The background features a dark blue gradient with faint, light blue circular patterns and a compass rose. The compass rose is partially visible on the left side, showing degree markings from 140 to 260. The text is centered on the right side of the image.

CAMPING, HIKING, BACKPACKING, COOKING, WILDERNESS SURVIVAL, ORIENTEERING

QUICK START TRAINING FOR BOY SCOUTS TROOP 604

10 ESSENTIALS - PROTECTION

- First-aid kit – infection
- Extra clothing – exposure
- Rain gear – rain
- Water bottle – dehydration
- Flashlight – darkness, injury
- Trail food – hunger
- Matches and fire starters – cold
- Sun protection – sun
- Map and compass – getting lost
- Pocketknife

HAZARDS OF THE OUTDOORS

EXTERNAL

- Weather – Ice, heat, rain, lightening
- Exposure – Sun, cold, wind
- Animals and plants – food storage, bites, poisons
- Remoteness, lack of resources
- Unfamiliar environment

INTERNAL

- Injury – falls, blisters, fire, cuts,
- Dehydration
- Altitude sickness
- Anxiety, fear, stress
- Getting lost

FIRST AID

EXTERNAL

- Weather – proper clothes, warm or cool body
- Exposure – protection
- Animals and plants – awareness
- Remoteness, lack of resources – knowledge
- Unfamiliar environment

INTERNAL

- Injury – direct pressure, splint, meds
- Dehydration – hydrate and watch others
- Altitude sickness – hydrate and move lower
- Anxiety, fear, stress – strong group
- Getting lost – preparation and knowledge

FIRST AID

- Hypothermia-
- Frostbite-
- Dehydration-
- Heat exhaustion-
- Heatstroke-
- Sunburn-
- Altitude sickness-
- Sprained ankle-
- Blisters-
- Insect stings-
- Tick bites-
- Snakebite-

7 PRIORITIES OF SURVIVAL

1. Positive Mental Attitude. May be the most essential element in survival.
2. First Aid. If an injury is life threatening, such as rapid loss of blood, first aid becomes the most important thing to do.
3. Shelter. Extreme weather conditions, too hot or too cold, make finding or building a shelter of top importance. At such times even painful but minor injuries must wait until shelter is available. This is even more urgent if night is approaching.
4. Fire. Often, along with shelter, you will need a fire for warmth and signaling. Fuel should be secured and the fire started before dark.
5. Signaling. When you have taken the first steps in dealing with the emergency, you will need to prepare rescue signals.
6. Water. Under all circumstances, water is essential. You can live only a few days without it. Finding water is even more urgent when the weather is hot and dry.
7. Food. A person can live several weeks without food; it does not rate high as a survival priority.

WEATHER

- Get a forecast
- Know your area
- Know your route
- Hazards – sudden changes, lightning,
- Plan for contingencies



OUTDOOR SAFETY

- Situational awareness – Be familiar with your area
- Have a communication plan
- Prepare your body, gear, mind
- Pay attention to your body
- While hiking, hydrate every 15 minutes, stop and packs off every 60 minutes
- Don't get wet

LEAVE NO TRACE / OUTDOOR CODE

- Camp on durable surfaces
- Waste – dishes and food, human waste is 6-8” deep 200 feet away from water, pack trash out
- Leave it better
- No new fire rings
- Respect wildlife and others
- Conservation-minded

WRITTEN PLAN

- www.Troop604.net website for lists and trip preparation
- Where, who, what, when, how
- Logistics – cars, lodging, reservations, permits, 2 deep
- Details – access, trail conditions and length, water,
- Who knows where you are?
- Gear and contingency gear
- Food – menu, gear, and duty
- Communications plan – what works and what do we have

PATROLS

- Groups of 4-7
- Organize a leader and responsibility list
- Plan meals, sleeping, gear as a patrol
- Follow your Senior Patrol Leader

BACKPACKING TREK CREWS

- How big? Minimum of a couple Scouts and adults. Maximum?
- Stay on trails
- Cross country treks – spread out and walk softly
- Communications – radios, leap frog, stopping at trail forks
- Stay in groups, everyone with a radio if possible

GEAR AND CARE

- Tents – 3 Season, free-standing, can be large for car camping, 3-4 lbs 2-person for backpack
- Sleeping bag – 20F, 3-4 lb for backpacking
- Stove – Isobutane for backpacking, propane for car camping
- Flashlight/headlamp – LED, flashlights for hiking, headlamps at camp
- Boots – rather stiff shank for rocky terrain or heavy packs
- Clothes – poly and wool blends to stay drier, 3 sets of shirts, socks, underwear, 1 pants
- Rain jacket – breathable, pit zips, hood
- Backpacks – internal vs external frame, 65-85 liters
- Water filter – probably not just the small personal ones

Personal Clothing

Uniform (red shirt, zip-off synthetic pants, belt)

Camp/river shoes and Hiking boots

poly T- Shirts (2-3)

Jacket med. Weight

Windbreaker or rain-proof jacket

Underwear (2-3)

Socks (3-4)

Sock liners (2-3)

Hat or beanie

Large zip-lock bag for clothing

Depending on weather:

Long Sleeve Shirts, synthetic, fleece

Rain pants

Thermals (poly or poly/wool)

Shorts or zip-offs

Poly Props./ Balaclava

Gloves (Wool or synthetic)

Personal Gear

Flashlight

2 1-liter water bottles or hydration pack

Sleeping Bag

pillow

Foam or foam-core pad

Tent (share)

Ground Cloth or footprint (share)

Backpack

Compass

Cup, Bowl/Plate

Spoon or spork

Stove or Jet-boil, fuel (share)

Cook pot (share)

Water treatment system (share)

Personal Kit

Whistle on lanyard

Personal Medication

Toilet paper/ Kleenex

Soap in container

Washcloth

Toothbrush & Toothpaste

Insect Repellant

Sun Screen/ Chapstick

Waterproof Matches

Shovel (toilet)

First Aid

Mole Skin & Blister Dressing

Personal medication

Aspirin or Ibuprofen

Imodium

Antiseptic

Benadryl

Assorted Band- Aids

2" Gauze Bandages

Adhesive

Water Purification Tablets

Latex Gloves

Antibiotic ointment

tweezers

Safety Pins

Ten Essentials when leaving the cars

Rain Gear

Whistle

Water Bottle

First Aid Kit

Flashlight/ Extra Batteries

COOKING AND HYGIENE

The background is a dark blue gradient with a subtle pattern of small white dots. On the right side, there are several white circular graphics. One is a large scale with numbers from 80 to 210 and tick marks. Another is a smaller circle with a dashed outer ring and a solid inner ring, both with arrows indicating a clockwise direction. There are also other partial circular elements in the top and bottom corners.

WATER TREATMENT

- Importance of water treatment – E. coli, bacteria, viruses, giardia,
- Boil – slow, requires fuel
- Iodine – bad taste
- Pumps – faster but more work
- Gravity feed – great for groups, relaxing, but slow. Can backflush in the field
- Steri-pen – kills viruses, does not remove debris, does not work in cloudy water
- UC Davis 2004 study - Lakes are typically "cleaner" than creeks, possibly because the ultraviolet rays of sunlight work better at killing off bacteria in the calm waters of a lake than in the tumbling flows of a stream. Except for some heavily used areas, streams and lakes in the high country of the Sierra Nevada are generally clean and fresh.



CAMP SANITATION

- Wash your hands – Not in the creek. Use soap but away from water and camp. This is the most likely way to get sick.
- Washing dishes – wipe out the food into the trash, take water away from the creek, spread the water away from camp and 200 feet from water
- Toilet – away from camp, 200 feet from water, dig 6-8” deep. Sometimes you have to pack out your paper. Make sure you push everything to the bottom of the hole. Rock on top if you can.

STOVES - SAFETY

- Wood – free fuel but takes more time
- Liquid fuel – don't use it. It is easy get singe your eyebrows. High energy content and good in cold
- Propane – typical for car camping, large tanks
- Isobutane – typical for backpacking, small tanks, must be kept above freezing to operate
- Storage of fuel – away from heat



CAMP MENU

- Things to consider:
 - Equipment needed
 - Timing, fast, slow
 - Nutrition, food groups, energy content
 - Cleanup
- Breakfasts – oatmeal, breakfast burritos, eggs, pancakes, cooked by patrol
- Lunches – typically are trail lunches like sandwiches, tortillas, snacks, prepared individually
- Dinners – can be anything depending on the trip, cooked by patrol

FOOD ALLERGIES

- Find out if anyone on a trip has food allergies
- Try to avoid bringing any of those foods
- Ensure that the patrol is aware of the allergies when planning the trip
- How to handle certain foods – peanut, gluten, vegan, shellfish, etc

TO EAT OR NOT TO EAT

- Nutrition requirements –
 - backpacking all day requires a breakfast even if you don't normally eat one
 - Snack throughout the day while hiking
- Water requirements –
 - other beverages do not hydrate like water.
 - Need to prehydrate before hiking.
 - Feeling dry or cotton-mouth means you are already dehydrated.



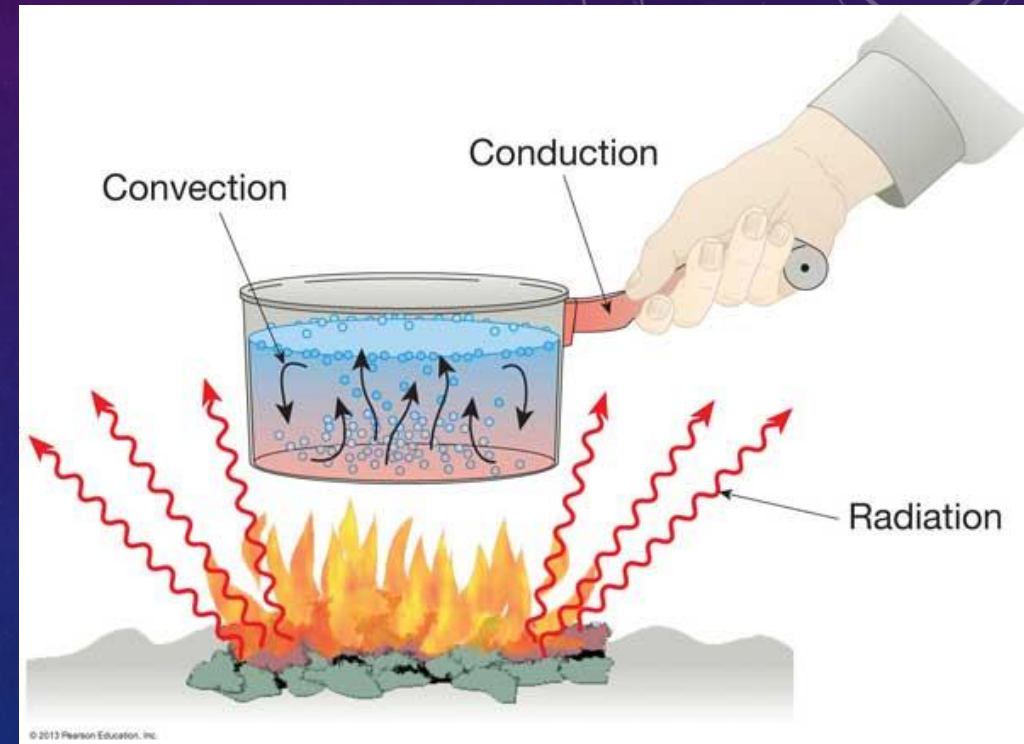
FOOD STORAGE AND PREP

- Most trips require food storage protection from animals
- Ice chests for perishable or cold items
- Food boxes
- Bear lockers or bear cans to protect from bears, squirrels or mice
- Be aware of allergies in the group and do not mix or bring items that can cause reaction
- Protect from leaks in the ice chest or bear can. Do not allow meat juices to contaminate other food
- WASH HANDS



THERMODYNAMICS AND HEAT TRANSFER

- Heat moves in 3 ways
 - Radiation – Light energy like the sun
 - Convection – through moving air or liquid
 - Conduction – through metal or other material, most efficient
 - Increase thermal transfer by adding liquid or surface area
 - Jetboil stoves have the fins
 - Add a bit of water or oil while frying and it increases transfer to the food

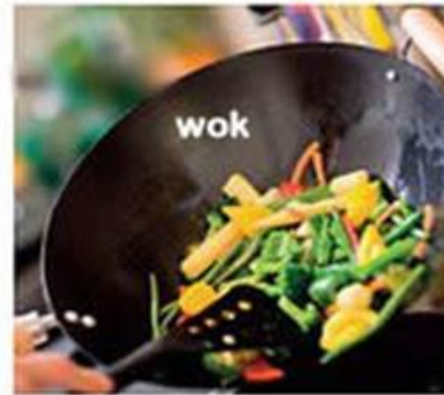


COOKING

- Boil
- Fry
- Simmer
- Steam
- Bake
- Microwave
- Grill



Flambé



stir fry



fry



boil



baking tray / pan

Bake



toaster

toast



Lid

steamer

steam



ladel

pot

stew



tongs

barbecue



poaching



roasting



bake



steam

CLEAN UP

- Cooking cleanup requires hot water and soap to dissolve oils, remove dirt and sanitize
- A minimum cleanse is to dip in boiling water
- Throw away dish water away from camp and far away from water sources

SHOPPING FOR FOOD

- Consider group and portions – Four 11 year-olds or three 16 year-olds
- Consider storage and cooking – ice chests, bear cans, pre-cooked or shelled items
- Consider clean-up – lots of grease, how many pans
- **HAVE THE SCOUT DO THE SHOPPING TRIP WITH YOU**

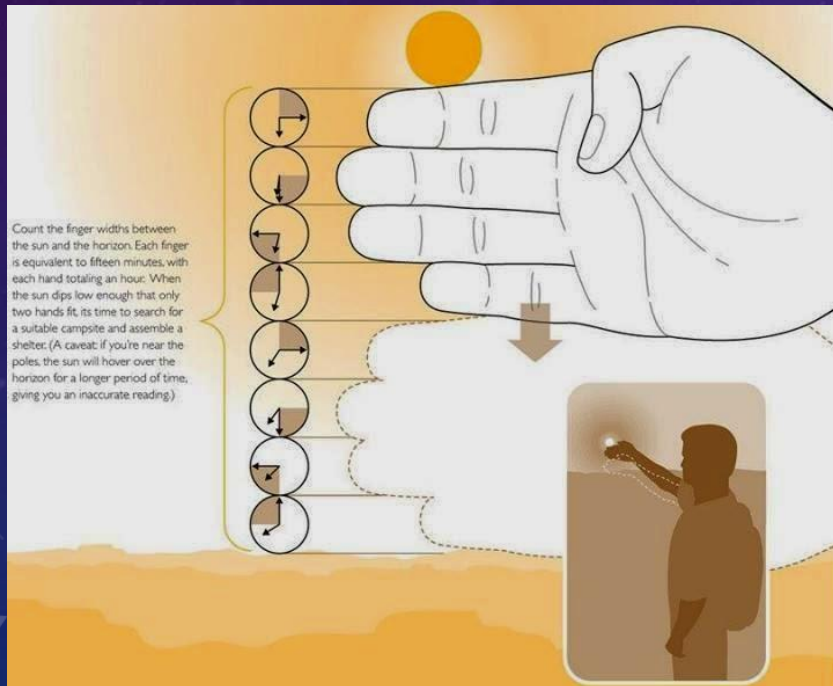
MAPS AND ROUTE-FINDING

BECAUSE GETTING LOST IS FOR LOSERS



BASICS

1. Picture a map of the US to picture orientation
2. If it is mid day, put your back to the sun and hold your map, adjust for time of day
3. 4 fingers at arms reach is 1 hour



OBSERVATION

North side

- More plants, ferns, moist soil
- Lichen grows on the shaded side of the trees but be careful about the shade
- Might find patches of snow
- Smells wet

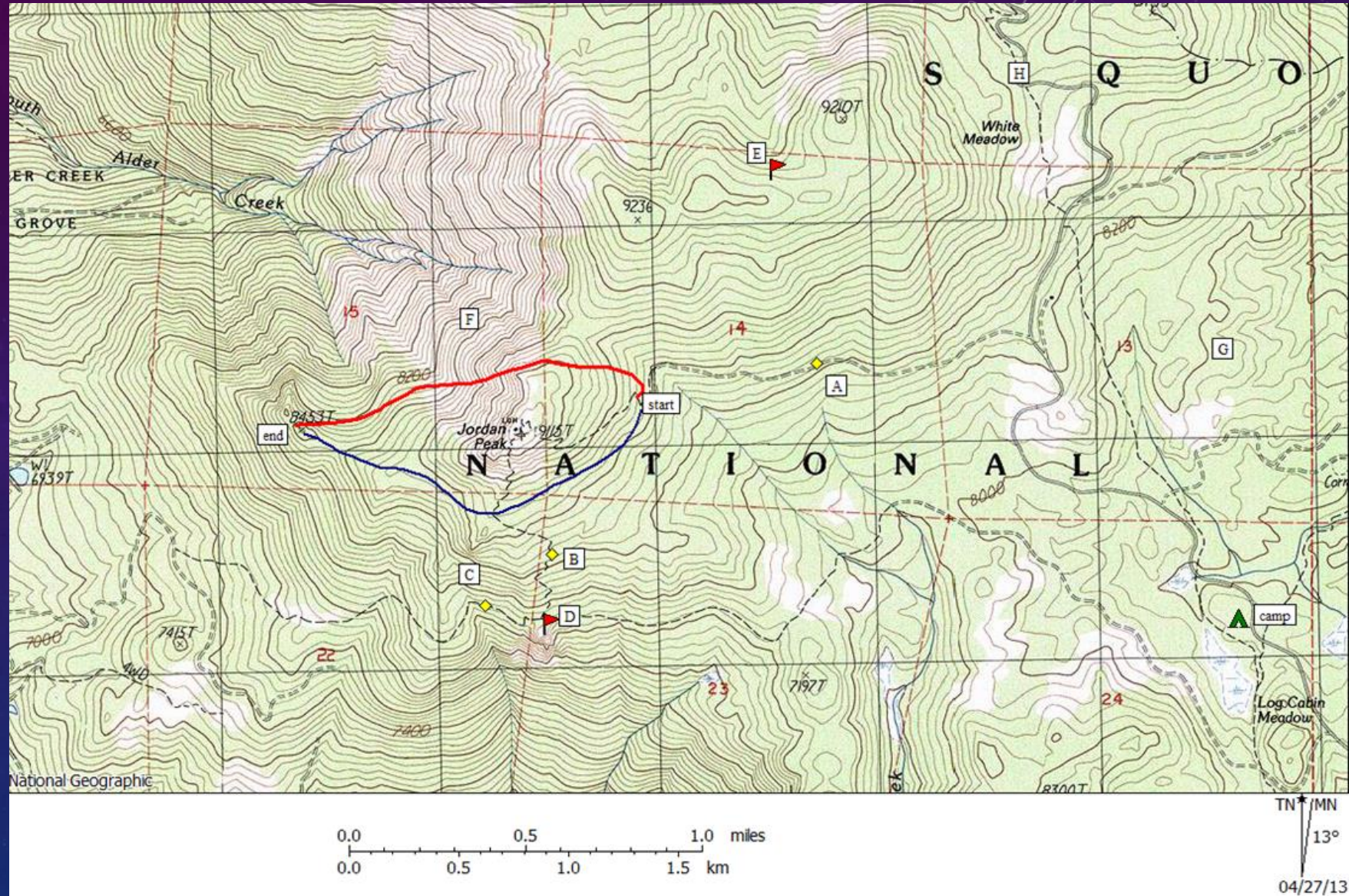
South side

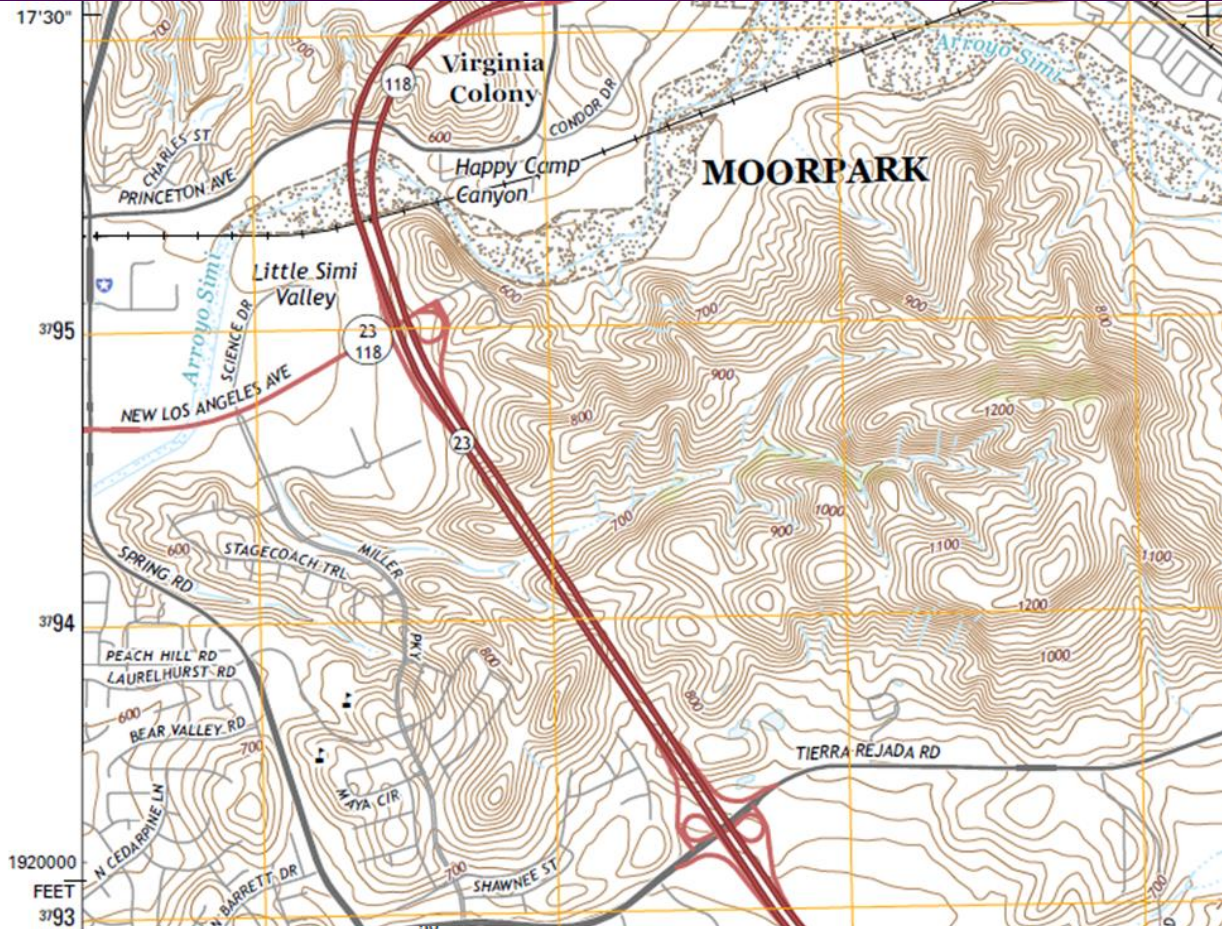
- Dry, stiff plants like Manzanita, Oak, Whitethorn,
- Usually less dense foliage
- Less ground cover
- Dryer soil
- Smells like Mountain Misery



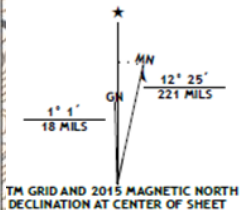
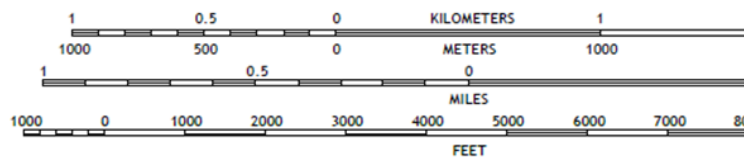
TOPO MAP

- Describe the conditions at point A.
- Describe the conditions at point B.
- Describe the conditions at point C.
- Describe the conditions in area F.
- Describe the conditions in area G.
- Describe the conditions in area H.
- Is it better to walk the red or blue line from start to end?
- You are in camp and need water. Where do you go?





SCALE 1:24 000



TM GRID AND 2015 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
LU 3800
LT
Grid Zone Designation
11S

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

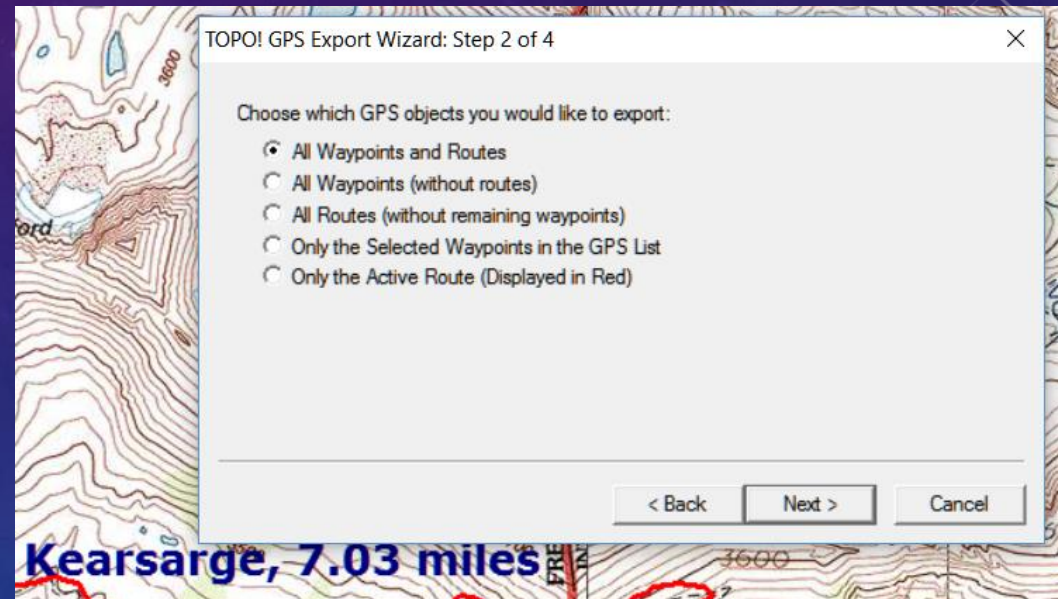
This map was produced to conform with the National Geospatial Program US Topo Product Standard, 2011. A metadata file associated with this product is draft version 0.6.18

34°15' 118°52'30" 328 6 300 000 FEET 329 30 31 50'

34°16'17.2"N 118°52'04.5"W 34.271443, -118.867912

USING A GPS

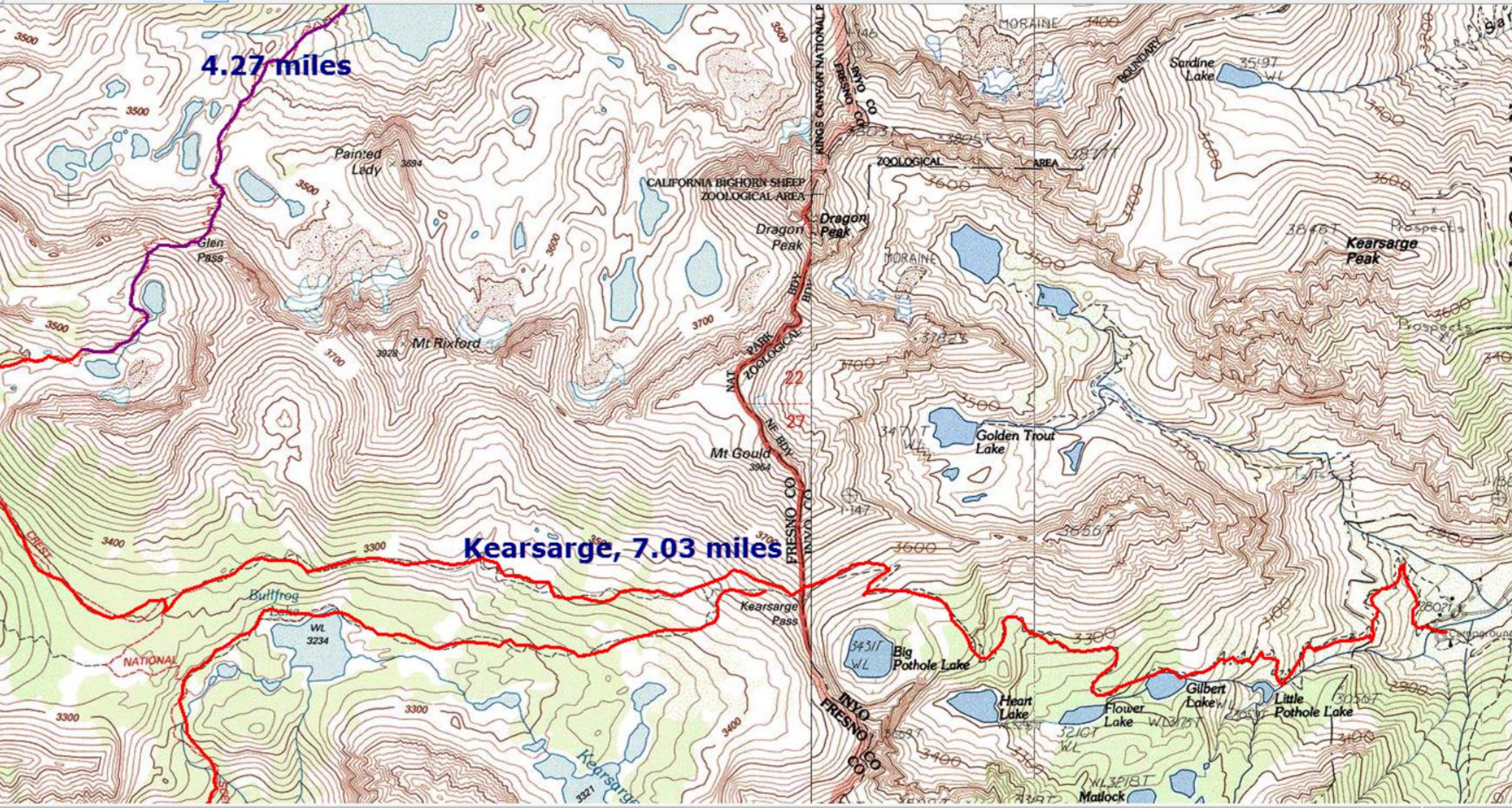
- Use a mapping program to find your trails
- Trace the trails with Routes
- Create waypoints
- Export your waypoints and routes to a GPS



MAPPING PROGRAM

kearsarge and rae lakes - TOPO! - Map Level 5 of 5, 7.5' Map Series, 4.69 x 2.48 miles

File View Tool Handhelds Info



GPS -- ISSUES AND HOW-TOS

- **CONS**

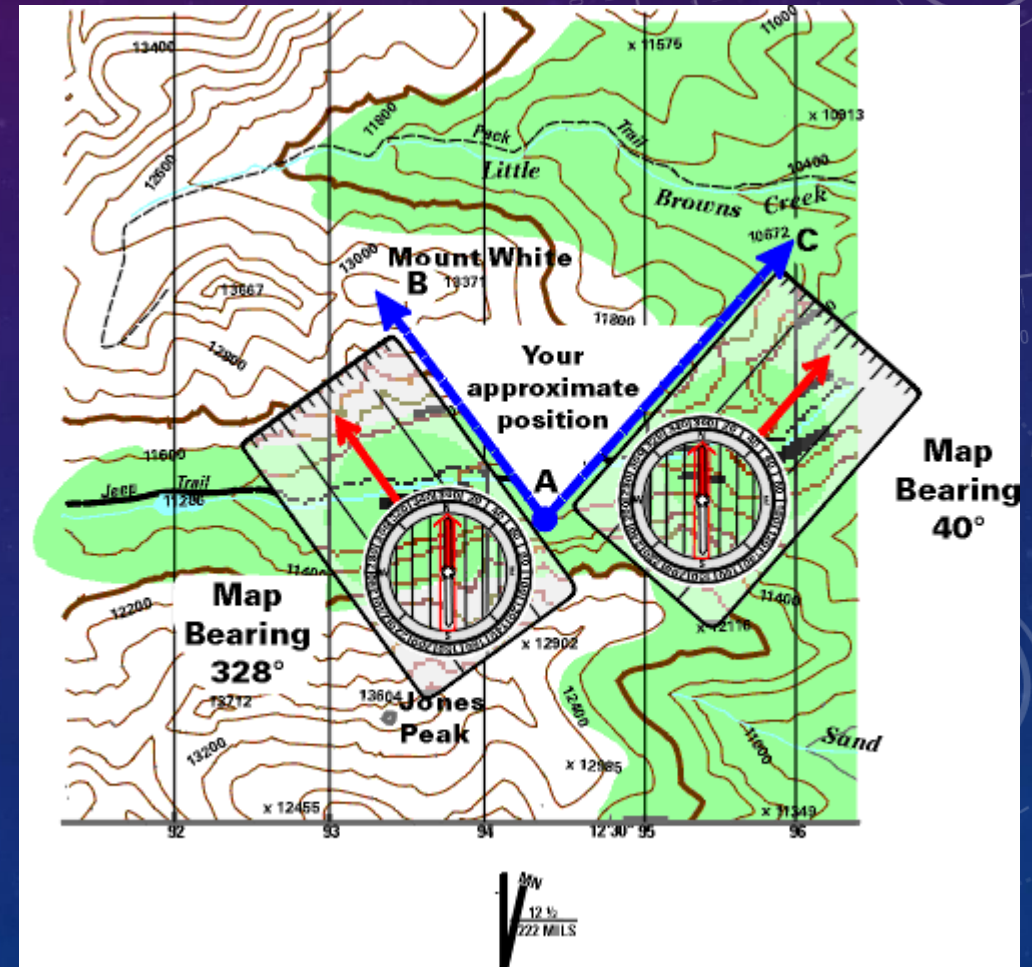
- People feel it is so simple they don't bother to study ahead and practice
- GPS requires batteries and can fail or break
- GPS can provide wrong data in deep granite canyons or heavy tree coverage

- **How to use GPS**

- Great for confirming location
- Refer to it at critical points
- Tracking your path to return

FINDING YOURSELF

- Orient the map.
- Look around and locate prominent landmarks.
- Find the landmarks on the map (preferably at least 90 degrees apart).
- Determine the bearing of one of the landmarks.
- Place the compass on the map so that one side of the base plate points toward the landmark.
- Keeping the edge of the base plate on the symbol, turn the entire compass on the map until the orienting arrow and the compass needle point to north on the map.
- Draw a line on the map along the edge of the base plate, intersecting the prominent landmark symbol. Your position is somewhere along this line.
- Repeat this procedure for the other prominent landmark. The second landmark should be as close to 90 degrees from the first as possible.
- Your approximate position is where the two lines intersect.



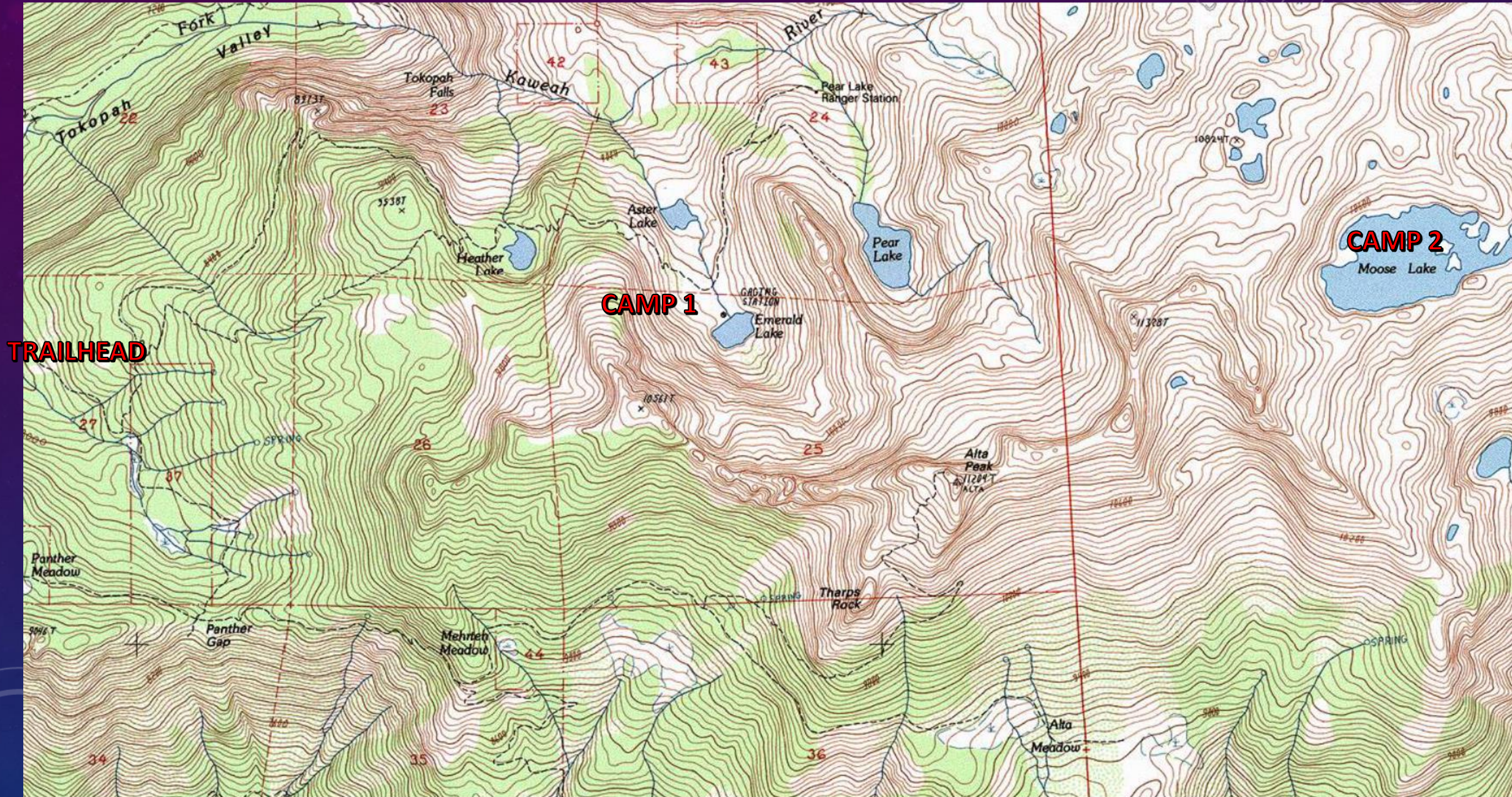
NAVIGATING

- Planning a route – pick your start, campsites, trail, patrol, difficulty, sights, water
- Watch-outs – cliffs and other obstacles, snow, unnecessary travel or altitude, flash floods, exposed ridges
- Tools – maps, compass, GPS, experience, sun and shadows,
- Miles per day – Is the trail flat, uphill, is there a trail, 8-12 mi/day with strong boys and good trail, 3-4 if not
- Resources – water, shelter, shade, warmth,
- Time of day to travel – South-facing in mid day? North facing in June in the morning?
- Adjustments – Part of backpacking is adjusting the plan. Help the boys understand the hazard or options, process the pros and cons, execute with safety in mind

CHOOSING A CAMP SITE

- Access to water but not too close, 100 feet from water unless in a campsite
- Watch for hazards – flash floods, falling limbs, rolling rocks, rain runoff, animal paths
- In the bottom of canyons will be colder at night
- At the top of ridges can be windy
- On south-facing slope is hotter and drier, north-facing is cooler and more moist
- Flat spots for tents that is not on marsh or tender grasses

TABLELANDS BACKPACK



TABLELANDS BACKPACK



