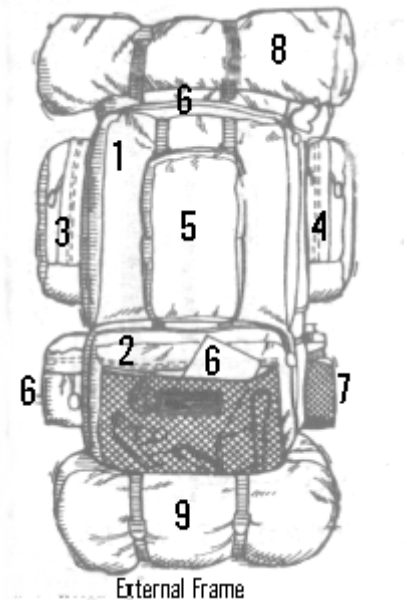
Bob's Backpacking Bits

From his website at http://www.personal.psu.edu/faculty/r/p/rpc1/bbb/

Packing That Equipment



Pockets and Compartments for Stowing Gear.

To the left and right are somewhat typical external and internal frame packs. As the name implies, the external frame (often looks like a ladder) can be seen from the back of the pack (the side against your back). The frame stays of internal packs are often two 3/4" to 1" wide flat aluminum bars 20" to 30" long sewn into the back of the pack itself. One main difference is that the sleeping bag and tent are often lashed to the outside of an external frame at points #8 and #9, while, internal frames are designed so that, all gear can either be stored inside the main compartments or in the outside pockets. The first internal frames and specialized climbing ones have fewer outside pockets and require that much of what should be accessible be buried inside the large main compartment.

After you've decided on your list of backpacking equipment to carry, you'll need to pack for the trail. Before getting into the details of matching equipment to compartments and pockets, consider the following observations:

- Small, frequently used items should go in your pants pockets, "throw" pockets on the pack, hung from your shoulder straps, or placed in other readily accessible place. These include knife, compass, map, whistle and watch.
- Other items that need to be readily accessible to you or others should be in conspicuous outside pockets. These may include rain gear, first aid kit, sun and insect protection, trail snacks & lunch, bandana, some matches, toilet paper, digging trowel, and perhaps camera, binoculars and paper & pencil.
- Packing several small similar items together in heavy plastic (ziplock) bags organizes items that could get "lost" inside the pack and keeps the contents dry even if the pack gets soaked.
- Items that must be kept dry but are too large for ziplock bags, like a sleeping bag, should be placed inside a heavy plastic bag and the opening closed with a "gooseneck".
- Your water bottle should be easy to retrieve. The harder it is to drink, the more likely you are to get dehydrated.
- Equipment you won't need until you make camp can be buried deep in the pack, but reserve an outside pocket for isolating your fuel and any other "smellables" that might contaminate food, clothing, tent or sleeping bag.
- Assign each item a specific "home" in your pack so that it can be located quickly and always return it to that home.
- Normally, arrange the pack's contents so that its center of gravity (heavy gear) is high and close to your back. Compression straps can help. Where stability is vital, some comfort can be traded for the stability of a lower center of gravity by placing heavy gear in the bottom of the pack.

1. **Upper Main Compartment**. It usually holds the bulky and heavy things (to keep weight over your skeleton). The external frame shown is "front-loading", meaning that it has a zippered door/flap that allows you to place gear when the pack is lying down. The internal frame pack is "top-loading". The top pocket (#6) is swung off and all gear is loaded from the top like putting groceries into a shopping bag. On most new design packs, that compartment has a draw string at the top to close it before it is covered by the top flap/pocket. Some external frames are also top-loading. Top-loading main compartments are often quite a bit larger than front-loading main compartments. Basically, everything that doesn't go somewhere else gets "dumped" into here.
2. **Lower Main Compartment**. It is often called the sleeping bag compartment, after its usual contents in internal frames. Generally, this compartment is front-loading with a heavy zipper. Because my sleeping bag is put in a stuff sack and lashed on the outside (at #8 or #9), I use this compartment on my external frame for clothing. Many external frames (especially ones with top-loading main compartments and older designs) don't have this second main compartment, so more is stored in the upper compartment. Sometimes the two compartments have a removable (drawstring or zipper) separator and it is incomplete so that long things (like tent poles) can "passed-through" both compartments. Instead, sometimes one of the external side pockets is not fastened to the main pack at the top and bottom to allow tent poles to be "passed-behind" or "tunnel" it to rest in a lower pocket.
3. **Left Upper Pocket**. Because of accessibility, this is a good place to put rain gear.
4. **Right Upper Pocket**. Because external pockets allow isolation of potentially contaminating items, this is a good place for the stove fuel bottle and other potential contaminants (toiletry articles) and things that can be washed if contaminated (cat hole/sump trowel).
5. **Front Pocket**. It is sometimes called a "shovel pocket". Because of accessibility and its prominent visible position, this is a good place for important things like the first aid kit, tour permit and medical forms. It may also be a place for a camera and binoculars. Frames without this pocket often have a "top pocket" that can be used for the same purpose.
6. **Other External Pockets**. They may include the top pocket on a top-loading main compartment (#6 of internal illustration), lower external pockets (lower-left #6 of external illustration) and elasticized throw pockets (middle #6 of external illustration). Except that I wouldn't put the fuel bottle or other contaminants in a top pocket for fear of contaminating the contents of main compartments, they can be used to distribute the contents of #3, #5 and #6. The lower left pocket is where I keep my compass, flashlight, ziplocked toilet paper and iodine bottle.
7. **Water Bottle Holder Pockets**. Sometimes they are specifically designed for this function. Other times extra external zippered or elasticized pockets can be used. Some packs have the bottle pockets near the top where #3 and #4 are pictured, with these pockets positioned lower. This provides "over-the-shoulder" access instead of "under-the-shoulder" access. Both work. If none of these are available, bottle bags or canteen holders with belt loops or clips [Army surplus stores] can be used on the hip belt.
8. **Top Lash Points**. These points are often used for sleeping bags (in stuff sack), sleeping pads, tents (in bag) and ground cloths, especially on external frames (as pictured). The same purpose can be achieved by placing things between the top pocket (#6 of internal illustration) and the top-loading upper main compartment (#1 of internal illustration) and tightening the fastening straps. I don't recommend this if you don't have a drawstring on that compartment.
9. **Bottom Lash Points**. They serve the same purpose as those on top.

What and Where Bob Packs His Stuff

Upper Main Compartment (#1)

- Cookware -- utensils, cup, cleaning pad, dish towel and stove inside cook kit, all in stuff sack
- Food and matches in ziplock bags stowed in a stuff sack used only for "smellables"
- Toiletries in bag -- sunscreen, lip balm, insect repellent, biodegradable soap, toothbrush & paste, bathing towel, emergency coins
- Bear bag and rope (lashed on outside if soiled)
- Extra garbage and ziplock bags
- Water bag or collapsible container

Lower Main Compartment (#2)

- Complete change of cloths -- light "liner" socks, heavy wool socks, underwear, pants, shirt, each "rolled" & sealed together in gallon ziplock bag (wear other set)
- Clothing appropriate for the season in gallon ziplock bag(s) -- gloves, ear muffs, other hat (wear brimmed felt hat), wool/flannel shirt, sweater or coat
- Camp footware (if not hung on exterior compression strap)

Left Upper Pocket (#3)

- Rain jacket or poncho
- Pack cover

Right Upper Pocket (#4)

- Stove fuel bottle in ziplock bag
- Matches (spares) and fire starters in waterproof container
- Repair kit -- duct tape, sewing kit, tent pole sleeve, zip ties in ziplock bag
- Light rope or twine
- Trowel for digging sump, cat holes

Front Pocket (#5)

- First aid kit and personal medicines
- Bandana (with first aid kit)
- Camping/tour permits
- Medical forms
- Maps inside ziplock bag (usually in pants pocket)
- Pencil and paper, diary
- Advancement, training materials

Other External Pockets (#6)

- **Lower Left Pocket**
  - Flashlight
  - Regular compass
  - Pocket knife & watch (if not in pants pocket)
  - Toilet paper in ziplock bag
  - Iodine
- **Shoulder Strap Pouch**
  - Camera
  - Binoculars
- Whistle and mini compass hang from shoulder strap

Water Bottle Holders (#7)

- Two 1 qt. Lexan water bottles

Top Lash Points (#8)

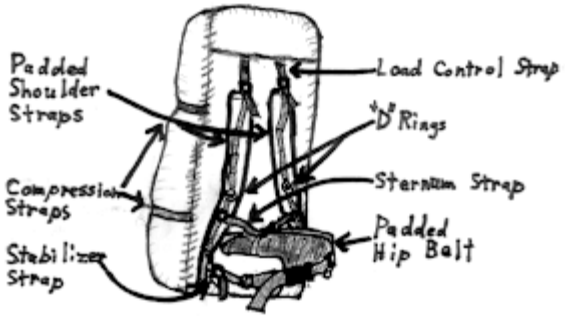
- Tent, stakes, poles and ground cloth rolled together inside tent bag

Bottom Lash Points (#9)

- Sleeping bag in plastic bag inside stuff sack
- Foam sleeping pad wrapped around stuff sack

Straps for Comfort and Control of Your Pack.

One of the biggest advances in pack technology has been the addition of helpful functional straps.



- **Padded Shoulder Straps** go from the pack just behind/below the top of the shoulder, over the shoulder, and back down to the pack somewhere near the hip belt (bottom). When you experience sore shoulders it is often because too much weight is being carried by the shoulders -- the shoulder straps are lifting the weight off the hip belt. Two remedies are (1) loosening the shoulder straps, and (2) changing the position where the straps attach to the pack. If loosening the straps causes the pack to "fall away off the back" and the straps attach to the pack well below your shoulders, the pack (or adjustment) may be too short for your torso length and the shoulder straps could be moved up on the pack (or some allow the hip belt to be moved down). If it "falls away" and the straps attach above your shoulders, you

may need to move them down (move the hip belt up) on the pack. The shoulder straps should attach to the pack just below shoulder level. Another potential remedy for the "falling away" problem is to tighten the load control straps, if the pack has them. If problems persist and you are out of adjustments, a different pack may be necessary.

- **Sternum Strap** goes from one shoulder strap to the other across the chest. Not all packs have this strap, but one I find a near necessity. Sternum strap retrofit kits are available and a lashing strap with a quick release buckle from one shoulder strap to the other is a potential in-the-field substitute. This strap, when pulled tight, relieves the pressure of the shoulder straps on the arms and distributes the pressure across the chest. When you experience numbness in your arms, tightening the sternum strap can often relieve it.
- **Padded Hip Belt** attaches to the bottom of the pack and goes around the waist. The weight of the pack should rest on your hips, not your shoulders. This requires that the hip belt be pulled fairly tight and that the shoulder straps not lift the pack. The shoulder straps should mostly just keep the pack from falling backwards off of the back.
- **Stabilizer Straps** go from the sides of the hip belt to the pack on internal frames (and some external frames). They are needed because the "block" of padding at the bottom of the pack rests on the hips just above the tailbone. It also provides a nice fulcrum for the pack to rock on as you walk, which causes instability. By tightening these straps, the pack is restricted from side-to-side motion.
- **Load Control Straps** extend from shoulder straps just in front of the shoulder to the top of the pack. Not all packs have these. When pulled tight, they pull the pack weight in close to the shoulders. When loosened, they allow the pack to "fall off the back". These are useful features on steep and/or rocky climbs. Tightening them while going up hill brings the weight in closer so you don't need to bend over quite as much to maintain your balance. Going down hill, you may want the weight to be off the back (straps loosened), so that if you stumble, you fall backward against the hill rather than forward down the hill.
- **Compression Straps** generally go horizontally around the main compartment of external frame packs from the edges of the pack near the frame, or the frame itself. They serve two purposes. First, if you have a "front-loading" pack with a zipper flap opening, they relieve stress off the zipper, so it is very important that you snug them. Some internal frame "rucksacks" and "daypacks" also are front-loading. Especially with heavy firm loads, zippers can rupture and spill the guts of your pack. Second, the straps keep the contents from shifting and help organize the weight. Without compression straps, the contents of a large compartment will be loose and always settle to the bottom (yet we usually want weight high and close to the shoulders). The compression straps constrict the compartment's diameter, forcing the contents to stay higher. Think of it like squeezing the middle of a tube of toothpaste to get contents out the top. Large compartment top-loading internal frames are very analogous to the toothpaste tube example. Internal frames may have zigzag compression straps (or elasticized "bungies") on the two sides or across the front. You will usually only find the zigzag straps on climbing or "small contour" packs because they are just where the external pockets usually are. Their purpose is also to squeeze up and secure the contents. Some internal packs already have tall narrow profiles, so squeezing up the contents is not as crucial, but holding the contents steady is still important. They may have vertical compression straps running up and down almost the length of the pack. These straps relieve the pressure off the lower (sleeping bag) compartment zipper, secure the top cover, and compress the contents down to make the pack more stable. They sometimes are left long at the bottom so that they can double as lashing straps for securing things external to the pack.

- **Load Lifting Straps** (not shown in illustration) are appearing on higher end internal (and a few external) frame packs to keep them from sagging and close to the torso. They attached to the bottom of the shoulder strap and to the bottom/side of the pack and are designed to lift and snug the lower part of the pack into the lumbar area of the back. This is not just a shoulder strap length adjustment as on many packs but specifically designed for this function.
- **Loosening Straps** in Unsure Footing allows you to jettison the pack if you falter. Your pack can be shed quickly, if the hip belt and sternum strap buckles are disconnected, by simply lowering/relieving your shoulders.

14 Essentials For Packing

1. Map
2. Compass
3. Flashlight / Headlamp
4. Extra Food
5. Extra Clothes
6. Sunglasses
7. First-Aid Kit
8. Pocket Knife
9. Waterproof Matches
10. Fire starter
11. Water / Filter / Bottles
12. Whistle
13. Insect Repellents or Clothing
14. Sunburn Preventatives

10 Essentials For Packing (another person's list)

1. Backpack and three 33 gallon trash bags (for emergency pack cover, ground sheet, clothing storage, etc.)

2. The clothes I am wearing:
Adequate foot wear and clothing for "ordinary" conditions.
A wool or fleece sweater or shirt.
If too warm I may have to take it off and pack it, but it is not part of the "Extra Clothing"

3. In a plastic zip-lock bag I carry the following small items:
   - Compass
   - Mag lite and two extra AA cells
   - Pocket Knife
   - Matches wrapped in stretch tight cling plastic wrap
   - Extra pair of sunglasses

In a large clear plastic zip-lock bag I keep handy:
- a photocopy of a map and copies of guide book pages for the area I will be in.

In a separate zip lock bag I carry

- first aid supplies,
- Sunscreen and
- sewing kit.

4. Shelter: one of the following
    - tent,
    - bivy bag,
    - 5 x 7 tarp or space blanket.

5. Extra Clothing. Depends on weather expected, but no less than
    - waterproof pants and jacket,
    - polypro longs (top and bottom), and
    - wool cap.

6. Food for trip plus one extra day.

7. Water bottles
    - 1.5 L minimum capacity and
    - Treatment tablets.
    - In winter, stove and pot to melt snow for water.

8. Sit pad or 3/4 length foam pad

9. Personal items:
    - Toilet paper, (emergency fire starter)
    - Tooth brush
    - Reading glasses, contact solution,
    - Medications, etc.

10. Nylon cord, various lengths.
    - For setting up tarp, hanging food, tying gear on pack, etc.

PACKING CHECKLIST

CLOTHES
___ boots, shoes
___ socks, extra socks
___ liner socks, extras
___ gore-tex socks
___ camp shoes
___ lightweight underwear
___ midweight underwear
___ fleece liner gloves
___ GTX overgloves, mitts
___ baseball cap(s)
___ windbloc cap/ear cover
___ nylon windproof vest
___ down or fleece vest
___ down or fleece jacket
___ long-sleeve shirt
___ long fleece pants
___ rain poncho
___ wind/rainproof jacket
___ wind/rainproof pants
___ windbreaker (nylon)
___ shorts for hiking
___ swimsuit
___ towel, bandana

SHELTER & SLEEPING
___ tent, poles, stakes
___ ground cloth, tarp
___ sleeping bag
___ sleeping bag liner
___ sleeping pad
___ sit pad

PACKING
___ backpack
___ pack cover
___ daypack, fanny pack
___ ziploc freezer bags
___ lashing twine/straps
___ lg plastic garbage bags
___ stuff/compression sacks

COOKING & FOOD
___ coffee, tea, cocoa
___ food
___ breakfast
___ lunch/snacks
___ dinners
___ condiments
___ herbs
___ vitamins
___ water filter/purifier
___ water bottles
___ iodine
___ cook pot
___ cook/eating utensils
___ insulated cup (w/lid)
___ stove & fuel
___ matches, lighter
___ bear bag

NAVIGATION
___ compass
___ maps, map case
___ notepad & pencil
___ eye glasses/contacts
___ headlamp, flashlight
___ extra batteries
___ guide book/notes

OTHER ESSENTIALS
___ first-aid kit
___ prescribed medicine
___ knife
___ waterproof matches
___ firestarter, candles
___ sun glasses, goggles
___ sun block, lip balm
___ bug protection
___ space blanket/bag
___ plastic whistle
___ signal mirror
___ extra food

SNOW & ICE
___ ice axe
___ snow shoes
___ snow poles
___ snow shovel
___ hand warmers

MISCELLANEOUS
___ sewing kit
___ parachute cord
___ fishing gear
___ duct tape
___ pack towel, bandana

The PATROL SKETCHBOOK

by ISHKOTEKAY 1992

"SCOUT STAVE" OR HIKING STICK

Sketch after Baden-Powell

... as a cooking tripod

... as a hiking stabilizer

... as a fishing pole

... You will be surprised at how many tasks a good hiking stick can perform. Do not be without one when your patrol sets out!

- Utility hook for a variety of uses, retreiving items, picking fruit, etc.
- Heavy duty rubber band
- Peep holes drilled at right angle to each other for laying out a 90 degree corner.
- Brass tack at five feet
- Twenty to thirty feet of parachute cord or nylon cording as a hand grip and emergency line.
- Grooves for five-mile hikes.
- Brass tack and groove at three foot point. (mid-point of staff for six foot length)
- Fifty feet of fishing line around two band-aids and fish hook.
- Brass tack and groove at two foot mark.
- Brass tacks at 1 inch on center as inch scale and emergency nails.
- Grooves for number of nights camped
- Brass tack at one foot mark.
- Grooves at one inch on center to continue inch scale.
- Rubber furniture leg tip.

SIZE:

- Approximately one inch in diameter.
- five to six feet in length.

SOURCES:

- Tree limb trimmings
- Wooden closet rod material (lumber yard)
- Implement handles (hoe, rake, etc.).