

# SIERRA MOUNTAINEERING CLUB

## Comparison of Classical vs. Lightweight Mountaineering Clothing, Equipment and Gear

SMC LIST ITEMS	CLASSICAL MOUNTAINEERING	AVG. WGT.	LIGHTWEIGHT MOUNTAINEERING	AVG. WGT.	NET WGT.
<b>FEET</b>					
Boots	Heavy-duty full leather, insulated, 3-eyelet boots, or double plastic boots, and possibly approach shoes	64 oz	Lightweight synthetic climbing boots that climb rock, ice and snow and well as hike, versatile for all techniques and adequate for conditions found year-round below 20,000 ft. elevation	40 oz	24 oz
Socks	Two wool socks at a time, or two sets of socks and liners	9 oz	One pair of mid-weight wool socks and two thin, short liner socks, mix and match	4 oz	5 oz
Gaiters	Knee length waterproof, durable nylon	10 oz	Shorter softshell	4 oz	6 oz
<b>CLOTHING</b>					
Baselayer / Underwear	All long sleeve, multiple changes	19 oz	Only one pair. Possibly short sleeve or boxers	17 oz	2 oz
Mid Layer Jacket	Heavy weight fleece	22 oz	Breathable, stretchy and warm softshell jacket	14 oz	8 oz
Mid Layer Pants	Heavy weight fleece or wool pants	17 oz	Breathable, stretchy and warm softshell climbing pants	15 oz	
Shell Layer Jacket	3-layer Gore-Tex skiing jacket made of heavy duty nylon, pit zips, multiple pockets, lots of features	24 oz	Lightweight minimalist design waterproof jacket, or waterproof seam sealed softshell / hardshell hybrid jacket that doubles as mid-layer	15 oz	9 oz
Shell Layer Pants	3-layer Gore-Tex skiing or climbing pants with integrated gaiters, full zip, high back, and suspenders or bib front	26 oz	Compact, full-zip 2-layer waterproof "rain pants"	10 oz	16 oz
Insulating Parka	800 fill-power down jacket with a hood	47 oz	Compact, synthetic fill jacket without hood	18 oz	29 oz
<b>HEAD</b>					
Warm Hat	Fleece toque	2.5 oz	Lightweight Merino wool or use a buff	1.5 oz	1 oz
Sun Hat	Cotton baseball type hat	3.5 oz	Polyester and mesh compact hat	2 oz	1.5 oz
Balaclava	Microfleece or neoprene	4 oz	Polypropylene or use a buff	2 oz	2 oz
Glacier Glasses	metal frame glass lens, leather side shields	7 oz	nylon and plastic composite	5 oz	2 oz
Goggles	ski goggles	8 oz	leave at home unless a huge storm is inevitable	0	8 oz
<b>HANDS</b>					
Gloves	2 pair of padded, insulated, waterproof ski gloves with or without removable liners	18 oz	Waterproof glove shells with one or two pair of interchangeable lightweight softshell liner gloves, part 1 and 2 of a 3-layer glove system	11 oz	7 oz
Mittens	Expedition mitts with down liners	11 oz	Waterproof "over-mitten" shells, part 3 of the system. Leave at home unless winter climbing or you often have cold hands	6 oz	5 oz
<b>EQUIPMENT</b>					
Backpack	60-80 liter "expedition-size" full frame backpacking pack with multiple compartments, features, and comfort padding for the approach and a smaller day pack for summit day	112 oz	30-50 liter modular, expandable rucksack design climbing pack made of lightweight fabric with removable frame, waistbelt, and top lid, and multiple lashing and attachment options	64 oz	48 oz
Sleeping Bag	0 or 15 degree bag, sleeping in your baselayers	42 oz	20 - 30 degree bag with all your clothes and headwear on or a sleeping bag liner or bivy sack, with extra stuff underneath you	32 oz	6 oz
Sleeping Pad	Full-length inflatable and/or ensolite closed cell foam pad(s)	32 oz	One torso length inflatable or closed cell foam pad and your empty backpack under your legs	24 oz	8 oz
Shelter	4-season double wall expedition tent	128 oz	Compact single wall 3 or 4 season tent in sheltered location with all guy lines anchored, floorless shelter, or bivy	48 oz	80 oz
Stove	11 oz. backpacking stove and 33 oz of gas or fuel canisters for melting water as well as having a warm breakfast and dinner each day for 2 days	44 oz	13 oz. expedition weight stove and 22 oz of gas to melt snow for hydration and one dinner a day for 2 days. (Or if melting snow for water is not an issue, plan foods for all meals that do not require cooking and leave the stove, pot, and fuel at home.)	35 oz	9 oz
Cookset	Stainless steel 1 and 2-liter nesting pots with a	29 oz	One 1.5 liter aluminum Teflon-coated pot with lid for melting	9 oz	20 oz

# SIERRA MOUNTAINEERING CLUB

	heavy duty lid and a pot gripper		water		
<b>CLIMBING GEAR</b>					
Crampons	12 point steel crampons	35 oz	10 point aluminum crampons	18 oz	17 oz
Ice Axes	One 70 cm steel ice axe and a small ice tool with a hammer head for pounding pickets or climbing steeper ice	48 oz	One 60 or 65 cm aluminum ice axe with a technical pick, slight technical droop, or filed to perform like a technical pick and still allow for self arrest	36 oz	12 oz
Trekking Poles	Full length shock-absorbing mountain poles	20 oz	One pole, compact size (for those not over 6'), no extra features, and an ice axe for the other hand	9 oz	
Harness	Standard climbing harness with padding and four gear loops	16 oz	Lightweight mountaineering harness with no padding and minimalist features	13 oz	3 oz
Rope	60 meter x 10mm diameter dynamic single rope	160 oz	30 meter x 8mm diameter dynamic half rope	40 oz	120 oz
Webbing / Cord	Plenty; 2 inch webbing and full strength nylon, 7 or 8 mm cordage	12 oz	Multi-use dyneema or spectra type runners and 6mm cordage	8.5 oz	3.5 oz
Helmet	Hard plastic mountaineering model	13 oz	Impact foam model used in sport climbing, when appropriate	8.5 oz	4.5 oz
Carabiners	Full size and strength, 10 for example	18 oz	Compact, small sizes with wire gates, 10 for example	13 oz	5 oz
Snow Pickets	2-two foot and 1-three foot aluminum picket	46 oz	3-two foot pickets, leave the 3 foot length at home	39 oz	7 oz
Ice Screws	3 chromoly screws with folding screw-in knobs	16.5 oz	3 standard chromoly or titanium screws	15 oz	1.5 oz
Rock Protection	Full rack of stoppers, tri-cams and BD cams	88 oz	Selected rack of small stoppers, tri-cams, and BD cams to #2	56 oz	32 oz
<b>MISCELLANEOUS AND PERSONAL ITEMS</b>					
Map and Compass	Large full featured compass and multiple maps	6 oz	Smaller, compact compass and one 8 x 11 map, printed in large scale on one side for close navigation and small scale on the reverse for regional navigation	1.5 oz	3.5 oz
Headlamp	High power model with long battery life, 2 AAs	6.5 oz	Compact LED model powered by a watch battery	1.5 oz	5 oz
Snow Shovel	Full size steel blade with extendable handle	27 oz	Compact aluminum blade that uses an ice axe as a handle	13 oz	14 oz
Stuff Sacks	Two large nylon stuffsacks with round drawstrings	6 oz	3 smaller SilNylon stuffsacks with flat webbing pull ties	2 oz	4 oz
Water Bottles	2 or 3 Nalgene screw lid one-liter bottles, w/o water	18 oz	1 one-liter Nalgene and 1 two-liter Platypus collapsible screw lid water container, w/o water	7.5 oz	10.5 oz
Sunscreen, Lip Balm	Full size tubes; separate types	4 oz	Small, compact all-in-one variety such as a small Dermatone tin	1 oz	3 oz
Eating and Utensils	Steel spoon, and plastic bowl and mug	8 oz	One folding titanium spoon and a deep mug or small bowl that functions as both, or no bowl at all if using freeze dried meals.	4 oz	4 oz
Knife, Lighter	Large "Swiss Army" pocketknife with all the gadgetry and a small box of waterproof matches	5 oz	One compact, short folding blade and 2 mini-lighters	2 oz	3 oz
Watch, Altimeter	Separate instruments	3 oz	Altimeter, electronic compass and watch are all-in-one, on wrist	2 oz	1 oz
Camera	Lightweight SLR Camera	20 oz	Compact multi-function digital point and shoot	10 oz	10 oz
Water purification	A hand-operated water filter	15 oz	Water purifying tablets (and mix-in energy drink for the taste)	1 oz	14 oz
First Aid Kit	Individual, to treat a wide range of potential situations	14 oz	Small group kit to stop severe bleeding and painkillers, carried by leader	0	14 oz
Cell Phone	Each person has their own	4 oz	One for the group, carried by leader	0	4 oz
<b>FOOD AND WATER - NOT INCLUDED IN TOTAL - TYPICALLY ACCOUNTS FOR ABOUT 5-10 LBS.</b>					
Breakfast	Oatmeal, bagel and cream cheese, fruit - all of which take time or fuel to prepare	16 oz	Energy or breakfast bar, mix-in energy drink, or plain water - anything that can be eaten "on the go"	8 oz	not included
Lunch and Snacks	Sandwich, cheese, jerky, GORP, etc.	48 oz	Bars, GU, other high carbohydrate crushproof food	32 oz	
Dinner	Pasta and sauce, mashed potatoes, rice, etc.	32 oz	Freeze dry or pre-cooked meals - just boil water	16 oz	
Water	Carrying two liters on the trail	80 oz	Carrying one liter on the trail	40 oz	
				<b>Total Weight Savings:</b>	
<b>TOTALS IN OUNCES</b>		<b>1288</b>		<b>678</b>	<b>38.2</b>
<b>TOTALS IN LBS</b>	<b>CLASSICAL MOUNTAINEERING</b>	<b>80.5</b>	<b>LIGHTWEIGHT MOUNTAINEERING</b>	<b>42.3</b>	<b>lbs</b>