

Into the Arrigetch



Tim Hauf Photography

Arrigetch Peaks Wilderness Area in the Brooks Range, Alaska
August 6th-24th, 2011
Days in backcountry: 14

Susanna McMillan, Erica Wineland-Thomson, Sally Hardin, Karen Ritland,
Katherine Rice



I. Expedition Summary

Expedition name: Into the Arrigetch

Briefly describe the objective of your expedition below:

Our main objective while undertaking this expedition is to hike safely from Circle Lake to Takahula Lake in the Arrigetch Peaks region. Other objectives include:

- To create and foster a safe, trusting and positive group dynamic in order to ensure a successful and memorable expedition
- To experience a nearly untouched wilderness setting
- To enhance our current LNT skills by practicing them in such a setting where any impact would be quite noticeable
- To enhance our orienteering and route-finding skills in a region with little to no established trails
- To experience the challenges and rewards of getting to, being in, and returning from a very remote wilderness area, and to learn from these challenges for future trips
- To enhance our knowledge and understanding of the flora, fauna, and all other ecosystem components of the Arrigetch Peaks region/Gates of the Arctic National Park
- To build on our already-existing backpacking and wilderness survival skills, especially by testing these skills in a new wilderness area
- Most importantly, accomplishing these tasks while practicing safety skills

Location of expedition:

Arrigetch Peaks, Brooks Range, AK

Firm expedition dates:

August 6th to August 24th

days in the backcountry:

15

Describe the wilderness character of your expedition:

The Arrigetch peaks regions is the home of many very sheer granite peaks, most of which have been climbed only once or twice, and some that remain unclimbed. There are valleys west of the main peaks that also have had little exploration and granite walls up to 3,000 feet tall. The Alatna River is the major river to the east of our route. When we hike in we will start below treeline in a taiga forest of spruce, willow and alder trees with muskeg underfoot. As soon as we hike above treeline we will encounter grassy terrain, bare slabs of granite, and talus piles. There will be small glaciers and a few glacial lakes and streams that are small enough to wade across. There are no developed trails in this area.



II. Participant Qualifications

List expedition members, anticipated date of graduation and Wilderness First Responder or Wilderness Emergency Medical Technician certification expiration in the table below.

Expedition Member	Date of Graduation	WFR expiration date*
Erica Wineland-Thomson	December, 2012	NOLS, 01/10/11-01/20/11
Sally Hardin	May, 2012	1/13/2012
Katie Rice	May, 2012	1/13/2012
Susanna Mcmillan	May, 2012	6/15/2011
Karen Ritland	May, 2012	NOLS, 01/10/11-01/20/11

* If WFR training is needed, list the intended training provider and course date. Funding is not released until all expedition members show proof of WFR or WEMT.

Are all proposed expedition members experienced and/or trained to meet your expedition objectives?

Yes No

III. Expedition Logistics, Gear, and Food

Describe how expedition members will travel from home to the trailhead and back again.

We will all fly to Denver from our hometowns. We will then catch the same flight out of Denver to Fairbanks. Once in Fairbanks we will take a plane from Fairbanks to Bettles. In Bettles we will hire a bush pilot that will take us in a float plane to the Arrigetch Peaks where we will land on Circle lake. This is where we will begin our hike. At the end of our expedition, we will hike to Takahula Lake where we will meet the bush pilot and fly back to Bettles. Then we will all fly to Fairbanks and from Fairbanks to Denver, where we will arrive back in Colorado Springs in time for NSO.

Do you have plans to re-ration during the expedition? Yes No

If "yes", describe the re-rationing plan below.

Route and Description Plan:

Day 1:

Total elevation gain: 860 ft

Total miles traveled: 5.5 miles

Estimated hours of travel: 7 hrs



Route: Get dropped off at Circle Lake by bush plane. Begin hiking NW approximately 2.5 miles, keeping steep slopes immediately to our left and the Alatna River to our right. Reach Arrigetch Creek and turn SW following the creek for approximately 3 miles passing two tributaries to the S. Camp at the third tributary.

X1: ~.5 miles SW of point 3480. At confluence of Arrigetch Creek and small side creek to the S. Due E of a large lone-standing spire. Due N of the N-trending ridge, which is W of the small creek.

Day 2:

Total elevation gain: 700 ft

Total miles traveled: 2.75 miles

Estimated hours of travel: 4 hrs

Route: From camp follow the Arrigetch Creek SW for 2.75 miles passing one tributary to the S. Camp at the second tributary.

X2: ~.75 miles NE of point 3805 (Elephant's Tower). At confluence of Arrigetch Creek and small side creek to the S. At the second side creek after X1. Due NNE of NE trending ridge, which has two high peaks on it.

Day 3:

Layover day-explore the side valley S of our campsite.

Day 4:

Total elevation gain: 700 ft

Total miles traveled: 3 miles

Estimated hours of travel: 4.5 hrs

Route: From camp follow the Arrigetch Creek SW for 3 miles.

X3: ~1.5 miles E of point 6685 (Ariel) and ~1.5 miles NE of point 7160 (Xanadu). At the confluence of three streams. At the end of the valley.

Day 5:

Total elevation gain: 1500 ft

Total elevation loss: 4100 ft

Total miles traveled: 5 miles

Estimated hours of travel: 6.5 hrs

Route: From camp, hike NW ascending 1500 ft to the top of Ariel-Caliban pass. Continue down the pass NW descending 2000 ft for 1 mile until you reach the head of a small creek. Follow the creek NW descending 2100 ft for ~2.5 miles until you reach the Awlinyak Creek.



X5: ~1.5 miles W of point 5075. At confluence of Awlinyak Creek and small creek we used to get to Awlinyak Creek. Just N of confluence there is a small split in the creek where the creek divides into two little sections, and then merges again into one.

*We will store our cache here in bear canisters.

Day 6:

Total elevation gain: 3000 ft

Total elevation loss: 300 ft

Total miles traveled: 9.5 miles

Estimated hours of travel: 12.5 hrs

Route: From camp follow the Awlinyak Creek NNE descending 300 ft for ~4.5 miles passing 5 tributaries. At the 6th tributary, turn and begin to head due W. Follow this tributary ascending 2400 ft for ~4.5 miles. At the first tributary due NW, turn NW and follow it ascending 600 ft for ~.5 miles until you reach a small lake.

X6: 1 mile NE of point 6809. Just SE of NE trending cliff and N of small NE trending ridge

Day 7:

Layover day: Explore the surroundings of the glacier

Day 8:

Total elevation gain: 1300 ft

Total elevation loss: 2600 ft

Total miles traveled: 6.25 miles

Estimated hours of travel: 7.5 hrs

Route: From camp follow creek WSW for 1 mile ascending 500 ft until you reach a small lake at the head of the glacier. Follow the contour of the glacier keeping it to your left ascending SSW 800 ft for ~1 mile to the top of the pass. Continue down the pass descending SE 1300 ft for ~1 mile until you reach the head of a small creek. Follow the creek S descending 1300 ft for ~3.25 miles until you reach the first tributary.

X8: 1 mile N of point 5525 and ~2 miles NE of point 5664. And ~1.75 miles SSW of point 6561. At confluence of creek from glacier and SW trending creek. S from cliff corner. N of well-rounded cliff.

Day 9:

Total elevation loss: 1,300 ft

Total miles traveled: 4.75

Estimated hours of travel: 5 hours



Route: From camp, follow the creek E for 2.75 miles, descending 1,300 ft and passing two tributaries on the N side of creek until it meets with the Awlinskyak Creek. Follow the Awlinskyak Creek NNE for 1.5 miles, passing one tributary of the E side of the creek. Camp is at the same location as X5.

X9 description: At confluence of Awlinskyak Creek and small creek we used to get to Awlinskyak Creek. Just N of confluence there is a small split in the creek where the creek divides into two little sections, and then merges again into one.

Day 10:

Total elevation gain: 4,000 ft
Total miles traveled: ~7 miles
Estimated hours of travel: 11 hours

Route: From camp, follow the Awlinskyak Creek SSW for 2.75 miles, ascending 300 feet and passing two tributaries until you reach the third tributary which is E of the Creek. Follow the tributary SE for ~1.25 miles, ascending 700 ft until the first confluence in the river. Follow the Northern-most tributary E for <. 25 miles until the drainage divides a second time. Follow the Southern-most tributary SE for ~3 miles, ascending 1,000 ft until the creek appears to stop flowing and a tall 3,000 ft wall is directly S.

X10 Description: ~. 25 miles N of 3,000ft wall, ~1 SW of peak 7068 (Melting Tower), and ~. 5 mile W of tall pass.

Day 11:

Total elevation gain: 1,000ft
Total elevation loss: 700ft
Total miles traveled: ~3 miles
Estimated hours of travel: 4 hours

Route: From camp hike E ~ 1 mile, ascending 1,000 ft to the top of the pass. Continue down the pass SE for ~.75 miles, descending 600 ft and keeping to the N side of the peak until the peak is directly to the W. From here begin to traverse E for ~1mile using the Continental Divide as a handrail to the N and passing small lakes to the S until you reach the small lake at the base of the very steep and narrow ridge. Continue to traverse around the ridge for .25 miles and then head NE for ~.25 miles until you reach the triangle shaped lake that is .75 mile WSW of Independence pass.

X11 Description: ~.75 miles WSW of Independence pass, ~ 1 mile S of point 6916 (Watchmann Tower), ~1.25 miles W of point 6318 (Pyramid)

Day 12:

Total elevation gain: 900ft
Total elevation loss: 2,000ft



Total miles traveled: 3.75 miles
Estimated hours of travel: ~5 hours

Route: From camp, hike ENE for ~1 mile, ascending 900ft to the top of Independence Pass. Using the Continental Divide as a handrail to the W and hike N for ~ 1 mile, descending 1,200ft until you meet a creek that is running NE. Follow the creek for ~.75 miles NE, descending 300 ft until the confluence in the creek. Continue following the creek E for ~.5 miles , descending 500 ft. until you reach another confluence.

X12 Description: At the confluence in the creek 1 mile N of tall unnamed peak, ~1.5 miles S of Maiden Peak.

Day 13:

Total elevation loss: 840 feet
Total miles traveled: 7 miles
Estimated hours of travel: 7 hours

Route: From camp, follow the creek NE for 4 miles, descending 700 feet until the creek changes its direction to SE. Continue following the creek SE for 3 miles, descending 140 feet until the vegetation ends.

X13: ~.25 miles E of where the vegetation ends, ~1.5 miles S of peak 1261- T

Day 14:

Total elevation gain: 160 ft.
Total elevation loss: 240 ft.
Total miles traveled: ~6 miles
Estimated hours of travel ~6.5 hours

Route: From camp, head SE towards the direction of the foot of the unnamed peak 983 for about 2 miles, ascending 160 feet until. Continue following around the base of the mountain for about .75 miles until you reach the saddle between unnamed peak 983 and unnamed peak 1063. Head S and follow the tributary for ~2 miles, descending 240 ft. to where the tributary joins with Takahula River. From Takahula River head E for 1 mile until you see Takahula Lake.

X 14: ~.25 W of Takahula Lake, on flat ridge between peak 1063 and peak 542, <.25 miles north of very small peak.

Day 15

Hang out at camp and wait for pick-up from plane.



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Describe how you will prevent wildlife from getting into your food.

The park requires us to use bear-proof canisters, which will be given to us (of no charge) in Bettles. We will take these with us on our expedition into the Arrigetch Peaks. All food will be kept in these canisters, including trash and potent-smelling items such as toothpaste.

Detailed Food List:

Meal:	PPPPD:	Total Poundage:
Breakfast	0.35	25
Trail Foods (lunch)	0.45	32
Dinner	0.45	32
Cheese & Fats	0.35	24
Baking	0.1	7.5
Drinks	0.1	8
Fresh Items	*	
Total:	1.8	128.5

Item	USD Price/lb	Quantity (lb)	USD Price/item
Breakfast			
Oatmeal	2.50	4	10.00
Granola	4.99	6	29.94
Pancake mix	3.50	4	14.00
Muffin mix	3.79	3	11.37
Hashbrowns	6.44	4	25.76
Bagels	4.79	4	19.16
Total		25	110.23
Lunch			
Cashews	8.00	4	32.00
Chocolate chips	4.58	1	4.58
GORP mix	6.80	6	40.80
Peanuts	4.99	2	9.98
Pretzels	3.34	1	3.34
Chocolate almonds	8.90	1	8.90
Raisins	3.52	2	7.04
Sunflower seeds	4.24	2	8.48



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Walnuts	7.99	2	15.98
Dried apricots	6.75	3	20.25
Pecans	6.94	2	13.88
Almonds	8.38	2	16.76
Craisins	3.75	1	3.75
Beef jerky	5.89	3	17.67
Total		32	203.41
Dinner			
Lentils	1.86	4	7.44
Pinto bean flakes	6.74	6	40.44
Penne pasta	2.55	4	10.20
Elbow macaroni	2.55	4	10.20
Quinoa	4.96	4	19.84
Brown rice	2.62	3.5	9.17
Dried hummus	5.24	3	15.72
Dried veggies	7.82	0.25	1.96
Tortillas	3.49	2	6.98
Tomato powder	4.78	0.25	1.20
Total		31	123.14
Baking Supplies			
Brown sugar	2.69	1	2.69
Chocolate cake	3.49	1	3.49
Corn meal	3.79	2	7.58
Wheat flour	3.49	1	3.49
White flour	3.49	1	3.49
Spice kit	10.50	0.5	5.25
Soy sauce	3.79	0.5	1.90
Tobasco sauce	4.88	0.5	2.44
Total		7.5	30.33
Cheese & Fats			
Cheddar	7.98	4	31.92
Mozzarella	7.98	4	31.92
Cream cheese	3.89	2	7.78
Butter	3.64	1	3.64
Peanut butter	4.22	3	12.66
Summer sausage	9.40	3	28.20
Egg Powder	7.60	1	7.60
Candy bars	4.88	2	9.76
Granola bars	5.82	3	17.46
Fruit leather	6.10	1	6.10
Total		24	157.04
Drinks			
Hot cocoa	3.92	3	11.76



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Tea	9.60	2	19.20
Powdered milk	3.68	2	7.36
Fruit crystals	2.78	1	2.78
Total		8	41.10

Fresh Items

Carrots	2.39	4	9.56
Onions	1.29	3	3.87
Peppers	2.99	4	11.96
Apples	1.59	6	9.54
Oranges	1.49	6	8.94
cucumber	1.49	2	2.98
Zucchini	1.89	2	3.78
Total		27	50.63

GRAND TOTAL

\$715.88

total pppd \$

\$9.55

Equipment List:

Upper Body Layers

- 1 Base Layer (Long Underwear Top)
- 1 Thin Fleece or Heavy Long Underwear
- 1 Fleece or Insulated Vest
- 1 Fleece
- 1 Insulated Jacket (Puffy)
- 1-2 Synthetic or Cotton T-shirt
- 1 Wind Shell
- 1 Rain Coat (Goretex)

Lower Body Layers

- 1 Pair of Base Layer (Long Underwear Bottoms)
- 1 Pair of Fleece or Insulated pants
- 1 Pair of Rain Pants
- 1 Pair of Wind Pants
- 1 Pair of Nylon Shorts

Miscellaneous Clothing

- 1 Sun hat or baseball cap
- 1 Fleece or Wool hat
- 1 Mosquito Headnet
- 1 pair of Fleece or Wool Gloves



Footwear

- 1 Pair of heavy duty hiking boots
- 4-6 Pairs of Wool hiking socks
- 1 pair of camp shoes (closed-toe sneakers or cros)
- 1 pair of Gaiters (Knee-high)

Sleeping Gear

- Sleeping Bag (Synthetic is best with a rating of 20 degrees or lower)
- Sleeping Pad
- Sleeping Bag Compression Stuff Sack

Packs and Bags

- Internal Frame Pack (Volume of 5,000 to 7,000 cubic inches)
- Small Stuff sacks (optional)
- Lightweight daypack or Zip Duffle
- 1-2 Waterproof bag liners (trash compactor bags)

Miscellaneous Items

- 1-2 Bandanas
- 1 waterproof watch with alarm
- 1 headlamp (with extra batteries)
- 1 pair of Sunglasses
- 1 compass with mirror
- 1 whistle
- 1 Camping Bowl
- 1 Plastic Spoon
- 1 Insulated Mug
- 1 Pocket knife
- 1-2 lighters
- 2-3 1-liter water bottle
- SPF Lip Balm
- Sunscreen
- Bug Spray

Group Gear

- 2 Tents
- 2 MSR stoves
- Fuel Bottles with White Gas
- 2 Sets of Maps (USGS Survey Pass (B-2) and (B-3), Alaska)
- 2 Cooking pots
- 1 Fry pan
- Cooking Utensils
- Reference Books (Wilderness First-aid, Alaska wildlife and plant books, etc)



- Repair Kit
- First-aid Kit
- Bear Canisters
- Trowel
- Water purification system (Steripen)
- Satellite phone
- GPS device

First Aid Kit Contents:

Item: Quantity

General Supplies Quantity

Nitrile Gloves: 3 pairs
12 cc irrigation syringe: 1
Trauma shears: 1
Tweezers: 1
Biohazard bag: 2
Pencil: 1
SOAP notes: 5
Medical History Information (Tripees')
Face Shield: 3
Thermometer: 1
Safety Pins: 2
WFR Book: 1
Ziplock bag: 1

Drugs/Meds

Ibuprofen: 50 pills
Diphenhydramine: 30 pills
Pepto Bismol: 30 pills
Acetaminophen: 30 pills
Tincture of Benzoin: 5 ampules
Iodine ointment: 1 tube
Triple antibiotic ointment: 1 tube
Antiseptic towelettes: 25

Wound Care/Bandaging

Wet Prep Soap Sponges: 4
3'' conforming gauze roll: 2
3 x 3 sterile gauze pads: 5
2 x 3 non-adherent dressings: 3
3 x 4 non-adherent dressing: 2
Transparent Dressing: 2



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- Closure strips: 6
- Elastic bandage: 1
- Triangular bandage: 1
- 2nd Skin pad: 4
- 2 x 3 adhesive patches: 2
- Band-aids: 20
- Butterfly bandages: 10
- Sterile Cotton Tipped Applicator: 2
- 1 " tape roll: 1
- 1 " Athletic tape roll: 2
- Moleskin 2 x 3: 3
- Pressure Wrap: 1

Are all expedition members familiar with Leave No Trace principles?

Yes No

Describe how you will adapt LNT principles to meet the environment of your expedition.
All of the expedition members have been trained in the seven LNT principles. We respect the wilderness that we hike in and wish for it to stay pristine. Therefore we will follow the seven principles as stated on www.lnt.org. We plan to have no noticeable impact on the land and if possible to leave it in better condition than we found it. We will respect the wildlife and not interfere with it. We will pack out what we pack in and will be aware of our food scraps, making sure we don't leave any behind to attract wildlife or to make it apparent that we have camped in that spot. We will also respect any artifacts we may encounter, such as middens. We will take lots of photos! We will practice proper LNT bathroom techniques including being aware of our distance to a water source. We will also remind each other of these important principles while on our expedition so as to minimize our individual and group impact in this remote and beautiful wilderness.

Are there cultural considerations for the expedition area? Yes No
If "yes", describe how you will address those concerns.

Because the Inuit lived in the Brooks Range until the late 1800's there may be remains of their activity including rock cairns and bone middens. We may also come across a historic cabin from 1945 built by a legendary bush pilot, Bud Helmericks. We will be respectful of what we stumble upon and leave everything where we find it.

IV. Risk Management Plan

List the anticipated hazards of your expedition and explain how they will be evaluated, avoided and managed:



1. Bears: We will be very aware that bears live in this area and that we are walking on their territory. By using bear canisters, we will prevent bears from eating our food and we won't bring pungent food with us. We will make noise to warn them of our presence by using bear calls. We will watch for their tracks and scat. We will never intentionally approach a bear; we will give them space. If we startle one, we will have bear spray. We will back away slowly and we will not run if it charges us. We will stay together as a group throughout the trip, meaning they will be less likely to approach us (they are generally intimidated by large groups of people).
2. Moose: If we encounter a moose we will give them space (stay at least 50 ft from them) and will move quietly and quickly away.
3. Crossing talus slopes: We will hike closely together and if one person knocks a rock loose, we will yell "rock!"
6. Weather: We will perhaps encounter snow and we will have adequate layers to keep us warm and dry, in order to best prevent hypothermia and other hazards associated with wet and cold. During the day, it will be quite hot, and the sun is very strong, necessitating sunscreen as well as adequate hydration (4-5 liters a day).
7. We will leave an itinerary with the Brooks Range Aviation (bush pilot) and we will stick to it, ensuring that we can be accounted for in the event of an emergency.
8. We will bring a first aid kit, compass, repair kit, signal mirror and whistles. We will stay together as a group (there is no reason to split up), which will mean that if we get lost, it will be as a group and we will have all of these resources to help us get back on track/keep us safe under those circumstances.

Describe your plans if you need to self - evacuate in the event of an emergency:

Standard Wilderness First Responder protocol will be followed.

1. If the injured person is able to walk: We will inventory all symptoms and treat them as best we can with our WFR knowledge and backcountry medical supplies. We will then call Brooks Range Aviation on our sat phone to inform them of the situation and to request a pick-up. We will walk to the closest place a plane can land (Most likely Circle Lake). We will continue to monitor the patient's status as we wait for our pick-up and keep an eye on any environmental hazards.
2. If the injured person is not able to walk: We will inventory all symptoms and treat them as best we can with our WFR knowledge and backcountry medical supplies. We will assess whether carrying the patient to the nearest landing area is feasible and safe for all involved. We will use our sat phone to call the ranger station in Bettles to inform them of our situation as well as the Brooks Range Aviation to request a pick-up. We will continue to monitor the patient's status as we wait for our pick-up and keep an eye on any environmental hazards.

Emergency Resources:

PRIMARY:

Bettles Ranger Station: 907-692-5494



Coldfoot Ranger Station: 907-678-4227
Fairbanks Administrative Center: 907-457-5752

Bettles Ranger Station (Field Operations)
P.O. Box 30
Bettles, AK 99726

National Park Service (Fairbanks Headquarters)
4175 Geist Road
Fairbanks, AK 99709

Bettles Airport (Runways: 1, Air Taxi Ops: 1,000, Itinerant Ops: 2,000, Local Ops:
1,000, Military Ops: 150)
Vor Lake Waterlane Seaplane Base

Major Air Carrier: Brooks Range Aviation, PO Box 26010 Bettles Field Bettles, AK
99726, (907) 692-5444

HOSPITALS:

Fairbanks Memorial Hospital & Denali Center, 180 miles from Bettles
1650 Cowles St
Fairbanks, Alaska 99701
(907) 452-8181

Maniilaq Health Center, 279 miles from Bettles
436 5th Avenue
Kotzebue, AK 99752
(907) 442-3321 or 1-800-431-3321

Samuel Simmonds Memorial Hospital, 330 miles from Bettles
1296 Agvik Street
Barrow, AK 99723
(907) 852-4611

List emergency communication devices you will be carrying:

We will be carrying a satellite phone (Iridium 9500).
We will also be carrying a GPS Unit (Garmin eTrex handheld GPS)



V. Budget

Attach a detailed expedition budget and write totals in USD below:

Item	Description	Price
Transportation		
Karen's Flight	BOS-FAI + FAI-DEN	\$466.30 + \$247.90 = \$714.20
Sally's Flight	DCA-FAI + FAI-DEN	\$348.60 + \$247.90 = \$596.50
Katie's Flight	MDW-FAI + FAI-DEN	\$338.60 + 247.90 = \$586.50
Erica's Flight	DEN-FAI + FAI-DEN	\$495.80
Susanna's Flight	DTW-FAI + FAI-DEN	\$348.60 + \$247.90 = \$586.50
Flight Increases	We expect flights to increase \$40 per flight by March	\$360.00
Flight-Fairbanks/Bettles	Fairbanks to Bettles and back to Fairbanks	\$270.00 x 5 people = \$1350.00
Flight to Arrigetch Peaks (Drop off)	Bush plane (Beaver) to fly into Circle Lake	\$1207.00
Flight out of Arrigetch Peaks (Pick up)	Bush plane (Beaver) to fly out of Takahula Lake	\$1065.00
Transportation Total		\$6961.50
Food		
Expedition Food		\$715.88
Maps/Books		
	USGS maps; paid for out of pocket.	\$0.00
Communication Rental		
Sat Phone	Iridium 9500 for 3 weeks; this will be paid for out of expedition members' pocket	\$84.00
GPS Unit	Garmin eTrex for 3 weeks; also paid for out of pocket	\$37.00
Communication Rental Total		\$0.00
Permit/Fees		
	Free!	\$0.00



GRAND TOTAL	\$ 1535.68	\$7712.70
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Total Funding Requested (not to exceed \$1500 per applicant): \$7712.70, or \$1535.68 per applicant. We understand that this is over the budget, and we are willing to pay for some of the listed expenses individually (for example, maps, fuel, rental gear, etc.). The reason for such high cost is the bush plane flights in and out of the region; however, this is the only method of transportation and therefore is unavoidable. We fully understand that the Ritt Fund is incredibly generous in giving out \$1500 per person, and are more than willing to pay for some expenses out of pocket.

Describe what measures you have taken to minimize expenses.

- Used Brooks Range Aviation so we can get discount when using Wright's Air service to fly from Fairbanks to Bettles. (\$270 instead of \$330 per person round trip)
- Fly into Circle Lake and out of Takahula Lake, which is less expensive than flying out of Circle Lake. (~~\$~~200 less)
- Bush plane limits passengers to a certain weight; we will not go over that weight. Our packs will be packed well and we are all women so we weigh less!
- We have compared companies for renting satellite phones to find the cheapest fare
- We will drive to CO if absolutely necessary in order to cut down on flight costs.

Please see the following pages for individual applications in the following order:

Susanna McMillan

Erica Wineland-Thomson (recommendation is being faxed to the Ritt Committee)

Sally Hardin

Karen Ritland

Katherine Rice



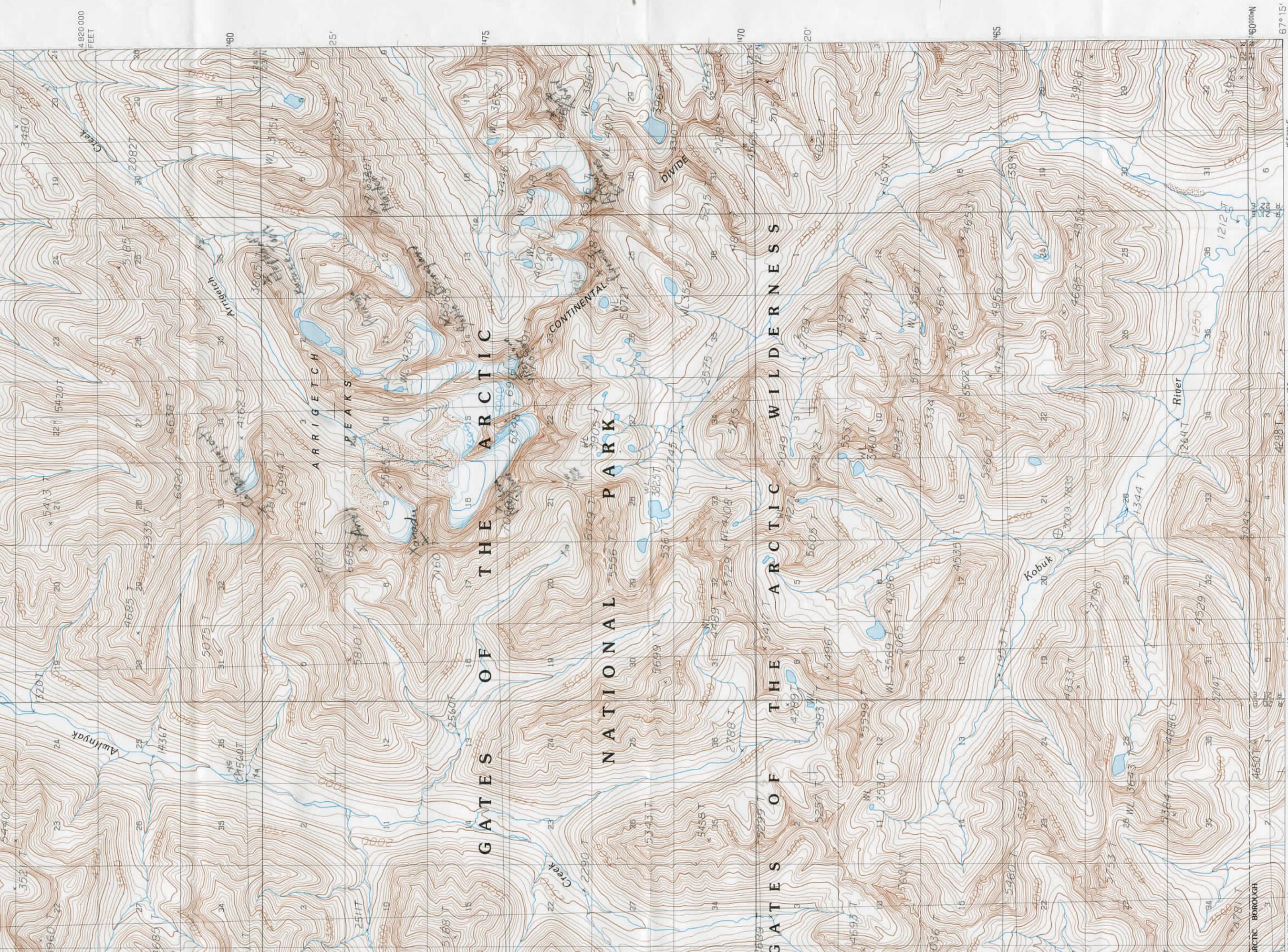
GATES OF THE ARCTIC WILDERNESS

NATIONAL PARK

GATES OF THE ARCTIC

PEAKS

ARIGETCH



4920 000 FEET

180 25' 475 470 20' 465

10' 450 445 20' 440

455000E 154°00' 67°15'

• INTERIOR GEOLOGICAL SURVEY, RESTON, VIRGINIA 2010

SCALE 1:63 360

0 1 2 3 4 5 6 KILOMETERS

0 1 2 3 MILES

0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 15000 FEET

CONTOUR INTERVAL 100 FEET
SUPPLEMENTARY CONTOUR INTERVAL 50 FEET

NORTH

ARCTIC BOROUGH

4000 FEET 400

KEY

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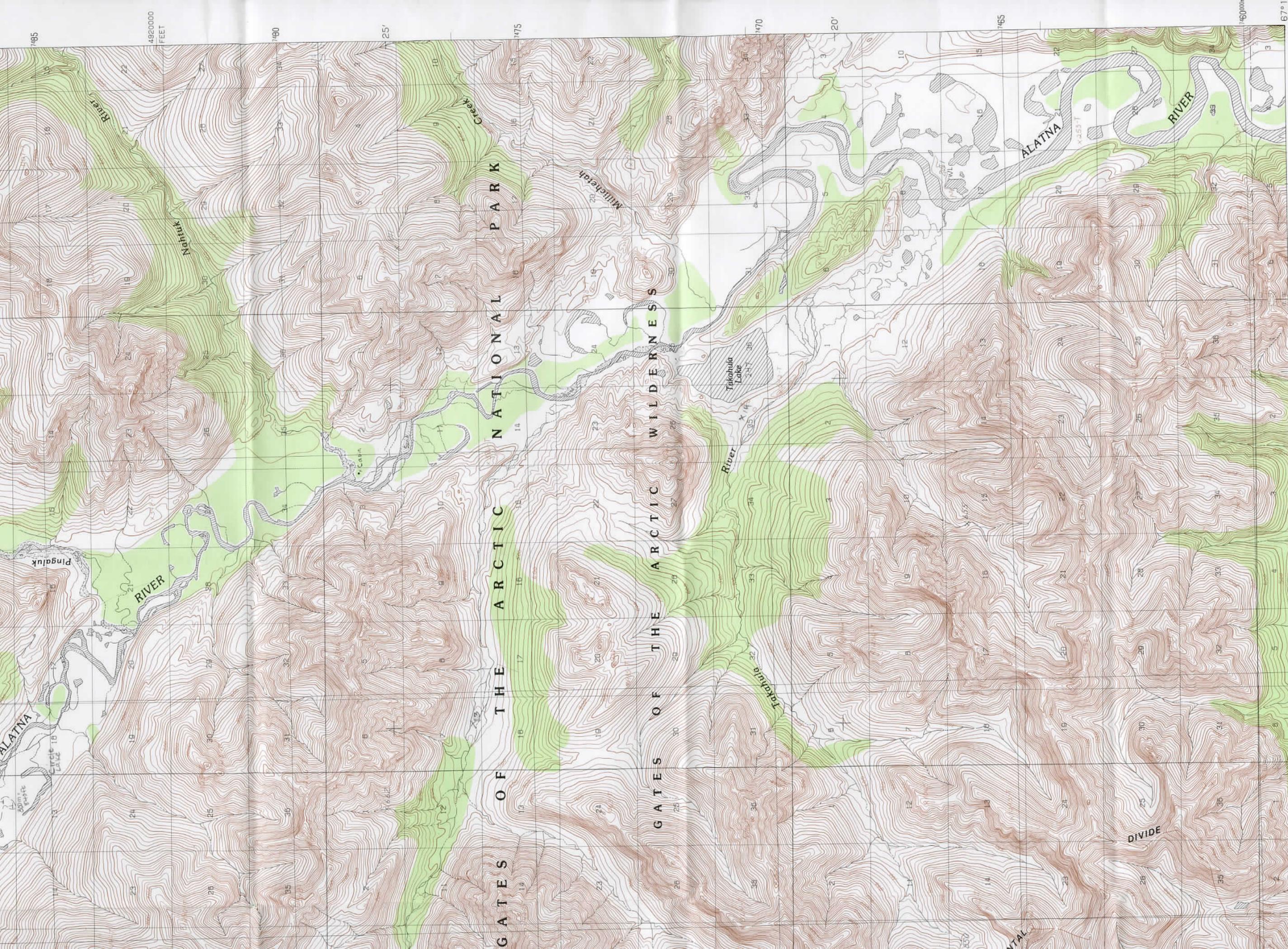
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25'

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