

BETTLES TO ALLAKAKET TO TANANA 1983

March 5, 1983

Jim Perham dropped me off at 1 p.m. in Bettles. We flew from Anchorage in his 172. Jim is a co-worker of mine for many years. He is an excellent pilot and he truly loves airplanes. The guy is extremely strong; I have shook hands with him several times over the years and my elbows tingle every time from his strength.

It was -9°F when we arrived in Bettles, warm and sunny. I stopped at Kathy and Wendy Alleman's and visited with Kathy for several hours before skiing down the Koyukuk River to Allakaket. Kathy was bright and cheerful, but I could sense that she was carrying a terrible burden of some kind. Steve brought Kathy and Wendy to Bettles from Timber Creek, where they've lived alone for many months while Steve traps on the Allen River, about 70 miles up the Jon River. Something was wrong, but Kathy did not divulge her problem.

NOTE! I found out several years later that Kathy divorced Steve and now lives and teaches in Fairbanks. I also learned through the Fickuses that Wendy had a very bad accident. Somehow her clothing caught on fire and she was severely burned.

I missed the short cut to the old native village of Bettles. There were about eight houses there, but I didn't stop. The trail was littered with beer cans and whiskey bottles.

I camped; it gets dark at 7. I spent a bad night; it must have been -30°F. My stove isn't working properly; I can't get it to go on high step. I became cold during the night. As usual, the first twenty-four hours are the worst.

March 6, Sunday

(Bettles official temperature; -30°F from newspaper.)

The snowmachine trail I'm following is about twenty inches deep and goes straight across country. The trail crosses miles of swamp then cuts across the toe of the Brooks Range foothills.

I passed many sets for marten, lynx, and wolf. All traps were sprung. I believe the natives leave the sets (traps) sprung until next trapping season. Every set seems to have a dead camp robber beside it.

It was another cold night, but I had two hot water bottles to keep me warm. The stove works on high step by draping aluminum foil over the fuel tank. Hopefully, I don't set the tent on fire.

I dreamt about Heequaw last night. I was going down a never-ending slope on cross-country skis and the powerful Heequaw was right behind me plowing through snow up to his shoulders. I think of Heequaw often; he was a great dog. Barney shot a moose on Ship Creek, he was twelve. A week later Heequaw and I made a one-day 22 mile trip from Arctic Valley to Indian. We inspected the gut pile, which had been buried by a bear. I had carefully laid down my camera, daypack, and flare gun, when from behind me I heard a branch snap. I didn't look behind me, just climbed the big spruce we'd trimmed for hanging moose quarters. I was halfway up the tree when I looked down. The grizzly was also climbing the tree. Grizzly bears aren't supposed to climb trees, but this bear hadn't read the rulebook. Fortunately for me, the branches higher up were too close together for the bear to crawl through, but he managed to stay in the tree for a long time wedged between branches, clicking at me with his teeth. Heequaw departed the scene. The bear finally climbed down the tree and immediately ripped apart my daypack. I distinctly remember him eating my peanut butter sandwiches wrapped in saran wrap. Then he ripped the leather case off of my camera. I was held hostage in the tree for about four hours. Looking down I could see little pieces of cloth that had been my nylon daypack. Just before dark the bear ambled off into the timber. I climbed down and ran in the opposite direction. Heequaw was

patiently waiting for me about 200 yards away. It was too dark to travel very far so we built a big fire. We had no food or camping equipment so Heequaw and I huddled against the fire until early morning. Our one-day hike took two days. I miss that dog.

March 7, Monday

(Official Weather Bureau temperature; -30°F.)

I'm in the Brooks Range foothills. I skied down steep hills and climbed back out, which takes time when you're pulling a sled. Off the trail, the timber and brush are so thick a rabbit can't get through.

I camped a few miles from Allakaket. I didn't want to go to the village in the dark; there are supposed to be bad Indians in this village. However, I saw no beer cans or bottles along the trail. I haven't seen any snow machines or people since I left Bettles.

March 8, Tuesday.

Allakaket was originally a meeting place for the Kobuk Eskimos and the Koyukuk Athabascan Indians to get together and trade their goods. Just across the Koyukuk River from Allakaket, is the small Eskimo village of Alatna. These Eskimos migrated from the Kobuk River not too long ago. Hudson Stuck, a famous explorer, sled dog driver, and Episcopal Archdeacon established a mission in Allakaket in 1906. Between the years 1904 and 1920 Stuck traveled over 50,000 miles by boat and dog sled. He loved the land and was addicted to tobacco, his dogs and Shakespeare. He spent most of his life in America but remained British. He never relinquished his citizenship.

A thermometer on the side of a log house registered -25°F.

The first man I met was Linus Beatus. He was wearing a typical beautiful marten fur hat that is standard for Indians of this area. I asked him if there is a trail over the Ray Mountains to Tanana. "There is a snow machine trail to the Big Lake (Lake Todatouteu) but no farther than that," he replied "The trail to the lake is 45 miles distant from Allakaket and is good." I couldn't ask for more than that. Linus offered to take me on his snow machine; he was leaving in an hour to check his traps. I declined but gave him \$20 to take in two gallons of gas and some food for me.

Many Indians gathered around my sled and watched me unload. They were the elders of the village and very interested in my trip. They'd never seen anybody pull a sled and were amazed that I intended to go to Tanana over the Ray Mountains. They were kind, gentle, people, nothing like I expected. One old lady went into her dwelling and brought out hot black coffee and fresh doughnuts for all of us. One of the elderly men was very concerned about my welfare. He thought the mountain range I had to cross was doable by a White man but he cautioned me about the Little People. "Little People" he said "cannot be seen and they have the power to turn themselves into iron. Your sled will be so heavy that you can no longer pull it through the deep snow." His words were unsettling because I am superstitious. The village has had a bad reputation with white men an unjust accusation.

Linus told me I would never find the snow machine trail. There was no trail across the mountain like my map showed. Linus said, "the trail follows the Koyukuk River a ways, then is lost in the hundreds of trails radiating from the village." I paid Linus \$10 to drop me off when there was just one trail. He took me to the flats just shortly after the trail left the river. I followed Linus' trail. The first three miles passed through heavy brush and deep snow. I wouldn't have made it through without the snow machine trail.

Later, I ran into Linus returning from his trap line. I was in my tent having a hot-buttered rum and offered one to Linus, but he said he was an alcoholic and hadn't touched any for seven years. I gave him some tea instead. He told me I could stay in his 10 x 10 cabin at the lake. I jumped at the chance. I wonder where Linus Beatus acquired the name. I studied two years of Latin and I remember beatus is the Latin word for happy. My tent is getting a lot of ice in it. My sleeping bag is damp.

NOTE: During the winter of 1905-06, Hudson Stuck, the explorer, made the journey from Allakaket to Tanana with dog teams. Stuck describes the trail in his book, Ten Thousand Miles With A Dog Sled. His description is as follows:

"The next morning we entered the uninhabited wilderness with three feet of new snow on the trail and no passage over it since it had fallen. Our first trouble was finding the trail at all. The previous fall the Alaska Road Commission had appropriated a sum of money to stake this trail from Tanana to the Koyukuk River, for it passes over wind-swept, treeless wastes, where many men had lost their way. Starting out from Tanana, the men employed had done their work well until within ten miles of the Koyukuk River."

Stuck went on to explain that the men ran out of money so they mushed back to Tanana without finishing the trail. He describes the trail conditions encountered.

"The first trail breaker goes ahead with a long stick, which he thrusts continually down through the snow. The slightly harder surface reveals itself by offering more resistance to the penetration of the stick, and that is the only way the trail can be found. Even with three feet of new snow upon it, it is well worth while finding, or otherwise there is no bottom at all and way must be made through all the snow of the winter. But all Alaskan trails are serpentine, and it is difficult to put the new trail right on top of the old one. Back and forth the second trail breaker goes between his leader and the sled, and at intervals the first man comes back and forth also. In five hours we made five miles and were worn out.

If five miles in five hours were poor going, what is four miles in seven and half-hours? That is all we made the next day despite the snow-shoeing of the previous evening."

Stuck and his companion labored day after day to reach the top of the mountains and he goes on to relate their experiences. *"The temperature was around 40° below all day, and our progress was so slow that it was not easy to keep warm, and the dogs whined at the innumerable stops."* Several days later Stuck described even colder temperatures.

"That night the thermometer touched 70° below zero, within 2° of the greatest cold I have recorded in seven years' of travel; a greater cold, I believe, than any arctic expedition has ever recorded,-----.

Save for an hour or two getting wood, we all lay close next day, for the temperature at noon was no higher than 64° below. It is impossible to break trail at such temperature, or to travel as slowly as we were travelling."

The party made it over the mountains and descended down into the treeless Melozitna Flats.

I am a few miles south of the Arctic Circle; however the coldest places in the north are more than 1200 miles south of the North Pole, far within the forest belt: record lows are -80° at Prospect Creek, Alaska, just north of the Arctic Circle, and -90°F near Verkhoyansk, Siberia.

March 9, Wednesday

Cloudy and snowing. I can't really see where I'm going, but it doesn't matter since I can follow Linus's trail. It's unusual to see it snow in this country this time of year. Six inches of new snow could be a disaster for me -- it becomes too deep to pull the sled through.

I pushed hard all day so I could reach Big Lake and Linus' cabin. It was uphill most of the way. When I reached the cabin I was dead tired, and it was snowing hard and blowing. I built a fire in the stove and dried out my equipment. I checked my maps very carefully because now

there's no more trail. The next 80 miles will be bad, all high country with wind, trees, and brush. There's a homestead on Tozitna River, and from there a trail to Tanana. I've come 95 miles so far, not counting the miles I had to backtrack to retrieve my ski poles or the time I was followed the wrong trail up a small river to check some Indian's beaver set. The Indians said it was 50 miles from Bettles to Allakaket.

Thursday March 10, 1983

(Officially -10°F at Bettles, it's colder here.)

A cabin makes a big difference that enabled me to dry everything that had become damp. The tent was wet and so was my gear. I would have liked to stay longer, but I knew the rest of the way was going to be tough. It's a 500-foot climb over the pass to reach the Yukon drainage.

It was difficult going all day -- lots of trees, brush, and soft snow. The wind blew hard through open areas. I am now using 220 cm. Bonna skis instead of my 205 cm. because I need the additional floatation for the soft snow.

The old Tanana/Allakaket Trail is gone; I can find no evidence of it and have to rely entirely on my map. The only remnant of the Tanana/Allakaket trail is the dots shown on my map. I almost made it to the pass but camped behind a pingo 50 feet high for shelter from the wind.

I had a weird accident today. When I stopped to make camp, I reached for my mountain coat where I keep it tied on top of the sled. It was gone. I couldn't believe it. Without the coat I can't survive in the wind.

I quickly set up my tent then skied downhill, back on my trail. The situation was desperate. I had to find the coat before it blew away or was buried by blowing snow. It was getting dark when I left camp. The wind had already covered most of my trail. That was when I realized that I had just made another horrible mistake -- if I didn't find the coat, I would never be able to get back to camp in these high winds. To return to camp I'd have to go directly into the wind, and it was too much to buck without a wind-resistant coat. As it was, the wind blew through my Patagonia jacket. I was already very cold.

If I didn't find the coat I would have to abandon my camp and ski back down hill until I reached the hut that I left this morning. All I could think about was my bad accident, three years ago tomorrow. I didn't want to repeat that experience.

I skied downhill, the cold was intense. It was like traveling through Never-Never Land among the blowing snow and birch trees. I kept finding traces of my trail, and then stumbled on a small piece of blue cloth buried in the snow, flapping in the wind. It was my coat, almost lost forever under a snowdrift. I was thoroughly chilled and quickly put on the coat.

Wearing my coat, I could retrace my route uphill, into the wind, to my camp, but I was still faced with several glaring problems. Drifting snow had covered my trail, and it was dark. I had to somehow find the pingo, a 50-ft high wart that stuck out on the hillside with 20-foot spruce trees growing out of the top of it.

I criss crossed back and forth on the hillside searching for the pingo. Once again I was lucky, lucky that I'd made my camp next to such an obvious landmark. I bumped into the pingo in the dark and found my camp.

This is supposed to be fun!!

The wind blowing harder it was a long night. The stove works now that I cover fuel tank with a piece of tin. I made nine miles today, not counting ten down the trail and back for my coat.

March 11, Friday

(Officially -13°F at Bettles, maybe -25°F up here.)

I spent a very bad night. The wind blew and blew. I'd set up the tent poorly, and during the night the wind broke one frame and ripped a two-foot hole in the side. Just one end of the tent is usable now, and it's too cold to make repairs. I propped up the tent with sticks so I could make breakfast. No big hurry to get out of here because of the high winds. At least I slept warm last night, because I'd put spruce boughs under the tent. My one-man, Gore-Tex bivey sack around my sleeping bag helps, especially last night with all the wind blowing through the tent.

I left camp at 9:30, with the wind blowing hard. I had to climb a 500-foot high hill. There are many trees. The snow is terrible; it's like ball bearings, granular with grains the size of wheat. All this wind should have packed the snow, and I should be skiing on top of it, but I'm not. I have to break trail through eight inches of snow. I tied a piece of rope around my skis to get some traction.



There's lots of game in this country. Shortly after leaving camp I saw a lynx about 50 yards away, and later, eight moose in a corral. The birch trees in the enclosure were stripped of bark, the moose are starving. There are many ptarmigan.

The wind was blowing at least 60 mph on top. The wind grabbed my sled and swung it in a 90° arc and slammed it into a tree. It cracked the sled in the middle but not bad.

I crossed the divide into the Yukon drainage that is also windy. The entire area has been burned over by a forest fire, it is a dead forest of bare standing spruce trees. None of the standing spruce are much over five inches in diameter, and none have branches. It's a spooky area. The bare trees rub against each other in the wind, which creates a mournful moaning sound.

I made seven miles, which is discouraging considering how hard I worked. I camped on the headwaters of the Melozitna River. It's still very cold and windy. I managed to set up the tent using sticks. I'll be living like an animal until I get the tent fixed.

I just remembered -- last year I was skiing in Norway. Two years ago I was trying to get down the Yukon River, what a mess. Three years ago today I froze my butt off and barely survived. Four years ago I was skiing up the Coleville River.

March 12, Saturday

I survived the night. The tent was frozen to my sleeping bag. I pulled it loose and propped it up so I could make breakfast.

I made 11 miles today through more wind-blown snow. I'm following the Ray Mountains Divide, crossing all drainages near the headwaters. I ran out of trees when I got to the Melozitna Flats. The place looks like the Arabian Desert, snow-blowing hundreds of feet in the air. I am discovering that there are degrees of desolation. I desperately need a compass.

I see an occasional solitary spruce. I don't know how they survive here. Some days I don't know how I do. There's no evidence of anybody ever being out here. No airplanes fly over. The wind blows so hard that I couldn't see one, anyway.

Halfway across the flats I ran out of snow and faced miles of frozen hummocks. I unloaded the Pulk and put the heavy gear in my pack, then pulled the sled across four miles of bare hummocks.

I managed to splice a willow into the metal poles so I now have a functional tent, which I set up in a sheltered area on the Slokhenjikh River. I was so discouraged that I poured a double

shot of rum into my toddy. Macaroni, cream of wheat and butter floated around in the cup; I only have one pot.

NOTE: Stuck's description of Melozitna Flats is thus:

"A high wind was blowing, with the temperature at 12° below, and the Mail-man's trail was already drifted over and quite indistinguishable in the dark, and we began to appreciate the recent staking of this trail by the Road Commission. But for these stakes, set double, a hundred yards apart, so that they formed a lane, it would have been difficult if not impossible for us to travel on a day like this, for here was a stretch of sixteen or seventeen miles with never a tree and hardly the smallest bush. The wind blew stronger and stronger directly in our faces as we rose out of the Melozitna basin on the hill that is its watershed, and when the summit was reached and we turned and looked back there was nothing visible but a white, wind-swept waste."

When Stuck crossed these mountains there was a scheduled mail run by dog team between the villages of Tanana and Allakaket. Stuck had an advantage over me because he had a marked trail, and in some places the trail had been broke by the mail team.

March 13, Sunday

(Official Bettles temperature, -18°F, colder here.)

I must get down into lower country and out of this wind. I've memorized the maps so I don't have to pull them out so often. My eyeglasses were smashed beyond repair this morning. They were lying on the floor of the tent, and I stepped on them. I must have picked up some 'Little People' in Allakaket; they're trying to do me in. Many things have gone wrong. Maybe I can lose the Little People when I get to the low country. This place is spooky. I always have the feeling that I'm being followed.

Today I climbed two to three hundred feet, which put me into the Daglsikhna drainage. The pass was bare broken rock, so I unloaded the sled.

Around noon I started going snow blind because I was without eyeglasses. I stopped and made Eskimo snow glasses from a Darigold butter carton, adhesive tape, vitamin pills, and elastic from the tent polls. The glasses work.

The wind died at noon and it became very warm.

I lost nothing all day today, except maybe the Little People. I made 11 or 12 miles. The country is open and wind blown. I set up a nice camp on a big snowdrift and put spruce boughs under the tent. The sun is warm.

Today has been as positive, easy, enjoyable, and encouraging as yesterday was negative hard, scary, and discouraging.

I'm confident that I'm following the old Tanana/Allakaket trail by just picking it off of my map. The old trail hasn't been used for years; there's nothing left of it.

I am very much alone but never lonesome!! I grew up being comfortable with silence.

March 14, Monday

(-24°F at Bettles; seems much warmer here.)

The snow is hard and drifted here, and I should be making many miles, but I'm not. I spend much time trying to find my way across drainages because the timber is thick and the snows deep.

My Eskimo snow glasses work great. I wear them all day and have no trace of snow blindness. I miss my eyeglasses, though; I'm unable to spot some important land features.

So far I haven't seen any sign of man or of the Tanana/Allakaket Trail. I keep looking. Tomorrow I'll be at the homesteaders' cabin. According to the map I'm only four miles away. The timber gets thick from here on -- no more open wind-blown snow.

I'm glad to be out of the high country. The dead forests, squeaking trees, and high winds made it spooky. It's a bad place to be, especially without good shelter.

March 15, Tuesday

(Official Bettles temperature; -12°F.)

I've been out 11 days now. I'll be glad to get across the mountains. I'm tired this morning, and stiff on the inside. I need to pull up and rest for a day; I must be getting old.

Today was disgusting to say the least. I need my glasses. I spotted a sled dog trail (very old) and followed it to the river but could see it was a trapline trail. I climbed back up the hill and continued on the course of the old Tanana-Allakaket Trail. The snow became very soft and the trees very thick so I dropped back to the river. It took an hour to make 3/4 of a mile. I followed the Daglslakhna River, which winds around like a snake. Much game lives along the riverbank. I saw moose, and tracks of otter, marten, and wolverine everywhere. It's very slow going, but I hoped to find a trap line trail.

I bypassed the cabin at Bonddana Creek (according to the map,) but found out later that there wasn't one.

I almost fell through the river. In some places the river runs under the snow where there's no ice. . . I almost made it to the Tozitna River where the homestead is located.

March 16, Wednesday

I continued along the river and found a very old sled dog trail just below last night's camp. The trail went up the riverbank so I took it. I followed it across swamps, over lakes, up hills and down hills. It was a trap line trail with numerous traps along it which would lead me someplace. It was very hard to follow since it was very old and long blown in. I could pick up a dog print or linear shadows without my eyeglasses. The trail went into the backcountry up the Tozitna drainage.

Eventually I came to a beautiful cluster of log buildings, about eight in all. There was no one around. The log cabin was 20' x 20'. There were two caches, one storage building, one repair shop, one guesthouse which served as a sauna, and several covered fish drying racks. The entire cluster sat on the bank of the Tozitna River. There were many dog sleds and doghouses, and also boats along the riverbank. All the log buildings were expertly built. I saw a field where the inhabitants raised grain. Dog team must have brought everything in. Building logs were scattered everywhere along the riverbank.

Trails went out in all directions, and I had to find the right one. I tried down river first, but that trail appeared to be for trapping, so I went back to the homestead. I couldn't pass up the sauna the second time and moved in. I couldn't get the place hot enough for a sauna, but I washed up anyway, and patched the two-foot hole in the tent. I dried out the tent, my ski boots, and the rest of my equipment. No more stiff, frozen boots in the morning.

I figured I had gone thirty miles in circles the last two days just to make four miles.

There are many owls in this Tozitna Valley; I hear them all night. This is a very picturesque valley, rich in fur animals, moose, and fish. It's locked away from the rest of the world.

March 17, Thursday

Yarrow's Birthday.

I left camp early and went cross-country up river on a dog sled trail. It turned out to be nothing but a trap line trail. Next I crossed the river from the homestead and followed another trail -- another trapline trail, but it went out into Tozitna Valley. The next time I went up the middle of the Tozitna River where there was no trail of any kind. I was hoping to find a trail crossing the river and heading straight out. I followed the river for miles -- nothing. Went back to the homestead.

Since I'd eliminated up river, I went down river. I found the right trail in about an hour. The snow was wind blown because there were no trees.

At 5:30 I camped, dog-tired from wandering. I'll have to cross over more mountains tomorrow.

March 18, Friday

After today, I can say that I crossed the Ray Mountains -- one of my better accomplishments. I have to climb 1500 feet and should be on top by noon. It's warm now. At night it gets down to 0°F, and the daytime temperature rises to 20°F. Hope I don't run out of snow, there's very little here.

I still have three or four days' worth of gas and food. I can pack enough on the Pulk to last three weeks. I'm out of sugar, butter, and meat, but I have cereal.

When I was nearly to the top of the mountains, I spotted a dog team moving fast down the trail toward me. It was the first dog team I'd seen in 800 miles of pulling the Pulk. It was Stan Zoray, the owner of the homestead I'd stayed at yesterday. He had a large freight sled with 15 dogs pulling it; the sled dogs were orange, and the most beautiful sled dogs that I have seen. He was going to the homestead that I had just left for a load of goods. He told me that he and his wife, Helen, and their daughter were moving out. They had been there for 11 years and were tired of the isolation. And I'd thought anyone living back there had it made.

Stan had various reasons for leaving. He couldn't catch enough salmon to feed his dogs and had to shoot dogs every summer because there wasn't enough food for all of them. He was no longer guaranteed to catch fish every year; someone below could throw a net across the Tozitna River and catch the entire run. Stan had started the fishery by hauling in fingerlings. On top of that, he'd only caught 40 marten this year even though he set out 300 traps.

Stan lives for his dogs. He figured he could move down on the Yukon below Tanana and put up a fish wheel where he'd be guaranteed a supply of fish. The fish here are also low in protein, but Yukon fish are high.

The Zorays are tired of the place. I could have bought his entire homestead for \$30,000 cash, right there on the spot. We talked for an hour and he really laid it out to me why he was leaving. I think his wife wanted to stay in Tanana.

By noon I had 16 miles to go and most of it was downhill. I reached the lodge in Tanana at 6 p.m. Tanana is located at a historic Indian trading locality known as *Nuchalawoya*, meaning, "place where the two rivers meet" (Yukon and Tanana Rivers). Jake Borkett put me up for the night. He was glad to see me because I was his only paying guest.

It took me ten days to travel from Allakaket to Tanana. Stuck made the same trip in 15 days with a dog team. Pulling my own sled isn't all that slow, even where conditions are extremely difficult. The Englishman, Hudson Stuck, traveled thousands of miles by dog teams in the winter and nearly as many during the summer in the church-owned gasoline launch. It seems that wherever I have gone and wherever I intend to go, Stuck has preceded me. Stuck became the Episcopal Archdeacon of the Yukon from 1904 to 1919. He was a brilliant, articulate, and refined gentleman. Stuck had a slender frame, sunken chest and a persistent cough; however he and three other men, including a Native were the first to climb Mount McKinley in 1913. Stuck developed high blood pressure and left Alaska in 1919 to become a professor. He returned to Alaska in 1920 to take over the diocese despite failing health. He died within several months at the age of fifty-seven of a stroke and cerebral hemorrhage. He was buried in Fort Yukon.

March 19, Friday

I ran into Stan in town. He'd loaded up and made the return trip of 34 miles last night. We had a cup of tea with his wife, Helen. Stan told me he knew of only two parties who'd made the Allakaket/Tanana trip. One was a snow machine party, and the other was a man using pack dogs. He didn't think the man with pack dogs made it. Years ago the route was often used in the winter by Indians traveling back and forth between the two villages. They now travel between the two villages by air.

Stan told me that travel up the Tanana River to Manley Hot Springs was tough because of large blowouts of sand, and no snow. I told him I could travel up on the river ice. He informed me that no one travels the Tanana ice because of river channels under the snow. Two years ago I traveled 100 miles on the Tanana, but I was lucky.

On the flight between Tanana and Manley Hot Springs, I could see miles of snow and ice covered with sand. It hasn't snowed for two months. Huge sand dunes mounded on top of the ice. A cloud of sand stretched 20 miles across the tundra.

