



Sharp
Ink

U.S. DEPARTMENT OF DEFENSE



**HOW TO FIND WATER, FOOD
AND SHELTER IN ANY
ENVIRONMENT, HOW
TO PROTECT YOURSELF AND
CREATE TOOLS**

SURVIVAL HANDBOOK

U.S. Department of Defense

Survival Handbook

**How to Find Water, Food and Shelter in Any
Environment, How to Protect Yourself and
Create Tools**

Sharp Ink Publishing
2022

Contact: info@sharpinkbooks.com

ISBN 978-80-282-2043-3

Table of Contents

Chapter 1. Introduction

Survival Actions

Pattern for Survival

Chapter 2. Psychology of Survival

A Look at Stress

Natural Reactions

Preparing Yourself

Chapter 3. Survival Planning and Survival Kits

Importance of Planning

Survival Kits

Chapter 4. Basic Survival Medicine

Requirements for Maintenance of Health

Medical Emergencies

Lifesaving Steps

Bone and Joint Injury

Bites and Stings

Wounds

Environmental Injuries

Herbal Medicines

Chapter 5. Shelters

Shelter Site Selection

Types of Shelters

Chapter 6. Water Procurement

- Water Sources
- Still Construction
- Water Purification
- Water Filtration Devices

Chapter 7. Firecraft

- Basic Fire Principles
- Site Selection and Preparation
- Fire Material Selection
- How to Build a Fire
- How to Light a Fire

Chapter 8. Food Procurement

- Animals for Food
- Traps and Snares
- Killing Devices
- Fishing Devices
- Preparation of Fish and Game for Cooking and Storage

Chapter 9. Survival Use of Plants

- Edibility of Plants
- Plants for Medicine

Chapter 10. Poisonous Plants

- How Plants Poison
- All About Plants
- Rules for Avoiding Poisonous Plants
- Contact Dermatitis
- Ingestion Poisoning

Chapter 11. Dangerous Animals

- Insects and Arachnids

Leeches

Bats

Poisonous Snakes

Dangerous Lizards

Dangers in Rivers

Dangers in Bays and Estuaries

Saltwater Dangers

Chapter 12. Field-Expedient Weapons, Tools, and Equipment

Clubs

Edged Weapons

Other Expedient Weapons

Lashing and Cordage

Rucksack Construction

Clothing and Insulation

Cooking and Eating Utensils

Chapter 13. Desert Survival

Terrain

Environmental Factors

Need for Water

Heat Casualties

Precautions

Desert Hazards

Chapter 14. Tropical Survival

Tropical Weather

Jungle Types

Travel Through Jungle Areas

Immediate Considerations

Water Procurement

Food

Poisonous Plants

Chapter 15. Cold Weather Survival

Cold Regions and Locations

Windchill

Basic Principles of Cold Weather Survival

Hygiene

Medical Aspects

Cold Injuries

Shelters

Fire

Water

Food

Travel

Weather Signs

Chapter 16. Sea Survival

The Open Sea

Seashores

Chapter 17. Expedient Water Crossings

Rivers and Streams

Rapids

Rafts

Flotation Devices

Other Water Obstacles

Vegetation Obstacles

Chapter 18. Field-Expedient Direction Finding

- Using the Sun and Shadows
- Using the Moon
- Using the Stars
- Making Improvised Compasses
- Other Means of Determining Direction

Chapter 19. Signaling Techniques

- Application
- Means for Signaling
- Codes and Signals
- Aircraft Vectoring Procedures

Chapter 20. Survival Movement in Hostile Areas

- Phases of Planning
- Execution
- Return to Friendly Control

Chapter 21. Camouflage

- Personal Camouflage
- Methods of Stalking

Chapter 22. Contact With People

- Contact With Local People
- The Survivor's Behavior
- Changes to Political Allegiance

Chapter 23. Survival in Man-Made Hazards

- The Nuclear Environment
- Biological Environments
- Chemical Environments

Chapter 1.
Introduction

[Table of Contents](#)



This manual is based entirely on the keyword SURVIVAL. The letters in this word can help guide you in your actions in any survival situation. Whenever faced with a survival situation, remember the word SURVIVAL.

Survival Actions

Table of Contents

The following paragraphs expand on the meaning of each letter of the word survival. Study and remember what each letter signifies because you may some day have to make it work for you.

S -Size Up the Situation

If you are in a combat situation, find a place where you can conceal yourself from the enemy. Remember, security takes priority. Use your senses of hearing, smell, and sight to get a feel for the battlefield. What is the enemy doing? Advancing? Holding in place? Retreating? You will have to consider what is developing on the battlefield when you make your survival plan.

Size Up Your Surroundings

Determine the pattern of the area. Get a feel for what is going on around you. Every environment, whether forest, jungle, or desert, has a rhythm or pattern. This rhythm or pattern includes animal and bird noises and movements and insect sounds. It may also include enemy traffic and civilian movements.

Size Up Your Physical Condition

The pressure of the battle you were in or the trauma of being in a survival situation may have caused you to

overlook wounds you received. Check your wounds and give yourself first aid. Take care to prevent further bodily harm. For instance, in any climate, drink plenty of water to prevent dehydration. If you are in a cold or wet climate, put on additional clothing to prevent hypothermia.

Size Up Your Equipment

Perhaps in the heat of battle, you lost or damaged some of your equipment. Check to see what equipment you have and what condition it is in.

Now that you have sized up your situation, surroundings, physical condition, and equipment, you are ready to make your survival plan. In doing so, keep in mind your basic physical needs--water, food, and shelter.

U -Use All Your Senses, Undue Haste Makes Waste

You may make a wrong move when you react quickly without thinking or planning. That move may result in your capture or death. Don't move just for the sake of taking action. Consider all aspects of your situation (size up your situation) before you make a decision and a move. If you act in haste, you may forget or lose some of your equipment. In your haste you may also become disoriented so that you don't know which way to go. Plan your moves. Be ready to move out quickly without endangering yourself if the enemy is near you. Use all your senses to evaluate the situation. Note sounds and smells. Be sensitive to temperature changes. Be observant.

R -Remember Where You Are

Spot your location on your map and relate it to the surrounding terrain. This is a basic principle that you must always follow. If there are other persons with you, make sure they also know their location. Always know who in your group, vehicle, or aircraft has a map and compass. If that person is killed, you will have to get the map and compass from him. Pay close attention to where you are and to where you are going. Do not rely on others in the group to keep track of the route. Constantly orient yourself. Always try to determine, as a minimum, how your location relates to-

- The location of enemy units and controlled areas.
- The location of friendly units and controlled areas.
- The location of local water sources (especially important in the desert).
- Areas that will provide good cover and concealment. This information will allow you to make intelligent decisions when you are in a survival and evasion situation.

V -Vanquish Fear and Panic

The greatest enemies in a combat survival and evasion situation are fear and panic. If uncontrolled, they can destroy your ability to make an intelligent decision. They may cause you to react to your feelings and imagination rather than to your situation. They can drain your energy and thereby cause other negative emotions. Previous

survival and evasion training and self-confidence will enable you to vanquish fear and panic.

I -Improvise

In the United States, we have items available for all our needs. Many of these items are cheap to replace when damaged. Our easy come, easy go, easy-to-replace culture makes it unnecessary for us to improvise. This inexperience in improvisation can be an enemy in a survival situation. Learn to improvise. Take a tool designed for a specific purpose and see how many other uses you can make of it.

Learn to use natural objects around you for different needs. An example is using a rock for a hammer. No matter how complete a survival kit you have with you, it will run out or wear out after a while. Your imagination must take over when your kit wears out.

V -Value Living

All of us were born kicking and fighting to live, but we have become used to the soft life. We have become creatures of comfort. We dislike inconveniences and discomforts. What happens when we are faced with a survival situation with its stresses, inconveniences, and discomforts? This is when the will to live- placing a high value on living-is vital. The experience and knowledge you have gained through life and your Army training will have a bearing on your will to live. Stubbornness, a refusal to give in to problems and obstacles

that face you, will give you the mental and physical strength to endure.

A -Act Like the Natives

The natives and animals of a region have adapted to their environment. To get a feel of the area, watch how the people go about their daily routine. When and what do they eat? When, where, and how do they get their food? When and where do they go for water? What time do they usually go to bed and get up? These actions are important to you when you are trying to avoid capture.

Animal life in the area can also give you clues on how to survive. Animals also require food, water, and shelter. By watching them, you can find sources of water and food.

WARNING

Animals cannot serve as an absolute guide to what you can eat and drink. Many animals eat plants that are toxic to humans.

Keep in mind that the reaction of animals can reveal your presence to the enemy. If in a friendly area, one way you can gain rapport with the natives is to show interest in their tools and how they get food and water. By studying the people, you learn to respect them, you often make valuable friends, and, most important, you learn how to adapt to their environment and increase your chances of survival.

L -Live by Your Wits, *But for Now,* Learn Basic Skills

Without training in basic skills for surviving and evading on the battlefield, your chances of living through a combat survival and evasion situation are slight.

Learn these basic skills **now**-not when you are headed for or are in the battle. How you decide to equip yourself before deployment will impact on whether or not you survive. You need to know about the environment to which you are going, and you must practice basic skills geared to that environment. For instance, if you are going to a desert, you need to know how to get water in the desert.

Practice basic survival skills during all training programs and exercises. Survival training reduces fear of the unknown and gives you self-confidence. It teaches you to *live by your wits*.

S Size Up the Situation
(Surroundings, Physical Condition, Equipment)

U Use All Your Senses,
Undue Haste Makes Waste

R Remember Where You Are

V Vanquish Fear and Panic

I Improvise

V Value Living

A Act Like the Natives

L Live by Your Wits, *But for Now*, Learn Basic Skills

Pattern for Survival

Table of Contents

Develop a survival pattern that lets you beat the enemies of survival. This survival pattern must include food, water, shelter, fire, first aid, and signals placed in order of importance. For example, in a cold environment, you would need a *fire* to get warm; a *shelter* to protect you from the cold, wind, and rain or snow; traps or snares to get *food*; a means to *signal* friendly aircraft; and *first aid* to maintain health. *If injured, first aid has top priority* no matter what climate you are in.

Change your survival pattern to meet your immediate physical needs as the environment changes.

As you read the rest of this manual, keep in mind the keyword SURVIVAL and the need for a survival pattern.

Chapter 2.
Psychology of Survival
[Table of Contents](#)



It takes much more than the knowledge and skills to build shelters, get food, make fires, and travel without the aid of standard navigational devices to live successfully through a survival situation. Some people with little or no survival training have managed to survive life-threatening circumstances. Some people with survival training have not used their skills and died. A key ingredient in any survival situation is the mental attitude of the individual(s) involved. Having survival skills is important; having the will to survive is essential. Without a desire to survive, acquired skills serve little purpose and invaluable knowledge goes to waste.

There is a psychology to survival. The soldier in a survival environment faces many stresses that ultimately impact on his mind. These stresses can produce thoughts and emotions that, if poorly understood, can transform a confident, well-trained soldier into an indecisive, ineffective individual with questionable ability to survive. Thus, every soldier must be aware of and be able to recognize those stresses commonly associated with survival.

*Additionally, it is imperative that soldiers be aware of their reactions to the wide variety of stresses associated with survival. This chapter will identify and explain the nature of stress, the stresses of survival, and those internal reactions soldiers will naturally experience when faced with the stresses of a real-world survival situation. The knowledge you, the soldier, gain from this chapter and other chapters in this manual, will prepare you to come through the toughest times **alive**.*

A Look at Stress

[Table of Contents](#)

Before we can understand our psychological reactions in a survival setting, it is helpful to first know a little bit about stress.

Stress is not a disease that you cure and eliminate. Instead, it is a condition we all experience. Stress can be described as our reaction to pressure. It is the name given to the experience we have as we physically, mentally, emotionally, and spiritually respond to life's tensions.

Need for Stress

We need stress because it has many positive benefits. Stress provides us with challenges; it gives us chances to learn about our values and strengths. Stress can show our ability to handle pressure without breaking; it tests our adaptability and flexibility; it can stimulate us to do our best. Because we usually do not consider unimportant events stressful, stress can also be an excellent indicator of the significance we attach to an event--in other words, it highlights what is important to us.

We need to have some stress in our lives, but too much of anything can be bad. The goal is to have stress, but not an excess of it. Too much stress can take its toll on people and organizations. Too much stress leads to distress. Distress causes an uncomfortable tension that we try to escape and, preferably, avoid. Listed below are a few of the

common signs of distress you may find in your fellow soldiers or yourself when faced with too much stress:

- Difficulty making decisions.
- Angry outbursts.
- Forgetfulness.
- Low energy level.
- Constant worrying.
- Propensity for mistakes.
- Thoughts about death or suicide.
- Trouble getting along with others.
- Withdrawing from others.
- Hiding from responsibilities.
- Carelessness.

As you can see, stress can be constructive or destructive. It can encourage or discourage, move us along or stop us dead in our tracks, and make life meaningful or seemingly meaningless. Stress can inspire you to operate successfully and perform at your maximum efficiency in a survival situation. It can also cause you to panic and forget all your training. Key to your survival is your ability to manage the inevitable stresses you will encounter. The survivor is the soldier who works with his stresses instead of letting his stresses work on him.

Survival Stressors

Any event can lead to stress and, as everyone has experienced, events don't always come one at a time. Often, stressful events occur simultaneously. These events are not stress, but they produce it and are called "stressors." Stressors are the obvious cause while stress is the response. Once the body recognizes the presence of a stressor, it then begins to act to protect itself.

In response to a stressor, the body prepares either to "fight or flee." This preparation involves an internal SOS sent throughout the body. As the body responds to this SOS, several actions take place. The body releases stored fuels (sugar and fats) to provide quick energy; breathing rate increases to supply more oxygen to the blood; muscle tension increases to prepare for action; blood clotting mechanisms are activated to reduce bleeding from cuts; senses become more acute (hearing becomes more sensitive, eyes become big, smell becomes sharper) so that you are more aware of your surrounding and heart rate and blood pressure rise to provide more blood to the muscles. This protective posture lets a person cope with potential dangers; however, a person cannot maintain such a level of alertness indefinitely.

Stressors are not courteous; one stressor does not leave because another one arrives. Stressors add up. The cumulative effect of minor stressors can be a major distress if they all happen too close together. As the body's resistance to stress wears down and the sources of stress continue (or increase), eventually a state of exhaustion arrives. At this point, the ability to resist stress or use it in a positive way gives out and signs of distress appear. Anticipating stressors and developing strategies to cope with them are two ingredients in the effective management of stress. It is therefore essential that the soldier in a

survival setting be aware of the types of stressors he will encounter. Let's take a look at a few of these.

Injury, Illness, or Death

Injury, illness, and death are real possibilities a survivor has to face. Perhaps nothing is more stressful than being alone in an unfamiliar environment where you could die from hostile action, an accident, or from eating something lethal. Illness and injury can also add to stress by limiting your ability to maneuver, get food and drink, find shelter, and defend yourself. Even if illness and injury don't lead to death, they add to stress through the pain and discomfort they generate. It is only by controlling the stress associated with the vulnerability to injury, illness, and death that a soldier can have the courage to take the risks associated with survival tasks.

Uncertainly and Lack of Control

Some people have trouble operating in settings where everything is not clear-cut. The only guarantee in a survival situation is that nothing is guaranteed. It can be extremely stressful operating on limited information in a setting where you have limited control of your surroundings. This uncertainty and lack of control also add to the stress of being ill, injured, or killed.

Environment

Even under the most ideal circumstances, nature is quite formidable. In survival, a soldier will have to contend with the stressors of weather, terrain, and the variety of creatures inhabiting an area. Heat, cold, rain, winds, mountains, swamps, deserts, insects, dangerous reptiles,

and other animals are just a few of the challenges awaiting the soldier working to survive. Depending on how a soldier handles the stress of his environment, his surroundings can be either a source of food and protection or can be a cause of extreme discomfort leading to injury, illness, or death.

Hunger and Thirst

Without food and water a person will weaken and eventually die. Thus, getting and preserving food and water takes on increasing importance as the length of time in a survival setting increases. For a soldier used to having his provisions issued, foraging can be a big source of stress.

Fatigue

Forcing yourself to continue surviving is not easy as you grow more tired. It is possible to become so fatigued that the act of just staying awake is stressful in itself.

Isolation

There are some advantages to facing adversity with others. As soldiers we learn individual skills, but we train to function as part of a team. Although we, as soldiers, complain about higher headquarters, we become used to the information and guidance it provides, especially during times of confusion. Being in contact with others also provides a greater sense of security and a feeling someone is available to help if problems occur. A significant stressor in survival situations is that often a person or team has to rely solely on its own resources.

The survival stressors mentioned in this section are by no means the only ones you may face. Remember, what is stressful to one person may not be stressful to another. Your

experiences, training, personal outlook on life, physical and mental conditioning, and level of self-confidence contribute to what you will find stressful in a survival environment. The object is not to avoid stress, but rather to manage the stressors of survival and make them work for you.

We now have a general knowledge of stress and the stressors common to survival; the next step is to examine our reactions to the stressors we may face.

Natural Reactions

[Table of Contents](#)

Man has been able to survive many shifts in his environment throughout the centuries. His ability to adapt physically and mentally to a changing world kept him alive while other species around him gradually died off. The same survival mechanisms that kept our forefathers alive can help keep us alive as well! However, these survival mechanisms that can help us can also work against us if we don't understand and anticipate their presence. It is not surprising that the average person will have some psychological reactions in a survival situation. We will now examine some of the major internal reactions you and anyone with you might experience with the survival stressors addressed in the earlier paragraphs. Let's begin.

Fear

Fear is our emotional response to dangerous circumstances that we believe have the potential to cause death, injury, or illness. This harm is not just limited to physical damage; the threat to one's emotional and mental well-being can generate fear as well. For the soldier trying to survive, fear can have a positive function if it encourages him to be cautious in situations where recklessness could result in injury. Unfortunately, fear can also immobilize a person. It can cause him to become so frightened that he fails to perform activities essential for survival. Most soldiers will have some degree of fear when placed in unfamiliar surroundings under adverse conditions. There is no shame in this! Each soldier must train himself not to be overcome

by his fears. Ideally, through realistic training, we can acquire the knowledge and skills needed to increase our confidence and thereby manage our fears.

Anxiety

Associated with fear is anxiety. Because it is natural for us to be afraid, it is also natural for us to experience anxiety. Anxiety can be an uneasy, apprehensive feeling we get when faced with dangerous situations (physical, mental, and emotional). When used in a healthy way, anxiety urges us to act to end, or at least master, the dangers that threaten our existence. If we were never anxious, there would be little motivation to make changes in our lives. The soldier in a survival setting reduces his anxiety by performing those tasks that will ensure his coming through the ordeal alive. As he reduces his anxiety, the soldier is also bringing under control the source of that anxiety--his fears. In this form, anxiety is good; however, anxiety can also have a devastating impact. Anxiety can overwhelm a soldier to the point where he becomes easily confused and has difficulty thinking. Once this happens, it becomes more and more difficult for him to make good judgments and sound decisions. To survive, the soldier must learn techniques to calm his anxieties and keep them in the range where they help, not hurt.

Anger and Frustration

Frustration arises when a person is continually thwarted in his attempts to reach a goal. The goal of survival is to stay alive until you can reach help or until help can reach you. To achieve this goal, the soldier must complete some tasks with minimal resources. It is inevitable, in trying to do

these tasks, that something will go wrong; that something will happen beyond the soldier's control; and that with one's life at stake, every mistake is magnified in terms of its importance. Thus, sooner or later, soldiers will have to cope with frustration when a few of their plans run into trouble. One outgrowth of this frustration is anger. There are many events in a survival situation that can frustrate or anger a soldier. Getting lost, damaged or forgotten equipment, the weather, inhospitable terrain, enemy patrols, and physical limitations are just a few sources of frustration and anger. Frustration and anger encourage impulsive reactions, irrational behavior, poorly thought-out decisions, and, in some instances, an "I quit" attitude (people sometimes avoid doing something they can't master). If the soldier can harness and properly channel the emotional intensity associated with anger and frustration, he can productively act as he answers the challenges of survival. If the soldier does not properly focus his angry feelings, he can waste much energy in activities that do little to further either his chances of survival or the chances of those around him.

Depression

It would be a rare person indeed who would not get sad, at least momentarily, when faced with the privations of survival. As this sadness deepens, we label the feeling "depression." Depression is closely linked with frustration and anger. The frustrated person becomes more and more angry as he fails to reach his goals. If the anger does not help the person to succeed, then the frustration level goes even higher. A destructive cycle between anger and frustration continues until the person becomes worn down—physically, emotionally, and mentally. When a person reaches this point, he starts to give up, and his focus shifts

from "What can I do" to "There is nothing I can do." Depression is an expression of this hopeless, helpless feeling. There is nothing wrong with being sad as you temporarily think about your loved ones and remember what life is like back in "civilization" or "the world." Such thoughts, in fact, can give you the desire to try harder and live one more day. On the other hand, if you allow yourself to sink into a depressed state, then it can sap all your energy and, more important, your will to survive. It is imperative that each soldier resist succumbing to depression.

Loneliness and Boredom

Man is a social animal. This means we, as human beings, enjoy the company of others. Very few people want to be alone *all the time!* As you are aware, there is a distinct chance of isolation in a survival setting. This is not bad. Loneliness and boredom can bring to the surface qualities you thought only others had. The extent of your imagination and creativity may surprise you. When required to do so, you may discover some hidden talents and abilities. Most of all, you may tap into a reservoir of inner strength and fortitude you never knew you had. Conversely, loneliness and boredom can be another source of depression. As a soldier surviving alone, or with others, you must find ways to keep your mind productively occupied. Additionally, you must develop a degree of self-sufficiency. You must have faith in your capability to "go it alone."

Guilt

The circumstances leading to your being in a survival setting are sometimes dramatic and tragic. It may be the

result of an accident or military mission where there was a loss of life. Perhaps you were the only, or one of a few, survivors. While naturally relieved to be alive, you simultaneously may be mourning the deaths of others who were less fortunate. It is not uncommon for survivors to feel guilty about being spared from death while others were not. This feeling, when used in a positive way, has encouraged people to try harder to survive with the belief they were allowed to live for some greater purpose in life. Sometimes, survivors tried to stay alive so that they could carry on the work of those killed. Whatever reason you give yourself, do not let guilt feelings prevent you from living. The living who abandon their chance to survive accomplish nothing. Such an act would be the greatest tragedy.

Preparing Yourself

Table of Contents

Your mission as a soldier in a survival situation is to stay alive. As you can see, you are going to experience an assortment of thoughts and emotions. These can work for you, or they can work to your downfall. Fear, anxiety, anger, frustration, guilt, depression, and loneliness are all possible reactions to the many stresses common to survival. These reactions, when controlled in a healthy way, help to increase a soldier's likelihood of surviving. They prompt the soldier to pay more attention in training, to fight back when scared, to take actions that ensure sustenance and security, to keep faith with his fellow soldiers, and to strive against large odds. When the survivor cannot control these reactions in a healthy way, they can bring him to a standstill. Instead of rallying his internal resources, the soldier listens to his internal fears. This soldier experiences psychological defeat long before he physically succumbs. Remember, survival is natural to everyone; being unexpectedly thrust into the life and death struggle of survival is not. Don't be afraid of your "natural reactions to this unnatural situation." Prepare yourself to rule over these reactions so they serve your ultimate interest--staying alive with the honor and dignity associated with being an American soldier.

It involves preparation to ensure that your reactions in a survival setting are productive, not destructive. The challenge of survival has produced countless examples of heroism, courage, and self-sacrifice. These are the qualities it can bring out in you if you have prepared yourself. Below are a few tips to help prepare yourself psychologically for