The Dogs of East Base

United States Antarctic Service Expedition 1939-1941

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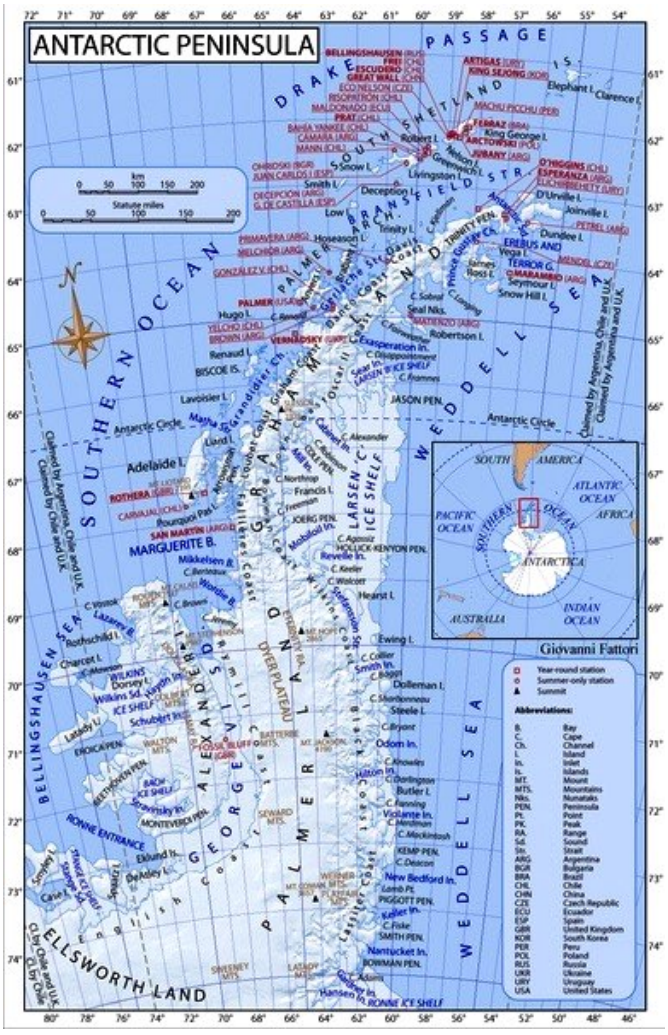


Present Day Map of the Antarctic Peninsula

If there is such a thing as a dog valhalla I know they will be there because they worked until they dropped in their tracks.

Carl R. Eklund, Ornithologist, USASE 1939-1941

Introduction

Exploration of distant and unknown lands and universes is seeded by mankind's curiosity and quest for further knowledge. While present day explorations are accomplished using advanced technology and modes of transportation, early surface explorations in the arctic and antarctic regions were dependent upon sledge dogs. The aim of most expeditions was to gather scientific knowledge and to survey new territory. The ensuing literature focused, therefore, on the accomplishments of man's endeavours and his personal adventures. The dogs who mades the expeditions possible were usually mentioned only marginally, although every expedition had its dog stories to tell, some heroic and some tragic. The most engaging personal accounts of dogs on an Antarctic expedition can be found in *The Long Whip*, Stuart Paine's book about his lead dog Jack *(*Walden and Paine, 1936), and in Paine's edited diary, F*ootsteps on the Ice* (2007).

The narrative here will chronicle the journey of one group of dogs, consider their work, and contemplate their fate on the Antarctic Peninsula. The available material from the United States Antarctic Service Expedition (USASE) has been scant; on the one hand, the U.S. government issued a gag order to expedition members (Roosevelt 1939, p. 14), and on the other hand, immediately at the end of their Antarctic service, most of the men were occupied with World War II. Information for this account has been gleaned from primary sources, mainly from

diaries, journals or reports from men who worked with dogs on several Antarctic expeditions, but especially from men who worked with these particular dogs at East Base, Stonington Island, 1940-1941.

Historical Perspective

In November 1820, Captain Nathaniel Palmer of Stonington, Connecticut, navigated his sealing sloop, *Hero,* past the southern extremity of South America, towards the northwestern tip of the Antarctic continent in search of seal rookeries. There, he spotted a series of islands and the mainland of what is known today as the Antarctic Peninsula. He recorded that territory as Palmer Land and Palmer Archipelago. Twelve years later, British sealer and explorer, John Biscoe circumventing Antarctica, laid claim to several islands and the land mass, which he named after the First Lord of the Admiralty, Sir James Graham, as Graham Land. It was not until 1964 that the the British and the Americans agreed to call the entire promontory Antarctic Peninsula, and denote the northern part as Graham Land, and the southern part Palmer Land.

During the nineteenth and early twentieth centuries, observations of the land masses in the area were abundantly noted by traders, whalers, sealers and explorers; as a consequence the Antarctic Peninsula and its surroundings islands are dotted with a melange of names which appear in this narrative: Alexander I Land stems from the Russian explorer, Fabien von Bellinghausen (1821), who named his observation after the Czar; Weddell Sea is named for the Scottish sailor, James Weddell (1823); Marguerite Bay, Neny Fjord and Charcot Island, were named by the 1909 French expedition leader, Jean-Baptiste Charcot (1909). While many vessels, dating as early

as Captain Cook's second voyage (1772-75), sailed the area and recorded their observations, the first scientific venture on the Antarctic Peninsula was undertaken by the Swedish scientist, Otto Nordenskjöld, from 1901-1904. He was also the first to use dogs, completing a 380 mile survey of the eastern coastline. Some thirty years later the British Graham Land Expedition 1934-37 led by John Rymill, who coined the name King George the Sixth Sound and Wordie Shelf Ice, conducted successful aerial surveys and lengthy sledging journeys on the Peninsula (Rymill, 1986).

The race to reach the South Pole by land is known as the "Heroic Age" of Antarctic exploration; it was also an age that travelled by dog team. The late 1920's ushered in the "Mechanical Age" in exploration, as Admiral Byrd's first expedition (BAE I, 1928-30) made use of the airplane and other motor-driven vehicles to assist sledging surface parties. His operation at Little America, located in western Antartica on the Ross Shelf Ice, was the first of many expeditions using the airplane and aerial photography to follow; the introduction of a 'snowmobile', consisting of a car set upon skis instead of wheels, was a vanguard of things to come: "As efficient as it was ugly, the snowmobile left little doubt that its successors would replace the husky in moving men and supplies over the snow" (Rodgers, 1990, p.79).

Byrd's second expedition (BAE II 1933-1935) augmented power-driven machines by including tractors, and generators which provided electrical power, thus enabling the use of lights and power tools. The United States Antarctic Service Expedition would introduce even more technology in the form of light tanks, meteorological equipment, detailed aerial reconnaissance and aerial mapping. In spite of the advancements made in technology, all expeditions at the time knew that the

success of their endeavours could not be gained without the use of the sledge dog for surface exploration.

Three years after his second Antarctic expedition, Admiral Byrd was considering a third Antarctic operation, and two of his former BAE II crew members, Richard B. Black and Finn Ronne, were also considering a separate expedition of their own. World affairs would turn their separate private expeditions into the first official United States government operation. During the late 1930's, after Germany had already annexed Austria and marched into the Sudetenland, President Roosevelt became aware of German interests not only in Europe, but also in the Antarctic. The German Antarctic Expedition of 1938-39, a privately financed enterprise, dispatched the vessel, *Swabenland*, and two airplanes to Antartica. As the planes flew over Norwegian's Crown Princess Maerta Land (Queen Maud Land), an area to the east of Antarctic Peninsula, they dropped German flags throughout the area and boasted to the world that Germany had reclaimed from Norway some 200,000 square miles as German territory (Broadbent and Rose, 2002, pp. 239- 240).

Concerned about German expansion into the Antarctic, President Roosevelt suggested that the proposed expeditions of Byrd and Black/Ronne be combined into the United States Antarctic Service Expedition under the leadership of Admiral Byrd. The expedition was to set up two permanent bases, one in the west near Little America and the other in the east on the Antarctic Peninsula. The only scientific expedition to set up base and explore the Peninsula mainland extensively, heretofore, had been Rymill's British Graham Land Expedition.

Acquisition and Transportation of the Dogs

The Superintendent of Reindeer at Nome, Alaska, Mr. Sidney Rood, received on July 25, 1939 a telegram from the Signal Corps, United States Army Communication System, requesting thirty sledge dogs for an upcoming Antarctic expedition. The dogs were to be only Alaskan Malamute types, with no mixed blood such as St. Bernard or Newfoundland breeds; the males were to weigh about 80 pounds and females about 70 pounds; the U.S. government offered to pay $50.00 per dog (Dexter, 2011). The request for the Alaskan Malamutes was at the behest of Finn Ronne, USASE transportation engineer in charge of procuring equipment, including dogs, for the Antarctic sledging operations. In August, not thirty, but forty-three Malamutes arrived at Boston from Alaska via the Panama Canal on the *U.S.M.S North Star* (Ronne, 1939a).

In addition to the Alaska canines, at least seventy-four dogs were contracted to Chinook Kennels in Wonalancet, New Hampshire *(Dogs Accepted from Chinook Kennels, 1939*). Owners of the kennels, Eva (Short) and Milton Seeley, had been in the business of raising and training sledge dogs for Byrd's second expedition. Wonalancet Farms in New Hampshire had become the center for collecting and training expedition dogs ever since Admiral Byrd had hired Arthur Walden, a former mail-delivery dog driver in Alaska and owner of the farms, to prepare dogs for his first Antarctic exploration in 1928. While in Little America with Byrd, Walden's dear companion and famous lead dog, Chinook, disappeared from camp and was never found. Returning from that expedition, Walden sold his kennels to the Seeleys who renamed them, in honour of the lost dog (Demidoff & Jennings, 1978, p.78).

According to the contract with Chinook Kennels, the dogs were to fall into two main classes: Class A, at $40. 00 each, consisting of dogs not older than four years; and Class B, dogs no older than seven or eight years, costing $30.00 each. Puppies, who were considered Class C, could also be bought for $10.00 each, but they must not have reached more than four weeks of age by October 15. Gender, age and breed breakdown from the New Hampshire kennels was as follows:

- 45 males; 29 females, of which 15 had been spayed.
- 13 Class A dogs; 31 Class B dogs; 5 Class C, or puppies, all of which were five months old.
- 21 Malamutes; 19 Eskimos; 18 Siberians; one Chinook; 15 'Huskies' (Ronne, 1939b).

The 'Huskie' category may have designated dogs of unknown parentage, or a mixing of the breeds. Eva Seeley's records show that that some of the dogs sold to the USASE were crosses of Malamute/Eskimo; Malamute/Siberian; Siberian/wolf; Siberian/coyote (Cowan, 2003, pp. 80-87).

Advice concerning qualities of the various breeds was presented by long time dog driver and chief of field operations for BAE II, Alan Innes-Taylor. Based upon his experience in Little America, Innes-Taylor recommended that the Eskimo dogs from Baffin Island and northern Labrador were the most preferable for long distance, while the dogs from Manitoba, also considered an "Eskimo" breed, would work well around the camp. However, Innes-Taylor had not much use for the Chinook Kennel dogs, stating that they were not fit for strenuous work (Innes-Taylor, 1939). This statement is strange because some of the dogs from Chinook Kennels were of Malamute type who proved themselves during BAE II and who, together with the

Malamutes from Alaska, comprised the largest percentage of expedition dogs in 1939. It is possible that Innes-Taylor was referring to the Siberian dogs from Chinook Kennels, who were much lighter in weight. Their physical characteristics and temperament differed from the Eskimo and Malamute types, according to Stuart Paine:

> "Their black coats, the fox-like ears, the slitted white eyes with blue-gray pupils in gleaming white irises which contracted and expanded with hypnotic power, identified them. Very small and lightly constructed, having thin and reedy legs and rippling muscles over their sharp shoulders, they were fast and light. But their minds worked in darkness. When they fought, it was never in the cavalier style…. Strategists above everything else, they preferred to strike from ambush, when the element of surprise would give them a more potent weapon than the beef which they lacked". (Walden and Paine 1936, pp. 22-23)

Apparently there was indeed some reservation about the size of dogs. Charles Passel, a West Base expedition member, commented about a dog called Wanda being so light that she often stumbled and slipped out of her harness, and at one point he estimated her to weigh only 25-30 pounds (Passel, 1995, pp 291;307). East Base leader Richard B. Black also noted in his rough log:

> "Learned that REB [Richard E. Byrd] disturbed at small size of dogs, and Siple [West Base leader] reprimanded. He blamed Ronne [Transportation Engineer] to REB, but Ronne has copy of his recommendation about dogs to be accepted from Seeley which Siple disregarded and paid $140 for many dogs Ronne turned down for size …. Learned that Seeley threatened to shoot all the dogs if some not taken". (Black, 1939-1941, January 8,1940)

At least ten more Malamute and Eskimo types were acquired at private kennels in Lake Placid, N.Y. towards the end of October (Lake Placid News, 1939). While the expedition had wished to leave with one hundred eighty dogs, they were not sure if ship space could accommodate so many, and therefore were forced to obtain some dogs on short notice (Ronne 1939c). Some Baffin Island and Labrador dogs may have been acquired from Clark Eskimo Sled Dog Ranch in New Hampshire (Clark, 1938). In the end, a total of about one hundred sixty dogs were taken aboard the two ships.

President Roosevelt's mandate for establishing the $350,000 expedition was issued July 13, 1939 (Roosevelt, 1939, pp.7-14). While most Antarctic expeditions required a year or more in planning, the U.S. Government had given Admiral Byrd only four to five months to complete the organization (Broadbent and Rose, 2002, p. 241). During the last weeks in October, the acquired dogs met their future dog drivers at Chinook Kennels for short training runs before they were shipped via train to Boston, where in mid-November the *U.S.M.S North Star* and the *U.S.S. Bear* transported them along with expedition members, equipment and provisions to Philadelphia and Newark. There, the ships loaded four aircraft, two tractors, two light army tanks and a huge machine called the Snow Cruiser, which had been designed specifically for the expedition.

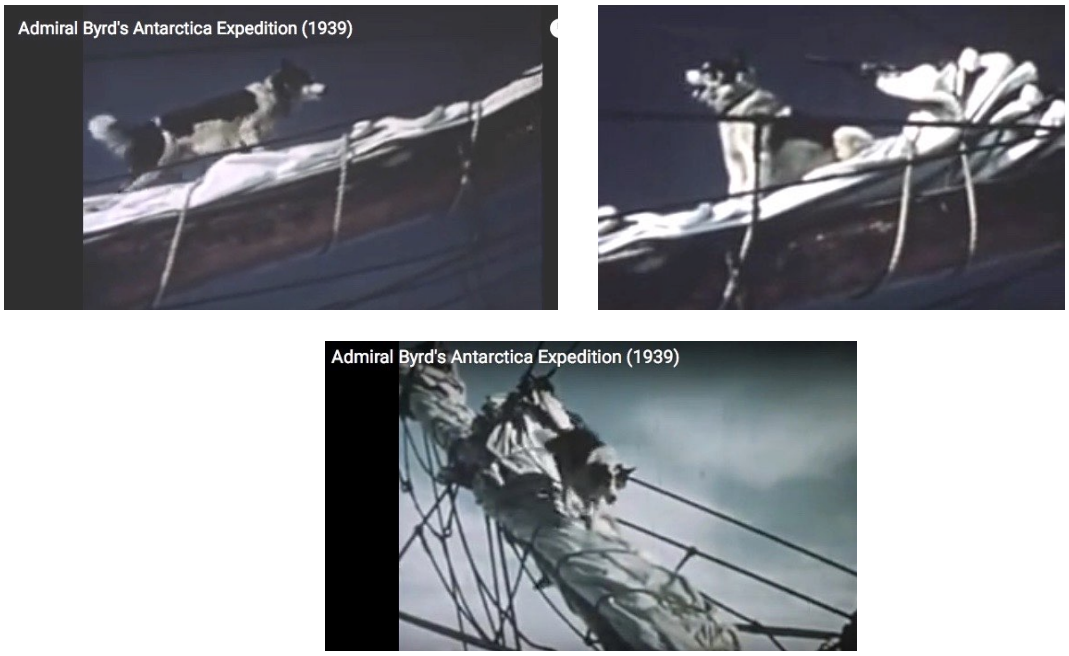
The dogs, so at home in ice and snow, were completely out of their element as the ships pitched and rolled across the oceans. In his diary, Charles Passel (1995, pp. 1-41) noted daily life for men and dogs on board the *North Star.* Like their predecessors in previous Byrd expeditions, the dogs were at times tethered all over the ship, wherever space was found. They were divided into groups of nine, and each

group was cared for and fed by an expedition member. Many dogs accepted their fate on the high seas without complaint, but many also broke their monotony and boredom by growling and snarling at one another for days on end. Some managed to break loose and create fights, while the well-behaved dogs were let loose to exercise their legs on deck. Some dogs fared well, others were not so happy.

Stuart Paine of BAE II recalled in *The Long Whip* (Walden and Paine 1936, p. 47) one Manitoba dog named Herbe who loved being a sailor. Tied to the rail on the port side of the ship, he would stand for hours, fore-paws atop the railing, and stare in a philosophical pose at the horizon. The ship's captain noted that the dog was the best look-out he'd ever had. Another dog, named Olav, decided for some reason to jump into the ocean:

> "Yesterday I had about fifteen dogs in the forward well deck. They romped around in great style until Olav deliberately jumped overboard. Dusty [crew member] went over the side on a rope but the dog didn't see him. Hump, Healey [crew members]+ myself went over in the workboat + rescued him just in time. He was stiff as a board + his hind quarters numb".
> (Paine 2007, p. 49)

While the USAS expedition apparently did not have a philosopher-dog on the ship, nor a dog that deliberately jumped overboard, an official expedition film, *Antarctica* (Museumsyndicate, *Antarctica*, 2013), shows a daring Eskimo dog working his way up the jib sail, sunning himself for a moment over water below, and finally descending, as a crew member urges him to walk back down the narrow rig onto the deck.



Figures 1-3. Eskimo dog on sail outing

After having endured the unbearable heat of the Equator, where awnings were put up on the fo'c's'le deck to protect the dogs from the sun, the crew and dogs were navigated through the Panama Canal— the Alaskan dogs now for the second time, and sailed through the Pacific Ocean towards a cooler climate. Off the coast of New Zealand, the ships encountered rough weather in the roaring 40's. The dogs were miserable.

> "They couldn't sit down because they would be sitting in water about six to eight inches deep, and they couldn't stand up because the deck was much too slick. So they did a little of each and all of them managed to stay aboard…. They were a forlorn howling bunch of critters". (Passel, 1995, p.29)

West Base and East Base

President Roosevelt had charged Admiral Byrd to set up two bases, one on the east shore of the Ross Sea or possibly in the Bay of Whales near Little America, and the other on the Antarctic Peninsula in the vicinity of Charcot Island or Alexander II Land. If the latter location was not possible an alternative site in Marguerite Bay should be investigated. In addition to aerial reconnaissance flights and camera mapping, surface explorations were to determine the Weddell Sea coast line and explore King George the Sixth Sound to determine if Alexander I Land was a peninsula or an island (Black, 1945, p. 6).

After nearly two months at sea, the *North Star* approached the Bay of Whales on January 11, 1940; the *Bear* would arrive some days later. Upon arrival the crew began to unload the equipment, provisions and dogs for setting up camp. Each dog was hoisted up on his harness and swung over to land, some swinging sideways or tail first or upside down, but they all seemed calm (Passel, 1995, p. 29).

For the first few months after arriving at the Bay of Whales, all crew members and dogs remained at West Base. Both men and dogs were kept busy unloading the ships; every day they were tasked with hauling sometimes two sledges laden each with heavy barrels of fuel, sometimes three sledges with aircraft and other mechanical equipment, as well as food, clothing and everything else needed on the base once the ships left. Ship unloading treks were put to a good use as puppy training (Passel, 1995, p. 59). But short jaunts around the base could result in some unpleasant experiences. While West Base head dog driver, Dick Moulton, was driving a team of unruly and inexperienced dogs to the *Bear*, he unknowingly came upon crevasse that

had widened. The three sledges, loaded with material and Charles Passel, hit the depression; the sledges were shattered, but the dogs continued anyway, and ran full steam ahead, pulling the broken sledges, behind them. Passel flew into the air, and after he landed, the dogs and sledges plowed over him (Passel, 1995, p. 60). In another West Base camp incident, one of the drivers lost his team and killed three penguins; one of the dogs was also killed, most likely from being dragged (Passel, 1995, p. 64).

With each Antarctic expedition, improvement in technology made the exploration objectives easier to attain, and it made life for the expedition members and the dogs less dangerous. While the mechanised vehicles assisted significantly, not all of them lived up to expectations. One such vehicle was the Snow Cruiser, a monster machine. Weighing over thirty tons, it was positioned on top of four ten-foot tires; the vehicle measured fifty-five feet in length, and was supposed to facilitate transportation in the Antarctic. There were even hopes that it could be driven to the South Pole. When unloading the monster from the *Bear,* however, the Cruiser crashed through the planks, nearly falling into the Bay of Whales. Once on land, the wheels were so huge and cumbersome, they bore deeply into the snow. It took a week of turtle-paced motion to manoeuvre the vehicle from the ship to the base site only a few hundred feet away, and the Snow Cruiser was finally laid to rest as an auxiliary shelter for scientific experiments (Passel, 1995, p. 46; Broadbent and Rose, 2002, p. 244).

Tractors proved to be a bigger help, but they sometimes had problems when being operated during extremely cold temperatures. For example, when the temperatures plummeted at West base, the driver discovered that the tractor's forward

traction would not work, so the vehicle was constantly driven in reverse, to the detriment of the unfortunate operators, who complained of neck problems after driving backwards for forty miles (Passel, 1995, p. 359). The light tank fared much better and was able to transport material and food to the base of the mountain ranges scheduled to be traversed by surface parties. From those points and beyond, the dogs would be the only means of moving forward. The airplanes, however, were most valuable, as they could transport emergency depots hundreds of miles into the unknown and scout from the air for possible surface passages.

Towards the end of February the *Bear* and the *North Star* sailed to find a suitable site for an East Base location. It was not until March 8, 1940 that the two ships, together with aerial reconnaissance, chose an island in Marguerite Bay. Upon debarking, base leader Richard Black named the island Stonington, in honour of Nathaniel Palmer. On March 12, seventy-five dogs, and twenty-six expedition members disembarked to set up their new home. As with West Base, daylight hours were spent unloading the ships. Among the equipment unloaded was an army artillery tractor, type T3E4, and the base's only airplane, a Curtiss-Wright "Condor" bi-plane. Finally, by March 20, after East Base supplies had been set ashore, the two ships cast their lines for the journey back to the United States. For the men and dogs at Stonington, they would be separated from civilization for at least a year (Black, 1941a, pp. 8-9).

Base camp was set up on solid ground at the northeastern end of the island. The nucleus of the site included the housing barracks, a machine shop, a science building, and a separate hut for Finn Ronne, second in command. To the north, a

snow ramp led up to the Northeast Glacier, which provided the location for an air strip; a hut was subsequently built there for the aviators. The dog housing was located at the bottom of the glacier ramp (Black, 1941a, pp. 12-26).

East Base dog accommodations differed from those for the West Base dogs. The Bay of Whales was situated at latitude 78^0 50' S, while Stonington Island was located at latitude 68^0 18' S. If it was not uncommon for West Base to experience temperatures at -40 F for weeks with peaks reaching -65F, East Base temperatures dropped only occasionally to -40 F, but the wind at times was more frequent and often extremely fierce. During radio communications West Base would occasionally ask their colleagues to the east how their "gardens were growing, and whether or not [their] palm trees were giving enough shade" (Black, 1941a, p. 45). Dog housing at West Base, therefore, was adapted to the colder weather. The system reflected a subway tunnel complex used during the Byrd Antarctic expeditions I and II. The dogs became accustomed to a labyrinth of underground passageways cut out of the snow at a depth of about six feet. The main tunnel was one hundred feet long with shorter segments crossing at various points. The dogs were tethered to cable lines or chains, and each dog had his own house. Lighting was strung throughout the system. The underground system was used mainly during the bitterly cold winter months, as the dogs could be tethered outside during the milder spring and summer months (Passel, 1995, pp. 101-102).

The warmer temperatures on the Antarctic Peninsula did not necessitate an underground housing system for the dogs. At Stonington Island a trench was dug a few feet into the snow, and a row of dog houses was placed side by side therein.

Above the trenches a wooden frame, covered with chicken wire and a layer of canvas material, constituted the roofing (Spude and Spude, 1993, p. 103). The dogs were tethered by chains to their houses, and the trenches could help protect them from the strong winds which at times reached velocities of sixty to eighty miles per hour.

Figure 4. Dog Housing at East Base

If housing differed between the two bases, food for the dogs remained the same. The main source of meat and fat came from the local seal population. According to Charles Passel, the deceased seals were frozen and subsequently chopped up; the fat (blubber) was removed and put into a vat where it was boiled to a liquid. It was then mixed with Gaines Commercial dog food and formed into two-and-a-half pound patties, which the men referred to as dog pemmican (Passel, 1995, p. 77).

Life, Death, Work

Both the aerial exploration journeys and the ground control surface sledging operations were dangerous and could result in fatalities. The cost of life to man or dog was always a factor to be dealt with on Antarctic expeditions. While the death of expedition members occurred rarely, the demise of many dogs was taken for granted. Various reasons account for the loss of expedition sledge dogs. Some never even made it to the Antarctic due to disease. This was the case of most of the sixty-five Greenland dogs in John Rymill's 1934 British Graham Land Expedition and Finn Ronne's 1947 Antarctic Research Expedition(RARE). Both expeditions lost their dogs to an outbreak of distemper after boarding ship (Rymill, 1986, p.32; Ronne, 1949, pp. 38-40). Rymill was fortunate in that, when the dogs died, he was close enough to Canada to buy new dogs. The dogs of the RARE expedition, however, did not become infected until they were farther south, and Ronne was forced to rely upon the British dogs from the Falkland Islands Dependencies Service (FIDS), which were also stationed at Stonington from 1946 to 1948. The Second Byrd Expedition was also plagued by sudden death of several dogs, even before the ships left Boston; laboratory results later indicated they were infested with parasites. In addition to illnesses, some dogs were swept overboard and disappeared. Such was the case of four BAE II dogs who had been lost to sea by the time the ship reached San Salvador (Paine, 2007, p. 14; pp.31-32). There is no record that the USASE dogs contracted distemper, or succumbed to an over abundance of worms, but one dog named Power may have been lost at sea.

Injuries and illness were always lurking at a time when veterinarian surgical care and antibiotics were not available. The dog drivers or the human doctor usually treated the canine patients. Not long after the East Base operation had been set up, base leader Black noted in his rough log:

> "Kelly, Paul Knowles' lead dog, was found dead this morning. He has not been very well lately, but no one thought he was seriously ill. And this afternoon there were two fights, one in harness and one on the gangline [central tug line] after a stake was pulled up. The men digging out drift snow and cleaning up excavated too much from around a stake. One victim we sewed up,—a deep gash along the muzzle and he will be all right unless infection starts. This was "Pal". The other injured dog, "Moe", died at eleven tonight from his injuries, principally loss of blood. That makes four we have lost: —"Power", "Teton", "Kelly", and "Moe". Power was lost on the [*North*] *Star* between West Base and Valparaiso". (Black 1939-1941, May 8, 1940)

A month later on June 16, West Base received a communication that five dogs had died at East Base, either due to fighting or illness from the damp weather (Passel, 1995, p. 185).

It was, however, the surface journeys that presented the most danger to men and dogs during the Antarctic expeditions. While dogs were considered by some to be loyal companions, they were at the same time considered to be dispensable. Explorers at the beginning of the twentieth century presumed that a large number of dogs would not survive, and some calculated into their plan of actions the deliberate disposal of dogs on long journeys in order to feed both dogs and humans. Roald Amundsen, for example, in his bid to reach the South Pole, noted that in the final push to the pole

their "plan was to take all the forty-two up to the plateau; there twenty-four of them were to be slaughtered…[leaving eighteen, of which] …it would be necessary, in our opinion, to slaughter six in order to bring the other twelve back to this point". (Amundsen,1912, p. 35) Planning logistics for long surface journeys during BAE I, were summed up thusly:

> "When one plans a long sledge journey entirely with dog power, there are two main ways in which he can make use of the dogs. First he can plan to gauge his travelling and field work with the expectation of bringing all of the dogs back alive….
>
> The second plan for using dogs exclusively on a journey as long as we hoped to make, is one that no one can contemplate with any cheer. It is making good one's journey by sacrificing the weakest dogs as one proceeds. The dogs become pawns in a game and the fittest survive the longest". (Gould, 1931, pp. 71-72)

During the BAE II summer sledging journey to the Queen Maud Mountains, surface party expedition members also calculated the necessity of lightening their loads. By no means, however, were dog deaths met by all members with indifference. Stuart Paine recalled that after travelling for several days with temperatures reaching at times -52 F, the legs of his dog, Skookum, were frozen and he could no longer continue. Paine gave him a warm hug, then shot him. He noted in his diary:

> "To have to bring the poor critters down to such conditions, here [in Antarctica], then have them pull their hearts out for you and then to shoot them is more than justice allows. Let us hope these poor dogs will not have suffered in vain" (Stuart Paine 2007, p. 105).

No records indicate that dog sacrifice was intentionally planned for the USAS expeditions out of East Base. Perhaps it was hoped that more aerial and ground vehicles would eliminate the necessity for killing dogs; perhaps because this was a government sponsored expedition, such measures were frowned upon. As advanced as it was, the new technology could not prevent sledging accidents; the peril of severe injury, of falling into a crevasse, of pure exhaustion, of faulty calculations, of faulty planning, and of unexpected conditions was always present.

While various methods of hitching a dog team to the sledge have been used, the USAS operations continued the practice employed by the previous two Byrd expeditions: the double tandem of nine dogs, with a single lead dog followed by four pairs attached to the central line at the neck and at the end of the harness. A disadvantage to this method was that an entire team could disappear into a crevasse, or that in a tangle, a dog could be choked on one of the lines, or as seen in the episode at West Base dragged to death. While some USASE dogs did fall into crevasses, they were were extracted and no deaths from these accidents were reported.

Figure 5. Dog being extracted from crevasse at West Base

One incident in July 1940 at East Base illustrated the danger of entanglement. Two teams of twenty-five dogs each had hauled the large sides of the Condor's transport crate up the glacier to build the hut for the aviators. On the way back to base, the heavy sledge, gaining momentum while descending the steep slope of the glacier, travelled faster than the dogs pulling it. The team's central line slacked for a moment and a husky named Kim got caught up in the lines.

> "When his trace became snarled in the slack gear, his body became a link in the shortest hookup…and this line for the moment was shorter than the heavy gangline, placing the pull of twenty or more dogs on Kim's neck…. He was one of our finest dogs, on Finn Ronne's team. He was one of Taku's pups, born at Little America …in January, 1934". (Black 1941a, p. 68)

While aerial reconnaissance could point out possible paths through unknown territory, only ground reconnaissance could examine the detailed terrain. As the daylight hours increased at Stonington, teams were sent out to scout various routes. Normally, the dog driver either skied or walked beside the heavily laden sledge, but sometimes he would stand on the runners. A mast-like stake, called 'gee-pole', was attached towards the front of the sledge as a guide and a brake. Other members of sledge parties would ski in front to scout out possible thin ice or crevasses.

Negotiating mountainous territory also presented difficult or treacherous situations. On August 6, seven teams with a total of fifty-five dogs, ascending the Northeast Glacier, reached a plateau at an elevation of 5,000 feet. It was a gruelling ascent; sometimes two or three men had to hold onto the sledge to prevent it from sliding back. On one of the the steep switchbacks, the lead dog of dog driver Don

Hilton's team decided to have no more, turned the team around and began to race downhill. Just at the edge of a drop-off, Hilton was able to stop them by digging his crampons into the icy surface (Black, 1941a, p. 77). A disaster had been avoided.

Figure 6. Fifty-five dogs on Mile High Plateau August 1940

When the seven teams finally reached the "Mile High Camp", they encountered winds of hurricane potency which forced them to hunker down for a few days before returning to base on August 13 without accomplishing their goal (Black, 1945, p. 7).

A month later five teams headed up the same glacier, and once again, they were met with fierce winds, this time at temperatures as low as -16 F. While the men struggled against the blowing icy wind, the dogs seemed not to mind. " It was always surprising to me how they could stand this weather and still be happy", recalled dog driver Joe Healy (Healy, 1940, September 15). Finally, they decided to hitch two teams each to two sledges heavily laden with equipment, drive them up to the Mile

High Plateau, deposit them there, and return for the rest of the gear. During the descent, the dogs, no longer attached to sledges raced down the mountain; one dog was killed and another nearly so, according to Healy, due to recklessness (Healy, 1940, September 16).

These teams had hardly returned to base, when a party of Paul Knowles, Lytton Musselman and Harry Darlington ascended the glacier again to mark the trail and lay food deposits. This journey saw not the demise of a dog, but the near loss of party leader Knowles, who fell into a crevasse.

> "He went down fifteen feet then a bridge broke, but Darlington and Musselman were roped to him and they were able to pull him up. While Darlington held the weight after digging in his heels and lying back on the line Musselman went up to the hole and helped Knowles up over the edge where the line had cut in. For some minutes Knowles had been looking into Eternity in the form of a hole which became too dark to see much below about three hundred feet". (Black 1940a: 104-105)

Extremely foul weather in October plagued the aerial surveys and hampered material distribution for the caches. It was known that the Southern Party's journey skirting Alexander I Land would be considerably farther and take considerably longer than the Weddell Coast exploration. Since some of the area above King George the Sixth Sound had already been surveyed by Rymill, base command planned for the men and dogs to be flown over known territory in order to explore by ground the unknown. To that end, they had prepared eight crates which would hold two dogs each. In order to accommodate the men, equipment, and dogs in the Condor, the crates were designed so that two dogs would be lying in a reclining position and

would not be able to get up or force their way out of the crate. Holes were drilled for air. The crates would then be piled on on top of each other. This design had been tested in June when they picked two of the strongest and most unruly dogs in the group, put them in a crate, and drove them around base in the light army tank for two hours. The dogs did not seem to mind, nor were there any adverse reactions to the test. However, the October weather also forced those plans for partial aerial transportation of the Southern Party to be scrapped (Black, 1941a, p. 61).

The Major Sledging Operations

On November 6, 1940 seven men with fifty-five dogs left East Base and headed towards Wordie Shelf Ice where the cache, some eighty-seven miles away, had been deposited back in May. The Main Southern Sledge Party crew was comprised of Finn Ronne, party leader, and Carl Eklund, biologist and ornithologist. A support party of Paul Knowles and Don Hilton accompanied them for the first hundred miles, at which point they would return to base for their Weddell Coast exploration. A second support party comprised of J.Glenn Dyer, Joseph

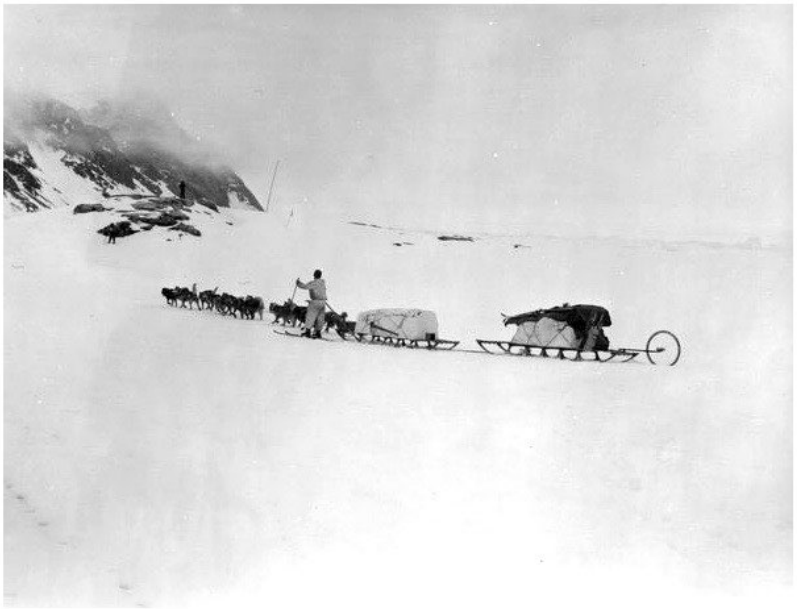


Figure 7. Eklund's team starting out on the Southern Party Journey

Healy and Lytton Musselman, would accompany them another hundred miles, after which they broke off to explore the Eternity Range.

Travelling along the bay ice to Cape Berteaux, the teams entered an area of narrow snow bridges spanning large open crevasses. Unexpectedly, four dogs disappeared into a perilously hidden crevasse. Immediately, the men scrambled to pull out the terrified dogs, dangling in their harnesses ten feet above an endless black hole. Quick reaction, combined with human and canine strength, hurriedly wrested the dogs up and over the crevasse onto solid ground (Eklund,1941, p.7). Continuing the journey, they arrived without further incident at Wordie Cache, only to discover that the food depot that had been placed in May was nowhere to be found; it had disappeared due to time, snow and drifts.

After a new cache for the return trip had been laid, the support party of Knowles and Hilton returned to East Base where they were joined by Harry Darlington. The three men then set out on November 19 for the Weddell Sea coast with twenty-two dogs. Unfortunately, personal details about this journey, as well as details about the dogs, are not available. Scientific reports related that they travelled in a southerly direction to a latitude of 74^0 42'S, and were successful in collecting geological data and in determining the extension of the Weddell Sea shelf ice (Knowles 1945a; 1945b). Their journey lasted nearly a month, and although they met with some poor weather, for the most part the going was good. Due to the earlier pre-laid cache deposits, man and dog food was sufficient. Base leader Black noted that, upon their return, both men and dogs appeared to be in good shape, but only twenty of the twenty-two dogs came back. There was no mention of what happened to the two dogs (Black 1941a, p. 152).

With the departure of the Knowles support party at Wordie Cache in November, the Ronne/Eklund and Dyer/Healy/Musselman parties continued on their southern course with thirty-one dogs, averaging at first only four to eight miles a day due to heavy snow. When, on November 21, they reached a plateau above King George the Sixth Sound, the two groups separated to continue their individual explorations. Before parting, dog swaps were made and five dogs were shot. It is unclear why the dogs were killed. Finn Ronne noted, "Five dogs were shot at this plateau camp, as planned" (Ronne, 1945, p.16). Carl Eklund referred to the dog swap, "We were sending back several of the pups…because we didn't think they would stand the long trip ahead of us, and we wanted to save them" (Eklund, 1941, p.12). J. Glenn Dyer's only comment in his report noted that "the supporting party … separated from the Main Southern Party at Dead Dog Camp" (Dyer,1941, p.1). Ronne's statement suggests that, like on previous expeditions, he had planned in advance to dispose of a certain number of dogs.

Personal insight by dog driver Joe Healy (Healy, *Diary of Joe Healy,* 1941) reinforces this suggestion. Healy maintained that he had an extremely strong team which had taken the lead during the beginning of the excursion. He was fond of his dogs and proud of the work they were doing; ten days into the trip he noted that Ronne was impressed with his dogs, and Healy toiled then with the troubling idea that, when it came time to part, Ronne, being expedition leader, would take some of Healy's dogs and transfer them to Eklund's team. His disdain for Ronne was expressed in his November 18 entry in which he suggested that Ronne did not have the support and respect of some of the men. Finally on November 21, the day the two parties separated:

> "Finn at last has his wish. He took Ben, Chick & [sic]Tarzan on Eklund's team with him so he could shoot them and gave me some of Eklund's team. He was not man enough to come and tell me himself but wrote it out and gave it to Dyer. He would not even ask me which of the dogs left I would like to kill or keep, but shot five of them and then called Glenn aside, at the last minute, to tell him that Zoie, one of the few left of my original team must be shot. He was afraid, I guess , that I would shoot some of the useless dogs from Eklund's team, who he has praised all winter….I told Ashley [Snow] before we left camp, there would be few of my dogs come back. I just signed their death certificates when I let them get out in front and break trail with the heaviest load all through the soft snow in the crevasse area. If I can stretch the food, I will still take Zoie back, altho Finn will probably shoot her in camp anyway. So Finn proves what he said in Boston by shooting off all the team….I don't see how a man can travel in the solitude and immenseness of this country and still be as petty and mean as Ronne". (Healy, *Diary,* November 21,1940)

Three days into their Eternity Range journey, Healy noted in his diary that base leader Black, during a radio communication, told Ronne "Not to kill any more dogs". After hearing that, Healy had hopes that maybe the three dogs Ronne had taken from his team, might come back after all "but I still think Ronne will find some excuse to kill them" (Healy, *Diary,* November 24, 1940). Joe Healy was not the only USASE member to voice a bad opinion of Finn Ronne. Charles Passel asserted dislike several times in his diary, at one point writing "I imagine that he [Ronne] is the most disliked man on the expedition, either base" (Passel, 1995, p. 59).

When the Eternity Range Party separated from the Southern Party on November 21 Ronne's written instructions to Dyer ordered that they were to have eleven dogs for the three man party, and the men would be supplied with twenty-one

days of man food, the dogs supplied with only eighteen days of dog food (Ronne, 1945, pp. 16; 22). In spite of the fact that by November 28 the dogs were already on half rations, they completed their mission within the designated time range, and while Dyer, himself, encountered a bad fall resulting in a sprained ankle and torn ligament, there was no mention of any canine injuries or deaths during the journey (Dyer, 1941, pp. 1-12).

Consequences of facing the unknown and unexpected in Antarctic exploration are no where more evident than in the experience of the Southern Party as they continued their journey. Their objective was "to extend [the survey of] King George the Sixth Sound in its observed westerly trend and determine whether it ended in high lands, or continued to a junction with the sea" (Black, 1945, p. 6). In other words, they were to determine if Alexander I Land was part of the mainland or if it was an island.

The accounts by Ronne (1945, pp. 16-21) and Eklund (1941, pp. 12-35) of the party's journey describe the ordeals and misery encountered by the men, and especially the dogs. They headed south with a total of fifteen dogs along the plateau above King George the Sixth Sound. According to Ronne's report, he and Eklund had intended to continue on the plateau, plotting a southerly course past the Seward Mountains and only then drop onto the Sound, but leader Black via radio directed them to enter the Sound just above the pre-deposited cache at the foot of the Batterbee Mountains. The trail from the plateau down to the Sound had changed from a smooth and flat trail, to a glassy surface, then to a terrain spotted with holes and crevasses. At the Cache they lightened their sledges by disposing of unnecessary gear; this was about December 4. They were now headed past the point where Rymill's team had

ventured in 1937 and were in truly unknown territory. When they entered the Sound, they met pressure ice as far as they could see and also noticed a salty tang to the air, indicating they were not far from the ocean. Crossing the Sound, one of the sledges fell through the ice and became totally emerged, but they were able to extricate it and save the gear. On the other side, they mounted an escarpment, apparently hoping to get a better idea of the delineation of Alexander I Land, and probably desiring to find better travelling terrain. The plateau on the eastern edge of the Land did proved to have a more accommodating surface, but by December 8 they were once again forced to head down to the Sound and the unforgiving pressure ice.

Five days later, having journeyed 441 miles from base, Eklund had to make the decision to kill his first dog, an act he had dreaded to confront. Tarzan, a dog born in Little America during BAE II and one of the dogs from Joe Healy's team, had become weak. Eklund noted that shooting Tarzan was one of the hardest things he has ever had to do as he "had grown so fond of all these animals…but exploration and sentiment couldn't be mixed and it had to be done" (Eklund, 1941, p.17). The two men subsequently skinned the dog and fed him to the other dogs, who did not seem to mind. Tarzan's demise was only the beginning of the party's dog problems. The next day, Mike, one of Finn Ronne's favourites, got loose while Eklund was hitching up the team. Mike made a bee-line for his nemesis, a dog named Chief. A fight broke out, and Chief slashed one of Mike's pad, resulting in his inability to walk, let alone pull a load. Like Tarzan, Mike had also been born in Little America, and because he was one of the toughest and hardest working dogs in the team, he was given the privilege of riding in the sledge, in hopes that his pad would sufficiently heal later

down the trail. Within two days, Ronne and Eklund were down to thirteen pulling dogs, with the extra load of Mike in the sledge.

As they travelled southwards through the icy wasteland in search of Alexander I Land's southern shore, the men realized that salt was not only in the air, but in the pressure ice itself. On December 17, at mile 489, they came upon an open lead into the sea, indicating that Alexander I Land was indeed an island. By this time, the feet of the dogs had become a great concern. During the day, the salty ice was soft and mushy, but during the night it turned to ice crystals; the ice caps formed small inverted stalagmite-like crystals over which the raw pads of the dogs had to tread. Ronne and Eklund had "convincing proof…that Alexander I Land was really and island…and didn't have to go any farther according to plan, but…were so eager for each day's new view that [they] couldn't stop" (Eklund, 1941, p. 20). They continued to travel until December 21, when they were brought face to face with the ocean. There, at their farthest point west, they laid a claim for the United States (Eklund 1941, p. 21). For the next two days they sledged up to more comfortable terrain on an elevated plateau, on December 23 at mile 593, the party turned around and headed home.

While the feet and pads of the arctic freighting dog are robust, tough, well built and webbed, they are not adapted to walking for miles over cutting salty ice projections. Material for covering for the dogs' feet was not an item in the expedition's purchasing inventory (*Trail Equipment, Dogs,* 1939); Eklund noted that they had just not considered booties for the dogs. The Southern Party had ventured into the unknown, met the unexpected and had now to cope with a lacking piece of dog equipment. The consequences were to follow shortly.

By the end of December the dogs were showing signs of dejection, depression, and their feet hurt severely. On Christmas Eve, Eklund put his own mitts on the front feet of Sandy, who had been a strong pulling dog, but was now being dragged along by his comrades. The next morning he could not stand up and was shot. Three days later, Eklund noted that the team was falling apart, and there still remained 450 miles to home. Chick, another one of Healy's dogs, was the next one who could not get up. And then, Skippy, a comical character, dropped in his tracks. A black short-haired dog with floppy ears, Skippy had the admirable trait of waiting for the command to lie down after a stint on the trail. One day Eklund forgot to give him that command before he went about attending his chores; when he returned to the dogs an hour later, there was Skippy, still standing. But now, after having travelled over 700 miles, Skippy could no longer stand and was shot. On December 29 Eklund commented that they were days of nightmare, and the most difficult part of the trip so far was even getting the dogs up and working.

Down to eleven dogs, with Mike still riding in the basket, they lightened the sledge by throwing out some of the dog food in hopes of reaching the Batterbee Cache, 75 miles away. When Ben, the third dog from Healy's team, and a young male called Ole stopped pulling, the men unhooked the two to let them walk behind the team. Mike was also forced to leave the sledge and walk along, but both he and Ben lay down and went to sleep, never to awaken again, as they were put out of their misery. Ole, on the other hand, perked up, was put back into the team, and began pulling. Having reached the plateau of the escarpment, the surface became smoother at first, but as they ran into tougher terrain, Wray, a female Malamute, stopped, lay down and couldn't get up. Born in Little America, Wray was three-fourths Malamute

and one-fourth Eskimo, and was the mother of five expedition members: Mascara, Cleo, Arctic and Ole and Colonel, who were only five months old when they were inducted into the USASE in the summer of 1939. Shortly after Wray was shot, her son Arctic also refused to pull and was killed. By the time they reached the cache at the base of Batterbee Mountains on January 5, seven dogs—Grub, Ole, Mascara, Dello, Colonel, Cleo and Chief— remained, and they, too, were not in good condition.

Eight hundred miles behind them, with two hundred ahead, over half of the original dogs had been shot. Ronne's assessment: "It was a pity to go to such measures, but there was no other way out, since weights, distances, etc., were so closely figured. We could not permit ourselves to make frequent stops for the dogs' feet to heal" (Ronne, 1945, p.19). In his narrative base leader Black wrote:

> "…we had been informed that the melt-and-free crust in the Sound had been very damaging, but the news that they had lost over half their power was a great shock. We found out later that their supplies on the sledges were insufficient to stop and allow the feet to heal, making it necessary for them to forge ahead to Batterbee Cache where there would be a quantity of dog food". (Black 1941a, p. 150)

The two statements of Ronne and Black are somewhat contradictory. On their journey out, after having reached Batterbee Cache, Ronne and Eklund "discarded all unnecessary gear" (Ronne 1945, p.17). Later, on December 29, nearly a week away from Batterbee Cache, and with some three hundred miles back to East Base, they lightened their load by getting rid of dog food. Richard Black seemed to have understood that supplies, especially dog food was insufficient, and that was why they

could not stop for the feet to heal. Yet, they had discarded what was termed unnecessary gear on December 2 and had thrown out dog food on December 29, when Mike, Ben, Wray and Arctic were still alive. Even with seventy years' perspective and 20/20 hindsight, given that this narrative is written in the comfort of a warm room, it is difficult to determine if the decision not to stop at an earlier point to give the dogs' feet a chance to heal was poor judgement or necessity.

But Ronne and Eklund did stop at Batterbee Cache for the paws of the remaining seven dogs to recover. There, Eklund began to cut out and sew moccasins for the dogs from the tarp material covering the sledges. It was there also that they were able to communicate via radio their dire predicament with the men at East Base, who subsequently informed them that, as soon as the weather cleared, the Condor would be sent out to to pick them up.

Kevin Walden, member of the FIDS 1946-1948 expedition noted,

> "If nothing else, Antarctica is unpredictable…Our brief experience of this area of the Antarctic was that it had a distinct will of its own….the winds and blizzards were its weapons, it would change its tactics, and a strategic shift of the sea- ice or a sudden rise in temperature at the crucial moment would put he best laid plans in the dustbin". (Walton, 1955, p.152)

So it was, that the plan to rescue the Southern Party, also ended in the dustbin. At first, bad weather prevented the Condor from flying. Then, the day after Ronne and Eklund arrived at Batterbee, communications broke down. They could hear some of the incoming messages from East Base, but the generator powering the radio became defective and they could no longer send messages. After ten days of rest and the help of Eklund's booties, the dogs' feet were improving and the two men and

seven dogs headed out in the direction of Wordie Cache, some 125 miles away. While the booties protected the feet somewhat, the animals themselves didn't appreciate them. They found walking awkward and would try to flip them off, or at first chance would chew at them when they lay down. Chief, however, seemed to delight in the leather booties as he would pick up the discarded ones and eat them.

Meanwhile, the staff at East Base, not being able to receive communications, still thought that the men and dogs were at Batterbee; they were desperate to rescue them. Finally, on January 19 the bad weather lifted, and as the plane made ready for take off, Ronne and Eklund, who by this time were starting to climb the glacier to Wordie, could hear that help was finally underway. They listened to the radio conversation between the Condor's co-pilot, Earl Perce, and East Base Radioman, Elmer Lampaugh, as the plane was leaving to meet them. They could hear as Pilot Ashley Snow gunned the airplane's motor for taking off: "On our radio we could distinctly hear the roar of the motor. Then there was a crash as though the propellor had struck something. Through the noise we heard Earl say, 'We've had an accident!'" (Eklund,1941, p. 30). At full speed, the left ski of the Condor caught the inside edge of a parallel crevasse, resulting in a peculiarly twisted left wing, and a disruption of the flying wires (Black 1941a, p. 153).

The accident would have consequences not only for the Ronne/Eklund party, but later it would affect an even more dire predicament for the men and dogs of East Base. With the airplane out of commission, base leader Black decided to organize three teams of eleven dogs each to 'rescue' the Ronne/Eklund party. Not having heard from the party since January 6, they had no idea how far they would need to travel. Time was going to be a factor because the *Bear* and the *North Star* were already

underway to pick them up for return to the United States in about sixty days. But this effort, too, was plagued with setbacks. The four-man party with eleven dogs set out on their rescue mission January 21, only to be caught in a ferocious wind storm which damaged their tents to the extent that they had to return to base two days later. After resting and loading up new gear, they set out again on the 25th; shortly into the journey one of the sledges slid down a sidehill, hit a rock, was destroyed and completely useless. After a new sledge was brought to them, they were finally on their way towards Wordie Cache by January 27 (Black 1941a, pp. 154-156).

However, unbeknownst to the men at Base, Ronne and Eklund were making good progress and they had already reached Wordie on January 22. Although the dogs were once again showing signs of depression and hurt, they headed towards home, only about 100 miles away. Five days later, 22 miles from Stonington, they unexpectedly saw the Base teams coming towards them. Astonishment and elation were felt by all. The two men and the remaining seven dogs had travelled 1,264 statute miles, accomplished their mission, but lost eight, over half, of the members of the canine party. Carl Eklund ends his narrative of this trip as follows:

> "To the seven dogs which finished up with us —- Grub, Ole, Mascara, Chief, Cleo, Dello and Colonel, I give my salute for the stamina and gameness that brought us through; and to the eight others we lost —- Sandy, Arctic, Mike, Wray, Skippy, Tarzan, Chick and Ben I would like to build memorials along that bitter stretch of trail. If there is such a thing as a dog valhalla I know they will be there because they worked until they dropped in their tracks ". (Eklund,1941, p. 35)

The Approach of World War II and Evacuation

Originally, the U.S. Government had intended the two bases to become permanent with a rotation of manpower over the years. However, when England entered the war against Germany, and as the Lend Lease bill passed the U.S. Congress, American foreign policy priorities changed. The decision came from the highest levels to suspend Antarctic operations and evacuate the bases without delay. The *Bear* arrived in Bay of Whales at West Base on January 11, 1941; the *North Star* reached the Bay on the 24th. Since both ships had already encountered loose drift ice in the Ross Sea upon arrival, evacuation of the base began immediately. The tractor, tank, and dogs transported equipment, records, scientific data and personal effects onto the ships. The Snow Cruiser was left behind. It would finally end up at the bottom of the sea when the West Base site broke from the Ross Shelf Ice and vanished into the bottom of the ocean in 1963.

The loading of the ships went well until one team disappeared. As the head of the biological team was fastening his skis to take the team down to the ship, the dogs broke loose from the sled and vanished. Despite looking for them for two days, they were nowhere to be found. Three days later the team's lead dog, Snooks, meandered into camp. A female Siberian, who had been born at Chinook Kennels, Snooks had apparently chewed off her harness and found her way back to the base. A ski team immediately departed, followed her tracks to where she had last slept—forty-five miles from the camp. But even with aerial reconnaissance, no trace of the team was found, and the search had to be abandoned. By February 1, the two ships had been loaded, and the crew, seeing the Bay of Whales for the last time, headed for Palmer

Peninsula and East Base. The surviving forty-three dogs were piled three stories high in their crates onto the *North Star's* aft deck (Passel, 1995, 365-366).

Evacuation at Stonington Island, however, was in major trouble, as recorded by base leader Black (Black, 1941b). Departure from the Antarctic was timed for the late austral summer so that ships can navigate the waters of the bays before the winter ice sets in. As noted, the *Bear* and the *North Star* had already encountered some drift ice in the Bay of Wales. Ice conditions at East Base were different; the ice in the bay that summer did not go out enough for the ships to enter. The expedition had entered Marguerite Bay on March 3, 1940. The previous British Graham Land Expedition to the area had made a note of ships entering the bay in March during the years 1935, 1936 and 1937. Expedition leader Rymill concluded, "I see no reason to assume that these years were in any way exceptional ones, and it seems reasonable to suppose that Marguerite Bay should be navigable late in February and all of March in almost any year" (Rymill, 1986, 270). Yet the summer of 1941 did turn out to be an exception.

The two ships arrived in the vicinity of Stonington on February 17, 1941. Richard Black's account (1941b, pp. Z1-Z40) captures the agonising story of the evacuation. Three elements would be necessary to cause the ice to breakup: thaw, a strong current or action of the tide, and strong easterly winds. The first two criteria had materialised, but the east winds did not blow. The schedule from Washington D.C. anticipated the ships arriving at East Base on February 19 and leaving on the first of March. When the latter date arrived and the ice still did not show signs of breaking up, East Base staff began to consider an alternate method of leaving. That alternative would be to "fly personnel and records out, leaving everything else

here" (Black, 1941b, Z 2-9). 'Everything else' included the scientific equipment, the scientific experiments, the motorised vehicles, and the dogs.

When, three weeks into March, the east winds still failed to break up the bay ice, the alternative plan became a greater likelihood. East Base had been equipped with one Curtiss-Wright Condor biplane upon arrival—only **one** plane. In Black's mind, and especially in hindsight, two or three planes were necessary for such an expedition. He wrote, "One airplane at an isolated base in the Antarctic is a one-way ticket to nowhere" (Black, 1941a, p. 35). The Condor's accident on January 19 had damaged considerably the the plane's flying capability. Now, two months later, with air evacuation being possibly the only option of departure, the certainty of the Condor's fitness remained in question. The prospect of leaving behind the year's work of scientific experiments, the entire base equipment, and especially the dogs was an excruciating thought to the crew. Prolonging an alternative evacuation as long as they could, futilely willing in their minds every day the east wind to blow and the ice to exit the bay, the expedition members could not change the situation. Nor was it up to them to decide when to leave. Washington had given that power to Captain Cruzen of the *Bear*.

After scouting the coastline for several days, the men in the *Bear*'s crow's nest sighted a glacier where an airplane could possibly land. Too far away to risk driving the teams over the melting ice and snow peppered with ever-expanding crevasses, Mikkelsen Island presented a location where the Condor might safely land, although the men would have to repel a cliff to gain a whaling boat from the *Bear*. Eighteen of West Base's remaining forty-three dogs were transferred from the *North Star* to the

Bear in case a rescue team would be needed. The *North Star* subsequently sailed with the West Base crew, minus the dog drivers, for Valparaiso, Chile and the United States.

On March 21, after twenty days of waiting for the ice to break out of Marguerite Bay, Captain Cruzen of the *Bear* made his decision, and the alternative plan of evacuating only the men became a reality. That decision was not met with unanimous approval by the expedition members at East Base. Each of the men was able to voice openly his opinion; a group of them wanted to stay for another year, and rumors even circulated that perhaps some said they might be hard to locate on the island at evacuation time. It was out of the question, however, to leave voluntarily a small group of men behind, especially since it was assumed, and rightfully so, that within the year the country would be at war.

The plan was to make two flights out, each with twelve men aboard. Because of the uncertain condition of the Condor, there was a good chance that neither flight would be successful. If the flights were not successful, the men would be forced to stay on the island another year, and the dogs would be needed. If, however, the airplane was able to fly, the dogs would be destroyed. At 5:30 a.m. on the morning of March 22, East Base pilot Ashley Snow and co-pilot Earle Perce, with the first group of twelve men tightly packed into the cabin, took off with difficulty. The plane flew over the mountains, ice, snow and open water towards Mikkelsen. Reaching the glacier designated by the *Bear's* crew as safe and suitable, Snow made a perfect landing. The passengers subsequently roped down a steep cliff to the awaiting whale boat and were then transported to the *Bear*.

As Snow and Perce returned to East Base from their successful first flight, the next painful phase of the evacuation plan loomed before base leader Black. The dogs had to be destroyed. "Cold and lifeless!" he wrote. "It now becomes my task to tell the most heartrending story of the whole miserable affair" (Black, 1941b, p. 25). Of the seventy-five dogs that originally embarked on Stonington Island a year earlier, plus some of their offspring, sixty-one were still alive and well; the adults had taken part in the tedious and dangerous trail work; the juveniles were just learning the ropes of pulling a sled; and the very young were still puppies. Richard Black dreaded the task of killing the dogs, but knew it was his duty to shoot them. However, while the Condor was in its return flight, one of the dog drivers, who had spent so much time on the trail with the animals, approached Black and requested to do the job himself. "You don't want to do that job," he told his superior. "I know those fellows better than you do. Go up on the hill, and I'll be along shortly"(Black, 1941b, p. Z 33).

Thirty-three of the sixty-one were then shot on their tethering chains.

Although the Condor was able to fly the first group of men to safety, it was not at all certain that the remaining fourteen expedition members could similarly be saved. Because of this uncertainty, it had been decided that twenty-eight dogs would not be shot immediately. Should the men be forced to remain on the island, they would need the dogs for another year's survival. Should, however, the second flight reach the *Bear*, a "merciful but terrible device" had been prepared to administer the faithful animals a quick death rather than a long, starving one. The dogs were staked out in their harnesses. Three 50 pound cases of dynamite were placed in a triangle twenty feet apart. A wire leading from case to case and to the detonation device had

been buried so that it couldn't be tampered with. Those wires led to an electrical contact placed on an alarm clock, the minute hand of which had been removed. The clock was set to go off at 3:15 that afternoon.

The Condor returned from its first flight at 10:00 a.m., and the remaining base members climbed into the plane for take-off an hour later. As Ashley Snow gunned the plane at full speed, the skis pounded the rough surface below, and the plane did not lift into the air. The pilot cut the engine and taxied back for a second try, but this time he demanded that all gear, amounting to about 500 pounds, be thrown out of the plane. A second attempt was made an hour later. Again, Snow gunned the engine and the plane sped along the surface, bumping again on the rough section, in what seemed an interminable minute, before it lifted off the ground, gaining speed as it crossed above the glacier below. It was at this point that Richard Black looked down on the camp, "…high on the field behind we could see the twenty-eight dogs lying quietly in harness, lazily eyeing the plane which they would see no more"(Black,1941b, p. Z 33). They were probably suspecting another routine day of aerial reconnaissance.

After the drone of the airplane engine faded, a white silence must have hovered over East Base, save perhaps for a few occasional howls from the dogs. Then, three hours later a series of blasts might have broken the stillness, and then again white silence.

Aftermath

A telegraph communiqué regarding the evacuation, dated March 24, 1941, from the *USS Bear*'s Captain Cruzen, Commanding Officer of the USAS, to the Executive Secretary of the USAS in Washington D.C. and to the Executive Committee USUD *North Star* reads in part:

> "…seven puppies aged two weeks were carried by individuals and recommend that technicalities be waived for men concerned retain these. Adult dogs disposed of humanely with timing device retaining twenty seven [sic] of best insuring stock in case forced to return. Request no publicity dog disposition. All very happy to be aboard *Bear*". (Cruzen, 1941)

For their service during the entire expedition and their extraordinary performance flying out the evacuated men, Pilot Ashley Snow and Co-pilot Earl Perce were both awarded the Distinguished Flying Cross. Many of the men of the USAS expedition served in the military during World War II. Many of the dogs that survived at West Base served in rescue work during the war, some together with former USAS dog drivers.

After World War II, two expeditions were based on Stonington Island; the British set up a base (Base E) not far from East Base as part of the Falkland Islands Dependencies Survey (FIDS) in 1946, and in 1947 Commander Finn Ronne led a private expedition, the Ronne Antarctic Research Expedition (RARE) to Stonington. He engaged Harry Darlington, also a member of the East Base USASE team, as head

pilot for his RARE expedition. Harry was accompanied to Stonington with his wife, Jenny, and his dog, Chinook, who was one of the puppies rescued at evacuation.

The head dog driver at FIDS, Kevin Walton, upon embarking on Stonington Island in 1946 remarked at the disarray of the USAS settlement, evidence of a very hasty retreat. Walton came upon the carcasses of the thirty-three shot dogs, still tethered to their chains, and he also found a dog carcass in a workshop, which was not near the dynamited areas (Walton, 1955, pp. 24-25). Towards the end of the RARE expedition, Harry and Jenny Darlington decided to take an afternoon ski jaunt to the glacier where the Condor and the airmen's hut had been stationed in 1940-41. The old shack had been buried under years of drifting snow, but as remnants were still visible, Jenny and Harry began digging to access the still intact structure. A shocking scene awaited them upon opening the door: The preserved bodies of three sled dogs. In her book Jenny recalled her husband's reaction.

> " 'Good God', Harry said finally. 'The dogs must have gnawed through their tethers, broken loose and come in here to die. They knew this shack. The men who lived here fed them'. Down to the last long hair on their bodies, their preservation was complete. The eyes of one, open and staring; another with a paw raised as though about to take a step; a third, its jaw widened into a snarl". (Darlington and McIlvaine, 1956, pp. 261-262)

The Darlingtons closed the passage and left the dogs where they had died.

In her book Jenny Darlington describes that Harry, before entering the Condor, turned around and tucked one of Sadie's puppies under his coat, while Captain Cruzen's communiqué above states that seven puppies were packed in a suitcase. As for the dogs found in the buried aviators' hut, cases of cold temperature

mummification are not unheard of (Renfrew and Bahn, 2008, pp. 452-453). The positions and attitudes of the mummified dogs most likely resulted from the receding skin as desiccation set in.

Significant evidence concerning the effectiveness of the detonation came to light in 1992 from the National Science Foundation (NSF). Under the Antarctic Treaty, East Base was designated in 1989 as an historical monument. The protection of the monument was under the auspices of the NSF, which employed the National Parks Service (NPS) to assist in establishing recommendations for management of the site. To that end a group of cultural resource specialists in the early 1990's visited Stonington Island to make such recommendations. As part of their program, the specialists excavated the area of the Ronne cache using archaeological techniques. It was there that a dog skeleton was found under the boxes and washtub in the central portion of the cache. Since the presence of snow and ice on the ground when Ronne reoccupied the site in 1947 undoubtedly prevented the discovery of the dog's body by RARE, the NSF archaeologists concluded that the skeleton was probably one of the animals left by the USASE during the 1941 evacuation (Spude and Spude, 1993, p. 71).

It will never be known what happened to the remaining twenty-eight dogs who were destined to perish by explosives. It is possible that some of them escaped the explosion and were able to roam until they died from hunger or exposure. They would not have been the first dogs, nor the last dogs, to have been lost in the Antarctic. In 1957 a Japanese expedition felt they must leave fifteen dogs behind due to circumstances similar to the USAS expedition; namely, the only way to save the

men was to fly them out in helicopters which were not able to accommodate the dogs. Those dogs were left tethered to their chains, and a year later, when the dog handlers returned, some of the dogs had died on the chains, some were lost, never to be found, and two were still alive (Solar, 2012).

In 1994 the International Antarctic Treaty banned dogs from inhabiting Antarctica, and those already there had to be removed. The reason was twofold: they were considered to be a non-native species, and there was concern that the canines could introduce diseases to the native fauna.

The demise of all the East Base dogs was a result of several factors: injuries, illnesses, fights, exposure, exhaustion, as well as human errors in judgement of the unexpected and unknown, and perhaps hubris. Theirs was the fate of many, many expedition dogs, who gave their all but usually remained only a footnote in Antarctic exploration history.

List of East Base Dogs at the Time of Evacuation

(National Archives, Washington, D.C.)

1. Cleo
2. Mascara
3. Colonel
4. Ole
5. Chief
6. Grub
7. Dello
8. King
9. Rock
10. Yakut
11. Sadie
12. Mike 1
13. Midget
14. Vixen
15. Corkey
16. Wolf 2
17. Freddy
18. Albertine
19. Katy
20. Casey
21. Rags
22. Pal
23. Chinook
24. Joan
25. Scotty
26. Kearsarge
27. Nany
28. Tookel
29. Brownie
30. Frosty
31. Bing
32. Windy
33. Pug
34. Nip
35. Tuck
36. Chugu
37. Igloo
38. Sparky
39. Jojo
40. Cougar
41. Rounder
42. Rinski
43. Tuffy
44. Rinski
45. Skivar
46. Silver 1
47. Sitka
48. Neny
49. Beau Geste
50. Kim 2
51. Worry
52. Nanook
53. Teddy
54. Brownie 2
55. Silver 2
56. Tiny
57. Nova
58. Zoie
59. Snowball
60. Fluffy
61. Josie
62. Torre
63. Teza
64. Blackie 1
65. Blackie 2
66. Jimmy
67. Bill
68. Russe
69. Bum
70. Teton
71. Kelly
72. Hap
73. Jack
74. Moe
75. Kim
76. Wolf 1
77. Bozo
78. Mike 2
79. Sandy
80. Wray
81. Ben
82. Chick
83. Tarzan
84. Skippy
85. Arctic
86. Power

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About the Author

Joan Bryner lives in Alaska with her husband and sled dogs. She has a Master's degree in History and French Literature and a Diploma in Egyptology. She became interested in the dogs of the USAS expedition when learning that her friend and neighbour, Natalie Jubin Norris, then of Lake Placid, N.Y., had sold a Malamute called Teton, together with her four offspring, to the U.S. government in 1939. Wondering what happened to those dogs, Ms Bryner began her research about the canines who served in the Antarctic. This narrative is the result of that investigation.

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