



# Map/Compass/GPS for the Lightweight Backpacker

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# Principles of Lightweight Backpacking

1. Take enough gear to be safe, comfortable and confident.
2. Know the actual weight of each item.
3. Whenever possible, use multipurpose items.
4. Look at the heaviest items first.
5. When selecting items, use the smallest items that will suit your needs.
6. Choose lightweight gear that is useful, sturdy and dependable.
7. Know how to use your gear!

# Packing Categories

No.	Description	Notes
 1	Risk Management	Know before you go: weather forecast , terrain, route and water sources.
2	Pack Weight	My objective is 10-12 lbs
3	Footwear	Trail shoes or low cut hiking boots
4	Backpacks	Gossamer Gear Mariposa
 5	Navigation	Map, compass, GPS
7	Clothing System	Weather protection, thermoregulation and layers
8	Sleep System	Sleeping bag or quilt, pad, sleep wear
9	Shelter	Tarp tent
10	Hydration	Platypus , purification tablets
11	Food & Cooking Equipment	Plan for about 2 lbs of food per day, stove, fuel, pot/bowl/cup, spoon
12	Hygiene	Toothbrush, toothpaste (mini size)
13	First Aid	Advil, bandaids, moleskin, tweezer

# Do I know where we are going?

- Solo Hikers and Lightweight Backpackers routinely get separated because:
  - Different paces
  - Stop to take pictures
  - Stop for rest
  - Stop for a snack
  - Emergencies occur! This is a good reason to stay close together!
- Decide on a meeting place at various points during the hike.
- Everyone needs to know how to independently get there as the group spreads out.
- Technology is not a panacea if you don't know how to properly use and take the time to plan & download .

# Orienteering Gear For The Woods

- Compass and Map are *de rigor*.
- Fancy compasses are not necessary if you always note your direction and landmarks.
- Smartphones make poor GPS units due to power consumption
- Recharging batteries in the woods is not a practical, lightweight option if you are thinking of recharging in the field
- Rechargeable batteries aren't a practical option unless you have disposable backups
- Disposable Li-Ion batteries (AA or AAA) provide best weight, life, power density and wide temperature performance. About \$8-10 per 4 pack. Most GPS only need 2 batteries.
- Bring only as much GPS as you really need!
- SPOT Message or similar Personal Beacons are useful but don't misuse SAR if not life threatening emergency.

# My Favorite GARMIN Models



## Garmin Foretrex 301/401

- 3.1 oz
- Wear like a wristwatch
- Average 17 hours on 2 AAA batteries
- MSRP \$150/\$200 (with Electronic Compass + Barometric Altimeter + Wireless Transfer)

## Garmin Dakota 10/20

- 5.25 oz
- Smallest touch screen color GPS
- Average 20 hours on 2 AA batteries
- Internal 850 MB Flash Memory
- Dakota 10, MSRP \$200
- Dakota 20, MSRP \$280, Electronic Compass + Barometric Altimeter + MicroSD Card + Wireless Transfer

Extra \$50 for Electronic Compass is well worth the extra investment

# Garmin Subscription Options

- Map Updates (if you purchased a map product –DVD or MicroSD )
- Birdseye Satellite Imagery Downloads, \$30 per year
- Birdseye Topo Downloads, \$30 per year
- Download subscriptions are registered to your GPS device
- GPS device must be connected to PC running Basecamp to authorize and download images or topo maps.  
Download imagery/maps to Basecamp, then transfer to your Garmin GPS.
- Export/email GPX file to your friends so they can download and then upload to their GPS.



# SPOT Satellite Messenger



- Check-In/OK



- Non-life threatening alert to friends and family



- Life Threatening message, alerts SAR



- Tracks



- Spot Assist for Automobile Assistance

- Good thing to have if you hike alone

- MSRP \$120, 5.2 oz



# GPS Basics

- Waypoint = a point on the map
- Route = collection of waypoints arranged from Start to Finish
- Track = bread crumb trail of your actual hike
- Trip Computer
- Compass
  
- Customize fields shown on Trip Computer and Compass if possible
- Reset Trip Computer and Tracks before you start
- Always carry a map with labeled Waypoints and Route

# LWBP Resources

