Introduction to Wilderness Survival

Basic Mountain Operations Course 13-01
Law Enforcement Mountain Operations School
Okanogan Integrated Border Enforcement Team
Targeted Learning Objectives

The students will:

▲ Understand and demonstrate the importance of prevention, awareness and attitude as keys to survival.

▲ Understand and demonstrate the importance of shelter; create one from natural materials and those items carried in their packs.

▲ Understand and demonstrate the importance of warmth; start a fire using natural materials and firestarters carried on their person.

▲ Understand and demonstrate the importance of hydration; boil water on their fire.
Reality Check

• Being lost or stranded doesn’t necessarily constitute an emergency, if you are prepared.
• Nature is neutral, but unforgiving.
• Professionals in the wilderness can’t merely survive; we must thrive.
• This course will not teach you everything you need to know. Gain and practice additional skills before you need them.
Preventing Problems

Plan ahead:
- Mission
- Team (not solo)
- Weather
- Hazards
- Nav (safety bearings)
- Emergencies
- Trip Plan
Preventing Problems

Prepare:

- Mentally
  Trained
  Focused

- Physically
  Fit
  Healthy

- Equipment
  Appropriate
  Maintained
<table>
<thead>
<tr>
<th>Gear Selection</th>
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<tbody>
<tr>
<td>Reliability – will it work</td>
<td>Size – fit pockets</td>
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<tr>
<td>Durability – will it last</td>
<td>Shape – comfy</td>
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<tr>
<td>Versatility – many uses …</td>
<td>Safety – you &amp; others</td>
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<tr>
<td>Effectiveness – does jobs well</td>
<td>Weight – carry it</td>
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<tr>
<td>Redundancy – key items</td>
<td>Noise – tactics</td>
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<tr>
<td>Training – know how to use</td>
<td>Odor – animals</td>
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<tr>
<td>Simplicity – motor skills</td>
<td>Color – hide v. seek</td>
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<tr>
<td>Integrity – waterproof</td>
<td>Reflectivity – signal</td>
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<tr>
<td>Sensitivity – heat &amp; cold</td>
<td>Luminescence – find</td>
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<tr>
<td>Maintainability – in field</td>
<td>Lanyards – retain</td>
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<tr>
<td>Standardization – item / batteries</td>
<td>Legality – borders &amp; flights</td>
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<td>Affordability – life vs. $</td>
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Building a Kit

Don’t rely on your agency to adequately equip you.
Tailor your kit to the location, season and mission.
Practice with it.
Replace expired items.
Ruck discipline.
Carry it with you, always!

Mental Health
You Plus 1

Extra Clothing
Shelter & Protection
Sharp Knives & Tools
Eats
Navigation & Travel
Tinder & Firestarters
Illumination
Aid Kit
Liquids
Signaling Devices
I’m just going...
3 Layers of Defense

1. What is attached to your body.
   - Fire starters*
   - Light
   - Compass
   - Etc.
3 Layers of Defense

2. What is in your pockets or on your duty belt, chest harness, or tactical vest*.
3 Layers of Defense

3. What is in your pack
Situational Awareness

- Keep your head on a swivel.
- See the threat before it sees you.
- Stay hydrated, warm, and dry.
- Weigh every risk.
- Monitor your own and your partners’ conditions.
- Monitor your partners’ location (machines).
- Stop to fix things before they get worse.
- Navigate well; know your location and your exits.
- Be willing to change the plan (thoughtfully) or to bail out and go home.
Human Body Requirements

1. Positive Mental Attitude  3 seconds
2. Oxygen  3 minutes
3. Shelter  3 hours
4. Warmth  3 hours
5. Water  3 days
6. Sleep  3 days
7. Food  3 weeks
Human Body Requirements

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   - Sleep 3 days
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Positive Mental Attitude

If the excrement collides with the rotating ventilation device:

S - Sit
T - Think
O - Observe
P - Plan
Be a strong (and positive) leader.
If things go wrong, forget it and focus on doing the *next thing* correctly.
Improvise, Overcome, Adapt: You can’t change the environment, so change yourself instead.
Think of family, your sense of pride, or anything that will motivate you to never give up.
Pray or repeat out loud that you **will** survive!
Be constructive, build tools, play games, sing.
Laugh: it is contagious and helps relieve stress.
Shelter

In most situations, this takes priority over starting a fire.

Immediate Action

vs.

Long-Term
Shelter

Location, Location, Location

Look up, down and all around for hazards.

SO, NATURE-BOY... DO YOU STILL INSIST THAT WE DIDN'T PITCH OUR TENT ON A GAME-TRAIL?
Shelter

Location, Location, Location

Consider comfort, resource availability, and visibility.
Construction Considerations

Objectives
Resources
Size
Insulation
Water Proofing
Ventilation
Orientation
Visibility

It should provide the most protection for the least energy expended.
It should be just big enough.
Utilize Natural Shelters

Avoid caves during thunder storms!
Tarps

The biggest mistake in winter is to make it too big and too open.
Tarps

Must be taut to keep from flapping and to shed snow.

No insulation on their own.
Position entrances 90° to the wind to avoid drifting.
Trench / Coffin
Snow Cave

1. Dig entrance tunnel 18" wide and chest high
2. Remove rectangular portion of snow crossways to entrance, then dig upward in all directions leaving sleeping floor flat
3. Extend entrance in about 2 feet and downward about a foot
4. Cut entrance blocks and place across entrance
5. Fill cracks between blocks with snow
6. Cross section of completed shelter
Snow Cave

SMOOTH, DOMED ROOF AT LEAST 18” THICK

AIR VENT
SECOND AIR VENT
ENTRANCE BLOCK
COLD AIR SUMP
WORKING PLATFORM
SLEEPING PLATFORM

BMOC
Quinzee

Pile snow and insert sticks at least 12” long.
Thermalized A-Frame

By digging down to bare earth, it will be apx. 20°F (-7°C) inside.
Dig down to bare earth.
Lash the main supports together at crotch level.

- Ridge is height + 1'
- Bipod poles are chin high
- Fronts are eye high
- Opening is knees + fists

Add "headache log" at mid-thigh and other framing about 8" apart.

Cover it with tarp or boughs.
Add kick-out logs and make plug.

Thermalized A-Frame
Thermalized A-Frame
A-Frame Video
Trees
Trees
Pre-Fabricated Shelters
Remember the “Eds”

1. Head (covered)
2. Dead* (air space)
3. Shed* (water & stay dry)
4. Bed* (crawl into one)
5. Red (fire)
6. Fed (eat & drink)
7. Tread (exercise)
Head & Neck Covered

▲ Highly vascular = lots of heat loss.
▲ Take a wool or fleece hat
  ➢ Even during summer
  ➢ Good weight to warmth ratio
Dead Air Space

▲ Windbreaks and other shelters.
▲ Improve with dry insulation.
▲ Don’t neglect your hands & feet!
**Shed Water**

1. Don’t sweat!
   - Ventilate / Layer Down
2. Shelter / Raingear
3. Powder snow

**Bed Down**

1. Sleeping bag
2. Sleeping pad
3. Hot water bottle
4. Cuddle
Red Fire

Fire Tripod

1. Fuel
   • Dead
   • Dry

2. Oxygen
   • Enough
   • Not too much

3. Heat
   • Ignition
   • Conservation
Fire Video
Fire Site Preparation

Location
- Near shelter?
- Look up

Clear ground

Base

Brace

Reflectors
Gathering Quality Wood

This is the hardest part, so take your time and do it well.

**Dead:** no leaves attached; top intact & bark on.

**Dry:** shave wet exterior (or split to get center) if needed.
Ideally off the ground & sheltered from the rain.

Gather 3x what you expect to need **before** lighting!
Fuel & Kindling Preparation

Sort By Size

Large (Thumb - Wrist)
Medium (Pencil - Thumb)

Small (Pipecleaner – Pencil)
Tiny (Toothpick – Pipecleaner)

Snap Test
Structure

Verticality!

Log Cabin

Tipi
Tinder Preparation

Dead
Dry
Small
  - Shave
  - Shred
  - Pound
Mixture
  - Fast
  - Slow
Protect
Gather constantly
Cotton Balls & Vaseline

Quite possibly the best tinder you can carry.
Local Sources

Birch bark burns, wet or dry.
Stay Well Fed

1. Eat carbs & fats*
2. No nicotine
3. No caffeine
4. No alcohol

Tread (Exercise)

1. Isometric
2. Aerobic

✦ Don’t sweat!

Other

1. Heat packs
2. Sunlight

*B = included
Maximize Ins
▲ Sip often, 8 - 16 oz (250-500ml) / hour.
▲ Drink before you’re thirsty.
▲ Don’t eat if water supply is limited.

Minimize Outs
▲ Ration your sweat.
▲ Monitor your urine; it should be clear and copious.
▲ Prevent diarrhea.

Dehydration is a gateway illness to many other problems.
4-6 Quarts (Liters) Per Day

It sounds like a lot... and it is.
Water Safety

▲ Utilize all safe sources:
  - snow v. ice
  - rain
  - dew
  - lakes (top best) & rivers

▲ Boil*, filter, or purify if you can.
  - chlorine dioxide
  - iodine
  - bleach

▲ Wash your hands!
Summary

▲ Proper prevention and a heightened sense of awareness will help to keep you out of trouble.
▲ If you do run into problems, STOP and master a positive mental attitude. Then find or make shelter, warmth, and water to keep you alive.
Any Questions?

Go Far – Go Safe – Go Home
Practical Exercises

1. Mix 6 cotton balls with enough petroleum jelly to coat (but not saturate) them. Massage and store in a plastic bag.
2. Review the info in the Field Guide.
3. Ensure your pack and pockets are ready for tomorrow.
4. Get some sleep.
End of Slideshow.
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Revised: 13 January 2013