

## CHAPTER 13

### South Again

The voyage south on an icebreaker, though not as scientifically successful as the expedition to Plateau Station, gave to me the greatest understanding of this great white continent that swelled to twice its size in winter and then shrunk back to normal in summer. Engaged to be married to Nancy sometime the next boreal summer (I left the details to her, asking her to send me an invitation) I kept a diary for her. These are the descriptive parts of that diary leaving the mush that was so important to young lovers many years ago to the privacy of a good bonfire someday.



I have added description where I left it out of this long love letter thinking originally that Nancy would not be interested. In these cases I now mark the added paragraphs with the square brackets [ ] in order to give the reader the opportunity to interpret my memory.

#### **A ship's log for my love, Nancy:**

14 December 1967  
ICEBREAKER "*Fuji*" in her berth at  
Fremantle,  
Port City of Perth,  
Western Australia

Tonight is my last night on dry land. I find myself very much alone on a deserted beach of Fremantle with the waves of the Indian Ocean smashing the shore a little higher with each wave as the tide is coming in. This is not really a very good beach. It is all messed up with seaweed and a few dead crabs. Not far from me to the right are a group of old fishing sheds. No people. Well, one lad far off to the left is sleeping on the sand and, while walking over here, I passed an old man with a beard sitting on a crate, leaning back on one of those old sheds. It is not clear from my position if the shed is holding him up or if he is holding up the old shed.

The lighthouse at the harbor's entrance is also in view marking the river entrance from where the *MSDF Fuji* will be sailing out to sea in a short number of hours. My shoes and socks are off. I'm propped up against a boulder that is part of a dilapidated sea wall and am sitting on the soft sand along with a large number of sea gulls as the sun is setting. The ocean is an awe inspiring living thing. It has a most compelling lure. The sea's waves, with their rhythmic motion crashing onto the beach and moving in a smooth pulling fashion outward, beacon and my spirit says go.

What is in the sea? I don't know. As a little boy playing in the sand along Lake Michigan I easily would tire of building castles, but I never tired of just staring at the waves. A boy dreams of the sea. The mighty sea. The awful sea. And I guess nothing has changed. As you very well know I'm still a little boy who loves the sea. At 9:00 A. M. tomorrow the *Fuji* sets sail. A few months ago when I was first asked to join this Japanese Antarctic Research Expedition (JARE) I spent a most prayerful evening and a sleepless night in debate with my heart. Then as the sea, the adventure, and the Antarctic unknown beckoned, I knew I had to go. Alone on this beach I am sure I must go. I want to go.

The sun has set. We sail tomorrow at the hoisting of the red and white "Rising Sun."

The first day

17:00

16 December 1967

35 ° 12' South

109 ° 28' East

On ship everything is very much like clockwork. Schedules are the absolute law here so I'm instantly thrust into a routine but will, of course, try to break it all every moment. The *Fuji* began Friday morning in somewhat of a hectic but well-ordered fashion as it prepared to leave its berth in Fremantle. I had breakfast with Capt. Honda and Mr. Murayama in the Captain's cabin. This will be an unbreakable routine.

A sailor comes and awakens me at 06:00 and checks at 06:30 that I will be ready for the Captain's breakfast. Right now I don't have the intestinal fortitude to describe breakfast but then that's jumping the gun a bit. I dashed off the ship to mail the last letters. When I returned, my work room, lab, and cabin were inspected to see that everything was well lashed down. It was, of course, more than needed, but the fear from the descriptions the roll this ship will take has made me quite cautious.

I then got all dressed up (well not really with vest but the traditional suit and tie). The departure was quite deliberate, slow, and with all the pomp and ceremony. All hands were on deck one hour before the ceremony. Many dignitaries from Australia, the Japanese Embassy, and the American Embassy were there wishing all of us well. The flag of the "Rising Sun" of Japan was slowly hoisted to the tune of their national anthem. This was followed by "God Save the Queen" in salute to Australia and the British Commonwealth and a short segment of "The Star Spangled Banner" in a salute to my country.

Streamers were tossed to the crowd and held by members on the ship and well wishers on the land. As the *Fuji* slowly eased away from the dock the streamers stretched out and eventually broke. Waving continued both on land and on the ship until they could no longer be seen. I must end my entry - I'm seasick!

The second day

07:00

17 December 1967

37 ° 45' South

108 ° East

I survived the night and breakfast so far. Yesterday I don't care to discuss. Today's seas are a bit rougher as we've changed our course and now are headed almost straight south and expect to reach the ice by Christmas.

Plotting our position on the map each day seems to amplify our slow progress. Airplane travel has spoiled my view of travel. Even the slowest plane would now be welcomed. We are churning away at the fantastic speed of fifteen nautical miles per hour and bobbing like a cork all the way.

I try to spend as much time outside as I can. The fresh air and the beauty of the sea with a

definite horizon to look at for a stable orientation sort of relieves the headache and nausea. The ocean is so blue - a great deep blue black. And where the wind and the ship churn it up a bit it goes from salt white into every color of the blue rainbow.

One good thing about getting seasick is that I got immediate attention and was served ice cream to settle my stomach. It's a heck of a way to get ice cream but rather worth it.

The third day  
07:00  
18 December 1967  
42 ° 40' South  
106 ° 48' East

The third day I laid off the food as much as I could, just eating tasteful parts. Just what I eat is anybody's guess. Much of it is quite foul tasting and gagging. Perhaps my seasickness is more a fear of eating. The day on the sea was a very warm and calm one. Only four and five foot waves and a gentle rhythmic roll of the ship.

I spent most of the day trying to get my instruments working and as could be guessed, it's turning out to be one monstrous headache. Anyhow, the headaches of my work were enough to overcome minor problems like being seasick.

They show a movie here once a day but these movies appear just as bad as most American movies. In addition I cannot understand them, so, unless forced into it like the last movie about some Japanese hero, I'll probably sleep.

Reports we've been getting from U. S. and Russian ships in the Antarctic are quite favorable, which is making Capt. Honda very happy. He lives by a schedule without fail and has even set the time of berthing at Capetown at 10:00 1 March 1968.

Today begins with a bit of foul weather and a mean looking gray sea, white caps and all, as we enter the roaring forties. The *Fuji* is taking its worst roll for my trip of about seventeen degrees or a sway of thirty-four degrees from side to side. If my little stomach survives today I guess I'll be ready for the screaming fifties.

The fourth day  
07:00  
19 December 1967  
47 ° 44' South  
107 ° 06' East

I survived yesterday quite well except, of course, I'm getting hungry and most of the food still is undesirable to me. One or two meals are fine but by now just the smell of the galley turns my stomach and gives me a headache.

Despite the bad wind and waves I attempted to test my kytoon system. After all kinds of frustrations with the language barrier and the Japanese desire to change my ways into theirs, I smiled and gave up. Bob Geissel told me about Orientals and "here lies the one who tried to hurry the East." It's so true. After about six hours of work that should have only taken about a half hour, not counting

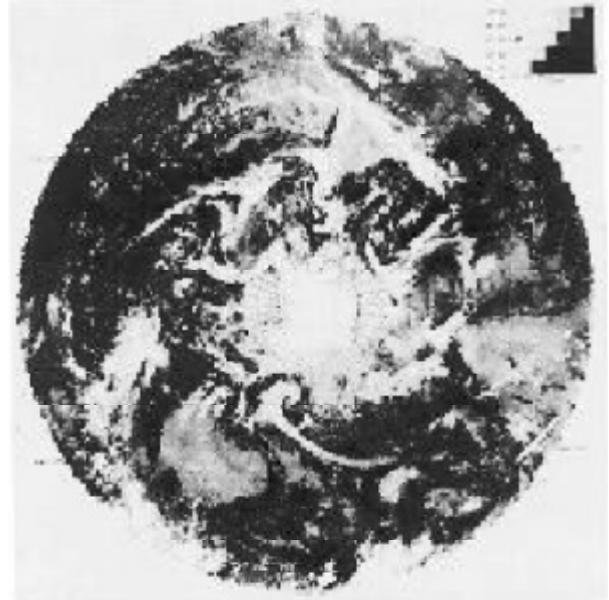
about seven hours I had put into the effort before I needed help, all failed. One kytoon was filled with helium, taken up on the helicopter deck, raised about five hundred feet by a fish line and deep sea fishing reel, all to be watched by most of the ship's company as the kytoon took one big nose dive into the turbulent sea. A \$16,000 instrument was on the way to the bottom.

Of interest was the reaction of about thirty chaps all "lending a hand." They were quite sober faced and watched me very closely. I somehow knew they wanted to laugh but were too polite. So despite all my frustrations and in defeat, I deeply shrugged my shoulders, threw up my hands and laughed. Instantly they all roared.

[Three Japanese government scientists with meteorological research offices either volunteered or were assigned, I never knew. They were Ryoichi Ibe, Hiroshi Fukutani, and Michio Yamazaki. Also a meteorology professor from Hokkaido University took interest in my project and rarely missed a launch. These men were very faithful for the entire trip south until Showa base was resupplied.]

Inside I'm beginning to realize this is going to be a colossal flop. The experience and trip to me personally will, of course, be worth my struggle, failure or not. My government is not going to be appreciative of spending \$16,000.00 for a worthwhile flop.

I suppose there have been worse mistakes but this whole thing is beginning to make me sick. And I'm told from now on the seas will get far worse than yesterday. Couple it all with the fact that I don't have anyone I can talk to, and this morning I'm perhaps as depressed as I hope I'll ever permit myself to get. I have no complaint. This is what I volunteered for and many others are in a far worse condition and even giving their lives for useless reasons.



**NOAA-1 Infrared photo mosaic of the Southern Hemisphere, June 18, 1971**

The fifth day  
19:00  
19 December 1967  
50 ° 12' South  
107 ° 48' East

Today was a bad news day outside. High waves, much rolling, and rain. So being a fair weather meteorologist I did nothing.

The sixth day  
07:00  
21 December 1967  
56.4 ° South  
106.9 ° East

Sometime very early yesterday morning the *Fuji* crossed the Antarctic Zone of Convergence.

This is a very interesting boundary in the sea.

[It was a main objective of my research. The warm salty South Indian Ocean is the lighter or of the lowest density of the sea waters and rests on top all the way south to these latitudes. The colder, fresher or of much less salt concentration because of all the melted snow and ice from the mainland of Antarctica, and much denser ocean waters plunge beneath the surface and slide under the warmer ocean waters almost to the equator at great depths. On the surface this boundary is a dramatic climatic change and worthy of every risk and cost of equipment to measure and document these changes.

~~Outside, the thirty and forty foot waves crashed over the bow of the *Fuji*,~~ and at times smashed against the windows of the Bridge. The helicopter deck was in a continual wash and the deck below, where I was expected to fill the kytoons with helium, was sealed with great sea wall doors and mostly under water as if the stern of the *Fuji* was a submarine. The winds were gusty to nearly sixty knots and the *Fuji* rolled continually as much as forty-five degrees to one side. In addition the *Fuji* pitched forward as much as thirty degrees, which brought much water over its bow and brought its two twelve thousand horse power screws out of the water with screaming sounds and vibrations felt in every part of the ship. All were tense. Weather research in these conditions was impossible. With a positive view I turned to the hope of capturing these weather data in calmer seas in the South Atlantic on the return trip. Any seaman could have told me, even before I joined the *Fuji*, that kytoon measurements in any of the high latitudes of the Southern Ocean were impossible. It never was calm here. That is exactly what the screaming fifties are all about.]

[These seas were not even known until 1578 when Sir Francis Drake comfortably sailed through the Straits of Magellan into the Pacific Ocean only to sail a little too far south into the screaming winds and waves which pushed his fleet back eastward through the unknown wide passage that now bears his name. A first description of these seas is given us by Francis Fletcher, a preacher on Drake's ship.

“For September 7 the second day after our entrance into the South sea (called by some Mare pacificum, but proving to us rather to be Mare furiosum) God by a contrary wind and intollerable tempest, seemed to set himself against us: forcing us not only to alter our course and determination, but with great trouble, long time, many dangers, hard escapes, and finally separating of our fleet, to yeeld our selves unto his will. Yea such was the extremitie of the tempest, that it appeared to us as if he had pronounced a sentence, not to stay his hand, nor to withdraw his judgement till he had buried our bodies and ships also, in the bottomlesse depth of the raging sea. . . .”

“For such was the present danger by forcing and continuall flawes, that we were rather to looke for present death then hope for any delivery, if God almightie should not make the way for us. The winds were such as if the bowels of the earth had set all at libertie; or as if all the clouds under heaven had beene called together, to lay their force upon that one place: The seas, which by nature and of themselves are heavie, and of a weightie substance, were rowled up from the depths, even from the roots of the rockes, as if it had beene a scroll of parchment, which by the extremity of heate runneth together: and being aloft were carried in most strange manner and abundance, as feathers or drifts of snow, by the violence of the winds, to water the exceeding tops of high and loftie mountaines. Our anchors, as false friends in such a danger, gave over their holdfast, and as if it had beene with horror of the thing, did shrink downe to hide themselves in this miserable storme; committing the distressed ship and helpelesse men to the uncertaine and rowling seas, which tossed them, like a ball in a racket. In this case, to let fall more anchors, would

availe us nothing; For being driven from our first place of anchoring, so unmeasurable was the depth, that 500 fathome would fetch no ground: So that the violent storme without intermission; the impossibility to come to anchor; the want of opportunities to spread any sayle; the most mad seas; the lee shores; the dangerous rocks; the contrary and most intollerable winds; the impossible passage out; the desperate tarrying there; and inevitable perils on every side did lay before us so small likelihood to escape present destruction, that if the special providence of God himselfe had not supported us, we could never have endured that wofull state: as being invironed with most terrible and most fearefull judgements round about. For truly, it was more likely that the mountaines should have beene rent in sunder, from the top to the bottome, and cast headlong into the sea, by these unnatural winds; then that we, by any helpe or cunning of man, should free the life of any one amongst us.”

“Not withstanding the same God of mercy which delivered Jonas out of the Whales belly, and heareth all those that call upon him faithfully, in their distresse, looked downe from heaven, beheld our teares, and heard our humble petitions, joyned with holy vowes. Even God (whom not the winds and seas alone, but even the divels themselves and powers of hell obey) did so wonderfully free us, and make our way open before us, as it were by his holy Angels still guiding and conducting us, that more then the affright and amaze of this estate, we received no part of damage in all the things that belonged unto us.”

“But escaping from these straites and miseries, as it were through the needles ey (that God might have the greater glory in our delivery) by the great and effectuall care and travell of our Generall, the Lords instrument therein; we could now no longer forbear, but must needes finde some place of refuge, as well to provide water, wood, and other necessities, as to comfort our men, thus worne and tired out, by so many and so long intellerable toyles: the like whereof, its to be supposed, no traveller hath felt, neither hath there ever beene, such a tempest (that any records make mention of) so violent, and of such continuance, since Noahs flood, for as hath beene sayd it lasted from September 7 to October 28, full 52 dayes.” (Francis Fletcher, *THE WORLD ENCOMPASSED*)]

Continuing in my log: I was given a formal welcome aboard party since I now have sea legs. Masayoshi Murayama, the scientific leader of JARE and a famous mountaineer of Japan made a toast to a successful voyage for me. Zenbei Seino, deputy leader and a research meteorologist as I from the Antarctic Section of the Japan Meteorological Agency, made a toast to you [Nancy] and me for much luck and happiness and Captain Toshiharu Honda, Commanding Officer of the *Fuji* wished us many happy children. I drank to them all.

The rest of the evening each scientist took his turn at leading a song and when it was my turn I sang the Badger Fight Song. Only one chap understood the subtle change “if you want a little Badger . . .” They all stamped their feet and clapped their hands to the rhythm. The decorations were many streamers and two huge flags, one of Japan and one of the U. S. A. Those stars and stripes sure looked good.

The seventh day  
20:00  
21 December 1967

59.1 ° South  
105.2 ° East

We are considerably South now and are encountering our first icebergs. The sea is quite calm now and we expect it to be the rest of the way, with the worst over until the return to the North again.

Each night I've asked about the movie and always get the answer, "A very good one; you must see." So, tonight, no exception, I'm not going to see it.

Tonight I've taught my second English class for the supply officer Commander Kayuo Takunaga. Nothing formal. Each night he prepares topics of discussion and we talk in English for thirty minutes to a full hour. I'm learning a lot about Japan and in the process he is improving his English. Poor chap, he's getting a touch of Milwaukee Deutsch accent and wrong English expressions.

Today, aside from being starved with the feeling of a full stomach facing Japanese food, I did manage to move forward achieving accomplishments with my instruments. I found several shorts in the systems, corrected bad connections and rebuilt one system from extra parts that I hope will work better than the standard systems. Here's hoping for a major effort tomorrow and the next six days to come until we reach Showa. This far south we're getting almost twenty hours of sunshine so I'll be able to put in a few good days of kytoon work. And since I don't eat much food I'll not waste any time.

This is not a good attitude toward their food, I know. To my Midwest American taste the sudden seafood diet, with all fish meats raw, the smells, looks, and tastes in most cases are repulsive. I am no longer getting seasick, even in the roughest seas but the strange foods keep me gagging. I'm hoping to get hungry enough. Then I'm sure the food will get better and better.

The only food I enjoy is the fresh food, but today they issued vitamin C and anti-scurvy tablets. Our fresh food supply is probably running out for us. I'm sure they have a store for the wintering personnel the *Fuji* has come to replace and evacuate. It was such a thrill to us of the American wintering team last year at Plateau Station when we received the same.

The eighth day  
22 December 1967  
61 ° 30' South  
103 ° 36' East

Mentally, this trip I'm finding is the toughest road I've had to travel and I long for its end. [The cultural shock was wearing me down. Equipment failure added a great deal to my depressions. Missing Nancy, an enjoyable connection I did not have at Plateau Station, gave its own pain.]

The ninth day  
23 December 1967  
62 ° 25' South  
94 ° 06' East

Today I must pick up the pieces of yesterday. The sea is calm but polka-dotted with icebergs. The splendor of the ice dominates the view all around. The contrast between the snow white tabular icebergs against the deep blue sea is magnificent. Our closeness to the continent is evident from the great number of birds now following the *Fuji* in search of an easy catch of fish in the wake of the ship.

With the *Fuji* entering this new sea condition, another project time for observation was upon me. With every determination I thought I had, preparations were carefully made. My wind sensors to this point had not given good results but early yesterday morning the kytoons were filled, all taken up on to the helicopter deck and launched. Every move was fully documented in about fifty different colored slide cameras by chaps coming out of the ship's woodwork. Needless to say, I had more than enough help and the three meteorologists assigned to my aid were quite inspired by all the excitement this launch created. So you might say I finally achieved my traditional vigor necessary to accomplish anything in these awful cold conditions.

Many minor faults with the instruments were still evident. The wind sensors never worked. The kytoons flew quite stable but the transmitter signals were poor. Suddenly, before any significant data could be collected, the weather turned foul. The captain slowed the ship for me, something he hadn't done for any of his own scientists, and more and more men aided to try to haul down the kytoons by hand when the wind pulled them too high with forces beyond the strength of my winch. After more than an hour with all human energies expended from every sailor and scientist available the instrument package beneath the kytoons seemed in easy reach when the line broke and we all watched another \$16,000.00 fly away into the free and high atmosphere.

I guess the American taxpayer won't miss a few thousand dollars here or there but this failure leaves me with only one system left. I hope I can put a second system together with spare parts. Antarctic programs are designed to suffer loss and damage and always, somehow, some data is received. So far without working wind sensors I have nothing.

Nobody laughed this time. The cup of failure is a very bitter one. The Antarctic is cruel and cold!

The tenth day  
24 December 1967  
63.0 ° South  
83.5 ° East

Yesterday was rice pounding day. It was quite a festival. The cooks prepared a large quantity of Japanese cooked rice. Wooden hollow logs were taken up on the helicopter landing pad of the ship and placed on bamboo mats. The rice was poured into the log bowls and pounded with huge wooden hammers. All of this was done ceremonially in a ritual dance with some of the participants in costumes. Eventually everyone on the deck took a turn but most of the pounding was done by the chief scientist, the Captain, the second commanding officer, and me. I guess we were representing chieftains of olden times. It was very much fun except, by always being involved in all the action, I'm missing out on many good pictures. The rice turned into a substance that in my experience I would identify as bread dough. They called it rice cake that is eaten as is with cinnamon normally on New Year's day. Since we will be hammering through the toughest ice on New Year's we celebrated yesterday.

Christmas Eve

Tonight I find myself very much alone. The two Christmases before this one have been the same with Antarctica being the principle reason for letting me very much alone with my God. [Christmas '65 I was enroute to South Pole Station before the big trip to Plateau Station. Christmas '66 I was en route home from Plateau Station and trapped in airports by overbooked airlines on the holiday and blizzards moving across North America.]



Later this morning I had a haircut. Three chaps worked together and somehow figured out how to cut it.

Earlier this evening out of polite courtesy I visited several “Christmas” parties taking place on the ship, but managed to slip away during the movie. [I was given strict instructions by people in the State Department back in Washington D. C. that the Japanese were very class conscious and that I should make friendships only among the scientific corps. This was nearly impossible to do. My research studies required the full cooperation of all the military, at times even disrupting the ship’s plan of the day. The weather officers and helicopter pilots all spoke English and had to for their helicopter operations. Some were even trained at Great Lakes Naval Base north of Chicago. These military personnel were the best English speakers. The scientists were, of course, very interested in my research and because of their planned traverse to the South Pole via Plateau Station I had much to offer them. The enlisted sailors were harder to communicate with, but they did all the hauling and heavy installation of my equipment and I was always grateful with smiles and a polite exchange of bows.]

The Japanese have become very westernized since World War II and have copied many traditions from Americans. One of these copied traditions was the celebration of Christmas. Yes, America has taught her well. Christmas is for eating, stuffing one’s self, drinking until one can’t anymore, and occasionally shouting out Merry Christmas without any spiritual meaning. What would Shintoists or Buddhists know of Jesus Christ as Lord and Savior?

[I did know my official place. I was Antarctic Representative of the United States with JARE.] I first attended Captain Honda’s Christmas dinner, was given the chair at his right with both flags, Japan’s and America’s, behind our table. A huge roasted whole turkey was served making hashi (chopsticks) almost useless. Now what? Captain Honda used a military knife and sawed off one leg. Captain Matzushima, the second in command, also used a military knife and took the second leg. I was next. I poked free a small piece of nearly blood red meat with my hashi, won a great laugh and applause for now being a little efficient with hashi. I toasted our mutual peaceful exchange of work in Antarctica, bowed and excused myself to the scientific corps. My visit to the officers’ mess was well received.

Christmas dinner for the scientists was about the same. My chair was in the place of honor between Murayama and Seino. All ate heartily and we played a few games of caroms. Most players limited themselves to about thirty seconds before the board was cleared and if they did not win by that time, it was a draw. Sensing that individuals were compelled to play with me at my novice speed where I needed to look where I was snapping my fingers, I correctly faded away.

I sought privacy that Christmas eve but before that was allowed, an enlisted man, obviously in the wrong part of the ship, handed me a card with a nativity scene but could not express himself in English. I followed him to the enlisted hammocks and crowded sleeping quarters to be greeted with a few beers from Sapporo. We sang mostly a number of Christmas songs; those present listened. I felt it was a genuine meeting of Christians but none of us could find common words. When my presence became known, of course, many others joined in and brought much more beer and soon our party was not much different from the officers or the scientists. I thanked them all for the cold, wet dedicated work they gave my research study and wished them all a Merry Christmas.

[Nonetheless I did prefer seclusion on this sacred holiday night.] I went outside on the main deck where I could be alone. Out on the deck looking back at the long white foam trail our wake left in the sea filled with tabular icebergs, it was very quiet and cold. The wind threw salt spray back at me; and, in time, my coat, nose, and ears had icicles hanging from them. This wet cold, though only tens of degrees below frost, seemed to cut through to my skin faster than the dry cold of Plateau Station.

Out over the sea itty bitty dark blue black birds about half the size of a sparrow were flying close to the water in between the waves in order to stay out of the cold wind. Where were they headed? What were they doing in these waters? Were they looking for fish? Were they flying to another iceberg to nest? With deliberate determination a wandering albatross with more than a twelve foot wingspan followed our ship for more than five hundred miles and remained about twenty yards behind our stern to the port side. He seemed as lonely as I. After several nights of talking to him, I now consider him a good English speaking friend! Well, an excellent listener. It is amazing how God's creation has planned for the care of all these, even out here where it seems so desolate.

The bright daylight of the midnight hour brings to mind the shepherds on this night long ago. What a wonder that night must have been to be stirred by such a brilliant light and beautiful anthems by angels. It is no wonder they trembled. But how joyful it must have been. They believed and hoped that someday the Lord would keep His promise and send a Savior. And, oh, that night He had done so. Jesus Christ was born. What a blessed time to have lived and oh how blessed we are now to know this has come to pass. Truly a peace with God rests on the earth. The Savior has come. It is truly a Holy night. It always must be. It always will be.

After awhile an officer found me alone on the deck. He came out and encouraged me to come into the ship for the many parties. I politely bowed but refused. He came out several more times and our bowing repeated. It was cold. I was tempted. But I wanted to be alone with my God. He finally asked me, "Are you a Christian?" I never before was asked that my entire life. Was I a Baptist, or Catholic, or which variety of Lutheran, but never if I was Christian. I had to stop and think if I really was. Then I finally answered, "Yes I am." He deeply bowed, walked backward into the ship and I was never bothered again. In fact, several hours later, when I did become cold again after a long warm surge while singing to my albatross and my God all the Christmas hymns I knew, and I went back into the ship, every corridor between the deck and my cabin was suddenly silent and remained silent the entire next day. The Japanese, whatever their religion, honored my worship time and my God. I was given His birthday for personal worship. It was one of the most meaningful days of prayer in my life.

The eleventh day  
Christmas Day  
25 December 1967  
64 ° 08' South  
73 ° 04' East

Today was a bad one. Most members recuperated from last evening. To most members, grief came with the bad weather. We've met somewhat of a blizzard out here in the open sea. The ship's speed has been reduced since radar and snow don't go together for aiding iceberg detection. Visual sighting of the icebergs in the blinding snow at times seemed more accurate than the electronic devices of the Captain's tools. The high winds added to the returned rolling of the ship that made a few Christmas cheers of the previous night less cherry for many.

I spent the day with concern over my instrument system, particularly the wind measuring devices. I'm near giving up hope on ever making the wind sensors work.

I'm also beginning to become concerned over myself. I've lost twelve pounds in the last five days and now hit the scales at 130 pounds.

The twelfth day  
26 December 1967  
65 ° 15' South  
57 ° 20' East

We have sighted the great white continent today and are now steaming off the coast of Enderby Land with her mountains visible through telescopes. We are expected to reach the pack ice in a few hours. The helicopter pilots are itching to get into the air for reconnaissance flights and I'm hoping to try another blast at the kytoons when we do reach the ice. I rather troubled the troops at the Captain's breakfast this morning. With my desire to make kytoon observations while moving through the pack ice, it does interfere with helicopter operations. Research about weather seems to have a low priority in any man's military; yet weathermen are expected to be correct with their forecasts without fail.

The captain now will be limiting my operations to only nonscheduled times. The scientific leader also informed me that my help may be limited as their own research will be taking precedent. Where is Flint's two-by-four now?

The thirteenth day  
27 December 1967  
66 ° 22' South  
45 ° 50' East

The ice pack we were to run into never came. Later helicopter reconnaissance showed no pack ice to speak of all the way to Showa. It is good that the *Fuji* won't get stuck here in the ice for a long trapped winter but also we will be steaming into Showa in about two or three days and I won't be able to get any pack ice data.

Today was a long day with many setbacks but some small gains. Over long hard hours and with much manpower, I finally received clear wind data through my radio transmitters from the kytoon instrument system. I will turn this research into a project that will focus on wind and temperature profiles near the Antarctic coastline.

I feel most sorry for the poor chaps that have been assigned to help me. I am cutting into their free time and there is so little I can do to help them in return. I have joined in with the weather officers learning and teaching polar weather during their now twenty-four hour intense weather watch. We have twenty-four hours of sunshine and the helicopter pilots will be in the air around the clock. [I was back across the polar circle, pumped up, flying high, and loving every exhausting hour. I was even getting hungry and started to eat my rice and some fish heartily.]

[An incident occurred during one of several lectures I presented to the scientific corps on the *Fuji* about the United States Antarctic Research Program. I was describing the size of McMurdo Station and received many questions pulling me into giving much information about "Nuki Poo," the nuclear power plant maintained by the United States Navy. I certainly had no fear of betraying any secrets about nuclear power. I simply didn't know any.

"Nuki Poo" was designed as one of Eisenhower's "Atoms for Peace" projects and was supposed to provide unlimited nearly free heat energy to this largest station on the coldest continent. During its entire lifetime "Nuki Poo" never produced stable and reliable quantities of heat. Either it produced too much heat or not enough. The Navy began to rely more and more on normal diesel fuel burners.

I suddenly was verbally trapped with cameras suddenly whirling and recorders taking everything down as I was compelled to answer why it was that a peaceful heating system was so difficult for American scientists while the atom bomb was so easy to make. Remembering whose flag I was a representative for but also on whose ship I was sailing, I stammered for a bit. My personal antinuclear views would have been the easiest to speak but I was not an individual here.

I remember being part of a protest group in Milwaukee giving retired President Truman a hassle about dropping the bomb and vaporizing innocent families, nonmilitary men, women, and children of the cities of Hiroshima and Nagasaki. President Truman silenced our loudest protesters by engaging us all in asking if our fathers or brothers were in the military. I had two brothers and an uncle in uniform during World War II. Truman reminded everyone at his speech that the children of the fathers en route to Japan would never have been born and they would not have the privilege of the protest. "I ordered the bombs dropped on Japan because they were bad. I'd do it again. We were at war." End of subject.

On board the Maritime Self Defense Force *Fuji*, which carried at least one officer who was a frogman put ashore at Pearl Harbor a couple of days before December 7, 1941, to give radioed directions to the invading bombers, I began to explain that my brothers, Ray and Dick were in the U. S. Navy en route to Japan. I made jest and dragged out a story about my Uncle Edgar's outhouse on a farm near Ixonia, Wisconsin grappling for thoughts to express a view of our two counties at war. Uncle Edgar, a very humble man never known to brag or even tell of any achievements, displayed in his outhouse several plaques presented to him during the war when he was a civilian working in a defense plant. These plaques clearly showed how "innocent civilians" simply were not innocent when nations were fighting each other in a global conflict. Considering how armies are universally raised by a draft or forced conscription, and I couldn't even be on the *Fuji* without the permission of my local draft board, I'm not so sure one can claim soldiers as guilty as civilians are innocent. What does a draftee personally do in his routine life making him a worthy target more so than the mother or father at home making the munitions or wrapping the supporting food for the soldiers?

I found the strength to tell all my shipmates that we were at war. Both sides greatly lost. I told them I never could make apologies for my country's choice of weapons while it was being fired upon. It was the responsibility for all of us in the scientific community to wage the peace as we were doing immediately right there sailing south.]

The fourteenth day  
28 December 1967  
67 ° 20' South  
41 ° 30' East

At last the instruments are all working fine. Every system is ready to go. My helpers and I are probably exhausted from some of the kytoon launches we have recently achieved, but we remain very enthusiastic over the prospects to come. We have entered some thick pack ice and an interesting study could be made. The Japanese Navy is repairing helicopters all day. They are working in shifts around the clock so we can't even hope to out-last them. [I was corrected a thousand times by my Japanese friends. Japan has no Navy. "We are with the Maritime Self Defense Force."]

We are being given a rest at the end of this round of the meteorology program. We may visit Showa today by helicopter, Capt. Honda, Mr. Murayama and me. Perhaps the day after tomorrow the ship will get there.



Some pessimism exists with the prospect of nothing to do until 20 February. I'm sure no one in D. C. realized that the icebreaker would stay at the base so long. The interest in travel with the *Fuji* was with the hope of ninety days of sea duty. Two weeks in and out of the ice is going to leave me with only seven days for the whole affair for kytoon ascents. The weather has been poor, at times violent. The Navy operations during the good weather of necessity had to be too busy.

I guess if the ice conditions had been worse, all activities would have been at a somewhat slower pace and the Navy's schedule might not have been so crammed. It looks as if I'll get many pictures now.

The fifteenth day  
29 December 1967  
67° 52' South  
41° 05' East

My complete frustration over my inability to obtain as much kytoon data as I wanted because of Naval operations is overshadowed by the excitement of breaking the winter isolation of Showa by helicopter. It was just like the day at Plateau Station when my winter of isolation ended, only this time I could see the wintering party from the outside. Maybe they didn't speak English, but these fourteen men finishing the long winter reacted the same way we did. Man, I must have really been raunchy.

Also, we're stuck! The *Fuji* met its thickest ice in its history. Hummock pack ice, in places stacked as high as the main deck, stopped us dead in our track. The winds and currents also closed our broken ice path from behind. We are going nowhere! Up to this point, it took the *Fuji* the last eight hours to progress 300 metres. We still have about sixty nautical miles to go. It could get interesting.

Anyhow, it gives me more time to launch my kytoons and gather data.

The sixteenth day  
30 December 1967  
67 ° 52' South  
41 ° 05' East

If it were not so early in the summer I'd begin to worry a little about our wedding next August, but right now the *Fuji* remains motionless. The pack ice I mentioned yesterday was exactly the same when I woke up this morning and is exactly the same tonight. We expect to be stuck here a number of days and are hoping for a storm to shake the ice loose. Warmer weather wouldn't hurt.

Idle moments were spent watching the gathering colony of Adelie penguins who have come to laugh at our predicament in their ice. They are just the most fascinating playful birds in the world.

The seventeenth day  
31 December 1967  
67 ° 52' South  
41 ° 05' East

No movement!

The eighteenth day  
1 January 1968  
67 ° 52' South  
41 ° 05' East

Happy New Year. This time my headache is not due to the sea, and I cannot blame it on sushi. I'm recovering from somewhat of a hangover and mostly exhaustion. I enjoyed a most restful seventeen hours of uninterrupted sleep. Yesterday many of my prayers were answered. I had excellent kytoon soundings all day long. Everything worked well.

We are also excited about an invading blizzard bringing much contrasting weather from the tropical north. I joined many of the reconnaissance helicopter flights that surveyed the ice between us and Showa. Some of the distinctive icebergs were "bombed" with red dye to show favorable routes once the coming blizzard loosens the pack. Also, I went along on a sea surface traverse to observe the Japanese efforts at dynamiting critical ice jams.

The penguin colonies appear to be breaking up - a sure sign that the blizzard is coming. One group of penguins were the majestic emperors. Admiral Honda claimed that now the emperor penguins were having a conference as to whether or not we would be given permission to go forward to Showa.

Yesterday, while meditating prayerfully on the helicopter deck all alone, I noticed a new white flag with two red cherry blossoms. That meant Captain Honda was promoted to Admiral. I was not told, but by the activity on the ship I figured there would be an officers' party celebrating. Formalities probably precluded an invitation to me. I dug out an ancient pair of worn-out dark blue socks. They were a pair that sort of crawled under my heels in my shoes when I walked a lot. I cut the best sock into

a blue flag, pasted two white stars on it [a symbolic U. S. Navy admiral's flag] and taped this flag on the neck of a bottle of Japanese beer. I needed a personal touch. I steamed off the Japanese beer label and replaced it with and "honorary Schlitz from Milwaukee" label. As an uninvited guest, I crashed the party. My admiral's flag went over as a smashing success with Admiral Honda and won a great many cheers from the men of the Japanese Self Defense Force.

[During the long hours of drinking while celebrating the coming new year, between songs and games, conversations got louder and louder and suddenly an English voice, English too clear to be friendly but probably well rehearsed, asked loud enough for all to hear about my personal views on Vietnam. I had been sucked into the question of nuclear power several days ago. I was not caught off guard. I also could identify the Japanese newsmen on board. I spoke not a word of my anti-war activity in Madison. I simply stated that I believed they all knew my country was engaged in military activity in Vietnam that indeed was a war to the participants, and I prayed for an end to the hostilities in such a way that would support the Vietnamese people's desire to govern themselves. I couldn't answer any better than that since both they and I were at sea together and out of communication with the day-to-day happenings in the world. I'm not so sure this "correct" answer was a truthful answer but it was the best I could give.]

Today the blizzard blows. Tomorrow we try to sail again.

The nineteenth day  
2 January 1968  
68 ° 14' South  
39 ° East

With the *Fuji* virtually stationary, we are moving with the drift of the pack; Admiral Honda has ordered an airlift to Showa. All food stores and light equipment will be shuttled to Showa by helicopter. All Self Defense Forces are very busy and tense. I didn't speak very long to Admiral Honda so I'm not sure if we are abandoning hope of ever getting to Showa by ship or not. We are still very tightly locked in the ice.

At lunch, Nancy, I was presented with your 21.5 birthday cake.

Day #20  
3 January 1968  
68 ° 40' South  
39 ° East

The *Fuji* is propped up on the ice partly out of the water. We wait for the ice to melt. The airlift continues. I took a ride on one of the helicopters today and inspected the meteorological facilities at Showa performing my role as U. S. Representative to the Japanese Antarctic Research Expedition.

Day #21  
4 January 1968  
68 ° 40' South  
39 ° East

Again with pathetic and futile efforts we tried all day to ram our way through the ice from a

different spot about a mile farther away from Showa. Admiral Honda hoped that this new spot would provide an easier way after the storm a few days ago. Efforts went very well for about two hundred yards, but now we are worse off than before. For no gain the *Fuji* backs up two miles and rams the solid ice front that is 3.5 metres thick. Making matters worse, another 1.5 metres of snow cushions the impact and no advance is made. The back and forth ramming operations are now twenty-four hours, stopping only for landings and takeoffs of the twenty-four hour air lift.

Zensin bisoku  
Zensin hansoku  
Zensin kyosoku

Ryogen tash

Kosin hansoku  
Kosin kyosoku

Ryogen tash

Day#22  
5 January 1968  
68 ° 40' South  
39 ° East

[In angry frustration I wrote:] Mark this day as the end of the kytoon observation or at least all planned programs. The last and perhaps most important of the planned observations were kytoon flights during the final approach to the continent. Our long wait while the *Fuji* was stuck in the ice allowed me the time I prayed for to get all systems working after long hours, sleepless nights, and frustrations of the four other Japanese meteorologists assisting me.

Everything checked out well even in flight; so today we have found a successful spot which the *Fuji* managed to break through after thirty-six hours of ramming and battering. But now still heavy fast ice [the frozen ocean that holds fast to the land as opposed to hummocked or large chunks of ice piled high by wind and current and frozen together] will continue to strain the engines of the ship. This produces tremendous fluctuations in the electrical power source and makes it impossible for my receiver and recorder to interpret the signal from the transmitter of the radiosonde hanging down from the kytoon.

Slowly ahead  
Half speed ahead  
Full speed ahead

Both engines stop

Half speed reverse  
Full speed reverse

Both engines stop

Since the ship's engines will be that strained from now until we reach Showa base, and the return trip will be a mirror of the same, and knowing that the Antarctic convergence zone is always



violent (Admiral Honda claimed this year's passage was near calm) I now must face the fact that I've failed. To fail so hopelessly really humbles a man. Sort of like failing a test, only now it's so much more that a person can fail or lose than just a course or a couple of credits. Had it been a failure at the forecast table, the lives of people in an aircraft or a ship would have been at stake.

Nothing lost but a few tax dollars, some personal pride, and probably the loss of faith that others may have had in me. Failure does leave me so alone.

[Thirty years later I can add that this is the essence of polar work, a continual feeling of total failure rapidly replaced by euphoria only to crash once again. Fridtjof Nansen, while struggling over a decision to depart from his ship the *Fram* and race to the North Pole wrote:

“This expedition to the north, then, is provisionally decided on. I shall see what the winter will bring us. Light permitting, I should prefer to start in February.”

“Sunday, November 18th. It seems as if I could not properly realize the idea that I am really to set out, and that in three month's time. Sometimes I delude myself with charming dreams of my return home after toil and victory, and then all is clear and bright. Then these are succeeded by thoughts of the uncertainty and deceptiveness of the future and what may be lurking in it, and my dreams fade away like the northern lights, pale and colorless.”

“ ‘Ihr nacht euch wieder, schwankende Gestalten.’ ”

“Ugh! These everlasting cold fits of doubt! Before every decisive resolution the dice of death must be thrown. Is there too much to venture, and too little to gain? There is more to be gained, at all events, than there is here. Then is it not my duty? Besides, there is only one to whom I am responsible, and she . . . ? I shall come back, I know it. I have strength enough for the task. “Be thou true unto death, and thou shalt inherit the crown of life.” “

“We are oddly constructed machines. At one moment all resolution, at the next all doubt . . . Today our intellect, our science, all our “Leben und Treiben,” seem but a pitiful Philistinism, not worth a pipe of tobacco; tomorrow we throw ourselves heart and soul into these very researches, consumed with a burning thirst, to absorb everything into ourselves, longing to spy out fresh paths, and fretting impatiently at our inability to solve the problem fully and completely. Then down we sink again in disgust at the worthlessness of it all.” (Fridtjof Nansen, *Farthest North*, New York: Harper & Brothers Publishers, 1897)]

Day #23  
6 January 1968  
68 ° 40' South  
38 ° 48' East

Setback after setback but each new day a new hope. Someone just doesn't want me to fail this trip. Each time I abandon hope, the next day or even the next hour I'm always given another chance. I've learned a lot in the last prayerful night. I'll not ever give up hope again. Then fail or succeed, I'll know I'll never quit. This afternoon I learned that the bad electrical conditions of last night were only temporary and most problems were corrected by midnight. I wasted a good night. But also, while I had

given up, the *Fuji* again met bad ice conditions and again we appear to be delayed one more day.

This umteenth second chance can only be a gift from Above. Sometimes I wonder if a person would pray as fervently and as earnestly during good times as he does during bad times if the bad would ever come. Sinful man that I am I don't learn very well.

Day #24  
7 January 1968  
68 ° 40' South  
38 ° 48' East

Successful kytoon soundings were taken nearly continually from most of last evening through-out all of today. I'm going to try to get about six hours of sleep and put in another thirty.

Day #25  
8 January 1968  
68 ° 40' South  
38 ° 48' East

The *Fuji* is progressing about four miles per day. We have a stop now because of some main engine damage. Five kilograms of dynamite give no impact on the ice. A trail party is surveying on foot for weak ice two miles ahead of the ship. What first appeared to be a very easy year for an icebreaker has proved to be the worst ice conditions Admiral Honda has handled.

Zensin bisoku  
Zensin hansoku  
Zensin kyosoku

Ryogen tash

Kosin hansoku  
Kosin kyosoku

Ryogen tash

Day #26  
9 January 1968  
68 ° 40' South  
38 ° 48' East

A day that can end in sleep.

Day #27  
10 January 1968  
68 ° 54' South  
39 ° 00' East

For me, my mind is a problem. Depression of the worst I've known has set in. The worst blues at Plateau have been surpassed. The one year in isolation is collecting its toll on me now. It did teach me to be a self analyst, but, of course, that never solves any problems. At Plateau Station Bob Geissel perhaps was most sensitive and emotional; second perhaps was me. Rob Flint presented steady solutions. That might explain why so often we loaned each other our patient ears, time, and strong drink. Problems were never drunk away, but they definitely were talked to death.

On the *Fuji* I have no such outlet. The last conversation of any kind with length and depth where I was free to talk as I pleased was perhaps with you [Nancy] on the telephone just before I flew out of Travis Air Force Base in California or Jock Grey with his wife and children renewing what happened in New Zealand over the last year and the progress his two boys were making in elementary school.

The language barrier is a real one. Most of the time talking is nearly impossible. [The Japanese are so polite that they never would verbally disagree. Yet if they did disagree they simply would not assist with my request or respond to my plans. Though many men here have sacrificed much for my comfort and for my research project, my work, dependent on the changing weather, did not fit well into rigid schedules. I was always assured of help. Too many times major operations were underway where it was wrong of me to expect assistance. But they would never tell me in advance. Some of this was language, some was culture.]

Perhaps the worst now is my own state of mind with no one to confide in. Even prayer [with my weak faith] only [seems] to intensify my frustrations. These next two months could be hell. I have learned a little of the reason so many of my Antarctic predecessors, despite the lure and their return time after time, have each time cursed this place.

Day #28  
11 January 1968  
69° 00' South  
39° 06' East

Today, as in many of the past days, we spent backing up two miles, charging, smashing, maybe breaking another twenty yards of ice, maybe not, and backing up again. Sometimes unable to go any farther, a tractor train with several sleds and a party of five go out on the ice with drills to find a thinner place. When they return, we back up several miles and angle off in a new direction. We make a little better speed for a short time and then are back to charging and backing repeatedly again.

Slowly ahead  
Half speed ahead  
Full speed ahead

Both engines stop

Half speed reverse  
Full speed reverse

Both engines stop

Showa was sighted the first time today from the ship. The last frontier is not Indians meeting you on the beach, or natives coming out of the jungle, or a trapper's shanty, but a bunch of radio

antenna towers.

Day #29  
12 January 1968  
69° 00' South  
39° 30' East

We went ashore on the coast of Antarctica today - Prince Olav Coast across the Strait of Ongal from Showa Base. All day I joined the crews for much physical labor so I am tired and really enjoying my rice beer. Most of the Japanese went to bed. That's just not the Milwaukee way.

The heavy equipment and traverse vehicles for Mr. Murayama's trek to the South Pole early next October to December were off-loaded on this coast. Tomorrow eve we may get to Showa.

Day #30  
13 January 1968  
Showa, Antarctica

I am tired, exhausted, sunburned, and frost bitten. It's fantastic to be in the Antarctic again and on solid ground. [Different from Plateau Station, Ongal Island was true ground - mixed sand, gravel and striated bedrock were the stuff of the exposed ground.] We steamed into Showa today amidst tons of fireworks blazing in the twenty-four hour sunlit sky. All rocket blasts were answered by long, loud, low toned blasts on the *Fuji*'s mighty horn. We celebrated by eating soybeans, dried octopus and beer.

When the beer was gone, we constructed a road which by tonight and over the next several days will be used to truck and man-haul tons of equipment into camp about a mile from the ship. I was begged to come for a night snack, which I usually had earlier avoided not appreciative of raw fish or squid. I gave in after much pleading. They celebrated with hot dogs. I devoured eight. The story about the number of hot dogs that I ate reached legendary proportions in Japanese.

Day #31  
14 January 1968  
Showa, Antarctica

I just finished a very long day working with a construction crew. I am now getting hungry as they get hungry. I am learning their grunts. I tire as they tire. It's funny. My brothers were trained to kill these chaps. I am building a station in an unclaimed land with them. Who will our children learn to love and hate?

The Navy [Japanese Self Defense Force] only handles the *Fuji*. All construction work and all work on the land are done by the scientific party or other civilian workers. I have no way of knowing if some of the civilians are nonscientists such as paid construction teams. My guess is that they all are of the scientific corps. I have always attempted to work as much in the hard labor of the scientific team as I can while not compromising my own program. Many times I do miss assignments simply by not knowing what is going on.

Day #32  
15 January 1968  
Showa, Antarctica

I just learned that we've got ten to fourteen days left at Showa before the *Fuji* takes off on a surveying mission mapping many places on the coast. This is just another piece of information that seemed to have been planned long ago by the Navy but not conveyed to the scientific corps or to me. Admiral Honda has been most cooperative and has answered all of my questions, at least when I could find the words to express what I needed to ask. Hang the NSF or State Department's directive to speak or deal only through the scientific corps.

After breakfast a short nap, then check the Navy's weather charts, do some personal reading, remodel my kytoon sounding system and calibrate it and rewire the remaining supply of radiosondes.

By 10:00 I joined the Admiral and Mr. Murayama to visit the traverse party returning from Plateau Station. They now were within helicopter range and for this exploring party we would be the first group of their countrymen that they would see in a year. It was a welcome reunion for many. [On the plateau near our coast I took note of the very strong down sloping cold winds coming from the interior. At Showa no strong katabatic wind effects were noted. This was a puzzle until I finished the analysis of my kytoon soundings.]



After lunch I was back at the construction work. I am learning all about mixing concrete, making gravel when you don't have any, bending huge iron rods for concrete reinforcement, and building forms for the concrete. I had the most fun getting wet separating smaller stones from larger ones in our gravel maker as well as heating iron hot enough to hammer it into desired shapes. The rhythmic work, without the need to do much mathematical calculations, permitted me to break into a lot of whistling and singing.

A late supper. Nearly all the scientists are exhausted. For myself tonight and my helpers I hope we will launch kytoons and kytoons and more kytoons. I plan to launch a kytoon every four hours for a three hour flight until we can't anymore.

Day #34  
17 January 1968  
Showa, Antarctica

Physically exhausted and really hungry.

The only way to describe Showa is to call it a cesspool. It is the most decrepit and depressing place I have seen outside of some slums of Chicago or New York City. This station was built in 1956 as many other U. S. and other foreign stations were for the IGY. However, the Japanese abandoned Showa in 1962 and apparently that is when the station was let go to pot. Showa was reopened again in 1965 but little was done for the station's outward appearance. The Japanese leadership today is



**Martin Sponholz, Tetsuya Torii, Masayoshi Murayama, and Toshiharu Honda**

doing its best to greatly improve things.

A few new buildings were added, but the litter, glass, junk, garbage, and human waste are piled high in heaps and are scattered everywhere. Skua gulls, a scavenger bird of coastal Antarctica, appear easily adaptive to the human garbage and waste piles, but the filth has left some of these birds diseased and many dead birds lay about, skeletons of old and rotting flesh in the hot summer sun.

Some of the old buildings barely hang together, and are so small and cramped that even shorter Japanese must crouch. I think all this place needs is a few saloons and cheap whorehouses and we'd have a recreation of the filthy mining towns of the Old West of the U. S. so falsely glamorized in American movies and TV. In the winter the deep snow covers it all way above the roof tops and the Creation can look at itself again. During the summer, the hell man can turn something beautiful into is so exposed.

[It is difficult to describe Showa in a negative way when the Japanese were so caring and helping with my research and my personal care. I also never was in a position to inspect our own stations the way I had freedom to do on this Japanese expedition. Green Peace has documented like problems at most Antarctic stations including McMurdo Station. Scott Base near McMurdo, established and maintained by New Zealand was the only station Green Peace praised for taking all waste matter back to New Zealand. Our own American program pushed all waste, including nuclear waste, out to sea the early years after IGY.]

Day #36  
19 January 1968  
Showa, Antarctica

Nancy, you were given a real cool scarf tonight from Dr. Torii, Leader of JARE 8. It is an Antarctic map printed on a dark blue scarf. It was presented to me at a formal dinner that introduced me to the Eighth Expedition now preparing to leave.

Construction at Showa has reached a more sophisticated level than a rookie to real labor like me knows how to do. So I have some free time to take pictures and wander around a bit.

Day #38  
21 January 1968  
Showa, Antarctica

The past several days I have been inspecting those many research programs of the Japanese and toured their field sites here on Ongal Island. The Japanese research program is quite thorough involving many subjects of science I have never heard of before. I took a long lingering look at the station's flag poles standing side by side - the "rising sun" and "old glory." The stars and strips fly for the country I officially represent. It's a grand flag. Walking back to the ship from Showa, about two miles, across Ongal Island over exposed rock and sand I sat on a large rock left by a receding polar cap. I sat on the large rock in the cold air and hot sun letting my face both freeze and get sunburned as I meditated and prayed. Antarctica is a great and lonely place.

Day #41  
24 January 1968  
Showa, Antarctica

Late tonight we welcomed aboard the men of JARE 8. We will set sail in a few days, not homeward yet, but out to the open sea. Admiral Honda is worried that winter might come early this year so we will anchor in open water and finish the rest of our summer effort via helicopter.

Day #45  
28 January 1968  
Showa, Antarctica

Work at Showa base today came to a grinding halt. Sixty to seventy miles per hour wind, -10 ° F, and snow mixed with boards, nails, and loose sheet metal. Everything on the *Fuji* is lashed down, not for this storm, but for the open sea scheduled for tomorrow.

Day #46  
29 January 1968  
Showa, Antarctica

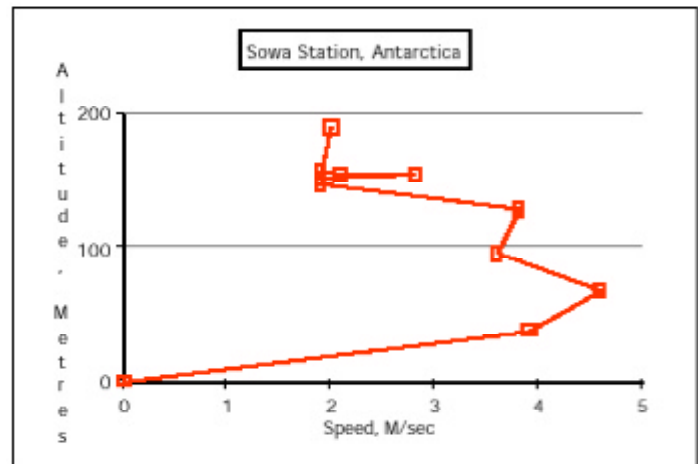
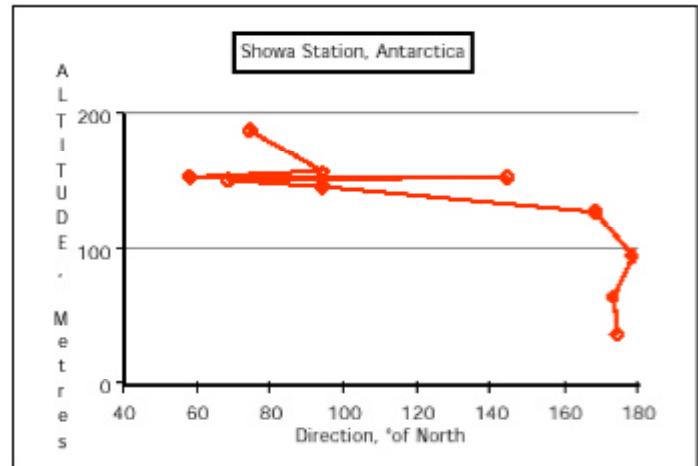
Yesterday's storm proved too much for the *Fuji*. We are still at Showa. Today it's fairly calm and I'm in the midst of kytoon observations.

Day #47  
30 January 1968

69° 12' South  
39° 30' East

[Some wind profile results shown here give a hint of a lifted “katabatic” at a height of 150 metres above the surface. Herb Viebrock was first to draw my attention to such a lifted wind shear first observed by an Australian Expedition in 1912. My kytoon observations do not show extreme wind speeds as Mawson observed, but this was in a later part of summer when temperature contrasts between the interior on the high polar plateau and the sea coast were not so severe.]

“In the early spring, while we were transporting provisions to the south, frequent journeys were made to higher elevations. It was then established that even when whole days of calm prevailed at the Hut {the main camp of the Australian expedition near the coast at Cape Denison} , the wind almost without exception blew above a level of one thousand feet. On such occasions it appeared that the gale was impelled to blow straight out from the plateau slopes over a lower stratum of dead-air. An explanation was thereby afforded of the movement of condensation clouds which appeared in the zenith at these times. A formation of delicate, gauzy clouds developed at a low altitude, apparently in still air, but doubtless at the base of a hurricane stratum. Whirling round rapidly in eddying flocculi, they quickly tailed away to the north, evaporating and disappearing.” (Sir Douglas Mawson, *The Home of the Blizzard.*, Vol. I, page 113, 1915)



After yesterday's, or rather most of last night's kytoon observations, I went to bed. I slept through breakfast and never heard us leave Showa or crunch our way through the pack ice.

I also missed Dr. Torii's departure by helicopter to do field work on a snow-free mountain, but I did wake up in time for lunch - rice, raw eggs, raw eel, egg mash from tuna and seaweed. I ate mostly the rice and sea weed, and, as usual, my appetite abruptly ended with a deep gag. [Actually I did begin to accept the Japanese food, even enjoyed a few dishes, and was gaining weight with a returned appetite once I was involved with strenuous physical work at Showa.]

The *Fuji* anchored off the shore of Lange Hovde and a geology and biology field team was put ashore. I went along for sight-seeing and returned to the *Fuji* with the Navy support crew while the



scientific field team will remain for about three days.

With work finished at Showa, my English student has returned and is becoming a very good friend.

Day #48  
31 January 1968  
69 ° 15' South  
39 ° 36' East

The southern most advance of the *Fuji*.

Day #49  
1 February 1968  
69 ° 12' South  
39 ° 24' East

Today I received the first rumors of news involving my country since last November. I don't know what has really happened or what is going on, but I heard Saigon was captured by the Vietcong. American troops are losing on all fronts and the mighty American nuclear ship the *USS Enterprise* was sunk by North Korea. I hope this is all rumors. My mind is much troubled. The time is for prayer.

[I did not doubt that if it were true that the *USS Enterprise* was sunk, my country would go to war. As it turned out, the language barrier was my greatest trouble giving me this most pessimistic view. It was true that on Tet, 31 January, a major holiday in Asia, the Vietcong and the North Vietnamese started a major coordinated offensive that struck the American embassy in downtown Saigon, believed untouchable before, and many major centers throughout all of South Vietnam.

The *USS Enterprise* was not sunk or even attacked. A much smaller ship, the *USS Pueblo* was seized and all of its crew were captured and jailed as spies on 23 January. The United States did send a naval task force to the region that included the *USS Enterprise* and eventually the crew of the *Pueblo* was released.]

Day #50  
2 February 1968  
Showa, Antarctica

This afternoon I watched two polar heroes dive for biology specimens in this very frigid water. Their collection was very interesting, but I am still shivering thinking about chopping a hole in ice several feet thick so they could dive and swim in the water.

We steamed back to Showa base late this afternoon and this evening we had a barbecue with much drinking of sake and beer, taking turns leading everyone singing long past the midnight sun. I bid the wintering-over personnel a "good winter," gave my parka to Mr. Murayama, and said farewell to the many scientists with JARE 9.

Day #51

3 February 1968  
69 ° 00' South  
39 ° 24' East

Despite a blizzard the *Fuji* bashed its way out of its self-made harbor of ice and sailed away for this season. I must take back many of my regrets. I have always believed that if it hurts a little to leave behind friends and acquaintances in order to continue forward, then at least it's been worth coming. It was quite sad leaving behind these twenty-nine men. In our intense and hard pressure struggles with research work on ship at sea and construction on land, the close feelings and friendships bonding together were not noticed until it was time to say good-bye.

Dr. Kikuchi, a professor of meteorology from Hokkaido University, and I were the closest. He and several of the meteorologists that were wintering-over planned to try kytoon observation at Showa. Where we failed on ship perhaps they will succeed on land. [In my experience I passed on to them that the problems with launching free rising balloons is that they pass through winter inversion too rapidly. Kytoon ascents, captured at the ground level, gave the desired controls that did not permit such a swift passage through the inversion but gave you complete control of exactly the speed or time you desired to stay at a given level. At my suggestion Dr. Kikuchi became exchange scientist at the American Amundsen-Scott station in subsequent years and did considerable meteorological work on moisture on the high plateau of Antarctica.]

Everyone had to say good-bye to me. I could only be polite. The saddest was knowing a few of these lads might have been very close friends but our only communication could be a friendly smile. It is hard to describe. It's a feeling, a love, a friendship, a bonding. When or where, if ever, our paths might cross again no one knows. It was hard waving good-bye from the deck of the *Fuji*. As the *Fuji* gave its final farewell blast on its horns my heart went out to these men we left on Ongal Island at Showa base. Many of these men were married; some had children waiting in Japan. Their year will be long and lonely.

Day #52  
4 February 1968  
68 ° 54' South  
39 ° 00' East

Everyone is in very high spirits today. Yesterday before going to bed, while wandering around the ship, I ended up in a good old fashioned bull session with the Supply Officer and a helicopter pilot. They both spoke English well and our session lasted many hours on until 04:00. Breakfast at 06:30 came awfully early and I loved it.

Day #54  
6 February 1968  
68 ° 42' South  
38 ° 54' East

The *Fuji* several minutes ago left the pack ice and now will sail east in open water to Molodezhnaya to pay a visit to the Russians. We will not be reentering the ice but instead will do all surveying of coastlines by helicopter. The fear of being trapped in the ice and being required to remain another year until the next summer is now greatly removed. The pack ice is flat, always hummocky, but just before the pack ice ends as our icebreaker cuts through, it suddenly becomes loose and moves

with the water as waves. It acts like an ocean of oatmeal mush. It looks solid enough to walk on but it moves as the waves of water. This is a very weird sight. And then the *Fuji* lurches free into the bright blue open Indian Ocean.

Day #55  
7 February 1968  
67 ° 12' South  
44 ° 00' East

Today we made radio contact with Molodezhnaya. The American there, Dr. MacNamara, and I on the *Fuji* had to do all the communicating. There was no one on the *Fuji* who spoke Russian and no one at Molodezhnaya who spoke Japanese. English was the common denominator for these nations in Antarctica.

Tomorrow we will visit the Russians by helicopter so the *Fuji* will remain on station out here at sea. I will send up a few kytoons.

Day#57  
9 February 1968  
67 ° 54' South  
42 ° 00' East

Sobered after the Russian welcome, I have a much clearer head today. Yesterday was a great day. I met with MacNamara, the U. S. Exchange Scientist with the Russians at Molodezhnaya. The poor chap has lived there already for fourteen months and has still two months to go. I was the first American MacNamara has talked to since he got there. And since he was the first American I've spoken to since I left Perth, we both became instant friends.

The welcome banquet was shish kebab with COOKED MEAT and I ate about three complete meals. For me it was fantastic! For MacNamara, he was sick of Russian food. The following banquet of Japanese cuisine served at a visit of some of the Russian personnel to the *MSDF Fuji* was a feast for MacNamara.

Perhaps the most interesting thing of this visit was its lesson to me. Many times a person makes a decision but rarely sees what might have happened if the opposite had turned out. I never would have regretted being married to you a year sooner and not going to Vostok, Nancy. But this short visit to Molodezhnaya convinced me that the Lord has put us on the correct path.

MacNamara had no radio communication except once per month with the U. S. Navy at McMurdo for five minutes. At the Russian station there are two leaders, a scientific leader and a political leader. Political lessons are given every day in spite of the isolation of this place and the cold war is fought daily against the one American. No help is provided for his research project and often hindrances are added. Basically for me, with a strong need to communicate, to share an exchange program with the Soviet Antarctic Expedition would have been hell; for MacNamara it was hell! With a winter at a Russian station being one of the few exciting things left to do in the Antarctic, I can now, with all confidence and without a feeling of compromise, think of a dedicated life as a father married to you, Nancy, and raising our children from our home and not from a glacier separated from you and our children. I love you.

Day #58  
10 February 1968  
68 ° 12' South  
39 ° 48' East

Today was a very sad day for the Japanese Expedition and tomorrow I will be attending a funeral ceremony for a brilliant young scientist who froze to death about this same time in 1960. Today first, his body was found by the new members at Showa Base. The remains of his body were cremated and the Japanese funeral will be held tomorrow with a simultaneous ceremony on the ship and at Showa. I'll be flown back to the base tomorrow morning for the ceremony. Five members of the returning party, all who had been with the chap that died in 1960, were taken to Showa today.

The *Fuji* has returned as near Showa as it could without entering the ice again and we will "stand" in memory for a day or more. His death was the most common of all the deaths on the continent. He was lost in a storm. Most of us down here have been lost for periods of time. Why one is allowed to find his way back and another not, is and only can be, by the grace of God. The fact that it has happened to most of us, all tonight are bound up in emotional loss whether we've known the lad or not. Antarctica is still a cruel savage place.

Day #59  
11 February 1968  
68 ° 12' South  
39 ° 18' East

A short funeral service [a Buddha service] was held today at Showa. A helicopter took Admiral Honda and me to the ceremony. The final ashes were also taken on the helicopter and a military ceremony took place as we landed back on the *Fuji*. All were very somber. I, of course, could not understand a word, but no reference was made to Christ and for me this made the entire ceremony so much more tragic. I've never been to a funeral where the sign of the cross was not made or some reference made to Jesus. Quite frightening! Why have I had it so easy? I, born and baptized into the one true faith, am so blessed by the grace of my Lord and only by His grace.

We left Showa base for a final time, and again saying "Tally Ho," I shook the hands of every member of the wintering over party. Leaving by helicopter we circled Showa three times and flip-flopped the "wings," which was difficult for a helicopter as loaded as ours. It was our last wave of good-bye to the twenty-nine Japanese chosen to winter-over and our pilot almost over did it.

I attempted a kytoon ascent this evening but high winds over the open sea made the effort too risky so we stopped.

Day #60  
12 February 1968  
69 ° 12' South  
39 ° 00' East

The final countdown before the run home has started. The helicopters were dismantled today and prepared for sea passage. About four days remain for oceanographic studies along the Prince Harald Coast and the Riisen-Larsen Peninsula before the dash across the screaming fifties and roaring

forties northward.

No kytoons. Fifty miles per hour wind, swollen seas, and dangerous ice flows all around.

Day #61  
13 February 1968  
68 ° 12' South  
37 ° 00' East

The sea rumbles on. We are in a blizzard on the far southern Indian Ocean. The wind is nearly sixty-five miles per hour. The temperature seems warm at -10 ° F. And the ship is taking rolls of thirty degrees to sixty degrees from side to side. Sleeping is an interesting effort requiring bed belts. Since this storm occurred somewhat unexpectedly, throughout the ship not everything was fully secured or lashed down. Banging, crashing, smashing, and breaking sounds of one thing or another were heard throughout the ship and seen wherever you could walk. About every ten minutes a really big roll would make you grab onto the bed for dear life and two seconds later have a chair come crashing into your rear end.

To my delight, my stomach was unaffected and in fact the inability to sleep made me hungry. When the storm started, several officers, remembering my seasickness on the way south, offered me any assistance. [Of course there is no assistance. It was a way of letting a “sand crab” know that we were out on the real sea now.] I got even. At the storm’s peak, when they seemed a little less than chipper I offered them a beer.

Day #62  
14 February 1968  
68 ° 12' South  
33 ° 00' East

What a miserable day. The storm is over but high winds, snow, rain, and salt spray fill the air. The ship’s aerovanes however recorded less than twenty knots so I tried to make kytoon observations. Well? The bloody bastards [the devil and his angels] nearly pulled my two helpers and me over the side with the wind so strong. The aerovanes are no doubt iced up and not giving true measurements. Dr. Torii, “big face in Tokyo” and the leader of the returning JARE 8, gave excellent encouragement to us all.

Day #64  
16 February 1968  
68 ° 20' South  
11 ° 40' East

Things are quite improved on the ship [between the scientific corps and the Navy]. This perhaps is due to the influence of the returning scientific leader, Dr. Torii. [This is not to take anything away from the brilliant logistics leader, Mr. Murayama, who was a survivor and mountaineer, but Torii had a greater sensitivity toward the needs of the scientists and was less interested in getting along with the Navy and more interested in pulling from nature her difficult measurements.]

I have been given permission to enter the radio room at will. It previously was off limits for top

secret reasons. [In Antarctic waters everything is supposed to be free and open exchange but sovereignty on a national ship no one was going to challenge.] Why I now was permitted entrance I do not know. With access to the ship's radio most rumors I had to deal with before have been cleared up. But the world seems so much worse than when I left before. What is sickening now is that the news from the Voice of America tells quite a different story [about Vietnam] than the BBC, or Radio Australia, or even the Canadian Broadcasting Company. The American people are not hearing it all. In the coming election it already appears she won't have a choice. [At this time, from my perspective, President Johnson and Richard Nixon were a cut of the same bureaucratic establishment.]

I heard once again "western" music from Germany.

Day #65  
17 February 1968  
68 ° 18' South  
01 ° 00' East

With all of the bad weather, strong winds, and high seas lately, kytoon observations are at a standstill. I'm a little lazy and have chosen not to spend needed time to copy weather records from the ship's weather shack. I will still have considerable idle time once we're north of the Antarctic convergence zone.

Last night was a good drinking fest celebrating the end of the helicopter operations. The pilots and crew obviously are more fun than the scientists on this ship.

Today we are headed South again and may risk entering the ice in an effort to visit SANAE, a South African station on Fimbul Ice Shelf off the Princess Martha Coast.

Day#66  
18 February 1968  
69 ° 34' South  
03 ° 15' West

[We reached the southernmost penetration by the *Fuji* during this expedition.]

The *Fuji* sails in some poorly charted waters now. Admiral Honda had hopes of mapping these coastal regions, but we are plagued with very thick fog. We carefully penetrated southward toward SANAE station, but failing to make contact with the station by radio, and confronted with thick and newly formed ice, Admiral Honda gave the order to sail north.

Day#67  
19 February 1968  
64 ° 42' South  
03 ° 20' West

The *Fuji* sails northward at its full cruising speed making all kytoon observations impossible unless the ship stops for an oceanographic station. We do make such stops every three degrees of latitude, which occur at odd hours. Three days ago that occurred at 07:00, two days ago at 04:00, yesterday at 03:00, today at 02:30 and again at 23:00. The stop is for four hours so two hours before

and the full four hours of the stop it is “panic city” for me and my faithful helpers. Now I am waiting for the next stop, but the weather lately is so uncooperative.

Day#68  
20 February 1968  
61 ° 15' South  
02 ° 50' West

This standing by waiting for the wind to diminish on a sea where it is not expected to diminish is frustrating. Very early this morning, before breakfast, I enjoyed a polar scientist’s universal complaint. The seas were so violent that even oceanographers could not obtain their data. All the scientists in terse Japanese, I guessed, were not too complimentary of their Navy. [Just like my complaints at Plateau Station except there was no place to anchor Flint’s two-by-four Navy substitute. Dr. Torii enjoyed that story since he had become a good friend of Rob Flint’s on previous Antarctic work.] In these waters spending time with and having been invited in on some of the decisions with Admiral Honda and his second in command, Captain Matzushima, I do not challenge the military’s decision. They face the responsibility of trying to rescue mistakes in the polar seas that only risk more lives.

In these waters the *Fuji*, like any ice breaker, is quite helpless without a keel. So we roll and pitch and roll much more. My stomach amazes me. But I have lost my appetite again. Lifelines have been stretched everywhere on the outside decks. Gigantic quantities of water spill onto and sweep over the decks with loud pounding forces. Most of the time the scientists are simply not permitted out on the iron ice-coated decks. A hopeless cold swim surely would be waiting.

In all these seas it amazes me that my albatross still follows without rest. The violent weather seems not to faze him at all. Whether the waves are three feet or fifteen feet, he flies over and in between them all. Yesterday, the first time during the entire trip, two giant white albatrosses were flying in the wake of the *Fuji* where previously there was only one. All the officers on duty on the bridge dove for their cameras or field glasses, amazed at the sight of these two big birds out here in the world’s worst seas. The two birds encircled the ship many times, seemingly in pursuit of each other.

I figured with winter coming on these great birds seem to have the right idea. They know it is time to go north and have sex.

Day #70  
22 February 1968  
54 ° 00' South  
03 ° 38' East

This morning we passed Bouvet Island. It belongs to Norway but is completely uninhabited. We were perhaps its only visitor in three years. Most interesting to me was our failure to find it at first pass. Navigation, thought to be exact, has its problems with the extremes of the sea. High waves, supercooled rain, icing, fog, icebergs, and almost always thick overcast sky leaves an island such as Bouvet hidden in the mist except to the thousands of southern birds. Its snow capped mountains with glaciers and rock cliffs plummeting more than hundreds of feet to the sea under a low ceiling of clouds gave us a view of “never never land.”

I’m fully alerted to the crossing of the Antarctic convergence zone some time tonight. It remains a number one objective of my research to obtain detailed vertical profiles of wind, temperature, and

humidity across this zone. This has not yet been achieved by anyone else.

Day #71  
23 February 1968  
50 ° 10' South  
04 ° 24' East

Everywhere all the time high seas. I have a headache mainly from the high temperature of the ship and lack of fresh air. The waves are crashing over both decks of the *Fuji* so no one is allowed outside and all the hatches are tightly sealed. The pounding of the waves continues now for more than two full days. No kytoon soundings. I patiently stand by for the wind to die down. The weather maps prepared by the ship's weather officers indicate that the foul weather will not break. Perhaps my kytoon work is complete.

I dozed off in my bunk a few minutes last night only to be flung out of it by a rather large roll of the ship. As I attempted to awake and stand I was again knocked off my feet by a chair I failed to secure before I lay down. Our rolls are not the worst, but the waves viewed from the bridge are fantastic and fortunately for us they hit us from our stern.

We passed a whaling fleet, one factory ship and six catcher boats. All were unidentified and flew no flag. The waves were twice as high as the boats. Most of the time they could not be seen being down between waves.

Day #73  
25 February 1968  
42 ° 10' South  
10° 50' East

Well, that's it! The end of one kytoon program. [My last kytoon sounding took place south of Bouvet Island. There was no longer any reason to remain operational in these hopeless seas.] The *Fuji* continues to roll and pitch, now even reducing the appetites of the seasoned seamen like the Admiral. The Admiral is at a disadvantage. His cabin is high on the ship, three decks above the water line. He must get most of the motion amplified. I suspect he'll sleep below the water line tonight.

With the end of my kytoon program, I picked the chap I thought disliked the kytoons the most and asked him to help me deflate the kytoons and pack them. I'll probably have a little party for my helpers, but I'm not as pleased with this group of helpers as I was with the team that now remains at Showa. But that is history.

[The three meteorologists that assisted me with the kytoon program after the departure from Showa were Isada Ono and Hideji Nakanishi of the Japan Meteorological Agency and Sadao Kawaguchi of the Japanese National Science Museum.]

The data collected will be coldly scrutinized. Poor data will be thrown away and the observer severely criticized for blunders, errors, and observations he should have made. Since I'll be the first to write a report using these data I'll be able to chuckle a bit as some excellent data is rebuked while other faulty data becomes part of a new theory. That is research.

Despite all of my complaints and frustrations, even despair at times, I still believe it was a valiant



effort I am proud of. Its worthiness might raise debates, but definitely it was a good effort with overwhelming experience gained for me personally and for future polar studies that will follow by many others. In this respect I am satisfied.

Day #75  
27 February 1968  
36° 10' South  
16° 00' East

Most of my equipment is crated and ready to ship to Washington.

The sun shone today giving magnificently warm weather. The frigid Antarctic is nearly forgotten history. Only the best times will be remembered and told. It was the same for my expedition to Plateau Station. On this second expedition to Antarctica I do remember some of the deep depressions I had and others had at Plateau as I experienced some of the same sadness on the *Fuji*. This time, feeling most sad, I had left the most lovely person behind in Wisconsin. Now the joy of being together again has captured my every thought. I can think of nothing except mail from you, Nancy, as we approach Capetown.

Day #76  
28 February 1968  
Outside the harbor of Capetown, South Africa

Early this morning we arrived outside the port of Capetown. Sighting land was a grand sensation. No city on earth has such an impressive God-given scenic backdrop as the city of Capetown beneath Table Mountain. This near tropical moist land gives thick moist clouds, low on Table Mountain, that look like a table cloth that drops over the sides and descends to the toy city on the floor.

So much of a little person's life is affected by the international. I just want to go home. War between Egypt and Israel has closed the Suez Canal so all ships must travel the extra nine thousand miles around Africa making the Port of Capetown over crowded. So we slowly sail in a large circle until our berth in port is available.

Last night and tonight the sky is magnificent. It's true that I long to see the Big Dipper and it remains a puzzling surprise to see Orion upside down. The southern sky is magnificent. I can see the center of our galaxy from these Southern Hemisphere latitudes. Several other galaxies, the Magellanic Clouds are also dominant in the southern sky. Most of the stars I do usually see are not visible this far south of the equator so that I feel and know I am a foreigner even by the night sky.

Most comforting to me, as a Christian, is finding and identifying the Southern Cross. Is this an imagination of man or truly a sign given from our Creator? The Southern Cross is made of four dominant and brilliant stars. There is also a small red star, which distinguishes the true Southern Cross from easily mistakenly identified false crosses, in the position of Christ's pierced side. It has been

**27 February 1968. "Enemy losses have been heavy; he has failed to achieve his prime objectives of mass uprisings and capture of a large number of the capital cities and towns. Morale in enemy units which were badly mauled or where the men were over-sold the idea of a decisive victory at TET probably has suffered severely. However, with replacements, his indoctrination system would seem capable of maintaining morale at a generally adequate level. His determination appears to be unshaken. . . . For these reasons, General Westmoreland has asked for a 3 division-15 tactical fighter squadron force. This force would provide him with a theater reserve and an offensive capability which he does not now have. . . . To contend with, and defeat, the new enemy threat, MACV has stated requirements for forces over the 520,000 ceiling imposed by Program Five. The add-on requested totals 206,756 spaces for a new proposed ceiling of 731,756, with all forces being deployed into country by the end of CY 68." (Memorandum from Gen. Earle G. Wheeler to President Johnson.)**

these stars in the South, that constantly beckoned me to God's Holy Word in the Bible while I was in the interior of Antarctica at Plateau Station, off the coast of Antarctica exploring with the Japanese, or on the high seas.

P.S.

7 March 1968

Pan American Airlines

Somewhere over Ghana

I couldn't really end this little diary to you without a short description of my departure from the *MSDF Fuji*. I stayed this past week in my quarters on board the *Fuji*. The first night into port I was provided a fine hotel suite by the American Embassy, but I found the hard roads, the non-moving bed and everything about the land overwhelming. I had a severe case of land-sickness, the reverse of seasickness and asked for and was granted permission to remain on board the *Fuji* until I was prepared to leave for the States. In the harbor, although the ship did not roll and pitch, it did keep a slight motion with the tide and the flow of the harbor. Obviously I needed to be rocked to sleep. Today, the time for departure, the American Embassy was prepared to drive me to the airport, but the Japanese insisted they would drive instead.

This morning, well before breakfast, I was escorted as expected to the Japanese Embassy car, but instead of taking the shortest path out of the *Fuji* from my bunk room to the main outside deck, my guide took me on a rather long circuitous route emerging outside on the helicopter deck. Awestruck and in tears I stood at attention to the exit ceremony given to me or rather to my country. Three national anthems were played, that of South Africa in whose port we stood, that of Japan on whose ship we stood, and that of the United States for which I stood. The Japanese flag was lowered to half mast for sixty seconds out of respect for our lost fellow explorer and then smartly raised again as the military and I stood at attention and the scientific corps bowed.

As I was led in review past the officers, each smartly saluting, the American flag was slowly lowered and folded by a military guard. It was very hard to say good-bye to Admiral Honda. The scientific corps likewise was lined up to bow and say good-bye and as I walked down the gangplank to the Japanese Embassy car and turned to wave a last good-bye, I was overwhelmed by the sight I could not see before. Hanging from every possible place of the ship were the entire crew, every single sailor waving good-bye. Many were shouting "Nancy, Nancy and Marty."

The whole ship knew you sent me a wedding invitation and that we will be married 15 June and now I know it.



Indeed, good-byes are hard. Choked with emotions and with moist eyes I knew the only regrets I had were that I had some frustrations at the low points of this expedition. In the car taking me to the airport were the Japanese Ambassador, Dr. Torii, and Mr. Seino. We have many friends in Japan. I will never forget them. ["I could never express enough my gratitude to those of the 8th and 9th Japanese Antarctic Research Expeditions for all they have done to assist my research from the *Fuji*. My sincere thanks to the weather officers and crew men of the *Fuji*. Breakfast with Admiral Honda, Dr. Torii and

Mr. Murayama advanced my understanding of the expedition and permitted the excellent opportunity for an exchange of ideas concerning our common interests in the Antarctic. But special thanks must be saved for Mr. Seino who coordinated all the necessary groups that made my project possible. Friendships I made on the *Fuji* will be cherished always.” (Report of the U. S. Exchange Scientist - JARE IX)]

Winging my way home to my beautiful sweet girl in blue. A matter of hours from this scrawl and you will be in my arms with your lips touching mine.

Marty.

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#### **End of my log kept while on board the *MSDF Fuji*.**

The Belgium Expedition to Antarctica and the South African Antarctic Expedition returned to Capetown during the week the *Fuji* was in port. Our governments encouraged all of us to get together to discuss our findings and specific and general national goals for our mutual expeditions in Antarctica. The four countries - South Africa, Belgium, Japan, and the United States (represented by me) - met in Capetown but without a formal interpreter. It was a long conference of babble. English was the mutual language with which most did quite well with technical material, but with discussions of future goals I'm not sure if the dreams of the Belgium Expedition or the Japanese Expedition were presented as clearly as possible or if they were left unclear on purpose.

In a briefing meeting given to me by the American Consular Richard Sithers and different people such as the Scientific Attache and the Military Attache of our Embassy, I was drilled on Antarctic history and verbally tested on the Antarctic Treaty and then encouraged to do my best to sell the South African scientists on the importance of Bouvet Island rather than maintaining SANAE (South African National Antarctic Expedition) at great expense to themselves.

That is exactly what I did. In all of my talks on the weather research I did on the *Fuji* and descriptions of research in progress about the Great Antarctic Inversion conducted at Plateau Station, I stressed the importance of understanding the weather of the Antarctic Ocean and the importance of the sub-Antarctic islands of which Bouvet Island was one in the South African Sphere of influence. Inversion winds in all probability held air and moisture in and had no effect on the sea while the sea had great effect on the weather of the entire Southern Hemisphere. South Africa could play a major role in these studies if it sought to set up an observatory on Bouvet Island rather than at SANAE.

American policy at that time was trying to isolate South Africa for its cruel apartheid rule of its people. They rigidly classified their population into five social strata. The white race was on top with no restrictions. Next come the “paid” white such as the Japanese who bought a license to have white status. At the middle level were people from India, second from the bottom were coloreds or people of

mixed race, and at the bottom were the black people not allowed to live in the white cities, not allowed to learn how to read, nor freely travel about their own country. Even an American movie or stage play like “South Pacific” with its mixed race romances was faced with public banishment. If South Africa could be encouraged to leave Antarctica it would keep apartheid policies away from thus far a very politically progressive and open continent.

For several years that is exactly what South Africa did. When the *Fuji* failed to hail SANAE, the South African expedition had already abandoned their very costly operation on the Antarctic continent. Willingly they looked to the establishment of a weather observatory on Bouvet Island. I was awestruck in the years that followed thinking I had such an influence, and I did, although never alone. The Antarctic community was and still is very small. Individuals play important roles.

Many years later, if South Africa was to be kept out of Antarctica indefinitely, that could not be done. South Africa started in Antarctica by making a secret claim of the territory of Antarctica south of its border in 1948 and in fact was granted sovereignty by Britain over the sub-Antarctic islands of Marion Island and Prince Edward Island. Their claim, if made, counters claims of Norway in this region.

Norway established Maudheim at 70° 19' South, 2° 22' West for the IGY and in 1960, when they left, South Africa took it over renaming it SANAE. When Admiral Honda tried to visit their station they were occupying SANAE only brief periods during favorable seasons. Bouvet indeed looked more economical.

In 1969 South Africa renewed its Antarctic interests not only by reopening and rebuilding SANAE but also by opening Borgmassivet with four men inland some 236 miles. Fear of South African activities in Antarctica proved prophetic. South Africa detonated a nuclear device (possibly with Israel) just north of the Treaty zone but southeast of Bouvet Island 22 September 1979. Although just skirting the Treaty zone, the nuclear explosion still occurred deep within the Antarctic convergence zone causing a severe threat to the delicate polar ecosystem.

Antigua demanded for South Africa an “immediate expulsion from the membership in the Consultative Group” of the Antarctic treaty in the meetings of Nonaligned States 4-7 Oct. 1983 of the United Nations’ discussions of the Antarctic treaty.

#### **List of participants to Capetown meetings**

##### **Antarctic Research Discussions**

**5 March 1968**

Mr. T. A. Bosua	Meteorology, Weather Bureau, Pretoria, South Africa
Prof. N. D. Clarence	Ionosphere, University of Natal, South Africa
Mr. G. C. Coetsee	Geomagnetism, Magnetic Observatory, Hermanus, South Africa
Mr. M. J. Coetsee	Department of Transport, South Africa
Mr. H. Decleir	Geomagnetism, Belgium
Mr. J. P. Deruyck	Photogrammetry, Belgium
Mr. J. J. Derwael	Surveying, Belgium
Mr. S. A. Englebrecht	Director, Weather Bureau, Pretoria, South Africa
Mr. Y. Fukui	Biology, Ministry of Education, Japan
Prof. J. A. Gledhill	Ionosphere, Rhodes University, South Africa
Mr. T. F. W. Harris	Oceanography, University of Capetown, South Africa
Dr. F. J. Hewitt	Vice-President, South Africa
Mr. R. Higano	Oceanography, Hydrographic Office, Japan

Dr. T. Hirasawa	Aurora, Tokyo University, Japan
Dr. T. Hoshiai	Biology, National Science Museum, Japan
Mr. S. Ikedo	Geology, Ministry of Education, Japan
Mr. Y. Ishida	Cosmic Rays, Fukushima University, Japan
Prof. S. P. Jackson	Vice-chairman, South African Committee for Geomagnetism, Aeronomy and Space Sciences; University of the Witwaterarand, South Africa
Miss J. Kahts	Science Co-operation Division, South Africa
Mr. H. Kashiwadani	Oceanography, Hiroshima University, Japan
Mr. C. S. Kingsley	Geology, Geological Survey, Pretoria, South Africa
Mr. D. G. Kingwill	Director, Information and Research Services, South Africa
Mr. R. J. Kirkland	Surveying, Trigonometrical Survey, South Africa
Dr. M. Kruger	Medicine, Pretoria University, South Africa
Mr. J. M. Loots	Physiology, Pretoria University, South Africa
Mr. W. Loy	Geology, Belgium
Prof. J. K. Mallory	Oceanography, University of Capetown, South Africa
Mr. T. Matsuda	Geology, Ministry of Education, Japan
Mr. F. A. J. Mocke	Meteorology, Weather Bureau, Pretoria, South Africa
Mr. K. Nagasawa	Geophysics, Tokyo University, Japan
Mr. D. C. Neethling	Geology, Geological Survey, Pretoria, South Africa
Mr. I. Nishimuta	Ionosphere, Radio Research Laboratories, Japan
Mr. M. Nishino	Ionosphere, Nagoya University, Japan
Mr. M. Ose	Ionosphere, Radio Research Laboratories, Japan
Mr. A. W. Poole	Ionosphere, Rhodes University, South Africa
Mr. J. A. Retief	Geology, Geological Survey, Pretoria, South Africa
Mr. E. . F. G. Rousseau	National Institute for Building Research, South Africa
Mr. Z. Seino	Meteorology, Japan Meteorological Agency
Mr. M. P. Sponholz	Meteorology, Environmental Science Services Administration, United States
Mr. J. L. Steyn	Cosmic rays, Potchefstroom University, South Africa
Mr. P. C. L. Steyn	Meteorology, Weather Bureau, Pretoria, South Africa
Prof. P. N. Stoker	Cosmic rays, Potchefstroom University, South Africa
Mr. H. Tominaga	Oceanography, Nagoya University, Japan
Dr. and Mrs. D. Torr	National Institute for Telecommunications Research, South Africa
Dr. T. Torii	Geochemistry, Ministry of Education, Japan
Dr. T. van Autenboer	Geology, Belgium
Dr. A. van der Merwe	Medicine, National Nutrition Research Institute, South Af-rica
Mr. A. J. van der Walt	Physics, Potchefstroom University, South Africa
Dr. O. R. van Eeden	Geology, Geological Survey, Pretoria, South Africa
Mr. J. S. van Rhyn	Meteorology, Weather Bureau, Pretoria, South Africa
Mr. A. M. van Wijk	Aurora, Magnetic Observatory, Hermanus, South Africa
Mr. R. W. Vice	Director, National Institute for Telecommunications Research, South Africa
Mr. R. Watanabe	Oceanography, Hydrographic Office, Japan
Mr. W. C. Watson	Geodesy, Trigonometrical Survey, Pretoria, South Africa
Prof.J.M. Winterbottom	Biology, Percy Fitzpatrick Inst. of African Ornithology, University of Capetown, South Africa
Mr. Y. Yoshida	Glaciology, Hiroshima University, Japan
Prof. P. B. Zeeman	Airglow, Stellenbosch University, South Africa

One other small step in international politics that I took for my country was to arrange for a visit of American Embassy people, namely the American Ambassador, the American Commercial Attache

and the American Military Attache to the *Fuji*. I had no idea of the importance of this visit at the time. When the visit did take place I thought the Americans were overdoing the visit but historically, I learned during my debriefing sessions back in Washington, D. C., it was historically a momentous occasion.

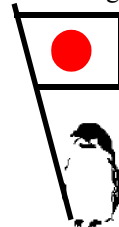
In a discussion at the American Embassy where I was making arrangements to return to the States, so much interest was expressed by several of our people that I asked them if they would want a tour of the *Fuji* while she was still in port. Well, sure, if that can be arranged, but they were all sure that it simply would be too difficult. No, just come over. The Ambassador said he would send a car over to pick up the formal invitation if it could be arranged. I never understood why an invitation, much less a formal invitation, was needed to visit a ship. I promised to get permission from Admiral Honda at our breakfast the next morning.

Without any hesitation, at breakfast I asked, “By the way, you don’t mind if a few friends from the American Embassy come for a tour do you?” I told Admiral Honda that the Ambassador said some foolish thing about sending a car for the invitation. I could just give them a phone call. No. The Japanese Embassy would probably send the invitation. Whoa! What was all this about? The rest of the breakfast went in haste without further conversation. The moment I left, Honda jumped up to his private suite. Before I could return to my cabin, whistles were going off all over the ship.

At about 10:30 a sailor informed me the Americans were coming. I could join the Admiral on deck. Oh. Sure. I got out on deck and noticed signal flags flying all over the place. The biggest Japanese and American flags were prominently displayed. A red carpet extended from the gangway. All the officers were lining up in their dress white uniforms. Admiral Honda wore a super military cap with all sorts of markings on it, his coat was loaded with medals, and he wore a sword! I was wearing shorts and a tee shirt. I snuck off to change into a vested suit.

It was an incredible ceremony with both national anthems. The American Military Attache wore his sword as well. Much later I learned, the *Fuji* was one of the largest Self Defense Force ships of Japan. She was entirely Japanese built and built specifically for a national project. She was the beloved ship of all the Japanese countrymen getting major publicity at home in Japan. She carried a full Admiral for her commander. Then I learned why all the hoopla. This was the first willful invitation by Japan to its former enemy to visit one of its chief national flag ships on an equal footing. Amazing! I was given the business on board the ship early in the expedition for being the nuker and now Admiral Honda was using this time as a major demonstration of friendship between our two countries. There was no scientific data as valuable as this.

For the rest of my service with the Federal Government I had trouble keeping separate the desire to get involved with matters of state and personal research. I loved research and the thrill of discovery. Yet there were frequent despairs over natural events that would not yield to theory. Always there were frequent attacks, and many times personal, against new theoretical ideas. On one hand I felt inadequate primarily because of my humble upbringing dealing with the public and hidden forums of diplomatic service however small it was. Yet at every turn in my professional career I was pushed into the thick of it all. As a young man with choices still before me (or so I thought) I returned to Washington, D. C.





***MSDF Icebreaker Fuji* at a self made ice dock resupplying Showa Base  
January 1968**





Top: Emperor Penguins  
photographed from the *MSDF Fuji*, December 1967

Bottom: Emperor Penguins tobogganing on the pack ice,  
Lützow-Holm Bay, December 1967







**Top: Adelle Penguins**

**Bottom: Ice bergs moving through the pack ice**





**Kytoon soundings across the Antarctic Convergence  
Zone**



**Top: Japanese scientists from JARE 9 assisting with the kytoon soundings,  
Left to right: Michio Yamazaki, Hiroshi Fukutani, Ryoichi Ibe and Katsuhiro Kikuchi**

**Bottom: The ceremonial making of rice cake, ceremonially dressed (center) is  
Masayoshi Murayama, Leader of Japanese Antarctic Research Expedition,  
on the helicopter deck of the *MSDF Fuji***





Top: Off loading a traverse vehicle  
January 1968

Bottom: Japanese Self Defence Force at work

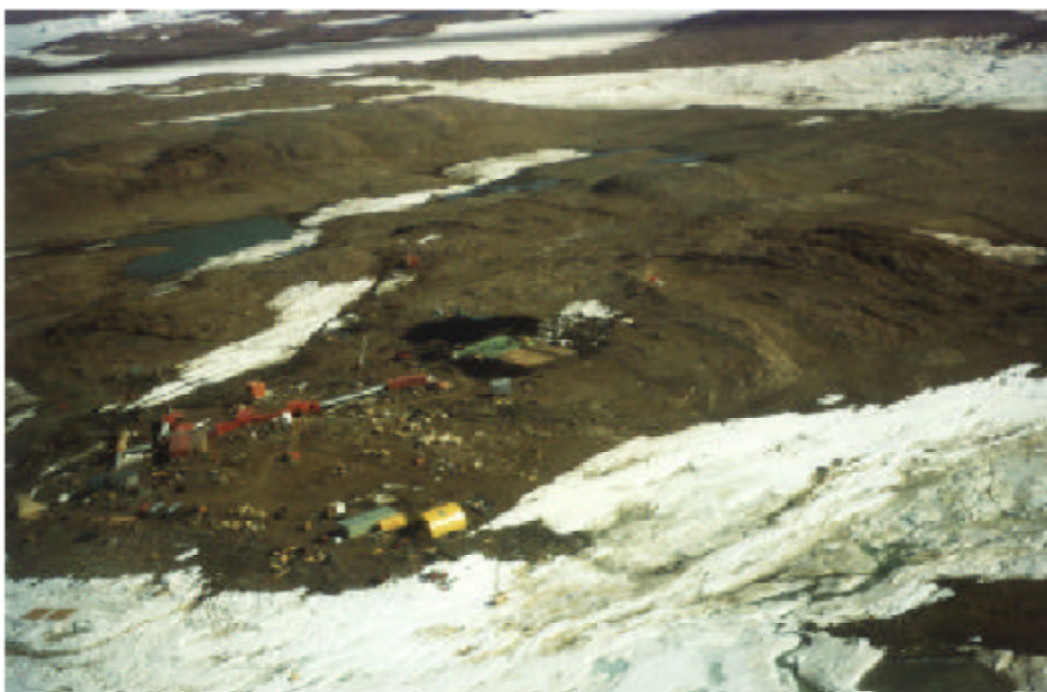






**Top: Japanese Antarctic Research Expedition establishes a route with supply depots for the traverse to the South Pole the next year**

**Bottom: Showa Base, Ongal Island, Antarctica  
January 1968**





**Top: Farewell to the winter Party at Showa Base**

**Bottom: Table Mountain and Capetown, South Africa**

