THE ANTARCTICAN SOCIETY

NEWSLETTER

HONORARY PRESIDENT - RUTH J. SIPLE

Vol.04-05 July No. 1

PRESIDENT
John Splettstoesser
P.O. Box 515, Waconia, MN 55387
Tel/fax (952) 442-2604
spletts@usfamily.net

TREASURER Paul C. Dalrymple
Box 325, Port Clyde, ME 04855
pedal @midcoast.com
Fax: (207) 372-8571
Phone: (207) 372-6523

STORM OF THE CENTURY, PERHAPS

(See page 7)

BRASH ICE. Midwinter Day has come and gone, and it looks like we won't have any medical evacuations from the South Pole this year, so one would think it was a dull year. But far from it, McMurdo had one of those once in a century storms, maybe once in several centuries storms. It was a most unusual storm, and synoptic meteorologists will be studying this one for some time. We have been in close contact with a meteorologist who once worked for me, Joe Zabransky, and he, in turn, has put me in touch with Matthew Lazzara, a meteorologist, at the University of Wisconsin. Both have warned us that because of the scarcity of meteorological observations in the Ross Sea Sector that we should be most careful in jumping at any conclusions about that storm of mid-May. However, it is all so exciting that for the first time ever we are devoting two pages to graphics on the storm. Sir Douglas would be pleased.

We are sad to report the death of several prominent US Antarcticans. Four were in their eighties (Jay Shurley, 87, Mort Rubin, 86, Mort Turner, 83, and Dick Conger, 82), which sort of strikes close to home where this writer is also in his eighties. The other was a mere child, Ed White, 68. We have missed a lot of them, as good old Louie Quam, the soft spoken geographer who once was the Chief Scientist of the Office of Polar Programs at NSF died two years ago at the age of 95. Deaths could fill *six* newsletters a year. Probably a good mix would be a new book review for every Antarctic obituary.

The over the horizon International Polar Year is getting a lot of attention with bureaucrats around the world. At this point in time, it is all in the planning stages, and for this newsletter, one storm buries a lot of words.

RUTH J. SIPLE MEMORIAL FUND. We have decided to go ahead with a **Ruth J. Siple Memorial Fund,** as without any drive, we have already had over seven hundred dollars sent in for the establishment of such a fund. As you folks who read our last newsletter know, we are hoping to combine two of Ruth's interests, libraries and Antarctica, into a campaign to have the new library at the new South Pole station dedicated to her when the new facility is dedicated in 2006. We have been given some encouragement by some people of influence, enough to go ahead with our wish. If the plan comes to fruition as we hope, the monies in the Fund will be used to buy books for the South Pole Library.

Darrel Schoeling, co-owner **of Longitude Books** (115 West 30th St., Suite 1206, NY, NY 10001), and former Secretariat of IAATO (International Association of Antarctica Tour Operators) has assured us that if our plan goes through, he will offer a 20% discount on all books bought by the Fund for the South Pole library. If we fail, and we are not planning on failing for lack of effort on our part, the funds will be used in accordance with the wishes of the three Siple daughters.

When the IGY started there was a most unique woman/explorer/polar adventurer/ geographer by the name of Louise Arner Boyd in California who broke the ice for Mary Alice McWhinnie, Gisela Dreschhoff, and other females by leading seven 20th Century expeditions into the Arctic. In 1955 Louise Boyd became the first woman to fly over either of the Geographical Poles. She came from an affluent family, and inherited her wealth at an early age when her immediate family were all burned to death when their home was ravaged by fire. One of the things she did at the beginning of the IGY was to supply the American bases with complete sets of the classic Antarctic books. It was her heritage gift to the Antarctic during the IGY. Perhaps now we can reincarnate the work begun by Louise Boyd with the **Ruth J. Siple Memorial Fund,** with this Fund supplying books for the new IPY-4. It sounds like a winner to us, and if the Fund is really successful, we can supply books to the other two US Antarctic stations.

If you are interested in making a contribution to this Fund, checks should be made out to the **Ruth J. Siple Memorial Fund,** and forwarded to the Antarctican Society, Box 325, Port Clyde, ME 04855. Updated information on the success of the Fund will be included in succeeding Newsletters.

MRS. CHIPPY - ANTARCTIC PIONEER'S PET REMEMBERED. Margaret Lanyon keeps us informed of many events that come up in the Christchurch, NZ newspapers, and this is an example. Christchurch Press, 28 June 2004, reports that the unsung hero of Ernest Shackleton's doomed Antarctic expedition has been remembered in a ceremony in Wellington, but Harry McNeish's family are disappointed that his part hi the journey has not been formally recognised. McNeish was a carpenter on Shackleton's ship *Endurance,* and his beloved cat - known as Mrs Chippy but actually a male - became the ship's mascot. Nearly 100 people gathered to watch the unveiling of a life-size bronze statue of the cat on McNeish's grave at Wellington Karori Cemetery.

Despite the gesture, his family believes his contribution to the 1914 mission to the South Pole has been unfairly overlooked. "It's a terrible thing that he was denied a Polar Medal," said his grandson, Tom McNeish, 76 , of Norwich, Scotland. "Every person who was there should have got that medal. He was very, very badly done to." In 1997, the McNeish family lobbied the British Government to get him honoured, but they were turned down on the grounds that it was too long after the event. McNeish is upset that his grandfather's efforts have not been formally acknowledged. "If it wasn't for him they would have all perished. His skills got them to safety. But all you hear about the expedition is Shackleton, Shackleton, Shackleton," he told the Scotsman newspaper. "I think the cat was more important to him than the Polar Medal."

The tabby cat and the sledge dogs were shot after the ship became crushed by ice in the Weddell Sea, marooning the men 560 km from land. McNeish never forgave Shackleton for his cat's death and later led a brief rebellion against him.

At the unveiling, Baden Norris, Canterbury Museum's emeritus curator of Antarctic history, recalled meeting McNeish shortly before he died. "The only thing I ever remember him saying was that Shackleton had shot his cat."

lAATO's 15th GENERAL MEETING, by John Splettstoesser, Advisor to IAATO. The 15th General Meeting of IAATO was held in Christchurch, New Zealand, 27-30 April 2004, with Denise Landau, Executive Director, presiding. Since its founding in 1991, the International Association of Antarctica Tour Operators has grown from the seven founding member companies to 68 from 14 countries, as of the April 2004 meeting hi Christchurch. This does not mean that there will be 68 companies operating 68 ships in Antarctica in the coming 2004-05 season, because many of the members, especially Associate Members, are not operators but provide service to the operators, such as port agents and the like. Nevertheless, it is apparent that the industry is growing, and so have the numbers visiting Antarctica. In the 2003-04 season, nearly 27,700 visitors went there, including seaborne (the larger part of the total), as well as land- and air-based tourism. The breakdown includes some 19,000 traditional seaborne visitors that landed, plus 517 air-land-based visitors, 4,950 who traveled on large vessels that made no landings, and about 2,800 involved in over-flights (some figures rounded). Visitors traveled on 28 tour ships and yachts operated by IAATO members, and an additional three ships were operated by companies that have not joined IAATO. An estimated 185 traveled there on some 20 yachts, although it is difficult to obtain information on all yacht travel, some of which is unannounced. Some IAATO members operate cruise vessels that visit the Antarctic Peninsula, but make no landings, whereas others conduct over-flights without making landings, so it is necessary to examine the numbers to determine how many people actually set foot on the

continent, and of importance to potential cumulative impact studies, for what period of time at each landing. Furthermore, their time ashore is minimal, as a shore visit might encompass 3-4 hours, after which all return to their 'hotel at sea', the tour vessel. In addition, not all visitors spend the entire allotted time ashore. Topics discussed at the Christchurch meeting included requirements for accreditation, a means of certifying that the industry is truly living up to what it says it does; that is, conducting activities that have no more than a minor or transitory impact on the Antarctic environment. The latter statement is now part of the IAATO Bylaws. A topic of growing concern to not only the industry, but also to the Antarctic Treaty Parties is that of high-risk adventure activities, which occasionally get into difficulties and are forced to rely on unanticipated support for search and rescue and evacuation.

Other topics discussed at the meeting included field coordination, a broad category that encompasses ship schedules, communication among vessels in order to avoid having more than one vessel at the same shore location, emergency response action and contingency planning, and support for Treaty Parties. During the 2003-04 season, some 152 scientists, support personnel and gear from various National Programs were provided transport to and from stations, field sites and gateway ports, plus transporting one of the Palmer Station personnel to South America due to a medical condition. Some $234,000 (USD) were raised by IAATO members and their passengers on board vessels to provide support for a variety of Funds and Trusts, such as Birdlife International-Albatross; Save the Albatross-Australia; Antarctic Heritage Trust and donations to Ross Sea Huts preservation; Oceanites Site Inventory Project; and Grytviken, South Georgia, Museum, to name a few. Tour vessels also provide some of the transport for individuals involved in the Oceanites Site Inventory Project, managed by Ron Naveen for some 10 years in the Antarctic Peninsula Region. The 2nd Edition of a "Compendium of Antarctic Peninsula Visitor Sites" was issued this year, and presented by Ron at the XXVII Antarctic Treaty Consultative Meeting, Cape Town, South Africa, May-June 2004. Estimates for the 2004-05 tourism season include about 23,400 seaborne visitors, 4,500 on large ships that make no landings, 500 air-land-based, and 2,750 on over-flights, for an estimated total of just over 31,000. The 16th General Meeting of IAATO is planned for May 2005 in Amsterdam, Netherlands. For further information on IAATO and tourism statistics, see the newly-designed website at iaato@iaato.org.

MORT D. TURNER, A Man of Many Shoes, dies at age 83. Mort Turner, one of our Society's ex-presidents, lived a full and varied life. He was born October 24, 1920, in Greeley, Colorado. Although he retired from the government, at the National Science Foundation, 20 years ago, he never really retired, as he remained a very active research scientist in the Rockies for many years. It is hard to tell just what he was, who he was, as he was sort of Mister Interdisciplinary, although at NSF he wore the hat of Program Manager in Geology in the polar programs office. His bachelor degree was in Geological Engineering, and his advanced degrees were all in geology. But he also was a paleontologist and an anthropologist. Turner Hills in the Miller Range of the Transantarctic Mountains, the mineral Turnerite, a fossil plesiosaur and a prehistoric fossil sea mammal were all named after Mort. And in October 2003 the American Polar Society presented him with its Honorary Service Award.

Mort was one of the more interesting characters in polar operations at NSF. He went there in 1959, and shortly thereafter they sent him off to the University of Kansas to finish his doctorate. Some people thought that he was there an inordinate long period of time just to pick up a doctor's degree, and perhaps he was, but when he came back be brought not only his PhD degree, but a new Mrs. Mortimer Turner, having married the wife of one of his professors.

Mort never saw a junk pile, it was just undiscovered treasures to be uncovered. Often driving home from work, he had his eyes pealed for bundles on the sidewalks waiting to be picked up by the garbage collectors. On occasions he would find rare volumes of books, or valuable journals that he could then sell. Once when the USGS was having their maps printed in downtown Washington, he would go by and pick up discarded runs, which he would then roll up and mail off to geology departments across the country who were most happy to get them for use in their teaching labs.

During World War II when at the Aberdeen Proving grounds, he worked on missiles under Edwin Hubble. He worked for the California Division of Mines from 1948 to 1954, and then went to Puerto Rico to set up the first State Geological Survey. He served there as the first State Geologist, and was also active in geological mapping, assessment of mineral resources, and studies of beach erosion. He did research in geology and early humans in Montana, Colorado, and China. He was a Fellow Emeritus at the University of Colorado Institute of Arctic and Alpine Research, where he continued his research jointly with his wife Joanne, who, incidentally, also has a hobby of designing women's jewelry. They were a most interesting couple, and Mort will be sorely missed by a lot of descendants and many, many friends.

OLD AND FAMOUS DICK CONGER SUCCUMBS TO COLON CANCER. When you talk about OAEs, you had better put Dick Conger right up there at the head of the list, as he got involved in the Antarctic back in 1946 in Operation High Jump, and was the head photographer for the Navy in the early Deep Freeze days. Even if you never knew Dick, read the following brief biography about him, as he had a most fascinating career. He was on the quiet side, and his personality would not exactly ignite you, but he accomplished a lot.

He enlisted in the Navy in 1938, and was one of five people chosen to learn cinematography from the staff who made the "March of Time" newsreels, an experiment to see if non-Navy training would be useful for the military. On his nights off, he worked at LIFE Magazine to learn still photography. Assigned to aerial mapping, he photographed or filmed many Pacific islands and Japan during World War II.

On Operation High Jump, there was an inglorious crash on Thurston Peninsula (now Thurston Island) when a PBM Mariner plane off the PINE ISLAND, carrying an eight-man crew and the captain of the ship crashed. After the wreck was discovered 23 days later, a flight with Dick aboard was set out on a rescue mission. The closest place to land was 12 miles away, and the plane's commander and Dick took off in a life boat, threading their way through ice-laden waters, pulling a sled. They reached the crew, got the survivors aboard the lifeboat and arrived back at the plane just in time to take off before they would have been iced in. Six of the rescued crew members survived.

Dick made amphibious warfare training films. He developed underwater motion picture photography to make training films for demolition teams. In 1949 and 1950, he was loaned to 20th Century Fox to shoot underwater sequences for THE FROGMEN, starring Richard Widmark. In the early 1950s, he was sent to the Arctic to shoot photos for maps. And in 1963, he took the first combat photo team into Vietnam.

He retired in 1969 as a lieutenant after 28 years in the service. He had several interesting jobs after his discharge from the Navy. In 1974 he went to work in the micrographics department at the National Archives. And, believe it or not, worked in the 1990's at a tropical fish and pond retail shop in his home town of Ijamsville, Maryland. He has a near endless list of survivors, which include three great-great grandchildren. He regularly attended our meetings in Washington, although his reserve nature kept him in the background. However, his record speaks for itself.

EMINENT SOUTHERN HEMISPHERE METEOROLOGIST, MORT RUBIN, DIES AT AGE 86. One of the Antarctic meteorological kingpins of the IGY checked out on April 10th from complications from a hip replacement surgery on 1 April — no April Fool that. Mort was a close friend of the late Harry Wexler, Chief Scientist for the Antarctic during the IGY, and I think he was hand picked by Harry to assist him during the IGY in many aspects of personnel selection and the implementation of Weather Central at Little America V. When the main body of IGY scientists arrived at Little America V in January 1957, Mort was sitting at the desk in the met shack, checking us all in.

I met Mort back in the early 1950s when both of us were with the old U.S. Weather Bureau in Boston. Mort was very serious and very professional, and appeared more like a college professor than one destined for the Antarctic. He was about atypical Antarctican as anyone that I ever associated with on the ice, yet he was the second American to ever winter over with the Russians at Mirny. So it just goes to show that all Antarcticans are not out of the same mold.

More in keeping with his personality was a position he occupied as a scientific officer with the World Meteorological Organization in Geneva from the early 1970's to 1982. He was internationally recognized as an expert on the meteorology of the Southern Hemisphere.

Mort graduated from Penn State University and went on to receive his masters degree in meteorology from M.I.T. His career began in 1938 when he was a weather observer for the U.S. Weather Bureau in Pennsylvania. He spent the 1940s a: a supervisory meteorologist in Peru and Chile while working for Pan American-Grace Airways. He began working for the U.S. Weather Bureau (later to be incorporated into the National Oceanic and Atmospheric Administration) in the late 1940s in Boston, and settled in the Washington area in 1955. Thereupon, he went on a reconnaissance trip of the Ross Sea area on an icebreaker in Deep Freeze I.

In the early 1960s, the Australians named a mountain in the Prince Charles Mountains after him. In appreciation for Australia naming a mountain for him, Mort reciprocated in kind in 1975 by offering his hand in wedlock to an Aussie, Rosa Dockett. And as the saying goes, they lived happily ever after. Mort enjoyed his retirement years by writing a series of excellent vignettes on the meteorology of various Antarctic stations, even handicapped as he was with rapidly failing eyesight. Mort was highly respected by his peers, and deeply loved by legions of friends. He will be sorely missed.

JAY SHURLEY. Dr. Shurley was internationally renowned as a clinical and research scientist in behavioral science. Areas of expertise included early use of insulin therapy for treatment of schizophrenia, sensory isolation and deprivation, and sleep disorders. This all took him to the South Pole back in the early days to study what men dream about at the bottom of the world. He evidently found out that men there dream about sharing their bunks with a female companion, as within a few short years NSF started sending females to Amundsen-Scott Station. Now if you read the ANTARCTIC SUN, you read about a Latter Day Shurley again studying what people are dreaming about down there. Meanwhile those of us here in CONUS are dreaming about being back at the South Pole. Dr. Shurley started a vicious circle which has no closure. You will find Jay in the Pensacola Mountains.

ED WHITE. Ed was a career Navy man who wintered over at the South Pole in 1958. On the quiet side, he never created any waves, and was a much deeper person on the inside than he appeared on the outside. While in the service, he got interested in the stock market, and ended up with more dollar bills in his hip pockets than nearly all of the IGY scientists at the Pole. Plus he found time to play golf as often as he wished. But he always remembered his days at the Pole, and he engineered the first and only reunion of both the Navy and scientists at the South Pole during the IGY. Unfortunately he had a severe eye infection at the time, and after two days at the reunion had to leave for medical help. He recently died at one of his homes, the one in Roanoke, as he was preparing for another delightful morning on the golf course. We will miss you, Ed.

THE LAST GREAT QUEST: CAPTAIN SCOTT'S ANTARCTIC SACRIFICE, by Max Jones. Oxford, Oxford University Press, 2003, 352 p. U.S.$35.00. (Review by Dr. Tim H. Baughman, University of Central Oklahoma.) The reader encountering this book in the bookstore is likely to think one thing, but fortunately for the reader and for polar literature in general, the volume takes on a different and more useful topic. At first glance this volume would seem to be another re-hashing of a polar adventure, re-working the serious studies of others. Instead, while it goes over some familiar ground peripheral to its main purpose, this book provides useful insights into other aspects of the life story of Robert Falcon Scott and its impact on British polar history. Max Jones undertakes the task of explaining why the death of Scott and his four companions in 1912 had such a great impact on Great Britain and the rest of the world. As such, he has taken a topic worthy of study and one that illuminates a question that merits the attention both of author and reader. Along the way, he attempts to debunk Roland Huntford's view of Scott, an assessment that a growing body of work calls into question. Jones takes serious polar enthusiasts into new ground that will interest many polar buffs.

After a cursory overview of the background to the 1910-13 race to the South Pole and a very brief account of Scott's last expedition, in chapter four the book begins to capture the reader's attention as Jones gives a fine account of how the Scott legend came into being, from the very first dispatch from Lt. E.R.G.R. Evans cabling news of the disaster from New Zealand. Jones then provides a careful assessment of the immediate reactions to the disaster, placing in the context of the then-recent *Titanic* tragedy and subsequently carrying the comparisons through the attempts of George Mallory to reach the summit of Mount Everest. Jones's assessment of Scott's planning shows balance, not whitewash, and certainly no spewing of bile in the direction of Scott. Jones then gives a careful account of such issues as the use of dogs and the publication (with some omissions) of Scott's diaries. His short chart of alterations (pp. 123-24) is a useful guide to these changes.

Using the setting of the memorial to the fallen polar heroes that took place at St. Paul's cathedral (14 February 1913), Jones demonstrates how the legend began. Noting the significance of the King's presence, Jones argues for the ceremony as lending credibility and relevance to both Scott and the monarchy.

For low latitude gazetteer fans, Jones elucidates the development and locations of the series of memorials erected throughout the British Isles to the fallen heroes. Jones even includes a type of flow chart of the commemorations to Scott's team (pp. 158-59). Jones also describes how Ponting and E.R.G.R. Evans carried the message of sacrifice and heroism in the name of science around Europe. Jones is persuasive in his argument that Scott was portrayed in the content of other great heroes of his era—men and women willing to die for a noble cause. The image of Scott as the model of what real men should aspire to become, became part of Scott's legend even before World War One.

In both world wars of the twentieth century Scott's example was used as a morale booster for troops at the front, often by employing motion pictures taken during the *Terra Nova* expedition. Scott's legend inspired two generations of wartime Britons.

Jones has made splendid use of a broad range of sources. As his endnotes indicate, he has mustered much new evidence 01 inventively used primary source material in the development of his argument. He has also provided the reader with an excellent bibliography of books. His publisher deserves

credit for being willing to devote the space (and cost) to include both extensive notes (often cut or reduced in today's cost-conscious world of publishing) and a generous list of suggested readings.

Jones took on a worthy task—explaining Scott's legend, its development and its role in subsequent British history—and has produced a superb book. He has shown that an old topic can be reexamined from a fresh perspective to the benefit of the individual reader and to the body of polar literature.

IMPROBABLE EDEN; THE DRY VALLEYS OF ANTARCTICA. Essay by Bill Green; Photography by Craig Potton. Nelson, New Zealand, Craig Potton Publishing, 2003. ISBN 1-877333-07-7. 128 p., color illus. Hardbound. NZ$59.95, reviewed by John Splettstoesser (modified from *Arctic,* in press, 2004).

This colorful book on the Dry Valleys is a striking example of one of the more beautiful parts of our planet. The area was first seen during Scott's expedition of 1901-04, and since the beginning of the International Geophysical Year (1957-58), numerous visitors have been to this remarkable place on the west side of McMurdo Sound. Why are the Dry Valleys considered to be so important? The ecosystem there contains geological and biological features that date back not only thousands but millions of years. The synergy of its location — a relatively short helicopter ride from McMurdo Station (U.S.) and Scott Base (New Zealand) - and the variety of compelling research projects has resulted in a large number of scientific discoveries; for a few examples, endolithic algae living within interstices of rocks; mummified seals that crawled inland from the sea to meet death upvalley thousands of years past; ice-covered lakes that are stratified by temperature and salinity (one of the lakes - Don Juan Pond - is so saline it survives freezing in winter); glacier-carved valleys once inundated by the sea, with concomitant studies of a complicated glaciated history; a terrain so analogous to Mars and the Moon that astronauts have trained there. The Dry Valleys are part of the Transantarctic Mountains, which forms a barrier for the ice sheet flowing slowly from East Antarctica toward the Ross Sea. That feature in itself has proved to be of tremendous value in the mining of thousands of meteorites that have been found west of the Dry Valleys on the ice surface. Although several other 'oases' of this sort (large areas free of snow and ice) exist in Antarctica (e.g., Bunger Hills, Larsemann Hills), none other has produced the wealth of scientific return than the Dry Valleys of Victoria Land.

Because of the pristine nature of the area, strict controls are placed on all visitors, scientists and tourists alike. (Tourists make annual visits to Taylor Valley under the guidance of New Zealand and U.S. authorities, which manage their presence there so as not to interfere with science programs.) One of the valleys (Barwick) is off-limits to everyone in an attempt to isolate one of them as an example of an environmental baseline of what they all looked like prior to discovery, and a means of comparison with the other valleys where considerable presence for science has occurred.

This book, however, is not about science, although a few comments related to science find their way into parts of the text. The author (Bill Green), a chemistry professor from Miami University in Ohio, conducted research on geochemical processes in the ice-covered lakes in the Valleys in nine seasons beginning in 1968. Some of the content is excerpted from his field journals and diaries, put into terms that reflect the magic that he experienced while working there. The main text, p. 8-35, describes the uniqueness of the Dry Valleys and their charm, and the remainder of the book, starting with p. 37, consists of photos of Taylor Valley, Wright Valley, and Victoria Valley, three of the more prominent topographic expressions of the carved topography. Short captions accompany the photos. The photos, all in color, were taken by Craig Potton from New Zealand, a leading wilderness landscape photographer, as well as the publisher of the book. A map, or perhaps a satellite image of the area, shows the main features, bounded by about 77.25° to 78°S latitude and 160°E to 164°E longitude. The book's dimensions (29 x 35 cm) illustrate to full advantage the remarkable photo record of this part of Victoria Land. Errors are few and of no consequence, involving proper geographic names. I recommend this book for anyone who appreciates the beauty of wilderness areas, the photos that illustrate their attributes, and collects books on polar regions. This one should not be overlooked. It is worth the price for the 100 01 so color photos alone, all on high-quality paper. The price of NZ$59.95 equates to about US$42 in mid-2004.

SOMETHING TO LOOK FORWARD TO, JOURNEY TO THE ICE AGE, by Gil Dewart. Reviewed from an advance manuscript draft provided by the author. (To be published late 2004.) It is a windfall for polar enthusiasts to see this book by a prominent scientist who lived the experience as a geophysicist at one of the five major U.S. stations in the Antarctic during the IGY and IPY-3. This station, Wilkes (about 110°E long., and now the location of the Australian station Casey), was west of the South Magnetic Pole (about 140°E), the latter being the region made famous by Sir Douglas Mawson's HOME OF THE BLIZZARD. Antarctic purists refer to this area as being in the so-called banana belt, but be that as it may, it still has

some of the most inhospitable and miserable weather on the continent.

The Wilkes Station Leader was Dr. Carl Eklund, who once shared a most enviable hardship Antarctic record with Capt. Finn Ronne for most miles sledged behind dogs, on the Antarctic Service Expedition, 1939-41. Of all the US IGY stations, Wilkes was the station with the highest amount of camaraderie, thanks to Eklund who knew how to mix science and good fellowship in such proportions that both sides benefited. And this book, by one of the youngest scientists, gives a most vivid account of how science should be conducted in the polar regions. It is a history that will never be repeated, as back in the Antarctic IGY, science and support was an admixture of both civilians and military men. Now the military has exited Antarctica in support of the U.S. program, and women are there working alongside men in a highly successful equal opportunity program. So readers of this book will get a keen insight as to how men survived without women on the ice, how things were done before satellites, and what it was like to build your own station in a virgin area never before explored by humans. And to make it more interesting, they even established and maintained an interior station on the ice cap, some fifty miles away, where science was not only conducted on the surface but in a 115-foot-deep shaft, dug entirely by pick and shovel.

The book is full of personal anecdotes of all twenty-six men, and readers will revel in how much fun science can be when the reins are not held too tightly. The book is very readable, very enjoyable, one that scientists and lay readers alike will enjoy reading. Dewart's scientific explanations are not only complete, but he makes them all very understandable to one and all. There are very few books written by Antarctic IGY scientists - you can count them on the fingers of one hand and still have a finger left over. So if you want to know how it was done in the preceding International Polar Year, buy Dewart's book and be prepared for an enjoyable trip and a great read. His earlier book on his life with the Russians at Mirny Station (published by Ohio State University Press) is an equally good account by this veteran geophysicist.

A WICKED STORM. Probably the worst storm that ever hit Antarctica is the one you yourself experienced in a tent far removed from McMurdo, or so it seemed at the time. But for those who weren't with you, the one that hit McMurdo in mid-May 2004 may go down on the record as the best-recorded vicious storm to ever hit inhabited Antarctica in the last century. The saving grace was that this instantaneous storm hit early in the morning at McMurdo when all God's little children were safely nestled in their bunks, not out around on their appointed duties.

When it comes to storms with high winds, the track record is never what it is supposed to be, as anemometers are more often than not malfunctioning, or even blown away, as winds approach 100 miles per hour. And so it was at McMurdo where the wind bird at Mac Center blew away at 96 mph, and the one at the lab gave up at 116 mph. However, all was not lost, as NASA Radarsat building recorded winds about 160 mph, and Arrival Heights speeds of 188 mph (see Fig 2). This is getting up there, as the world's highest recorded wind speed is 231 mph at the observatory on Mt. Washington, NH. One of our deceased members, Alec McKenzie, worked at the 'Misery Hill' observatory at that time. We currently have more than a half dozen former observers from Mt. Washington who made their way to the ice, proving that misery attracts more misery.

When it comes to Antarctic storms none will ever approach the gilded storm which encapsulated Scott's party out on the Ross Ice Shelf in March 1912, as his diary perpetuated that storm into eternity. In no way could Scott's tent have withstood the ferocity of the winds encountered at McMurdo this past May, as roofs were listed and much structural damage were encountered at McMurdo. Susan Solomon's excellent book, THE COLDEST MARCH, did much to debunk the storm that held down Scott's party. Sir Douglas Mawson's THE HOME OF THE BLIZZARD did much to create an awful aura about the ferocity of winds in the Antarctic. But one has to remember that he was writing about the unusually high katabatic winds experienced along the coastline of Wilkes Land. And again we are not sure of how high the katabatic winds may have reached there in the past, as they apparently haven't made an anemometer that can withstand their intensity. So what happened at McMurdo in May ranks right up there with the highest recorded wind speeds in Antarctica. The highest recorded wind speed on the continent is 203 mph at Dumont d'Urville in July 1972.

Last year, in the August 2003 and November 2003 NEWSLETTERS, Chuck Stearns wrote about the automated weather stations that he and his staff had placed in Antarctica over a period of many years. At that time there were twelve in the Ross Island area and another five on the Ross Ice Shelf. Although the storm conked out several of the stations, those that remained have been invaluable in supplying data on the mid-May storm. Cape Bird was out before the event, and Cape Spencer, off of White Island, and Pegasus North, south end of the Pegasus runway, went down in the storm. At the time of the highest winds shown in the traces at NASA radarsat, Black Island, about twenty miles from McMurdo, recorded speeds at 730AM of 117 mph, at

745AM of 142 mph, at SAM of 115 mph, at 815AM of 144 mph, and at 830AM of 101 mph. Minna Bluff had a maximum speed of 112mph. Now if you go away from McMurdo, looking south on the Ross Ice Shelf, you found a maximum speed at Ferrell of 45mph and at Marilyn of 60mph. Even at Gill, way out in the middle of the ice shelf, it was 54 mph. The strongest winds were in that 20-mile region from McMurdo to Black Island where the maximum amount of funneling occurred.

Before we go on, let's set the stage for the analyses which follow. First we contacted Joe Zabransky, a meteorology professor whom I hired fresh out of graduate school more years ago than I would like to admit. He, in turn, put me on to Matthew Lazzara, a meteorologist at the University of Wisconsin who works in the stable of meteorologists associated with Chuck Stearns and his array of automatic weather stations in Antarctica. Soon Arthur Cayette of SPAWAR, an NSF subcontractor forecasting for McMurdo, became involved, as well as another Stearnsfolk, Linda Keller, so along with Joe Zabransky and Matthew Lazzara, we had a team of experts analyzing data from the storm for our benefit. But one thing has remained a constant among all of those people, and that is that this was a major complicated storm, covering a large area, with only a minimum amount of information available, and that everything should be looked at with a questioning eye. Red flags are waving all over the place, yet we feel that we must tell you what the people working on the available data are thinking, or feel like they are thinking.

First of all, if you look at a map of all of Antarctica at the time of the storm, you will probably see a good representative weather map of the Antarctic in winter (see Fig 1), a series of intense storms circling off the coast. But if you look at the Ross Sea area, especially looking at the barometric map of the time, you will see an intense, widely spread low-pressure area. Figure 3 zooms in on the immediate Ross Ice Shelf area, including McMurdo Sound; Figure 3 also shows the wind data from the automatic weather stations.

Zabransky points out that the position and strength of the coastal low pressure center near McMurdo (<964 hPa) in Figures 1 and 3 are questionable. The satellite imagery for (0600 McMurdo time on 16 May) suggest a cyclone center somewhat to the south of the analyzed isobaric low center, near the evident "eye" of the cyclone over the Ross Ice Shelf. The pattern demonstrated by the observed wind field in Figure 3 further emphasizes this offset. The rapid onset of hurricane force winds at McMurdo also seems inconsistent with the isobar spacing depicted in Figures 1 and 3; this had to have been a very tightly wound up system.

There are simply too few observations to pinpoint both the center and strength of the storm. Moreover, the analyses shown in Figures 1 and 3 are not simply based on direct observations, but result from an adjustment of the too-few observations to grid points which are then computer-analyzed for pressure. In this specific case, the isobaric analysis represents an initialized sea-level pressure field produced by the global Forecast Systems (GFS) numerical model.

Cayette believes that the storm was around seventy-five miles wide, and that it crossed over Ross Island, headed south to north. He pointed out that the satellite image for 16 May at 0900, showed a "nicely wrapped low with a distinct center (eye) as it passed just north of Ross Island." He also e-mailed us that the storm indicated a large volume mass influx into the low pressure center. This was indicated by heavy northerly surface winds as the low advanced from the south. Typically McMurdo would see a light to moderate northerly flow, but this push from the south hit within the 15 minute readings (from the automated stations). With the sensors abrupt change in wind speed and the sudden breakage, he assumed that the storm onset was almost instantaneous. A typical McMurdo storm would have a cycling upwards that would last at least an hour. The upper air sounding for 14 May at 1200 McMurdo time, indicated a moderate southerly wind flow just off the surface. From this he assumed that the warm air above 3,000 feet finally broke through the surface inversion allowing the strong southerly flow to push into McMurdo.

The following was received from an unknown source at McMurdo who sent it to a friend who in turn sent it to another intermediary, who in turn sent it to us, but if you read it, you will get the general idea that it was a blockbuster of a storm. One of the old fuel tanks, used for tire storage, was completely destroyed. The entire roof, a 75-ft-wide 46,000 lbs solid piece of steel was lifted off the top of the tank and carried away. Support beams were bent all over the place and the bay door was destroyed. Milvans near the woodgrinder were blown "uphill" towards Fortress Rock. One of the milvans was a 40-footer. The vehicle maintenance facility lost a bay door. Building 126 lost part of its roof. Part of the roof of Dorm 155 came off, and some siding off of two lower case dorms were lost. At least twenty vehicles were damaged, many with windows blown out, and they no longer have any airporters. The above is apparently just the tip of the iceberg, that the damage was much more extensive. Photos showing some of the above can be downloaded at
http://www.southpolestation.com/mcm/storm.html.

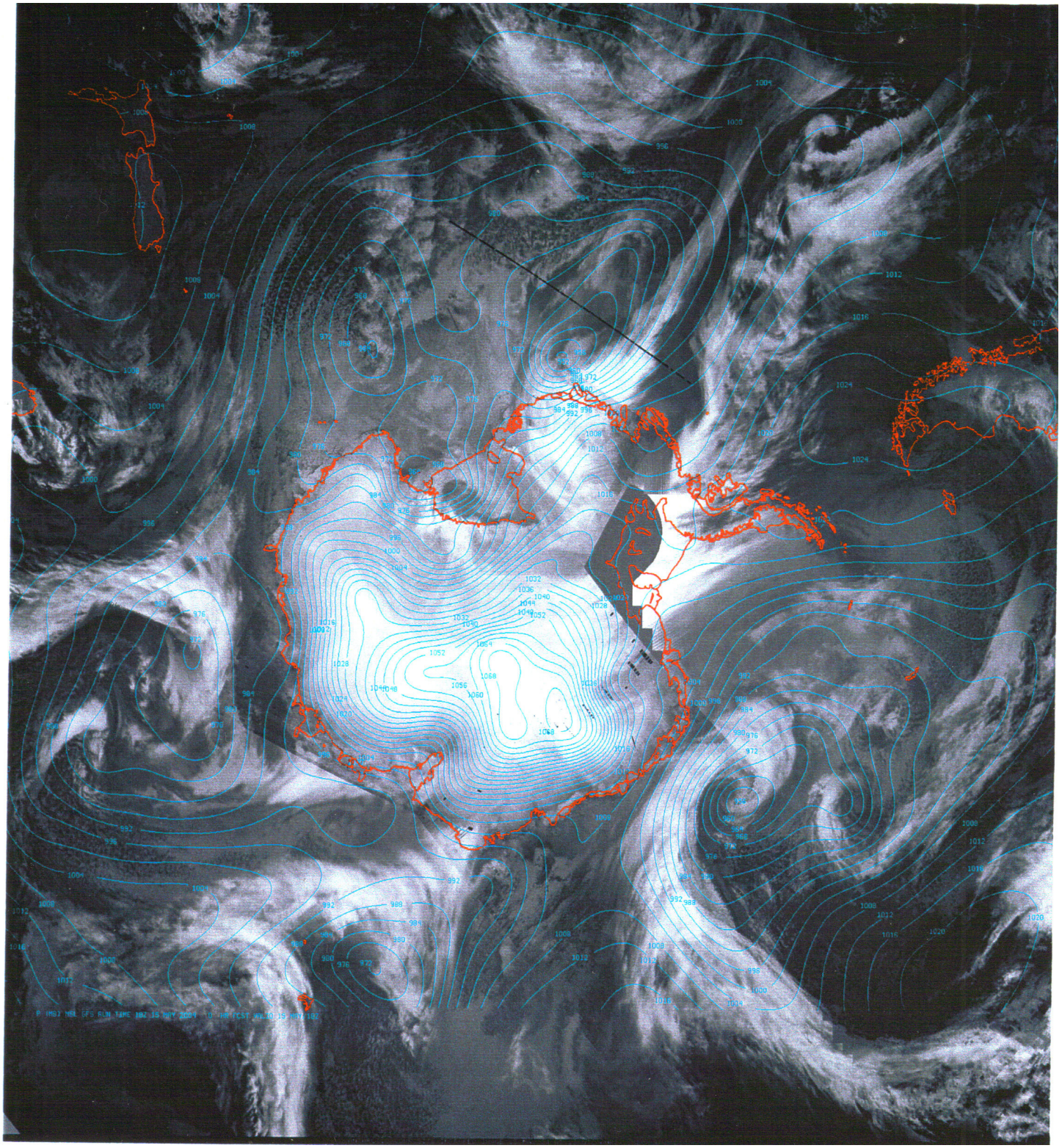

Figure 1. Antarctic Infrared Composite at 0600 McMurdo Time on 16 May 2004.

Building **71. WwUi«r Station (m mph)**

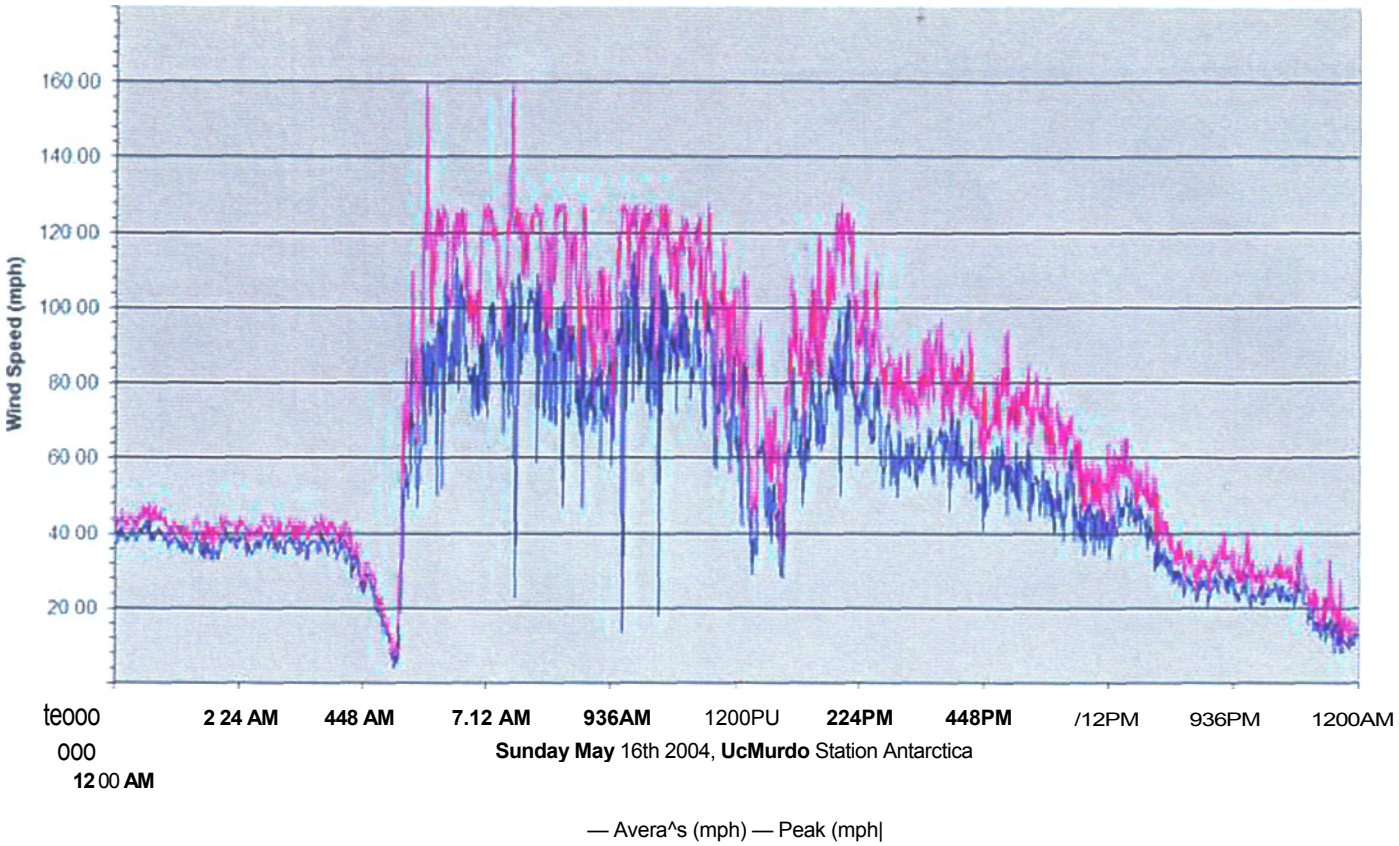

Figure 2. Wind Speed Traces at McMurdo Station at height of storm on 16 May 2004. All times local McMurdo

i

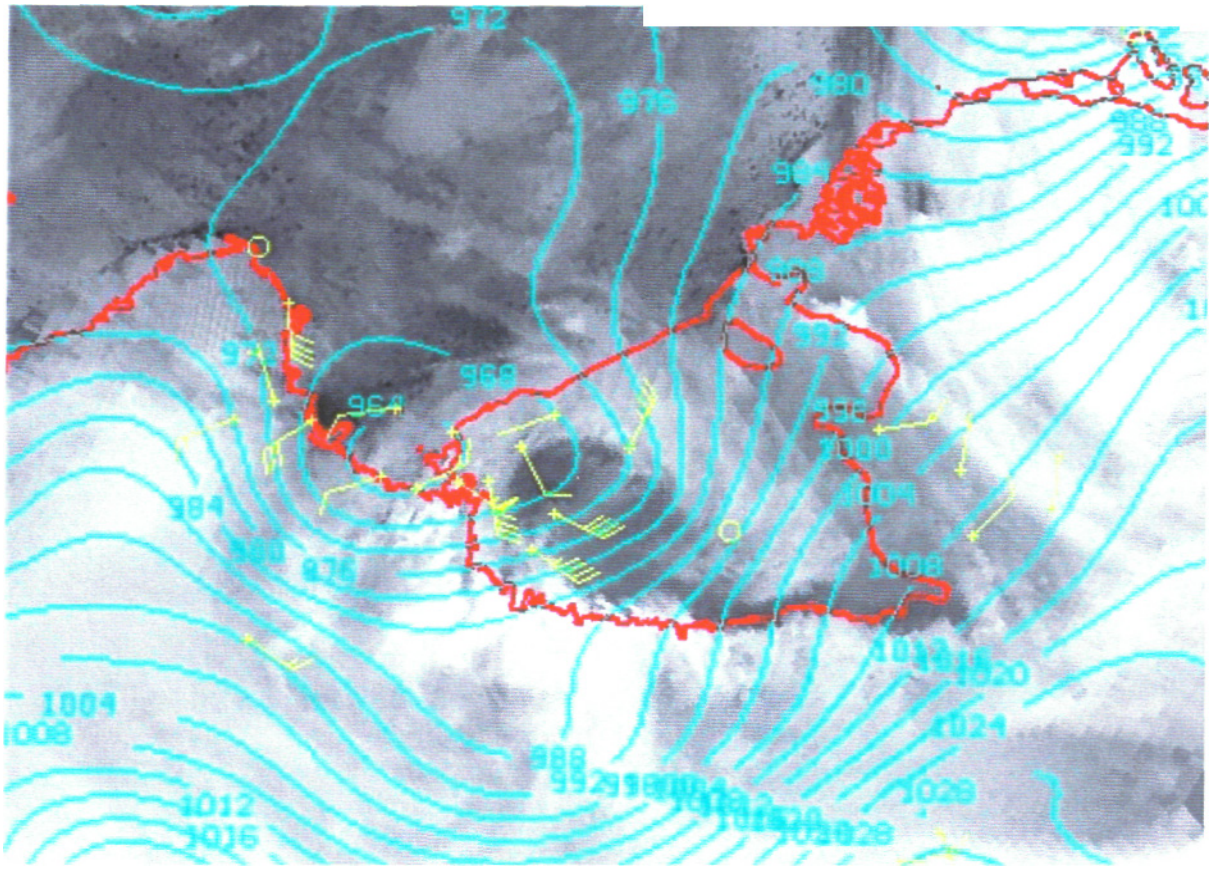

Figure 3. Antarctic Infrared Composite at 0600 McMurdo time, 16 May 2004, centered on McMurdo, superimposed with isobaric analysis and automated wind speeds.