



# THE ANTARCTICAN SOCIETY

905 NORTH JACKSONVILLE STREET  
ARLINGTON, VIRGINIA 22205

Vol. 86-87

December

No. 3

## Presidents:

Dr. Carl R. Eklund, 1959-61  
Dr. Paul A. Siple, 1961-62  
Mr. Gordon D. Cartwright, 1962-63  
RADM David M. Tyree (Ret.), 1963-64  
Mr. George R. Toney, 1964-65  
Mr. Morton J. Rubin, 1965-66  
Dr. Albert P. Crary, 1966-68  
Dr. Henry M. Dater, 1968-70  
Mr. George A. Doumani, 1970-71  
Dr. William J. L. Sladen, 1971-73  
Mr. Peter F. Bermel, 1973-75  
Dr. Kenneth J. Bertrand, 1975-77  
Mrs. Paul A. Siple, 1977-78  
Dr. Paul C. Dalrymple, 1978-80  
Dr. Meredith F. Burrill, 1980-82  
Dr. Mort D. Turner, 1982-84  
Dr. Edward P. Todd, 1984-86  
Mr. Robert H. T. Dodson, 1986-88

## Honorary Members:

Ambassador Paul C. Daniels  
Dr. Laurence McKinley Gould  
Count Emilio Pucci  
Sir Charles S. Wright  
Mr. Hugh Blackwell Evans  
Dr. Henry M. Dater  
Mr. August Howard

## Paul C. Daniels

### Memorial Lecturers:

Dr. William J. L. Sladen, 1964  
RADM David M. Tyree (Ret.), 1965  
Dr. Roger Tory Peterson, 1966  
Dr. J. Campbell Craddock, 1967  
Mr. James Pranke, 1968  
Dr. Henry M. Dater, 1970  
Sir Peter M. Scott, 1971  
Dr. Frank Davies, 1972  
Mr. Scott McVay, 1973  
Mr. Joseph O. Fletcher, 1974  
Mr. Herman R. Friis, 1975  
Dr. Kenneth J. Bertrand, 1976  
Dr. William J. L. Sladen, 1977  
Dr. J. Murray Mitchell, Jr., 1978  
Dr. Laurence McKinley Gould, 1979  
Dr. Charles R. Bentley, 1980  
Dr. Robert L. Nichols, 1981  
Dr. Robert H. Rutford, 1982  
Mr. R. Tucker Scully, 1983  
Dr. Richard P. Goldthwait, 1984  
Dr. Mark F. Meier, 1985  
Dr. Claude Lorius, 1986

SOUVENIR NON-NEWSLETTER FOR 30th ANNIVERSARY  
OF ANTARCTIC IGY PROGRAMS

## AN ANTARCTIC ADVENTURE:

Thirty Years of Inspiration

by

Dr. Richard L. Chappell

Professor, Biological Sciences Department  
Hunter College, City University of New York

and

Research Scientist, Marine Biological Laboratory  
Woods Hole, Massachusetts

on

Friday evening, January 30, 1987

8 PM

National Science Foundation  
18th and G Streets N.W.

Room 543

- Light Refreshments -

Dick Chappell, Eagle Scout, was the youngest person in the Antarctic during the IGY, arriving pure as the driven snow, leaving relatively unscathed and still pure. No matter how hard an Antarctic Boy Scout works, no matter how brilliant he may be, no matter how old he may grow, to Antarcticans he will always be "the Boy Scout." But he was and is outstanding! (see page 15). Mark your calendar now, and set aside January 30th for a MUST meeting!

*This is the 30th anniversary of IGY Antarcticans starting their scientific programs on the ice, and it has been decided to have an Antarctic IGY breakfast/luncheon on Saturday, January 31st at Evans Farm Inn, McLean, Virginia. IGYers and their families interested in attending should contact Ruth Siple, 703-522-2905.*

This Newsletter, sic, is being written in mid-November, as Bergy Bits will be out of the country in December and did not want to drop the whole ball in Ruth Siple's lap at the holiday season. We are also taking the liberty of changing the format for this one special issue. This fall is the 30th anniversary of IGY personnel leaving for the Antarctic, and we wanted to do updates on some of the more prominent people from the 1957-58 era. As Antarctica does not have the conventional doctor, lawyer, Indian chief, we settled for a pilot, a Jesuit, an Eagle Scout, a spelunker, a knight, and a non-bossing leader. Bergy Bits looks at these people from a very prejudiced point of view, so if you don't have an interest in Antarctic history or an ounce of nostalgic blood in your vein, file this in the circular file, and go back to your latest issue of the Wall Street Journal. Our thanks for buying most of those calendars - we appreciate that. If you are one of the fifty-odd who have not paid your dues, the enclosed notice is your last chance ---there's no charity in the Nerve Center, even at Christmas!

**IGY LEADERS.** The IGY brought a strange collection of bedfellows together, especially in 1957. It wouldn't be far from the truth to say that the sixty-nine people who wintered over in 1957 constituted a motley crew. There were some bona fide polar scientists, a few Antarctic veterans, but the run-of-the-mill were a conglomeration of graduate students, adventurers, and misfits who were hard to distinguish one from another. The chief scientist was the top scientist in the old tightfisted Weather Bureau, Dr. Harry Wexler. Harry was very personable but he really wasn't a man of the ice and snow and cold, and was totally miscast in the Antarctic environment. A saving grace was his deputy, Bert Crary, who was something like a humanized polar bear, except deep down he had the heart of a soft teddy bear. Bert was as much at home in the polar regions as Harry was lost there. At the South Pole stood the late Paul Siple, the last bastion in the Antarctic supporting the late Admiral Richard E. Byrd. Paul had more total Antarctic experience than all the rest combined, and through some peculiar quirk of events ended up as the right man in the right place at the right time. Someone must have goofed, as things aren't supposed to work out in a logical way. Of all the IGY leaders, there is no question that Paul was the best of the lot in amalgamating the scientists and the Navy men into an integrated, harmonious whole. Over at Ellsworth Station, Finn Ronne uneasily wore two hats simultaneously, that of the station scientific leader and that of naval commander. He was the only boss in Antarctica wearing the Sherlock Holmes two-pronged hat by dint of his once being a former Antarctic expedition leader and also an officer in the US Navy. Wilkes Station had the third Antarctic veteran, Carl Eklund, who was tremendously popular with his men, a bon vivant in real life who never changed colors in the Antarctic. Byrd Station had an experienced Arctic man, George Toney, whose biggest responsibility was how to divide up two cases of beer for the whole camp for the whole winter. He handled it superbly, no one killed anyone, but there sure was a bunch of sodden drunks the first night after leaving Byrd, at Little America! Over at Hallett was Jim Shear, a good-time Charlie, an impeccable dresser, who really did not belong in Antarctica, but he had a lot of company in that regard. The aforementioned Bert Crary was the ward leader at Little America V, but more on Bert will

follow. It is hard now to believe that Siple is gone, Eklund is gone, Shear is gone, Ronne is gone. That's not a very good record. Finn was the only one of the four who lived to see 60 - he lived to be 80, Shades of Shackleton.

**TAPS.** Many of the rest have gone, too. One of the very first was Bob Johns, a meteorologist at Byrd in 1957, who was probably the first black to winter over for the U.S., if not for any nation. No sooner had Bob arrived back in the States than he learned that the Weather Bureau wanted him to take this Arctic position on a floating ice island. He accepted, went directly there, came down with pneumonia, and died shortly thereafter..... Another man who went in a hurry, was Bill Cumbie, a crew man on Gus Shinn's immortal first flight to the South Pole. While at Little America V in 1957, Bill was involved in several aircraft accidents, believe it was seven. After a particularly harrowing one in which an engine cut out on takeoff, swerving a wing tip into the snow, the pilot counteracted by cutting off the other engine, and at the same time the first engine came back, flipping the other wing into the snow. The net result was the plane became airborne with both wing tips torn off! So Bill said that was enough, they could take their old flight "skins" (pay), he wasn't going to fly any more. He came on back to the States, and was killed on the highway within a month. .... One of the most promising of all Antarctic IGY scientists was Ed Thiel. He was truly destined for stardom, a la Charlie Bentley, but he lost his life at Wilkes Station on November 9, 1961, when a twin-engine Neptune crashed on takeoff, killing Ed and four crewmen. What a terrible accident, and what losses for this country..... Jack Tuck, who wintered over at McMurdo in 1956 and was Naval leader at the South Pole in 1957, lost his life in a tragic accident at home, when a rifle he was cleaning accidentally discharged. He survived a couple of days, but that was it..... A lot of the meteorologists have succumbed, including the senior meteorological observer at Little America V in 1957, Ben Harlin. Ben was all business during the year, took his job very seriously, no horseplaying in camp. He was just a quiet, overweight, hard-working bachelor of about forty years who, throughout the winter, sent the exact same love messages simultaneously to two women in Kentucky and Florida. His intent was to visit both after he got home, then decide on which one he should marry. His master plan failed, as he was so charged up after a year on the ice that as soon as he saw the one in Kentucky, he up and married her. Ben died about ten years ago in Arizona. .... Other meteorologists who have departed are Wes Morris - believe he was hit and killed by a speeding motorist while changing a tire; Gerry Fierle; Norm Helfert; then last summer, Gene Harter; and last, but by no means least, Herfried Hoinkes, glacial meteorologist at Little America V, from the University of Innsbruck in Austria, who died about ten years ago. Herfried appreciated the good life, had a lovely frau, and a nice family. He died much too early, but his spirit lives on in Mike Kuhn, one of his better students who also experienced the thrill and happiness of doing science in Antarctica..... A more recent loss was Dave Canham, the very professional and dearly loved commander at McMurdo, whose men were responsible for building the stations at McMurdo Sound and the South Pole, who died February 5, 1986. He was practically worshipped by all the men who served under him, a tightly knit group which forms an integral part of this Society.

**SANDCRABS.** IGY personnel in the Antarctic were affectionately called "sandcrabs" by their Navy counterparts, a form of endearment fostered by a difference in pay scale, enhanced by an obligation to support them whenever they asked for it. Sandcrabs came from everywhere, some were really well qualified, some were taken in off the streets. In Bergy Bits' case, there was no other applicant in micrometeorology, and by dint of having taken the only course in the history of MIT entitled "Micrometeorological Instrumentation", he found himself eminently qualified. The discipline glaciology

was a near vacuum, with Dick Cameron being the only one who was truly qualified. They did have one other hot one lined up, but the head shrinker refused to pass him for Antarctic service. So anyone on the street who looked like they had enough muscles to shovel quantities of snow, and had sense enough not to get frostbitten, were enlisted as glaciologists and sent to Greenland for a short wonder course on glaciology. One was picked off a ship in Baltimore, sent to Canada where he had a valid visa, and then brought into this country. Supposedly one had a colonel father who was a personal friend of an ex-five-star general who was then living at 1600 Pennsylvania Avenue. Another, brought in from a foreign country, immediately found peace and happiness in the United States. Arriving in New York, and not speaking English very well, he was directed by the pilot to get a room at the YMCA in New York City, Sloan House; going to his room, he discovered a very receptive maid making up his bed, one who could talk in his native tongue, and within minutes he had established a meaningful liaison. He swore he would never go back home again, and he hasn't! Another character was the head of Weather Central, Bill Moreland. He never should have left Washington, but Harry Wexler was a pretty convincing talker, and he talked Bill - who was in his car pool - into going to Antarctica. Only his outer body was at Little America, as he ran Weather Central like a stateside office with ten-minute coffee breaks. When Bill was asked at the end of four sunless months if he was going outside to witness raising the camp flag for summer, his reply was, "Why should I? I never took it down." Bill went all that distance never to step outside once during the winter night! I was amazed later on to find out that Bill was actually a human being, as our paths have crossed several times at meetings, and the guy is actually not a jerk at all here in the States. The above sort of gives you a taste of what the camp leaders had to lead.

Probably the biggest problem in the Antarctic during the IGY was the feeling the Navy had for sandcrabs, who, for the most part, remained insensitive to Navy feelings. Naturally it varied from camp to camp. Siple and Jack Tuck were able to defuse everything at the South Pole by putting everyone onto K.P. and snow melter detail, and there was no real class distinction. On the other hand, life at Ellsworth was a continual uproar all winter with Crary getting frequent calls on the radio asking how to arbitrate problems. No matter how serious any problem was, Bert could always find the comical side to it. Once at Little America, the Navy leader, a Captain Bill Dickey - wishing for a star which never came - approached Crary one morning and said, "Bert, my men are upset because they are pulling KP and your men aren't. I support their complaint and want to know what you are going to do about it." Bert drawled, "I think your men have a just complaint, Willie. Tell you what we will do; you and I will do KP tomorrow, and then we will work our way right down through the rank and file." That ended that horse, and Willie's 95 men continued to support the 13 sandcrabs! We can't end this paragraph without paying due respect to the late Carl O. Wyman, a retired Marine Corps colonel who went to Antarctica in 1957 because he just didn't have anything else to do. They found a job for him, helping a young Dane run the ionosphere program, but in reality Carl found a much more meaningful and enjoyable job around camp, baiting the Navy. He carried this out to near perfection, highlighted by getting snookered one evening with a Navy chief photographer mate and getting into some mischief. Captain Dickey wanted to bring the chief up before the yardarm, and wanted to know what Bert was going to do to discipline the aging ex-Marine Corps colonel. Antarctica was sure fun in the old days! It was great being a sandcrab.

Things which probably set sandcrabs apart from other mere mortals were their adventuresome nature, their motivation, and their thirst for knowledge. As one looks at the list of sandcrabs in Antarctica during the IGY (69 in 1957, 71 in 1958), one finds that a great many went on to obtain advanced degrees. We know at least twenty-two PhDs came out of the Class of '57 - over 30%. Who said you can't teach sandcrabs

anything? In alphabetical order, there's Nolan Aughenbaugh, John Behrendt, Hugh Bennett, Bob Benson, Charlie Bentley, Dick Berkeley, Dick Cameron, Dick Chappell, Bert Crary, Paul Dalrymple, Gil Dewart, Carl Eklund, Mario Giovinetto, Herfried Hoinkes, Arlo Landolt, Olav Loken, Fred Milan, Ned Ostenso, Jim Shear, Paul Siple, Ron Taylor and Ed Thiel. Only three had their degrees when they went to the ice - Siple, Hoinkes, and Shear. The Class of '58 did not have as many - fourteen. Besides the aforementioned Bentley, Crary, Dalrymple, and Giovinetto, who were held back as slow learners and spent a second year on the ice, the other ten included two Jesuit priests, Father Henry Birkenhauer and Father Edward A. Bradley, plus John Annexstad -Mr. Perseverance who finally got his degree a couple of years ago, Matt Brennan, Jim Burnham, Johnny Dawson, Charlie Greene, Kirby Hanson, Lyle McGinnis, Willie Tressler, and Buck Wilson. Bergy Bits is sure he has missed many others with whom he is not familiar. Probably the station which ended up with the highest percentage of advanced degrees was South Pole - maybe the long winter night convinced them that they should get an education so they wouldn't have to work for a living! - including the two medical doctors plus the eight PhDs - 55%! There were other Antarctic PhDs from the IGY - Tony Gow, who was down with his fellow Kiwis from New Zealand before defecting to the States, Jim Sparkman, who was flying around with a gravimeter, having already been converted from a science writer for the Christian Science Monitor to a budding geophysicist, and Jim Weinman. Of course, there were all kinds of PhDs in the Antarctic for the summer of 1957-58, although back in those days, we really considered anyone who came down just for the summer as illegitimate children, only slightly better than tourists!

**WILSON OF THE ANTARCTIC - SAM, THAT IS.** Before Bergy Bits starts writing about some of the so-called successes from the Antarctic, he feels there must be some words for the Sam Wilsons of the Antarctic, because even though they constitute a small minority, their existence should be acknowledged. Sam was an electronics technician with the Weather Bureau in the midwest, living happily in his own little world. While drinking beer one mid-afternoon at a watering place in a small midwestern town, the pay phone at the end of the bar rang. The bartender answered, then turned to Sam, saying, "Washington is calling, they want to talk to you, Sam." It seemed that a technician for the Antarctic had pulled out at the last minute and they needed a man in a hurry. In a moment of weakness, Sam said he would go, not knowing really what he was getting into. Surely if he had stopped to realize that Antarctica was womanless, he would never have consented, as Sam liked women about as often and in the same magnitude as he did beer, which was bountiful. In a few short weeks Sam found himself arriving at Little America V. The Weather Bureau had sent down a fellow by the name of Chet Twombly in 1956 to get things set up for the IGY, and as scientists were brought in by a chopper from the USS CURTISS, wintering-over people were being flown back out to go home. Harry Wexler saw Twombly standing by the door and said, "Chet, I would like to have you stay here and check Sam out on the GMD." Chet proceeded to pick up his duffle bags and said, "Harry, it has been a long, hard winter and I sure don't want to miss that ship." Then he turned towards Sam and said, "The GMD is up that ladder, Sam," and disappeared outside. This was the beginning of a miserable year for Sam, although he performed his assigned duties well. When it came time to go home, Sam was at the head of the line trying to get out. He was with a group flying home via Hawaii, where they were scheduled to lay over one night, then resume the flight to the U.S. the following morning. Sam wanted none of that, he just wanted to put as many miles as possible between himself and Antarctica, so he went over to the civilian terminal, bought his own tickets back to the States, and has never been heard from since. Sam is probably back in that midwestern bar drinking beer and wondering whatever possessed him to go to Antarctica. Probably there are many Sam Wilsons in Antarctic history. Bergy Bits doesn't want to think too much about them

for fear he will come to the conclusion that they are the sane ones, that those of us who go back are the ones with loose marbles!

**PETER THE GREAT.** Without a doubt, the biggest character at Little America V in 1957 was a German by the name of Peter Schoeck. According to Peter, he asked Larry Gould for the most challenging job in the Antarctic, and ended up being given the responsibility for the aurora and glaciology programs. Ordinarily it would take Peter only a few minutes to antagonize someone, although, in select cases, he could do it in much less time. By mid-winter he was totally friendless, but he did provide a great source of amusement to his cohorts. There were a lot of World War II films sent to the Antarctic in 1956, and Peter used to go to all of them. His only life tragedy had been that the Fuehrer had not awarded him an Iron Cross during the war. Peter would sit through the movies as long as the Germans were winning, then when the Allies started to win, he would get up and angrily stomp out of the recreational hall to a hail of comments from the rest of the audience . . . . Peter was a superb physical specimen, and was one of Muckluck Milan's test subjects. He always wanted to be the first one tested, as he thought he could set standards beyond the limitations of the rest of us mere mortals. He certainly was outstanding doing the Harvard Step Test, where he would bang along steadily for more than a half hour without his pulse rate changing at all. One test he couldn't handle was where Muckluck measured body temperatures at multiple places under cover of a blanket in an unheated room, then suddenly jerked the blanket off and continued the readings. Poor Peter would react violently, shivering so drastically that he would fall right off the bunk! Great, tremendous - there is a God! There was one other test he couldn't handle, which Bergy Bits excelled at - proving that everyone can do something - and that was in moving nails from holes in one end of a board to holes in the other end. in an unheated environment. Peter would be in such great haste that the darn nails would be flying off the overhead and bulkheads, never touching the board! Loved that test! .... Peter was an excellent cross-country skier, and supposedly was on the German cross-country Olympic team. He would leave camp on skis in the darkness of winter and go outside of the camp area and deliberately get himself lost so that he could set up rescue patterns and find his way back into camp . . . The only true hoax played on anyone at the station was played on Peter, and it worked most successfully for about four days. Supposedly Peter got a hamgram from a book publishing house by the name of Jim Johns, requesting exclusive rights of publishing the official story of his year in Antarctica. Peter swallowed it hook, line and sinker, and ran around camp asking questions such as, "When did we cross the Antarctic convergence on the CURTISS?", You see, Peter was not keeping a journal, and wanted to collect all that irrelevant data for his great forthcoming book! After several days, he began to get suspicious, and went around camp comparing type on all the typewriters to see which one had typed the message. As I recall, he ascertained that it came from meteorology, but no one would confess up to it. The general feeling was best expressed by Austrian Herfried Hoinkes, "I'm sorry to say that I wasn't clever enough to have thought it up, as I would have truly loved to have been the one." And to this day, after much frustrating, investigative research we don't know if it was Milan, if it was Cromie, if it was Barter, if it was Taylor, if it was Lieske, if it was Crary. Wouldn't it be hilarious and wonderful if Jim Johns was actually the Russian Vladimir Rastorguev? Anyway, it was the highlight of winter . . . There's one more good Peter story, and that involved his participation on Crary's Ross Ice Shelf Traverse. After a short time out, a message came into camp that Peter had fallen into a crevasse. They were near Roosevelt Island, and Peter, Walter Boyd and Blackie Bennett were walking over area they had walked on previously that day when, whoosh, Peter was gone, and there was a round hole in the snow. Knowing them both, there must have been some hesitation as to whether they should start cheering or sound an alarm. Fortunately for Peter, he had

fallen onto a ledge, unfortunately for Peter, he had fallen a considerable distance, had broken several ribs, and had some internal injuries. Crary told people at Little America V not to send a plane out until they could determine how much of the area was crevassed. However, one of the pilots disregarded Bert's instructions, and flew right out and brought Peter back into camp, from whence he was evacuated to a hospital in New Zealand. It turned out that Peter was lucky the pilot went out, as bad weather set in around Roosevelt Island, and he might not have survived without immediate medical attention. An interesting aftermath was that Crary needed a replacement for Peter, and Crevasse Smith, who was at Little America V, volunteered. As Bergy Bits recalls, Bert sent a message back in, "Don't send me Phil. I need someone to keep me the hell out of crevasses, not someone who wants to go into them." .... Peter recovered quite quickly in New Zealand, and wanted to rejoin the traverse, but by then everyone had had his fill of him, and was quite content to see him go home to Germany. On the way, he got into a street riot in the Middle East, where someone supposedly took him for an ugly American, whereupon he grabbed a native and put a dagger to his throat until he convinced the local people he was an innocent abroad . . . There was one last stop for Peter before returning home - to visit Frau Hoinkes in Innsbruck and attempt to sell her some of his Antarctic pictures. Trudy gracefully declined, saying, "I will soon have my Friedl back home with me from Little America and he will have his own pictures," to which Peter replied, as only he could, "But his pictures won't be as good as mine." Don't you think they really should have left him down in that crevasse?!

**HISTOGRAMS.** Bergy Bits wanted to run some profiles on some of the more prominent Antarcticans of the IGY, not only the sandcrabs, but a cross section of various Antarctic types. Naturally, since we were doing the writing, we selected those we wanted to hear about, and asked them to send in hysterical updates of what they have done/are doing since the IGY. We hope that you will enjoy hearing about the first man to land a plane at the South Pole, the first Catholic priest to celebrate mass on solid earth in Antarctica, the first spelunker to become a renowned crevasse expert, the first Eagle Scout since Siple to winter over in Antarctica, the first scientist to have worked at both the North and South Poles, the geophysicist who measured the world's thickest ice, the first geophysicist to winter over with both the U.S. and the USSR, a geophysicist who still considers Antarctica his laboratory after nearly three decades of research, a radiation climatologist who believes the sun never sets on the South Pole, and Bergy Bits' memories of the IGY visit to Antarctica of the now deceased knighted polar explorer, commander of six Antarctic expeditions.

**PHILIP M. SMITH.** Phil Smith is Bergy Bits' Crevasse Smith, as this is the nickname this erstwhile spelunker had when he was a young Transportation Corps officer in Antarctica helping lay out the oversnow route to Byrd Station. Being somewhat of an honest man, I will have to confess that I was not one of his fans. It never occurred to me in my wildest dreams that he would ever amount to anything. How foolish I was, as this man has scaled heights which I'm sure he himself never expected to reach when he was Crevasse Smith, hanging around with the likes of Bill Hartigan, composing ditties about Hugh Odishaw! I knew of his meteoric rise through the bureaucracy, but it wasn't until I started writing this column and reading the mail that came into the Nerve Center, that I realized how much of an influence this man has been on Antarctica. There are many letters which read, "I owe it all to Phil Smith for giving me a chance," or "It was Phil Smith who made it all possible." His interests cross a very broad spectrum, and it is my opinion that this man has probably opened more Antarctic doors for more outsiders than any other American. But let's let Crevasse Smith, alias Phil Smith, tell you what he has been doing since the IGY ....

Well, the first thing to keep in mind is that I continued to be involved

in arctic and antarctic affairs over the whole decade onward through the 1960s until 1971. You know about all of the things that went on in that period--the improved logistics, the large international cooperative scientific programs, the then new laboratory facilities in Antarctica, the research ships which have come and gone from antarctic service, and other important changes, for example, the opening up of Antarctica to women scientists and women support personnel. In retrospect, I consider this one of my greater accomplishments and am proud of my role in getting this change instituted. I finished up my polar days in the 1970/71 period when I made my last trip to Antarctica and supervised the negotiations for the new budgeting and appropriation arrangements that put the entire funding for the U.S. Antarctic Research Program at the National Science Foundation.

Ready at that point for personal change, I left the National Science Foundation and went to the Office of Management and Budget to the General Science Branch as Branch Chief, spending upwards of a year there, but then returning promptly to the NSF at the point when the Presidential Science Advisory mechanism was coupled together for the two-year period of 1973-75 with the office of the Director of the National Science Foundation. During that period I was in Guy Stever's office and then both he and I went over to the White House in 1976 to start the Office of Science and Technology Policy under the legislation that was passed by the 94th Congress. I stayed on there over the rest of the 1970s in OSTP, departing in 1981. Happily, the science advisors that I had close association with at NSF and in the Executive Office of the President--Don Hornig, Ed David, Guy Stever, and Frank Press--have all continued to be part of our activities and I greatly enjoy and value all of these associations, but especially my daily association with Frank. Since 1981 I have been the Executive Officer of the National Academy of Sciences and the Academy of Engineering, for the conduct of the scientific, technical and policy studies which we undertake for government and other sectors, It is an absolutely terrific job.

Since I left my active field days, I have continued to try to get out and about from time to time for interesting adventures. Fortunately, my health has continued to be superb; thus, I have spent a lot of time in the western part of the United States white water river rafting, and among my memberships I proudly list the Western River Guides Association. And I hike into wilderness areas whenever possible, for example, a week in the Grand Canyon a year ago, and a six-day, 72-mile hike in the high Sierras this past July, ending up on Mount Whitney on an absolutely marvelous day--the kind of day I used to enjoy so much in Antarctica. I have not been back to the Antarctic since 1970, but I did make a trip to Central and Southern Alaska last year for several weeks in the national parks. It reminded me both of the good times of the past and also some of the cold weather that I wonder now how I enjoyed so much three decades ago.

**LT. COMMANDER CONRAD S. "GUS" SHINN, USN (Ret).** Gus Shinn's name became permanently enshrined in the annals of Antarctic aviation on 31 October 1956 when he landed an old R4D, *QUE SERA SERA*, on the South Polar Plateau, the very first landing of an aircraft at the geographic South Pole. Flying copilot that day was an old World War II South Pacific buddy of his, Captain William H. "Trigger" Hawkes; navigator was Lt. John Swaden; aviation mechanic was John Strider, who recently visited Gus; and the elec-



tronics technician was the late William A. Cumbie. Two passengers along for the ride were the late Rear Admiral George J. Dufek and Captain Douglas L. Cordiner. Bergy Bits asked Gus how he was selected to be the pilot that day, and he feigned not to know why. However, further conversation brought out that he had to be the best qualified pilot with ski-equipped planes. His military background included considerable testing of ski-equipped planes in Canada, and he also participated on Operation High-jump as a pilot. Asked if he had any special memories of that historic flight, Gus said there were none, that it had all been well documented, but he did confess to having had some concern when the oil vent froze up, spewing oil all over the side of the plane. Gus said that *QUE SERA SERA* is sitting behind some building at Pensacola just gathering rust. We had been led to believe that she was going to be put into some sort of a museum at Pensacola. We learned from Gus that Harvey Speed, one of the VX-6 pilots, had died three years ago from Lou Gehrig's disease. Harvey lived with gusto, and one of his drinking buddies was Baseball Hall of Famer, Eddie Matthews. When asked about Jack Coley, Gus said the last he knew about him was that he was with Lockheed in San Diego. Maybe a recent joinee of our Society, Gordon Ebbe, VX-6 commander prior to Jack, can shed some light on his whereabouts. Gus wanted to know what had happened to Larry Gould, Bert Crary, and Father Dan Linehan, and we updated him on all three. He also expressed his burning desire to revisit Antarctica. It was great talking to Gus, as he had flown me and a young husky pup named Blizzard to the South Pole on 4 December 1957 on the 27th plane landing at the South Pole. Bergy Bits had also had the pleasure of being flown by his friend, the late Harvey Speed, in *QUE SERA SERA* from Little America V to McMurdo in late November 1957. As for what Gus has been doing since the IGY, let's turn to his letter of 16 November to Ruth ....

I left VX-6 in the spring of '58. While enroute to NAS Pensacola, FL I stopped by Donaldson AFB to visit Col. Ellen, C.O. of the AF squadron supporting DF. He had a flight to N.Z. and invited me to go along; permission was obtained from the Navy through Capt. Cordiner (VX-6 DF 2 C.O.) then at the University of Ga. at Atlanta. We had a great visit in N.Z.; friendships were fresh from recent tours of DF 1,2,3. Upon return to the States I reported to Pensacola where I was assigned to the Operations Department at Sherman Field. I became the personal pilot of Adm. Duerfeldt. On 1 April '63 I retired having served 21 years.

During 1963 I reestablished contact with Dr. Mooney who invited me to accompany VIPs and others on the C-135 flight to N.Z. We were there when the President was shot. For a year after retirement I travelled, then back to Pensacola. I had toyed with the idea of living in NZ but lacked the motivation to make the move. Since then I've been living in a small book-cluttered apartment with a large family of cats. I discovered I was a 'cat person'.

It is a quiet life, leisurely and pleasant are the days. You could call me an interested observer! Please remember me to all my old friends of the 'good days'.

**NED A. OSTENSO, BYRD STATION, 1957.** It is appropriate that Ned follows Gus, as both are big men who are short in stature. Ned has had a very successful government career, and is a member of the illustrious government senior executive service corps. He supposedly is in charge of the Sea Grant Program of the National Oceanic and Atmospheric Administration, but Bergy Bits suspects that what he actually does is represent NOAA at any and all meetings held outside of Washington, as he is never., never at home. As this is being drafted, he and his bride of multiple decades, Grace, are touring Italy looking for antiques and other useless things. As his secretary is tardy in getting his vitae to us, we are sparing you that agony, but we are including

his comments to us and excerpts from an interview in a NOAA publication about Antarctica and life. He's pretty articulate for a fellow from Chippewa Falls. His letter ....

My introduction to Antarctica was both casual and traumatic. The casual part was a brief note from an unknown named Bert Crary with some terse instructions about a physical examination and reporting to Davisville. Upon investigation, I discovered that George Woollard had volunteered me for 2 years of Antarctic service. The fact that I had not been his graduate student since being given an irrefusable offer to serve my country in the U.S. Army Signal Corps, or that I was then happily engaged in the search for oil in the Gulf of Mexico, or that I may harbor some independent views about my future did not occur to George. By the same token, it never occurred to me that I should not go.

The traumatic part was a little warm-up exercise in Greenland. Someone (to this day, I don't know who to blame) thought that we were entitled to a preview of coming attractions by driving across Greenland along the 80°N parallel to the region (pole of inaccessibility, if not undesirability) where an earlier British-French expedition had failed to get seismic reflections. Charlie Bentley, Hugh Bennett, and I were greeted in Thule by the Air Force Strategic Air Command with unlimited access to their junk yard and garbage heap, from which we finally assembled three working weasels and rations. We got there, and we got back. In between there was a lot of unpleasantness.

On the JOSEPH F. MERRILL, we shared the number four hold with Mort Rubin, Mario Giovinetto and Vern Anderson for a 2-month cruise to the Bay of Whales. My first view of the Ross Ice Shelf under the Antarctic sun was the first of a long series of visual, emotional and intellectual experiences I was to have for the next 18 months of oversnow traverses and station life. I remember no hardships or privations, only beauty and excitement. But most of all, I remember people. Comrades are, after all, the heart of the Antarctic experience and the soul of the continent.

Ned reflected on his personal history in an article in NOAA Magazine of October 1978 which bears quoting ....

To begin with, I had the good sense to be born at a time and in a place where the action was. ... Mine has been a privileged life. Not by fortune of inheritance nor heritage, rather, luck and good timing .... When I was in college, my research grant constituted the use of my major professor's gasoline credit card, thanks to Dr. George Woollard's own munificence. It wasn't until the day before sailing for a year and a half tour in Antarctica that I learned I was actually going to get paid. Not only had I taken the term "volunteering" literally, but having the opportunity to do research was generally regarded as a privilege and not a source of income. For the most part, the equipment we had was what we made ourselves, from seismometers to magnetometers. I am not saying that those are the good old days, albeit the memories are fond. Today's reasonable compensation to the researcher plus his supporting infrastructure of technicians, laboratories, computers, etc., is the proper and necessary direction of social evolution reflecting society's expectations from the scientific milieu.

Discovery that the Antarctic ice cap was kilometers thick, rather than tens or hundreds of meters as commonly believed, drastically revised concepts of the global water budget with profound environmental implica-

tions. I still proudly hold title to the world's thickest ice sounding of 4,270 meters. The discovery was' sufficiently startling that when we finally arrived at Byrd Station and radioed our findings back to the Academy of Sciences, the message was believed to have been a garbled transmission.

**GIL DEWART, WILKES STATION, 1957; MIRNY, 1961.** Gil is another one of those small human dynamos, a la Gus Shinn and Ned Ostenso. Unlike most of the other Antarctic geophysicists he has gone the consulting route. We asked him for his comments on the IGY, and he sent us some long, sentimental sentences which say, I think, that it was all fantastic ....

The International Geophysical Year was a time of marvels, a mythic interlude - there should be such a Camelot somewhere in life for all of us. That expedition was at once the realization of a long-held dream and the beginning of a career that would occupy me professionally for many years. Above all, though, was the experience itself, an island of wonder as unique amid the ordinary stream of existence as our Great White Whale of a continent is from the rest of the physical world.

To have journeyed through that enchanted crystalline landscape and to have observed the workings of the universe with a grand company of adventurers - for such were my fellows in that time and place - was a splendid thing.

**JOHN C. BEHRENDT, ELLSWORTH STATION, 1957.** John is one of the two IGY scientists who has remained active in Antarctica, although Charlie Bentley may have a more continuous record. Both men have been very prominent nationally and internationally, and both will continue to play key roles in the future. John sent us some of his thoughts on the past, present, and future, and we want to share them with you ....

My experiences working in Antarctica and in Antarctic research more or less continually since the IGY have obviously greatly affected my professional career as well as my personal life. I started as a student assistant at Ellsworth IGY Station and made the Filchner Ice Shelf Traverse with Ed Thiel, Hugo Neuburg, Paul Walker and Nolan Aughenbaugh. I remember how we all used to scorn "Old Antarctic Explorers." Where does that leave me now? I saw by the October 5 NYT that the Grand Chasm in the Filchner ice shelf appears to have rifted completely open, sending the area of the start of our traverse into the Weddell Sea. It was a reminder that time has passed; progress, I suppose I should call it.

There are a lot of positive changes in the logistics, safety, various technological advances in instrumentation and data acquisition techniques, etc., that are obviously quite impressive over the last 30 years. Those of us at Ellsworth Station not only wintered over, but had to spend three months on a ship fighting through the pack ice of the Weddell Sea to get there. It certainly is much more efficient to fly into McMurdo in a few hours. Unfortunately we (in the US) can no longer do geophysical work on the Filchner ice shelf. A focused effort like the IGY is unlikely to be planned and carried out by the US in Antarctica today. I am, of course, most familiar with the Oversnow (Glaciological-Geophysical) Traverse Program which operated three simultaneous identical field parties out of three Antarctic stations separated by 2500 km. This

work continued for about 10 years and systematically covered the Antarctic ice sheet coordinated with similar traverses by USSR, France, and others. The type of research we are all engaged in now is much more undirected, which certainly has good scientific advantages. However, a systematic, directed, decade-long program (like that started in IGY) appears difficult for US to organize and accomplish, even if it would fulfill important national needs. Antarctica, anyhow, appears pretty much the same, which is why I still intend to keep returning.

**KIRBY HANSON, SOUTH POLE, 1958.** Kirby, an ex-taxi driver who spent much time in meteorological offices at various airports after dropping off passengers, decided that as long as he was spending so much time there, why not get paid for it. So he joined the Weather Bureau, and shortly thereafter found himself at the South Pole. Kirby was very ambitious, and was destined to go places besides the South Pole. However, he had trouble leaving the Pole altogether, because for many years he was in charge of Geophysical Monitoring of Climatic Change (GMCC), which included the South Pole station! In recent years he has returned to Miami where he is a senior meteorologist who can work on anything which tickles his fancy. And we love his wife, Lisa (Alicia), Miss South Pole 1958! Kirby wrote us on Halloween ....

Antarctica is particularly interesting for me, as it is experiencing a modern-day ice age. Being there, one gets the feeling of what the periods of the great glacial advances over portions of the Northern Hemisphere must have been like so many thousands of years ago. In a sense, these of us fortunate enough to have seen Antarctica, have done a small number on the Grim Reaper.

The one story that sticks in my mind, is a "Harry Wexler" story. He told it of himself, on returning from a summer visit to Antarctica, in a talk at the National Academy of Sciences. Dr. Wexler, as many of you know, was not a physical or athletic person. So it came as quite a surprise to most of the audience to hear him say that he had spent a few days with a field party, but what he didn't say, of course, was that living conditions in the field were not exactly a piece of cake. One can visualize, again, the pristine conditions of Antarctica from Dr. Wexler's personal comment about how he felt at the end of those days in the field. He said, "He had never felt so clean on the inside, and dirty on the outside in his entire life."

**REVEREND DANIEL LINEHAN, S.J.** One of the advantages of writing this column is that you can knock on doors, and if they haven't read too many of your columns, they will let you in. Such was the case in early November when I dropped in on Father Dan in Weston, Massachusetts. Although we were together at McMurdo in late November 1957, and flew to the South Pole on the same day, 4 December 1957, I never before had had the opportunity to sit down and talk with him about his experiences in Antarctica. Originally I had intended to stay only one hour, as I was enroute to Maine, but reluctantly I had to pull myself away after two hours. For those of you who have never had the pleasure of meeting Father Dan, your life has a void, as he is a most delightful person. I used to say he had the kindest eyes of any man I had ever met. I can now enlarge upon that feature to include the whole person.

Father Dan is now officially retired from being the Director of the Weston Observatory, although he lives only a stone's throw from it in Campion Center, a home for Jesuits in Weston, about fifteen miles west of the non-Catholic church where they

hung the lantern for Paul Revere! He is comfortably situated on the top floor in a corner suite of four rooms (one is a study, one is a bedroom, one is for hamming - radio, that is, and one is a workshop for keeping his rig on the air). Now for the bad news - he's 82 and not quite so robust. He has had some problems with his feet and legs, and all of the toes on his right foot have been amputated, so he has to sit with his legs resting on another chair or footstool. He's an early riser, celebrates mass each morning at 5:30, and evidently still spends a lot of time on the radio, including working the two-meter band in the local area.

Father Dan made three trips to the Antarctic, and the late Admiral Richard E. Byrd was one of his early benefactors - or maybe Father Dan was Byrd's benefactor! During the IGY, some of us sandcrabs thought Father Dan was Admiral Dufek's answer to the IGY, because it seemed that when there were too many stories in the papers about the IGY, the Admiral would load the Jesuit in his plane and fly off somewhere to take a seismic shot. It must have helped the Admiral's blood pressure, as well as give Father Dan a chance to do his thing in seismology. Although he is proud of being the first man to take a seismic shot at the South Pole, one gets the feeling that what he is most proud about is being the first priest to have celebrated mass on terra firma in Antarctic - Ross Island. And he was also the first priest to celebrate mass at the South Pole, 4 December 1957.

We got to talking about Gentleman Jim Zumberge - we were running out of people to talk about, you can see that! One day Jim came in out of the field, looking pretty scroungy, and asked, "You're a Jesuit priest, aren't you?" Father Dan replied that he was, so then Jim asked him to cut his hair, as he figured all Jesuits learned barbering when going through training. After the haircut Jim said to him, "You're a ham operator, aren't you?", and Father Dan replied in the affirmative. So Jim asked him if he would mind trying to contact his wife that night and telling her that he was okay. So Father Dan got through to Jim's XYL that night, and she asked him how Jim was looking. The reply was that he looked pretty bad when he walked into camp, but after giving Jim a haircut, he looked great.

Evidently Father Dan carried the necessary elements so that all faiths could practice their religion in the Antarctic. He mentioned that at the end of one of his trips, he gave the wine left over from the Jewish allotment to Murray Wiener so he could celebrate his own service(s). We imagine that Murray was truly grateful to Father Dan for his deep consideration and concern for his religious needs!

One thing Father Dan didn't know was that he had a geographical feature named after him. He said that Admiral Dufek told him once that he would get a mountain or some feature named for him, but he had never heard another word about it. At the time, I wasn't aware of what it was, so I contacted Ruth and asked her to find out and then let him know. Afterwards he wrote Ruth "it was a pleasant surprise" to learn there was a Linehan Glacier. He went on to write, "There have been quite a few craters on the Moon named after Jesuit astronomers, and other items as 'eye tests' flowers, etc., but I think this is the first item in Antarctica to be so named. My brother Jesuits here were quite pleased." We hope that Bob Allen can come up with a picture of Father Dan's glacier, because he should see it after all he has contributed to Antarctica. A visit with Father Dan is certainly an uplifting experience, even for a Protestant! This fellow is really one of the truly nice guys, and we should be proud that he is one of us.

For you amateur radio operators, I believe Father Dan is W1HWK (Hard Working Catholic). He said that Paul Blum, W2KCR, who handled all of those hamgrams for all stations for the entire IGY, is now living in Westchester County, somewhere near White Plains, New York. And from Mel Havener, who is planning a giant reunion of all Deep Freeze IV personnel next summer, we have a new address for Jules Madey,

K2KGJ, the sensational high school student with a powerful rig who never slept during the IGY, because he stayed up for two years running phone patches. It's Box 390, Route 21, Hillsdale, NY 12529 .... After we typed the preceding, Father Dan Cassem, a colleague of Chet Pierce and a close friend of Father Dan, sent us a very complete resume of Father Linehan - which we had requested. It is interesting to note that among his multitude of achievements and honors is "Honorary Member of the U.S. Navy Seabees, 1962"! -- While on the Dow Expedition to the Arctic in 1954, he made the first magnetic studies on the ground to determine the new location of the North Magnetic Pole; in 1957-58 his seismic tests determined the depth of ice at the South Geodetic Pole. But Father Dan is not a Pole Cat, in spite of his work in Antarctica, the Canadian Arctic, and Greenland; his work has taken him to Hawaii, Canton, Fiji, Philippines, Borneo, Java, Sumatra, Burma, Thailand, Laos, Singapore, Hong Kong, Japan, all countries in South America at least once, France, Spain, Portugal, Switzerland, Morocco, Tunisia, Greece, Turkey, Iran, Yugoslavia, Italy, Egypt, Ethiopia, Madagascar, Tanzania, Kenya, Uganda, Burundi, Ruanda, Zaire, Congo, and the Central African Republic. Sounds just like one of the Ed and Priscilla Crew's Christmas letters! Now v/hat Bergy Bits want to know is, who was minding the store back at Weston Observatory (Seismologist-in-charge, 1934-1950; Director, 1950-1972), to say nothing about who was teaching his classes in geophysics at Boston College (Chairman, Department of Geophysics, 1948-1962). We can only presume that he explained his absences at the Observatory and on campus when he went to confession! SEISMOLOGIST PRIEST, HAS PASSPORT, WILL TRAVEL!

**SIR HUBERT WILKINS, 1888-1958.** Bergy Bits was a colleague of the late Sir Hubert Wilkins when the IGY came along, as we both served the same master, working for the Quartermaster Corps Research and Development Center. Sir Hubert was a fascinating man, and anyone who has never read Lowell Thomas's biography on him should read it. Many people said he was the only polar explorer without an ego, and it is probably so. Many a stormy day at Natick he would never go home, but would spend the night sleeping on the couch in the women's John!

But his last trip to the Antarctic was sad in several respects. He arrived at McMurdo on 12 October 1957 and departed from Wilkes on 26 January 1958. He was treated royally by the Admiral when he got there, and was having the time of his life. But he made a mistake, he granted an interview to a reporter while on the ice - always give your interview on your way out. Nothing is sacred with the media, and it was duly published that Sir Hubert said that McMurdo was a filthy camp, that living conditions were horrible, that morale was down, and that Shackleton and Scott had better camps in the old days! That was the end of Sir Hubert's IGY Antarctic honeymoon. He got kicked out of the Admiral's quarters, and he soon arrived at our front door at Little America V where he sought haven until the tempest calmed down at McMurdo. Bergy Bits was the beneficiary, as Sir Hubert stayed for two weeks, helping dismantle the micrometeorological system. He was a fantastic snow shoveller, in spite of his sixty-eight years, digging up 500 feet of cable buried three feet deep!

Sir Hubert dearly wanted to stand on the South Pole, but after he was ostracized, there was no way the Navy was going to send him there. However, he had already flown twice over the Pole, and he got to go to Liv, to Byrd, to Hallett, and, of course, to Little America V. He also went on many local flights out of McMurdo, as he would just walk down to the strip, see a plane loading up, hop into it, and after it got airborne ask a crewman where they were going! Being the first man to fly in Antarctica, he must have considered this an inalienable right. He had many Arctic friends who were on busmen's holidays at McMurdo (Link Washburn, Bill Field, Troy Pewe<sup>1</sup>, Dick Goldthwait, and George Llano), so he was in good company in the Quonset, and he really enjoyed them.

But Sir Hubert probably was doomed before he ever arrived in the Antarctic. Bergy Bits does not know of a single old Byrd man who was welcomed with open arms, nor has

he ever heard of an incoming group of camp personnel who wanted the old crew to stay around to indoctrinate them or provide an overlap. No one was as unwanted in Antarctica during the IGY as someone who had been there! They would rather make their own mistakes than be told by a veteran of the preceding year or of a preceding expedition. This was something foreign to Sir Hubert, as he was listened to in the Arctic when he went on annual wintertime military maneuvers.

After he got back to Natick, Sir Hubert spoke of what he considered a real tragedy, the heavy drinking at McMurdo, and said that it commenced at the very top and went on down through the ranks. This did not come from a teetotaler, as Sir Hubert was not averse to drinking; in fact, he picked up \$10,000 in 1957 for sitting at a piano with an umbrella over his head endorsing a dry gin! The Admiral heard about Sir Hubert's trip report, and asked Natick for the opportunity to go there and reply to him. But he must have thought it over and come to the conclusion that even though he hated what Sir Hubert had said, the old boy had hit a few nails right on their heads, as he never showed.

**RICHARD L. CHAPPELL, LITTLE AMERICA V, 1957.** Dick's introduction here will be an unsolicited commercial urging all of you people with class and money to hustle right out and buy Hoya crystal. His wife Alice is President of Hoya Crystal USA with a new gallery in Manhattan, and she is also Fine Lines International Ltd. Dick designed a fluorescent illuminated display base (patent pending) for crystal and other art objects, so he moonlights for/with Alice. If you read the ads in the New Yorker and see Baselite by Fine Lines, that's the Chappells. End of commercial. Now let's hear it from Dick ....

It is difficult for me to imagine how my life has not been influenced by the type of adventure made available to me as a young man spending a year in Antarctica during the IGY (1957-58). It influenced my concept of science, nations, and individuals. I found great inspiration from the accomplishments of those around me and a sense of the international bonds of the scientific community which have never left me. I was no longer in awe of greatness but valued those moments I was able to spend with great explorers and scientists. This, in turn, encouraged me to accept other opportunities which followed. I came to think of science as an international endeavor rather than an individual competition and have enjoyed what have turned out to be stimulating and productive collaborations in Europe, Asia and around the US. While it would be difficult to point out any one thing as being a direct result of my Antarctic experience, I believe it gave me a new concept of scale and a greater appreciation of style in the way things are done. More specifically, there were people like Paul Siple who spent long hours giving me confidence that I could, indeed, do the kinds of things that he had done; Larry Gould, the author of the first Antarctic book I had read years earlier, who provided not only the reality of a true international scientist but also a new friendship on our cruise to Antarctica; Bert Crary who gave me responsibilities I had never dreamed possible and a masterful example of a special type of low-key leadership based on a combination of example, judgement and hard work; Phil Smith who convinced me to get involved with doing things while others are busy talking about what should be done; or Harry Wexler who made it seem that it was still all right to dream a bit now and then. In the years that followed, I found that I had acquired a larger family and shared a special bond with those who had shared the Antarctic experience and even some others who had been involved in similar undertakings. It was surprising how often an old friend turned up when

least expected -- even Father Darkowski in the middle of the Mediterranean Sea. Most importantly, it certainly changed my direction from engineer to scientist. It stimulated what has become a lasting curiosity about how things of the natural world actually work.

Upon my return from the Antarctic, I spent the spring traveling around the country for the Boy Scouts of America. I saw the country and learned a bit about public speaking. That summer, I wrote my book, *Antarctic Scout*, finishing the last chapter and proofing the galleys as a freshman at Princeton. I took the Engineering - Physics program, earning a BSE degree. My senior independent work was done at Princeton's Elementary Particles Laboratory where I worked part-time for three years on fiber optics and statistical studies of single photon effects. Upon graduation, I received the Reserve Officers Association Award as the outstanding Princeton Graduate commissioned in the US Navy.

My Navy duty took me to Washington on the staff of VADM Hyman G. Rickover where I worked in the office of the Technical Director with responsibilities that included development of nuclear accident plans for all nuclear reactor sites and nuclear shipyards involved in the Navy's nuclear power program. A year later, I attended the Bettis Reactor Engineering School in Pennsylvania and was transferred from there to Electric Boat Division of General Dynamics in Groton, Connecticut where I reported to Rickover each week, and became the AEC representative for the first overhaul and refueling of the polaris submarine USS PATRICK HENRY.

After four years of active duty (Ensign to Lt.), I entered graduate school in the Department of Biophysics at Johns Hopkins University where I earned a PhD doing research on the retina at the Wilmer Institute of the Johns Hopkins Medical School. From there, I went directly to the Biological Sciences Department of Hunter College of the City University of New York as an Assistant Professor, joining the faculty of the Graduate Center shortly thereafter. In addition to my teaching responsibilities, I am conducting research on the structure, function and pharmacology of the retina both in New York and at the Marine Biological Laboratory in Woods Hole, Massachusetts each summer. I am now a tenured Professor and benefit from the support of grants from both the National Institutes of Health and the National Science Foundation. My research program was helped greatly by the receipt of a Research Career Development Award from the National Eye Institute of the National Institutes of Health which provided full time research support for five years. I have especially enjoyed the opportunities for collaboration with other laboratories, first at the University of London, and, more recently on a sabbatical at Japan's National Institute for Basic Biology.

One other activity may interest you. As a result of my numerous appearances at service clubs and secondary schools, I became increasingly involved in efforts to improve scientific literacy of the general public. Recently, our efforts have focused on the needs at the level of secondary education. For this purpose I have been involved with the establishment of a non-profit corporation, Gifted Student Development Programs Inc., which has evolved from Saturday programs at the Bank Street College for Education and at Fordham University to include graduate summer courses for secondary teachers. Our latest project concerning the Investigation-Colloquium Method for science education involves a consortium with the Dalton School and New York University with a major grant in review at NSF.



I have had the benefit of a unique access to the public as a representative of the science community and hope that some of the excitement I have seen in special programs at the secondary level can become a part of the daily educational process.

**ALBERT PADDOCK CRARY, MR. ANTARCTIC IGY.** As anyone who reads this column knows, Bergy Bits has great admiration for old Bert. There is no one like him, there will never be another; they threw the mold away when they made him. To have wintered over with Bert was the ultimate. He epitomized the best of IGY, and, in fact, was so knowledgeable in the geophysical sciences that he himself constituted a complete IGY team. The rest of could just as well have stayed at home. As great as Crary is as a scientist, he is even greater as a person. He is most unusual, one who would be equally at home in the National Academy of Sciences or with stevedores on the waterfront. To have drunk his beer through the past three decades has been a great pleasure, as it doesn't get any better than cold beer and Bert's company, although not necessarily in that order. Mildred, his bride of seventeen years, sent the following:

For several years after the IGY, Albert simultaneously planned arctic programs for the Air Force Cambridge Research Center, planned the post-IGY antarctic program for NSF, and finished papers reporting arctic and antarctic data. From December 10, 1960, to February 12, 1961, he led a 1250-mile traverse from McMurdo to the South Pole; he had been a member of the party which flew from T-3 (Fletcher's Ice Island) to the North Pole May 3, 1952, and thus he became the first person ever to have set foot at both Poles ("my dubious honor," he calls it). He became Chief Scientist for USARP and later Deputy Director and then Director of the NSF Division of Environmental Sciences, participating in several ELTANIN antarctic cruises.

Retiring in 1976, he served on the Polar Research Board and several AGU committees. On a Mellon Foundation grant, he and T. O. Jones compiled historical material on the U.S. antarctic program. He completed a 500-page book on his arctic and antarctic scientific explorations just before he became gravely ill two years ago. He is now revising the manuscript and would welcome suggestions for a replacement for his late agent. Several excerpts from Bert's book recall IGY days in Antarctica:

Crevasses - "The return trip from our furthest west to the plateau cache, occupied nine days. . . By the 19th of January we were near Twin Rocks, ready for another crossing of the crevassed area and pleased with our foresight in flagging the crevasses on the outgoing trip. To our dismay, we found many new crevasses, and many crevasses we had flagged were missing or altered. We changed our plans and tuned up the crevasse detector again. Three of the 'probers' went ahead with me, either sitting on the detector timbers or walking alongside, as I worked the vehicle slowly down the trail, with one eye on the meter and the other one on my helpers. One time Denny, walking alongside, dropped into an unmarked crevasse, but his fingers caught and glued to a timber. Later one of the crevasse detector pans fell in a crevasse, snubbed and split a supporting beam, upsetting Bucky, all before I could glance at the detector needle and back up again. The next day we finished crossing the crevasses, locating eight new crevasses and several of the old ones out of 28 detector signals, before getting out of the Twin Rocks area. Not at all sorrowfully, we said adieu to Twin Rocks.

"Much later, I had an occasion to ask Bunny Fuchs how he ever managed to get through the Twin Rocks crevasses. He gave me a blank look, 'What crevasses?'

It seems too far-fetched to expect that the crevasses had developed between late March when he came down and the end of the year when we went through. I had to assume that he was a professional traveler, and I was not."

McMurdo to South Pole traverse - "Sven [Evtsev, the Russian glaciologist] rode with me in the drill Cat when we travelled.... Sven had learned to drive during the winter at McMurdo and it was his favorite avocation. He would gladly have driven the whole distance if I had not insisted, over his protests of 'I drive, I drive,<sup>1</sup> that I also liked to drive and was entitled to my share. To the delight of the traverse participants, Sven had an ample supply of 'Playboy' magazines from McMurdo, a part of the U.S. culture, he said, that he was required to study as one of his exchange science responsibilities. I could not have asked for a more delightful traveling and working companion.

"On February 12th, Sven and I rode triumphantly into the South Pole Station. Except for the smoke rising here and there, the station could have been abandoned, and I thought: 'not another movie!' Eventually we found our way through the underground labyrinths to the kitchen where the cook, getting ready for dinner, offered us coffee without any questions. Soon Ben Harlin came in, the head of the meteorologists at LAS in 1957, and now Station Scientific Leader, and also chief meteorologist at the Pole Station. 'Hey, you aren't due here until tomorrow.' And tomorrow's plane duly arrived the next day with the Public Relations personnel ready to welcome us. By then, we had used up most of the hot water at the station and looked like any other tourist group...

"... There was a handwritten letter, from Harry Kelly of the NSF. Harry hoped that I would accept full employment with the NSF as Chief Scientist of the USARP office, so that I could start recruiting a staff of scientists to enlarge this part of the program. Well, I knew it was about time to be thinking about my next step. In a few months my contract with the Arctic Institute of North America would be up and I would also be 50 years old. I had to admit it was high time to hang up my field boots, and accept the motto that 'hardships are for the young.' If I had to become an administrator, why not administer in an agency like the NSF under the supervision of such tolerant men as Alan Waterman, Harry Kelly and Tom Jones, along with the antarctic 'youngsters' like George Toney, Phil Smith, Ken Moulton and Harry Francis, with responsibilities in the science of the antarctic region. I decided to accept Kelly's offer." (Crevasses and McMurdo ... Albert P. Crary 1985).

**CHARLIE BENTLEY, BYRD STATION, 1957 and 1958.** We wanted an input from the one sand-crab who has never really crawled off the Antarctic continent, Charlie Bentley, but he didn't reply to our request. But we can't end this runaway non-Newsletter on the IGY without a limited number of kind words about Charlie. Bert Crary says that the real hero coming out of the Antarctic IGY group is old Charlie, that he was highly professional then, has continued to be, and will remain so into the future. Bert feels strongly that Charlie has never gotten his just rewards for his Antarctic research. Bergy Bits doesn't deny this, but being married to Marybelle is something like having your cake and eating it too. It takes a special kind of person to sit at home tending to brush fires and the kids while the other half rides all over Antarctica under the guise of science. So while we salute Charlie, let's not forget Marybelle who represents so well the other halves of our families who stayed behind doing the real work.

Bergy Bits apologizes for this runaway non-Newsletter, as it got out of hand and snow-balled on us!! Ruth and I hope that you all had happy holidays!