



FACT SHEET

Delaware County Community Emergency Response Team Supplemental Training Series

INTRODUCTION TO WILDERNESS SEARCH & RESCUE

Section V - SAR Survival

What Is Survival?

- Survival means continuing to exist, by whatever means possible.
- Actions and needs must be prioritized in a survival situation.
- Those who operate on the outskirts of their comfort zones react better in emergencies.

Necessities of Life (The Rule of 3's)

Positive Mental Attitude (PMA)

- Often overlooked but vital priority.
- Will to live – An overwhelming urge to survive.
- Whole person concept – Both mental and physical body processes.
- **CAN BE LOST IN 3 SECONDS!**

Air

- Breathing is essential to maintain life.
- A person can only survive a few minutes without oxygen.
- **CAN NOT GO LONGER THAN 3 MINUTES WITHOUT IT!**

Shelter

- In extreme conditions, a person can only survive a couple of hours without proper clothing, or shelter.
- Shelter can be anything that protects the body.
- **CAN NOT SURVIVE AFTER 3 HOURS OF EXTREME EXPOSURE!**

Rest

- Energy levels significantly impact ability to cope.
- Periods of rest:
 - Conserve energy for future use
 - Rid the body's tissues of waste
 - Allow time for reflection
 - Provide opportunity for mental rest
- **WILL SUFFER SYSTEMIC FAILURE AFTER 30 HOURS OF CONTINUOUS ACTIVITY!**

Signals

- If you are lost or immobilized
- Attract attention to yourself
- **HAVE 3 HOURS OF SIGNAL MATERIALS!**

Water

- The human body is two thirds water.
- Ration your sweat and activity, not your water.
- Extreme conditions without water can cut survival time to only days.
- **THE BODY CAN NOT GO LONGER THAN 3 DAYS WITHOUT WATER!**

Food

- Not a necessity for "short-term-survival."
- In cold environments, additional calories may be needed to maintain body temperature.
- **CAN GO UPTO 3 WEEKS WITHOUT FOOD!**

Mental Aspects

- Mental preparation is vitally important!
- Emotions, Adrenaline, and fear can affect SAR responders during a mission.

Response to Life-Threatening Situations

- Stage I Alarm
- Stage II Reaction
- Stage III Response/Options
- Stage IV Rest

The Comfort Zone

- Limits vary based on experience and knowledge.
- Anxiety and stress are created when people are forced outside their zone.
- Look for opportunities to expand your comfort zone.
- The best teacher is experience!

Fear

"No passion so effectively robs the mind of all its powers of acting and reasoning as fear."

- Edmond Burke



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How Do You Control Fear?

- Recognize it.
- Realize it can happen to you.
- Keep informed.
- Have procedures mapped out.
- Set realistic goals.
- Use affirmative self-talk.
- Remember teamwork.

When in danger...

- STOP
- THINK
- OBSERVE
- PLAN



Shelter

- Anything that protects us from the environment.
 - Our clothing is the first line of defense.
 - Maintains the body's optimum temperature.
 - Three types of shelters:
 - Immediate action shelter: To protect you within minutes.
 - Temporary shelter: Accessed within 30 to 60 minutes.
 - Long-term shelter: 72 hours or more.
- Options are limited by:
- Imagination
 - Immediate needs
 - Available materials
 - Energy
- Build a shelter:
 - Simple and small.
 - With minimal expenditure of time, energy, and body water.
 - Appropriate to skills and ability.
 - Designed to provide minimal body heat loss or gain.

- Materials:
 - Use the resources around you.
 - Consider thermal conductivity and heat transfer.
 - “As it is used in nature, so place it on your shelter...” i.e. Bark covers trees – put it on the roof!

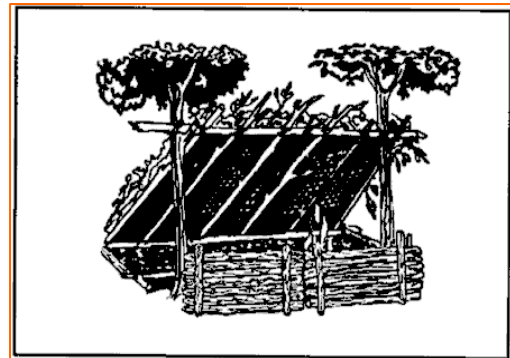


Figure 5-9. Field-expedient lean-to and fire reflector.

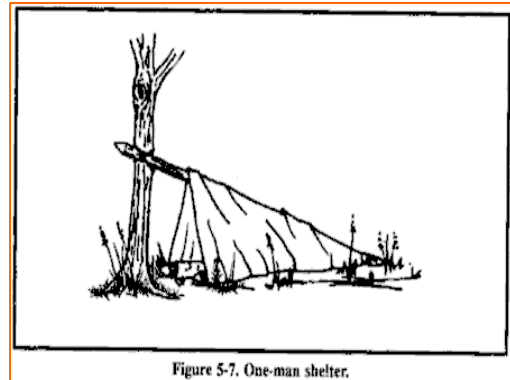


Figure 5-7. One-man shelter.

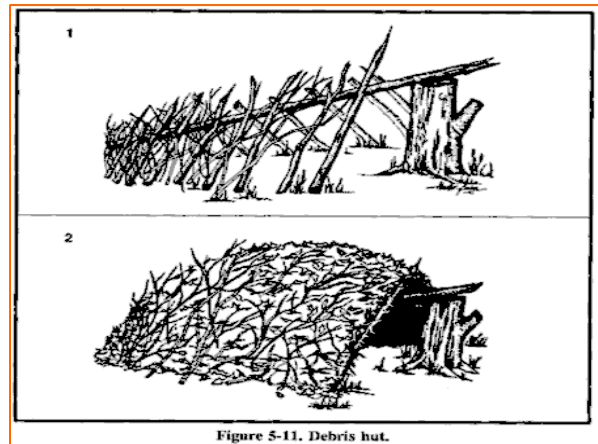


Figure 5-11. Debris hut.



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Firecraft

- Ask yourself:
 - Do I need to start a fire?
 - Is it worth the energy?
 - Do I have the proper materials?
- Location:
 - Never near or on dry fuel
 - Never on or near wet rocks
 - Never under snow-laden trees
 - Protect from wind and elements
- Your SAR pack should contain several fire starting devices.
- Sources
 - Friction and matches
 - Spark/heat producing devices
 - Chemical substances
 - Improvised objects
- Fire materials:
 - Tinder
 - Kindling
 - Sustaining fuel

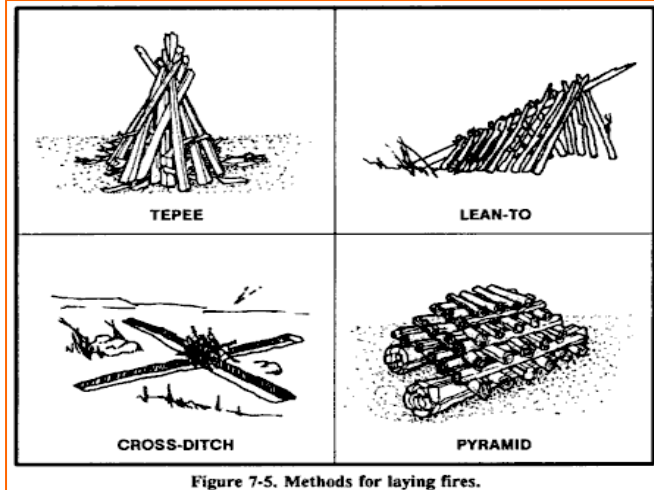
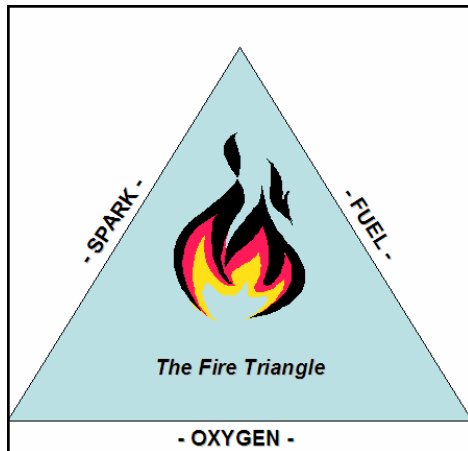


Figure 7-5. Methods for laying fires.

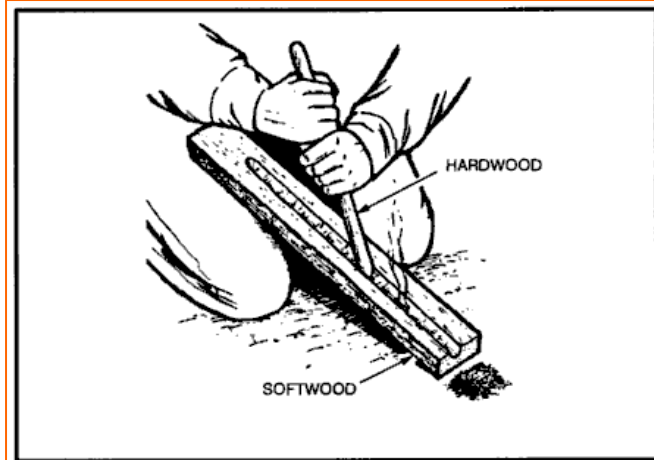


Figure 7-7. Fire-plow.

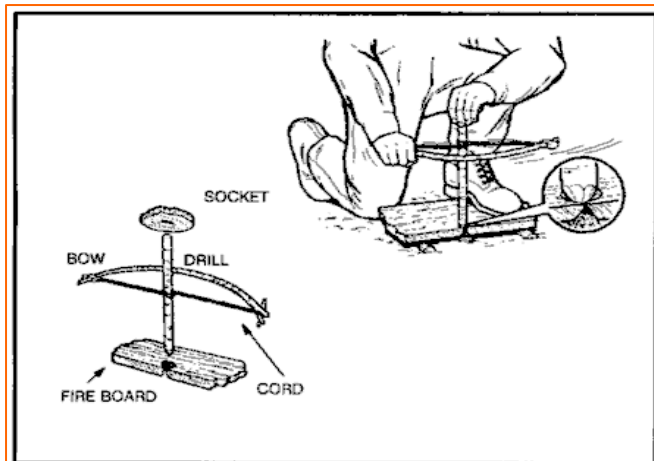


Figure 7-8. Bow and drill.



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Signaling

- Electronic/GPS
- Fire/smoke
- Mirror
- Noise
- Shadows on ground signals
- Color

Basic principles of signaling:

- Have signals ready for immediate use.
- Know how to use them.
- Bigger is better.
- Hug a tree....stay put!

Water Purification Methods

- Boiling
- Iodine
- Bleach
- Purification tablets
- Camping-style purifiers

The Cat-hole

- At least 200 feet from campsites, trails, or water sources.
- Dig at least 6 inches deep into organic soils.
- Cover with loose soil.

Personal Cleanliness

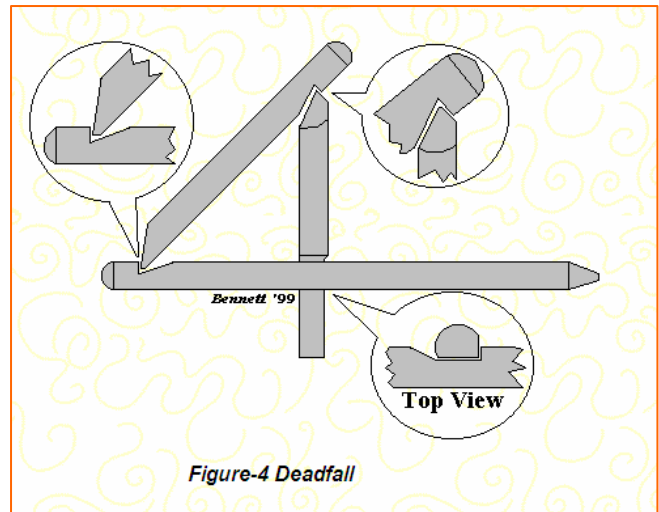
- Good hygiene prevents infections.
- Frequent bathing is strongly encouraged.
- Use biodegradable soap.
- "Air baths" can prevent chaffing.
- Smoke from certain woods can give a "clean" feeling.

Food

You would do well to memorize The Forager's Credo for wild edibles... When in doubt, throw it out! ...the six smartest words to remember when collecting and eating wild plants and mushrooms.

Trapping Methods:

Figure-4 Deadfall Trap



Snare Trap

