

Wilderness Leadership and Survival

Necessary conditions for Survival:

Mental Clarity, Air, Water, Food, Shelter

<u>Loss of:</u>	<u>Time of Survival</u>
Air	3 minutes
Shelter	3 hours
Water	3 days
Food	3 weeks
Mental Clarity	3 seconds

Water:

Primary objective: **STAY WELL HYDRATED**

Water is as vital to life as oxygen. You need it for energy metabolism and controlling your core body temperature. During strenuous activity one can lose as much as 5 quarts of water or more each day through respiration and perspiration. Search and Rescue personnel are just as susceptible to the dangers of dehydration as any other outdoors person. The loss of just 1 to 2 quarts of body fluid (amount perspired in one hour of heavy exertion) can decrease physical performance by 25%. We must replace water at the same rate that our bodies lose it in order to avoid a water deficit and dehydration.

Carry plenty of water and drink it!

Signs and symptoms of dehydration:

- ☐ Headaches
- ☐ Fatigue
- ☐ Skin tenting
- ☐ Dark urine
- ☐ Loss of strength and decreased endurance
- ☐ Decrease in physical performance
- ☐ Greater susceptibility to heat or cold related illnesses

Possible fluid loss in a person involved in outdoor recreational activities from heavy exertion during a 24 hour period.	
Route	Amount
Perspiration	4-9 qts per day
Respiration	2-4 qts per day
Urination	1-2 qts per day
Stool & digestion	1 qt per day
Total Daily Loss	= 8-16 qts per day (two to four gallons per day)

Food:

Primary Objective: **MAINTAIN OPTIMAL PHYSICAL AND MENTAL FUNCTIONING**

You can survive for weeks without food, but we require you to maintain your body at an optimal level of functioning for at least 72 hours in the field. You must consume enough nutrients to keep your mental processes alert and your body active. Most guidelines specify that an active person requires 2 pounds of food each day. Try to carry carbohydrates, proteins, and fats, avoid a diet of sugar only.

Attitude:

Primary Objective: **STAY IN MENTAL CONTROL OF YOURSELF AND YOUR EMOTIONS. FOCUS ON VARIABLES YOU CAN CONTROL.**

Accidents can be avoided, preparation and preplanning are the keys to safe experiences on a search. Survival is about self-reliance and in a SAR context responsibility for yourself, your team mates, your patient, and your gear (in that order).

Avoid the Survival Situation:

- ▣ Prepare before hand
- ▣ Accept tasks for which you feel adequately trained
- ▣ Know your limitations and the limitations of your team
- ▣ Carry appropriate gear and equipment for all possible scenarios
- ▣ Abort task if necessary

When in a survival situation:

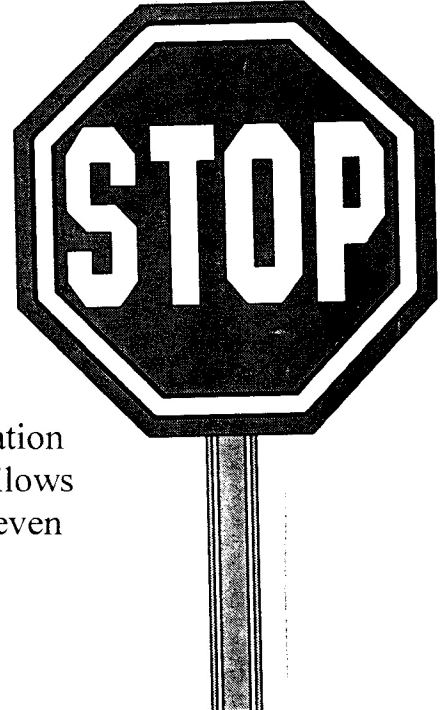
Clearly, your mental state is very important, you need to be able to stay calm and think about your situation. You should...

- S-** Stop
- T-** Think
- O-** Observe
- P-** Plan

“Make Yourself BIG”

STAY CALM! Fear, imagination, or blind determination may overrule good judgment. The controlled mind allows panic reactions, causes waste of energy in useless or even detrimental activity.

Practice your leadership and survival skills
There is no substitute for experience!



Shelter

Primary Objective: **CLOTHING IS YOUR MOBILE SHELTER.
DRESS IN LAYERS OF SYNTHETICS OR
WOOL AND COVER WITH WATERPROOF/
WINDPROOF SHELL.**

The Human animal was designed to exist in sub tropical climates. Shelter is there to protect you from environmental extremes. Our bodies can't accept extreme heat or cold. Clothing is shelter close to your body:

Heat loss- Problems and Solutions:

Problem: Conduction – Direct contact between two objects with different temperatures. Heat will flow from higher temperature to the lower temperature. (Ice on your skin)

Solution: Boots- Thick soles prevent heat loss through your feet.

Problem: Radiation – Anything that has a temperature gives off heat in the form of radiation. (A fireplace, the sun, a warm rock, you when you are metabolizing, etc.)

Solution: Layering- Trap heat in dead-air space between multiple layers of clothing

Problem: Convection – Heat taken away from an object through currents, air or water. (Wind blows and you feel cold)

Solution: Windproof Layer- Any kind of shell will prevent the wind from stealing your heat

Problem: Evaporation – Heat is used when water evaporates. This is a very rapid way to lose lots of heat. (Perspiration evaporates making your skin cooler)

Solution 1: Wool/Synthetics- Good layers will keep water off your skin

Solution 2: Rainproof Layer- Good raingear will keep water off your layers.

Wet=Cold; Dry=Warm

Search Cool; Rest Warm

The Field Pack

In order to assure each of us is **self sufficient for 72 hours** in the field, the ASRC requires that all members carry *10 ESSENTIAL* items in there field pack . This is simply a list of minimum requirements, in addition each of us must carry all equipment necessary for optimal functioning at our given training level. Most of us have expanded our field packs to include items we find of personal value. Food and Water are carried in your field pack to help in your self-sufficiency, as well as other items that can help with shelter and travel. ***DON'T GET SEPARATED FROM YOUR FIELD PACK !!!***

slightly more than 10 Essentials:

- Heavy Trash Bags
- Rain Gear (coat, pants, gaiters, overmitts)
- Appropriate cloths and footgear for both fair and foul weather
(keep weather conditions in mind, also the need to look and act professional complicates these choices)
- Plenty of water bottles (minimum of 2 I carry 3-5)
- Food for 48 hours
- Headlamp and second light source
- Pocket knife
- Personal first aid kit (this can be expanded in accordance with your personal medical qualifications)
- Compass
- Pen and Paper (waterproof or in a ziplock bag I carry a small notebook and a pen easily accessible for briefing in addition to those in my first aid kit)
- Whistle (extra whistle in first aid or bivy kit)
- Two pairs of Latex Gloves (provided by BRMRG)
- Leather Gloves
- Candle with matches or lighter

Recommended additions to the Field Pack:

- 2 rolls of Flagging Tape (provided by BRMRG)
- Permanent Marker
- Duct tape
- Extra batteries
- Repair kits for any equipment with you
- Lighters
- Ziplock bags

Personal medications especial inhaler or bee sting kits
Eye glasses
Feminine hygiene products
Watch
Emergency money and Identification
Keys to home and car
More food and water
Metal cup
Foam pad (winter)
Extra socks
Warm hat
Plastic sheet or tarp
25-100 ft of rope
Iodine tablets

Semi-Tech Equipment:

2 locking "D" Carabiners
Perlon in 5ft and 7ft lengths
20 ft Tubular Webbing
Harness



*The less experienced the
Hiking Group –
The more experienced the
Leader should be.*

One may wish to add more items as they specialize in a given area of SAR. Incident Staff may carry books, calculators and pens. Field Team Sign Cutters may carry a tracking stick, popsicle sticks, measuring tape etc. Feel free to personalize your pack without allowing it to expand to an uncontrollable size.

Many people also pack a **BASE BAG** full of personal items for an extended or overnight stay on scene including toiletries and sleeping bag and change of uniform.

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