EXPLORER'S GAZETTE

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PRESIDENT'S COLUMN

Jim Eblen – OAEA President

To all OAEs – Hope this finds everyone in good health and recovering from the events of September 11, 2001. I for one, feel good about the way the country responded during these trying times. Lets keep our spirits up, and the flag flying.

I attended the DF-4 Wintering over Reunion in Hotchkiss, CO recently and had a great time. Chuck and Diane Winchester were Super hosts for the occasion. A lot of "Ice Stories" were told and times forgotten remembered. I am looking forward to the OAEA Reunion/ Symposium, as I am sure the same thing will happen.

I will now continue my last article covering the Navy Times article "NAVY SPENT DECADES IN ANTARCTICA". The IGY led to the 1959 signing of the Antarctica Treaty, in which nations pledged to use the continent for peaceful purposes and renounced sovereign territorial claims.

That year, Adm. Dufek published *Through the Frozen Frontier,* a book in which he made some rather fanciful predictions for Antarctica in the year 2000. He believed nuclear energy would be used for power. And, "they will have a land airfield and airplanes from all over the world will land here in any weather. The planes will fly at 5,000 miles per hour." He also believed "there will be a guided missile range for carrying mail and light cargo [but] 10% of the missiles will miss."

With modern aircraft provided by Air Development Squadron Six (VX-6), scientists researched the continent's vast interior. VX-6 was re-designated Antarctic Development Squadron Six (VXE-6) on January 1 1969, and continued to fly support for research. VXE-6's best-known aircraft was the turboprop LC-130 Hercules. The squadron made its last flight in 1999.

The Navy's Seabee Construction Battalion began Antarctic operations in 1947 as part of *Operation Highjump*. Their first job was to build Byrd's fourth Little America settlement on the Ross Ice Shelf. In later years, the Seabee's constructed McMurdo Station and built an ice pier, ice roads and ice runways. Their era ended in 1993, when civilian contractors assumed their duties.

The Navy operated icebreakers during several of the Antarctic Expeditions. By 1966, the Navy transferred all its remaining icebreakers to the Coast Guard, which assumed the mission.

By one estimate, from 1947 until 1998, about 150,000 uniformed personnel aboard scores of ship and aircraft traveled thousands of miles to the isolated continent. Now that the Navy has withdrawn, civilian agencies and contractors perform exploratory work in Antarctica.

I hope everyone had a pleasant and joyous holiday season. To those who have lost a loved one or a friend, our prayers are with you. To those who are under the weather, we wish you a speedy recovery. Until next time.

Jim Eblen
President

CHAPLAIN'S CORNER

Cecil D. Harper - OAEA Chaplain

The Christmas season is that time of year when Christian people the world over are filled with a spirit of anticipation, hope, generosity, and love as we celebrate the coming of the messiah.

Those are the good things. There are also people across the world that do not have such blessings to share. Much of the world is in turmoil, destitution, fear and doubt.

While many of us will be with our families and loved ones during this season, there are those who will not because of differing circumstances not of their own making.

We can make Christmas what we will. We can celebrate the wrong way and spend the next day with our head in our hands either literally or figuratively, wishing we had done differently, or we can celebrate with the genuine spirit of the season, reverently, spiritually generously and lovingly as we move among our family and neighbors and friends.

Let this be a prayerful time in our lives and understand that our ultimate and final hope is in the hands of god. Let us pray fervently for our men and women in harm's way, for the families of those who have lost loved ones, for those traveling the highways, and for our nation and its leaders. And, let us pray for peace!

May we in humility and gratitude stand again at Bethlehem's manger and give thanks for our greatest and finest gift, Christ Jesus, the saviour of the world? Have a joyful and worshipful Christmas and a healthy and blessed new year.

Cecil D. Harper
Chaplain, OAEA

Editorial

Jim O'Connell – Editor

As the year 2001 draws to a close, take a minute to reflect back on it. It may very well be the most remembered year in our lifetimes as a result of the loss our country has experienced.

People bond together for many reasons. The citizens of our country bonded together to help one another grieve the losses we suffered from the terrorist attacks. Families bond to share the joys and pains of the family. OAEs have bonded to share the 'Antarctic Experience" and carry it into future generations.

Like so many of you, I completed my Antarctic Experience and moved on with my life but never lost the memories of the 'ice' or the lessons it taught me. Now, after all the years that have passed, it is evident that this bond remained intact and the times that we shared are coming back into view. I consider it an honor to be part of a group like all of you and I want to wish each and every one of you the happiest of holiday season. May it find you surrounded with loved ones and friends and give everybody you meet a Christmas smile. It was probably not their fault they didn't get to the 'ice'…

HAPPY HOLIDAYS and I look forward to working with you next year and especially look forward to seeing you at the reunion next November.

IN MEMORY – I am happy to say that I have not been informed of the loss of any OAE since the last publication.

LOCATOR – Mona Bjorklund is looking to hook up with either a skiing or research expedition to the pole. If anybody has any information on one of these ventures, please contact Mona at monabjorklund2001@yahoo.com

THIS QUARTER IN HISTORY – By Billy-Ace Baker – OAEA Historian

01 Oct 1719 — First known death in Antarctica. William Camell drowned after falling from the mainsail on his ship.
04 Oct 1989 — First C-5 Galaxy lands at Williams Field.
21 Oct 1970 — First C-133 Cargomaster lands in Antarctica.
29 Oct 1908 — Shackleton leaves Cape Royds for the Pole. He turned back on 9 January 1909 only 97 miles from the Pole.
31 Oct 1956 — LCDR Conrad "Gus" Shinn lands *Que Sera Sera* at the South Pole
02 Nov 1935 — Ellsworth arrives at Deception Island.

17 Nov 1820 — Nathaniel Palmer sights the Antarctic Peninsula.
23 Nov 1935 — Ellsworth and Hollick-Kenyon commence first aerial crossing of Antarctica.
27 Nov 1968 — Two VX-6 LH-34 helicopters fly nonstop from McMurdo to Hallett Station establishing record for longest Antarctic helo flight.
29 Nov 1979 — Air New Zealand Flight 901 crashes on Mount Erebus killing all 257 passengers and crew.
03 Dec 1908 — Shackleton discovers the Beardmore Glacier and names it after his girlfriends husband.
06 Dec 1935 — Ellsworth and Hollick-Keyyon run out of avgas and have to walk to Little America
15 Dec 1935 — Ellsworth completes transantarctic crossing. Rescued by the *Wyatt Earp* on 22 January 1936.
24 Dec 1820 — The Russian Von Bellingshausen crosses the Antarctic Circle at 164°W
26 Dec 1946 — First attempt to launch a Martin Mariner from the USS *Pine Island* is unsuccessful.

AIRCRAFT ACCIDENTS IN OPERATION HIGHJUMP

by RMC Billy-Ace Penguin Baker, USN (Ret) In Collaboration with Highjump veteran Gus Shinn

During Operation Highjump (December 1946 — April 1947) there were three recorded major aircraft accidents. The first accident occurred on December 30, 1946, involved the crash of a Martin Mariner (PBM) attached to the USS *Pine Island* and resulted in the loss of three lives (see ***Explorers Gazette***, Volume I, Issue I, Spring 2001). The second accident, resulted in the total loss of a HO3S-1 helicopter, but with no injury of personnel, occurred in operations from the USS *Philippine Sea* on January 19, 1947. It is interesting to note that George Dufek was a survivor of this crash. Just three days later the third accident also resulted in the total loss o a second helicopter but with no injury to personnel and occurred in operations from the USS *Pine Island* on January 22, 1947.

The crash of the PBM, known as George I is the most famous incident of **Operation Highjump**. George I was on a mapping mission when a whiteout caused the PBM piloted by French LeBlanc to crash and burn. Six survivors of the crash spent nearly two weeks on the ice huddled together in frightful weather before being spotted by another PBM flown by Captain James Ball. LT William Kearns, who was actually at the controls of George I when it crashed, was the copilot. Because his seat belt was not fastened Kearns was blown out of the wreckage and despite serious injuries, helped pull LeBlanc out of the wreckage. ARM2 James "Robbie" Robbins also helped pull the injured pilot from the burning wreckage and Robbie, despite his own injuries, was instrumental in managing the care of the six survivors prior to their rescue. Due to continuing bad weather the first SAR flights were not able to launch until January 5. Due to the combined effects of fire and freezing LT LeBlanc suffered from a severe form of dry gangrene, which was of sufficient magnitude to necessitate the amputation of both of his legs. However, there were rumors that the other five survivors had wrapped LeBlanc in a sleeping bag and tossed him into the wreck and forgot about him, thereby contributing markedly to the pilot's ordeal and subsequent amputation of his legs. In spite of the rumors Kearns and Robbins were decorated for bravery in pulling LeBlanc from the burning cockpit. It was also believed that George I crashed because the Navy did not adequately prepare the Highjump crews with proper knowledge for polar operations. However, most of the crew of George I had previous aviation experience in the Arctic.

During **Highjump** the Martin Mariners took over 70,000 aerial photographs of Antarctica, but these photographs were practically useless because of a lack of ground control points. In December of 1947 the Navy mounted a much smaller expedition known as *Windmill* and went back to the ice to finish the job. Helicopters were launched from two icebreakers and deposited surveyors on prominent landmarks who established nine control points on 960 kilometers of coastline.

This has only been a tiny synopsis of the trials and tribulations of the survivors of the crash of George I and their subsequent rescue. For further reading on **Operation Highjump** and the crash, several of the sources that I used to prepare this article contain excellent coverage. A full online version of *Antarctic Mayday*, by James Robbins, is available on the Internet at the following URL: <http://www.south-pole.com/p0000153.htm>.

Lithographed prints of the George I painting *Antarctic May Day* (shown below) are available from the National Naval Aviation Museum in Pensacola, Florida and the Stokes Collection in Pebble Beach, California.

Sources:
Antarctica An Encyclopedia, by John Stewart
Antarctic Mayday, by James Robbins
Assault on Eternity, by Lisle Rose
Moments of Terror, by David Burke
The 20001 Stokes Collection Catalog
US Army Observers Report on Operation Highjump

FOR WHAT IT'S WORTH LITERARY AWARD

Compiled by Billy-Ace Baker

Recently in London a description of an unwelcome seduction that compares it to a polar exploration has won one of Britain's least coveted literary prizes — the **Bad Sex in Fiction Award**.

A steamy excerpt from Christopher Hart's second novel, ***Rescue Me***, topped all comers to win the ninth annual Literary Review prize for the year's worst fictional description of the sexual act.

Part of the winning passage from Hart's novel reads:

"Her hand is moving away from my knee and heading South. Heading unnervingly and with a steely will towards the pole... Ever southward moves her hand, while she smiles languorously at my right ear. And when she reaches the South Pole, I think in wonder and terror -- she will surely want to pitch her tent."

Texan actress and model Jerry Hall, who recently starred as the seductive Mrs. Robinson in the London production of "The Graduate," presented Hart with the award at a ceremony on the 4th of January.

SNOWBIRD – The National Museum of Naval Aviation NU-1B Otter –

Provided by NMNA Historian Hill Goodspeed

There is little that Pensacola and the continent of Antarctica have in common. However, as is the case in many instances, the Cradle of Naval Aviation is tied to a faraway land by the wings of gold. From the epic flight of Richard E. Byrd over the South Pole on 29 November 1929 to the ongoing "Operation Deep Freeze", many a Pensacola-trained Navy man has spread his wings on the ice.

This bond between Naval Aviation and Antarctica is alive and well at the National Museum of Naval Aviation. Visitors to the Hall of Honor see the face of Rear Admiral Richard E. Byrd, Naval Aviation's greatest Antarctic explorer, cast in bronze on one of the plaques. The R4D-5L Skytrain "Que Sera Sera", the first aircraft to land at the South Pole, greets people touring the outdoor display area. In addition, though not as famous as the "Que Sera Sera", there is another aircraft in the museum's collection that is also a veteran of many hours of Antarctic flying. Perhaps more importantly, this aircraft holds a special place in the hearts of two National Museum of Naval Aviation volunteers.

It was on 13 February 1956, that the Navy, supplementing the four it had ordered the previous year, procured nine additional UC-1 Otter utility aircraft from De Havilland Aircraft of Canada, LTD., a Toronto-based company founded in 1928. First flown on 12 December 1951, the Otter had already made a name for itself in the United States military by the mid-1950s. During maneuvers at Ft. Bragg, NC, in 1953, the aircraft's ability to fly substantial loads from makeshift airfields had so impressed Army officials that they eventually acquired six of them. The qualities that had attracted the Army also appealed to the Navy; a fact made all the more apparent by the assignment of the nine newly ordered Otters to Air Development Squadron SIX (VX-6). Based at NAS Quonset Point, Rhode Island, the squadron served as the aerial support arm for Task Force 43 operations

in the harsh, rugged environment of the Antarctic.

In September 1956, a group of VX-6 pilots made their way to De Havilland to pick up the first of these UC-1s. Among them were Lieutenant Commander Ken Snyder and Lieutenant Con Jaburg, both currently museum volunteers. The pair teamed up to fly one of the nine Otters back to Quonset Point. By December, all nine aircraft had been formally accepted by the Navy and, in preparation for the voyage to the Antarctic, they were disassembled and packed away in crates. One of those that found its way into a box was BuNo 144672, one of three Otters destined for transport to the Weddell Sea area and the one currently on display at the National Museum of Naval Aviation. On 9 November 1956, along with other crated aircraft and cargo that included an outhouse on skis that had been constructed by Seabees, BuNo 144672 departed Davisville, Rhode Island, aboard USS *Wyandot* (AKA-92) for the long voyage south. Also aboard were members of VX-6, including LCDR Snyder and LT Jaburg.

It would be rough going for the old Wyandot, which had experienced its share of difficulties in the waters off Okinawa in 1945. Entering the Antarctic Circle in mid-December, the ship plowed its way through 1,600 miles of ice-covered waters before finding a suitable site for a base on 27 January 1957. All told, Wyandot had spent 42 days on the ice and penetrated 300 miles further into the Weddell Sea than any ship before it.

Once "ashore", events moved in earnest. Personnel began the arduous task of unloading over 6,000 tons of cargo from Wyandot, while members of VX-6 went about the business of assembling their crated aircraft. In addition, a suitable landing field was marked off using barrels. The first UC-1 out of its wooden home was BuNo 144671. On 2 February 1957, with LCDR Snyder at the controls, it carried CAPT Edwin McDonald, commander of the Weddell Sea Task Group, to meet with Sir Vivian Fuchs, commander of Shackleton Base, a nearby British camp. The following day, the museum's BuNo 144672 took to the air for the first time with LT Jaburg at the controls. LCDR Snyder had his first flight in BuNo 144672 on 7 February 1957, logging 2.1 hours in a flight over Weddell Coast and Gould Bay. In recalling those long ago flights, what sticks out most in his mind about the Otter was its dependability and toughness. "It was a single-engine PBY," Snyder says now, likening it to the famous World War II flying boat.

In late February, Wyandot departed the Antarctic, leaving the VX-6 "wintering over party" at Ellsworth Station, the newly established base camp. Although LCDR Snyder departed with the ship, LT Jaburg was one of three VX-6 pilots assigned to remain on the ice throughout the winter. He managed to log a few additional evaluation flights in BuNo 144672 during February and March before the aircraft joined another Otter in its winter storage home; a revetment dug into the snow. It would be six months before the UC-1 would take to the air again.

It proved to be a difficult winter for the aircraft, for the same snow that was supposed to protect them in their revetment also took its toll on the aircraft. Deceptively fluffy and light to the eye, the snow that accumulated on the hibernating Otters instead provided an added weight burden they simply could not stand. When flying weather returned, and the aircraft were dug out, the personnel of VX-6 discovered two severely damaged aircraft. Luckily, BuNo 144672 was only in need of a replacement wing, for its sister craft, BuNo 144671, had to be totally stricken.

By October 1957, BuNo 144672 was ready for flight, and LT Jaburg began putting it through its paces in "Operation Deep Freeze Three." Between 3 October 1957 and 8 January 1958, he spent 30.1 hours in the cockpit, transporting cargo and flying in support of scientific field parties operating at various points on the ice. His final day flying the aircraft demonstrates the workhorse duties performed by the trusty Otters and their pilots in the Antarctic. That day, he made two separate utility support flights in UC-1s, one lasting 6.0 hours and the other totaling 10.9. A greater testament to the aircraft would be hard to find.

The paths of BuNo 144672 and its pilots diverged after their time together on the ice in the late 1950s. While Jaburg and Snyder served in various capacities on their way to retirement as a captain and commander respectively, BuNo 144672 also found its way to new places. Between periods of overhaul and repair, it remained with VX-6 until 1965. During that time its aircraft designation changed to NU-1B.

After serving in various capacities at the Naval Air Test Center, Patuxent River, Naval Air Test Facility, Lakehurst, and the Pacific Missile Range, Point Mugu, the well-traveled Otter made its way to Pensacola in 1975.

Now, almost forty years later, man and machine stand reunited. Although the passage of time has inevitably brought changes, memories remain. When, after a day of volunteering, CAPT Con Jaburg, USN (Ret) and CDR Ken Snyder, USN (Ret) pass by the old Otter on their way home, you can be sure that their thoughts sometimes drift briefly back to those long ago days. For a fleeting moment, the aircraft is once again fitted with skis and adorned with a brilliant orange and silver hue, and they are poised at the controls ready to roar into the snow and ice of the "Secret Land."

ASPECTS OF AVIATION IN ANTARCTICA by Jim O'Leary -*Editor's note: This is part 4 of a 6 part series written by OAE Jim O'Leary when he was on the "ice" '75 to '80.*

The contribution of the United States Marine Corps to the aviation program in Antarctica came in the form of well-trained pilots, navigators, crewmen and mechanics. They also brought with them the fierce esprit de corps for which they are known.

"The Marines always land first!" exclaimed Captain Alton Parker as he jumped off the ship during the 1928 Byrd expedition, landing on the ice at the Bay of Whales. Capt. Parker was also one of three Marine aviators with the expedition. Several Marines also served with Byrd in succeeding expeditions.

When VX-6 was commissioned in 1955, there was a small detachment of Marine fliers and aircrewmen assigned to the squadron. One of them, Captain Rayburn A. Hudman, formed the nucleus of a 12-man Pararescue team in 1956; a team still in existence today.

In April 1955, Lieutenant Colonel H. R. Kolp became the only Marine officer to ever serve as VX-6's Commanding Officer.

In early January 1962, the Marine Air Corps Air Facility "Darbyville" sprang to life, with Major Leslie L. Darbyshire as commanding officer and mayor of the "town." The township lasted only four days. Major Darbyshire was forced to set down his C-130 about 100 miles from Byrd Station when three of his four engines quit. After "freight-loading" 20,000 pounds of cargo, he set the aircraft down on the polar plateau. He radioed McMurdo, told them of the problem and set about getting "Darbyville" to life.

When a relief crew arrived several hours later, survival tents had been erected, men were carving out snow shelters and the evening meal was simmering on the survival and portable stoves. Water was discovered in the fuel and ice had clogged the engines' strainers. In the four days it took to repair these discrepancies, the hardy crews were thrown back to a bygone era of pioneers on the trail. On Jan. 5, the C-130 was repaired and airborne, ending the mayorship of Major Darbyshire.

After almost 45 years of involvement with Antarctic aviation and support, the Marine detachment's last missions were flown in 1972 and they were detached from the roster of VXE-6 shortly thereafter.

Since Operation HIGHJUMP, Coast Guard icebreakers provided the thrust for opening of the annual supply ship channels into McMurdo, but it wasn't until a trial program in 1967 that a Coast Guard helicopter program and detachment for support proved feasible. By DEEP FREEZE '70, the Coast Guard had taken over the chores of Navy helicopters for reconnaissance flights, photomapping flights and science support of various projects in the outlying stations beyond the capability of VXE-6. Operating from the various icebreakers used during the years, the helicopter detachments have flown over 4,000 hours of support for science research. Based at Mobile, Alabama, the Polar Operations Division of the Coast Guard operates with a staff of approximately 22 officers, 60 enlisted aviation rates, and 10 HH52A Sikorsky "Seaguard" helicopters. Each detachment deploying with an icebreaker consists of two helicopters, four pilots and 10-12 enlisted aviation personnel. The detachments are self-sufficient while deployed, equipped with aviation equipment and supply kits for maintenance and repair of the aircraft.

Rescue capabilities rest entirely with the individual deployed ships because they operate

far from populated areas. Each helicopter is equipped with survival equipment and fly in pairs when necessary.

EMPEROR PENGUINS

By Billy-Ace Penguin Baker

Majestic golden penguins of the high Antarctic, emperors are the largest of living penguins and the only ones who breed in winter.

WHERE DO THEY LIVE

There are about 40 known breeding colonies, all very close to the Antarctic continent, with a total population of about 400,000 emperor penguins. Nearly all of the colonies gather on sea ice, which forms when the sea freezes over in winter (usually May or June) and lasts until early summer (usually December or January). Two of the colonies form on small islands surrounded by sea ice. Because they breed in out-of-the-way places and in winter, emperor penguins are difficult to visit. However, tourist parties are flown by helicopter into some of the colonies from icebreaker ships each year, usually in November or December, so visitors can see and photograph emperor penguins at home.

FEEDING

Emperor penguins feed mainly on squid, fish and crustaceans, which they catch below the sea ice. Sometimes they dive more than 1,300 ft (400 m) deep. There is little or no light down there, and we do not know how they find their prey. Some of the squid and fish carry tiny lights that the penguins may learn to recognize. Some may make sounds that the penguins can hear, or vibrations that they can feel.

An emperor penguin may travel more than 600 miles (1,000 km) on a single hunting trip, and bring back over 9 pounds (4 kg) of food in its crop.

KEEPING THEIR COOL

Emperor penguins on land or sea ice are seldom in a hurry. They walk slowly, and in soft snow they slide or "toboggan" on their stomachs, pushing themselves along with feet and flippers. If emperors run, they very quickly become stressed — out of breath and overheated. This is because of the thickness of fat that they normally carry, and the efficiency of their feathers. Imagine putting on a very thick overcoat and then starting to run — you would soon find yourself getting too hot, and wanting to take your coat off. Emperors cannot take their coats off — they can only stop and cool down.

WINTER BREEDING

Emperors breed in winter because they are large birds, with eggs and chicks that take several months to raise. Incubation takes two months, and the chicks take five months to grow. If emperors laid in spring, like other penguins, they would be trying to rear their chicks through autumn and winter, when the sea ice is most extensive and there is very little food in the sea.

Chicks begin to leave the colonies in late November, usually following the adults over the sea ice towards the open sea. Many at this time are still in down, with their first feathers growing underneath. Though ready for the sea, they weigh only 22 to 33 pounds (10-15 kg), less than half the weight of their parents. By the time they reach the sea most of their down has gone, leaving them in a pale juvenile plumage. They stay in this plumage for a year, and then grow full adult plumage, renewing it every year.

The first two or three years of their life are the most dangerous for emperor penguins. Many die on the colonies before they are a year old, and many more during their first and second winters. Those that survive breed for the first time when five or six years old, and continue breeding for 20 years or more.

GLACIER RESTORATION LOG 12 24 NOVEMBER 2001 Provided by Ben Kohler

Some may wonder why there has been no report since July. First, I was in Europe on business in August. While away my house was struck by lightening knocking out most electrical and computer systems. We were struggling to restore them when we were hit with Sept 11. Our membership recruiting and fund raising has suffered, as the Nation's attention focused on the immediate priority. All systems are back on line and we are picking up steam again.

Work aboard ship continued with only slight interruption. We have a big operation planned to shift significant equipment aboard Glacier as soon as MARAD is ready. We need a push from our volunteers because we are in the home stretch, just eleven months to our departure date from MARAD.

Last week we received from MARAD the first draft of our "closing" documents. These are the contracts by which we execute the removal and assume operational command of Glacier. We expect to move at the end of next summer. Preparations are underway for a berth at Mare Island.

We have formed a Medical Committee. This group is composed of: Dr. David O. Haugland Col. USA (Ret.), Mr. John Fox, and Dr. Sandra Bogdon, DDS. These folks met at our offices and formed a plan to set the mission for a Medical Facility aboard Glacier and then to raise the funds to install all new equipment. Dr. Haugland served aboard Glacier for two years. He is fully retired and committed to this project. Dr. Bogdon is still practicing. Mr. Fox has experience in establishing charity medical facilities overseas. We encourage anyone who is especially interested in this effort to call or write the office and we will involve you with the effort.

The Glacier Society is now a full member of The Historic Naval Ship Association. This is an exciting step; we are now recognized as operating a museum. The Icebucket has been on display all summer along the Connecticut Coast. She is now laid up for winter and will be receiving new gear in anticipation of next year's operations.

We are saddened to inform you of the passing of Captain Ed Grant USN (Ret.). He was skipper of Glacier after my cruise. During the past two years others and I shared the restoration work with Ed. He was an inspiration to all and will be missed but not forgotten. The new web site now under preparation will feature stories and photos of Capt. Grant in action.

We request a show of hands. How many of you will volunteer for one, two, three or more weeks continuous service when *we can provide room and board on or nearby Glacier*? The response is critical to our planning. Please give it serious thought. We now have a mailing list of nearly 7,000. That means most of you have not made a financial or physical commitment as yet, **NOW IS THE TIME FOR ACTION. Please make a year-end gift today.... right now before you forget. The Society, its volunteers and your shipmates need your support today! Everyone who sends in $100.00 in December will receive a new Video produced by volunteers from CBS TV about our project. Corporations can use this for employee motivation! ACT now, it lists all volunteers & corporate sponsors.**

Hardening snow to pave a runway

Reprinted with permission from the Antarctic Sun of 2 December 2001

By George L. Blaisdell and Gary Cardullo Special to the Sun

There currently exists a six- to eight-week period in the middle of the USAP austral summer season when the McMurdo runway system can only support ski aircraft. This significantly

restricts the program by placing all inter- and intra-continental airlift requirements on the limited LC-130 Hercules fleet. Further, the use of the LC-130 for inter-continental missions is quite inefficient, considering this aircraft's reduced payload and speed (compared to the standard wheeled C-130). During the skis-only period, the Pegasus runway is covered with a thin layer of snow to protect against solar-induced melting.

A D-8 tractor tows a 100-ton roller, compacting the snow on Pegasus runway. Photo by Gary Cardullo/Special to The Antarctic Sun

Work at the Pegasus site during its original development in 1991 suggested that it could be possible to process the protective snow cover to an adequate strength for the support of wheeled C-130s. However, this approach was not pursued. Instead, a level-graded glacial ice surface was chosen, with an annual requirement for placing and removing a temporary reflective snow cover. During the 2000-2001 season, the original compacted snow surface approach was tested on a 1,500-foot segment of runway overrun. The results were hugely successful, with snow compaction being completed by Dec. 15 and taxi and landing tests by LC-130s operating on wheels following shortly after. As a bonus, an inadvertent test of the surface was performed when a C-141 unknowingly traversed the compacted snow surface. In all cases, once the compacted snow cover was completed, only the smallest of tire impressions could be detected in isolated locations.

These results convinced the National Science Foundation that a compacted snow cover could be placed on the Pegasus runway in order to support mid-season wheeled Hercules flight operations. Work began this season at WINFLY to cover the entire runway with a compacted snow cover. Progress has been rapid and rewarding, owing to extensive planning and preparation during the off-season, obtaining new dedicated and specialize equipment, and having a full, professional and motivated on-site staff.

The construction technique to achieve this strong snow pavement is not complex. Principally, it involves pneumatic-tire-roller compaction with progressively higher loads, and some interspersed grooming efforts. However, timing of activities is the challenge, as the efficiency of snow compaction depends on the tire pressure, the total tire load and the snow temperature. Thus, close attention is paid to keying the roller loads/tire pressures and timing of compaction activities to temperature and weather conditions. Just as important as timing of the compaction activities are the "rest periods" that afford the snow a chance to sinter (grow inter-granular bonds) between rolling efforts.

This approach has resulted in a strong 3.5-inch-thick snow pavement. The first test of the new all-season Pegasus runway took place Nov. 28 when a New York Air National Guard LC-103 (SKIER 92) landed on wheels at maximum weight (155,000 lbs). A series of progressively more demanding taxi, take-off and landing actions was completed to evaluate the performance of the compacted snowcap on the 10,000-ft runway and on three progressively weaker test sections at the southern end of the runway. The intent of the reduced strength test sections was to hopefully induce rutting (surface strength failure) in one or more of the weaker test sections in order to accurately determine the minimum level of strength required to sustain wheeled C-130 operations.

The evaluation activities - which included tight, hard turns, aborted take-off hard braking stops, and a simulated emergency short field landing - generated no failures of any type on the runway. Close visual inspection on the ground, under proper lighting conditions, was required to detect the mild burnishing of the surface left by the aircraft tires.

In the test areas, only the second and third reduced-strength areas showed any sign of surface failures. In the test areas, one long classic rut was developed and several "pops" 1 foot in diameter were found. These are currently being analyzed to determine what levels of strength define the boundary for reliable tire support.

Efforts at the Pegasus site over the next week are aimed at getting in place the necessary runway

support devices to allow a Little Rock, Ark., C-130 Air Force unit to start regular inter-continental service Dec. 10. Maintenance, including periodic compaction rolling to preserve the snow pavement strength, will occur throughout the period of C-130 operations.

Redeployment airlift is still planned to occur with C-141s from the Pegasus runway starting in late January each year. This may require that the compacted snow pavement be placed and stripped each year. While this scenario meets NSF's goal to provide reliable C-130 operations from Pegasus from the time of sea ice runway closing until late January, the Pegasus construction team have as their goal to make the compacted snow strong enough to support C-141 operations, thus making it a permanent snow pavement.

The Pegasus Project is on schedule due to the dedicated and outstanding performance of many people and organizations within NSF, Raytheon Polar Services Company, NYANG and Cold Regions Research Engineering Lab leading the way. Gerald Crist, Pegasus Fleet Operations Foreman, has expertly accomplished on-site direction of this challenging project. His knowledge of ice and snow conditions and specialized techniques with equipment are instrumental in the successes achieved. Outstanding support for this project has come from many work centers and individuals, including the Heavy Shop, Fleet Operations, Surveying, Supply and the Carpenter shop, who, in less than 30 days, built over 90 two-ton concrete blocks for roller ballast.

EXPLORERS GAZETTE

All members are invited to submit articles of their experiences or current activities for insertion in the Explorers Gazette. Please submit them to Jim O'Connell by the end of the 2nd month of the quarter.

REUNION INFORMATION -

Editor's Note - If you have any information regarding individual OAE group reunions, please send the information to Jim O'Connell at penguin64@att.net for publication in the Gazette

The OAEA Board of Directors has approved the OAEA's first national reunion for 6, 7 and 8 November 2002 in Pensacola, FL. Members will receive a registration package in the mail when the final details are drawn up. Expect these letters in early 2002.

FY 2001 FINANCIAL REPORT

INCOME			
Donations		262.00	
Dues Payment:			
Life membership	7,960.00		
Annual membership	1,300.00		
TOTAL Dues Payment		9,260.00	
Entrance Fees	442.00		
TOTAL INCOME		9,964.00	
EXPENSES			
Admin_Costs:			
Duplicating		-10.32	
Office Supplies		-538.12	
Postage		-587.34	
Travel Expenses		-65.46	
Admin_Costs-Other		-77.00	
TOTAL Admin_Costs			-1,278.24
Bank Charges			-40.00
Incorporation Expenses			-395.00
Marketing			-686.10
Webpage Costs			-220.00
TOTAL EXPENSES			-2,619.34
TOTAL INCOME–EXPENSES FY 2001			+7,344.66

Financial status as of 30 September 2001	
Beginning Balance 10/1/00	1696.00
FY 2001 transactions	+7344.66
Ending Balance 9/30/01	9040.66

Membership status as of 30 September 2001	
Annual Members	88
Lifetime Members	208
Deceased Members	5
Total Membership	301

Association Officers

President – Jim Eblen
Executive VP – John "JC" Harris
Secretary/Treasurer – Jim O'Connell
Director – Billy-Ace Baker
Director – Barry Chase
Director – Buz Dryfoose
Director - Steve Edelman
Director – Bill Maloney
Director – H. J. "Walt" Walter
Chaplain – Cecil D. Harper
Historian – Billy-Ace Baker
Webmaster – Billy-Ace Baker

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Jim O'Connell, Editor

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