A large, faint watermark logo for Rocky Canyon Rescue Training is centered in the background. It features a triangle with the words 'ROCKY CANYON RESCUE' along the left side, 'SAFETY PRACTICE' along the right side, and 'TRAINING' at the bottom.

Wilderness Search and Rescue



Kerry Tuckett/Rocky Canyon Rescue

Wilderness Search and Rescue

Objectives

- Preparation
- Ready packs
- L.A.S.T.
- Locate
- Access
- Stabilize
- Transport



Death smells like rotten crab

PREPARATION

Warning Search and Rescue is not a Job it is a way of Life!

- Being a dedicated volunteer
- Finding a team
- Being prepared physically
- Being prepared Mentally
- Be confident and willing to learn



If there is a trail someone will eventually wander off of it

PREPARATION

The ready pack

- The ready pack should be set up so that you are self sustaining for 24 hours.
- This does not mean that you are LIVING IN THE HILTON it means that you can stay alive and be ready to operate.
- You can be comfortable any where you decide you want to be comfortable



**No matter what the medical examiner says
don't put your hand in it**



Ready Pack

Personal First Aid and Survival Kit

- 1 - Plastic bag, zip lock, qt. size, for kit
- 4 - Acetaminophen or aspirin tablets
- 4 - Antacid tablets
- 2 - Antiseptic cleansing pads
- 1 - Antiseptic ointment
- 6 - Band aids, various sizes
- 1 - Candle, long burning
- 2 - Cotton swabs, non sterile
- 1 - Duct tape, 5-10 ft.
- 1 - Leaf bag, large
- 8 - Matches in a waterproof container
- 1 - Moleskin
- 2 - Quarters for phone call
- 1 - Razor blade, single edge safety type
- 1 - Roller gauze bandage
- 2 - Safety pins, large
- 1 - Splinter forceps, tweezers
- 1 - Space type blanket or space-type sleeping bag
- 1 - Towelette, clean
- 1 - Whistle



Searchers will do anything for free food

Ready Pack

(Non-urban) Personal SAR Equipment

- 1 - Pack, 1800 cubic inch (minimum)
- 4 - Bags, various sizes, zip locked
- 1 - Bandanna, handkerchief
- 1 - Cap or other headgear
- 2 - Carabiners, locking gate
- 1 - Clothes bag, waterproof
- 1 - Clothing, adequate for climate
- 1 - Clothing, extra set, suitable for climate
- 1 - Compass, orienteering
- 1 - Flagging tape, roll
- 1 - Flashlight or lantern
- 1 - Flashlight extra, extra batteries and bulb
- 1 - Footwear, sturdy, adequate for climate
- 1 - Gloves, durable, even in summer
- 1 - Goggles, or eye protection, clear
- 1 - Insect repellent
- 1 - Knife, multi-purpose
- 1 - Lip balm, with sunscreen
- 1 - Measuring device, 18 in. minimum
- 1 - Metal cup or pot
- 1 - Mirror, small
- 1 - Nylon twine or small rope, 50 feet
- 1 - Pad and pencil
- 2 - Prusik cords (6mm – 8mm; 6 ft. length)
- 1 - Rainwear, durable
- 1 - SAR personal identification
- 1 - Shelter Material, 8x10 plastic or coated nylon
- 1 - Scissors, multi-purpose
- 1 - Socks, extra pair
- 1 - Sunscreen lotion
- 1 - Tissue paper or baby wipes (recommended)
- 1 - Tracking stick, 42" long
- 1 - Watch
- 2 - Water containers, at least liter size
- 1 - Webbing, 1" tubular - length suitable for harness
- 1 - Wire, 5-10 ft., woven steel
- 8 - Wire ties, plastic, self locking



Nothing is waterproof

Ready Pack

Optional Personal Support Equipment

Recommended But Not Required

- 2 - Antihistamine, 25mg Benadryl
- 2 - Extra leaf bags
- 1 - Extra water container
- 1 - Foam pad
- 2 - Food, nonperishable

- 1 - Gaiters
- 1 - Rain cover, pack
- 1 - Sterno or stove
- 1 - Sun glasses, 97% UV protection
- 1 - Trail snacks
- 1 - Water purification tabs



There are always more black berries where those came from

Ready Pack

(Urban) Personal SAR Equipment

- 1 - Fanny pack, 600-1200 cubic inch
- 4 - Bags, various sizes, zip locked
- 1 - Bandanna, handkerchief
- 1 - Cap or other headwear
- 1 - Clothing, adequate for climate
- 1 - Compass, orienteering
- 1 - Flagging tape, roll
- 1 - Flashlight or lantern
- 1 - Footwear, sturdy, adequate for climate
- 1 - Knife, multi-purpose
- 1 - Map
- 1 - Mirror, small

- 1 - Raincoat & pants durable
- 1 - SAR personal identification
- 1 - Small pad and pencil
- 1 - Sunglasses, 97% UV protection
- 1 - Sunscreen lotion
- 1 - Tissue paper or baby wipes
- 1 - Tracking stick, 42" long
- 1 - Watch
- 1 - Water container, at least liter size

(Items bolded above are variances from the non-urban pack list)



Just when you think it can't get any steeper it does



Ready Pack

Make sure that you know how to use the items in your ready pack

- Take it out camping for twenty four hours to make sure it works for you
- Don't keep anything in your pack that can go bad
- Don't count on having time to put stuff in your pack when you are called out so keep food that wont spoil in your pack
- Don't go entirely by the list, pack what you will use and what works for you
- Change out your clothing as the weather changes



Practice
Practice
practice

Wool pants itch



L.A.S.T.

- **Locate**
- **Access**
- **Stabilize**
- **Transport**



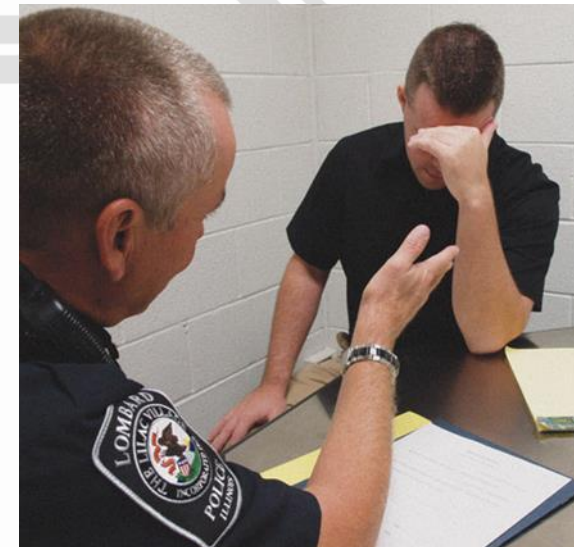
One good team leader will get the job done, but a group of leaders will accomplish absolutely nothing

Locate

Interview the person who reports the subject missing. Usually done by law enforcement. Not always done correctly for rescue.

- Where the subject was going and when he was expected back
- Reason for going
- Outdoor experience
- Clothing
- Vehicle
- Reason for going
- Personal habits
- Lost person behavior

Do Not sit in a fire ant's nest



Locate

Last Known Point: This is where the subject has left a clue that proves he was there.

- The vehicle the subject was driving
- Clothing that the subject was wearing
- Cigarette butts of the brand the subject smokes
- Equipment from his pack

Last Point Seen: this is the last place that the subject was seen by a witness.

- This could be someone saw the subject driving his car
- Someone saw the subject walking
- The subject was seen getting fuel



There's no such thing as a silent grid line.



Locate

Active search tactics: searchers actively do something to try and locate the subject or clues that the subject was there.

- Hasty team
- Driving roads
- Tracking teams
- Dog teams
- Air craft

Passive search tactics: this is where you entice the subject to come to you or you lactate the subject through his movements.

- Hock a horn
- Flash head lights or spot light
- Track traps
- String traps



There's always a better way to do it.

Clues

Clues: Every subject leaves around 3000 clues a mile. We should not be looking for the subject, because if we only look for the subject, we will not find him. If we look for Clues, the clues will lead us to the subject.

When do we pick up clues?

Old clues viruses new clues!



But we'll never do it that way.

Tracking

Track Awareness: it is important that even if you are not a tracker, that you are aware of what tracks are around you, so that you don't mess them up and you can report them to command.

- 1 Look for symmetrical lines and circles
- 2 Transfer
- 3 Disturbance
- 4 Bruising
- 5 Flattening

ROCKY CANYON RESCUE

SAFETY P

Make certain your map is right-side up.



Symmetrical lines and circles



FeaturePics.com - 11266429

Duct tape really can fix just about anything

Transfer



Someday all the great structures in the world will be built entirely out of blue plastic tarps.

Disturbance



Everything Burns

Bruising



Poison oak will get you no matter how careful you are

Flattening



When a situation seems bad look at it as an adventure

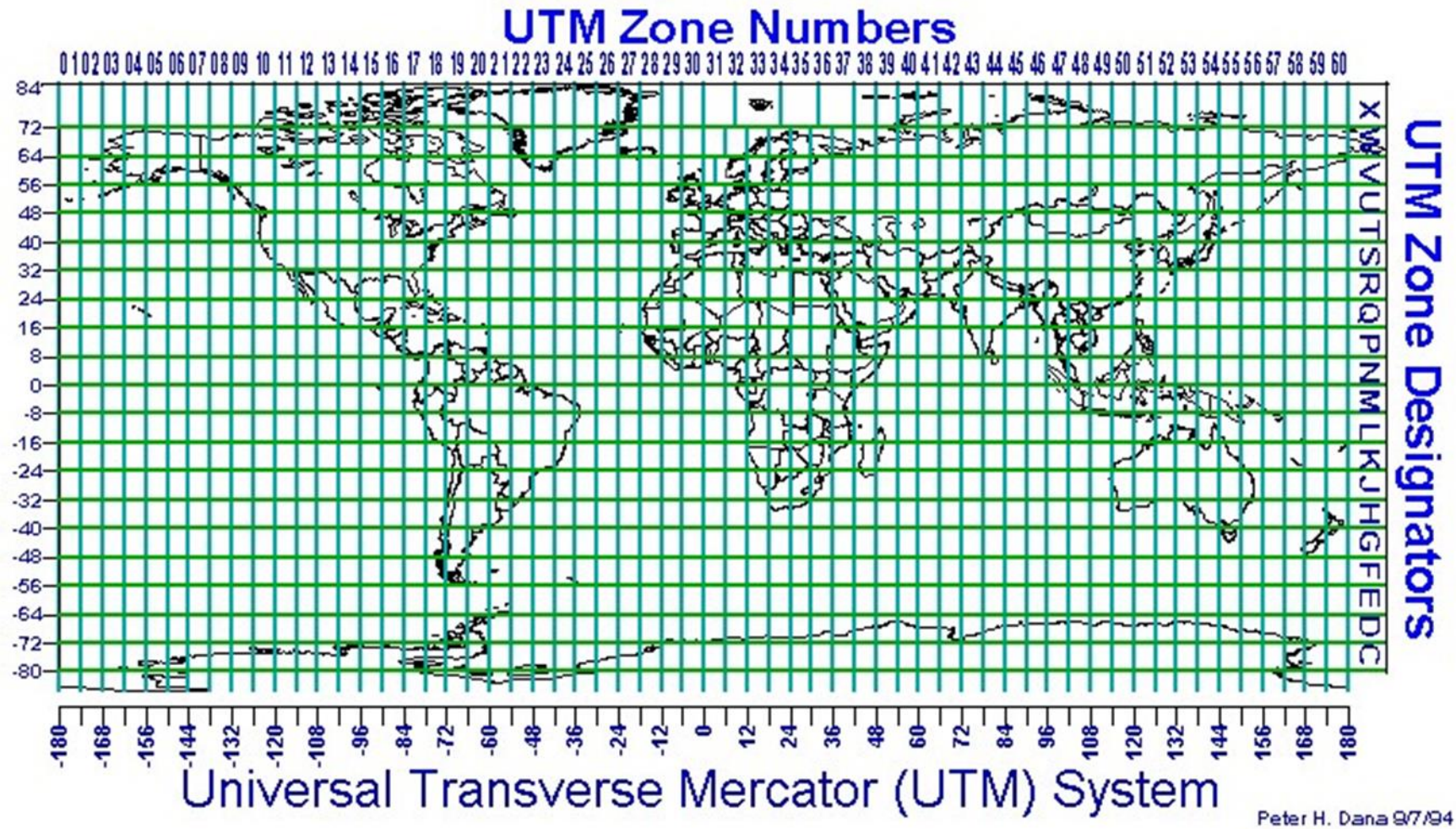
Compass

- <https://youtu.be/yymedzg6Gxo>



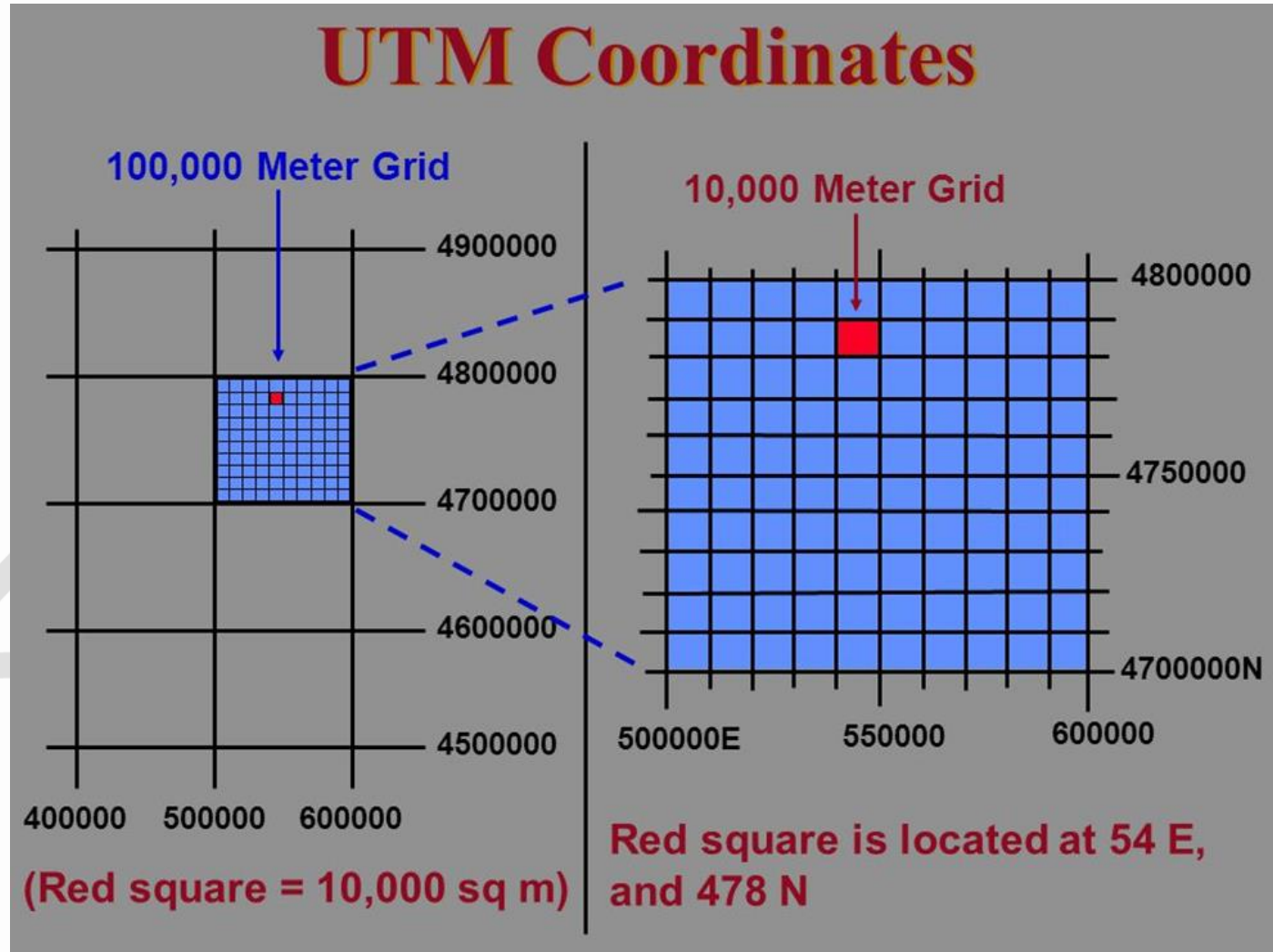
<https://www.rei.com/learn/expert-advice/navigation-basics.html>

Land Navigation UTM's



Don't curse on the radio

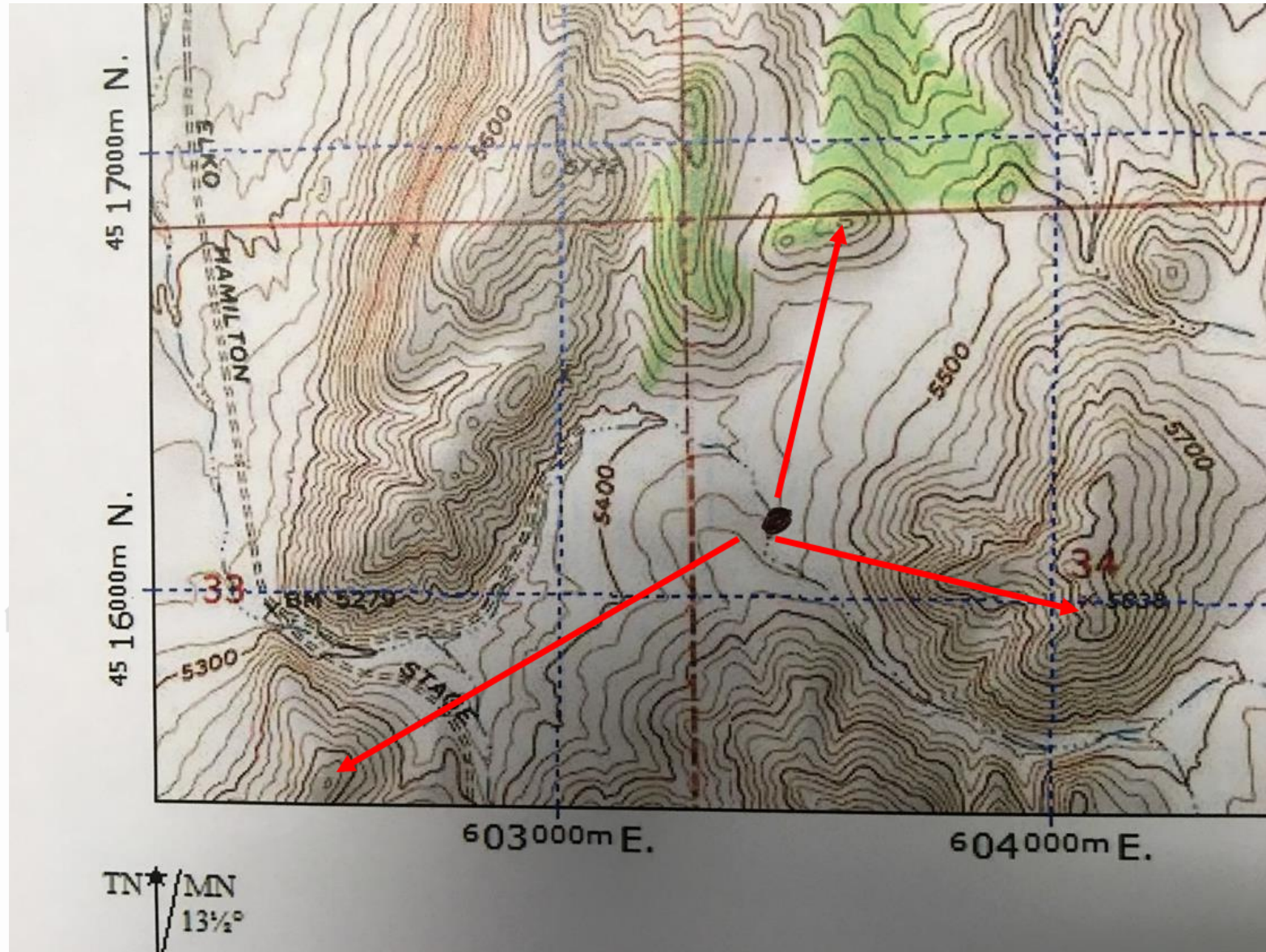
Land Navigation UTM's



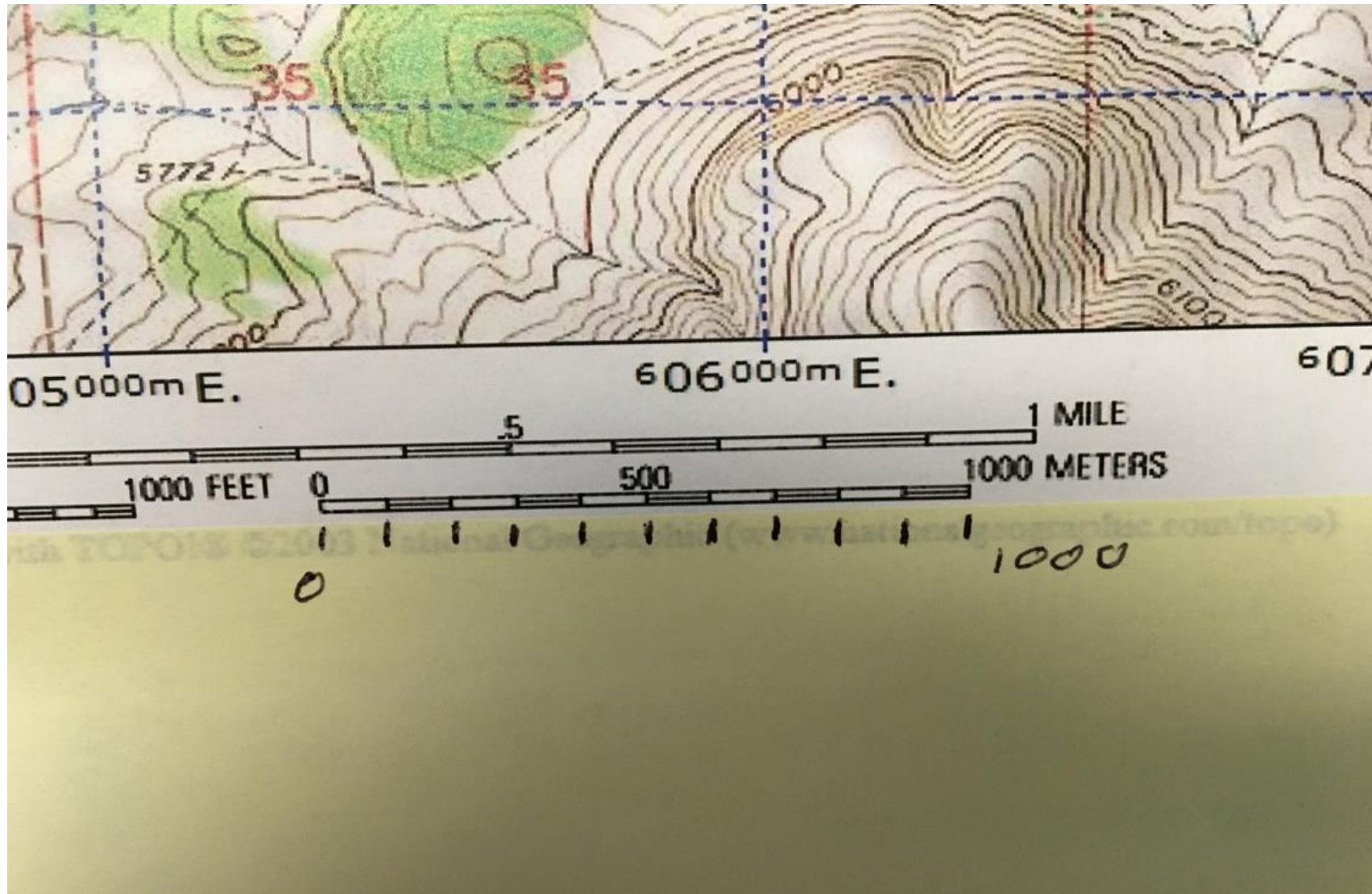
Snow caves are not made for sleeping in

Finding your location on the map

A good GPS does not replace a map and the ability to use it correctly

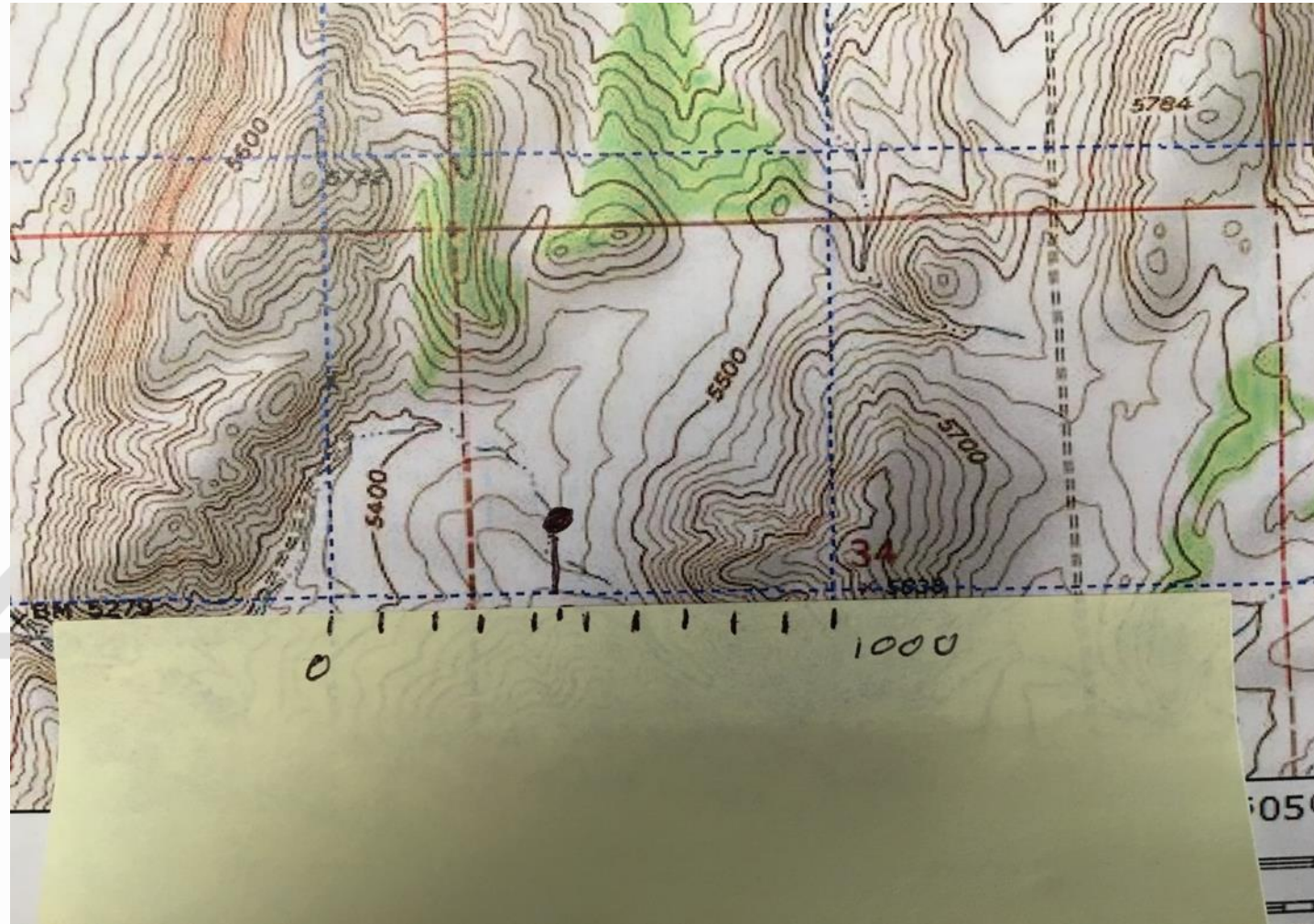


Finding your location on the map



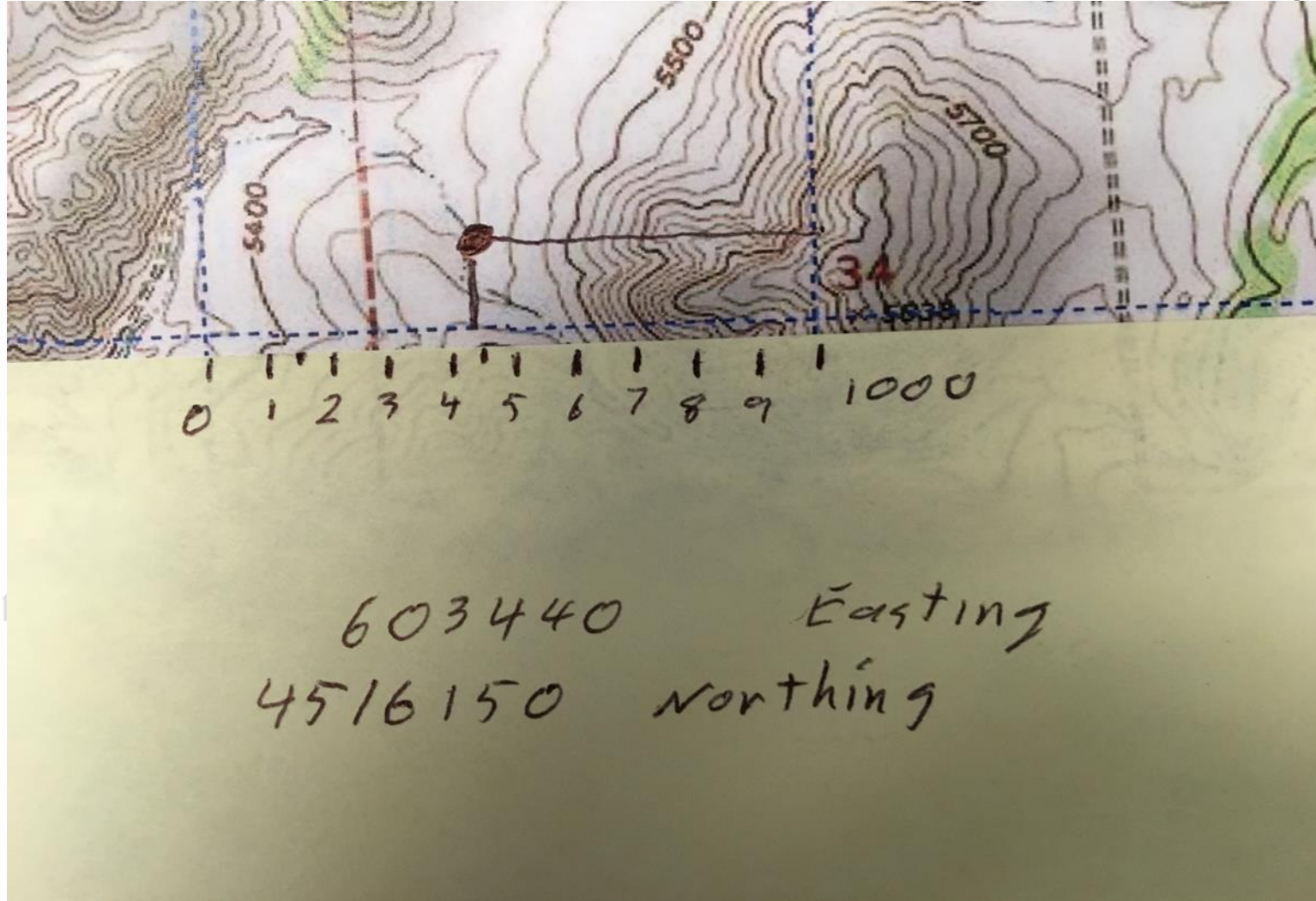
Don't take anymore in your pack than what you need, make sure you have everything you need in your pack.

Finding your location on the map



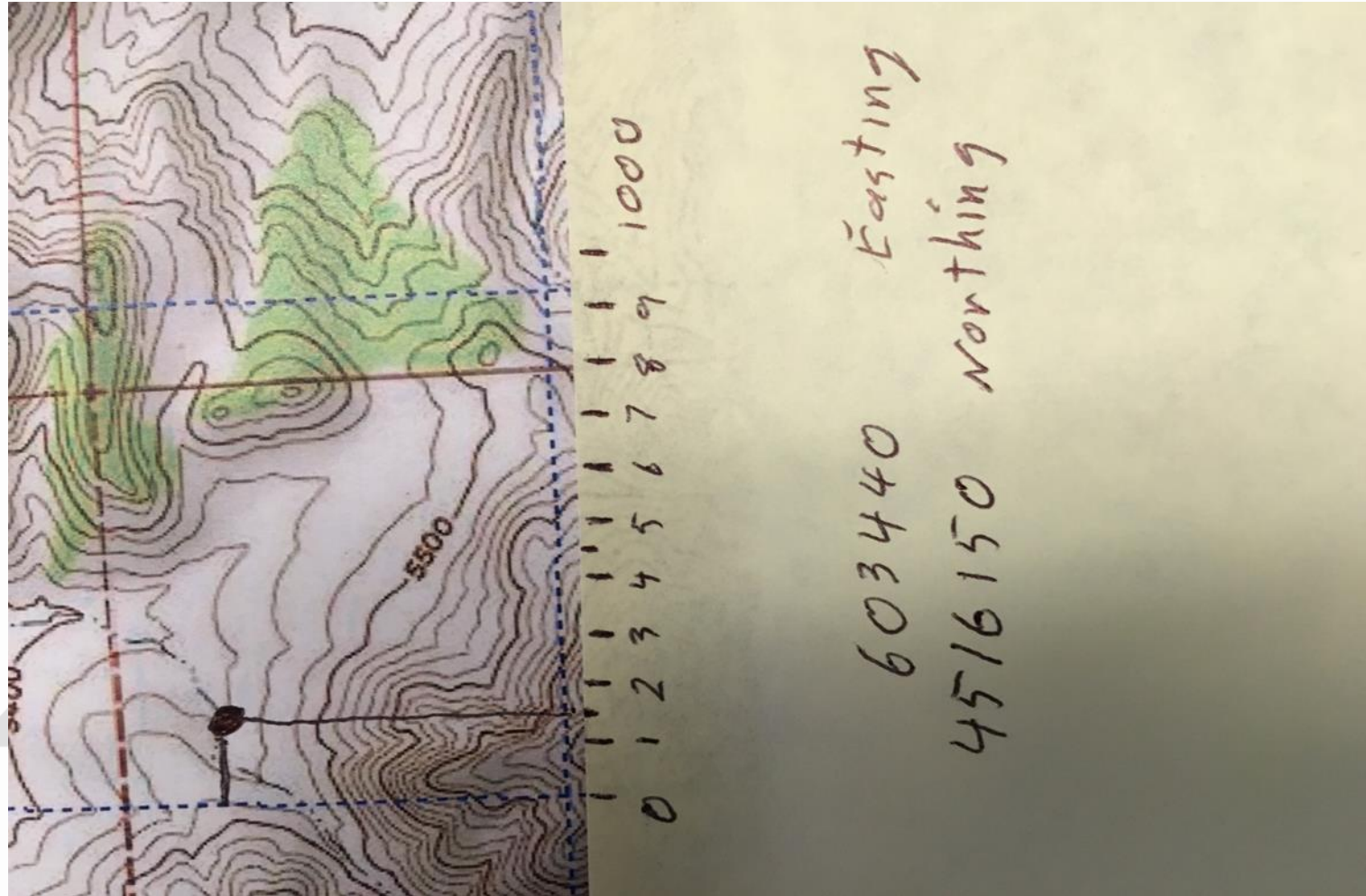
Do Not touch a SAR dog with out the handler's permission

Finding your location on the map



Untrained searcher will generally do more harm than good

Finding your location on the map



Cops will always destroy the subjects tracks while looking for clues

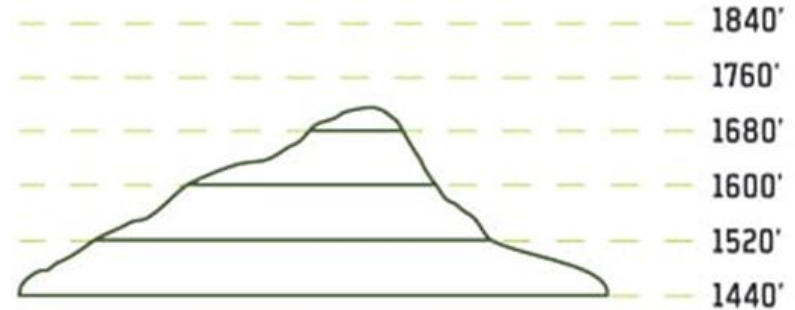
Land Navigation TOPO Maps



WHAT YOU SEE
ON YOUR MAP



SIDE VIEW
OF LANDMARK

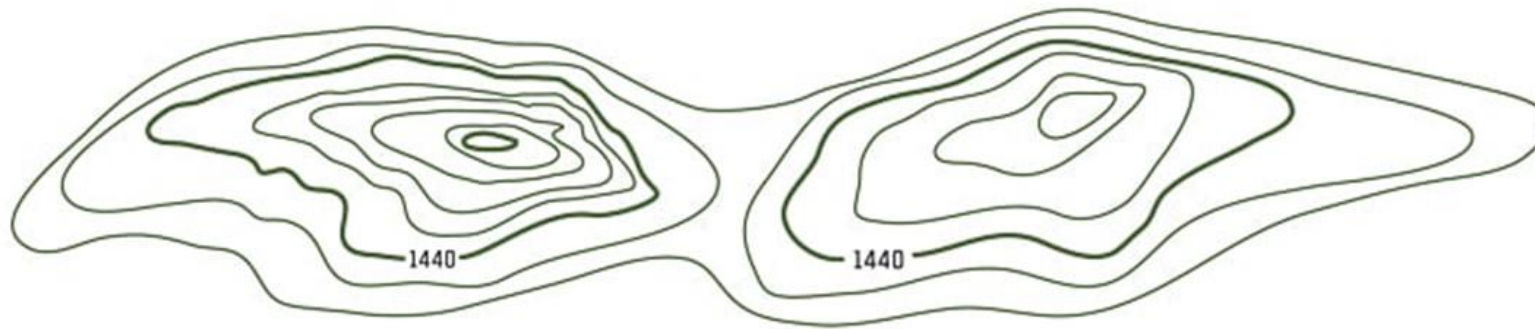


STEEP SLOPE

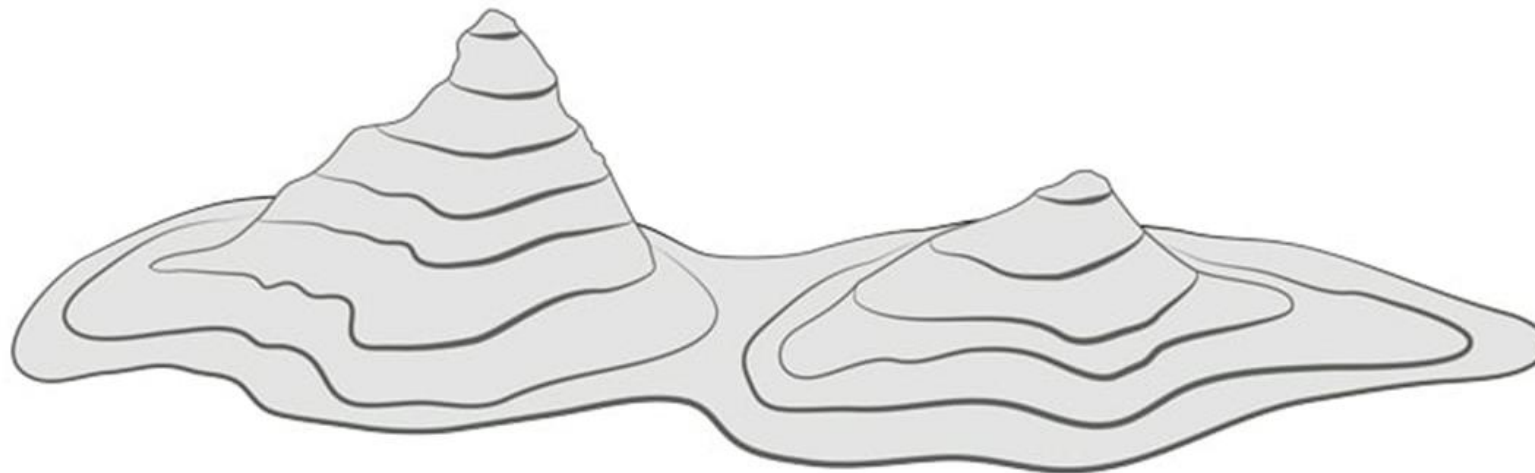
GENTLE SLOPE

Under no circumstances are hand warmers in underpants a good idea

Land Navigation TOPO Maps



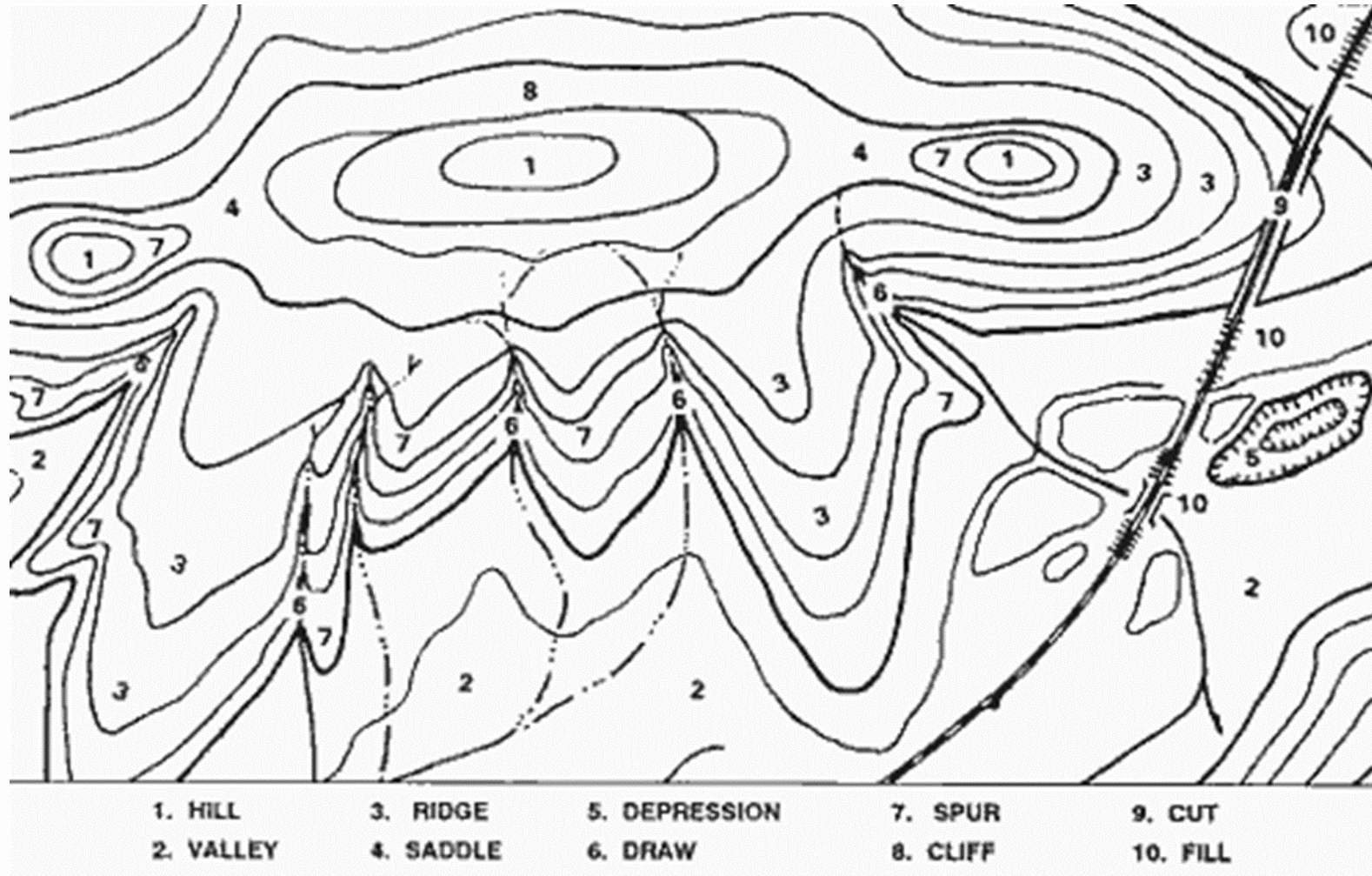
WHAT YOU SEE
ON YOUR MAP



3-D VIEW
OF LANDMARK

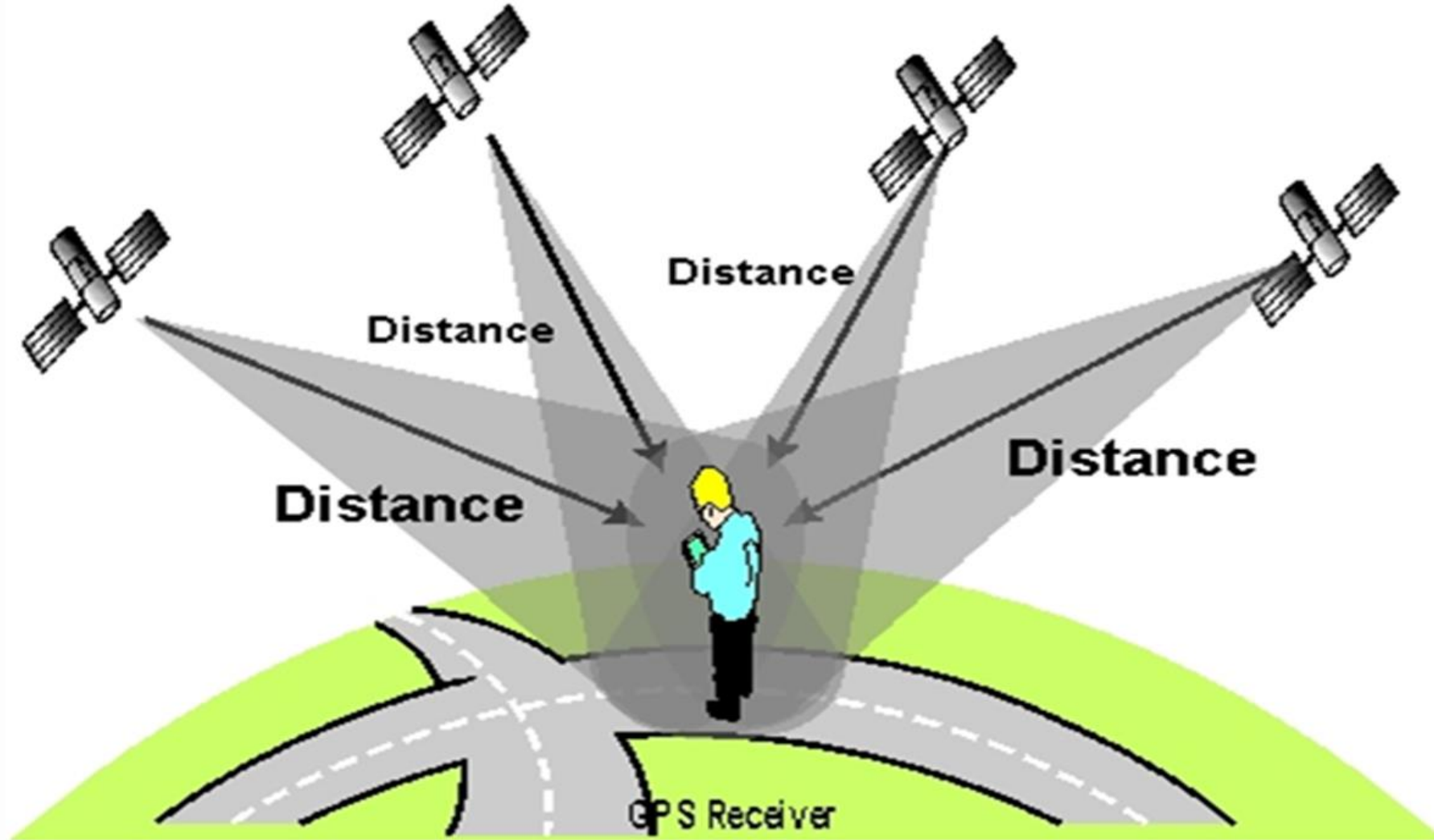
Radios never work when you need them

Land Navigation



Something always goes wrong

Land Navigation GPS



Yes they are that stupid

Land Navigation GPS

Things you need to know when you are using your GPS

1 Know your map Datum

- NAD 27 CONUS
- NAD 83
- WGS 84 (world Geodetic System)

2 What measuring system are you using?

A. Latitude and longitude

- Degrees Minutes and Seconds
- Decimal 23.0256 minutes
- Decimal Degrees 15 10.234

B. UTM's

- T 11 3815100N 321580 E

If you are not actively bleeding to death you are fine

Cell Phones

Sometimes we can locate victims with their cell phones

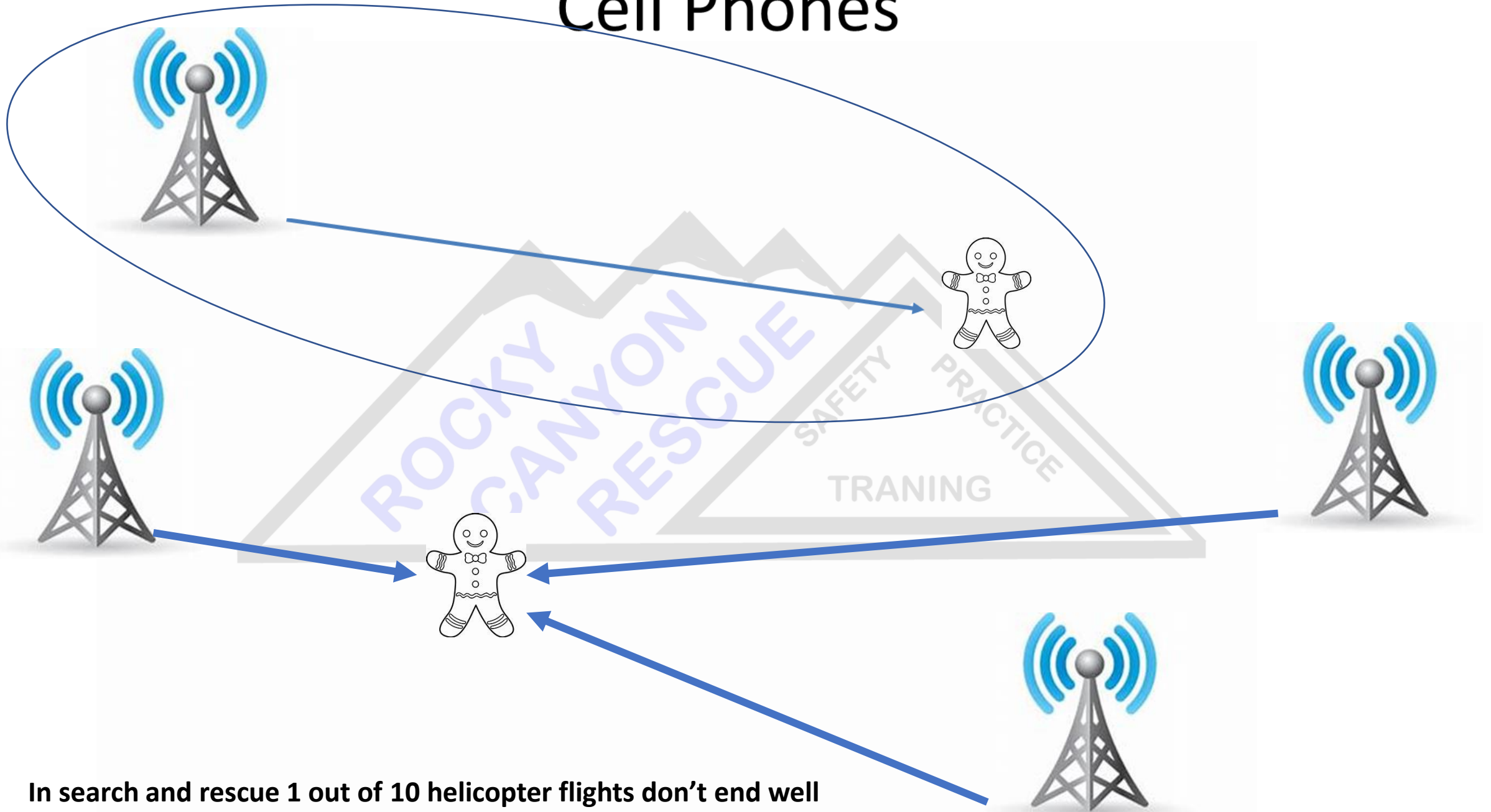


Requirements for locating a cell phone

- 1 Get approval from the Sheriff's office to open a state search number
- 2 The search and rescue team will contact the state DEM and get a search number.
- 3 Call the Civil Air Patrol headquarters in Florida, give them your state search number and the cell phone number.
- 4 the civil air patrol will call you back with one of 2 quadrants.
 - a. A compass bearing from a cell tower.
 - b. The coordinates of the phone based on triangulation from three cell towers

All trails go up hill

Cell Phones



In search and rescue 1 out of 10 helicopter flights don't end well

Cell Phones

Some times they call you and tell you where they are or they give you coordinates.
1 If they tell you where they are some times they use local names not map names.
2 they don't know what map datam they are using



What is map datam



Uncle Jims hunting camp

Teammates are people who will share their pack food

Air Sent Dogs and Horses

- 1 Air sent: follow skin cells that are shed into the air or water. Need an article of clothing from subject
- 2 Cadaver dogs: Follows, finds, or identifies sent of dead or decaying humans
- 3 Area search: Air sent don't need an article of clothing
- 4 Trailing: trail skin cells on the ground

Well trained dogs and handlers are amazing to watch

Draw backs

Lots of TLC

Do not work well in heat

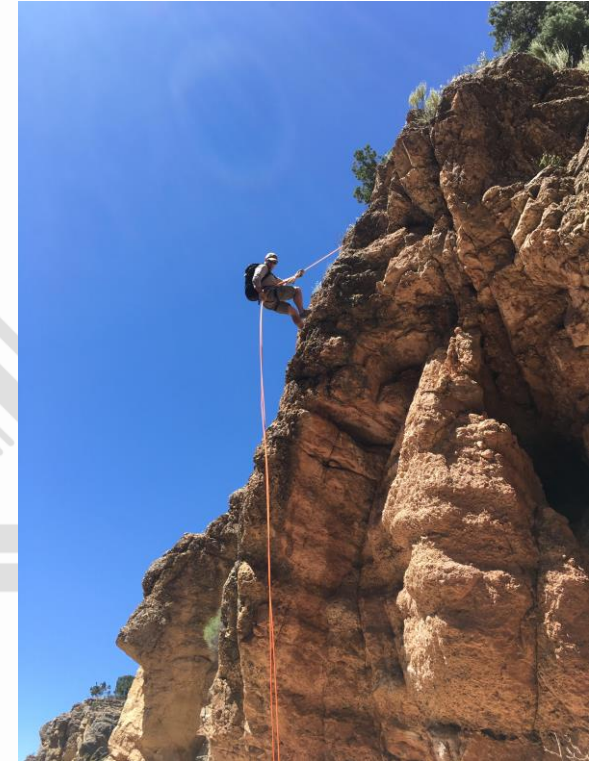
Not all handlers work well with there dogs

Friends are people who will share their good pack food



Access

- Now that we know where the subject is we have to be able to go get them. This is where knowing how to read a topo map can come in handy. You may have to direct a team into the correct location using routes that you find on the map.



Don't forget to put your sleeping bag in your pack

Access

- This may require a technical rope team to climb or rappel to gain access to the subject
- It could be that you need specialized equipment. Boat, off road vehicle, Helicopter, Snow cat, snowmobile,



Some people don't belong in the mountains

Stabilize

- A,B,Cs
- C spine rule out
- Fractures and sprains
- Environmental



There will always be one person who asks you “What took you so long?”

Stabilize

- Blanket
- Back board?
- Sked
- Human burrito
- What ever you can find



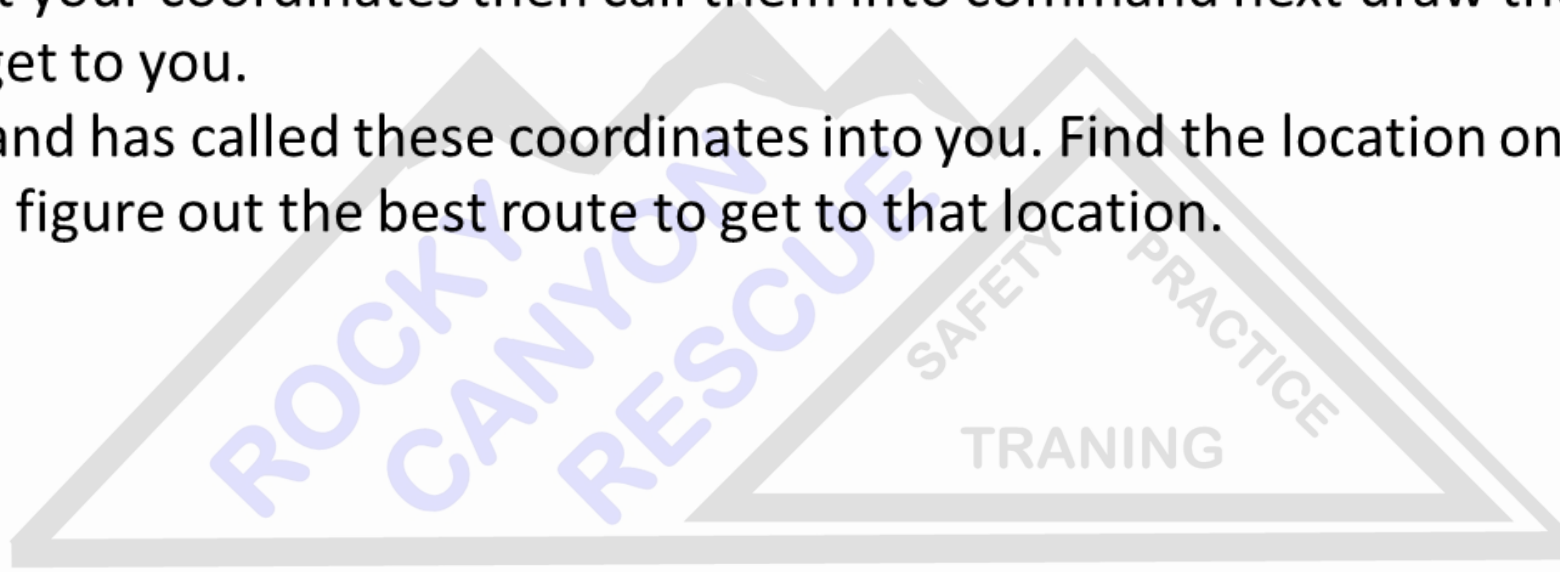
Dead people don't complain

Using your map

1-Using your maps the section with A-E this is where you have found your subject.

Figure out your coordinates then call them into command next draw the best route to get to you.

2- command has called these coordinates into you. Find the location on the map then figure out the best route to get to that location.



Most hunters hunt game animals. SAR members hunt humans

Transport



As you are accessing the subject keep in mind that you will most likely be taking the subject out the same way you got there.



Being on a SAR team does not make you bullet proof

Transport

- Low Angle: Transport can take up to 18 rescuers
6 on the basket, 6 ready to carry, 6 just off the basket resting
- Mid Angle: 3 to 4 rescuers
- Steep Angle: 2 to 3 rescuers
- High Angle: 1 to 2 rescuers or tag line

Gravity never takes a break



Transport



- When you are transporting your patient make sure you monitor vitals
- When you are practicing and using a live subject, once you put them in the basket they become a patient and you must monitor their vitals



Thanks to the spouses that don't understand and still support Search and Rescue members



And most importantly: Search and rescue isn't a job — it's a way of life.

Any Questions

























