On July 8, 1879, the old gunboat *Jeannette*, under the command of George Francis Delong, a 34-year-old Navy lieutenant, weighed anchor in San Francisco, and, with her bulwarks stacked high, began a laborious steam northward. Along the shore and docks, thousands of people had gathered to give a roaring sendoff to the ship and her crew, their noisy accolades an acknowledgement that what the low-slung *Jeanette* lacked in beauty mattered not at all on this summer day. Rather it was her planned journey to a white landscape unmarked by human footprints, a pristine place at the Top of the World where few would ever go. The *Jeannette* was bound for the North Pole.

There was a fascination for polar voyages at the time, a passion which 130 years later when the entire planet can be seen from an airplane and the mapping of oceans and continents reveals features previously unknown, seems nearly quaint. But in the late nineteenth century most of the Arctic was unexplored, and although the vastness of the Arctic Ocean was known, the existence of an uncharted northern continent, or at the very least an ice-free sea, was a tenacious dream that persisted in the public consciousness, no matter the evidence to the contrary. The possibility of a warm, open passage was written about in newspapers, debated in scholarly journals, and a subject of maps based on desire more than knowledge. A boundless place where cool heads and logic did not always apply, the Arctic was both dangerous and alluring, in part for its inaccessibility for much of the year. In that hostile landscape, the vicissitudes of nature dictated survival. Even the stalwart, profit-driven whalers, who had penetrated the region more than any others, often succumbed to the vagaries of weather and a tumultuous sea. And the *Jeannette* was not only headed north towards the Pole, she would be the first ship to attempt a route through the northern Pacific via the Bering Sea. Even the whalers did not venture so far.

Overloaded and slow, under a different name the *Jeanette* had carried men safely to the Arctic, but she was considered by many to be inadequately refitted for her new voyage. And as she lumbered out of the harbor, she did so with a man at the helm as unfamiliar with the seas above the Arctic Circle as those who observed his departure. Often undertaken in a haze of wishful thinking and scientific speculation, glory or failure rested not only on the unpredictable weather and luck, but also on the dynamics of the personalities of the men confined within the small ship. Just as surely as it had been when the Vikings sailed west across the North Atlantic, the desired outcome might not what reality dictated.

Although the potential power of an ice pack that could reduce a ship to kindling and scatter the remains across the terrain was known, other considerations weighed as heavily as on the mind of George DeLong. He alone may have been aware of the role that budgetary restrictions and time constraints might play in the *Jeannette's* potential success or failure; factors as potentially significant as information about their destination — perhaps more so. Politics, too, would contribute to the success of the expedition. Legitimate concerns about the ship's adequacy were given short shrift against the multiple goals placed upon her voyage by her benefactor. And although De Long's loving wife Emma was present for the *Jeannette's* departure, the lieutenant was keenly aware of a conspicuous absence. Neither his financial supporter nor a representative of the department that had helped fund the project — the Navy — were present.

So, while the crowd craned their necks for a view of the stalwart, young commander and his beautiful wife, the *Jeanette* lay low in the water, loaded with coal, supplies, scientific equipment — including light-producing generators — all in preparation for a sojourn in the Arctic. Aboard a crew of 35 acknowledged the crowd with a mixture of anticipation, excitement, and stout hearts. Although they had been carefully selected, only a few had Arctic experience.

The crowd cheered as the anchor was weighed and the *Jeannette* steamed away, surrounded by civilian craft from the San Francisco Yacht Club and escorted by four municipal steam-tugs. She looked nearly beautiful with her escort, but as she began her moved towards the Golden Gate, a naval tug crossed her wake without so much as an acknowledgment. It was indeed a strange send-off. A twelve-year Navy veteran, and a man granted with the powers of an admiral on this voyage, De Long departed amidst a boisterous civilian parade. Regardless of the confused politics implied in this farewell, soon enough he would be on his own. Bit by the Arctic dream, DeLong and his crew steamed north towards fulfillment at an achingly slow five or six knots.

The Jeannette's voyage took place at a time when two prevailing, and, as it turned out, fallacious beliefs, influenced Arctic exploration. One was that there was an ice-free polar sea north of the Arctic Circle, although how far north remained a bit unclear, as ships had traveled as far as 80 degrees north latitude. This was not wishful thinking alone, for it was hoped that two warm (relative to the ambient temperatures) ocean currents, one located in the Atlantic and the other in the northern Pacific, could provide the necessary heat for an ice-free sea. One of these was the Atlantic's Gulf Stream, a warm current noted by the Spanish explorer Ponce de Leon in 1513 and first scientifically studied by Benjamin Franklin on his voyages to and from Europe. The Gulf Stream originates in the Gulf of Mexico and flows north along the Atlantic coastline, separating into two currents at about 40 degrees latitude, with one current bending towards Africa, and the other flowing north towards Newfoundland and then swinging east to Europe. There it influences land temperatures, particularly along the western coast of both islands and continents. Most of the western coast of Norway is ice free, even in the midst of winter. What was not known even at the time of De Long's departure, was how far north that influence was felt. Lack of knowledge and misinformation, combined with hope, had kept the dream alive of an ice-free Arctic.

The reality was that explorations of the northern Atlantic along the eastern coast of North American had failed to confirm any evidence of a warming effect of the Gulf Stream. Arctic explorers had attempted to traverse the Northwest Passage for years, with the tiresome result always the same — ships stuck, sometimes with fatal consequences to their crews, or turned back by ice. The Passage itself would not yield to a traverse until Roald Amundsen succeeded in his 1903-1906 voyage, years after the *Jeannette*'s departure. The flow of ice down the west coast of Greenland was a well-known hazard. Yet the myth persisted that north of this regular jamming of the sea, there was an ice-free zone.

The hope of a balmy Arctic Ocean north of the known ice-choked sea, was given credence by a scientist of the time who had never been to the Arctic, but apparently talked a good enough story (and published prolifically) to become the Royal Geographer of Great Britain for a time. A man who by a combination of salesmanship and scientific background, and by telling people what they wanted to hear, enjoyed a renown that brought dreamers, sometimes those with deep pockets, to a wishful belief in his theories. His name was August H. Petermann, a German geographer who had expounded at length about the supposed blue waters of the northern Arctic, a great warm ocean encircled by what he called the "Paleocrystic Sea". Petermann met with James Gordon Bennett, the publisher of the New York Herald, and a rich, dreaming playboy who would, in part because of Petermann's influence, fund the *Jeannette*'s voyage. Bennett was convinced, and so, too, apparently was DeLong. Perhaps guilty only of accepting as they simply that which they wanted so much to believe, where did Petermann, a man who would eventually take his own life, get his ideas?

In spite of his proselytizing Petermann had apparently changed his views on the feasibility of the approach to the proposed warm Arctic sea via the north Atlantic. Meeting with Bennett in

Gotha, a German town where Petermann was employed as a professor, Petermann advocated a Pacific route, through the Bering Sea. Excited by the idea, the staid De Long also became enthused about a Pacific route. Undoubtedly some of the attraction was that an attempt on the North Pole via the Bering Sea had not been made. This was a place for whalers, with commercial interest driven by the availability of prey; they were not inclined to attempt journeys north to a mythical sea. In the 1840s, search parties had penetrated this region in the search for the missing Franklin expedition, with the hope that perhaps Franklin had traversed the Northwest Passage, but other than that, exploration had been confined to the Atlantic side.

There was a warm current that swept into the north Pacific, and thus the hope persisted that it exerted a warming influence north of Petermann's great Paleocrystal Sea. This was the Kuro Siwo (Black Current, also called the Kuroshio) Current that flowed along the coast of Japan and eastward towards the North American continent

Certainly, cooler and more logical minds scoffed at the suggestion that warm waters provided an ice-free passage, but such thinking was probably neither desired nor sought. An expedition employing 35 men, a 132-foot ship, months of refitting, and thousands of well-wishers was based as much on a public restlessness as knowledge or the search for it. Imperialism, too, cloaked in the mantle of national pride, contributed to any expedition to the icy North.

If the Black Current did not provide a gateway, there was that other hope concerning the geography of the polar region. This was that a continent capped the planet at both extremes. And Wrangel Island — then called Wrangell land — was important to this belief.

Measuring about 150 kilometers at its widest point and centered over the longitudinal 180-degree line at approximately 71 degrees north latitude, Wrangell land had been historically seen only a few times. No written record of anyone traveling north of it was known, and although occupied, if briefly, 3,000 years ago by humans, at the time of the *Jeannette's* sailing little information was available. Part of De Long's orders were to steam up the eastern coast of Wrangel Island and determine whether it was the tip of the Arctic continent or an island. Thus he was directed to investigate both dreams, the existence of a polar sea, or, by contrast, a northern continent.

Certainly other high latitude islands were known and occupied. Spitsbergen Island, a Norwegian island, is four times the size of Wrangel in area and, at 78 degrees north, more than 7 degrees closer to the North Pole. First confirmed historically by the Dutch in 1614, Jan Mayen lies at nearly the same latitude as Wrangel. This volcanic island (it has the farthest north active volcano in the world) may have been seen as early as the 6th century, and was known by whalers from the early 1600s.

Between Wrangel and Spitzbergen the two islands of Novaya Zemlya, known by the Russians since the 11th century and visited by west Europeans as early as 1553, extends as far north 73 degrees. The northern edge of Greenland is 10 degrees closer to the Pole than Wrangel. These are high latitude islands, and yet the hope that Wrangell land was the southern tip of a continent persisted. So little known, the island remained in the realm of the mysterious. Who could know if it marked the southern extreme of an unknown northern land?

The idea of a warming influence from the Black Current was soundly debunked by the U.S. Coast and Geodetic Survey the day after the *Jeannette* sailed. A survey had determined that the current was cooler and smaller than the Gulf Stream, and that evidence was lacking for any northern influence. The report firmly stated that the idea of a polar sea free of ice was scientifically unsupportable. There were no warm currents in the Bering Strait.

A few days before sailing, the California Academy of Sciences had given a reception for the crew of the *Jeannette*, at which time DeLong addressed the scientists, stating his intention to

pass through the Bering Strait towards the pole. Acknowledging the potential difficulties of such an undertaking, DeLong admitted that north of the 71st parallel, little was known about the region, stating that "After reaching the seventy-first parallel of latitude we go out into a great blank space, which we are going to endeavor to delineate and to determine whether it is water or land or ice." Thus, DeLong was positioning the voyage as a completely new undertaking, much as the years-long search for the Northwest Passage had been. It was an unprecedented attempt to penetrate an unknown region.

De Long did not know of this Geodetic Survey paper, of course, and whether it would have made any difference to the proposed route is conjecture. According to whalers' reports, the ice pack was small when the *Jeannette* left port, and so De Long's hope of getting to Wrangel was not unfounded. He planned also to explore and record his findings after he reached the island and was aware that the exploration of Wrangel implied the possibility of wintering there.

The Jeannette's crew included two scientists, firemen, carpenters, stewards, and seamen. Three Naval officers included the executive officer, Lieutenant Charles W. Chipp, and the Navigator, Lieutenant John W. Danenhower. When the Jeannette reached Alaska, two Inuit men – Alexey and Iniquin, joined the crew in St. Michaels; they were employed as hunters for the expedition. Forty dogs were also acquired in St. Michaels, as well as three dogsleds.

DeLong had hoped to depart before the end of June, but the late July departure did not unduly concern him. He was convinced there was time enough to reach Wrangel, even given the lethargic nature of the *Jeannette*. The only problem was that he wasn't going directly to the island.

Not long before the sailing, the expedition's goals had been altered. The primary goal to explore the northern Bering Sea was placed on a back burner in favor of a more pressing concern. For reasons that were partly political, definitely journalistic, but also humanitarian, the *Jeannette* was to take on the role of a search-and-rescue vessel. The publicity aspect of a possible rescue along the way to the North Pole was too much to pass up for Delong's benefactor Bennett. And such missions were common enough; ships undertaking long voyages sometimes failed to return and directing sea-faring ships to determine their fate was an expected practice of the time.

The object of the search was Nils Adolf Erik Nordenskjold, a Swedish professor and experienced leader of Arctic expeditions. As with Delong's quest for the North Pole, Nordenskjold was also attempting a first in the annals of Arctic exploration. Departing from Sweden aboard the Vega in June of 1878, Nordenskjold's plan was to traverse the Northeast Passage, along the coast of Siberia. By September of that year the Vega had become locked into the ice, not a particularly unusual occurrence late in the summer, and as far as was known, there was no reason to suspect that anything was amiss. Nordenskjold had gotten word through that he believed he would be free of the ice "soon" and steam to Japan, achieving his goal. It would be an unprecedented accomplishment. But Bennett had visions of fame denied him in another expedition he had promoted – the Stanley search for Dr. David Livingston in Africa. If De Long could rescue Nordenskjold, a hero would be made before the first winter, and Bennett could make certain he received sufficient credit. Unknown to De Long as he made his own preparations, Bennett put in motion the plan to search for the Vega. Unwilling to argue, or perhaps aware of the implications if he did, De Long reluctantly agreed to undertake a search. Bennett fueled the fires of worry in his newspaper, while the staid U.S. Coast and Geodetic survey proffered the opinion that there was little reason for alarm.

Thus, once he reached Alaska, rather than voyaging to the north, De Long would undertake a search for the *Vega*, traveling west from Alaska to Siberia. His first destination was Cape Serdtse-Kamen on the Russian coast, where it was known that Nordenskjold had stopped.

Unknown to De Long as he set the *Jeannette* on course through the stormy Bering Strait, the Swedish explorer was south of him along the Seward Peninsula, bound for Yokohama, Japan. There he would expect a triumphant reception, having succeeded in traversing the Northeast Passage without the help from an American rescue, undertaken by the diligent Lieutenant De Long.

At the Cape, the Jeannette's crew learned that a ship had wintered 75 miles to the west, at Kolyuchin Bay. Steaming cautiously towards the bay, on August 31 a funnel-like opening allowed access through the thickening ice pack, and nearing land, De Long dispatched a small party in the Jeannette's whaleboat. The men landed at a village where they acquired some uniform buttons that had been traded with the local people. On seeing these, De Long was convinced that they had belonged to the Vega's crew. Now considering Nordenskjold to be safely free of ice, and confident that he had fulfilled his obligation to search for the Swedish explorer, De Long could pursue his original course. On this, the last day of August, it was probably unthinkable to him that the Jeannette should winter in the bay, as more than two months into the expedition, no significant goal had been met. Far from their destination, and with the expansion of ice on the sea, DeLong clung to one last hope for the year — that late summer would bring a warm spell of weather and the opportunity to reach Wrangell land before winter closed in. Although earlier in the season whalers had reported a seasonally small ice pack, more than any others these experienced men were well-acquainted with the fickleness of the sea, and other than providing him with experience of the ice, DeLong's previous sojourn in the northern Atlantic had no bearing on what the western Arctic held in store for him. What had been an ice-free year could literally change overnight.

Two hundred miles from Wrangell land, on August 31 DeLong steamed out of Kolyuchin Bay on a northwest heading. By the following day the *Jeannette* encountered ice floes sufficiently thickened to require care in her maneuverings. On September 2nd solid ice was reached, about 100 miles into their journey. At this point De Long turned to the northeast, skirting the pack, aided by a southeasterly breeze strong enough to permit moving under sail. On September 4 Herald Island was sighted. Located only 43 miles from Wrangel, the proximity of the rarely visited small island, spurred De Long to make one final attempt to reach the unexplored island.

As the temperature dropped and the ice thickened, the *Jeannette*, moving under steam, made little progress into rapidly closing leads. Forced to abandon the attempt, De Long could only hope to land on Herald Island where the crew could stay until spring.

But even that small, rocky outcrop was denied. Ramming the ship against the thinnest ice, the *Jeannette* could not force her way through what was rapidly transforming into a permanent winter pack. By September 8, a little more than a week into the northerly journey, the *Jeannette*, canted to starboard, was stuck fast. Yet De Long still held onto the hope that a late summer gale would break up the ice and free the ship. His hopes and dreams notwithstanding, this was not to be the *Jeannette's* fate that year, and there was nothing DeLong could do.

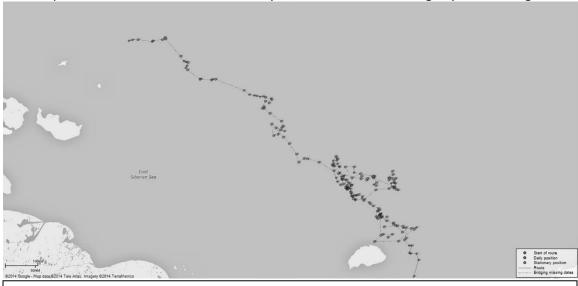
The last known sighting of the *Jeannette* by the crew of another ship was made in the first week of September 1879, when the whaler, *Sea Breeze*, passed close by. The captain of that vessel observed the ship turning and ramming against the ice in her attempts to move northwest. For the next two years, information about the *Jeannette* and her crew would be unattainable. And the ship would never be seen again by anyone but those on board, now locked on a floating island, moved along on a heading dictated by an ice pack which seemed in possession of a capricious personality. There was no control over the ship. Unwittingly, the *Jeannette* was testing Petermann's hypotheses, finding them at best incomplete, and, at worst, possibly deadly. Clearly a warm ocean current, at least near Wrangell Land, did not exist.

One final attempt to escape from the immobilized ship was attempted that autumn. On September 13 a team of dogs hitched to a sled with three men on board raced towards Herald Island; with them the last hope of abandoning the ship for land was to be extinguished. Reaching fractured ice that appeared to expand with each passing minute, the team turned back, retreating to the relative safety of the ice-bound ship.

Now the *Jeanette* began to move to the northwest, at a surprisingly quick rate. Driven more by wind than current, the ship canted, carried along at an estimated rate of three miles a day. Passing Herald Island, and then traversing north of Wrangell land, safe onboard her crew, helpless to control the movement, could only hope the following summer would bring liberation. After all, she was not the first ship to spend a winter held fast in the ice, and that winter the men's spirits were excellent, as preparations for their current situation had been made. With the temperature now below freezing and the sun's appearance shortening with each passing day, the *Jeannette* marched on, carrying men kept busy by design and necessity.

Although mirages often fooled a ship's crew, and the ice could produce such apparitions, on September 5th De Long described snow-capped mountains to the south and west, which he took to be Wrangell land. By October 28, when they had been swept far enough that the landform lay to the south, De Long was forced to accept the unavoidable conclusion that Wrangell land was an island, not the tip of an undiscovered continent. It was Wrangel Island, and they were moving by it, heading west.

The men saw the mountains of Wrangel again on January 26, 1880 — the temperature that day was 59 degrees below zero — but by February 20 they had drifted out of sight of the island. The sun peaked above the horizon on January 28, and with the warming days the leaking



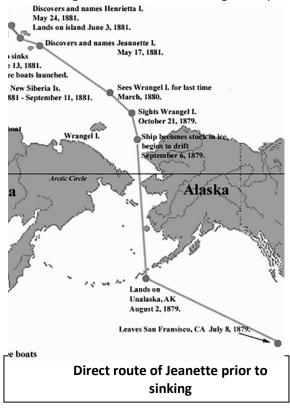
Route of the Jeannette after becoming frozen in (1879), until sinking in 1881

Jeannette drifted on, still constantly threatened by the shifting ice.

Yet she held and would remain encased for another year-and-a-half. After a last sighting of the mountains of Wrangel disappearing below the horizon, land would not be seen again until May 1881, nearly fifteen months in the future. The summer of 1880 would fail to provide enough heat to melt the ice, and the dark days of winter would come again to a fading white horizon, as the *Jeannette* continued on a journey with a new, unknown destination.

On May 16th, 1881, with the *Jeannette* and her crew having drifted more than 500 miles from Wrangel, an island was seen to the west, an event that DeLong recorded in his diary with

an enthusiasm that there was more than ice in the world. He anticipated fresh meat, stating that "And then bears must swarm on OUR island! In fine, this island is to us our all in all." They had been drifting for 20 months and had gazed upon limitless ice for 14. DeLong continued – "I



believe most of us look carefully at our island before we go to bed, to make sure it has not melted away." They named the land for their home, the *Jeannette*, and made observations of its features as the ship moved inexorably past. Opening leads in the ice offered an opportunity to hunt for birds and seals from kayaks.

A larger island came into view to the west and north, and as the ship approached to within 12 miles of this land, DeLong decided to send six men to the shore of the island, now named Henrietta. They men were directed to stay, if successful at a landing, no more than 24 hours. Taking three days to reach the island, the men left a copper cylinder containing a summary of the expedition and declared the land to be the property of the United States. Henrietta was mostly barren rock, and with the Jeannette still distant, the crew members returned to the ship, weakened from their arduous journey through the ice. As the ship drifted by the newly named islands, DeLong

took comfort from the discovery of land, feeling that in some way the expedition could now be claimed as successful. Yet he knew any search for the ship and crew so far from the original course was unlikely. With many of his crew ill from lead poisoning, and the progression of the *Jeannette* still dictated by ice, the future remained as uncertain as it had the previous year.

Ice leads were tantalizing, but the rough passage through floes and cracks as they passed north of Henrietta were cause for alarm. Ironically, the presence of land so beautiful to the crew of the *Jeannette*, would influence her fate in a way that even if known could not have been altered.

Ultimately, it was the shifting, unstable ice, and the thrusting of large pieces against the port side of the ship, jamming the starboard into the solid pack and preventing any movement in response to the pressure, that spelled the end of the *Jeannette*. The ship canted further, to 30 degrees, cracked, and broke, and with water pouring in, and making every effort made to remove supplies from the half-sunk vessel, the crew left her, watching from an ice floe as their faithful ship, laid over on the ice, took her final resting place in the cold waters of an unforgiving ocean. It was 4 a.m., June 12. Surrounded by their supplies, the men watched the disappearance from their new home of limitless white ice and black water.