike in the mountains, I find the conditions change rapidly and I change the combination. There is no single piece of gear that works for all situations, so I carry four and sometimes five layers for different conditions.

Here are some general rules. The base layer is what you wear against your skin. I think of it as the layer I will wear in all conditions. Then there is the light jacket or fleece layer. There is the wind-breaking layer that keeps the wind out and keeps me dry if it rains. When it gets cold, I will add long underwear. If it gets very cold, I will bring a parka.

Shirt

The purpose of a shirt is simply to cover the skin. Sometimes I leave it home when I know I will be using other combinations.

My preference for hiking is a cotton shirt. Uh oh, here comes the “Cotton kills” myth again. I will get to that later, but first let me explain the benefits. Most of the time in weather above 50 or 60 degrees, I only wear a shirt. Cotton is much cooler in warm weather than synthetic shirts.

Now for the “cotton kills” myth. It is not completely a myth. If you only have a cotton shirt and it rains, you can get

hypothermia in temperatures in the mid 50's if it is windy. There is a simple solution. Have an extra synthetic shirt in your pack. Take off the cotton shirt before the rain starts and put on the synthetic shirt.

Synthetic shirts have their benefits, too. The biggest one is they dry quickly. They also retain some insulating value in the rain. Any synthetic short sleeve shirt will work. I prefer a loose fitting shirt. For cooler weather, some might chose a long sleeve shirt. There is one very serious mistake you can make. If you wear a synthetic shirt with a more open weave, you can get serious sunburn through the holes in the shirt. Football jerseys are a perfect example of this.

Fleece

This is the most important layer in my gear for all temperatures. The first thing I would do is take a trip to a store to see what a fleece looks like. I happened to find a North Face fleece on sale at a gear store that was transitioning to selling bicycles. The fleece is almost magical. It is made of a synthetic porous material. It stays warm even when damp with perspiration. It dries quickly if it does get damp with perspiration and you stop. Maybe this is not true in humid climates. Once I start hiking, the fleece and shirt keep me warm to about 30 degrees in most conditions.

This is my son on a hike to Comanche Peak in Colorado. He is wearing synthetic pants, a synthetic shirt, long underwear and a fleece.



There are many brand choices, so I will give some help in how to choose. First, go see a fleece priced around \$90 to

\$100 so you can see what one looks like. Then go to a store like Big R that sells work clothes and look for a similar fleece. Usually they have one for \$30 to \$40 that is virtually identical. Just be careful you get synthetic and not cotton.

Yesterday, I went to a thrift store and saw a good selection of fleeces for \$5.00

Synthetic cloth is important for this layer. Regardless of what kind of shirt you wear, a synthetic fleece will wick the moisture away from your body and make you feel warmer.

Is it possible to make a substitution? Sure. A wool sweater will work, but

will likely be heavier. You can even use a thick synthetic sweater. Be sure to test the combination near home to see how it works.

Long Underwear

I use the same long underwear top as I do bottom. In warm weather, I do not carry the top or bottom. As it starts to get cooler, I start combining all the layers. If it will be cold the whole hike, I wear the long underwear top next to my skin. Otherwise, I put it on over my shirt if I need it. My son changes his clothes all the time as the temperature changes.



The Nomex military style long

underwear tops weigh 14.5 ounces for the extra large. This is a heavy piece of clothing, so I only carry it when I know I will be wearing it.

Rain Jacket

I feel somewhat strongly about a rain jacket. It is not simply for rain. It is an integral part of my layering system for cold weather.

In cold weather, the outer layer should block the wind. It is somewhat insulating. The outer layer should also protect you against the rain.

My top layer is long johns, shirt, fleece and rain jacket. This combination will take me down to zero degrees while I am hiking. If it is windy, I put my rain pants on.

Dry Duck rain jackets will work for an

inexpensive option. Before you wear it the first time, reinforce the stitching in the bottom of the zipper.

Hat

I bring a hat in all but the warmest weather. It is a wool hat I bought in Iceland. I am going to change this for one with a mask to prevent frostbite on my cheeks in cold and windy conditions.

A hat will help keep you warm when sleeping outside in cool weather. This is why I always carry it.

Gloves

I am a little weird about gloves. I use wool socks. They work fine down to about zero degrees. There are many options. Mittens will keep your hands the warmest. Leather gloves with wool inserts also work well. I find I do not need gloves for hiking until it gets below 10 degrees. If I am in camp, I put my hands in my pockets. Most times, they are needless weight.

Parka

I recommend keeping a warm, but lightweight parka in your bug out bag. Remember, the bag is for the worst conditions of the year. If you leave in the summer, you can always toss the parka to save weight.

Conclusion

These clothes should allow you to walk safely in temperatures from about 10 degrees below zero to 110 degrees. At the upper end, if possible, wait for a cooler part of the day. If not, at least drink extra water.

Chapter 9: Sleeping system

Sleeping bag

This is the core of your sleeping system. It must be warm, light, inexpensive and somewhat compressible. My choice of sleeping bag is the reason I selected the bigger pack. This is because the sleeping bag is big, but it is light.

If you already have a sleeping bag you use for backpacking, use that. You will HAVE to put it back in the bug out bag after each use.

I am making some compromises. A \$500 down bag would be the best option. However, most cannot spend that much for a bug out bag.

My choice is the Alpine Sierra Designs 20 bag. I have tried several inexpensive bags and this is the best of the group. It keeps me warm down to the mid 20's without a pad. I could survive to about zero if I wore all my clothes and shivered.

This bag is available for \$59.99. If you are short, you can get the women's sleeping bag for \$39.99.

This sleeping bag only weighs 2.5 pounds with the stuff sack. That is light

even by backpacking standards.



A mummy bag will be warmer than a rectangular bag. I do not recommend Coleman bags. They were good about 15 years ago, but they are cold and heavier now.

If you are in a bad situation and need to improve the temperature rating, you need to get insulation under you. A 3-inch layer of thin pine branches works very well. You can also pile up dry leaves. Even a piece of cardboard or some newspapers might help.

Another option is to find a small rock cliff and build a fire. One method is to build a fire about six feet away from the rocks and sit between the fire and the rock so you are warmed from both sides. The other method is to build the fire next to the rock and the rock will give off heat.

Do not use this bag near a fire. Sparks will burn it and may set it on fire.

Pad

You lose most of your heat from the bottom. This is because your weight compresses the insulation in the sleeping bags. Many sleeping bags put LESS insulation on the bottom because they assume you will be using a pad.

I do not use one. They are bulky and unnecessary weight. I fold my fleece in half and put it under the top half of my body. You can lay your empty pack under the bottom half if it is cold.

Most people will be uncomfortable the first night without a pad. That is part of the adventure.

Clothes

Some people are warmest when they do not wear clothes in a sleeping bag.

Sleeping bag ratings are based on wearing a base layer. This is one reason I include long underwear and prefer cotton pants. I am warmest when I wear all my clothes except the raingear. Raingear makes me colder. Wearing a hat makes me warmer.

Pillow

I roll up my raingear and any extra clothes and put it in the stuff sack for the sleeping bag.

Keeping the bag dry

Some people crawl all the way inside their bag to stay warm. This does not create a problem in the last couple of hours of the night. If they do it all night, the inside of their bag will be wet. It is better to wear a hat.

Staying still

When I am chilly, I sleep on my side and stay as still as possible.

Practice

The more I sleep outside, the less cold is a problem. I learn what clothes to wear and what position keeps me the warmest. After sleeping outside many nights, the hard ground does not bother me.

Cheap sleepover bags

These are useless for sleeping outside except in warm weather.

Tent

Many people do not consider the tent to be a part of the sleeping system. A large tent will be drafty and cold. A small tent will be warmer.

Each person should have their own shelter in case you are separated.

I thought about this one a long time. Ideally, a person would get a single person camping tent. An inexpensive, high quality tent that works in most conditions costs about \$300. Experienced backpackers already have one. A simple guide to something that works is about \$300 and under 3 pounds. I have not seen any unusable

tents in this price and weight range.

Bug out bags are a different. They are for emergency use and survival. The most commonly recommended shelter is a blue tarp. They are hard to set up and they do not keep out bugs.

The most common scenario will be sleeping in a shelter. You do not need a tent in this situation, but if there is enough room, a tent will provide privacy. A tent that will be set up indoors needs to be free standing. This means no stakes are needed.

The best solution I have found is a 2 person 7' x 7' Ozark Trail's tent from Walmart. A two-person tent is suitable

for one person. They are around \$30. I have used this type of tent and never had a problem with durability, wind or bugs.

The problem I have had is the tent leaking in the rain. On their website, they suggest using seam sealer. It is the bottom seam along the floor that leaks the most. I did not have any problem until after years of use.

If it does rain, it is imperative to keep the sleeping bag dry. It is the last line of defense against hypothermia. Usually when it rains, it is not very cold. I found putting on all my clothes including my rain gear works for sleeping without the sleeping bag. It is not completely warm and it is not fun, but it works.

The night the tent leaked.



It takes some practice to set up these tents. Practice a few times and then keep the instructions with the tent.

If sleeping outside, be careful to choose a spot that is elevated so water does not run in the tent. It will be warmer away from water. If it is convenient, pick a spot 10 or 20 feet in elevation above the

low spot. Cold air tends to settle in the
low spot.

Chapter 10: The Kitchen

Introduction

The kitchen is the area where it is easy to add too much weight to the pack. People tend to carry more food than they need and their cookware is big, heavy and unnecessary. Each component of my kitchen works with the others. If you make substitutions, test them.

Stove

Why carry a stove? There are food choices that do not need cooking. Cooking is a morale booster. A hot cup of coffee or a hot bowl of oatmeal can make everything feel better.

A stove can be a source of heat in an emergency. It is easier and safer to get close to a stove than it is to a fire. A stove is almost instant heat while a fire takes some time to build. Do not use a stove in an enclosed area like a tent or car.

Each pack should have its own stove and fuel. Coleman camping stoves are too big and heavy. They are great for

camping, but not for carrying. The stoves I recommend are for backpacking. They are lightweight and efficient.

The first consideration is fuel. There are four basic types.

White gas

White gas will heat quickly. White gas stoves take time to learn how to use safely. If a person is careless, they can make a fireball. Some white gas stoves can use gasoline which makes resupply easy. White gas stoves are more expensive.

Many people like the MSR WhisperLite

stove.



It costs about \$80, which makes it expensive if outfitting several people. It is known for being a little hard to use for inexperienced users.

I use the SVEA 123R stove. It is a classic and I have owned it since 1977. It is known for creating fireballs in the hands of inexperienced users. It is hard to learn how to use.



One advantage is it can use gasoline. It costs about \$100, which is too expensive. The top is a pot, so you do not have to buy a separate pot.

Cannister stove

Many backpackers like the MSR Pocket Rocket. It screws to the top of a canister. It is only \$32. For 3 days, two full canisters should be enough. The

canisters are about \$5.50.



The pot on the stove is too big for backpacking. A cup the size of the ones in the back would be better.

The only downside is it may be hard to find replacement canisters away from home. This is not a serious problem if the goal is 3 days. You can always build a fire if you have to.

This stove may be the best choice.

Alcohol stoves

Alcohol stoves use denatured alcohol. They can also use HEET, which is available at most gas stations. They are very simple to use. My favorite is the Trangia stove. They are very simple to use and only cost \$12.95



The disadvantage to this stove is alcohol is slow to heat water. That is not a major factor. The flame is invisible in daylight. Learn to use it when it is a little dark. It is lightweight and should last a lifetime. Do not put the O-ring on when the stove is hot or it will melt. I just bought one of these to test it. It is a good choice.

Some people make their own alcohol

stoves from Pepsi Cans or cat food cans. I have tried this, but never got one to work well.

Fuel Bottle

MSR 20 oz bottle.

These bottles are for white gas. They can be used for alcohol. You may need a small funnel depending on what type of stove you get. Be very careful not to spill the whole bottle.

Personally, I carry an 11 oz bottle of the same type for trips up to 5 days.



Fires

In many situations, building a fire is an option I would use to conserve fuel.

Cooking fires should be very small and easy to put out after. Many people are not proficient at building fires. In some wet conditions, it is difficult to build one. I consider a fire to be a supplement to my stove.

Cookware

Most people carry too much cookware. Even camping pots are too heavy. Others buy expensive titanium. I found there are cheaper and lighter alternatives.

Today I bought this IMUSA 0.7 quart mug for \$1.99 at Walmart. It is near the pots and pans.



It only weighs 2.5 oz. It is all you need. You can use it for coffee and the cup will warm your hands. Only fill it about half way or you will burn your lips.

Coffee cup

I use a little plastic cup you find in camping sections of stores. It is lightweight and unbreakable. If you do not drink coffee with your meals, you may not need one.



Spoon

A metal teaspoon works fine. For the type of food I will recommend, you do not need anything else. To save some weight, you can use a “Light My Fire” plastic Spork. They cost about \$1.99 if

you find them in a store. I get them at the local organic food store.



Chapter 11: Food

Introduction

In a stressful situation, good food can be a morale booster. It can also give you the strength to walk longer distances without feeling hungry and tired. In a bug out situation, food may not be readily available as people clear the shelves in an emergency. Why waste time shopping when you can have everything packed?

Nutrition

The nutrition requirements are different when exercising or when trying to stay warm on cold nights. The best balance is 30% fat, 15% protein and the rest carbohydrates. Fat gives you energy and warms you at night. Protein helps replenish tired muscles

Freeze dried meals

Freeze dried meals are expensive and bulky. Each bag has about 500 calories. The advantage it has is it will last a long time. The disadvantage is the packaging is heavy. The meals should be repackaged into Ziploc bags, which reduces their shelf life.

Inexpensive

Freeze dried meals can cost close to \$20 a day per person. Since you will need about 3,000 calories a day when walking, you will need 3 meals plus an additional 1,500 calories from other sources. 1,500 calories is about 10 granola bars.

It is possible to eat nutritious food for under \$6.00 a day. I will give simple recipes in a later section.

Lightweight

Weight is critical if walking long distances with a pack. Many backpackers strive for 1.5 pounds of food a day and 3,000 calories. This is impossible with canned foods or other foods containing water. The only way to do this is with dried foods. Repackage all foods in Ziploc snack bags to reduce weight. The weight and space savings are considerable.

Reasonable storage life

Dried foods will last months in Ziplocs without losing their flavor. If you make foods you can eat at home, you can eat and replace the food in your bug out bag every month or so.

Tasty

If food does not taste good, you will not eat it. It must be good enough to eat at home.

Easy to prepare

Cooked meals should be easy to prepare in a small pot on the stove.

Coffee, tea or hot chocolate

These are all morale boosters

Recipes

Rather than put recipes here, you can see example recipes at this site:

<http://bit.ly/10QLBDR>

Conclusion

Most beginning backpackers take too much food, which adds to the pack weight. Later, they learn to take only what they need. If they have to spend an extra night, it is not a big deal. A person can survive and hike for a couple days without food.

Chapter 12:

Miscellaneous Items

Introduction

You need surprisingly few things to survive for three or more days. Most people take too many things instead of too few. Extra ounces lead to pounds and pounds lead to quick fatigue. This is what I take for backpacking in the wilderness. You will not need any more for a bug out bag.

Water

Water is the most essential item. I recommend carrying four 700 ml plastic bottles of water to start unless you live in the desert. Water is heavy. It weighs 8 pounds a gallon. If you are in the desert, you can use a baby stroller to carry more water.

I do not recommend Camelbacks. The water will freeze in the hose in cold weather. It is harder to keep track of how much you are drinking. The Camelback itself is too heavy.

First aid kit

You only need a very basic first aid kit. A few Band-Aids, headache pills, nail clippers and tweezers. If you sunburn easily, have just enough sunscreen to last 3 days.

Toilet paper

Bring half a roll or enough to last 3 days. You can always find a substitute if you run out.

Towels

Towels are very heavy, especially if they are wet. All you need is two six-inch squares of absorbent cloth. One is for your body; the other is for your dishes. I recommend the yellow camping towels you can get at Walmart for about \$5.00. One towel cut into squares is enough for everyone.

Coffee can

A large coffee can be used for washing clothes and taking a marine bath. If possible, wash your clothes and bathe every day. Wear your rain gear while you wash clothes.

Scissors

A three or four inch pair of sewing scissors is much safer for cutting things than a knife. You may have to cut some clothes to make an ankle wrap, sling or bandage.

Inexpensive compass

This is to keep you from becoming confused in cloudy weather. You should not be doing any serious navigation.

Map

A copy of a page from a large Road Atlas should be enough.

Flashlight

I recommend a small solar charging flashlight.

Soap

Having soap is not essential, but staying clean is. Studies have shown that many diseases spread by fecal matter on the hands. This is one reason for separate kitchens. If you use soap, I recommend Dr. Bronner's soap. It is very concentrated. One drop is enough to wash your hands. A few drops are enough for your marine bath.

The soap is expensive, but it lasts a very long time. You only need a small plastic bottle.

Toothbrush **and** **toothpaste**

Only bring a small travel tube of toothpaste. If you run out, you can also brush your teeth with the Dr. Bronner's soap. The soap is edible.

Razor

It is not necessary, but you will feel and look better if you shave. A few drops of Dr. Bronner's soap lathered onto a wet face works well. It does not make many suds, but it works well.

Water filter

A water filter is a luxury, but you may want to have one. I do not like the idea of purification tablets, as they do not remove anything. They only kill germs.

I recommend [this](#) water filter. It is expensive, but you can use it backpacking, too. You can also use it at home if the water supply is suspect.



Important papers and money

Get duplicates of your social security card, driver's license, birth certificate and credit or debit cards. Keep them in your bug out bag at all times. Without these, you become a non-person in many cases.

Have as much cash as you can afford to put in each bag. If the power is out, you will not be able to use credit or debit cards.

Knife

You do not need a knife if you have scissors. If you like to carry one, make it a small one.

Fire starter

A few wads of toilet paper soaked in olive oil or Vaseline can help start a fire in bad conditions. Keep them in a snack Ziploc.

Chapter 13: How to Start a Fire

Introduction

You may need to start a fire to stay comfortable. The key to starting a fire easily is preparation with the right materials. Please practice this at home. There are many techniques. This is the technique I use.

Tinder and kindling



Tinder is something that will light easily with your cigarette lighter. It only needs to burn long enough to light the kindling on top. It has to be very dry and easy to light. Pine needles are not optimum, but it was all I had in this situation.

For the first layer of kindling, I use tiny dead twigs I break off trees. The best ones are from pine trees. Put a few handfuls on top of the kindling.



For the next layer, I build a log cabin from gray wood without bark. Put the smallest on the bottom and gradually increase the size as it gets higher.



The top layer is a few small branches over the top. This construction will create a chimney effect that will allow

the fire to light quickly.

If you use one of your fire starters, put it under the tinder at the bottom.

The more time you take to prepare a fire, the easier it will be to light. If it does not light the first time, it is usually easier to start over from the bottom.

Here is a video of a fire I started along the Colorado Trail.

<http://www.youtube.com/watch?v=TM9SNqu0T-4>

Starting a fire is somewhat of an art. Practice enough times at home until you are good at it.

Many people have trouble when it is wet. Take special care to find tinder and kindling that is dry and off the ground. It may take a few tries. Be patient. It is a good time to slow down and make coffee.

If you use alcohol or gas to start the fire, soak some toilet paper with it and then put it in with the tinder and kindling. Do not pour it on the wood except for the first light. If you try after, a glowing ember can cause a fireball.

Chapter 14:

Packing Your Bag

Pack everything you do not want to get wet in plastic bags. If you have an internal frame pack, put your sleeping bag in a plastic bag and leave the top open so the air can come out. Push the bag into the bottom of the pack and fold over the top. Other items will pack easier this way.

If you have an external frame pack, put a plastic bag inside the stuff sack and then put the bag in. This takes some practice. Tie the bag to the bottom of the frame below the pack.

Put your kitchen things in a stuff sack. Put your food in another stuff sack. Each day, separate the food you will eat at the beginning of the day and put it in an outside pocket of the pack.

Some say to put the heaviest things on top. Some say on the bottom. Nothing in your pack is heavy, so do what works. Sometimes small changes in the way you pack can make it more comfortable.

Two of the water bottles can go in the pouches on the side of the pack. Put the other two where you can get to them easily.

Chapter Conclusion

15:

Those who read and do not pack a bag will not be ready.

Those who pack a bag and never practice will have all the right gear, but no knowledge of how to use it.

Those who practice with their bags will know how they work and make adjustments.

Those who teach someone else will become experts.

If you have any suggestions I can add to

the book, please email me at gershon_ben_franja@yahoo.com . I may include some of these in revisions.

Please loan the book to a friend and recommend it to others if you like it.

If you enjoyed the book, please take time to post a review on Amazon.

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