CHAPTER 8
Life in Winter

Between the departure of the last airplane from Plateau Station and 21 February, a short eleven days, making the camp comfortable and safe quarters for the coming winter became the single concern of all. Called "buttoning up the camp," this is when the leadership and previous Antarctic experience, held only by our scientific leader, Rob Flint, became most invaluable. The simple things struck me. Leave nothing laying unmarked on the surface of the snow. Even a light wind could drift snow over an item and we would lose it permanently to the icecap. How we disposed of packing material and a minor problem such as leaving nails poking up in the snow became life threatening in isolation.

Bamboo poles were set up everywhere marking cable lines, food caches, movie film caches, and extra scientific equipment. Many lines of rope held above the snow by bamboo poles permitted barriers or entrapping lines to catch a wandering walker who might become lost during a storm while doing a routine task only several yards away from the main camp door. These lines permitted a person to find "home" by feeling hand over hand along the ropes in a snow storm.

On the 21st of February the twenty-four hour presence of the sun, orbiting our horizon in lower and lower paths, slid under the horizon for a few minutes at midnight for the first time marking what we called the first day of the autumn season. The temperature was -66 ° F. Winter was coming. We felt our isolation deepen.

In this "time less" world, made so by the strange motions of the sun, the Navy personnel maintained a rigid schedule with breakfast, lunch, and dinner at the standard local times. They wore their regulation khaki green clothing while on duty and almost all other times as well. In an interesting mark of independence, trying to show that scientists needed no uniform, each of us civilians without communication to each other began to wear daily a red checked shirt. Rob, with previous wintering over experience, probably knew that. He pulled out as his mark of individuality and leadership on one of these autumn days a green checkered shirt.

Over the next sixty days the dark sunless time ominously grew longer and darker as the sun's presence became less and less. With the daily increasing loss of sunshine, the temperatures began to plummet as my inversion began to take shape. The time a person could comfortably remain outside became less and less. Jerry Damschroder had to drain all the fluids of the traxcavator and our speedy snowmobile. When the evening temperature fell below -70 ° F, antifreeze began to freeze. At -80 ° F our bunny boots of rubber became as hard as iron and sounded like sledge hammers pounding on the permawalk as an individual came in from the outside. We stopped using the negative in our conversation referring to temperature.

Remember how the cars back home in Wisconsin or Minnesota give a squeaking sound as the tires drive over snow when it is below zero? A similar thing happens when the wind blows at truly cold temperatures. I'd say at about -90 ° F when a light wind causes a slight drifting, lifting the snow above the surface a half of a foot or more the hardened cold snow begins to screech like broken glass

scraping glass or finger nails scratching a slate. Hearing this irritating sound makes one feel as if all your teeth's fillings are falling out. Then it gets colder.

I measured the first -100 ° F on 31 March. This early time of the season, with the sun still above the horizon for a little more than ten hours, I felt much pressure by Navy personnel to revise downward the coldest temperature prediction. With a little fear I hung on to Lettau's definition of a "kernlose" winter. We would expect a rapid temperature loss as the sun departed but after that, in the dark of the winter continual loss could not be without end but an equilibrium will be reached between the inflow of warm air from the outside regions and the radiational losses from the snow surface.

On 20 April the sun should have set for the last time according to my geodetic and astronomical tables and it did a few minutes after local noon time. The solar disk in the north flattened and stretched out horizontally in striated lines of brilliant oranges and reds seeming to slide over one another from east to west. A strange dark shadow of the earth in the sky was rising from the south and rolled over us ever so slowly westward with a pink band separating the sun-lit portion of the sky which was diminishing in the growing darkness of the deep polar winter.

Every one of us was outside to view this awesome spectacle of creation where day and night were different from anywhere else on earth. We watched every shining ray of the sun as it left us. The United States flag was ceremonially lowered and removed from the flag pole for the four months of dark winter. Very properly Jimmy Gowan barked the commands. Jerry Damschroder lowered the flag while Ed Horton, Bill Lulow and Jimmy Gowan saluted and the four civilians stood at attention in the cold.

The next day near local noon the sun by refraction rose again even though it was below the horizon and these colors danced again. The sunlight would warm the snow surface. The temperature would rise breaking the new forming inversion and cut off the refraction effect, sending the sun rapidly away. That would cool the snow surface again and the solar image was pulled back once more. To a surprised audience this solar dance occurred several days after the technical sunset and the temperature followed in delayed steps alternating between -84 ° F and -105 ° F.

In less than a week the sun's dance was over and although near noon the sky was lit from below the horizon, the sun no longer returned and the first several days of sunless sky saw temperatures fluctuate without a connection to the diurnal or daily time cycle. A typical fluctuation was between -98 ° F and -106 ° F. I held my breath for the reality of a kernlose winter. I did not expect the temperature to fall much below the -113 ° to -118 ° F range, but it was a long time until the sun would rise again.

The extreme cases of refraction brought to light a solution to a historical mystery. The Australian explorer Sir Douglas Mawson wrote with disdain about claims of discoveries of the American Exploring Expedition of 1838-1842.

> "To this country, which had never before been seen, was given the name of Wilkes's Land; as it is only just to commemorate the American Exploring Expedition on the Continent which its leader believed he had discovered in these seas and which he would have found had Fortune favoured him with a fair return for his heroic endeavours." "'At noon the weather was clear but nothing could be discerned in the south except a faint blue line on the horizon. It may have been a "lead" of water, an effect of mirage, or even land-ice - in any case we could not approach it.' [Captain Davis writing in the ship's log of the Aurora.] The position as indicated by the noon observations placed the ship within seven miles of a portion of Totten's High Land in Wilkes's charts. As high land would have been visible at a great

> distance, it is clear that Totten's High Land either does not exist or is situated a considerable distance from its charted location. A sounding was made in three hundred and forty fathoms." (Sir Douglas Mawson, *The Home of the Blizzard*, Vol. I, p. 72, 75, and 76.)

Our own experience on the high Antarctic plateau, where we all witnessed the sun being pulled back by the refraction of light through cold high density air for more than a hundred miles over the horizon, showed that indeed Lt. Charles Wilkes saw correctly his more than fifteen hundred miles of Antarctic coast line that bears his name. Wilkes, whose discoveries confirmed Antarctica as a continent, saw the coastal high lands from the Balleny Islands to the Shackleton Ice Shelf. He placed them farther north than their actual positions. The new learned experiences of the extreme refraction of light in very cold lower inversion air showed that Wilkes really did discover his coast line that he mapped from his ship at sea a couple of months later in season than Mawson. The cold dense air of the high plateau would by Wilkes' time have been descending the long glacial slopes refracting the air at extremes not seen before.

Most of May and June and July with total sunless sky gave a noon and midnight of equal darkness. I can recall waking up at three o'clock, looking outside and asking "which three o'clock." As expected, the longest cold snap occurred in midwinter. Nineteen days between 18 June and 6 July had minimum temperatures below -100 ° F. For thirty-two days after midwinter only one day did we feel a temperature as warm as -95 ° F and not colder. Three of those days reached a cold temperature of -116 ° F. It was cold!

Rob frequently demonstrated the severity of the cold by making ice cream. While most home-made ice cream is made by a very long time of stirring the ice cream mix in a container surrounded by a mixture of ice and salt in order to keep the temperature below freezing, at Plateau Station Rob simply took a bowl of the ice cream mix outside and stirred it until his large spoon was frozen in the mix. It was not instant ice cream but it was ice cream before twenty minutes passed.

When the sun went down, our Navy Officer-in-Charge, Jimmy Gowan from North Carolina, stopped going outside and seemed to sleep almost all winter long. He became the butt of all the jokes as he failed at every one of the menial tasks each of us took on for our daily living such as shoveling snow into the snow melter for an hour every day. Yet he took the longest showers. The military personnel all made up for him, but they may not have had any choice since he gave the orders to his mighty command over three.

I remember an elaborate and long-lasting incident where Jimmy Gowan probably was set up, and I must confess that I was in the center of it and enjoyed every evil minute of it. While at Skyland Jimmy had promised the moon. Cooperation was the only reason for the Navy to be present he proudly lied. Once the brass left and we were in isolation Jimmy seemed to turn the otherwise very cooperative enlisted men against the USARPs.

The Navy always considered morale as the single most important factor for survival at such an isolated post as Plateau Station. Thus we had at least one full length movie for every day. Many were famous flicks and as a graduate student and researcher, State-side movies were not part of my entertainment. At Plateau Station these movies became very important to all. Jimmy, however, perceived himself as a person of very high taste. He spoke frequently of attending Broadway opera and concerts.

When it became evident that the movie by the Beatles titled "A Hard Day's Night" was among the four hundred films, there was a sudden interest which, as expected, did not fit the fine tastes of

Jimmy. Ed Horton, the youngest on station was truly interested in the style of music of the Beatles. Hugh Muir, being an exchange scientist from the British Isles had national interest in seeing this fine film. I wanted to see this film because the doctor Jimmy didn't want to see it. In the debate that followed it didn't take much to steer Jimmy to the extreme claim, "As long as I am Officer in Charge of this station that movie will never be shown." The military personnel were ordered to bury that film in a secret location. Of course, they could not reveal to the civilian scientists, now united in mission, the whereabouts of this vital film.

I organized Operation June Bug and all the USARPs spent several hours, night time hours when either the Navy was drinking and most of the time when Jimmy was sleeping, probing the snow fields near the station and shoveling until we found the coveted film. Flint and I kept the film in our bunks allowing it to thaw out. The warming process took more than four days during which time Bob Geissel and Hugh Muir moved film equipment, projector and screen and thawed out considerable food and beer at the emergency camp.

Rob Flint quietly talked Jerry into firing up the emergency camp generator as an exercise for safety in order to have sufficient electricity and heat needed to use the cooking range and movie projector for the following party. Although anyone could have heard the loud roar of the diesel generator at the emergency camp by walking outside and listening, in Jimmy's case that never was a problem. Finally, when Jimmy was passed out for the evening at the main camp, four scientists and three military sailors enjoyed singing "Yeah, Yeah, Yeah!"

We should not have tape recorded the sound track and played it so many of Jimmy's waking hours thereafter. Though this event had somewhat of a solidifying effect for all personnel except Jimmy, it did create more than a negative problem that the sensitive and correct judgment of Rob brought into rein. At his warning we all finally realized Jimmy Gowan had some problems, but that no one would survive the long cold winter without some acceptance of him as a teammate needed by us all. It was hard to do. I remember after one of Rob's sobering meetings where he would warn us to stay together as a team of scientists AND Navy, Bob Geissel made me swear that I would not let Jimmy, even as a competent doctor, assist him medically in any way. And yet it was true. We needed eight men on one team to live in isolation.

Weird trivial items became major concerns in isolation. With the absence of the sun, everybody kept very untraditional waking and working hours. At any given hour, A.M. and P.M., at least two people were always awake so that nearly every night the civilian scientists would cook at least two meals between supper and breakfast. Bob Geissel loved garlic. At these meals, Bob was a frequent cook and would have a little bread and meat with his garlic sandwich. The smell of garlic became so overwhelming that all of a sudden the remaining supply of garlic disappeared.

Other individual censorships occurred. The Navy tried to have two movies every day. This eliminated much productive time, even among the civilians. The temptation to rot in front of the silver screen was simply too great when there was seemingly limitless time and no boss except yourself. Suddenly the bulbs started to burn out very rapidly and it didn't take much mathematics to figure out that we did not have enough projection bulbs to last the year and at the same time have daily matinees. I never knew who dreamed up that excellent maneuver. It probably was brought on simply by cooling and warming a crate of the bulbs too quickly. I suspect it was Flint. I thank him.

Sunday matinees continued. They usually were a TV flick such as Perry Mason. None of us had need for money on the high plateau. We had no place to go. All food and room were provided. Beer, though plentiful, was rationed at a case per man per day. Even though none of us could consume that much, on many occasions we all tried our level best. Ed Horton kept a log of our personal beer

consumption and we were charged for the amount of beer consumed. As a result, beer became the commodity of exchange. At the halfway intermission of Perry Mason, each of us placed bets of cans of beer on our choice of who dun it.

Once when the plumbing froze, Bob had to use the facilities. The outhouse was still up at the emergency camp. Sitting over a hole at -110 ° F exposed is indeed a true world's record.

One Sunday matinee featured the TV flick "Rawhide." While the theme song resounded through the camp, "don't try to understand them, just rope and tie and brand them," Bob jumped out of his bunk in his rawhide to do a dance. The entire camp threw him out in the snow.

Attempts to build our own monopoly game from scratch drew much camaraderie until a debate emerged over what one of the red streets was named. The debate revolved around Massachusetts Avenue versus Illinois Avenue. With only eight men in our fair city, majority voting did not work. There simply was no way any of us would play on a wrong board so we simply did not play.

Sex of salmon and the longevity of male salmon after their act of fertilizing a patch of eggs seemed to be an eternal subject.

On the high plateau much time for personal reflection existed. All of us over-indulged in alcohol. Jimmy always slept. Ed spent a lot of time on the ham radio. Jerry and Bill never lost a night of drinking. My alarm clock for the 3:00 A.M. observation was the hiss of a freshly opened can of beer and a warning that the can was getting cold on the floor and might freeze if I didn't get up to drink it.

Some of us also did much reading. This was a long standing tradition. Robert Falcon Scott, on each of his marches toward the South Pole in 1901 and 1911 took the lead reading to his men. Darwin's *Origin of Species* was commonly read. It was the first time in my life that I was given an opportunity to read the Bible from cover to cover in a reasonably short (only a few months) time. I was amazed at its consistent message from Old to New Testament - the Messiah to come and the Christ of fulfillment sacrificing for me and for us all.

Rob at one time asked me if I would conduct a weekly devotion. Today I wish I had not refused. In 1966 I was still branded with my denomination's schism over prayer fellowship. I really wish I had learned to read the whole Bible as a high school student at Wisconsin Lutheran but school training only stressed interdenominational dangers without the whole council of God as I came to learn it on the polar plateau. I suppose I did not take stock of real sins in my youth but the religious schools I attended stressed proper behavior and not enough unconditional forgiveness. When I would walk out from camp to measure my snow stake fields and get away from the camp by as much as a mile or more, the stars and the silence became overwhelming. Except for the screeching of the snow while it drifted past me, no noise penetrated my ears. As a sinner I was struck with total fear grabbing for a weapon or a sword. For what? The Russians? Bears? No, I feared my almighty God. And over the Antarctic He placed His Southern Cross with a bloody star in its side. I knew I was forgiven of my sins.

It is hard explaining the severity of the cold weather. It was severe. The Great Antarctic Inversion was in its extreme glory most of the winter. The snow surface was always colder than the incredible one hundred below zero temperatures except when a storm would pass over the icecap plateau. The wind would pick up and the turbulence would break the inversion, pulling down the warmer air above and warm the surface to -50 ° F. This happened five separate times when several of these storms would last more than a day. One way to describe the cold, cold days is to say that these few days of -50 ° F in the depths of winter felt very warm in spite of the wind and blowing snow.

Our generators never gave full capacity and we had been experiencing more and more frequent brown outs when much of the scientific equipment had to be briefly shut down and turned back on when power was restored. At times a head gasket would blow. We had two generators in the main camp so that whenever one generator had problems, the second could be fired up while the first was repaired. On 6 July, mercifully after a proper sobering time following the Fourth of July, with one generator in a state of repair, the second generator blew a head gasket, the last gasket on station that now was deep into its isolated winter at -107 ° F.

We were all watching a movie as the electricity suddenly began to fluctuate and the generator's normal rumble began to shake the camp unevenly. When Jerry shut the generator down without starting up the next generator, the camp became awesomely silent and we all knew it was "crisis city." In the silence the camp began to creak and snap as it started cooling. With only the small cramped quarters of the generator room, there was not space enough for anyone else to do anything.

Wisely Flint and Doc Jimmy mutually decided to evacuate to the emergency camp a thousand feet away. Leaving Jerry to assess the damage with Ed and Bill as his assistants, the rest of us made busy by hiking to the emergency camp and hauling essential equipment - thawed food stocks, new water supplies, and fuel drums -into the emergency camp. Jerry joined everyone shortly and fired up the emergency generator at the emergency camp. We all took a respite from the cold indoor quarters of the main camp.

The four scientists remained in the main camp a large share of the time caring for essential equipment and taking manual observations on vital research projects. As long as research projects remained in effect Rob could continue as Scientific Leader with a share in the command of Plateau Station. Considering Jimmy Gowan's state of mind, Rob's command position was probably as important as Jerry's repair work. I promised to observe clouds and take advantage of this special quiet time to make snow drift measurements. On the whole, enough scientific tasks could be found to prevent a complete Naval takeover in this emergency.

Perhaps only Rob and Jimmy and Jerry had an understanding of the seriousness of the situation. Plateau Station was designed as a little space station with everything interconnected. With power of the main generator lost, obviously electricity to the main camp was lost. Also lost was the energy from the heat exchanger because the generator no longer produced exhaust heat. The water supply was beginning to freeze. The greatest worry to these men was the potential of losing the main fuel supply as it cooled with no more hot fuel being returned to the fuel bladders.

I remember waking with shivers in my cold sleeping bag. Actually it was the first major sleep I had in months. No time to drink. No hangover to recover from. No generator noise to let sleep be restless. Just the quiet, cold snapping of the camp's walls getting colder and colder. Rob had to help crack open the ice buildup around my face at the opening to my sleeping bag in order for me to get out. About the fourth or fifth day all the interior walls of the main camp were heavily frosted. And then most surprising to all, a bottle of 100 proof Old Grand Dad whiskey was frozen solid. Learning that Old Grand Dad froze opened an entirely new vista of drinking when the crisis was over. We could now make Old Grand Dad popsicles. From then on we made Plateau cocktails with a glass of brandy with Old Grand Dad ice cubes.

We were not the only ones who leaped into emergency action. Years later I learned that the military went into training for a polar dark emergency flight. Landing in the dark on a snow surface that did not reflect RADAR was impossible. But a rescue technique learned in Vietnam of strapping a soldier into a harness attached to a balloon, which could be snatched by a C-130 pulling the rescued man into the plane on a fly-over was a possibility. In a short time it was ruled out because of simple

numbers. Such a flight would take two crews of six men. Twelve men at risk for eight men were the wrong numbers. We were not told, but we were on our own.

When thoughts turned to the possibility of death I remembered and reread Scott's diary, which he wrote on his last march to the South Pole until he froze to death eleven miles from a saving supply cache. This diary boldly told of death. If needed, I wanted to die as proudly. I've learned since then that this diary may have been altered and Scott's last word might not have been so noble. Nevertheless, my thoughts also were along the line of Lieutenant Henry Bowers' last letter to his mother, who probably really was the last of the Polar Party to die and not Scott.

> " . . . my trust is still in Him and in the abounding Grace of my Lord and Savior whom you brought me to trust in . . . I should so like to come through for your dear sake. It is splendid to pass however with such companions as I have . . . There will be no shame however and you will know that I have struggled to the end . . . Oh, how I do feel for you when you hear all, you will know that for me the end was peaceful as it is only sleep in the cold." (Roland Huntford. *The Last Place on Earth*. New York: Atheneum, 1986, page 509)

By 14 July, nine days into the crisis, Jerry fashioned a temporary head gasket out of surplus wire and a soft weld job. The generator roared to life. By the next day the main camp was fully restored, though never to full electrical power. This crisis did pull everyone together. In that sense it was truly God-sent. We were saved by trouble. Even Lulow prayed and promised to go to church if he was allowed to return home alive. However, once the crisis was over, that promise was reduced to attend church once.

A kernlose winter remained true. Without a diurnal sun rise and set there was no forcing mechanism to control fluctuations. Storms would break the inversion and we could watch the broken inversion bringing the warm fifty to forty below zero down to our level. Shortly after the storms would pass, the temperatures would fall to -110 ° F and -116 ° F somewhat routinely. Much has been imagined about these extreme temperatures. Until you have lived through the cold air it is really hard to describe. Indeed -100 ° F is fifty degrees colder than -50 ° F just as +50 ° F is considerably colder than +100 ° F.

In fiction many such cold descriptions have been written. "As he turned to go on, he spat speculatively. There was a sharp, explosive crackle that startled him. He spat again. And again, in the air, before it could fall to the snow, the spittle crackled. He knew that at fifty below spittle crackled on the snow, but this spittle had crackled in the air. Undoubtedly it was colder than fifty below . . ." (Jack London, *To build a Fire*.)

What a crock! Spit, even cold water takes a long time to freeze. It remains true that 80 calories must be lost for every gram of liquid water to solidify to ice and that always takes time. Granted, the colder the temperature outside, the more rapid the cooling effects. The moisture of your breath did build up as frost all around your face, balaclava, and cloth material of your parka. For some reason the frost of your breath did not build up on the wolverine fur ruff of the parka. If you were outside for an hour or longer, this frost would become so thick you needed assistance when you came back to the camp to be gently cut out of your parka and it was for that reason beards were most convenient. A razor blade could easily remove a little chin hair rather than sacrifice the valuable parka.

Everyone at Plateau Station was looking to beat the world's lowest temperature record held at the Russian station Vostok. Today Vostok still holds that record at -128.6 ° F (*Guinness Book of Records*, 1992). But kernlose winters were exactly what we had. Within a week of the final sunset we

reached -106 ° F and the fall in temperature leveled out after that for nearly the remainder of the winter. By 13 June, shortly before midwinter, I measured the coldest for Plateau to that date, -116 ° F. And the temperature did not get colder until the harshest cold run of four days with consistent minimum temperatures of -117 ° F from 11-14 August ending with -118 ° F.

This was a long way from the Vostok record, but it was colder than the Vostok low temperature for that year, -113 ° F. We essentially reached the lowest temperature of a kernlose winter and had no reason to believe in any hope of a new outbreak of cold. We were at the "cold pole." Cold could not move into our area. But the sun was about to rise. Under the Great Antarctic Temperature Inversion the coldest temperature was always the snow surface. It warmed up every inch higher. In the thermal turbulence that occurs with the warming of the snow surface by the sun, an outside chance for reaching a colder temperature to pacify our technical curiosity existed. The "standard" level of the Weather Bureau thermometer was one metre above the snow. When the slightly warmed air under the thermometer started lifting and mixing at the return of the sun, the colder air just above it could also be lifted and mixed in such a way to make the "official" temperature slightly colder.

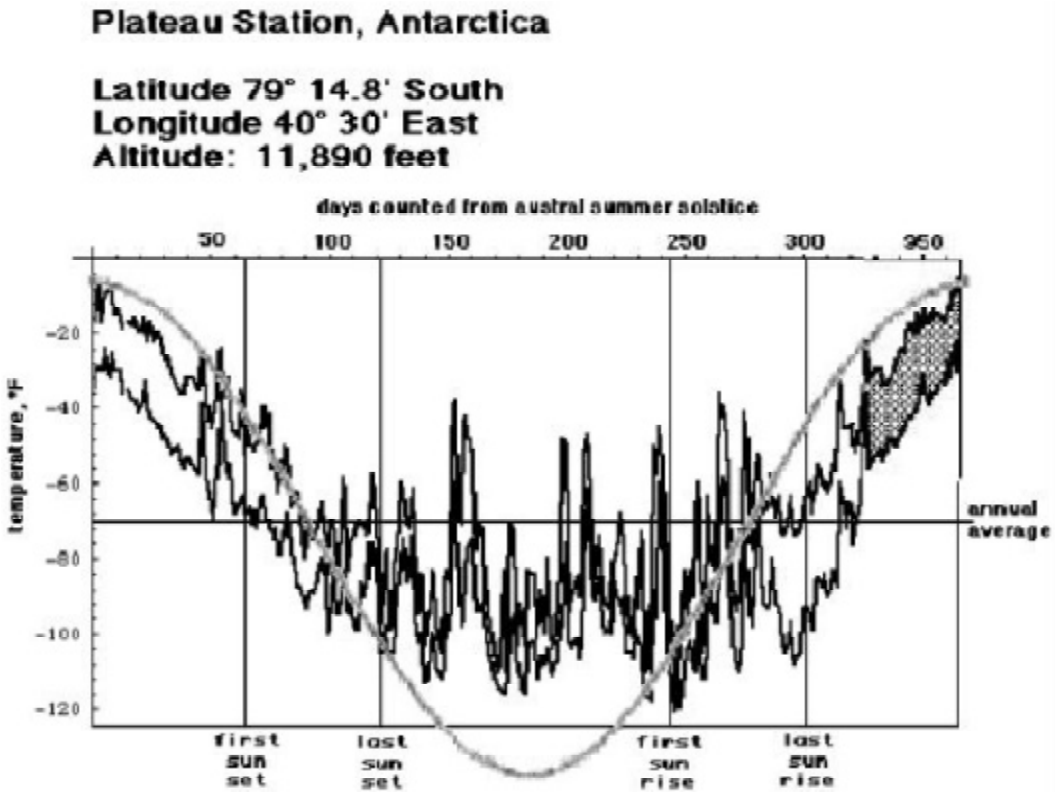
August, 1966

Date	**Max**	**Min**	
20	-70	-84	
21	-82	-104	
22	-101	-109	FIRST SUN RISE
23	-97	-116	
24	-116	-121	
25	-101	-120	
26	-98	-106	
27	-106	-120	

That is exactly what happened (see table above) with the return of the sun's warming rays centered on local noon. Near the midday hour the first five days of the returned sun the temperature plummeted three of those days setting our record at -121.1 ° F on 24 August 1966. I verified the record with two other temperature devices to confirm the coldest temperature recorded by Americans and set a U. S. Weather Bureau record. (Two years later Tom Frostman and George S. Rubin de la Borbolla, working for Dalrymple and me, set a newer record two degrees colder at -123 ° F on 5 June 1968. That was the last year of operations at Plateau Station and no colder records have been made by Americans.)

When all the temperature results were tabulated, it turned out that the average temperature for Plateau Station for the calendar year of 1966 was -70 ° F, exactly the deep core temperature Captain Pope and I measured the previous summer. That does confirm Rob Flint's hope expressed by the station stamp commissioned and copyrighted by him calling Plateau Station the coldest place on earth. Even though we did not measure the coldest single moment of a day, to this day our annual average temperature of -70 ° F is a world record and Plateau Station is identified as the coldest place on earth in *Guinness Book of Records*, 1992, p. 47.

Often I have been asked about wind chill. An empirical association of temperature and wind speed relating how a living self heating warm blooded creature loses heat in the wind and cold temperature was developed by Paul Siple. If I used his formulas correctly, the coldest wind chill at Plateau Station may have been -228 ° F, temperature near the liquefaction point of oxygen. At these extremely low temperatures experienced at Plateau I believe the wind chill, always off our charts, was meaningless. Fortunately the wind never was very high and when it was in excess of thirty miles per hour, the temperature inversion was broken and, in fact it became warmer.



[The symmetrical temperature chart above consists of real data from 15 December 1965 to 7 November 1966 with missing data simulated by a mirror image of the opposite season.]

Back in July, when we were in crisis over the loss of our generators, members of the National Science Foundation made a long distance telephone call in the daytime to my brother Ray and called him off the production line at Evinrude Motors in Milwaukee. In a time when long distance telephoning simply was not done by any of my relatives, such a phone call had a major impact on the entire relation. Ray was informed that we were in trouble but that we were working through the problem and it looked quite promising. However, it probably would be sensationalized by newspapers. Ray was kept on the phone a whole lot longer than three minutes, which added to the sensationalism of this event. It did put my family, Ray and Trudy, their children, Tanna, and other aunts and uncles at ease.

Following the crisis ham patches became more available to us. Some ham patch time I believe was stolen or at best dominated by our southern doctor Jimmy. Most of the time radio communication from Plateau Station was very poor because of much Aurora activity. The brilliant displays of reds, greens, yellows, and purples in huge curtains overhead were received by us with pure delight. Frequently we would go outside and lie in the snow to avoid a stiff neck even when the snow was considerably colder than -100 ° F just to watch the magnetic disturbance in these vivid colors. These colors were the death of radio communication for many days both before and after. So maybe there simply was not much radio communication to ham radio operators in the States. I don't think I had more than three ham patches all year and was very satisfied. When conditions were good, Ed Horton made a communication, usually with a ham radio operator in New Hampshire. He would make a collect long distance call to my brother Ray, usually about 3:00 A.M. Milwaukee time. Voices were tear jerkingly enjoyable. Mostly, neither of us knew what to say. I wanted to hear all the good gossip of home, no matter how trivial. To Ray that was only trivial, not worth passing on, and he wanted to hear of all the exciting things he thought I was doing. Drinking beer and measuring temperatures was

routine to me and not worth talking about. So, not much was said, except the important voice was exchanged.

On one of these ham patches Ray informed me that I was declared 1-A by my draft board and was drafted and had failed to show up for my physical and now was AWOL and sought after by the FBI. The Navy threw me a welcome aboard party. One good point Jimmy offered was that I could enlist immediately in the Navy and avoid the draft. I had thought I had a valid deferment, but the Milwaukee draft board always updated all paper work every twelve months. All their questionnaires were in my mail box at the airport in New Zealand. I suddenly became concerned but could not do much. Here is a message I sent.

14 October 1966. "In essence, we find ourselves—from the point of view of the important war (for the complicity of the people)—no better, and if anything worse off. This important war must be fought and won by the Vietnamese themselves. We have known this from the beginning. But the discouraging truth is that, as was the case in 1961 and 1963 and 1965, we have not found the formula, the catalyst, for training and inspiring them into effective action." (Memorandum for President Lyndon B. Johnson from Secretary of Defense Robert S. McNamara.)

USARP
RUECCX 001
DE RUMPMA 563 WOWQWQO
ZNR UUUUU
R 19 0530Z OCT 66
FM PLATEAU STATION
TO RUECCX/USARP WASHDC
INFO ZEN/USARP REP MCMURDO
RUHPMC/USARP REP CHCH
BT
UNCLAS
USARP NO. 132
USARP WASHDC PASS WEYANT, PMB, USWB, WASHDC

1. UNDERSTAND VIA PHONE PATCH THAT DRAFT CLASSIFICATION CHANGE TO 1A AND INDUCTION PAPERS ARRIVE IN MILWAUKEE

2. PLEASE CONFIRM IF 2A CLASSIFICATION WAS NOT REMOVED. EXPLAIN TO LOCAL BOARD 44 MILWAUKEE THAT OCCUPATION PRECLUDES PRESENCE. WOULD LIKE DEFERMENT EXTENDED IF POSSIBLE UNTIL AT LEAST SOME ANALYSES ON DATA COLLECTED HERE HAS BEEN COMPLETED.

SPONHOLZ
BT

One other winter event on the Antarctic continent that gave us all a real chill was the medical fate of scientific colleague, Larry Spitz, wintering over at Byrd Station. He developed an appendix attack and in isolation he was close to death from a very simple ailment. I enclose the entire account of the Navy's record published in the *Antarctic Journal of the United States* as a tribute to all that the military was prepared to do for its countrymen anywhere in the world, civilian scientist or man in uniform. I may have and probably will continue to cast disparaging remarks toward the Navy as they in turn did to me "a sand crab." It is the American way of freedom. I am alive because of the work of the military at Plateau Station. Larry Spitz is alive as a complete example of the full scope of the military's love for its country and its people.

"At 2310 local time on September 4, the Washington duty officer of the U.S. Naval Support Force, Antarctica, received a phone call from Davisville, Rhode

Island. The duty officer at the Davisville headquarters of Antarctic Support Activities (ASA) had picked up a garbled message from the amateur radio transmitter at Byrd Station. With a magnetic storm raging, communications were bad. Byrd could not hear the operator in Davisville at all, but the ASA operator heard enough of Byrd's transmission to relay that a scientist was stricken with what sounded like acute appendicitis and that Byrd was not only requesting immediate aerial evacuation, but was already preparing the skiways for landing."

"As the magnetic storm subsided on the following days, communications were restored and more precise information became available. The patient was Mr. A. Lawrence Spitz of Fairfax, Virginia, an auroral observer for the Arctic Institute of North America. His ailment was diagnosed as generalized peritonitis. A course of treatment based largely on the use of antibiotics was prescribed. It was hoped that Spitz would respond sufficiently to the treatment to await the official opening of the season with the first fly-in to Antarctica; this was scheduled for October 1 and might even have been pushed forward a few days."

"At first, things appeared to be going well, but early on September 9, Dr. Robert Hunt, the physician at Byrd, reported a steadily rising temperature. In the afternoon of the same day, Rear Admiral Bakutis, Commander, U.S. Naval Support Force, Antarctica, requested and obtained approval for a medical evacuation flight. Two LC-130F Hercules prepared to take off. At 2000 hours, the first aircraft departed with Commander Daniel Balish, USN, Commanding Officer of Air Development Squadron Six, on board. His orders were to push straight through to Christchurch, New Zealand, with minimum time on the ground, and to proceed from there to Antarctica as fast as weather permitted. The second aircraft, which was to provide search and rescue support to the first, was scheduled to leave Quonset Point about 18 hours after Commander Balish."

"In the meantime, Byrd, South Pole, and McMurdo Stations were instructed to make surface synoptic weather observations every three hours and to take upper-air soundings every 12 hours. Terminal forecasts for Byrd and McMurdo were to be prepared by the latter on a six-hour schedule. The Australian and New Zealand stations on Macquarie and Campbell Islands were requested to provide 12-hourly upper-air soundings. At Byrd and McMurdo Stations, Navy crews were busy smoothing runways, setting out emergency lighting, reactivating navigation aids, and checking out equipment. The Christchurch detachment of the Naval Support Force was asked to have a fuselage tank ready for installation in the Hercules."

"Commander Balish arrived in New Zealand on September 11 at 1125 hours. At 0959 on the following day, he left Christchurch for McMurdo Station where he arrived at 1858. By this time, weather at Byrd Station had deteriorated and the fly-in had to be delayed for several hours. Dr. Hunt reported that Spitz was resting comfortably, although his condition was gradually worsening. The emergency, while real, was not acute."

"The Hercules departed McMurdo for Byrd Station at 0435 on September 13. Everything went smoothly. After a brief stop at Byrd to load Spitz on board, the aircraft proceeded directly to Christchurch, arriving at 1952. After diagnosis at a civilian hospital, it was decided that surgery for an infected appendix would be delayed for three months while treatment with antibiotics continued." (*Antarctic*

Journal of the United States, Vol. I, No. 6, Nov.-Dec., 1966, p. 274-275.)

At Plateau Station we eavesdropped as much as we could on the radio traffic praying for Larry and his rescue party every hour. Why could an emergency be met at Byrd Station and not at Plateau? Byrd Station's temperature range in September was +14 ° F to -66 ° F only 5030 feet above mean sea level. Plateau was more than twice as high in altitude with temperature still below -100 ° F or forty degrees colder than the freezing point of air fuel, and several hundred miles on the other side of the Pole of Inaccessibility from McMurdo. Basically we were COLD! We felt colder considering Larry's plight and the risk taken by the flight crews. Similar flight crews would soon be doing the same for us.

(Logo: ©Rob Flint, 1965)

Top: The last C-130 takes off before the long winter's night creating its own blizzard February 1966

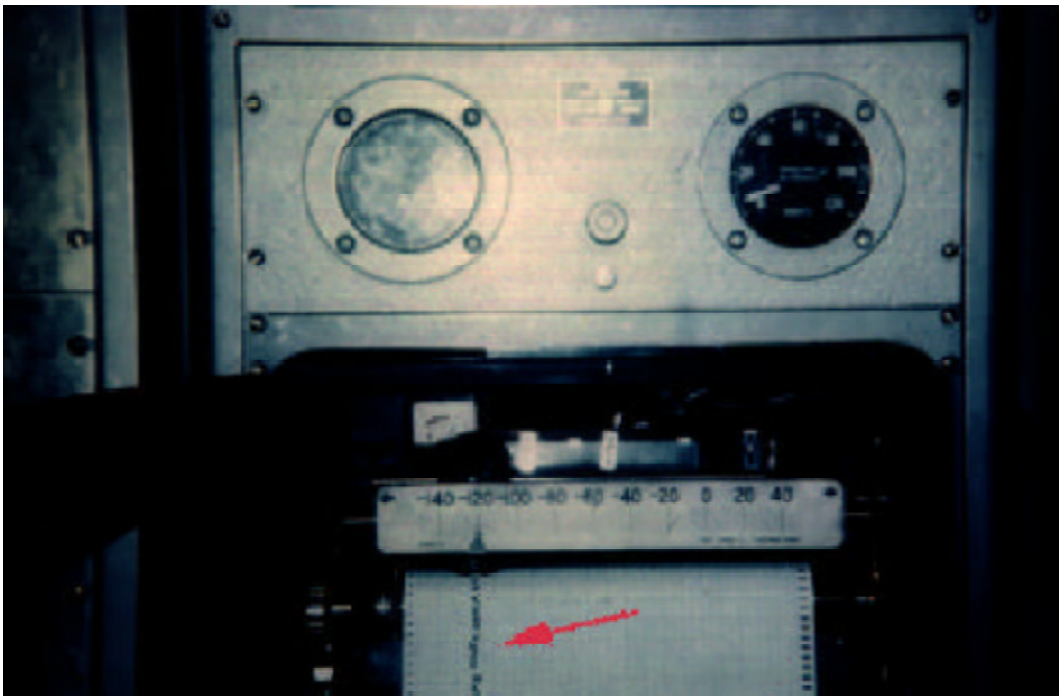
Bottom: Lowering the flag for the long sunless winter at the final sunset April 1966

Top: The Southern Cross
during the enless night of winter

Bottom: Four layers of clothes (time delay photo)
Left to right: Rob Flint, Marty Sponholz, Hugh Muir, Bob Geissel

**Operation June Bug—the search for "A Hard Day's Night" by the Beatles;
Evildoers: Marty and Bob (Slide by Rob Flint)**

Failed generators make the main camp cold—one hundred proof wiskey frozen on the indoor shelf at -108°F



Top: Record low temperature for the year -121.1°F
24 August 1966

Bottom: A barbecue to celebrate the return of the sun
(Slide by Rob Flint)