ROSS ICE SHELF ANTARCTIC EXPEDITION

1957-58

By

William J. Cromie

Chapter 1

"You poor bastards will never get back alive!"

The possibility had occurred to us, - but it made little difference that evening. Warmed by an ebullient stove and nursed snugly in the arms of intemperance, we could talk our way out of any danger.

"How 'bout leavin' me that fur-lined parka of yours in your will, Bill, mine's getting' pretty worn out."

"What the hell you want a parka for any way, cook," I answered. "You ain't stuck your head out the door since the sun came up two months ago."

"You guys are scientists and you're supposed to be smart. Well, it don't take no smarts to be goin' off on a couple thousand mile trip across parts nobody has ever been to, or will ever go to again. In fact, who gives a damn if you go there in the first place?" The burly bulldozer driver took a long "pull" on his beer can and waited for a retort. Before I could give him one, a weather observer butted in, "Yeah, why risk your necks in the ice and cold – dodging crevasses to make a few silly measurements. Stay home and fudge the reports, those assholes in Washington 'ill never know the difference."

"Yeah, but I will! I came to Little America to …"

"Scroungy Redbeard" Paul Dalrymple, a physical geographer, burst through the door leading from the snow-covered tunnel that connected all the buildings.

"Knock it off, you guys and listen up! Our beloved leader Bert Crary, here, and his five boys are goin' off on a gen-u-ine expedition. It wouldn't be fittin' or proper if we sent him away without a gift to express our admiration and respect."

"Redbeard" removed a white, fluffy thing from his pants pocket and gave it to Crary. Albert P. Crary, a soulful-looking man with a bushy, walrus mustache and the strength and frame of a grizzly bear, held the title Deputy Chief Scientist of Antarctic Programs for the International Geophysical Year. But to us at Little America, he was just plain "Bert". Just plain Bert beamed over his present. "Just what I've always wanted – a fur-lined jock strap."

"Say that <u>is</u> a handsome piece," said Sam Wilson, an electronic technician fingering the athletic supporter. "What kind of fur is it?"

"Rabbit, you silly bastard," offered a Navy Seabee through his full black beard.

The next "adventurer" to receive a gift was John "Red" Renback, a mechanic and the only Seabee going on the journey with five scientists. He was on loan from the Navy until a civilian replacement could be flown to Antarctica. Red was given a six-pound sledge hammer to assist him in the maintenance of the three over-snow vehicles.

"Beat on it 'till you get it workin' Red!"

"Yeah Red, if'n you can't git it goin', smash it up and send for a new one."

"Don't forget to take plenty spare parts, Renback. Those goddamn sno-cats been in the garage more'n they been out in the snow."

"All right, all right," growled the mechanic. "You guys can bullshit now, but when I'm covered with glory and press releases, you'll all be sorry you didn't make the trip."

A quaff of cold air pushed into the room when the tunnel door opened again. Another of the trail group, Walter Boyd, a quiet, mildly sensitive lad of twenty-three began picking his way through legs and empty beer cans.

"Good evening, gentlemen," said the assistant glaciologist with a trace of sarcasm in his low voice.

"Where the hell you been, Waldo; beer's getting' warm."

"Oh," said Walter, feigning surprise.

Gene Harter, a weather observer, pried fiercely at the top of a beer can. "Have a drink, Walt?" He proffered the can.

"No, thank you." Walt started for his bunk.

"You might as well stay up and join the party, 'cause even if you go to bed we ain't gonna let you sleep," persisted Harter.

"Well, in that case…" Boyd dived under his bunk and came up with a can of ginger ale.

We had lived at Little America for ten months, and during this time Walt let his hair grow to the point of covering his ears. One of the highlights of the winter season was his sudden and unexplained decision to get a haircut. As the glaciologist sat quietly drinking ginger ale, his head became the subject of much patting and criticism.

"Hey Waldo, is the head the wrong size for the bowl, or the bowl the wrong size for your head?"

"How does it feel to be able to hear again?"

"You and the Kraut make a lovely couple. You got no hair and he's got no brains."

Peter Schoeck, chief glaciologist and an Alpine expert from Karlsburg, Germany, was not present at the festivities.

"Where's potato head?"

"Who cares?"

"There's a guy gets lost going from Kiel Field to Little America, a mile and a half, and you poor guys have got him for a navigator."

"There was a blizzard that day, if you remember," Boyd put in quietly.

"Blizzard, smizzard," said Gene Harter. "You guys have got an obnoxious, overbearing dumbkauft for a navigator, and you're taking along a momma's boy that don't even know enough to get a haircut. You'll never make it!"

"What odds will you give me, Gene, that we do?" Bert Crary asked.

"I'm not a gamblin' man Bert."

"No, you're all mouth, Harter." Renback said.

"Scroungy Redbeard" appeared again with a spotted tie hanging down his greasy shirt, and a red baseball cap. He approached Hugh Bennett, a swarthy twenty-six year old seismologist, with a theoretical microphone in his hand.

"Mr. Blackie Bennett, I presume. I'm Satler Wullivan of the "Home Town News." Will you tell our listening audience what a hardy, rugged adventurer you are to be leaving your loved ones thousands of miles away and going out into the desolate unexplored wilds?"

"I…," began Bennett.

"Oh, these brave unselfish men," Dalrymple cut him off. "Giving up everything for the pursuit of knowledge. We're going to produce a television show about you men. The public must know about your sacrifice. It will be called 'Six Men Against the Ice'." Scroungy gesticulated eloquently.

"Are you accusing me of absurdity, sir," Bennett sprang from his seat.

"Hell, I'm not against the goddamn ice. I'm for it – FOR it, I tell you." He clutched Redbeard's tie. "We six bastards are all for the ice."

The interviewer remained unperturbed.

"Tell me sir, aren't you afraid."

"You're damn right I'm scared. Any man that says he isn't is a liar! I'm scared we'll run outta beer and cigars." Bennett jammed his teeth down on a stale cigar butt for emphasis.

But Hugh wasn't that sure of himself. When the beer had been drunk and all the friendly chafing ended, he lay quietly in his bunk, studying the ceiling.

"What do you really think of our chances?" he asked without looking over to my bunk.

"Damn good. We've got the whole U.S. Navy to support us," I answered.

"Yeah, but I mean when we're out there all alone. Just the six of us, caught in a blizzard maybe, outta chow – no fuel. You know the story, like when Scott and his four men died."

"Scott didn't have airplanes to bring him food and fuel; he didn't have three tractors with two hundred horsepower engines. He was walking, you remember, walking and pulling all his gear in a hand-sled. The poor slob didn't even have a radio."

"Guess we'll be in contact with Little America or McMurdo most of the time. Yet, I don't know. Those radios don't have much of a range and my morse code is for nothing."

"Won't need did-dat. Our radio gear's got a healthy voice range and we can rig up an antenna on a ski pole or something."

"Christ, imagine Scott out there, trapped in his tent by a blizzard – freezing to death – sick with scurvy – out of food and fuel! Only eleven miles from a cache and a lousy hundred and sixty miles from camp." Bennett shook his head slowly.

"Yeah," I thought aloud, "if they had only had radios in 1912. I don't know if they did or not, but I mean radios with good frequency and transmission characteristics. When you've got a nitely contact with home base, you don't feel like a little boy all alone in an empty ball park. It's kind of like havin' another little boy to shout at. Same way with being at Little America here. Once Scott, Amundsen, Shackleton – all the early explorers – got away from the dock, they were on their own. Figure it – two and three years on the ice without even a news broadcast."

"No goddamn commercials either." Hugh thought about that awhile. "Guess we'll sure be glad to see those resupply planes bringin' in food and gas."

"Yeah," I answered, trying to conjure up a mental picture of what it would be like.

"What about weather, tho. Blizzards and whiteouts might keep the bastards on the ground just when you need 'em. And crevasses – if we get in broken up ground they won't be able to land."

"So they'll hook the stuff to a parachute and push it out. Hughy, you're a goddamn worry wart! I tell you, we got the whole U.S. Navy supportin' the six of us.

"Yeah, but I've seen those swabbies make some awful dumb mistakes."

"Sure. Probably the only reason we won the war was because the other side made more mistakes. But this is a new operation; everyone is trippin' over their feet. Who the hell ever tried to establish seven bases at once before, on a chunk of ice bigger than the U.S. and Europe put together. They've goofed; we've goofed, but we're here, aren't we?"

"We're goin' to be somewhere else this time tomorrow." Hugh finished worrying about the Navy and started on something new. "I was just thinkin' about what 'Monk' said tonight, you know, about our snow vehicles. Think they'll last out?"

"It's just like Amundsen back in 1912. He gets himself a good means of transportation – dogs. He feeds 'em good and takes care of them. The result – he runs from Little America to the South Pole and back like it was an outing to Central Park. We've got special low-ground pressure tractors – 200 horses under the hood. Take care of 'em maintain 'em and you can drive around Antarctica three times."

"We've had a lot of mechanical trouble with them," he retorted.

"They're new," I answered shortly, a little weary of his inventing problems.

Hugh returned to his thoughts. After a long pause he said, "I just finished reading Scott's Last Expedition. There was five guys that started out just like we're gonna do tomorrow. They wound up dropping one by one in the snow. The two that were left over just crawled into their sleeping bags and died."

"Scott, for all his bravery, was a boob. He had the brains for science, but not enough common sense to use dogs. He was a damn softie, too. Didn't like dogs because they ate each other and their pups."

"He devotes an awful lot of space to those dog-cannibal incidents in his diary. Couldn't stomach the thought of eating them himself if he got in a bind."

"Some humanitarian. It's just as cruel making horses wade 400 miles in belly-deep snow, pulling heavy sledges. He wound up butchering them, anyhow. He had dogs with him then, but he hitched men to the sleds and they pulled until they died in the traces."

"That was a remarkable feat, Bill, walking to the South Pole."

"True, but the fact that he didn't mark the trail behind him kind of takes away from it."

"It must have been a bitter disappointment finding Amundsen beat him there by a month."

"The proud bastard – I think he was more crestfallen about losing priority, than the fact he still had a 700 mile walk back to camp."

"He just might have made it if he had been lucky."

"Hughy, he made too many mistakes to be lucky."

"He was a brave man. I think you're a son of a bitch to discredit him."

"Sure, sure, but it takes more than bravery. Read about Shackleton. He was a bit deficient in gray matter, but he had a cool head. Where Scott kept going for the glory of Britain, the Irishman sat down and weighed his chances. He was only 100 miles from the Pole, but he turned back. He lived to make another trip to Antarctica and really gained some glory for the British."

"So then what the hell do you mean, he was lacking brains?"

"Because he walked and used those goddamn ponies when Arctic Explorers had been using dogs for fifty years."

"Yeah, but this isn't the Arctic."

"You read one lousy book on the Antarctic and you're an expert. Read South Pole, the account of Raold Amundsen's trip. The old Norwegian had common sense and a cool head. He used dogs; when his load got lighter and he didn't need them anymore, he ate 'em. It was as simple as that."

Bennett slid under his blankets and settled himself. He made a complete revolution and settled himself again.

"Hey, Bill."

"Yeah?"

"How do you think we'll get along with each other?"

"We've worked together every day for ten months now, and we still speak to each other when we get up in the morning"

"But out there it'll be different. Here there's 109 guys. You can get away from each other once in a while."

"We'll be so busy and tired we won't have the time or energy to get pissed off."

"I get pissed off at you pretty often."

"Yeah, I get pissed at you, too. Ganite."

"Ganite."

But I couldn't sleep. Many people had asked me the standard question, "why do you want to go to the Antarctic?" I always gave the standard reply, "to advance science, to increase knowledge, to…" Bullshit. Science here meant hard, back-breaking work and difficult, tedious measurements. These last ten months had been a blur of frustration, long hours and routine. Now I was going on a journey that would double the pace and triple the discomfort. Measurements would be laborious routine with no chance of analyzing them for exciting results. There would not be Navy to cook for us and do the chores. They would have to be sandwiched in somehow. There would be no beer parties, and movies and different faces to break things up. But I wasn't thinking much about science that nite; nor about the hardships. I was excited about the prospect of venturing into unknown country – going places never before seen, or visited, by man. We would be following in the footsteps of the greatest explorers of them all. A thirty five mile trip would take us to the old camp sites of Amundsen and Byrd. Where they went south, we would go east to the vicinity of Scott's old camp on McMurdo Sound. We would follow his and Shackleton's long obliterated trail south to the Beardmore Glacier – gateway to the South Pole. But we had no business at the Pole; our purpose was scientific exploration of the Ross Ice Shelf. No one had ever traveled from Little America to McMurdo Sound before, but it had been flown over. The west leg from Beardmore hadn't even been seen from the air; it was a blank space on the map – ours to conquer. We would continue East until we crossed Raold Amundsen't track to the South Pole, then go south to Little America. Damn, that's a trip few fellows get to take! No, it was not the thought of the first scientific measurements that pleased me, but rather, the prospect of traveling in and beyond the footsteps of men like Amundsen and Shackleton. I was enthusiastic about science, but only as an old girl friend. Adventure obsessed me now. I would help put places on the map. Maybe one of them would be named after me.

"Look out for that crevasse, Bill!" Hugh turned violently in his bunk, gripped the blankets and muttered something about "sno-cats" and crevasses.

"Poor bastard's dreamin' again," I thought. "Sure hope we don't run out of beer and cigars."

Chapter 2

It was a colorful departure. The spectators wore parkas and pants of Byrd cloth, a lite material closely woven for protection against wind. These baggy suits come in startling colors to facilitate the wearers "standing out" against the snow. Egg yolk yellows, St. Patrick green and sport car reds, combined with quieter dark blues and grays to make a veritable patchwork quilt of people. Laid on a background of glaring white snow and Navy-orange buildings, the brilliant color scheme narrowed my eyes into a squint. Putting on sunglasses, I saw that some were not satisfied with one color. Audacious combinations of red and green, yellow and black, red and yellow waved and pointed cameras at us. Through a door in the roof of the sno-cat I snapped pictures of everyone snapping pictures of us. Red Renback and I started our "cat"

first, and with a throaty roar, it pulled clear of the crowd. The other two vehicles followed; as the Easter eggs got smaller and smaller, their orange and black bulks got larger. They looked like giant lady-bugs.

Red pulled alongside a prodigious gas tank at the far end of camp. As he jammed the hose into the tank, I checked the equipment heaped on the sled towed behind.

"Make sure everythin's lashed down tight, Bill. The damn roads are in poor condition." Bert Crary stuck his head out the side door of the cat behind us. Hugh Bennett jumped out to perform the same function on their sled. Walter Boyd and Peter Schoeck shared the third sno-cat, and when everything had been gassed and checked we moved away together. A mile ahead lay Kiel Field, Little America's airport. The field was dedicated to Max Kiel, a bulldozer driver killed the previous year when his tractor plunged into a crevasse.

I kept my station at the roof hatch, half in and half out of the vehicle. Hughy and Pete Schoeck were in the same attitude on the other machines. We took pictures of each other. The wind slapped noisily at two flags stretching out from our radio antenna. Red, a Minnesota farm boy, fastened a royal-blue replica of his state flag to the top. Born and raised in New York City, I fastened the "Empire State" colors below it. As we exchanged friendly chafes, Walt moved his cat ahead, indicating with gestures that a race was in order. The three vehicles veered between the line of flags marking one side of the road and steered out onto the spacious snow plain. Abreast, we raced ahead. The metal tracks grounded up snow, flinging it out from under the pontoons. Details of the buildings at Little America began to fade as the cats swung in a wide circle to pass around Kiel Field. The sharp wind felt invigorating and occasionally a spray of snow from the tracks reached to the roof hatch.

Above the roar of the engines and rattle of tracks, the dissonant sound of metal grinding on metal pulled at my ear. I saw Peter waving his arms wildly out the roof door. And took this as a sign that he wanted us to stop. Their cat had come to a dead halt immediately after the grinding noise. Red and I crawled under the tractor and found the twisted wreck of what had once been a universal joint.

"Nasty break," said Red, the moisture from his breath freezing on his beard.

"Literally and figuratively," I thought. Dragging Red's tool box under the cat we began unloosening bolts. Extracting the broken joint, we found the shaft to which it was attached badly mangled.

"Shit!" said Red.

Ten months of battling weather and mechanical and electrical troubles gave us an enormous amount of patience. Calmly making a list of the required tools and spare parts, we drove back, in one tractor, to the main camp. It was late afternoon – dinner time. We burst into the mess upon all the people who had, a short while before, bade us loud and hardy farewells. The jeers were equally loud and hardy.

"Short trip," observed a bearded constructman looking up from his soup.

"How was it men – real rough?"

"Get a dog-sled."

"Get seduced," Hugh answered.

An uncomfortable and hurried meal followed. Walt took the worst ribbing, although the accident was not his fault. To make matters worse, he had turned over a weasel (light personnel vehicle) a few weeks previous. (That was his fault.)

"There's ole hot rod himself."

"Waldo, the wrecker."

"Drivers like you are a menace to our children, especially the ones that work in the garage."

Red and I worked under the tractor until our fingers were too numb and frozen to function properly. It was 14º below zero, and close upon midnite when we stopped. As we drove back under a sky of palest, pastel blue, a blazing orange sphere hovered languidly over the horizon. We would have perennial day on our trip now. The nites were gone.

Again, in the early morning, my fingers painfully manipulated tools in the cramped, working space. By ten a.m. Red announced, "the son-of-a bitch is fixed and ready to go." We thawed a pot of frozen coffee and used it to wash down some stale rolls given to us yesterday.

"Let's go!" said Bert gulping down the last of his coffee. We jammed the cups into our pockets and started to move.

Indian file, the cats swung around the makeshift control tower at Kiel moving toward a large snow pyramid, supporting a tattered flag. We passed the mile marker, our official departure point, at 10:30 a.m. on October 25, 1957.

Ahead lay 650 miles of red flags on slender bamboo poles. They stretched away to the southeast, winding across interminable white wastes and yawning crevasses to Bird IGY Station, a mile high outpost on the polar plateau. This was a station due to experience all the

hardships and isolation of the South Pole Station, but get none of the glory. Mile zero marked the northern terminus of "Byrd Trail." We were too busy putting things away to have any nostalgic thoughts about leaving it behind.

The whole world seemed one ubiquitous glare. The heatless sun radiated like a star sapphire against a faded, colorless sky. The snow scintillated with a million sun diamonds and the very air glittered until your head ached. The temperature was 10º below zero, but without any wind it felt warm.

We named our tractors. Pete and Walt went first in "Detector." Slow and ungainly, this machine pushed the spider-web network of wooden beams and aluminum pans ahead that gave her the name. Hughy and Bert came next in "Seismo," the vehicle carrying our seismic recording equipment. A large wooden board on the grill of the last cat read "Tweety Pie" – old English lettering in navy blue painted on a background of baby-blue. This was the traveling mess hall; pots and pans hanging on the walls clanged in time to the jolts and bumps of the hard snow surface. A red flag marked every fifth-mile on either side of them in front. In back as far as the eye could see stretched the unending glare of the ice shelf.

Twenty-three miles up trail, Detector veered sharply west. Seismo and Tweety followed obediently.

"Well, Bill, we're on our way at last. Christ, I'm glad to get away from Little America with all those chicken-shit officers and dumb chiefs"

"Yeah Red, it's good to be on the road."

But I felt a sinking feeling as I watched the red flags get smaller. I had been as anxious as Red to get started, now a melancholy lonliness came over me. The flat, unvarying shelf extended out before us; I began to think of the crowded, noisy parties at Little America and the warm comfortable stove. I had experienced the same emotion watching the last green hills of New Zealand disappear, on the voyage south.

"Why'd we swing to the so'east so far before goin' west?" Red was seated on a box of rations while I drove.

"There's a big, bad crevasse area around here, and Pete's trying for an end run. It crosses south of L.A. and he's trying to get around the east end."

"Crevasses, huh. How far do they reach?"

"Plane jockies that've seen them say as far as you can see."

"Nice, I'll bet that Kraut navigates us right into them."

The monotonously flat surface dipped down in a wide, trough-like concavity. We had seen these shallow valleys before, and knew they meant ground under active pressure. The floors of these trenches looked solid, not appreciably different from level ground on either side. Usually, however the bottom had fallen out, leaving only a thin skin of snow over an abyss of blue shadows. Tremendous stresses in the ice shelf buckled up portions of it into gigantic creases, or wrinkles. When the two sides of a new valley puckered into ridges, the trough between them became the focus of great strain. As the strain accumulated the valley bottom split open, acting to relieve the pressure. Subsequent movement might enlarge the crack to one hundred feet across. Blowing and drifting snow slides down into the trench covering the crevasse with a thin bridge of snow. The surface appears substantial until weight is applied. On air reconnaissance, we observed opened canyons in this vicinity which could comfortably accommodate all three sno-cats and the sleds they towed behind.

In the past we circumvented these features, but the valley ahead of us now extended across our path, reaching the horizon in both directions. We halted on the nearest ridge. Hughy, standing atop Seismo, motioned to us and pointed off to the right. A gaping hole opened the bottom of the valley about a mile away. From a distance the rest resembled a pond of dark blue water nestled at the bottom of the white valley. Closer, it was a yawning gap filled with indigo air. The snow bridge cutting it off on both sides was thick and substantial. It appeared to increase in thickness up valley, so we decided to try a crossing.

Peter and Walt went ahead on foot, tied to each other. When they didn't plunge through, we tried the weight of a tractor. With Walt and Pete still testing the ground, Bert eased Detector down into the depression. Seismo and Tweety followed at widely spaced intervals, offset to the right and left to prevent crossing at the same spot. It was a nerve racking drive. Hughy took Seismo, and I piloted Tweety. In low gear, creeping ahead slowly, I started at every croak and groan of the cat. A stew pot fell off its hook. I jammed on the brake and leaped out the door before realizing what happened. Red was poised in the roof hatch, but he didn't laugh.

"Why the hell don't they put 'em in high gear and <u>go</u>? Piss on this creepin' along!"

I thought we should have hooked the vehicles together with a stout cable, but it was too late to suggest that now. Pete and Walt reached the other side. I suppressed an impulse to jam down the accelerator and close the distance between us. Bert had both side doors open in

Detector. Pushing the spidery detection gear in front, she looked like a lady-bug with huge ears, groping her way along with feelers. Hughy drove with one hand, half out of the door. When they started up the far side of the valley, I increased Tweety's speed and moved up close behind Seismo's sled.

"Red, how would you like to drive a while?"

"You sneaky bastard, you have all the fun, then want me to take the wheel when we get on safe ground."

We moved along the southern ridge, parallel to the trench. Drawing abreast the rift seen from the far side, we noticed the valley further on was ridden with gaps and fissures. We made camp opposite an unusually conspicuous opening. While Red and I cooked dinner, the others strapped on skis and went down for a closer look.

"How deep?" I asked over frankfurters and sauerkraut.

"Dunno," replied Walt, "but so deep you can't see the bottom."

Leaving them with the dishes, Red and I skied down to satisfy our own curiosity.

"That's a goddamn hole and a half," commented the mechanic.

"Three seconds – she's about ninety feet deep."

"Hold a sno-cat without any squeeze," said red.

We skied down valley, stopping before two fair-sized holes separated by a narrow bridge. The snow span was almost two feet thick, reinforced with layers of melted ice. Digging my ski poles into the ground, I sled rapidly between the holes.

"You crazy bastard!" Red called as I reached the other side.

We kept going down valley, examining the crevasse from both sides.

"Why the hell is the bridge solid enough to support three cats yonder and as full o' holes as a tennis racket here?"

"Been tryin' to figure it, Red. I think it's because the other part of the valley is inactive, or comparatively so, while there's some widening movement here. Might be she opens like a clam shell. The part near the hinge line is pretty stable, then things open up nearer the pressure source."

"Then things might get real exciting down the road apiece."

"Red – I think things are going to get <u>real</u> exciting!"

I recrossed the fissure and we started back. A big, husky sun wallowed behind a thin veil of cirrus clouds. The convex sno-cat roofs reflected the light and seemed ablaze with orange fire. The silhouetted lower parts were like charred altars supporting the vivid flames. At last the white glare of day cooled to the rich, soft blue of a midnight twilight. Hot colors gave up to fragile pinks and lavenders brushed lightly across the sky by wispy clouds. The air was still and silent; our world of ice laid down to sleep.

Chapter 3

Roosevelt Island

Next morning, Seismo would not start. Hughy mashed the starter button, kicked the engine and cursed shamefully, but nothing happened. Red got his tool box out and we opened Seismo up. The carburetor was clogged with ice and the fuel line frozen solid.

"Every goddamn thing in this goddamn place is always freezin'," complained Red, playing a blow-torch over the fuel lines.

It was well into the morning when we thawed Seismo and had her moving again. The vehicles followed the south side of the widening crevasse valley. These distorted snow canyons were new to us, but the few we had observed usually ran parallel to each other. Bert and Pete figured by "hugging" the edge of one, the caravan could stay clear of others. As I said, we were amateurs at this business; our speculations proved wrong. Angling in from the left, another shallow valley shaved the distance between itself and the rift on our right. As the morning wore on it was apparent that we were driving into the narrow end of a wedge.

The cats came together and halted. Pete stood atop Detector examining the snow ahead with binoculars.

"Der two walleys cross each other about vun half mile ahead. It vould take two days to go back around dem"

"We've got plenty of time," observed Boyd.

"We can take a seismic profile between crevasses," added Hughy.

"Piss on it; let's go ahead," said Red.

"What do you think, Peter?" Crary asked.

"Ve can go ahead; ve will cross them. I vill go first."

"Brave man!" someone muttered.

Pete turned on the electronic detector and started forward. Walt went with him.

"Think he'll make it?" I asked the group.

"Made the last one," offered Red.

"Just because you cross one crevasse, doesn't mean you can cross the rest of 'em," said Hugh.

"This is a situation where two fissures meet. There might be more activity here, making the bridge weaker," said Crary.

"The lady-bug crawled out to the middle of the ditch, then stopped.

"What the hell is he stoppin' for" – Red.

"Crevasse detector must've given a signal," I said.

"Bert, why the hell we gotta creep across these son-of-a-bitches in low gear for? Why not pour on the coal and cross 'em with the gas pedal on the floor?" Red asked.

"Oh, for chri' sakes Redd!" Hugh admonished.

"The faster you go, the quicker you get over the danger zone." I inclined toward Red's viewpoint.

"Gotta go slow enough to see the detector's alarm signal and be able to do something about it," Bert advised. "Besides, if the bridge is real thin the detector booms and pan will break through afore the cat gets there."

Detector resumed her snail's pace, crossed the valley and started up the far side. Peter waved triumphantly from the roof hatch.

"Let's go!" said Red. I was about to slide into the driver's seat, but he pushed me away. "Bullshit, you drove across yesterday's hole. This one's mine!"

"Okay Dad, get with er."

Crary and Bennett moved slowly ahead with Seismo.

"Shit, let's bug out! Watch me get this hot-rod into fifth gear."

"You do and you'll be number one on the old man's shit list."

Red's enthusiasm waned. "Don't wanna get on the great white father's list. He might send me back to Little America."

Tweety and Seismo negotiated the trench. Joining Detector on the far side.

"Der detector iss no longer vorking. It vent oudt right in der middle ov der walley."

"'At figures," said Bert resignedly.

"So, when the electrons stop do you have to stop to? Suppose you were right in the middle of the bridge?" I challenged Pete, but he ignored me and climbed back into his cat. The electronic gear failed just when we needed it most. Five more valleys thwarted our path before noon, and, by the fifth we were crossing them in high gear. Without the detector, the need for slow, cautious movement no longer existed. If there was a bridge, and if it was weak, it would break anyhow.

"Ya think all those valleys had crevasses in the bottom of 'em or not, Bill." "Only Jesus Christ knows the answer to that one, Red, and he ain't tellin'."

Meanwhile, the main rift on our right opened up completely and continued to widen. The sides were straight ice cliffs plunging vertically some hundred feet. The canyon below, strewn with contorted hummocks and pressured ice, stretched five hundred feet between walls and as far ahead as it was possible to see. We stopped to repair the detection gear. While Hugh and Bert worked at this task, Pete and I decided to ease down to the edge for a closer look.

We tied ourselves together with a nylon rope – Pete on one end, myself on the other – one hundred and twenty feet of line dangling between us. I went first, testing the ground ahead for smaller crevasses on the fringe of the enormity. Pete kept the rope taut, ready to catch my weight should the snow give away under me. Funny feeling – being tied to a man whom you dislike, and who dislikes you – trusting him to save your life. Oh, I knew he would! It's just a difficult situation to adjust your thinking to. Hugh Bennett and I usually teamed up on a rope. It was easy "crevasse-hopping" with Hughy – almost a game.

A half-mile separated us from the edge. Before every step, the footing had to be checked by jamming an ice axe into the snow – slow, laborious going. I wondered how Pete felt on his end. After advancing the full length of line, I had to stop and guide Pete up to me. If he fell into a crevasse I missed, it was up to me to save him. My hundred and forty pounds, is distributed over five feet eight inches. Peter was a hundred and ninety pound six-footer. Did he wonder if I could stop his fall? That's the reason I always went first; I was smallest and

lightest. When Pete held the slack, or "belayed" anyone, he stood easy and confident, almost like he was posing for an ad advertising wool ski sweaters. On my turn, I sat down, dug my heels into the snow, and wrapped the line three and four times around my waist. Even then – if Pete suddenly fell in a fissure, he would probably drag me after him by the seat of the pants. That was another reason why "crevassing" was different with Hugh. He stood five feet eleven inches, with a hundred eight-five pounds of farm-boy muscles evenly placed on his frame. He could handle my bulk easily, but always belayed me from a sitting position with those extra safety turns around his waist. I admired recklessness, but only from a distance.

It became impossible to force the pointed shaft of the axe into the surface now. I had reached the edge, here extended by a tongue of ice hanging dizzily over the canyon. Looking back at Pete I saw he still wore that poised, nonchalant expression. "Goddamn over-bearing son-of-a-bitch," I thought.

The tongue surface shone with smooth, glazed ice. I leaned on the axe head for support, but my insulated rubber boots were slippery from grease impregnated into them while doing garage work. I felt myself going down, and all I could think of was the hard shock my bony posterior would suffer on contact with the inflexible ice. The contact was gapping, and I immediately began to slide down the incline. I closed my eyes and clenched my teeth. Every muscle tensed and contracted. I could not think of anything, or do anything; I just waited for the rope around me almost gradually, oscillating afterward like a rubber band. I had never fallen on a nylon rope. It felt much more agreeable than the sharp positive jerk of a hemp line that bruised the skin and, sometimes, broke ribs. Waiting a few seconds, I got carefully to my feet. The edge was less than three feet away.

"Are you all right?"

"Sure Pete. My ass hurts a little, that's all."

Nothing but air surrounded three sides of the ledge and it dipped sharply into the defile. Pete came out on the tongue. I thought that stretching the point a bit – expecting it to hold the weight of two of us.

Chapter 4

Whiteout

We would be the first party in history to cross Roosevelt Island from east to west – if we made it through the crevasses. The Naval Aviation Detachment at Little America (VX-6) had flown over the west side of the island and described it as "messy". Pete and Bert flew a later reconnaissance in a light pane, taking a closer look. They decided it was passable; Pete even mapped a route through what he believed was an undisturbed section.

However, on the afternoon of the first scientific observations, our primary problem was to find out where we were. That was impossible in the whirling, blinding storm, but about 4 p.m. the wind dropped its handfuls of snow and blew away enough cloud cover to expose the sun. We set up a theodolite and attempted to locate ourselves by taking angle sites. Two observations of the sun, separated by about six hours, are necessary. The intersection of two bearing lines (azimuths), taken from the same position, will locate their position. We obtained only one sight and tried to determine our latitude and longitude from it. The first estimate put us west of Roosevelt Island, and the second north of the Island. The one thing we did know for sure was that we were on Roosevelt Island.

We pored over the only map of the Ross Shelf in print and decided it was in error. The error only amounted to a few miles, but the clear spot through the crevasses that we hoped to find was hardly a mile in width. We watched the sky anxiously for the sun to reappear. Instead, the wind picked up again, the clouds closed together and a blizzard settled in by seven o'clock that evening. Disappointed, we settled down to a restless night.

The wind howled all the next day, tearing the surface into shreds and filling the air with a debris of snow. The rushing air whistled, shrieked and thundered, shaking the cats violently and keeping us inside. Bert and Hugh tried to get the Detector running again. Pete kibitzed

over their shoulders. Walter read, while Red and I tinkered with the cat engines. By supper, we succeeded in getting on each other's nerves.

Walt came into Tweety while Red and I were preparing the meal.

"What the hell do you want? Chow is in an hour." Red snapped at him.

"Bert and Pete are on a conserve-gas kick. This is the only place that's warm. I didn't know it was 'off-limits', Walt settled in a corner with his book.

"Well, stay out the goddamn way," Red warned.

Next, Hugh came in and started manipulating dials on the radio transmitter. Each vehicle had a radio, but only Tweety's was capable of sending signals over the distance we had traveled from Little America. This radio stood directly opposite the stove, and there was not enough room for a cook and a radio operator at the same time.

"Christ Hughy, can't you wait until I've finished cooking," I pleaded.

"I've got a schedule to keep with L.A."

"Keep the goddamn thing after chow, then. You bastards expecting me to cook for you and dodge around your fat asses at the same time."

"You think the goddamn food is more important than contacting L.A."

"Well if you're tired of eating, say so, and I'll crawl into my goddamn sleeping bag."

Hugh got up and slammed our of the cab. He began struggling with a long piece of wire on a ski pole that served as an antenna. I repressed a desire to go out in the blowing snow to help him, and continued cooking the meal.

"Ain't no point in telling L.A. what we're doing, tonight. Weather's so bad they couldn't do anything about it anyway." I felt annoyed because I had not thought of that argument while Hughy was there.

Next morning the sky was white-washed with an even layer of cloud. The intense sunlight that pierced the cloud covering bounced back and forth between sky and surface until all distinction between them was lost in a white glare. They merged without the defining separation of a horizon. Perspective and shadows vanished. Accurate visibility extended only to arm's length. It was like being inside a gigantic ping-pong ball.

Dangerous weather to travel in, but no more dangerous than another day of idleness. "We'll move ahead slowly and see what happens," Bert decided.

At nine that morning, Detector creaked ahead, pushing the rumored electronic brain ahead of her. Seismo and Tweety followed, Indian file. Light and visibility were unbelievable. Altimeters informed us when we started downhill; we could neither see nor feel the grade. Open crevasses and thin bridges lay somewhere ahead. In the freakish conditions it was conceivable that Detector could drive right into a yawning hole, malfunctioning crevasse detector and all. The other two cats might follow her down before they saw the danger.

We should have had a panoramic view from the top of Roosevelt Island, instead of staring at a blank screen, trying to coax our minds into seeing something upon it. I was trying to conjure a mental picture of what it would be like driving into a canyon, when a dark object appeared ahead. I crushed the brake to the floor, quickly, flinging Red from his ration case chair.

"For chi' sakes, Cromie!"

"What's that black spot on the snow ahead of us, Red?"

"Geez, I dunno. Where's Detector and Seismic?"

"Can't see them. Boy, we should stick closer together!"

"Sure Bill, and all drive on to a thin spot at the same time."

" I can creep up closer to see what that is. Looks kind of like a mountain away in the distance, but again it looks like something smaller just ahead.

"Hold it, Bill. It's a goddamn hole!" Red squashed his nose against the windshield.

"No, it's an oil barrel," I said.

"Like hell! Wait a minute! Yeah, you're right. Seismo must've dropped…"

"Red, it <u>is</u> a hole!"

We stopped Tweety, and walked right on top of it before realizing it was only a spot of oil.

"We're mad to be driving into broken ground when we can't tell a mountain from an oil spot!" I opinioned.

"It looks like somebody's sprung a leak," said Red examining the stain. "Christ, that's all we need."

We returned to the cat, anxious that the others did not get too far ahead. Red and I could not see them – we could not see anything. The whiteness chaffed my nerves. My palms grew moist on the steering wheel. I opened the door on the driver's side, putting my clutch foot on the sill. If the cat was going into a crevasse, there was no point in joining it.

"Do you think Pete knows what he's doing?" Red asked suddenly.

"Maybe he does and maybe he doesn't, but either way he can't know any less than the rest of us," I answered.

"Well he says he knows a clear route through the crevasses. We got it mapped. Yeah, knows exactly where it is. Trouble is, he don't know where he is!"

Red had an argument. We never did get a second sun "shot", so were forced to "dead reckon" our position from speed and direction of travel. Now we were dead reckoning our advance from yesterday's position. Each time the result became less accurate. We could be miles off.

For five unending hours, the vehicles moved downhill. We moved down until I would have sworn there was not a level patch of ground left in the world. If only we did not know there were crevasses out there! It might have been easy to wrap a secure blanket of whiteness around our thoughts and regard this as just another dull drive. But there was the infinite downgrade. The altimeter kept blinking its eye - reminding us. At intervals, it became possible to lull into a peaceful day dream, but this would be interrupted by a pang of fear as the cat bounced over an irregularity in the surface. Then came a feeling of exigency – a frustrated desire to move faster – to get off this goddamn hill.

Finally the altimeters leveled off!

We came together for a conference, the cats almost missing each other in the milkiness. "Lets keep going", Bert shouted from the roof hatch. I passed out some food that could be eaten cold, and we continued without pausing.

During the next few hours, the anxiety passed into monotony. The stubborn whiteness clung to everything like a wet sheet. The cats dragged their track through the snow at less than five miles an hour. Red relieved me at the wheel and I stretched out on the floor to sleep the time away.

We drove off the island and continued for five miles without encountering trouble. I was no longer afraid, nor was Red. We felt bored with the slow jolting progress and the dull contour less atmosphere. It was like being suspended in an alabaster eternity, trying to reach the horizon that was not there.

The whiteness smoothed everything; like a nebulous plaster it filled in the valleys and impressions. Hills and hummocks were leveled as by a ghostly scythe. Nothing was high,

nothing was low; nothing was up, nothing was down. Nothing was. The engine noise purred itself into the opacity, giving it sound. But it was a disembodied sound, the whiteness remained as vague as a soul without the matter of body.

It became hard to believe you were being jostled up on a ridge, or spilled into a depression, because there was no ridge or depression to be seen. The sno-cat tossed fitfully about, like a ship careening over a frozen sea in a thick fog. On smooth stretches the vehicle floated. If you abandoned concentration, listening only to the engine drone and seeing only the whiteness, you could easily imagine yourself going backwards, or sideways – upward – downward!

It was an immense relief to come out of this fog of thought and indefiniteness into the company of positive orange cats. Dinner dispositions that evening were jovial and pleasant. No one seemed able to talk enough about our fortunate progress that day. We traveled twenty-six miles without encountering a crevasse.

"Ach, it is nothing! I saw the safe passage from the plane and mapped it. I know where we were all the time. I have kept good track of our position."

"Got to hand it to you, Peter," sighed Walt.

"You did a good job, Pete," complimented Hugh.

"Let's face it, Pete," I put in. "It was a lucky blunder. We had no more idea where we were, and where we were headed, than a blind hound chasing rabbits. We just happened to hit it right."

"A magnificent blunder" added Red.

"Of course, you could have done much better, Red,
Walt said sarcastically.

"Do you give credit to a blind dog when he catches a rabbit by running smack into it?" I asked.

"Knock it off you guys! What's for dessert, Bill?" Bert interrupted.

I felt I had been unofficially nominated official cook, so I began serving the rations of canned cake and jam. I thought it rather like the straw that broke somebody's back after putting in such a hectic day, but cooking was better than washing – or snowing – dishes. After preparing supper and being cooped-up in a sno-cat for twelve hours, the most satisfying way to relax was on skis.

As I started out, the whiteness split in half. A dark blue horizon began to assert itself, gently pushing the white away from above and below. The surface could not have been worse for skiing; patches of deep soft snow alternated with sharp ridges of glazed show-ice. The latter, called "sastrugi" build up to a height of two-three feet. At the outset the milkiness prevented me from seeing the sastrugi, causing my ski edges to slam into them, stopping me abruptly or spilling me to the ground. As the pallid ness of the sky became distinguishable from the milkiness of the snow, they became visible.

My eyes, searching constantly to avoid the ridges, failed to notice that the entire surface was cut up by long, hair-line cracks. It was like skiing over a cracked egg-shell. Bert had cautioned us about going out alone. I began contemplating turning back when the cracks became buried by soft drift snow. The skiing improved and I continued.

I felt myself going uphill; at the same time visibility increased enough to see a high mound of gently sloping snow just ahead. I blinked to make sure it was there. When no further doubt existed, I searched for an explanation. Camp was only a half hour behind; I did not believe I skied all the way to Roosevelt Island in that time. Thinking next of an unmapped spur of the island that might extend to the west, I determined to reach the top for a look around.

Light conditions became better, but progress was miserable. The slope steepened sharply. Annoying sastrugi ridges first impeded my advance, then actually helped by preventing backward sliding. I perspired freely from the effort and removed my wool helmet and outer ski parka. The island, or whatever it was, rose to a height of about 500 feet above the shelf. On a smaller scale, it was a replica of Roosevelt Island.

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* Sastrugi, or snow dunes. Sharp, hard ridges built of drifting snow compacted by the wind.

The grade became so steep that keeping balance on skis was difficult. I thought of abandoning the boards temporarily, but decided I might need them in a sudden storm, or crossing a thin crevasse bridge. Near the top I had to edge up sideways, digging the edges of my skis and poles into the hard snow for support.

Sagging into a resting position at the summit, a new thought came to me. On the white and pale blue chart of the Ross Ice Shelf there is an oval enclosed by black dotted lines. This oval,

located at 79º south latitude and 167º west longitude, surrounds the words "probable island". Actually, I thought this questionable island lay about 25 miles west of where I thought I was at the time. But twenty-five miles was not a great mistake on an Antarctic map and since we had no astronomically accurate position, our own dead reckoning might account for half that error.

Cold air evaporated my reflections and my perspiration. I began to shiver. I rose and slid around the summit. This elevation was definitely an isolated mound, an unattached knoll not connected in any way with Roosevelt Island. I strained to see that larger mound, but the darkish horizon was now losing its battle for assertion. I continued the tour, rapidly collecting dimensions and shapes in my head.

Where the devil was I? I thought I had skied north and west, but might have easily gotten turned around and gone south and east. Did I ski out ahead of the traverse and find the probable island, or was this a new discovery – Cromie Island?

Whiteness began to enclose everything again. I stood atop the promontory and watched it well up around me. The opaqueness built up slowly – lethargically. My island was planed off, level with the surface, then swallowed up in an airy sea of milk. My mind knew I was on an elevation, but my senses could grasp no evidence or that position in space. I didn't seem to be on top of anything, rather I was immersed in everything. It surprised me to find solid ground underfoot; I believed I should float off into a void, thickened enough to support my weight.

Shivering brought me back to where I was – miles away from camp on an improbable "probable island", a thick curtain separating me from my world of six bearded men and three orange sno-cats. I turned and started back ploddingly in my own tracks. I walked clumsily instead of sliding along, lifting each ski as if stepping gingerly through milky puddles and shaking the oozing, muddy whiteness from my feet. All my concentration gathered on the slim, parallel depressions ahead of me. If I lost the outgoing trail, I would drown in this chalky sea.

I began, suddenly, to slide rapidly along, despite myself. I was being accelerated down hill, impelled deeper and deeper into the thick vacuum. The swift motion pulled the breath from my mouth; the whiteness seemed to be grasping and choking me. Sastrugi caught the toes of my skis and pitched me forward. Stopping astraddle the icy sharpness was refreshing. It proved there was more to the world than a cloudy film. I decided to abandon myself to the downgrade. Shivering spasmodically now, I had no taste for cautious traverse back along my

old tracks. I would relax and descend with the island, trusting sastrugi to slow my increasing speed.

I seemed to attain amazing speeds between the abrupt, jarring falls. It was like criss-crossing the border between two worlds of feeling. One was a breezy thinness of nothing – a place of gasping furious motion. The other was an icy, bruising solidness of reality. After five or six shocks even the falls became dull and dreamlike.

I grew conscious of perspiring again, of a heavy numbness in my legs making it more difficult to rise after each fall. Lying in the snow, trying to rise, my mind filled thoughts of being drowned – suffocated by whiteness, thoughts of lying there and being absorbed into the turbid mixture of air and snow.

I completed my descent facedown in the snow, staring at a ski print bisecting a small crack. The crevice gathered together my thoughts. I noticed thin, icy lips building out from the sides toward each other. When I caved these in with my ski pole, I saw the cracks were much wider than I realized. I think this made me afraid. I felt very conscious of being alone. I mustered my reason together in time to suppress a shout for help. No one could hear me.

My chief concern had been finding the trail at the bottom of the hill. Luckily, I floundered right on to it. The thing that bothered me most, now, was whether I was skiing in the right direction. There was no way to tell the direction of a ski trail and I might easily be turned around, heading back up hill. I continued cautiously in the direction I faced, trying to "feel" the slope of the ground under me. When I could perceive no labor of moving uphill, I concluded I was going in the right direction.

I replaced my parka and helmet. No matter how fast I skied now, it was impossible to keep warm. I shivered more often and recognized the first signs of freezing. When body temperature falls too low, the involuntary exercise of shivering raises it again. However, this mechanism is incapable of raising the temperature to the degree prevailing before shivering began. The body temperature decreases, by small amounts until the victim expires.

"Freezing to death – what a way to go! Wonder how long it takes – how painful it is?" I could not get warm and thoughts like this were no help. The trek back seemed eternal. The sastrugi appeared higher and more frequent, the soft spots softer and deeper. My shivering reached convulsive proportions.

"How many shivers allowed per person?" I could not work up a sweat! "I must keep my mind on the trail. Sing. By god! That's the ticket! Sing a loud, boisterous song!

"Beefsteak when I'm hungry,
Thy whiskey when I'm dry,
A woman when I'm hard up
And hell when I die."

When I die – suppose I didn't die. What about the subtle mutilations of frost bite? Can't feel it, or see it, when you are out in the cold. It's when you start to thaw that the pain comes, and you see the blisters and scaring effects of dead tissue. They say a frozen part is never the same again – supersensitive to cold. But what if you never get it to thaw out – if you never get warm again?

"I'm goin' in the mountains,
And build me a still,
I'll sell you a gallon
For a five dollar bill."

Frozen parts go numb – no feeling – turn porcelain white. I'll try feeling my face with my fingers – most sensitive part. Shit – my hands too numb to even feel the ski poles. Porcelain white? Everything in the whole world is porcelain white. My yellow parka is a lie. Soon it will be lying in the snow, then it will be all covered up, then… Then everything will be white again.

"Rye whiskey, rye whiskey
Rye whiskey I cry,
Oh, I'll drink rye whiskey
'Till the day that I die.'

"Adventure – ha! Follow in the footsteps of Robert Scott…die with our skis on. When I freeze to death my skis will stick straight up out of the snow. That's how they'll find me, and they'll say: "That Poor Bastard." Me and Scott. I'll see him in never-never land and I'll say: "You see, you poor bastard, those son-of-a-bitches in Little America were right "

"If the ocean were whiskey
And I were a duck…"

"What's the use? I might as well lie down and go to sleep. Maybe, I'll feel better when I wake up. Sure, I'll be in a new place when I wake up – harps and angels maybe. Hey, angels – that's the ticket! Pray! Pray? You hypocritical son-of-a-bitch, you never said any prayers when things were good! Piss on it! I'll lie down and take a nap."

Each time I thought of stopping, I saw skis sticking out of the snow – skis and nothing else. If there is such a thing as second wind, then there is also second mind. I looked around and the trail had disappeared. I felt nervous panic welling up, but my new presence of mind had control of the situation. I cursed and prayed my way back along my tracks until I came to the outgoing trail again. I thought I began to feel warmer, and did not know if this were really true, or I was near the end. I still shivered.

I continued to plow through the nothingness. It seemed to take an inordinate amount of effort to pass through the air. I was surrounded on all sides by solid, white walls that flowed, or melted away, as I approached them. But they were always there and always offering resistance.

I kept going – faster and faster now. I must have had a lot more energy than I realized. When three black rectangles appeared, but out of the whiteness, I skied toward them with an ease unrelated to desperation. I even had the nerve to stop and rest.

I was encrusted with ice by the time I reached the sno-cats. Red had stayed awake and he thawed me out with strong soup and scalding cocoa. I shivered uncontrollably for a time, but Red offered no comment. From my sleeping bag I told him of the island and the crevasses, but made no mention of my singing.

Chapter 5

Crevasse!

"Our first major discovery!" commented Hugh.

"Cromie Island – how about that?" said Walt.

"Congratulations, but I think 'Wild Bill's Island' sounds better," offered Red.

We were seated around the mess table in Tweety, having breakfast and discussing my island. Bert rejected the possibility of its being the "Probable Island"; we were to far to the east. Our estimated position was bad, but not that bad. He theorized we had discovered a new

island, hitherto mapped as part of Roosevelt Island. I entertained thoughts of having it named after me.

"They will not name anything after any of us," said Peter. "They do not name places anymore for the men who discover and explore them. Explorers used to name them for their wives so they wouldn't appear so vain, or for the big merchants who financed the expedition. Now this is the IGY, everything will be named for the arm-chair 'planners' and 'coordinators' and 'administrators', or the laboratory scientists who care nothing about these places. They will start with the highest mountain and name it after the biggest politician, then work down through the committee members and hills into the valleys. There will be nothing left for us, but sastrugi." Pete laughed feebly at his last sentence.

"Why Peter," said Walt, "I think you're bitter!"

"It's true," put in Crary, "that the past system of naming geographic features in Antarctica, if there was any system at all, leaves a lot of room for improvement. But I think the American Society for Geographical Names will work out a system for naming that will be fair to everyone in the IGY."

The day was dull and overcast, but not to the extreme of a whiteout. Improved light conditions unveiled the jagged, shattered appearance of the snow surface. Close inspection revealed narrow, shallow rents. Somewhere, however, they must get wider and deeper, leading finally into the center of a pressure disturbance. It was imperative that we avoid this center and the affiliated crevasses.

Thus far, we considered luck our companion, but luck was fickle and elusive. We did not know how to avoid the danger unless we could locate it. Visibility made air reconnaissance impossible and ground inspection treks foolhardy. Bert decided to "stay put" at this second scientific station until weather conditions changed. The delay might prove frustrating, but we felt the cats were in a safe spot, and we should not risk moving unless we could be sure of the ground.

With these thoughts in mind, the day's observations began. Bert and I drilled a thirty-foot hole for seismic explosives while Hugh strung out cables and connected the receiving geophones. Pete and Walt dug a ten-foot deep pit to study the individual snow-ice layers and the minute grains that composed them.

Red lay under the Detector all day with a grease-gun.

Besides the gloomy overcast it was raw and cold - 20º below zero. Everyone showed fatigue and some signs of frost bite at the evening meal. It appeared that weather conditions would pin us down for at least another day, so plans were made for extended measurements. The plans were ambitious and necessitated everyone being out in the snow after supper.

I don't remember exactly what I was doing that evening, but Pete and Walt worked nearby investigating some small low hummocks. I looked up occasionally and saw them both shoveling together. Then I only saw Walt. He stood still for a long while, then began running toward Detector. He seemed to be having a difficult time making his legs move. Walt shouted as he ran, but his low voice concealed the words from me until I moved closer.

"Pete fell in a crevasse, Bert! Hey, Bert – Pete fell in a crevasse!"

The softness of Walt's voice together with the unreal silence and whiteness heaped up around me, prevented the words from having any immediate impact. When they did register on my brain, I thought at first Walt was joking. I always associated him with subtle sarcasms, and even the panicked expression on his face failed to move me. It was the sight of the dark patch on the snow that sent me racing for a coil of rope.

I arrived at the hole together with Hugh and Bert. Pete had stepped on a thin snow bridge and plunged to the bottom of a deep crevasse, <u>not fifty feet from Detector.</u> It was unbelievable – as if someone suddenly placed the crevasse there minutes before! Now we were lying on our stomachs looking down into it. Pete was at the bottom; we could hear him, but could not see him.

"Help me – help me! For god's sake, get me out!"

"He's alive! Exclaimed Crary.

"Pete, shouted Hugh, "can you hear me? Can you make out what I'm sayin!"

"I – I can't breath. Oh, get me out!"

"Can't tell how bad he's hurt from up here, and he may be in too shocked a state to give us a clue" – Bert.

"I'm going down after him" Bennett said flatly.

I tossed him the rope and ran to Tweety. Red sat inside reading a magazine, unaware of what happened.

"Crank 'er up, Red. Pete fell into a crevasse." He looked up, startled – made no move. "God damn it…" I began.

Red said later, it was the expression on my face and not the string of blasphemy that prodded him to action. He backed Tweety to the hole in a matter of seconds.

Pete's voice came out of the crevasse, slowly and painfully. "Oh please help me – I'm suffocating."

Hugh tied one end of the rope around his waist, the other to Tweety. He lowered himself into the crevasse.

Pete had fallen sixty feet and been wedged tightly between two ice blocks on the floor of the rift. Loose snow from the broken bridge fell on top of him. The weight of this snow jammed him tightly into the wedge and was squeezing his breath away.

"Can't you help me; I can't breath," he pleaded.

Hugh reached the bottom and quickly surveyed the situation. "Send me down a shovel, - hurry!"

A short pause, then: "Come on – what's keeping you! I need a shovel. He's suffocating!"

"Easy Hughy, easy – it's comin' down." I lowered a shovel on another line.

While he carefully dug Pete free, Hugh's mind worked hurriedly. When a man falls sixty feet into solid ice, something has to break. If Pete's bones were badly broken internally – if he had compound fractures – moving him might be disastrous. Despite the time-honored first aid adage, <u>not</u> to move him might be equally dangerous. The bottom of a crevasse was no place for first aid or doctoring; Pete could easily succumb to overexposure and freezing while splints were being placed and bandages fixed. Luckily, Pete retained control of his senses; he could help Hugh.

"Pete, you're dug out. Do you feel better? Where does it hurt most?"

"My – my chest – it pains bad."

Hugh checked for blood and visible fractures. "No open wounds, no compound fractures," he shouted up to us. Then to Pete: "Can you move your arms and legs, Peter? Wiggle your toes and open and close your fingers!"

"I think they are all right. I think I have broken my ribs. Yes, I have broken my ribs." Pete assessed his injuries.

"Do you think your back is broken?" Hugh bit his lip at the questions.

"N-no," Pete managed a weak smile. "I would surely not feel so good if this was – oh – true."

Bennett made his decision. "Pete I'm going to bring you up on a rope. Do you think you can make it?"

"Sure, sure – I can make it."

"Throw me another rope!" he shouted up to us. "Can you Hoist us?"

Crary and I looked at each other, and then at Tweety.

"It's a crude way! We might hurt him more, dragging him out with a cat, than he was hurt in the fall," Bert said.

"It's quick and sure," I answered. "He could freeze while we rigged a stretcher basket, and it's a smoother pull than by hand."

"Have we got time to rig shear legs?" Bert called into the crevasse.

"Hell – no! He's starting to shiver," Hugh protested.

Bert was still cautious. "If there is one hidden crevasse, they'll be more." He looked at Red. "You might drive right into another one while you're pulling Pete out of this one."

"Now that would be a nasty goddamn break," said Red.

"I guess it's all we can do. Get in the cab, Red and take your signals from Bill. Walt and I will stand by."

Red eased Tweety as close to the hole as possible. We tied the ends of two ropes to the towing hitch on the rear. Hugh on the end of one rope, tried to slip the other around Pete's body. The navigator groaned painfully at the slightest touch, and Hugh's teeth sank deep into his lip. When he moved Pete's right arm, Pete cried out in anguish. Bennett concentrated every sense – every nerve – on slipping the rope around him and typing the knot correctly.

Perspiration dripped from his forehead onto his hands, making them slippery. The pull must be fully taken by the knot; if it slipped, the rope would squeeze and push the jagged ends of Peter's broken ribs through his lungs and body.

"We're ready…no, no – wait! I want to check the line again."

"A – A foot rope, Hugh," Pete reminded him.

A foot rope is the looped and knotted end of another line used to help hold the weight of a suspended body. The injured man must be able to "stand" in it, easing the burden on the hoisting rope under his arm pits and around his upper chest. Hugh reasoned if Pete was conscious enough to ask for one, he was conscious enough to use it properly.

Hugh tied the knot, inspected it – retied it again.

"Okay, take us up!" Hugh sounded confident now.

I signaled Red and the cat creaked ahead. The sinuous, dangling gyrations of the nylon ropes gradually slowed and straightened, forming a solid connection between men and machine. Vibrating tightly with the weight of two bodies, they slowly lifted them from the bottom of the crevasse.

Hugh held the ropes with one hand to avoid being screwed through the air in a twisting spiral. He gripped Pete with the other arm, and pushed against the crevasse wall with his feet to keep them from being dragged across the sharp ice, The swinging bodies ascended slowly. Heavy blue shadows in the trench seemed to press upon their shoulders, retarding their upward progress. The ropes chafed and rubbed on the top edge of the hard, serrated ice!

I looked at Bert. His eyes were fixed on the whiteness ahead of Tweety. If she crashed through the snow, it would surely be the end of Pete; Red and Hugh would probably be badly injured too. The whole venture might come to an end in the next few seconds. A whole year of planning and preparation might…

The life lines were cutting their way into the lip of the crevasse. The chasm had an inverted V-profile; the ropes were sawing deep into the overhanging edge. Bert grabbed a ski and forced it under the life lines, but the sliding friction merely shoved it back. I pushed the ski toward the edge of the crevasse and jammed an ice axe into the snow behind it. Walt helped block it in place with a second axe.

The ropes pressed against the board and it prevented the sawing action, but the damage had already been done. They had cut deep, narrow grooves into the ledge – to keep hauling would be like threading them through the eye of a needle. I signaled Red to stop.

They hung helplessly below us. Hugh's face had a ghostly pallor and his mouth dropped open. His lower jaw articulated as though a puppeteer was slowly opening and closing it on a string. Hugh had paid close attention to tying in Pete, but hurriedly and carelessly retied his own line.

Hugh's suspended weight tightened the rope around his chest until it was pressing the breath out of his body. I threw another loop to him, but he could not help himself into it. Leaning into the crevasse, I dropped the rope over his head. I could hear him panting and swooning, but could not reach the choking line.

I felt two steel clamps close around my ankles and knew Bert held me. I threw myself into the crevasse, and, drawing my knife, cut the choker away. I told Hugh to climb up over my back, but that was unnecessary. The four of us, with Hugh helping by using his feet against the side, hauled him out. He lay on his back for a long time filling his lungs with exorbitant gulps of air. Hugh's insides rebelled at the sudden volume of cooled air and he sputtered and coughed spasmodically.

Pete dangled from the crevasse ledge. He was almost unconscious with pain and cold. Frost-bite gave him a deadly color, and only the convulsive shivering showed he was still alive. We could not reach his arms and shoulders, nor could we free the life line to haul him to surface.

Cut away the projecting ledge! It seemed the only solution, but Pete hung directly below. As the ice axes and shovels broke away blocks of hard ice they fell right on him.
We tried to chip only small pieces, but some of these were fiercely sharp. He moaned and winced as the solid, lacerating particles rained down.

We stopped the cruel punishment to check on him. I leaned as far into the crevasse as I dared. "How you doin', Pete? (How many times had I cursed him out as a dumb Kraut.)

"I – I – oh, my arm."

The life line had slid up under his right shoulder and inner arm, forcing the arm upward. This caused it to bear a greater portion of his hanging weight. The tension pulled on his muscles, causing severe pain. I tied a running loop in the end of a line, and Bert and Walt lowered me by the legs. The blood sped to my head as I looked at Pete's inverted face.

Hanging head first in the icy defile, looking square into his frostbitten face, part of me thought: "You deserve this, you Kraut son-of-a-bitch!" But another part of me <u>was</u> sorry, genuinely sorry. Pete and I had gone through a lot together, maybe at opposite ends of an attitude, but still we had experienced a good deal of hardship. Maybe I didn't understand his way of thinking. Maybe I couldn't do his job as well as…

Godamnit, I could not reach down far enough to get the loop over his hand!

He saw me and raised the arm enough for me to pass the loop over it. His eyes rolled upward, looking at me. They said a great deal.

The gnawing shower continued, rasping skin from Pete and drawing blood. Many minutes passed before we whittled the overhanging edge into a smooth ramp, and freed the lines. If his ribs were not broken in the fall, they certainly were in pulling him on top.

Pete lay in the snow, his head awkwardly askew, his eyes rolled back. We caught our own breath, and, lifting together and as gently as possible, carried him rigidly to Detector. We had to get him warm – raise his body temperature. Wrapping Pete in blankets did not seem sufficient; we attempted to put him into a sleeping bag. It was a chore for a healthy man, with all his faculties, to wiggle inside a "mummy" bag. It was painfully clumsy to work Peter into one. He moaned tortured protests. We could not do it!

Red switched on the cab heater – nothing happened. He began tearing it open with wrenches and pliers.

Pete complained of being cold. I brought in the cook stove and two camp lanterns to generate some more heat. They seemed to help at first, but soon Pete was coughing and gasping. The gas fumes attacked his breathing. I took the cooking gear away. Red worked nervously at the heater.

Hugh, fully recovered from his share of the ordeal, contacted Little America on the radio in Tweety. The Navy doctor asked about open wounds and obvious injuries. We told him there was nothing apparent. Pete was in pain and his injuries must be internal. His ribs were probably broken and he was severely frost-bitten. In turn, he could prescribe no treatment beyond "Keep him warm and don't move him." Hugh gesticulated helplessly as though this were not enough, but it was all we could do.

We talked to the station commander, asking for Pete's evacuation. What assistance could he give us? We asked, but knew the difficulty of the situation. The quickest way to bring a doctor in, or Pete out, was by airplane – but who could fly in this damn whiteness. Even if a pilot could see enough to judge distances, how could he land on a surface strewn with hard ice ridges and built on a doubtful foundation of crevasses?

Suppose you parachuted a medic, or a team of huskies? They might keep on going when they landed – down. We were five day's sled run form Little America by a round-about route, circumventing many dangers. We had blundered blindly off Roosevelt Island into a maze of crevasses. A cat crew or a dog team might not be able to blunder as far, much less pick up an injured man and get back to safety. Hugh switched off the radio with a heavy sign.

Bert, Hugh and I returned to Detector. Red was reassembling the scattered pieces of the heater. Walt attended Peter. He still shivered fitfully and complained of severe pain. Carefully – gently – we moved his limbs and shoulders to check again for broken bones. His arms, legs and shoulders seemed all right. I looked at Walt; his eyes mirrored my thoughts of confusion and helplessness.

Pete was sure his ribs were broken. We feared for his back and the jagged ends of ribs puncturing his lungs. He was having difficulty breathing.

"Ach, my ribs! The ache is terrible." He groaned, "It is so cold in here. My back – my back feels very cold!"

Detector had strong shelves built on both sides of the cab, serving as desks and storage space. We decided to lift Pete up on one of these. Once Red got the heater going it would be much warmer there than the drafty floor.

Moving him was extremely difficult. No one could stand upright, and there was no room between the shelves and Pete to lift from the sides. However Walt and I compressed ourselves under one shelf and five of us lifted Pete as straight and altogether as possible. We heaped blankets and sleeping bags under and around him, but he asked to be put inside a bag to get warmer. The second attempt to slide him into a sleeping bag had to be stopped when it caused him too much suffering.

Finally, Red got the heater running. The warmth was medicine to Pete and his comfort a relief to all of us. When everything possible had been done for him, we held a conference outside.

"Nothing more we can do tonight," Bert reasoned. "It's almost midnight. Best thing is for one of us to stay with Pete and the rest turn in. If the weather's good, tomorrow will be a tough day."

"I'll stay with him," Walt volunteered.

The full seriousness of our situation dawned upon me as I lay in my sleeping bag collecting my thoughts about the day's events. Red must have been thinking the same things because he said; "Christ! That crevasse was only fifty feet from the cats and we didn't see it."

I was voicing my own thoughts aloud more than replying. "All six of us walked over that crevasse a dozen times today. The seismic line runs right across it. If Pete had been two feet

on either side of where he was, the bridge would have been thick enough to hold him." I was thinking aloud more than replying.

"This whole area must be torn apart for miles around us," Red observed.

"Not around us – under us," I corrected. "The whole place, from here to that new island and back, is broken up like a shattered window pane."

"Goddamn – how we gonna get outta here! The electronic detector ain't workin', and the seismic stuff is still stretched out for 1200 feet over nobody knows what. We can't get out and Christ knows how they're gotta get in to get Pete."

"I guess you were right when you called it a magnificent blunder, Red."

I had just closed my eyes, when a cold blast of air wrenched them open again. Bert Crary's tired eyes and scraggly black beard opened the door and said: "Plane overhead, Bill. Get out and help flag a runway for him."

As Red and I were leaving the cat, Hugh radioed the situation to the pilot circling above. "Jim, the whole area is torn up with crevasses; the only place you can land is in the sno-cat tracks. We're flagging them so you can spot the landing strip. Land to the east of the flags. Do you Roger my message?"

Walt and Bert were already out on skis with armloads of bamboo staffed flags. Red and I took a bundle each from Detector's sled and skied out to plant the markers where they had stopped.

"How do you suppose the son-of-a-bitch can see where he's goin' in this whiteout?" Red wondered.

"It's beginning to clear; you can see the horizon now," I said.

"If that sky jockey makes it in and out of here, I'm personally gonna ask the admiral to give him a big fat medal."

Bert joined us, out of breath from the exertion of skiing. "Surface's pretty rough – find the worst spots. Stand by them with your ski poles held up in a cross. It'll locate the bad places and give the pilot a height reference in this damn whiteout. He shuffled away.

Lieutenant Commander Jim Waldron drove a single-engine Otter-type aircraft. Jim had to land on a "runway" as narrow as the space separating his plane's skis. This strip, tested by the weight of three sno-cats, was the only sure ground in the area. As the light improved, cracks

became visible all around. The runway was hummocked with high sastrugi, crossing almost at right angles.

Waldron received word that the landing strip was ready. He flew down to the end of the flag lane, banked sharply and came right at us. I thought he would make a precautionary "dry-run" to check the ground first. He didn't. The plane's skis dropped onto the surface hard – very hard. The light craft recoiled from the shock, bouncing into the air again. It flopped clumsily onto the snow a second time.

The tail had not settled when the skis slid onto a hard sastrugi ridge. The left wing tipped steeply. Still moving at high speed, the plane veered dizzily. For a hair's breath it was out of control.

Somehow Waldron kept the wing out of the snow and steadied his craft. The plane skidded to a stop less than twenty feet behind "Tweety".

"Sorry I took so long in getting here; it's nearly one o'clock." Waldron apologized as we stared at him in wonderment. "I'll have to ask you to hurry. These small planes don't carry much gas and I dislike shutting the engine off." The mild, quiet voice fit his boyish, freshly scrubbed face.

"Doc" Crockett, a medic and John "Stew" Steward, the plane's mechanic, jumped out of the plane with a stretcher.

"Christ, you guys got yourself into a mess," said Steward.

"Stick close alongside the cats, Stew. The crevasses are all around," I warned him. He looked at me over his shoulder as if I had added insult to injury.

Six of us lifted Pete stiffly into the wire basket. Everyone worked quickly and efficiently; not one word was spoken while wrapping him warm and strapping him into the stretcher. He was delirious by now. Stewart winced each time Peter moaned or grimaced.

The transfer went smoothly, until we were between Tweety and the plane. Crockett stepped squarely onto a narrow crack, almost cemented closed by growing edges. His weight broke away the unsupported lips and his leg slipped in up to the ankle. He toppled on his side, and dropping the left head end of the basket. This shift threw me off balance and I fell with the right side.

Pete's head hit the stretcher's edge as it slammed down onto the snow. He groaned and began talking.

"Where am I? Where is this? Am I still in Greenland? Oh yes, Greenland. I…"

Crockett's face paled. His hands trembled. "You poor bastards! How the hell you gonna get out of here?"

"We don't know, " Bert answered quietly.

Pete was loaded onto the plane. As Jim Waldron climbed aboard, Bert grabbed his arm.

"Jim – you've got to make a wide circle to get turned around for take-off. That'll take you away from the cat tracks. We don't know what's out there, Jim."

"I know, Bert," Waldron said as he disappeared into the plane.

"Stew" looked out at us as he closed the metal door. He seemed to want to say something, but the words would not form.

Jim swung the plane in a frightening, sweeping arc. Not a breath was taken until the Otter charged down the long line of flags. At the end of the flag lane, Jim lifted the plane into the air.

"He's a goddamn good pilot," offered Red.

We collected the flags.

Chapter 6

Blizzard

The wind came right from the South Pole. It made the 700 mile trip to Roosevelt Island in 10 hours, filling the space between surface and sky with a whirling confusion of snow. Some of it fell from the sky and some was scooped up from the ground. The old, toughened grains from the surface threw their full weight at us and stung vehemently. The brash, young flakes from above dashed themselves into our faces and melted. Water streamed down my cheeks like moisture on a bathroom mirror; the droplets slid into my beard and froze.

My eyelids tried to bat away the onrushing snow, and both eyes strained to see beyond the white flecks. I was trying to find a red flag. It marked the burial place of five pounds of dynamite. Hugh and I had put the explosives there yesterday, before Pete fell into the crevasse. Now, tied securely to each other, we attempted to relocate the marker.

Bert Crary is a practical man. He did not give us a chance to think about Peter and the accident. At breakfast he announced: "We got to finish these observations while we're waiting for better weather. There's been no work at all done in this type area. Everybody up until now has had the good sense to work around crevasse regions, not directly in them. But we're pinned down here now, so we might as well take advantage of the opportunity."

Walt glanced at me quizzically as Bert pronounced the word <u>opportunity.</u>

The tug of nylon rope around my waist was reassuring. Hugh, on the other end, kept it so taught he impeded my progress, but I didn't mind. I pulled the rope constantly for more slack. When I found the flag the wind was slapping it noisily and straining its bamboo staff into an arcing curve. I signaled Hugh.

My skis interfered when I tried to kneel by the flag. I jerked at the binder straps, but found them caked with ice. Mittens increased the clumsiness. "Damn it!" Removing the gloves, I flung them into the snow. Cold metal stung my hands. The effort of numbing fingers and increasing blasphemy finally released the straps from their buckles. I blew fiercely on my stiffening fingers.

Pawing the snow impatiently, I freed wires attached to the buried explosives. I brought them into contact with other wires leading to the blasting box. I had replaced my gloves and trying to make connections with them on was like a bear cub rolling a cigarette with boxing gloves. I removed both mittens again and carefully spliced the wires together.

I picked up my skis and the blaster, letting wire uncoil behind me as I walked back. "Twenty feet – good enough! The dynamite is buried deep." I signaled Hugh that everything was ready. He pulled in the slack rope, knelt in the snow and secured the lines with extra turns around his body.

For safety the wires were not completely connected until everyone was clear and the blast ready to be made. My hands ached, but I removed my gloves again to make the final connection and plug the field phone into the blaster. More wires led from here back to the warmth of Seismo where Bert controlled the recording instruments.

"Ready to blast," I shouted into the telephone mouthpiece.

"Gi'us a minute," said the other end.

"Damn, don't they know it's snowing out," I thought.

Crouching down by the "hell box," I squeezed my aching hands between my legs. Man, it was cold! I wondered how Pete was doing. The snow had looked safe and substantial (like it did now); he was working just as if everything was normal. Then all of a sudden – no snow and no Pete!

"Hey, wake up, Bill. I'm ready to receive".

"All right, all right! Stand-by. Ready. Here we go!" I squeezed the firing button.

Nothing happened.

"The son-of-a-bitch misfired, Bert."

"Try her again, Bill. Leave the charger button down longer this time."

"Okay, stand-by. Ready. One-two-"– charger button down. "Three-"– the orange light flashed on. "Four"- I mashed down on the firing button. A curtain of carbon-stained snow leaped up before me.

The explosion sounded hollow and dull. It did not rumble through the air but resonated in the ground below me. I pictured the ice shelf as a gigantic drum, covered with only a thin, brittle skin of snow. I thought the explosion had ruptured the skin and now I waited for the sickening sag and then a sudden break-through.

The fragile skin stayed intact, but I heard heavy, plopping sounds like blocks of hard snow falling a long way. I believed that I had blown the supporting props out from every crevasse bridge in the area. The blast made the thin crust even thinner. Perhaps it had fractured and cracked in places. It might have opened up a hole that we could not see with the blinding, driving snow.

"We got the shot," said the telephone. "Go on to the shape charge and see if you can blow it."

I told the mouthpiece about those empty, thudding sounds. The earpiece offered a whole string of logical procedures.

"Move forward slowly – watch the ground closely – stay roped together. If you see any holes or large cracks go around them. Don't take any risks."

"Don't take any goddamn risks?" I repeated to myself. "Stay roped together – some shit! Suppose I blasted away a bridge right under Hughy." I tugged at the line around my waist. It tugged back. I signaled I was going further – three short pulls.

Re strapping my skis, I coiled the blasting wire and picked up the blaster. So much happened between yesterday, when the charges were buried, and today, that I had to think about which direction to take. The dynamite was planted along a line trending south. That was an easy direction to find – you just headed with your face full into the snow and wind.

I arched my body forward and slid into the tempest. The blizzard was like the huge, gloved hand of a policeman holding me back from the parade grounds. Obstinate snow grains flailed and stung. Flakes piled up and froze on my eye lids. I battered them furiously, but it did not help much. I felt miserable.

Searching ahead, I could see nothing but snow coming straight at me. Peering down, I saw nothing through the driving screen of white particles. The only way to find signs of a crevasse

was to get down on my knees and crawl along, a bit awkward on skis. I could not probe ahead too well with ski poles; I carried too much equipment. I wanted to get the job finished, so I abandoned myself to the storm. I stalked ahead, yanking the life line furiously for more slack. If I walked on too thin ground, Hugh would have to save me.

When I had paced off what I thought to be the distance to the next marker, I stopped and searched. No damn flag. I made a right turn and headed west with the wind assailing my left cheek. I walked so far, then turned around and went east.

I was only five feet from it when I finally saw the slapping red cloth, already ragged at the edges. The wires had been led well up the staff and taped there. My hands were warm now and the connection was easy. Six feet under the snow lay a fifteen pound, cone-shaped charge of T.N.T. That ought to really blow the bottom out of everything! I thought.

Forty feet behind the flag, I unstrapped my skis and lay down in the snow. Hugh dug in behind me; I could feel him putting tension on the rope. With the hell-box next to my head, cradled in the crook of my right arm, I plugged in the phone and called Seismo.

"On the firing line – ready to shoot!"

"Wait a minute."

"Shit!" I was stretched prone behind the blaster, holding it with both arms. The snow rapidly began to bury me. (They'd sure pay hell if I went in a crevasse and they tried to rescue me in this blizzard. Jim Waldron was a 'hot' pilot, but nobody…")

"Let 'er go when you're ready, Bill," said the phone.

"Okay – hold on to our oscillograph. Here she goes!"

Visions of the crust cracking all around me, crumbling into pieces and falling into the abyss below, raced through my mind. This charge was enough to shatter every bridge and open every crevasse for miles around. I gritted my teeth and squeezed the charger button. The orange light winked, then stared. I closed my eyes and pressed the firing button.

At the same instant the snow went up in front of me, the ground began sinking beneath me. All of the events of yesterday's accident passed before my eyes. I was going down! I screamed at Hughy to save himself.

I caught myself wondering how far I would fall, after I had already stopped. I had sunk all of four inches into the snow. Four inches can be a long fall!

One more blast to go.

Stepping to the next flag was like crossing a frosted, shattered pane of glass stretched across the Grand Canyon. I went through the blasting routine with the same sickening results. The explosion boomed hollow, and the surface shook and dropped down those few frightening inches again.

"All right, pick up the gear," barked the telephone, unaware of my narrow escapes. I waited a while before I picked up the blaster and walked back toward Hugh.

He greeted me with: "Better get your skis back on; this is dangerous ground."

"No foolin'," I said grumpily. "I think the blasts tore out a lot of ground under us. Did you year the hollow noise and the plopping sounds?" I shouted in his ear to compete with the wind.

"Yes, even back this far and with the noise of the blizzard. I was thinking they were made by snow knocked loose from the sides and under lids of crevasses."

"There's probably going to be more thin bridges going back than on the way out," I conjectured.

"Yeah, agreed Hugh, "we better take it easy. Follow your own tracks, if we can find them. Want me to go first this time?"

"No, Hugh, I think it's better if I go first."

I retrieved my skis and we started back. Things were better with the wind behind; you could see more of the ground ahead. Reaching the first geophone, I crouched to disconnect it, but the ski poles got in the way. I removed a strap from my wrist and jammed the pole into the snow. After fumbling awkwardly I discovered I could not disconnect while wearing gloves. I wrenched them off and flung them viciously aside.

At the second geophone, I toppled sideways from my ski crouch and could not get back up. At the fifth I noticed my fingers were frost-bitten. At the sixth, I discovered I could not carry six phones and two ski poles and still ski. Jamming the poles in the snow I went off without them. Normally on skis I am good for a fall about every fifteen minutes; without poles I was able to cut the time in half.

I wanted Hugh to have both hands free in case I found a thin bridge, but I could not manage more than twelve geophones myself. I decided to go back to camp, leave my burden and return for the other twelve phones and my ski poles.

By now I was thoroughly chilled, so facing the blizzard again was punishment. My hands began thawing in my gloves, and the pain was enough to make me want to take off my mittens

and freeze them numb again. I had plenty of opportunity to do this. At each geophone I stopped, dropped the other phones, went into an awkward crouch, pawed the cables out of the snow, removed my mittens and disconnected the wires. Then I reversed the routine. I was still tied on a line with Hugh holding on to the other end. When we got back to the sno-cats, he reeled in the geophone and telephone cables while I climbed onto Detector's sled.

I pushed snow away and shifted boxes until I found the one I wanted. It was the case of medicinal brandy. I brought a bottle back to Tweety and Hugh, Red and I began emptying it unceremoniously. Walt and Bert joined us later. About half way through the bottle I noticed a large patch of dead, frostbitten tissue on the side of Hugh's face.

We kept our nightly radio schedule with Little America before dinner rather than afterwards. Everyone was anxious about Pete's condition. Ron Viets, substituting as chief scientists for Bert, told us Pete had five broken ribs, an undetermined number of cracked vertebrae, and a punctured lung. We theorized that he had gotten his broken bones in the fall, but the punctured lung was probably the result of rough rescue techniques.

After dinner we discussed improving our rescue methods, and of the phenomenon of the snow giving way under me. Other polar explorers in the past have written of sudden, lurching drops in the surface. Bert said the cause was probably a shallow blast wave rippling the top layers. Walt disagreed. He told of finding something in his glaciology pit of two days ago that would explain these crustal sinkings.

Many snow layers are composed of hard, dense névé, almost the consistency of ice. Others are made-up of loosely-packed grains of snow, interspersed with much air space. When weight is applied to a compact layer, or it is ruffled by an explosion, it applies pressure on the layers below it. If it overlies a weak, air pocketed bed, the latter will not be able to support the extra load. The soft zone will be compressed; the hard layer will sag, then fracture, causing a drop in all the strata above it.

Walt found a soft zone, six inches thick, just under the brittle, wind packed surface crust. Vibrations from the explosions buckled and broke the crust causing it to sink down (along with my stomach) into the weaker layer.

About noon that day (Nov. 4) the wind swung around to northwest, dropping in intensity. The sky cover began breaking apart and a confetti of giant snow flakes fell quietly. After three days of roaring, screaming wind, the silence was back to its unnatural self.

We were all over the crevasse detector as soon as the good weather came. Bert and Hugh examined her intricate insides while Red, Walt and I worked on the outside elements.

By one o'clock the detector ran so well it sounded the alarm signal without help of a crevasse. By three, we had silenced the useless signal and were ready for a test. Bert drove straight for Peter's opened crevasse. There was no warning alarm at the very edge of the defile. Bert grumbled and pushed the detector pans right into the hole. Red lights flashed, buzzers rang and the pen and ink recorder wrote in convulsive jerks.

We shoveled and lifted the pans clear and went looking for another crevasse. They were not hard to find. Twenty feet from the first rift, the pans broke through the snow again. They found a wide rift sixty five feet deep.

We went looking for more.

"This is fun," said Red.

We discovered three crevasses arranged in echelon, as if they had been formed by a sliding, shearing force. They tended southwest-northeast.

"Enough of these games," announced Crary. "We want to go west, so we'll follow along the trend to the southwest. Maybe, we can slip between them. At least we can move to a new place where a station can be worked until an airplane comes."

Detector and Seismo moved ahead at fifteen minutes past five that afternoon. Tweety remained behind as an emergency vehicle. I radioed Little America to let them know we were moving ahead, and to give them a weather report. It had stopped snowing and become completely overcast again.

Red and I noticed our companion cats making little progress. All three men were constantly out in front of Detector, probing the snow. After forty-five minutes of moving ahead, they were still within sight. We called them on the radio.

"What's wrong, Detector?"

"Agony, Tweety. We keep getting a warning signal, but can't find a crevasse"

"If you can't find any, you got no cause to complain. Just keep goin'."

"We are, Bill. You and Red pull up anchor and follow us.

Tweety caught up with the others less than half-a-mile. When we pulled close, Red and I both blinked in disbelief. Detector and its sled had broken through a snow bridge and fallen partly into a crevasse.

Chapter 7

Detector hung onto the edge of the crevasse with her two right pontoons. The pontoons on the left side dipped steeply into an empty void. The sled she towed was sunk to the ankles in soft snow; the runners had disappeared completely. It was a delicately balanced situation.

Bert and Walt hung onto Hugh while he leaned over the doubtful snow and unhooked the sled from the cat. Red backed Seismo at an angle and we attached a heavy wire cable to the rear of the sled.

"Take off, Red!" I yelled at him.

Seismo eased ahead. The sled creaked and groaned, then started backward. It moved a few feet before sinking further. Seismo continued to pull, but the sled stopped behind a mound of ploughed-up snow and began to wrack.

"Hold it, Red! Come on back; we need slack to unhook."

Seismo ran around the other end and hooked to the front of the sled. It was separated from Detector now, and Seismo tugged it out from behind the disabled cat onto solid ground. We looked at Detector and knew she would not come out that easily.

"How are we going to get it out, Bert?" Walt asked.

"Dunno – but I'm thinkin' about it."

"Drive the son-of-a-bitch out, Bert!" said Red. "Lemme in there; I'll pour the gas to her and jerk the clutch out, fast. She'll bolt right outta the hole like a jack rabbit."

"Or stall, and we'll be down to a four man party," Crary retorted. "No Red, It's too risky. I think we better unhook the detection gear and take all the heavy and valuable equipment out of the cab."

Seismo towed away the electronic paraphernalia. As we unloaded Detector, I asked Hugh what happened.

"Looks like we ran along parallel to this one for a while," he answered, handing me a sun compass. "The detector kept giving a signal, but we couldn't find anything with the probes. Evidently the hole widened out until it got under the left tracks. Walt got off course a bit to the left and bang! She tipped over. Bert and Walt came out the door like two of Red's jack-rabbits!"

"So, the electrical marvel is working all right. It's us that are screwed up," I decided.

"Looks that way," agreed Hugh, passing a box of radio parts.

"Let's get a move on. That cat ain't gonna hang there all night," said Crary. "What do you guys think of putting a wire sling over the roof and attaching it to the lifting's eyes on the left side.

"Then what do you do?" I wanted to know.

"One cat keeps a strain on the wire to prevent the cat from dropping in; the other tries to pull her out form the side."

"I don't think it will work, Bert," put in Hugh. "Detector will catch on the edge or tip in on her other side."

"I've pulled a lot of farm tractors outta a lot of holes, but I never tried to do it sideways," advised Red. "I still say I can drive the bastard out."

"Driving is the way, Bert," I said. "Slide the big bridge timbers across the hole and behind the pontoons. You can back right out over them."

"I think it can be done, but it's dangerous for the driver." Cautioned Hugh. "If we rig him up in a rope harness with a safety line, we can belay him through an open…"

"Piss on all that rope work!" The thought annoyed me. "Trouble comes and I'll have to untangle myself from a spider web of rope. Take out the seat, leave the doors open and I'll back her out. Trouble comes – I jump!"

"Who the hell appointed you duty driver anyway?" Red yelped.

"I'm smallest and fastest," I said.

"Phooey, I've driven my 300SL out of worse spots than this," put in Walter Boyd. "Besides, if you'll remember, the Detector sno-cat was assigned to Peter and I."

Everyone thought *he* should drive Detector. This was not a selfish attitude because the driver could easily become pinched into the cat lying at the bottom of a crevasse. Bert had to break up the harangue with a decision.

"Nobody's going to drive that heap out of there, I'll leave it here before I'll risk injuring another man. Grab those four by twelves and put them behind the pontoons. Dig 'em in, so the pontoons can ride on them without having to climb. We placed three timbers under Detector, the towing cable was stretched between Detector and Seismo. The ground behind and to the right of the crippled vehicle had proved to be solid and safe.

Seismo began hauling. Detector's pontoons started up on the timbers, but suddenly the left front sagged and dropped deeper into the void. We were losing the tug-o-war.

Repositioning the timbers, we tried again. The load proved too much for Seismo. She stopped dead and her tracks spun helplessly.

Tweety came over to help. Seismo began easing back so we could get a bight of the cable on the, mess-cat. The more she backed, the further Detector slid into the crevasse.

If all Detector's weight was hanging onto Seismo the cable could not be slacked without losing Detector, and the seismic vehicle was unable to pull the cat out alone. Hurriedly, desperately – we dug snow and shifted the heavy timbers. The front pontoons hung vertically into the defile.

Seismo backed and we chocked timbers in place until they caught Detector's weight. Tweety hooked on immediately and both cats began pulling. The rear pontoons came out of the crevasse and up onto the timbers. The front end was still in danger.

Tweety and Seismo hauled slowly and steadily. The top of the front pontoon passed against a timber. The rear of the cat was near solid ground.

The two sisters pulled until the front pontoon hung straight up and down with a timber just below the center. Hugh drove Seismo and Red, Tweety. We told them to accelerate ahead, suddenly.

"Let her go, Red – Hughy!"

They lurched ahead. The lower part of the front pontoon caught one timber and the upper (rear) part crashed down onto another.

Detector was dragged onto solid ground.

The rescue had taken three hours. When everyone finally stopped working they began to shiver. It was nine P.M., and no one had eaten since noon.

"Sorta think this is the kind of occasion the Navy doc had in mind when he forced that case of whiskey on us, Bill."

I agreed with Bert. The first course for supper was bourbon au straight. The brand name was Old Methuselah, and the label assured us that, although not sold commercially, there was no finer bourbon bottled.

The libation relaxed us and loosened tongues. Red told us about all the farm machinery he had hauled out of tight places, and Walt told us about all the tight places he had gotten into with his sports car. Bert, in a this-is-nothing spirit, talked of "shooting seismic" in the headhunter infested jungles of Colombia, using mules instead of vehicles.

I was slightly hung over next morning, when I opened my eyes to look at the frost covered rivets inside the sno-cat cab. I lay there thinking that life was one long procession of whiteouts, blizzards and crevasses. We had not seen the sun in seven days, although it was

light 24 hours a day. Glancing at the dull, frosted-looking windshield, I knew we would not see it today.

I slammed my head into the mess table getting out of my sleeping bag. I banged it several times more while rolling and tying the bag. Red slept between the stove, radio and cat engine. I slept on the floor under the table. Squeezing myself between the table edge and walls of the cab, I wormed outside to take the six o'clock weather observation. I stepped out into a whiteout.

Between my aching head, the whiteout, the cold, the early hour and the crowded cat, I was in an uncivilized mood when I kicked Red to wake him. He tumbled outside and began collecting snow to melt for breakfast water. I burned myself on the gas stove and knocked over a box of powdered milk before assembling all the ingredients for powdered eggs and coffee.

As usual, Hugh was the first in for breakfast. Carrying his ration case chair, he came into the cat by the front door, instead of the rear, and had to squeeze between myself and the stove. I growled something nasty at him.

"Well, well, good morning, Tiger. What's for chow?"

"Penguin shit! Do you like yours firm or loose?"

"What bit the cook this morning?" he asked Red.

" A fuggin' ice worm," Red answered.

Bert came in next and sat down to write notes in his field diary. Walt always straggled in last. The eggs made an unappetizing sound as I plopped them into our plastic bowls.

After breakfast, we discussed our situation.

"I think we've learned a lesson," began Crary, "about moving without air reconnaissance, or in poor visibility. We're going to have to sit here until we get one or the other, and it doesn't look like we'll get either today. We might as well work a station here. Luckily, we've got plenty of explosives, gas and food."

"And Old Methus!" added Red.

Walt jumped up and carried his ration case and dishes outside. Hugh left to string out seismic cables. Bert continued to write. Walt returned and put his face into the door with a question.

"Is this station number three, Bert?"

"It's only a third of a mile from the last one – call it station 2.1," Crary answered without looking up.

When Red had gone outside to check Detector, Bert closed his book and eyed me thoughtfully. "You've done some work in glaciology, haven't you." It was not a question. "With three men in seismology and only one in glaciology, our set-up is kind of top-heavy. Why don't you work with Walt. Hugh and I will handle the seismic until Robinson, the new man, comes out."

"Okay Bert. Variety is the spice of life."

Rather than dig a ten-foot pit to study the snow-ice layering, Walt and I decided to utilize the crevasse that Detector had just vacated. We gathered climbing ropes, crampons (spiked metal over-shoes) and ice axes, and did our glaciology hanging in the ice cavern.

Actually, it was quite pleasant when you got used to it.

Crevasses become beautiful scenery when the danger is minimized. The cool blue void, the fantastic sculpturing of snow blocks, the delicate assemblages of ice crystals are an agreeable and attractive environment. The drab monotony of featureless whiteness is left on the surface. Crevasse walls shield you from biting winds and make the work more comfortable. Practically, the rift is like an opened zipper in the ice shelf. The accumulative layers that make up the shelf are visible in clear cross-section for the depth of the crevasse. A glaciologist can obtain a clue to past climates and weather by seeing how much snow accumulated, or melted and refroze to ice, every year for many hundreds of years.

Next day, November 5th, was not a whiteout, but was the closest thing to it. Visibility was poor and weather not even remotely conducive to flying, but Jim Waldron came over anyway. We advised him not to land.

"Jim," Bert said over the radio, "we don't know what we've got down here. My boys are movin' around on ropes. I don't even know if our tracks are safe; the crevasse detector's been misbehavin' again.

"I Roger you Bert. I've got some new parts for that machine and, what's better, the inventor – John Cooke. He arrived at Little America a few days ago and I told him you had misery."

"Jim, see if you can get down; I'd like to talk to that man! We worked on it all day yesterday. We'll try to use it to sweep a clear area for landing."

Waldron circled while Hugh swung Detector in a wide arc to check the camp area. I leaped on to the cat to check recorder readings for him. As I opened the door, the alarm began clanging furiously.

"Probe for it?"

"No time, Bill. I'll back up and try a new approach."

Detector backed, then moved ahead again, trying to pass Tweaty and Seismo. The alarm went off again near Seismo. Hugh reversed the cat and made another attempt to go ahead. The alarm blocked his way. We wanted to retest our tracks so Hugh tried swinging around to the other side of Tweety, but there were too many hidden crevasses.

Exasperated at the delay, Waldron landed in our tracks.

"Sorry to spoil your fun." He said, "But I'm low on gas."

"Watch where you walk, Commander," Red warned him. "It's so bad, the crevasse detector can't even get out of our camp area."

"Thank you, Renback. This is John Cooke speaking."

Cooke had the bewildered look of a man abruptly taken from behind his evening newspaper and sent to the South Pole as quickly as the Navy could get him there. Two weeks before, in fact, he was having Sunday dinner with his family in Texas. Suddenly, he was issued a duffle bag full of warm clothes and put on a plane. Cook saw about an hour's worth each of California, Hawaii, Canton Island and Fiji. He had been given a few days to get organized in New Zealand, and now he was in Antarctica. John Cook had not shaved since leaving the dinner table and his eyes looked as though he had had no sleep.

There was not time for socialites. Carrying his small tool kit and a box of parts, the inventor was whisked away to Detector by Hugh and Bert.

"Well, how y'aul!" A big, smiling, red-haired fellow with a fiery beard, Phil Smith stepped through the plane door. He dropped an overnight bag and a metal ammunition case in the snow, and began shaking hands all around.

"Travelin' light, ain't you Smitty?" I asked, grabbing his large freckled hand.

"Well, I don't plan to stay long – just want to get you fellows through these crevasses."

"How is Peter?" Walt asked Smith, as we walked toward Tweety.

"Doin' fine – doin' fine. They're going to fly him to McMurdo, then out to a hospital in New Zealand."

Jim Waldron and his co-pilot, Ensign Bill Schick, Smith, Walt, Red and I crowded around the mess table. Waldron and Schick spread a map on the table, while I doled out hot cocoa.

"Both times I've been out to visit," Waldron said, "I flew very low to see what I could of the area. It's badly crevassed." He checked our faces with his calm eyes. "The shortest way out, I would estimate, is to the southwest."

"Steer 223º true, and you should be out of the disturbed area in eight miles," added Schick.

I explained that we had chosen the same course from the orientation of the crevasses.

Waldron and Schick gulped their beverage so there would be enough cups for Bert, Cooke and Hugh. They came into the cat together. The inventor was shivering from the cold. He grabbed the cup in both hands and looked at us. His lynx-like scan caught Walt's clean-shaven face and head, the black marks of frost-bite on Hugh's face, Crary's mass of tangled, unkempt beard, Red's scraggly, gnarled moustache and he shuddered burying his face in the cup. "I think we should get back aboard the airplane," Waldron said, rising. "I wish you fellows the best of luck in this crevasse business!"

"G-good luck," stammered Cooke. "I think the detector will be all right now."

Waldron swung the airplane out onto the dreaded, unknown white, then back into our tracks. The wind was wrong for take-off in that direction, but it did not seem to make any difference to him.

"He's a goddamn good pilot," said Redback.

Despite our dangerous situation, temperaments were gay and relaxed at the evening meal. Phil Smith, a crevasse expert was company, and I fixed a special "Crevasse Eve" dinner. A ration of brandy was issued, and we talked of spending Thanksgiving at McMurdo Sound.

"I'll send in the weather reports," said Hugh moving towards the radio.

"I'll rig the antenna for you, Hughy," offered Red.

Our radio antenna was a piece of wire, 50 feet long, stretched straight from Tweety to a ski pole. It was aligned at right angles to the direction of Little America.

After the weather broadcast Red said, almost casually, "Gee, this is a rough goddamn place. I slipped a leg into a crack just outside Tweety, while I strung the wire."

"How deep was it?" Smith asked.

"Only a small one – about yeah…" Red demonstrated with his hand spread. "I only went in a little past my knee."

"Let's run the detector over it and see what kind of noise it makes," suggested Crary.

The revamped equipment made plenty of noise. It sounded like a crevasse detector should sound. We decided to probe the crack to get the "feel" of it. It was to be a routine drill over a small crack, but when Crary pushed the detector across to the other side the alarm persisted.

"The son-of-a-bitch is jammed," concluded Smith.

Crary backed Detector away from the crack. The bedlam ceased. He drove forward again over the crack. The warning bells and lights objected. Tied to each other, we probed the far side of the crevice strenuously. The probes met resistance throughout their entire length.

"Well, Smitty, this is what we're paying you for. What do we do now?" Crary asked him.

"Got any dynamite?"

"Yup."

"Blast the son-of-a-bitch!" We blasted.

Red was the first one to reach the edge. "Shit, oh dear!" he said.

"Beautiful" commented Smith.

"My goodness!" said Walt.

Crary looked worried. The explosion blew the lid off a hole big enough to accommodate all the cats, sleds, men and equipment in our party. The edge was only 25 feet from Tweety.

"Red was a bit shaky, so Bert poured him a drink of whiskey. He looked at the rest of us and poured five more glasses. Walt, a reluctant drinker, emptied his glass eagerly.

"Red's Crevasse" showed up clearly with the improved visibility next day. We tried to ignore it while making preparations to start across the fissured area. Breakfast, stowing and lashing equipment, and a double-check on the electronic detector, took most of the morning. It was eleven a.m. when we started.

Smith, Red and I – in that order – walked ahead on a rope. I stayed close to the booms of Detector cat, which was following us. Bert drove and Hugh manned the detector. Walt stayed further behind on skis, towing a small sled full of dynamite, blasting caps, shovels, etc. We left Tweety and Seismo behind.

If Phil found a crevasse by falling into it, Red and I were supposed to save him. Should a bridge be thick enough to support men, but not enough for the vehicles, our electronic brain would (we hoped) ferret it out. It was a double check system and we did not have to go far to test it out. After a few tens of feet, a warning signal appeared on the recorder. Hugh shouted the signal characteristics to Phil. Phil began probing. Red kept Smitty's life-line taut and probed himself. I watched them both carefully, wrapping the life-line around the wooden detector booms for extra control. In a half-hour two warnings had been received, but the ten-foot probes found nothing. Crary stopped the vehicle. "This is what happened last time when we drove Detector into a hole." Just when I thought the bridges were thick enough, we broke through.

Smitty pushed his alpaca cap back and scratched his head. "Beats me! I've never seen anything like it."

The next morning started partly cloudy. A gentle southwest wind, however, came up and gathered most of the clouds, taking them northward. The sun shone and the sky was nearly clear now. We stood perplexed, frustrated and confused, wondering what to do next.

Nobody had thought of anything when Jim Waldron flew over from Little America again and landed in the same spot. We all walked back to meet him.

"I think you're pushing your luck, Jim," Crary advised him.

"I might offer the same criticism to you, Bert. Why don't you turn back?J"

"Maybe I'd consider it if I didn't believe it's longer and just as dangerous as the way ahead. We've only made it this far by pure accident. I think there are plenty of traps in the soft snow in the lee of Roosevelt Island."

"You're probably correct," Waldron agreed.

"Would you like to take a ride and see what <u>is</u> up ahead."

Jim took off contrary to the wind again with Bert and Smith aboard as observers. They flew along our projected course, came back and flew out again. Their report was encouraging.

Over soup and coffee we studied some new charts Waldron left with us. Crary checked and rechecked his notes against the maps. He confirmed the good news. "It's only four miles to the end of this mess, not eight."

"It's not like Jim Waldron to make a mistake of four whole miles," observed Walt.

"Maybe it was that puppy Ensign's navigation," offered Red.

"Can't blame anyone even for being twelve miles off in these damn whiteouts," I said.

Let's give it another go," said Crary, wiping his beard on his sleeve.

"We started again with the probers riding astraddle the wooden Detector booms instead of walking in front. In a few minutes, we met the same situation – a warning but no crevasse.

Crary stuck his head through the roof hatch. "Bring up the dynamite, Walter!" he shouted.

Chapter 8

Crevasse Trail

A geyser of black and white snow shot into the air, leaving behind a gaping hole. I approached the gap slowly, on a rope, and Smitty lowered me into it. I dangled into the void and memorized its insides.

Only a shallow shaft of light came through the open manhole. I was shrouded in the dim blue ray, while it, in turn, was immersed in purple gloom. I strained to see out of my capsule of light. The walls, twenty feet apart, were barely visible. Heavy shadows concealed the bottom. I noted the direction in which the canyon ran, sketched its profile and contours in my mind, then asked to be hauled out. I drew its course in the snow above; Detector swung clear of the danger and continued.

The alarm rang again almost immediately and the probes sank into the snow without resistance. I began digging a small hollow around a probe hole to plant dynamite. Smith tightened the rope around my waist and Walt skied up with the powder sled. The snow, fluffy and loosely packed, shoveled like air. Then, suddenly, I was shoveling air. The surface crumbled away all around me. Flinging myself sideward, I managed to grab the nearest detector boom. My feet hung into the hole. I had dug my way right through a crevasse bridge.

It was a tough day for crevassing. With the clearing sky came a severe drop in temperature. It was 20º below zero. A light wind sprang up from the most punishing point on the compass – southwest. It blew right into our faces.

Probing and digging fell to Smitty, Red and I. The three of us, together with Walt, did the blasting. Bert and Hugh handled electronics and driving.

The third time the alarm went off our probes slipped partly through the snow, then met resistance again.

"What the hell gives?" asked Red.

"It may be an air pocket," guessed Smitty.

We began digging. I uncovered a purple cavity and knew that one more shovelful would put me into it.

"Hold it?" I shouted.

Hanging onto the booms, Smitty and I widened the hole by kicking snow in with our feet. The loosened pieces fell into a rift about five feet down.

"The little bastard." Said Red, looking over the booms.

"Looks like an old one that's filled up," suggested Smith.

"How can it fill up with a bridge over it?" asked Hugh coming out of the cat.

"It filled up before wind made the bridge; then the covering prevented it from filling completely." Explained Smith.

"Maybe it filled and has begun to rework itself," suggested Walt.

"Bill, jump down inside and see what you can find out," ordered Bert.

I checked my rope, Smitty braced himself to "belay", and I slid through the opening.

It was like a sewer in the snow – about five feet deep and four wide. The walls and top were hung with lacy clusters of soft snow that burst on contact. The cold flakes fell under my collar and worked down my back.

I walked along the tunnel for some distance. Bert's voice sounded far away when he said, "What's the situation?"

"Just an ordinary goddamn undersized crevasse," I answered.

Two more steps and I was walking on nothing. The floor of the tunnel disappeared into a great emptiness under me. I had not recovered sufficiently from my startled surprise to realize I was falling, when the rope jerked me to a stop. Oscillating up and down on the bouncy nylon, I tried to see bottom. There was nothing below me but blackness.

"What happened?"

"You all right?"

The voices rolled down the tunnel.

"Yeah, pull me up, will you?"

Two falls in one day proved too much. I lost my enthusiasm. It took four more hours for the others to lose theirs. By seven o'clock p.m. everyone had become so cautious, we decided to stop for the day.

I forced myself through the routine of cooking. The six of us were so thoroughly chilled and exhausted that even a large quantity of hot food failed to revive our spirits and vigor. After the meal we took inventory of our first day's progress. During one long, grueling afternoon we had discovered six crevasses – most by falling into them. We advanced a grand total of 1300 feet in six hours.

"Christ, I could slither along on my goddamn belly faster than that," said Red as we crawled into our sleeping bags.

"We're going to be a lot longer getting out of this mess than we figured."

"Yeah. Geez, that was some pair of brodies you took today."

"Goodnight, Red." I didn't want to think about the falls.

Blast-as-you-go traveling was slow and laborious. Crevasses stopped us constantly, and probing through hard snow and ice tired us quickly. Temperatures stayed continually below zero. We were able to find the crevasses on our first day, but the second began with an alarm ringing and no crevasse that could be detected. Five of us covered every foot of ground with probes, but found nothing except seemingly solid snow. This added frustration to our trials.

There seemed to be only one thing to do in these vexing cases – back away from the signal. Detector would reverse until the alarm stopped ringing, then move off on another course. If we did find a crevasse, dynamite opened it up and we crawled in to investigate.

Most of the crevasses had bridges four to six-feet thick – enough to support a cat. But no one knew that – knew what the warning signal meant – until the danger had been found and explored.

Late that second morning we met what appeared to be an impassable barrier – but we couldn't find it! Detector's advance was repeatedly balked by danger signals. No matter how many times she was backed, or which new direction was chosen, an alarm blocked the way. The probes could find nothing. Walt came up with the dynamite sled, and we blew six holes in the surface. Two crevasses overlapped across our path. It took more than four hours to circumvent them.

Advancing only a few feet past this hazard, we ran into the same situation again.

"Shit!" said Red.

"Let's run for it!" I announced suddenly.

"What?"

"Throw her in high gear and barrel-ass right over the signal! Go as fast as we can and avoid the bad looking spots."

"You can't see the bad-looking spots if you are going fast," reasoned Walt.

"That's about the best way I know to put the cat into a crevasse," said Hugh.

"Hugh, putting the goddamn cat into every crevasse we come to and dragging it out the other side would get us there a damn site quicker than all this backing down."

"Oh, be reasonable, Bill!"

"How the hell reasonable and cautious can you be…"

"Let's blast!" injected Smitty.

We blasted three more times and found two crevasses side by side. Detector backed, swung clear and tried an end run. We could not pass beyond the crevasse line.

"Back down, Bert!" shouted Hugh.

"Bring up the powder, Walt" – Smitty.

I flung my probe into the snow. "Is the object of this outfit to get through the crevasse area, or to find as many crevasses as we can and blow the shit out of them?"

"You're out to kill us all in a hurry, Cromie," challenged Hugh.

"Well, I'd rather get it over with quick than work myself to death jamming a silly probe into the ice every two inches."

"We need more dynamite," said Smitty.

"Keep it up and eventually we will blow ourselves to pieces," said Walt.

"We been using so much dynamite we'll probably all get asphyxiated from powder gas," I put in sarcastically.

"Belay me, Hughy; I want to plant a couple of sticks," Smitty said.

"Well goddamnit! We can easily drive between those last two parallel crevasses and get by this pressure line," put in Red.

"Too risky," said Hugh.

We're sitting in the middle of a cracked up piece of ice and you think it's too risky to jump to the next piece?" I asked.

"This is no time for metaphor," Hugh retorted.

We split into two quarreling factions. Red, Walt and I favored speed at the expense of safety; Hugh clung to caution and Smith was completely preoccupied with blasting. Many of the crevasses we discovered had bridges thick enough to carry Detector, but some few did not. Also, there were narrow alleys between crevasses that looked like tempting passages, but we did not test them.

By four that afternoon we had moved a mere five hundred feet. It was puzzling to see how an ice shelf could be so cracked up and still stay together. Quarreling became more violent and frequent. Not a single muscle among the probers failed to call attention to itself by ache and fatigue. Mental facilities were strained by the constant need for alertness and concentration.

We faced another confounding alarm and the probes went into the snow weakly and unenthusiastically. Some of us had that "can't go on" look and others were ready to vent their fatigue and vexation by bickering. Bert made a decision.

"Stand clear of the booms! He shouted. "I'm goin' to move ahead, signal or no signal. If the cat goes through, I don't want to drag anyone down with me."

Detector eased ahead. Every eye watched the surface and every nerve tensed in expectation. The cat moved the length of her booms and stopped. Bert stuck his head out the door. "What are you waitin for? Probe between the booms!"

The alarm clamored insistently, but when no crevasse was discovered we moved ahead another boom's length.

"We'll keep movin' ahead and probin' until we run out of signal or the cat falls in," Bert announced.

The crevasse signal stopped after three nervous advances.

A new system was initiated. All our movement was ahead now. Only a cat length at a time, to be sure, but we were not backing. And there were brief intervals between signals when advance was unimpeded. No blasting tore-up the surface unless a crevasse was actually found. The probers worked with renewed favor. Progress in the next three hours amounted to more than it had been all day.

"We made a quarter-mile today," Bert advised Little America by radio. "Its tough goin', but maybe we'll be out of here in two more weeks. We've got enough food and fuel to last, but you may have to paradrop some dynamite."

"Two goddamn weeks!" Red said from his sleeping bag. "Bill, I don't think I can last that long. Ain't one muscle that isn't killin' me. Even my damn head aches."

I was too tired to answer.

Next morning my arms were pieces of lead and my legs protested every movement. Everyone looked sore and as if they had had no sleep. Tempers were short, delays frustrating. Detector had to be refueled; working the hand pump was agony. The electronic detection unit began malfunctioning and our morning start was delayed until ten o'clock.

"Let's blast! said Smith at the first crevasse.

"Go around the son-of-a-bitch," argued Red.

Nope, got to open her up and see which way she goes."

"Why worry about which way it is oriented if you can avoid it," said Walt.

"How can you avoid it if you don't know how it is oriented?"

"Swing aside until there's no signal, or probe over it," I said.

"You're trying to ignore danger by moving to a place where you can't find the crevasse," Hugh protested. "The crevasse is here – now. You're acting like Peter, convincing yourself there's no crevasse until you tumble into one."

A resounding roar and the air filled with flying particles of snow.

What a beauty! Said Smith.

"Yer dynamite-happy!" Red accused him.

"Better back down, Bert," Hugh cautioned.

"Go on, play your silly damn games," I said, disgusted,

But we stubbornly refused to back off unfulfilled signals and progress was better. The weather turned clear and calm, helping to improve dispositions. The sky became completely blue for the first time in weeks. The sun seemed to crystallize the pellucid air. The snow sparked with an iridescent brilliance. Harassing winds went off to sea. Eight degrees below zero was warmth in the dry, windless calm. We shed our outer layers of clothing and probed with new vigor.

In the afternoon, Hugh relieved Bert in the driver's seat. Red looked at me apprehensively and muttered: "There goes our mileage."

But Hugh had been converted to "goism". He increased, rather than retarded, our advance. In fact, Bennett was almost reckless. He attributed the weaker signals to crevasses with bridges thick enough to support us.

All along the afternoon's line of march we encountered a strange hard layer about four feet below the surface. The probes would go down that far, but no amount of pushing, jamming, or cursing could force them further.

"Probably an ice layer caused by a condition of melting and refreezing," suggested Walt. We agreed and continued on, keeping our blasts to a minimum.

By six p.m. we had dug, or blown open only seven crevasses, and traveled one-half mile. This was as much ground as we had gained in the two previous days. At quitting time Detector was over the ice layer again, and we decided to blast.

We made a miniature crater with one stick of dynamite, then laid three sticks in its bottom. The explosion ripped through the ice layer. By the hollow sound vibrating our eardrums, we knew what was underneath.

It was the deepest one yet. Hanging head first through the bridge, Hugh and Smith holding my ankles, I timed falling snow blocks and estimated the canyon to be 120 feet down. Eight feet wide at the top, the fissure tapered into a V, the lower part of which was lost in the obscurity of purple-black shadows.

We were conscious of the fact that our caravan had probably driver over two crevasses for every one we discovered. The problem of avoiding those we encountered kept the others out of focus. This monstrosity, however, brought the fact home with sickening reality. The ice layer had accompanied us all afternoon. We moved back across the tested ground toward the other sno-cats, slowly and with respectful caution.

Next morning, November 9th, we moved our camp to the point of farthest advance. Seismo and Tweety drove behind Detector through a mile of powder stained snow, twisted blasting wire and yawning holes. Three days of dangerous, grueling work, and we covered the distance in less than fifteen minutes. The once bland, featureless white was now charred and grayed

from exhausts and explosions, littered with fragments of dynamite sticks and chased with cracks and gaps. It looked like a battlefield.

So far we were winning; we were ahead in the struggle to stay alive. Progress had been aggravatingly slow, and brutally hard, but it was accumulative. We had moved forward, not back. Peter was a casualty, true. However, he was still alive and we learned many life saving lessons from his mishap. The rest of us had gotten stronger and harder. No one had an ounce of excess flesh on him now, and every muscle tightened and developed with use. Our only illness was frostbite; our only complaint – perennially empty stomachs.

This mile of snow was a symbol of a short, violent struggle with nature. We rode over it triumphantly; every one seemed to sense victory. Sure, we had a long way to go, but we made the start. We had become veteran ice travelers in two weeks. The six of us had been through so much, there was nothing nature could do to surprise, or stop us now.

"Yeah, sure it's been rough," said Red looking out the window. "But what the hell can you expect – this is the damn Antarctic. We all are gettin' what we came for. We're the first jokers in the world to come over this ground, and I fuggin' well think we're doin' a good job."

This spirit caught everyone.

"Yahoo!" yelped Bennett taking a probing pole. "Let's give it hell!"

We ignored the large, ice-bridged hole discovered yesterday and swung around its west end. Bert moved Detector ahead rapidly. When a crevasse indication stopped us, the probers jammed their poles violently into the ground and romped about like energetic children. If nothing was found, we moved ahead, warning signal or not.

"Let's move out, men!" – Smitty

"Haul ass!" seconded Red.

"Rah, rah! Siss-boom-bah! Give it the old college try," yelled Walter.

Hugh and Red probed across the front of the cat toward each other. I checked between the booms, in line with the cat. We moved and worked in a hurried frenzy. Progress was almost rapid until I found a crevasse by falling into it.

Detector had straddled one squarely. I sent to probe between the booms and broke through the snow. I grabbed a boom in time to shorten the downward trip.

"First one today," observed Smith cheerily.

"Did you notice which way it was oriented on your way in?" Bert inquired.

"Same way," I said brushing the snow from myself.

"Good. They're still running parallel. We'll keep alongside it. Stick in a couple of flags, so we can back sight to hold our direction."

The paralleling technique worked, most of the time. Crevasses lined up with the pressure and were usually far enough apart to allow a cat to get between them. Of course, we found crevasses we could not go between and those we did not dare to try, but generally the system served us until we ran past a rift we were following and onto another one.

Hughy found the next one by dropping a leg into it. "Son-of-a-bitch!"

"You're supposed to use a probe, Hughy, not your feet," Red kidded.

Walter came up with the dynamite sled. He had abandoned his skis and was walking. As he moved alongside an outer cat boom on one side, Walt all but disappeared. He was almost in the snow to his arm pits before letting the sled loose and catching the boom.

Our high-spirited enthusiasm began to wane. The detector had not warned us about this second one, or we mistook a warning of two for only one. Either way it was not as bad as having our parallel theory shattered. Crevasses here <u>were</u> definitely too close to let a tractor through.

I made some onion soup and beans. The hot meal revived us and gave us our second wind. "No goddamn crevasses are going to lick us! "We'll make the three remaining miles this afternoon," I bragged.

Hugh took the driver's seat and Smith checked the recorder. They were reckless.

"Piss on it! Let's move up another length," Smith would shout at every alarm signal.

We played a new game. It was called "talk-yourself-out-of-danger." Hugh would excuse a signal with: "That one came from the crevasse we just crossed" or "weak-signal, - must be a thick bridge".

If we could not discover a fissure on the first probing, we moved ahead slowly, until the signal gave indications of becoming weaker. Then we would speed up again. Early in the afternoon we ran into a persistent clamor that would not quiet, no matter how we talked and conjectured.

"Dynamite, Bert?" Walt queried.

"Nope, I'll stick a red flag in the snow and we'll back around it."

Bert took a split bamboo staff and a square of red cotton from a locker on the rear of Detector. He tied the two together with some string he always carried and leaned over the front of the booms to stick the flag into the snow. It swiftly fell out of sight. Everyone stood stark still. The sap of recklessness began trickling onto the cold snow.

"Pretty thin bridge," said Bert. "Lay a stick of powder on it!"

The crevasse was deep and wide – ninety feet by twenty. The sno-cat could have fit nicely into the bottom.

"It's a big one," said Bert, "Too wide to allow another close by without causing a depression in the surface." Running parallel was given as our best advance. "Let's try it again. It's all we've got."

It was the only thing we had in the way of a system. It was not clutching at a straw, but more like holding onto a boom. We began cautiously traveling alongside the big crevasse.

Detector covered almost a half-mile in the afternoon, with only relatively minor trouble caused by small cracks branching off the mammoth. Our humor oscillated back to good. At five o'clock p.m. everyone decided they could take at least two more hours on the probes. Total distance for the day's run was as much as for the previous three.

But the snow ahead sagged into a depression.

"She must be running into the tail of another big 'un," guessed Red.

"That, or another one's started up beside her, and there isn't anything underneath to support the snow," I said.

We were both wrong. We were all wrong – wrong about everything! Crevasses obeyed no rules of orientation. They converged on this side of Roosevelt Island just as they had on the other. Two were closing together now, not on the other side of us, but on either side. We had gotten into a narrowing wedge of bad ground.

Smitty saw it from the top of Detector. "Looks bad, Bert. I wouldn't go any further."

"No, we'll crawl into the top of the wedge and see how things look."

"Perhaps they dip down under the surface and there is a fairly stable valley floor over them," Walt said hopefully.

"Maybe we can build a bridge," Hugh suggested.

"Sure, we got those timbers," seconded Red.

We hoped there was something we could do. There had to be something. To retrace our steps around the enormous crevasse was disheartening to contemplate. That would be going backward.

Three sticks of dynamite gave us the answer. Our crevasse had grown wider and deeper. None of the timbers could bridge it at either extremity. The prospect of losing all that ground was appalling. We blasted open the other crevasse.

The explosion sounded hollow and menacing. Echoes resonated in the caverns below our feet and the surface shook spasmodically. We looked into a second huge crater. The weighted rope went in 98 feet before stopping. I climbed through the bridge on a rope to determine its width.

I felt like a spider dangling into the hollow center of the earth. Everything was completely empty and still. The indigo gloom all around me was cold and weightless. I could not see to either wall.

"That's the granddaddy of 'em all, Bert," I said, crawling out onto the snow. I came through the bridge clumsily, prone and face down to the surface. I lay there a long time, my mind trying to focus on what I saw.

It was like an old tile floor. Hundreds of lines crossed, recrossed and zigzagged. They divided the snow into a mosaic pattern. They were cracks! Cracks cutting the surface into a thousand pieces. They ran from crevasse to crevasse and filled the narrow part of the wedge. They spread out under all of us and under Detector.

I yelled a warning. We all ran for Detector, myself still trailing the rope. Some got inside, some rode the booms – ready to jump clear. The sno-cat backed quickly. Bert turned her around and we ran back to camp, our tails between our legs.

Losing a half-mile of ground that we risked our lives for was discouraging, but that was not the worst of it. Discovering that crevasses definitely changed their orientation gave one a feeling like being lost in the woods. We were cold and depressed and lost that night. On radio contact, Bert reported only 27% of our fuel remained.

Ron Viets, Deputy Chief Scientist at Little America, got on the radio. He tried to cheer us up with a word of encouragement. Words could not describe how depressed we felt, nor could they move us from depression.

"We have a regular radio contact established with some amateur "ham" operators back in the States," Ron said. "Most of the fellows have been able to talk home by radio-phone."

"So what!" Red muttered.

"They promised to relay any messages anywhere by telegram," Ron continued. "What do you say?"

Bert looked around the mess cat. "Anybody got anything to say to their folks?"

The cab was silent. Nobody spoke or moved toward the radio. Five out of six of us had lived intimately and faced almost every possible danger together, yet we were self-conscious about being sentimental in one another's presence.

"If nobody's got nothin' to say, I'll…"

"Hold it, Bert," Walter said finally. "I'd like to send a message to my mom."

No one attempted to move out of the cat while he spoke. We listened numbly, and when Walt finished each one of us took his turn at the "mike".

I chose my words carefully, trying to conceal my depression and, most of all, to keep it from sounding like a "last message".

I felt too tired and full of aches next morning to have an emotional hangover. At 6 a.m. I stepped out into a sparkling world of warm, glaring sunshine. The brilliant light hurt my eyes. The sky, in complete blue, looked refreshing and pleasant. Clouds always made the air seem dense and dirty. Now it was clear and shining clean. The snow glittered with sun diamonds. The temperature soared to 10º, with an absolute absence of wind. It was warm enough to go without a jacket and hat, and to wear only two pair of gloves instead of the usual three.

Good weather was the one cure for yesterday's disappointment. We started out to regain the lost ground almost cheerily. Two large rifts during the first hour of advance put us in the mood for crevassing.

"Sport of adventurers – sport of explorers! Said Smitty, placing some dynamite on a third crevasse.

One stick opened a spacious room below the snow surface. With one rope around my middle for safety, I climbed down another into the chamber. The walls where I entered were narrow and I broke through protruding ledges of ice crystals growing toward each other from the sides. The room, however, widened out away from me and the other end was lost in dense

shadow. This strange rift did not trend in the same direction as others that morning. I had been in enough crevasses to know when one looked unusual. I called for more dynamite and planted sticks on the floor before scrambling out.

The explosion had that familiar empty ring. We looked through the broken wall on the far side of the room and there was nothing but darkness. We blew the top off to admit sunlight, but the rays could not penetrate to the bottom.

"Want to lower a weight to measure it, Bert?"

"No, Red. I don't really care to know how deep it is."

This fissure was a Siamese twin – a small, shallow crevasse branching at a light angle from a deep wide one. Staring at the arrangement, you could almost accuse nature of malicious intent. The lesser danger came in from the left side and swung partly across our path. To avoid it, we would have to angle off toward the right – precisely where the deep crevasse lay.

We backed down again.

This confused area of twins, wedges and cross-crevasses was thoroughly mutilated by pressure. By the end of the morning we had blasted six chasms and avoided again as many. That was enough to reveal a trend. The canyons were getting bigger and the bridges thicker.

Just before noon I climbed down a blast chimney six feet deep. This bridge was strong and thick enough to cut steps in with an ice axe. At the bottom of the staircase, I stepped off into an airy, frigid void. The nylon line caught up with me and I dangled in the mouth of the snow. I was terrified the first time I did this on November 6th; by November 10th it was routine.

We took advantage of enlarged bridges and sacrificed caution for progress. Detector covered three-quarters of a mile before the surface ahead bowed down again into a steep concavity. Phil Smith stood atop the cat trying to look over the rim of the deep depression.

"Whaddya see, Smitty?" Red asked him.

"Nothing."

Literally there <u>was</u> nothing in the bottom of that dip – nothing but a blank, open eye staring out of the snow. We ringed the crater and stared back at it, wondering how to interpret the gigantic orb.

All previous disturbances were long, narrow and hidden by snow spans. This opening was thirty feet wide and half again as long – too great a gap to support a bridge. From each corner of the eye, deep crevasses ran under the snow. Did this opening mean we were in an area of

more intense crevassing? That didn't seem possible. Did it mean a field of open pot-holes replacing concealed canyons by some trick of pressure? Being able to see the hazards was definitely advantageous. No one supposed it to be a sign of the end of the disturbances.

I supposed it least of all when I plunged into another crevasse an hour later. Walt, Hugh and Smitty followed my example during the course of the afternoon.

About four o'clock we came upon a narrow, open crack. It raised no signal on the detector, so we assumed it was not very wide or deep. Following it for a half-mile without finding any other crevasses we took it as a good omen. Meanwhile, the weather turned bad again. A solid block of stratus clouds came over, carrying a chill wind from the southeast. The air grew chalky and gloomy. I did not realize how much the temperature dropped until my ears became numb with frostbite. At the end of the day, we decided to drop some dynamite into the small crack.

Our confidence went up in the air with the loose snow. The crack opened out into the largest crevasse yet – a canyon 120 feet deep.

"Ya might know!" said Red.

"Bill, crawl into it and see if it widens out," ordered Bert.

Detector had backed clear of the blast. The hole was on her left side. Bert wanted to know if the crevasse opened under her, of if she was safely beyond the right wall.

My head just disappeared below surface when everyone began yelling at once. The life line tightened immediately and yanked me out of the hole.

"What the hell!"

"Com'on there's another crack on Detector's right side. Let's get outta here," Smitty was saying.

It was a while before I organized the situation in my mind. A crack opened into a crevasse on Detector's left (south) side and another crack appeared on her right. So what! She was between two crevasses. No! That crevasse was so wide! Detector was sitting on a huge bridge, marked on either side by crevasses. The prodigious span was so heavy it sagged and formed tow cracks where it pulled away from the canyon walls.

We knew the pressure pattern was changing. The crevasses had tripled in size and a great open rent appeared in the surface. No one had any idea what we would be up against next morning, our sixth weary day on the "Crevasse Trail".

"We must be in the center of the pressure," Smitty conjectured. "Progress has been from short, narrow crevasses to large, wide canyons. Past these big ones must be more smaller ones, tapering into solid ground."

"I don't believe so," argued Walt. "Those deep rifts were more vicious for having thin bridges over them. I think they are newly formed and the bridges haven't had a chance to develop. These deeper, wider ones belong to an older, more stable group where bridges have been building for years."

What ever was the case, the morning of November 11th was another backbreaking one of probing, blasting and tumbling into crevasses. The hard, unrelenting pace was taking its toll. While the group worked more efficiently for the concentrated experience, they also worked more slowly. The effort first toughened our muscles, now it began to fatigue them. Six months of danger, work, and crevassing knowledge had been crammed into six days.

The initial dangers of the ordeal had sharpened us to a pinpoint. We had developed an animal-like alertness. Now, the constancy – the long, uninterrupted demand – blunted our responses and drained mental and physical energies. The only reason we covered a half-mile that morning was a general scarcity of crevasses. We found only four.

At noon the snow dipped into another open chasm, interrupting the solid surface for hundreds of yards. The incongruous rent was an oval shaped with ponderous, sagging lips of snow rolling over the edges – a greedy, hungry-looking mouth.

Progress in the afternoon was strangely rapid. I slipped a leg into a crevasse and Hugh stumbled on an open crack, but we met only six minor crevasses and blasted only once. Detector covered two miles.

Bert called a halt, and we gathered around him.

"You don't suppose –" Red began.

"Don't get your hopes up," Hugh cut him off.

"Something's up," said Smith

"We might be in the eye of a hurricane and we might be out of it," Bert said allegorically. "Let's get back to Seismo and Tweety and check ourselves."

There was a suppressed excitement on the way back. Everyone was thoughtful – but we said nothing. It was a as though premature speculation might jinx our luck. I had become so numbed to crevassing that I did not remember there should be only a finite distance to cover.

We checked Waldron's reports and Bert's field diary. We matched it against distance traveled and course made good. My closest estimate was that the crevasse area ran four and a half miles in a southwest direction. We had gone a total of five miles in that direction.

The prospect of no more hazards, no more probing, of an end to the constant fear of the ground disappearing from underfoot, was enough to send everyone into a gleeful panic. But this was neither the time nor place for panic. Nor was anyone emotionally calm enough to sit around and ponder the question of whether we were free or not. We moved Detector, Tweety and Seismo to the point of farthest advance and radioed Little America.

"Don't know if we made it or not, but we're short of food and fuel," Bert told them. The thing that will decide is tomorrow's run. If we're in the clear we'll ask for a landing, if not you'll have to parachute drop. Over and out."

Chapter 9

Red Goes Home

Next day, November 12th, we traveled twenty-five miles without encountering a crevasse.

A reconnaissance plane flew over at noon to check our progress. The aircraft carried food and fuel, but would not land. The pilot came in from the northeast, flying over open crevasses and the area we had just devastated. He decided a landing was too risky. We agreed.

After flying overhead, the plane continued along our projected course for some sixteen miles. "It looks all clear out ahead of you, Dr. Crary," the pilot, obviously "just down from the States", reported.

"The greenhorn son of a bitch wouldn't know a crevasse if he stumbled into one, much less see it from his tin bird," criticized Renback.

We camped early that evening and broke open the last box of food. After a meal of half-rations, we took stock of our situation. There had been enough sun during the day for us to determine our location and to keep track of our advance. Camp that evening was 675 miles from the South Pole (79º.11.8'S) and 170 miles east of the International Date Line. We had taken nine days to traverse five miles of crevasses. Five of us had been on the trail for 19 days. It seemed like 19 weeks.

"Where do we go from here, coach?" Red asked the question for all of us.

"Can't go much of anywhere without gas," Bert replied. "We'll hang on here, takin' a station, until they get a resupply plane in." He paused, stroking his beard mechanically. "Then, I suppose we might try heading due west along the 79th parallel. Don't want to get near the edge of the shelf, or we'll soon be floating at sea on an iceberg."

"We might make better time that way," commented Walter.

All next day, we took measurements and watched the sky. Smitty worked down in a snow pit with Walt. They were themselves out climbing up and down checking the weather and looking for an airplane. It was a chalky, diffuse day, calm and warmish (5º below zero). Visibility was badly limited and surface features indistinguishable.

"I sure wouldn't call this flying weather," said Hugh, craning his neck into the sky.

"That never stopped them before," I observed.

"Yeah, but now the outfit is contaminated with a lot of junior bird-men from the land of women and whiskey," said Red, sourly.

No plane came. In the evening, I poured the last of the fuel into the cook-stove. We always ate twice as much food as was called for in the trail diet. It was not any one's "fault" that the "official menus" were incorrect. There were no standards; few men had ever lived in extreme cold for such an extended period, except Eskimos. Eskimos never concern themselves with balanced diets, vitamins and calories. Dieticians do, but it turned out we needed twice as much food as they had allowed on paper. This was particularly true after working outside all day. I had been cutting the amount, but that night, I prepared the last double ration.

We were cleaning our dishes in the snow when a plane's engine interrupted. A single engine Otter came over low and dipped its wing in a salute. The plane bounced and veered awkwardly, landing under the adverse conditions. It rolled to a stop and, when the door opened, a tall, wiry man kicked out a wooden box of trail rations.

"Hyar's yo' dawg food." The unmistakable drawl belonged to Ensign Earl "Chattanooga" Hillis, an affable, easy-going Tennessean in his mid-twenties.

"Hi fellas," a pale, bright-eyed face appeared over Hillis' shoulder. It belonged to Ensign Ron Agyarn, a Californian in his early twenties. "How do you like this plane?" said Ron patting the fuselage fondly. "Isn't she a beaut! It's a brand new one." Agyarn's eyes glittered with all the enthusiasm of a child showing a new toy.

"Jus' took 'er outta the crate," continued Earl. "She's wat was in thet great big ole box settin' yonder by Kiel Field."

"It's a test flight," bubbled Agyarn.

"How come they picked you two to fly it?" I asked Earl.

"Oh, ah dunno. Guess the commander looked around until he saw the two guys he could do without the most."

"Has the other aircraft contacted you, yet?" – Agyarn.

"What other aircraft?" – Crary, Bennett and myself in chorus.

"Waal, they sent anuther Otter along wi' us to kinda keep an eye on us, but we sorta lost 'm," Hillis enlightened us.

"They're new pilots who haven't been down here as long as we have," said Ron proudly. (Hillis had "wintered over".)

"They probably got lawst. Got a Jarhead (Marine) Looey fo' a navigator, and ya'l know wat they're like. Say, you fellas don't show us tierd, heroic-type pilots no hospitality a 'tall. Wyar is yo' cawfee pot?"

Earl, Ron and I went into the mess cat. The others fell to storing the food, two barrels of gas and a case of frozen beer that the pilots brought.

"There's a civilian mechanic at Little America, now. Commander Orondoff wants Renback to come out on the next plane," Ron announced when he had settled behind his coffee.

I received that news like a punch on the jaw. Red and I had been close friends even before leaving Little America. During the last nineteen days, we had leaned on each other quite a bit.

"What's the new mech like?" I asked Earl.

"Waal, he's kinda oldish, and he's kinda quiet. Nothin' like ole Red."

"No, suppose not," I grunted. "Well, as long as he can keep three cats running."

"Dunno, Bill. He looks a might along in years."

"So does Crary, but he can outwork any three of us, all at once, or one at a time." I took sno-cat training with him.

"This fella's got a lot o' years on Bert," Earl said thoughtfully.

I knew I was going to miss Red.

Our discussion was interrupted by another airplane. The Marines made a landing that even Earl considered good, under the circumstances of poor visibility and treacherously high sastrugi. They wasted no time discharging their cargo, two more drums of gasoline and another box of "dawg food". They kept their engine running and turned down an invitation to coffee.

Together with Earl and Ron, we gathered around their waiting plane.

"Well, Smitty," Bert addressed him, "we've sure enjoyed your company and your help on the crevassin' and in the glaciology pit. If you want to stay on a while, you're sure welcome, but if you got other plans – why feel free to leave."

Smith disappeared toward the sno-cats.

The Marines had been ready to leave for some minutes, but kept delaying. The pilot looked uncomfortable.

"Forget something?" Crary asked.

The pilot cast a sly glance at Hillis; then said sheepishly: "We're not sure of our position," and even more sheepishly, "or in which direction we proceed to Little America."

"Home's that-a-way, men," said Hillis pointing and chuckling.

The immense, unmarked plain of the ice shelf, the semi-whiteout and their newness to Antarctic conditions had caused the Marines to lose their way. They found us by accident after giving up the search. We gave them our position and a compass course back to Little America.

As the aircraft began to roll, a figure dashed out from among the sno-cats. He clutched articles of clothing and miscellany in both hands. Under his arms were a partly-packed overnight bag and an empty ammunition container. The runner flung his belongings through the open plane door and followed them in – head first.

"Smitty isn't wasting much time," Hugh observed as his legs disappeared into the aircraft.

"I guess the work in the snow pit was too much for him," signed Walt.

"Damn if ah would't be glad to git outta ya'all's shoes," said Hillis. "This place is too cold and too white, and ya'l don't even have a pool table."

"What is the situation with the mail, Earl? Walt asked, changing the subject.

"Hain't no mail come over from McMurdo at-tall. And all the big planes are grounded with some trouble or 'tuther."

"Yes," said Agyarn, "there is an R4D down on the ice between here and McMurdo. The aircraft had to make an emergency landing after developing an engine malfunction."

"Wave to 'em if you go by? Waal, we'll see ya'wl around! I'll try to bring out more beer and some mail next time ah'm in the neighborhood."

"So long, fellows! Hey, Earl, it's my turn to be pilot and yours to navigate. I navigated while you flew out, so I should fly her back," Agyarn pleaded as they walked toward the plane.

"Awright, lad, we'll just do thet," Earl said, fondly putting his arm over Ron's shoulder.

Red took a long "pull" on his beer can and announced, "Yeah, I'm gonna miss <u>you</u> jokers, but I'm gonna miss this ice picnic like a hole in the head."

"Commander awful-snorkel, the mother hen, is lonesome and wants his wayward chick back safe and sound," I joshed.

"He wants you back before you get too contaminated by us nasty civilians," said Bennett.

"You guys didn't contaminate <u>me</u> none. This fuggin' science business is still as big a mystery as it ever was."

"Maybe so, but you're probably the only seebee mechanic in the Navy that can navigate with a theodolite and set up a seismic spread by himself," put in Crary.

"How about that! Jugglin' dynamite every day and no demolition pay!"

"No insurance, either," Walt reminded him.

"Damn good thing nothin' happened to you, Red," said Crary. "I'd be answerin' letters from the Navy for the rest of my life."

"Well, it's been fun; when I'm back at Little America I'll be thinkin' about you poor bastards out here. You know what's the first thing I'm goin' do when I get back? I'm goin' jump into a hot shower and stand under it until the guy shovelin' snow for the melt water goes

into fits. And when I dry off, I'm goin' get me five cases of beer and I ain't gonna move off my ass until they're all drunk – 'cept to drift into the mess hall for a steak."

"I know his type," Walt said, jokingly. "Do a few weeks of light work then live off the reputation for the next six months."

"Six months!" exclaimed Red. "I ain't even gonna be at L.A. (Little America) six days. The relief planes are comin' in now, and I got more time down here than any o' those other clowns at L.A."

"You're a dreamer, Red," I prophesized. "They'll keep you at L.A. to unload the last relief ship in February. Then, if there's any room left after the big wheels and reporters are made all nice and cozy, they'll let you ride a fat, rolling icebreaker all the way home."

"Sure, yo'll be chiping paint all the way to San Diego," Hugh added.

"Nuts! I came down here last October as 'summer support personnel'. The wheels talked me inta stayin' for the long, dark winter. Well, everybody's entitled to one mistake and I've made mine. I ain't gonna let them talk me inta nothing but a plane goin' to New Zealand. Two weeks from now, I'll have a Kiwi broad in one hand and a bottle of scotch in the other.

Next morning we stacked four empty fuel drums as a cairn, and turned our sno-cats due west toward McMurdo Sound, 330 miles away. The morning was a bright, clear one. Clouds of ice crystals spread out in two great fans across the aquamarine sky. The fan fingers bunched into apexes at both horizons, spreading upward and outward to interfinger at the zenith. It was 10º below zero with a sharp northwest wind. The surface, wind packed and ice hardened, made traveling relatively easy. The sastrugi were high and of the consistency of concrete, but we could see them clearly enough to avoid the worst ones.

While we ate a quick lunch, the wind shifted and a thin layer of low clouds came between us and the higher ice clouds. The delicate layer gradually thickened and seemed to droop lower of its own weight. The air grew hazy and warm - 6º above zero. The barometer dropped, and we were imbedded in a complete whiteout by camping time.

On nightly radio contact, Little America told us a plane was on its way. We judged from weather conditions that it would turn back, but kept our radio receiver tuned. It called to us during dessert.

"Whar ya'wl at? Canin't find you in aul this milk."

"You might know," said Walt.

"Those guys sure pick the craziest times to fly their airplanes," Crary said to us. Then to the radio: Where are you?"

"Ah'm co-pushing an R4D, Bert. We got a good idea whar we are, but cain't see you. Hey, get set to smile purty! We got a reporter and fotographer on board."

"Gimme the damn microphone, you ham," said Leut. Commander Harvey Speed, the pilot. Hey Bert, it's clear and shiny up here, but as soon as we come down to look for you we get lost in an enamel pot full of milk."

"Can't you turn on your radar set?" Bert asked.

"On the firtz. Can you give us a bearing?"

"No, we can't even hear your engines. Make a couple passes here and there, we'll see if we can see you."

"Roger, out."

Three of us went outside while Bert watched through the roof hatch. The plane's engines became audible, then faded again. They grew louder a second time, then lower, but remained within hearing. On the third pass, Speed came right overhead.

"Navy 394 to Nash 02. "Where the hell are you, Bert?"

"We're right down here! You came over us on that last pass. Couldn't you see the cats?"

"Hell, no!"

"Come over on the same course again, only lower."

"If I come down any lower, I might as well land."

"That's gonna give you trouble. The sastrugi is high and rough and in this milk you can't even see it from a sno-cat window."

"Piss on it! I don't have enough gas for this silly game. As long as you can hear my engines, I'm gonna land and worry about finding you when I'm on the deck."

"I wouldn't advise a landing, Speed."

"Between you and me, Bert, I've gotta land. I've used so much gas jockeying around; I don't have enough left to fly this plane back loaded the way she is."

"Kick the load out the door!"

"Five hundred pounds of it is in people; I don't think they'd appreciate that kind of treatment."

"Come on down, then, but it's plenty risky."

Navy 394's engines hummed louder. We watched the blank white wall in the direction of the sound.

"He could not have picked worse ground conditions or weather," Hugh said.

"But if there's any one who can land under these conditions, it'll be ole Speedy," opinioned Red.

We heard Speed cut the engines for the glide-in. There was a long pause, unbroken by sounds of tearing metal. Then the engines roared aloud again as the propellers were reversed for braking.

Goddamn glad he made it! We don't have any fire-fighting equipment or any medical supplies past a couple bandaids and some iodine." Bert, and all of us, felt much relieved. Even if we had had rescue apparatus or medical equipment, there was no one who knew how to use either.

"Navy 394 – on the ground. Where do I go from here?"

"By the sound of your engines, you're north of us."

"O.K., Bert, I'll taxi south then."

"Dunno, you sound a good way off – half-mile maybe. Might burn your engines by taxing over this rough surface."

"Piss on it! Ready or not, here I come!"

"Crazy bastard!"

"Hallo again, ya'wl. Ferget about lookin' pretty. Them news people are too scared to take any picters."

"Ask him if they got a mech with 'em, Bert"

"Red wants to know if you've got his replacement, Earl."

"Tell 'im to start packin', Bert."

The roar of the engines seemed to break down the barrier of white mist, letting through the silver and orange airplane. The wings vibrated terribly as the machine hobbled over the sastrugi. The three snow-cats swung clear of the whirling propellers and nestled under her arm pits to receive their share of gas.

While the vehicles waited in line on one side of the plane, the metal doors opened on the other side, and the crew began shoving out fifty-gallon drums of gasoline. Those not driving,

or refueling the cats, fell to rolling the 400 pound drums over the rough, sharp ridges of sastrugi. Flying snow churned up by the revolving props, exhaust smoke and cloudy, condensed breath obscured the air. I heard unfamiliar voices and vaguely saw strange faces. It was like a landing on the moon.

There were two outlets from the airplane's fuel reservoir. One, called a jettison tube, is used to eject gas out of the system for an emergency lessening of the load. A second tube is a means by which fuel can be transferred – taken into the airplane, or pumped out into empty barrels on a sno-cat sled. This airplane was pregnant with gas. Almost the entire interior was taken up by a large tank, used to carry gas for transfer, or to increase the flying range of the airplane.

A new crewman, fresh from the States, bewildered by the strange, smoky white scene, confused by cross-shouting, frightened by the hazardous landing, threw the wrong switch. A heavy red wedge sliced through the whiteness and spread out on the snow in a widening circle. The gushing, carmine pool made a striking contrast in the neutral wilderness. In the all-white of snow and sky it seemed to be floating in opaque air.

It required a thunderous volley of animated blasphemy form Commander Speed to divert the stream into the proper tube. But we lost two hundred gallons – almost three days of travel for three cats. It would require another hazardous flight to replace.

Speed raged, Hillis laughed, and we began carrying cases of trail rations. Red came toward us, a tool box in one hand, a duffle in the other.

"Looks like ya'wl quittin' just when the fun part o' the trip is startin', Red," observed Hillis.

"Well, sir, I got these civilians through the toughest part; now I guess I can leave them on their own." Red smiled.

I walked up to him. "Got all your stuff, buddy?"

'Yeah, Bill, if I left anythin' you can have it."

"Thanks."

"Didn't get a chance to brief the new mechanic, in fact, I hardly saw him. Give him the word on the cats, will you?"

"Sure thing."

Bert, Hugh, and Walt gathered around us as we flung Red's luggage through the plane door.

"Stay loose, Red!"

"Yeah, boy, keep a strain on it!"

"So long, Red!"

"If you guys ever get to Minnesota, ever as close as Chicago, look me up!"

"We'll sure do it, Red, and if you're in Washington, D.C., come by the office," Bert said.

With much hand shaking and back pounding, Red climbed through the high airplane door muttering: "You'd think the bastards would at least have a damn ladder, so's a guy could get aboard without rupturin' himself."

Red straightened up and addressed the inside of the airplane. "What time you guys servin' the champagne?"

A generous, rotund face, covered with hair and ornamented with the butt of a cigar, appeared in the doorway. "Terribly sorry, sir, but you missed the 'Red Carpet' flight. They have stairways with wheels on 'em for all you old folks."

"Is that the stewardess?" Walt asked.

The corpulent airplane mechanic disregarded Walt with a glance, and continued to address Red. "Son, you do have dreadful poor luck. We ran outta champagne on the way out and this just happens to be the stewardess' day off."

"Both of 'em? Red asked, surprised.

"Yeah!"

"Heavens!" said Walt.

"You picked a bum airline, too, son. We don't even have any seats. Just you go on up forward and wedge yourself between the bulkhead and emergency tank."

"Aye, aye. See you guys!"

The metal door clanked closed on Red's goodby. The engines tore the plane loose, and it became absorbed in a miniature blizzard.

When it cleared, the airplane was gone and there were three strangers in its place.

Chapter 10

Morgan's Bottom

The eldest of the three strangers, a distinguished looking man with close-cropped gray hair and rimless spectacles, I took to be a Pulitzer-prize journalist from some astute magazine. Earl had said the new mechanic was oldish and quiet. I assumed the slight, drawn man with a luxuriant crop of gray-black hair was he. I thought the third stranger must be the photographer. He was six feet tall, his football-player frame completely covered by a huge parka, and wore a red knitted cap jammed firmly over his head and ears.

The "photographer" introduced himself as Tom Morgan, a writer from Look Magazine. He presented the "mechanic" as his photographer partner, John Vachon. The "Pulitzer-prizer" stood in the background until the literary men were finished, then told us he was Frank Layman, "your new mechanic".

By a stroke of extraordinary luck, Tom and John happened to have a bottle of scotch with them. The eight of us retired to the mess-cat, and the scotch proved to be an excellent lubricant for a getting-acquainted session. The two magazine men were affable and friendly. They neither prodded us with questions, nor requested us to pose for pictures. We appreciated this after our long day.

Frank, silently social, sipped his drinks contentedly and occasionally smiled approval of the gathering. When it adjourned, I explained to him how Red and I slept on the floor of the sno-cat, and that only Red's used sleeping bag was available.

"That arrangement suits me fine – when in Rome, do what the Romans do," he said.

I retained my old position under the dining table and Frank moved in between the stove and a radio.

When I arose at five-thirty to take a weather observation, my new partner started the stove and began melting snow without any previous suggestion. A whiteout still clung to the air and a raw 18 knot wind harassed the camp. The temperature was 10º below zero. These are wicked conditions to face that early in the morning.

Seven mouths feeding on rations poorly calculated for six made a problem, but I managed sausage (canned) and eggs (powdered) for breakfast. Tom and John were housed in a two-man mountain tent erected in the lee of Seismo. I roused them last, and they seemed to feel the same way about the weather conditions as I did.

Tom sank deep inside his parka and blinked sleepy eyes.

"Good morning, Scoop," I said, flopping the eggs noisily into his plastic bowl. He pushed them away.

Tom could not get warm, even in the heated, crowded cab where seven pairs of elbows mingled intimately. His feet suffered most; they would not keep warm no matter how many pairs of socks he wore. When breakfast was finished we left him huddled by the cook stove, briskly massaging his toes.

After we pumped gasoline and rearranged fuel barrels on the sleds, I took Frank on a tour of the sno-cats. While he eyed them like a curious schoolboy watching a steam shovel, I pointed out all the features and peculiarities I had become acquainted with during a week of school in Oregon and nine months of crawling in, under and around three of them.

"Well," he said after the lesson, "they've got a lot of things about 'em that are different and unusual, but when you get right down to it they're just vehicles with a gasoline engine that makes 'em go. You're the boss; where do you want me to start?"

"You're the mechanic," I replied. "Start where you think you ought to start!"

Leaving Frank to his own devices, I joined Walt digging a glaciology pit. Bert and Hugh began drilling holes for explosives and laying out an array of receiving phones. At first, Tom and John stood around idly, looking as lost as Hansel and Gretel. Tom wandered too close to the glaciology works and suddenly found himself operator of a long-handled shovel. John was appointed hydraulic engineer and placed in charge of melting snow for water. Eight gallons of snow make a little more than one and a half pints of water. John took over a time consuming job, then freeing us for scientific work.

I was concerned about Frank all day. He had many handicaps to overcome. The tractors were new to him and so were the surroundings. Any vehicle designed for compactness is hard to work on, particularly with no previous experience. There were no parts stores, or heated garages, nearby. Everything had to be done outside in sub-zero cold, sometimes with bitter winds and flaying snow. Frank was not young, and long, strenuous hours in the cold can quickly drain a man.

I watched him all afternoon lying in the snow under Detector, his arms over his head operating a grease gun. Greasing a cat is a tormenting chore even in a heated garage. There are some thirty-five fittings on the chassis to be filled. These are all cleverly hidden and engineered with an eye toward inaccessibility. When you find and grease these, there are 300

more fittings on the track rollers. To add to the misery, they are invariably frozen shut with ice. If a mechanic does not come around with a case of frostbitten fingers once a week, he probably is not doing his job properly.

I approached Frank just before dinner that evening.

"Tough job, eh?" I asked casually.

"Yeah,," he said, wiping grease from his gloves. "How often did you say I should grease these things?"

"Once every hundred miles. That means you'll probably be under one of them every time we stop."

"Well, if that's the way it's got to be, that's the way I'll do it. Help you make supper?"

I had not gone out on an evening ski jaunt since before we arrived in the crevasse area. Taking advantage of the increased help available for kitchen duty, I left the dishes and slid away. We were not absolutely safe from the danger of crevasses – you never are in Antarctica, but the relative safety was delicious to enjoy. I felt more relaxed and light-hearted than I had in weeks.

Arriving back at camp, I saw that Tom and John had established a branch office of Look. After their first hard day on the trail they retired early, but not before hanging a sign outside their tiny tent which read:

Look Magazine
Ross Ice Shelf Branch, Antarctica

Tom Morgan	John Vachon
Chief Journalist	Director of Photography

November 16th came in clinging to the shirttail of a bustling southeast wind. The temperature dropped to 20º below zero. Morgan could not keep his feet warm. He crammed on so many socks his feet would not fit into his boots. He walked to breakfast like a girl in her first pair of high-heeled shoes.

"What you need is less socks, not more," Bert told him.

"Gad! You mean you want me to take off socks?" Tom asked in disbelief.

"Sure. You get your feet so wedged into your boots that the circulation is impeded. That's one way to get frozen feet for sure."

"Okay, Bert. It's against my better judgment, but since you're the expert, I'll try it."

We stayed the morning at station number four to do some additional ice pit studies and seismic work. Two o'clock passed before we resumed our traveling. Detector and Seismo went ahead, taking elevations with their altimeters. Tweety remained behind to check the effects of weather on the instruments. (Altimeters act like barometers, and the weather change must be subtracted out to find the change due to topography).

Tweety was to start moving at three-thirty. Fifteen minutes before that time, I switched on the heater to warm the engine. Nothing happened. Frank pressed the starter button. Only silence came out. I turned on the radio to call Detector – not even enough juice for that. The batteries were dead.

"What do we do now?" Frank wanted to know.

"Sit back and wait until they think we've fallen into a crevasse, and they come back to rescue us."

As we waited, a twin-engine plane flew over, disappearing in the direction of the other cats.

"They come 'round as regular as the postman," observed Frank.

"But they don't bring any mail," I said.

"How long you guys been without mail, Bill?"

"Eight months."

The plane came back after an hour and circled overhead. The pilot was a stranger, but an old friend, copilot Bill Schick, brought her down. Bill, not knowing about our battery troubles, parked at a considerable distance from the cat, and we had a long way to roll the heavy gas drums.

Petty officers Hackett and McCrea, two Little America friends, were aboard as crew.

"Hurry up and roll those drums you guys," teased McCrea. "We got a beer party to go to at L.A., and we don't want to be late."

"Yeah," said Hackett, "We'll be thinkin' about you poor bastards when we're full of beer and good things to eat."

"Knock off the lip, you men," ordered the new pilot. "Help the civilians roll those drums. What do you want us to do with the rest of the gas we're carrying in our fuselage tanks, sir" he asked me.

"We've got four empties on our sled, Lieutenant. We'll roll them over and take two hundred gallons worth from you."

The Lieutenant got the idea after a while, and he and Ensign Bill Schick joined in rolling the empty drums to the plane. But it was to no avail. First the transfer hoses were clogged with ice. When they were cleared, the pump would not work. Hackett kicked and cursed at it.

"Why don't you try fixing the pump instead of abusing it?" asked the Lieutenant.

Neither fixing nor abusing did any good, and the gas stayed in the tanks. While they tried to remove it, Bill Shick brought me up to date. The plane had carried two distinguished visitors, Dr. William Field, head of the IGY glaciology program and Sir Hubert Wilkins, the famous polar aviator. I regretted missing the opportunity of talking to Sir Hubert about his De Vinci-ish ideas on under-ice subways and submarines equipped with trolley rods to run along under the surface of the ice. However, I had the pleasure of being shipmates with him a few months later on a trip to Australia.

Bill said he had asked Tom and John if they were ready to come back. Tom, cold feet notwithstanding, said he had not even started.

The plane took off. It was returning to Seismo and Detector, so I sent a message for assistance.

At six o'clock Hugh came back with Seismo. We started Tweety with her batteries and in a half-hour the three vehicles were together again.

When I climbed out of the cat, I was introduced to the newest member of our family, Ed Robinson. Ed, a seismologist in his early twenties, came all the way from Michigan to join our group. All I could think of when I looked into his smiling, homely face was another mouth to feed on the skimpy rations.

But the sailors back at Little America were thinking about "the poor bastards out there." "Ski" Banaisak, one of the cooks, was an ex-Marine who had toured the Pacific on K and C rations, appreciated our need for more food. He sent out as much fried chicken as the plane could carry in addition to people and gas drums. Feeling "his boys" should have a "balanced diet", he also sent a case of anchovies for appetizers and a huge pan of peach cobbler for dessert. Chief Petty Officer McCrea rode all the way out holding the fragile cobbler on his lap. He and Hackett raided the Navy's ice box the night before, and they contributed canned strawberries, cranberries, and mixed nuts to our larder.

There was a sumptuous feast that night in Tweety; all eight people managed themselves around a table that was crowded seating four. Everyone moved their elbows in shifts. Even

the cook had a night off. All I did was thaw the chicken instead of cooking it. Crary announced that this was a crevasse-hopping celebration. We had been out of danger for five days now and on the trail more than three weeks; it was time for a party.

We made the transition from food to drink with some excellent brandy that was left by Dr. Field.

"Do you guys always eat like this?" asked Robinson.

Walt looked at him quizzically. "Sure, Ed, sure. We always eat like this."

"Gosh, I expected hard biscuits and seal meat and that kindda stuff."

"Disappointed?" Tom asked.

"Y-yeah, sorta."

"Wait till you taste those powdered eggs tomorrow morning," advised Hugh.

The flights had filled our gas barrels and replenished our beer and food supply. Of course, the beer was frozen solid, but that presented no obstacle to "intrepid explorers". Even with eight people in a tight space, it was uncomfortably cold without the stove. But to keep a stove going with nothing on top was a crime. We melted snow for the next morning's coffee and cereal water while we talked and sipped. When each man squeezed out of the cat to answer the call of nature, he would return with a small pot full of snow and toss it in the large pot on the stove. It was a simple matter to boil the beer cans in tomorrow's cereal water to thaw their contents.

"We came out here to see you guys struggle and suffer," protested Morgan. "What are we going to tell our readers."

"You should have been here two weeks ago," said Walt.

"It's hard to conceive what it's like back there if you haven't experienced the actual danger," said Hugh.

"Particularly in a warm sno-cat which is sitting on solid snow for a change and with stomachs, gas drums, and beer cans all brimming full," I added.

"Well, just you four fellas sit back and relax, and us four fellas will tell you about it," said Bert nostalgically.

"This is the way to cover a story," said Tom getting out pencil and paper.

"But what about pictures?" asked John.

Tweety that night seemed as far away from crevasses and danger as I was when I wrote this – yet, in both cases, we were very close to them. The Ross Ice Shelf was shattered with chasms and we still had over 1,000 miles to go. There were a lot of crevasses, whiteouts and blizzards ahead. Maybe more of us would take a trip on an airplane flying on borrowed time. Maybe next time there would be no airplane, or no need for one.

But tonight we talked of these hazards lightly and disrespectfully. It was good to "shoot your mouth off" without fear of "jinxing your luck". Yes, Bert told them plenty – how tough it had been and how tough it was going to be yet. "Heck, we've hardly got started. Only done four scientific stations, I've planned about forty."

Crawling into my sleeping bag, full of food and cheer, I had no doubts about making those forty stations. With men like Waldron, Speed and Hillis flying support for us and our own well-functioning team, I felt our chances of safely crossing the ice desert were better than ever.

Frank must have shared my thoughts. "Damn nice bunch of fellas," he said as he undressed. I noticed he was solidly built and muscular for a man I thought of as being old.

"How old are you, Frank?" I asked as he was sliding into his bag.

"Fifty-two," he said looking startled at the questions. "How old are <u>you</u>?"

"Twenty-seven. Ga nite."

"Goodnight."

We had strawberries for breakfast next morning and another chapter of the "Morgan Boot Story" was written. Tom's feet were always cold, Bert's were never cold, so they traded boots. Tom and his new boots traveled with Tweety all day and we covered 35 miles, adding the short run of the previous day.

Young Ed Robinson, on his second day with us, decided that we were not acting like true explorers, sleeping under tables, shelves and seismic apparatus. Good explorers should live in tents, like Tom and John. There was no room in their quarters, and the only other tent we possessed was a large, cumbersome one designed to house six men. Bert, Hugh, Walt and I used it earlier in the year on a shorter traverse, and decided it required too much effort to set up and take down every day. Ed reasoned it would not be too much trouble for a <u>real</u> explorer, so Hugh and I helped him rig it up that night.

Next morning it was a question of who was colder, Morgan or Robinson. Morgan received another pair of boots from Walt and Robinson moved in with Hugh. Bert vacated Seismo to take up residence with Walt in Detector.

The day turned out to be the rarest in our polar experience. A gentle breeze swept all the clouds from the sky, then dropped away to a calm. The barometer soared and instead of the temperature dropping, it followed the barometer. By mid-afternoon it was 8º above zero.

Ed, Tom and everyone else rejoiced in the warmth. Tom wrote and wrote and wrote. Ed romped like a playful polar bear cub while setting the seismic line. Frank whistled a tune under Seismo, and soulful Bert Crary was all smiles. The snow pit was as cozy as a sleeping bag. Walt stripped down to his heavy undershirt, and I frequently held my face into the sun to catch its warm, stinging radiation. Even John Vachen, dormant in the cold, seemed to blossom like a flower. He took rolls of film.

Harvey Speed flew over in the evening on his way to McMurdo. He took a close look at the area out ahead and reported three crevassed sections between us and McMurdo. He warned of a patch of badly broken ground, only one day's run away.

The ordinary procedure was to map the position of the bad ground and radio the co-ordinates, but a navigational conflict developed. Speed mapped the danger areas and sent the information. Bert asked him to chart our position by the same method. Our estimated location differed from Speed's by fifteen miles. The crevasse areas were smaller than this discrepancy, so their true locations were unknown.

We traveled all the next day with that tight feeling twisting our stomachs. It was another one of those blind advances, reminiscent of the descent from Roosevelt Island. Crevasses blocked the road ahead, but where ahead? The clear sky clouded over maliciously, as if to cover the warning signs. Those who had been through pressure disturbances feared a repetition of the dangerous, grueling routine. Those who had not feared the unexpected. The uninitiated took every meaningless variation in the snow surface as a cause for alarm. They tormented us with "what is it like" questions all day.

Crary choose to believe that Speed's navigation, done from a moving airplane, was in error, rather than our own, computed carefully from a fixed position. We traveled accordingly, making calculated guesses about where the crevasses might lie. This was difficult and unnerving. Not only did the weather go against us, but our gyro compass, a perfectly

performing instrument until now, began malfunctioning. We negotiated a most anxious and cautious 28 miles.

No sign of pressure could be observed, and we were almost ready to relax when Morgan yelped: "What's that! Th-the snow falls away into a trench."

Off to the south could be seen a wide, shallow valley. It was identical with the concavities on the east side of Roosevelt Island that heralded a crevasse area. The question now was whether it marked a pressure zone out ahead of us, or the outer edge of a region we had managed to skirt. We camped a half-mile from the depression.

While I prepared supper, Hugh scouted ahead on skis. He reported that the valley, now on our left hand side, swung around toward the north and crossed our path.

During the meal Bert asked: "Goin' out for a ski run tonight, Bill?"

"Yeah, Bert, thought I'd have a look at the dip."

"Think I'll mosey along with you."

Say," piped Morgan, "I been watching you guys on skis. It looks pretty easy. Got an extra pair I could try?"

"If there isn't an extra pair, you may use mine," offered Walt.

We outfitted Tom and started him off on "boards". He did remarkably well, falling only a half dozen times in the distance to the valley.

"It looks like a great big dent," said Morgan.

We christened the feature "Morgan's Dent". The near slope of Morgan's Dent fell off in a smooth, gentle curve to the floor of the depression. A slight backward push on the ski poles sent us gliding leisurely into the bottom. Tom chose to come down on his posterior.

We checked the floor closely and decided the valley was a very stable feature. Probably, it had experienced no disturbing pressure in a good many years. If the valley did conceal a crevasse under its floor, a thick bridge probably had been built across it, or more likely, because of its large breadth, the open rift had filled with loose snow.

"How the devil do you guys know all this?" Tom asked perplexed as Bert and I discussed the concavity. "All I see is snow – plain, ole, ordinary snow."

"That's all we saw on the other side of Roosevelt Island, Tom. At least we got some profit out of fighting crevasses for three weeks," I said.

"I guess there's a lot o' ways you can tell;" said Bert, "but I think it's just because we've looked at so many of them. Just like good and bad horses – if you know horses, you can just look at 'em and tell."

Morgan just scratched his head and looked at the snow in wonderment.

Tom and Bert decided to return to camp. I followed the curving valley for another mile to be certain of its characteristics. I emerged a half-mile from the cats. When I returned everyone was nursing Tom. The strenuous ski run and frequent falling caused him to become overheated and perspire. He caught a chill, then began to shiver. We filled him with hot soup and medicinal brandy, had a few shots ourselves and retired for the night.

Next morning, Tom was worse. Instead of hanging up his damp clothes to dry, he folded them neatly and tucked them between the two layers of his sleeping bag. The insulating qualities of the bag effectively retained every drop of moisture in the clothing. Considerably more moisture accumulated from condensation. Tom was not only cold from his feet up; he was wet. It required a spare pair of my boots, two pots of scalding coffee and most of the morning over the stove to thaw him out.

We worked our sixth scientific station that day. In the latter part of the morning, Bert left the seismology to Hugh and Ed, and decided he would run a survey across Morgan's Dent. With skis strapped on and the transit over his shoulder, he began looking for an assistant to hold the survey rod. Tom was stomping around in the snow still trying to get warm. Bert caught his eye.

"But I don't know anything about surveying," Tom protested.

"Ain't askin' you to survey. I only want you to hold that wooden peppermint stick with the numbers on it."

"I'm not much good on skis – as you know."

"How do you expect to get good 'less you practice. Gonna let it whip you after one try?"

"I'm not sure I want to 'get good' at it, Bert."

"Com'on, I'll tell you the story of my life.

"I don't know if that's worth a case of double pneumonia."

Tom did not do as well his second time on skis. He spent most of the day on his bottom, arriving back wet and with cold feet. We unanimously accepted Bert's suggestion that the valley be rechristened "Morgan's Bottom".

On Nov. 21st we departed from that historical spot. Hoping to recoup some of the lost time, we decided to travel for a day and a half. Gyro-compass troubles, an iced fuel pump and a non functioning windshield de-icer held us to 23 miles on the first day. The 22nd we traveled fourteen more miles and camped at three in the afternoon. That night Tom and John announced they had finished their work. With 570 gallons of gas remaining out of our 1050 gallon capacity, we called for a resupply flight to bring fuel in and take our guests out.

Snow and adverse weather kept the planes on the ground and the Look boys were still with us on November 24th. On that day we were four miles from the 180th meridian – the International Date Line. "I think that's reason enough to form a new domain," I said at breakfast.

"A new what?" asked Ed.

"A new domain, you pollywog. Don't you landlubbers know when you crossed the Equator for the first time, you're initiated into the Domain of Neptunus Rex, and crossing the Date Line you enter the Domain of the Golden Dragon."

"You mean we should form a society of all those who crossed the Date Line in the Antarctic," asked Hugh.

"Sort of, but it's not that simple. As all good sailors, travelers, and creatures of the deep know, the Golden Dragon's domain is strictly a watery one because the Date Line is almost everywhere over water. Everywhere except where it climbs over the edge of the Ross Shelf and makes its way over the ice to the South Pole. So Antarctica is the only place you can walk across, or drive across the Line. We'll be the first men in history to drive a vehicle across the International Date Line."

"Bravo!" shouted Walt.

"Does that mean we're all going to be initiated?" asked Ed.

"Of course not, we are the initiators, or founders," I said. "But everyone coming after us will have to be."

"Doesn't Scott and Amundsen get priority over us?" Hugh asked.

"No, they didn't travel directly across the Line. They went south along other meridians and only crossed the 180th at the Pole. Since the meridians of longitude all converge at the Pole, this is a very special case. In all fairness we have to eliminate them and the pole people."

Everyone nodded grave agreement.

"If we're not having an initiation, how are we celebrating this great occasion?" Ed Robinson wanted to know.

"By drawing up a historic charter and having a big feast," I answered.

I was unanimously appointed progenitor of the new domain and royal instigator of appropriate rituals. The first step was to draw up an official document befitting the momentous occasion. I worked all day composing it while we traveled. Frank did most of the driving to free me for this important task. Before dinner I presented this Magna Carta of the ice to the new court for inspection.

It proclaimed the terminus of the Domain of the Golden Dragon to be at the northern edge of the Ross Shelf and established a new and exalted domain beginning at this boundary. The province was to be called the Domain of the Golden Ice Worm in honor of that mysterious and elusive annelid which dwells in the ice, subsisting on the tails of his companions. The charter defined the Order of the Golden Ice Worm as an award to all those brave and adventurous persons who drive across the International Date Line. It announced our right to establish a new court on the basis of being the first men in history to drive across the line.

"As royal representative of his most noble highness, the Golden Ice Worm, I have presented the charter to the new and official court. Does this court approve of the wording?"

"Damn right," said Bert Crary – the Great White Father – affixing his signature to the document.

"I hardily approve," announced Sir Hugh "Blackie" Bennett, Royal Keeper of the Seismological Keys.

"A very impressive document," voiced Sir Walter "Waldo" Boyd, Exalted Digger of the Snow.

"Do we each get a copy?" asked Sir Edward, Official Tent Setter-Upper.

"The Royal Minister has made up certificates for each of us setting the particulars of this great achievement," said Sir Tom, Royal Scribe, Clerk and Bottom Skier.

"Please to read the certificate text aloud, oh Royal Potentate," requested John Vachon, Royal Artist and Cinematographer.

When Frank, Royal Doctor of Most Royal Sno-Cat Engines, finished signing, I read:

> Know ye all ice worms, eskimos, sourdoughs, chechakkoes, polar bears, penguins, skuas, scientists, explorers, and other creatures of the ice, that the noble bearer of this royal certificate is a bone-fide member of the

> Order of the Golden Ice Worm. Know ye further that this most excellent person has, on this day _____in latitude 79ºS, braved the hardships of inclement weather, irregular mail and frozen beer to become one of the first men to drive across the International Date Line and enter the most revered domain of his royal excellent highness, Platyhelminthes Aurum, empirical undisputed monarch of the Great White Wastes. Know further that he has forsaken warmth and female companionship for one year, at the sacred nauseating feast of trail rations, lived in total winter darkness and total summer sunlight, shoveled snow at -80º zero and defecated in a blizzard; and that, on the basis of these attributes and the fact that he has driven a vehicle across the Date Line, he has been examined, found to retain his sanity and been approved by the royal ministers as a Member of the Order of the Golden Ice Worm. Henceforth, he is to have complete access to and freedom to fall in all crevasses within the Royal Domain. He is also entitled to the attention and respect of penguins, skuas, killer whales, ice worms, and all other worthy subjects of his highness the Golden Ice Worm.

We toasted our royal patron – the ice worm – with beer and medicinal brandy. I began to prepare the ceremonial dinner. The weather cleared during the day and since an airplane might come over, we decided to dine in time to include Tom and John. But before I could finish cooking, festivities were interrupted by a plane. We tumbled outside to meet it and the gaiety and good humor were increased by the receipt of our first mail since the previous March.

"Mail already – how about that!" said Ed, ripping open envelopes.

"Boy the folks must have written every week-end all winter long," Hugh said juggling a bulky bundle of letters.

"How'd you do, Bill? Asked Bert.

"Got about a dozen letters. How did you make out?"

"Looks like all official mail. Walt got one from his draft board."

"What's it say, Walt?"

"I'm afraid I am already late for a physical examination."

Even Frank got a few letters.

The plane carried the first personnel of the wintering-over group to be relieved by new replacements. They were on their way back to the States, via McMurdo and New Zealand after fourteen months at Little America.

"So long, you poor bastards!" shouted Petty Officer Bill Cumbie, one of the men who made the first airplane landing at the South Pole.

"Hey, I left half-a-case of beer under my bunk," shouted C.P.O. McCrea. "If there's any left when you get back to L.A., you can have it."

"Thanks awfully, Mac!"

Three or four other familiar faces appeared in the plane door.

"Hey! Look up that doll up I told you about in Tallahassee."

"Sure thing. See you all on the next Deepfreeze Operation."

"The fug you will!"

"Drink a few for us in New Zealand."

"Yeah, man! That place'll never be the same after we land."

"If you ever get to Norman, Oklahoma, drop in on the wife and I for dinner."

Shouts, jeers, greetings, promises, telephone numbers, invitations, handshakes, and goodbyes were freely exchanged. Tom and John came to the plane loaded with cameras, baggage and notebooks.

"Satisfied with your story?"

"You bet we are! It has really been an experience. We want to thank you guys for putting up with us and treating us so well."

"Pleasure. We appreciate the help you gave us."

"If I have my way," announced Tom, "you'll all be international heroes when the story comes out."

"That's nice," said Bert. "If they print it, send us down a coupla copies."

"Sure thing – and with extra photos for you all," promised John.

"When will it be out?" asked Ed.

"Oh – February, March sometime."

We shook hands all around.

"Sorry I missed that last big feed, Bill. Sure enjoyed your cooking."

"Thanks Tom. "You won't forget to call those numbers I gave you?"

"No, we'll call your mom and your girl. Tell them you're fat and fine."

"Good on you, Tom!"

"You still have those numbers I gave you, haven't you?" asked Walt.

"Yeah, after we relax in a tubful of martinis, we'll spend the rest of the day on the phone."

"The pilot looks a little anxious," Crary reminded everyone.

"Goodbye!"

"So long!"

"Don't forget, wherever you go you are members of the A.O.G.I.W."

"The what?"

"The Ancient Order of the Golden Ice Worm."

"But we didn't cross the line yet, you said we were four miles away."

"We'll make you honorary members."

"Thanks and goodbye."

We lost the airplane in a rush of snow and the last chapter of Morgan's Story was written. When the air cleared, the snow was littered with gas drums and wooden ration cases.

"Leave 'em for tomorrow," said Bert. "Let's read our mail and have dinner."