

FUNCTIONAL SPECIFICATION FOR A 2100-MILE HIKE

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1.0 Some Basic Specifications

Start Location	Springer Mountain, Georgia
End Location	Mt. Katahdin, Maine
Start Date	Not later than April 7, 1990
Total Time Allocated	5 - 6 months
Average Daily Walk	12.9 miles (2130 miles in 165 days)
Food Consumption	2 lbs. per day, average
Re-Supply Strategy	Food drops every 10 days; 12 lbs. Grocery store stops every 5 days; 6 lbs
Pack Weight	
Basic Pack	25 lbs.
Peak	43 lbs.
Average (10 day interval)	34 lbs

2.0 Pack Contents -- Non-Perishables ("Basic Pack")

"Basic Pack" refers to items which are expected to last the length of the trip -- primarily gear and clothing. This category specifically *excludes* food and replenishable supplies. The major items are listed below. This list has been revised and tuned countless times. Most items are of obvious necessity (e.g., pack, sleeping bag), but a few are carried out of personal preference (e.g., camera, tent).

Basic Pack

Description	Mfg/Model	Weight (oz.)	Cost (\$US)	Source
Pack	Camp Trails Adjustable II	67	65	EMS
Sleeping Bag	High Adventure (1.5 lb down)	56	130	Hermans
Tent, stakes, sack	Eureka Gossamer	48	100	Campmor
Stove + Fuel Bottle	MSR Whisperlite (32 oz size)	16	45	EMS
Air Mattress	Therm-A-Rest	17	45	EMS
Flashlight	Mini Mag-Lite (w/2 spare batts)	5	15	EMS
Water bottles (empty)	Nalgene	5	< 5	EMS
Literature	(Philo. Guide/AT Data Book, etc.)	12	15	ATC, etc.
Buck Knife	Gerber LST	1.5	20	Campmor
Mess Kit	Hybrid (P/O MSR "Alpine")	12		Campmor
Camera	Ricoh KR5 (35 mm SLR)	18	220	Lechmere
Water Filter	First Need	13	45	REI
Plastic Trowel		3		
Ground Sheet		6		
First Aid Kit		4		
	Subtotal (weight, oz.)	283.5		

Clothing

Description	Mfg/Model	Weight (oz.)	Cost (\$US)	Source
Long underwear (polypro)	LIFA	10	35	REI
2 pr. Wool socks		8	8	EMS
Polypro hat		3	20	
3 pr cotton briefs		6	8	
Sweatpants		11	10	K-Mart
GoreTex top	Campmor	15	100	Campmor
GoreTex bottom	Campmor	11	70	Campmor
Sturdy cotton shorts		9	15	
Sturdy cotton t-shirt		5	15	
Flannel shirt		7	20	
Lightweight sneakers		8		
GoreTex gaiters		4	35	EMS
Subtotal (weight, oz.)		97		
Tot. Weight (Basics + Clothing)		380.5	(~24 lbs.)	

Finally, the following small list of items should be added to this category, totaling around a pound or so:

- 25-foot length of 3/16" line
- sewing kit
- toenail clippers, tweezers
- Toothbrush, comb
- spare clevis pins and rings for pack
- compass/thermometer ("Tag-along")

3.0 Food Supply Strategy

There are two major issues to be decided here. The first has to do with a *ratio*, a balance between local stores and mail drops for replenishment of food and supplies. The second question, which really has to be answered at the same time, is how *often* : in either case, I must leave the trail and use services that can only be found in towns along the way. I begin with these basic assumptions:

- food is consumed at a rate of about two pounds per day
- supplies -- fuel, soap, matches, toiletries, etc. -- will be consumed at a rate of about 0.4 pounds per day (2 pounds in 5 days)
- given a "basic pack" of around 20 pounds, and a maximum pack weight of 40 pounds, that sets a maximum of 20 pounds for food and replenishable supplies.

Mail drops are forwarded either by US Mail or UPS to designated post offices or businesses located near the Trail. Everything contained in a mail drop must be non-perishable. Contents should meet one or more of the following criteria:

- cannot be purchased in small quantities
- too expensive when purchased in small quantities
- might not be available in small-town grocery stores
- needs periodic "replacement" (e.g., trail guides)

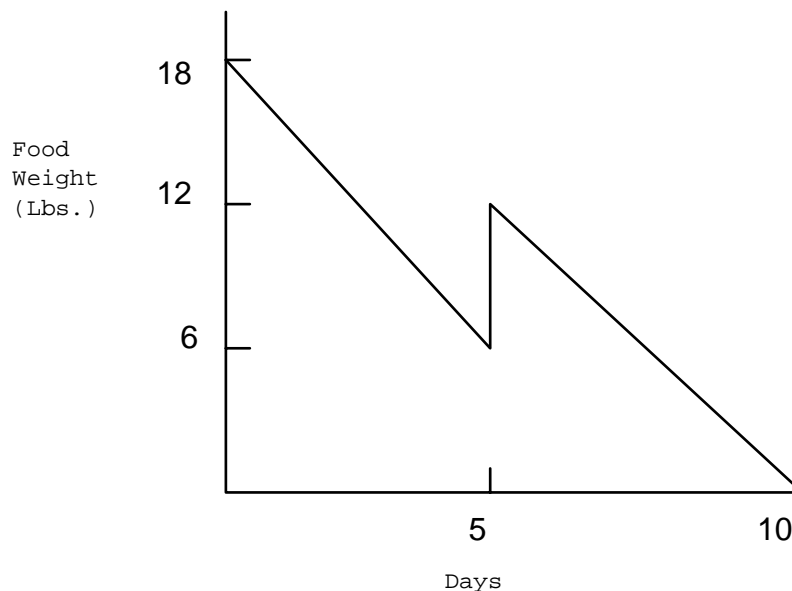
In order to formulate a strategy, it is necessary to know a bit more about the Trail. Specifically, how often does it approach "useful" towns (i.e., those with post offices and grocery stores?) And, when it does run by such towns, how far are they from the trail, and how much time will be needed for a round trip, from Trail to town and back?

From what I've read and seen, the mean interval between towns seems to be about 3 to 4 days; on a few rare occasions, (e.g., Smokies, Shenandoah, northern Maine) perhaps twice that figure. As for distance from the trail, the mean appears to be about 3 to 5 miles. Thus, when a town stop is made (by walking or hitchhiking,) it will mean several hours --typically half a day -- lost for hiking.

I've read at least a few accounts from hikers long ago who completely ignored local stores, and relied entirely on food drops or buried caches. That approach seems to have fallen out of favor. On the other extreme, the Philosophers Guide states that numerous recent hikers have forsaken food drops entirely, and relied solely on local stores along the way, "with no regrets".

I see folly in both extremes. Not many folks would enjoy dining exclusively on mail-drop food supplies. On the other hand, local grocery stores will have limited selection, and will be relatively expensive, compared to typical suburban supermarkets. You won't find dried pineapple up in Gooch Gap.

My strategy therefore involves a compromise. From local stores I'll take *relatively* heavy and perishable foods, as my mood of the moment dictates -- e.g. cold cuts, eggs, even some fresh fruits and vegetables. The idea is to consume these items soon after they're purchased, so that they aren't lugged around any more than necessary. As these items run out, I'll gradually shift back to the more routine diet of food-drop staples.



Each grocery stop will provide roughly five pounds of food and up to a pound of supplies. Each food drop will provide ten pounds of food and two pounds of supplies. If the consumption rate is per the assumptions made above, the plot of packed-food weight versus time will look something like the figure above.

On day zero, I pick up a food drop *and* my 6-pound grocery store/supply allotment, for a total of 18 pounds. By the start of day 5 the food weight has dropped to six pounds, but zips back to twelve as I leave

the grocery store. During the second 5-day interval, the weight drops linearly to zero, and on day 10, the cycle repeats.

In addition to the "ratio", this strategy reflects a compromise in the frequency of town stops and food drops, both of which are disruptive to the goal of making miles on the trail. The Philosophers Guide recommends 100 to 150 miles as a *minimum* distance between food drops, which jibes pretty well with my ten-day interval (ten days at 13 miles per day is 130 miles.)

Finally, it's worth noting here that food and supplies aren't the only reasons for stopping into towns. There are a bunch of other good reasons, all having to do with creature comforts, rest and relaxation, showers, real meals, laundromats, and so on.

4.0 Meal Plan -- Detailed Analysis

This section discusses two important items: the makeup of a typical food drop, and the corresponding makeup of a typical week's meals. Here I get down to specifics -- exactly what is included in each of those 10-pound food shipments, down to the last ounce. I also show a "typical" grocery shopping list, for two consecutive visits.

First, a disclaimer. While the experts recommend 4000-6000 calories per day for a hike of this sort, it's acknowledged by at least one such expert that this is simply not an achievable goal, given a reasonable limit to pack weight. This is another good reason for frequent town stops: to take full advantage of real meals, with real calories. For this reason, I have not bothered with a nutritional analysis of the food and menus I'm proposing. My ultimate choice of diet is based on several subjective criteria, and may not apply to any other hiker on the entire length of the A.T! It will probably change even as I progress along the trail. Think of this chapter as a feasibility analysis.

Below is a list of fairly common foods that I've considered for this trip. This list is based on prior experience from several dozen weekend hikes. Notice how most items are instant, and contain little or no water.

Instant Coffee	Cream of Rice	Dried Pineapple
Instant Milk	Oatmeal	Dried Apricots
Instant Hot Chocolate	Cold Cereal	Raisins
Instant Lemonade Mix	Sugar	Fruit Leather
Instant Soups	Salt	Halvah
Freeze-Dried Entrees	Pepper	Cheese
Canned Meats	Hard Salami	Beef Jerky
Pasta	Dehydrated Potatoes	Pop-Tarts
Quick Rice	Bread / Rolls	Candy bars
Margarine	Peanut Butter	Cookies
GORP	Jelly	Instant Pudding
	Popcorn	

For each item on the list, a number of factors need to be considered:

- How perishable is the item? Can it last long enough to be sent in a food drop? Cheese is out of the question, but instant coffee will last forever. Dried fruits are *probably* OK, if packaged properly.
- How much does it weigh? Cream of rice is incredible: three or four ounces of the stuff will make that many breakfast meals. Conversely, canned meats are rather heavy for their nutritional value.
- Can it be bought at a small, out-of-the-way, rural grocery store? Quite a few items from my list fail this test, and therefore can *only* be supplied via food drops or in larger towns.

- Does the item need to be cooked, or can it be consumed cold? Cooking is tough in rain and ugly weather; ready-to-eat foods are important for this purpose. Besides, cooking consumes fuel and takes extra time.

Without further ado, here is my "typical" food drop, followed by a similar breakdown of two grocery-store visits. Then, an analysis showing how the combined lists will form meals for a ten-day interval.

Food Drop Contents

Item	Amount	Weight (oz.)	Eat it Raw?
Instant Coffee	15 cups	7	
Sugar		4	Y
Salt and Pepper		2	Y
Instant Milk	4 qts.	12	Y
Cream of Rice	3 servings	3	
Instant Oatmeal	3 servings	4	
Hot Chocolate mix	8 cups	6	
Lemonade Mix	6 qts.	16	Y
Ramen Soup	4 servings	12	
Freeze-Dried entree	2 dinners	15	
Canned meat	2 servings	12	Y
Halvah	1 bar	8	Y
Cold Cereal (granola)	2 servings	5	Y
Peanut Butter		4	Y
Jelly		4	Y
Quick Rice	3 servings	10	
Noodles & Sauce	3 servings	10	
Dried Potatoes	3 servings	10	
Dried Fruit & Raisins		16	Y
Total Weight (oz.)		160	

Grocery Store Pickup (2 visits)

Item	Amount	Weight (oz.)	Eat it Raw?
Eggs	6	12	
Cold cuts		16	Y
Onion	2 medium	6	
Green pepper	2 medium	10	Y
Block of cheese		12	Y
Margarine	2 sticks (equiv.)	8	Y
Fresh fruit		24	Y
Pop-tarts	8	16	Y
Candy bars	2 large	16	Y
Bread/rolls		24	Y
This week's choice...		16	?
Total weight (oz.)		160	

The foods listed above feed one hungry hiker for ten days. The two tables above can be divvied up into meals as shown below. Of course, there must be an infinite number of ways of distributing these items into 30 or 40-odd meals. Lunch on the trail tends to be a series of quick, informal servings or "munches" distributed over the course of the day, sometimes while walking, sometimes seated, while taking in a view. Only breakfast and dinner are eaten in the usual sense of a sit-down meal.

Sample Meals and Munches for 10-Day Interval

Hot Drinks	Coffee Hot chocolate	15 cups 8 cups	+sugar, milk +milk
Cold Drinks	Lemonade Instant milk	8 quarts 4 quarts	24 cups 10 cups
Breakfast	Hot cereal Cold cereal Pop-Tarts Eggs+bread Fruit, raisins sugar Bacon?	6 servings 2 servings 2 servings 2 servings 2 servings	+sugar, margarine, milk +sugar, dried fruit, milk 2 per serving 2 eggs per serving Add to cereals (6 oz. tot.) Add to cereals Could be this week's fave
Lunch	Cold cuts + bread Hard boiled eggs PB and Jelly Canned meat Ramen soup halvah cheese Candy bars Pop-Tarts Fruit, raisins Fresh fruit	4 servings 2 servings 6 servings 1 serving 2 servings 4 munches 4 munches 6 munches 2 munches 2 munches 2 servings	1 egg per serving 1.33 oz of each per serving 6 oz per serving 1 bar = 4 munches 3 oz per munch 2 bars = 6 munches 2 Pop-Tarts per munch 5 oz. per munch 6 oz per serving
Dinner	Noodles & Sauce Dried potatoes rice Ramen soup Freeze-dried entree Fresh fruit Cold cuts Canned meat Onion, pepper	3 servings 3 servings 3 servings 2 servings 2 servings 2 servings -- -- --	+meat/onion/pepper Ditto Ditto 6 oz. per serving Add to above (6 oz tot.) Add to above (6 oz tot.) Add to above (16 oz tot.)

Fuel Consumption for above (white gas, MSR Whisperlite)

Meal	How Often	Burn time, minutes	Total burn time (minutes)	Food
Breakfast	8 x	5	40	Hot cereal, eggs
	2 x	10	20	Bacon
Lunch	4 x	5	20	Hard-boiled eggs, soup
Dinner	9 x	10	90	Noodles, potatoes, rice
	2 x	10	20	Freeze-dried entrée
Hot Drinks	2 x	5	10	Soups
	25 x	5	125	

5.0 Replenishable Supplies

This section attempts to account for the remaining four pounds of stuff comprising the mail drops and grocery store pickups: replenishable supplies. I haven't tallied the weights of these items, because I'd really need a gram scale to do so. The presumption is that ALL of these items, combined, will add up to less than four pounds (excluding the Trail Guides, whose weight was included under "Basic Pack".)

Unlike food, some of these items are not really consumed on a regular or predictable basis. For example, a small bottle of aspirin, or a package of moleskin, might well last the whole trip. Then again, they might not. Some other items, like soap, toothpaste and toilet paper, will need regular replacement.

A few of the items in the list are rather rare and specialized, and almost *have* to be provided via mail drop. Trail Guides, flashlight bulbs, Sno-Seal and iodine tablets are the best (and perhaps only) examples. Coleman fuel is the one item that absolutely *cannot* be sent via mail drop. A bold **x** means there's a really compelling reason for the item being assigned to a category. Not too many of these.

Most of what's left could probably be replenished either way. In these cases I've either marked off both columns, or chosen one means or another, based on the same criteria as before: common, generic items are taken locally, and more exotic items (or those that can be bought in bulk) are provided via mail drops. For example, it pays to buy film in bulk before starting the trip, rather than buying it (at inflated prices) in small stores along the way. Conversely, there's no point mailing toothpaste to Tennessee.

Description	Mail Drop	Local
Trail Guides	x	
Coleman Fuel (32 oz)		x
butane lighter and safety matches		x
spare bulbs for flashlight	x	
AA batteries for flashlight	x	x
iodine tablets ("Potable Aqua")	x	
Muskol (insect repellent)	x	
Scrunge and detergent		x
small notebook, pen		x
Sno-Seal (in film can)	x	
extra rolls of 35mm film	x	
paperback book	x	x
extra pair boot laces	x	
medicated talcum powder (Cruex)	x	
Moleskin	x	x
small roll of toilet paper		x
Aspirin, antacid, laxative		x
Toothpaste, soap		x

6.0 Daily Mileage: Assumptions and Estimates

This is perhaps the single most important parameter in a trip of this nature, but also the hardest to predict and control. The most basic fact to contend with is the length of the trail: 2130 miles. This figure does not include distances walked to or from towns along the way.

In my case, there are no social obligations to limit the duration of the trip, but there *is* the matter of the seasons. Early April seems to be a reasonable start date, in order to avoid (or minimize) the extremes of winter in the southern Appalachians. At the far end, Mt. Katahdin becomes inaccessible and dangerous after October 15 -- Baxter State park closes, and excursions to the summit are nearly impossible to pull off legally.

That gives me 6.5 months maximum to complete the trail, if I want to avoid "flip-flopping" (more on that option later.) However, it would be unwise to allocate this entire interval in my plans. A safer plan would allow for at least a month of lost time for layovers, rest stops, etc. This leaves 5.5 months, or about 165 days, to walk 2130 miles. Hence the figure of 12.9 miles per day. Of course, several factors will affect the daily mileage, including weather, terrain, town stops, unexpected injuries or illness, and so on. For what it's worth: most of the successful through-hikers from the video "Five Million Steps" completed their hikes in 150-170 days.

It is generally acknowledged that the Trail is nowhere more difficult than in the White Mountains of New Hampshire. Fortunately, I have a great deal of experience walking in these mountains. I've walked well over 12 miles a day on the AT in the Whites, with a full 40-pound pack, so the required 13-mile average doesn't frighten or bother me.

Bear in mind that 12.9 mi/day is a *six-month average*. On those days when there is no town stop, the actual distance walked must be somewhat larger, in order to allow for layovers and town stops. In the listing below, I've estimated hiking rates (exclusive of town stops) for several different sections of the trail, along with the length of each section. A weighted average based on this data gives a figure of just over 15 miles per day. Now, if I allow 1.5 days out of ten for town stops, I'm operating at 85% of this number, or about 12.9 miles per day.

Georgia and southern Tennessee	12 mi/day	165 mi
Smokies, and north to VA state line	15 mi/day	290 mi
Virginia, West VA, Maryland	18 mi/day	585 mi
Pen-Mar to NH-VT Line	15 mi/day	675 mi
New Hampshire (White Mountains)	12 mi/day	160 mi
Maine	15 mi/day	275 mi

If all else fails, there is the option of "flip-flopping". The closing of Baxter State Park on October 15 needn't be the end of the hike. If time runs short, I could hop a bus to Baxter State Park, climb Katahdin, and then walk south, down to the point at which I left the trail. The main disadvantage of this tactic is that it denies the very singular satisfaction of finishing the trail at its real terminus. This is more of an emotional loss than a practical one. (I've climbed Katahdin twice, and I can't deny its effect on me, even as a weekend hike.) The advantage of the flop-flop is obvious: with this approach, one could continue hiking well into late October or even November, adding another month or two of hiking time to complete the trail.

7.0 Miscellaneous and Extraneous

This section discusses policies, attitudes and other "decisions in advance". Kind of my own miniature "Philosopher's Guide."

7.1 Rain

Grin and bear it. When it gets unbearable, take a half-day off. I've bought the best rain gear that money can buy (Gore-Tex). Feet will get wet, no doubt. It should never be necessary to sleep in the rain; that is the purpose of the tent. The schedule detailed above does not permit "rain stops" above and beyond the 1.5 days/week allotment. But then again, there is a 1 month slack-time for emergencies. Like hurricanes.

7.2 Blue Trails

Tough one, eh? I'm generally not a purist, and if a bunch of buddies are doing a Blue Trail, I'll follow. There are often good reasons for doing so. Not to shave miles, though; the purpose of a blue-trail should be a better view, or better town access, or something of that nature.

7.3 Budget

Real-world readers have probably noticed a deliberate downplaying of financial calculations throughout this report. This could be regarded as a cost-no-object sort of trip. If I were to consider a half-year's lost wages as a trip expense, it would be a sinfully, shamelessly expensive voyage. But I don't see it that way. (Lucky for me!)

To date, my life savings have accounted for approximately nothing. This is to say, I've spent nearly every dime I ever made. There are very few significant investments worth noting. The fact of the matter is, I always consume exactly what I make. Had I worked this half-year, there would *still* be no net gain at the end if it; I'd have found some way to spend it, probably a new toy to keep me occupied for a season or two.

During the half-year on the trail, expenses should actually be somewhat *below* normal. Think about it: no auto insurance, car repairs, gasoline, or rent. No need of fancy new toys. Not many opportunities to spend money in the wilderness. There will, of course, be expenses for groceries (as outlined above) and occasional motel rooms, restaurant meals, etc. I expect that these will come in well below the equivalent expenditures back in the "real world."

7.4 On Meeting People

I expect to. In droves. I don't believe it's possible or even desirable to have a particular partner at one's side for all of a six month trip -- especially a trip like this. On the other hand, I expect that groups of through-hikers will form along the way, and that I will be part of one or several such. From what I hear, these groups exist primarily at shelters and other rest stops. Quite often, through-hikers actually prefer to do their hiking alone. I can understand that -- it's hard enough to coordinate one's pace and rest-stop habits with another human, even over the course of a *weekend* trip.

8.0 Why Am I Hiking the Trail?

1. Because there may never be a better time. I have no family, no mortgage, no outstanding debts. My divorce has "set me free", and my career seems to be at a standstill. I've spent the last year recovering from a major injury, and this seems to be a fine way to "celebrate" my recovery.
2. To assess my life in detail: present, past and future, personal goals, career goals. There will be much time for reflection. To "find myself", as the saying goes.
3. To improve my physical, spiritual and emotional well-being; to experience and to appreciate people, life, nature, and the completion of a long and difficult task. To cure (or at least abate) a life-long streak of cynicism.
4. To test myself. This is hardly a life-and-death struggle, but one that can be managed with planning, hard work, patience, intelligence, and perseverance.

5. To accomplish something difficult, something that only a few people are privileged to try and tough enough to succeed at.
6. To escape from reality, yes. Lately, my reality has been most depressing. As an escape, the A.T. is one of the more healthful alternatives.