

= Jeannette Expedition =

The Jeannette Expedition of 1879 ? 81 , officially the U.S. Arctic Expedition , was an attempt led by George W. De Long to reach the North Pole by pioneering a route from the Pacific Ocean through the Bering Strait . The premise was that a temperate current , the Kuro Siwo , flowed northwards into the strait , providing a gateway to an Open Polar Sea and thus to the pole . This theory proved illusory ; the expedition 's ship , USS Jeannette , was trapped by ice and drifted for nearly two years before she was crushed and sunk , north of the Siberian coast . De Long then led his men on a perilous journey by boat and sled to the Lena Delta . During this journey , and in the subsequent weeks of wandering in the Arctic wastes before rescue , more than half the ship 's complement died , including De Long .

The chief exponent of the theory of a warm @-@ water gateway to the North Pole was the German cartographer , August Petermann . He encouraged James Gordon Bennett Jr . , the proprietor of the New York Herald , to finance a polar expedition based on the untried Pacific route . Bennett acquired a former Royal Navy gunboat , the Pandora , and changed her name to Jeannette . De Long , whom Bennett chose to lead the expedition , was a serving naval officer with previous Arctic experience . Although essentially a private venture , in which Bennett paid all the bills , the expedition had the full support of the U.S. Government . Before departure the ship was commissioned into the U.S. Navy , and sailed under navy laws and discipline .

Before its demise , the expedition discovered new islands ? the Ostrova De @-@ Longa ? and collected valuable meteorological and oceanographic data . Although Jeannette 's fate demolished the widely believed Open Polar Sea theory , the appearance in 1884 of debris from the wreck on the south @-@ west coast of Greenland indicated the existence of an ocean current moving the permanent Arctic ice from east to west . This discovery inspired Fridtjof Nansen to mount his Fram expedition nine years later . A monument to the Jeannette dead was erected at the United States Naval Academy in Annapolis , in 1890 .

= = Background = =

= = = Early Arctic exploration = = =

European exploration of the Arctic regions began in the 16th century , with searches for new routes to the Pacific via the Northeast and Northwest passages . The possibility of a third route , directly across the North Pole , was raised by early geographer Richard Hakluyt . The early explorers had little success in finding these routes , but made important geographical discoveries . In time , the search for trade routes became secondary to the prestige objective of reaching the North Pole itself , or at least of registering a " Farthest North " . In 1773 a British naval expedition under Captain Constantine Phipps sought a route to the pole from the Seven Islands , but found the way impassably blocked by ice . On May 28 , 1806 , the Whitby whaling captain William Scoresby achieved a new record northern latitude of 81 ° 30 ' to the north of Svalbard before being stopped by ice .

The prevalent theory of polar geography throughout this period was that of a temperate " Open Polar Sea " surrounding the North Pole . The observable southward drift of Arctic ice was thought to result from the " pushing " effect of this warmer water . According to the historian Hampton Sides , despite the lack of scientific evidence the theory " gathered a logic of its own ... No amount of contrary evidence could dislodge it from the collective imagination " . The fact that all northbound voyages had , sooner or later , been stopped by ice was rationalized through a belief that the undiscovered sea was encircled in a ring or " annulus " of ice which , it was thought , could be penetrated via one of several warm @-@ water gateways or portals . The initial quest for the North Pole thus became a search for one of these portals .

After British naval expeditions in 1818 and 1827 ? 28 had probed north of Spitsbergen and found no sign of the supposed polar sea , the quest was in abeyance for 25 years . In the 1850s , the

search for the lost Franklin expedition generated a rash of incursions into the Canadian Arctic . From these forays , particularly that of Edward Inglefield in 1852 , emerged the theory that Smith Sound , a northerly channel between Greenland and Ellesmere Island , might be one of the fabled gateways to the polar sea . This brought a succession of expeditions to this area : Elisha Kent Kane in 1853 ? 55 , Isaac Israel Hayes in 1860 ? 61 , Charles Francis Hall in 1872 ? 74 , and George Nares in 1875 ? 76 . No gateway was found , although both Kane and Hayes claimed , mistakenly , to have seen the Open Polar Sea from a distance .

= = = August Petermann = = =

The Smith Sound route was not favored by everyone ; among those who rejected it was leading geographer and map @-@ maker August Petermann , from Gotha in Germany , widely known as the " Sage of Gotha " . A firm believer in the Open Polar Sea theory , he believed that the most likely portal would be found by following the Gulf Stream , which swept up the coast of Norway to the unexplored Arctic regions . Peterman thought the current would weaken or even penetrate the protective ice ring , and that a sturdily @-@ built steamer following the course of the stream might thus be able to break through into the supposed polar sea .

After two expeditions sponsored by Petermann ? the German North Polar Expedition of 1869 led by Carl Koldewey , and the Austro @-@ Hungarian North Pole Expedition of 1872 under Karl Weyprecht and Julius von Payer ? had followed separate branches of the Gulf Stream but ultimately failed to break through the ice , Petermann grew dispirited . In the year before he took his own life in 1878 he transferred his advocacy to the Kuro Siwo , a Pacific Ocean current analyzed in the 1850s by the hydrographer Silas Bent . Petermann followed Bent in believing that a branch of the Kuro Siwo flowed through the Bering Strait , and might be powerful enough to create a path to the polar sea . At the time no one had attempted to reach the polar sea by this route .

= = = George De Long = = =

In July 1873 the U.S. Navy dispatched USS Juniata to Greenland , to search for survivors from the Polaris expedition which had disintegrated after the death of its leader Charles Francis Hall . Juniata 's second @-@ in @-@ command was George De Long , a 28 @-@ year @-@ old graduate of the United States Naval Academy , making his first visit to the Arctic . Ice conditions prevented Juniata from advancing beyond Upernavik ; De Long volunteered to take the ship 's tender , a small steamer named the Little Juniata , in the hope of finding survivors at Cape York , a further 400 nautical miles ( 740 km ) north .

The attempt failed ; Little Juniata faced extreme weather conditions , and was forced to retreat a few miles from Cape York . De Long returned to Juniata in mid @-@ August , having found no trace of the Polaris crew ( who had meanwhile been rescued by the Scottish whaler Ravenscraig ) , but the experience had profoundly affected his outlook . Having earlier described the Greenland coast in a letter to his wife Emma as " a dreary land of desolation ... I hope I may never find myself cast away in such a perfectly God @-@ forsaken place " , he returned home captivated by the Arctic . Emma later wrote : " The polar virus was in his blood and would not let him rest " .

The abortive Little Juniata mission brought De Long to public notice , and he saw himself as a possible leader of the next U.S. Arctic expedition . He approached Henry Grinnell , the philanthropic shipping magnate who had funded several previous expeditions . Grinnell was not prepared to offer financial support , instead advising De Long to approach James Gordon Bennett Jr . , owner and publisher of the New York Herald and a known sponsor of bold schemes . De Long met Bennett in New York early in 1874 ; the newspaperman was impressed by De Long , and assured him that his Arctic ambitions would have the enthusiastic support of the Herald . In the meantime De Long had applied to the Navy Department for an Arctic command , a request that he was informed would " receive due attention " .

= = = James Gordon Bennett = = =

James Gordon Bennett Jr. , had succeeded his father as proprietor of the New York Herald in 1866 . He had won renown in 1872 , when his reporter Henry Morton Stanley , sent by Bennett to Africa in search of the British missionary @-@ explorer David Livingstone , cabled that Livingstone had been found . Bennett knew the news value of Arctic exploration ; two Herald reporters had accompanied Juniata , and in 1874 Bennett was helping to fund British sailor Allen Young and his decommissioned former gunboat Pandora , on one of the final Franklin searches .

Bennett was interested in Petermann 's theories , and in 1877 traveled to Gotha to discuss possible Arctic routes with the geographer . Petermann thought that as well as providing the best path to the pole , passage through the Bering Strait using the Kuro Siwo would enable investigation of the unexplored , barely glimpsed land mass known since 1867 as " Wrangel 's Land " . He theorized that this land might form part of a transpolar continent , connected to Greenland ; if so , it might provide an alternative , land @-@ based route to the pole should the expedition fail to find a portal to the polar sea . " My idea " , he told Bennett , " is that if one door will not open , try another " . He offered Bennett full use of his maps and charts .

Petermann 's advice convinced Bennett that a new American polar venture should go ahead . On his return from Gotha , he cabled De Long requesting him to seek leave of absence from the Navy , and to begin the search for a ship suitable for Arctic exploration using Petermann 's Bering Strait route .

= = Preparation = =

= = = Ship = = =

As no suitable ship was available in the United States , De Long went to England , where he found Young 's Pandora on offer at \$ 6 @,@ 000 . The vessel 's Arctic pedigree made it seem ideal , but Young 's hesitancy about selling delayed the purchase until late 1877 . At Bennett 's instigation , Congress passed legislation that gave the Navy Department full control over the expedition ; it would fly the American flag , the crew would be engaged by the navy , and would be subject to naval discipline . Bennett remained responsible for financing the enterprise , and undertook to reimburse the government for all costs incurred . Meanwhile , De Long was released from active duty , to oversee Pandora 's refit in England .

In June 1878 , after a thorough overhaul at Deptford on the Thames Estuary , Pandora was sailed to Le Havre in France where , on July 4 , she was renamed Jeannette , after Bennett 's sister who performed the ceremony . On July 15 the ship , manned by De Long and a small crew , sailed from Le Havre to begin the 18 @,@ 000 @-@ nautical @-@ mile ( 33 @,@ 000 km ) voyage to San Francisco , the port from which the Arctic expedition was to sail . They arrived on 27 December 1878 , and transferred Jeannette to Mare Island Naval Shipyard to undergo further work in readiness for a prolonged journey in the Arctic ice .

De Long spent much of the early part of 1879 in Washington , D.C. , promoting the expedition among officials , searching for appropriate crew members , and harrying Navy Secretary Richard W. Thompson for practical support . His requests included the use of a supply ship to accompany Jeannette as far as Alaska . Among the less standard equipment acquired by De Long was an experimental arc lamp system devised by Thomas Edison , which would supposedly provide light equivalent to 3 @,@ 000 candles and thus transform the Arctic winter darkness . Having successfully undergone her sea trials , on June 28 , ten days before her scheduled departure , Jeannette was formally commissioned into the U.S. Navy as USS Jeannette .

= = = Crew = = =

In selecting his crew , De Long 's priority was men with Arctic experience . For his second @-@ in @-@ command he chose Lieutenant Charles Chipp , who had served with him on the Little Juniata

adventure . Another veteran of the Polaris rescue mission , George Melville , was appointed as ship 's engineer . Other experienced Arctic hands were William Nindemann , a Polaris survivor , and the ice pilot William Dunbar , who had many years ' experience in whalers . The appointment of the expedition 's navigating officer was problematic ; John Wilson Danenhower , a young naval officer from a well @-@ connected Washington family , was recommended to Bennett by the former president Ulysses S. Grant . Such sponsorship won Danenhower his place , despite a history of depression that had seen him briefly incarcerated at the Government Hospital for the Insane . On Bennett 's request , Danenhower accompanied De Long on the voyage from Le Havre to San Francisco , during which he confided details of his medical history . The navigator 's competent performance persuaded De Long that such troubles were in the past .

The ship 's surgeon , James Ambler , was assigned to the expedition by the Navy 's Bureau of Medicine and Surgery , only because he was next on the list of medical officers available for sea duty . Ambler deduced from Danenhower 's medical records that a probable cause of the navigator 's medical lapses was syphilis , but Danenhower 's influential connections ensured that he kept his place on the expedition .

Two others from Jeannette 's voyage from Le Havre , carpenter Albert Sweetman and boatswain John Cole , were enlisted , as was the Herald 's meteorologist , Jerome Collins . Dubbed " chief scientist " , he was in charge of the Edison apparatus and of a rudimentary telephone system that De Long hoped to utilize . The remaining places were filled from a long list of applicants ; the cook and steward were recruited by Danenhower from San Francisco 's Chinatown .

= = = Problems = = =

De Long quickly found himself at odds with the naval engineers at Mare Island , whose estimates of the work required to prepare Jeannette for the Arctic greatly exceeded his own judgement of what was necessary . De Long spent much time negotiating on Bennett 's behalf with the Navy Department , in an effort to reduce costs . In this he was broadly successful , but in other areas he faced setbacks . In April he learned that the navy was unable to provide a supply ship to accompany Jeannette northward , a decision which , he thought , left the fate of the expedition " hanging by a thread " . Bennett eventually resolved this difficulty by chartering a schooner , the Frances Hyde , to carry extra coal and provisions as far as Alaska .

Late in his preparations , De Long received orders from Secretary Thompson that , before proceeding with his own Arctic mission he should enquire along the Siberian coast for news of Adolf Erik Nordenskiöld and his ship Vega . The Swedish explorer was currently attempting the first navigation of the Northeast passage ; he was not overdue , and there was no evidence that he was in difficulty . Nevertheless , Bennett sensed the opportunity for a rescue story to equal his Stanley @-@ Livingstone scoop , and persuaded Thompson to issue the order . De Long , unaware that his patron was the originator , protested that this requirement would jeopardize his primary mission , but was forced to modify his plans .

De Long was unaware , as he prepared to sail , that the U.S. Coast and Geodetic Survey was studying the latest hydrographical and meteorological data obtained from its research ships in the Bering Sea . The material indicated conclusively that , contrary to Bent 's theories , the Kuro Siwo had no perceptible effect on the areas north of the Bering Strait . The survey 's report went on to dismiss the entire concept of " gateways " and the warm polar sea . By the time these conclusions were published , Jeannette had sailed , and De Long remained in ignorance of this information .

= = Voyage = =

= = = Towards the Arctic = = =

Jeannette 's departure from San Francisco , on July 8 , 1879 , was a popular spectacle , witnessed by large crowds who came from all quarters of the city . The army at Fort Point provided an eleven

@-@ gun salute ; in contrast , De Long noted that none of the naval vessels in and around San Francisco made any formal acknowledgement of their sister @-@ ship 's departure , " [ not even ] the blast of a steam whistle " . Bennett , absent in Europe , cabled that he hoped to be present when Jeannette made its triumphant return .

The first weeks on the journey northwards were uneventful . On August 3 Jeannette reached Unalaska in the Aleutian Islands , where De Long sought information on Nordenskiöld from the crew of a revenue cutter , newly returned from the Bering Strait . The cutter had no news of him . On August 12 , Jeannette reached St. Michael , a small port on the Alaskan mainland , and waited for the Francis Hyde to arrive with extra provisions and coal .

At St Michael , De Long hired two experienced Inuit dog drivers , and took on board a number of sled dogs . On August 21 , after transferring provisions and fuel , Francis Hyde departed ; Jeannette set out for the Chukchi Peninsula on the Siberian coast , to enquire after Nordenskiöld . At Saint Lawrence Bay the Chukchi people reported that an unidentified steamer had recently passed by , going south . De Long then headed through the Bering Strait towards Cape Dezhnev , where he learned from locals that a ship had called at Cape Serdtse @-@ Kamen , further along the coast . Here , a shore party from Jeannette quickly established from artifacts left behind with villagers that this ship was Vega and that Nordenskiöld 's expedition had therefore safely completed the Northeast passage . De Long left a note of his findings for transmission to Washington . On August 31 Jeannette left , in the assumed direction of Wrangel 's Land , where De Long hoped to establish his winter quarters .

= = = Icebound = = =

Jeannette initially made good speed northward ; on September 2 she was about 100 nautical miles ( 190 km ; 120 mi ) from the charted position of Wrangel 's Land , but with ice thickening all around , movement became slow and erratic . On September 4 , from the crow 's nest , Dunbar sighted the known landmark of Herald Island , but the ice now presented an almost insuperable obstacle to progress . De Long raised steam and repeatedly charged the pack , seeking to batter a way forward . The thick plume of smoke from Jeanette 's stack , observed by whalers , was the final sighting of Jeannette by the outside world .

The next day , September 5 , the crew caught a brief glimpse of Wrangel 's Land ? or perhaps , as De Long surmised , a mirage . Ice conditions now made it impossible to move closer to this tantalizing shore , and De Long made Herald Island his new objective . Shortly afterwards , Jeannette was sealed within the pack , " as tightly as a fly in amber " according to historian Leonard Guttridge . Herald Island was still about 15 nautical miles ( 28 km ; 17 mi ) away ; a sled party under Chipp set off across the ice , to investigate the possibility of a winter harbor should the ship regain maneuverability . Chipp 's party was unable to get closer to the island than 6 nautical miles ( 11 km ) , before the volatile ice conditions forced their return to the ship . De Long still hoped for a change in the weather that would release them from the ice , writing in his journal : " I am told that in the later part of September and early part of October there is experienced in these latitudes quite an Indian Summer " . The following weeks brought no increase in temperature , and De Long reluctantly accepted that Jeannette was trapped for the winter .

= = = Drifting = = =

The initial direction of the ship 's drift was haphazard , back and forth ? on October 3 , nearly a month after Jeannette was first trapped , Herald Island was still in sight . As October developed , the direction of drift shifted to the northwest , and it became apparent to de Long that " Wrangel 's Land " was not after all a land mass , but was a relatively small island . At the same time , analyses of sea currents , salinity and temperature provided data confirming the Geodetic Survey 's findings , by then known in Washington , that the Kuro Siwo had no effect north of the Bering Strait . The vista of endless ice surrounding the ship raised profound doubts about the entire concept of the Open Polar Sea .

Amid the boredom of the largely eventless drift , the crew ate well ; ship 's stores were boosted by regular hunting parties which brought a harvest of seal and polar bear meat . In late October , as winter approached , De Long ordered the Edison arc lighting system erected , but the generating mechanism failed to produce even the dimmest of lights , and the apparatus was swiftly abandoned , along with the equally ineffective telephone system . Christmas 1879 , and the start of the new year , were celebrated without great joy ; De Long wrote of Christmas as " the dreariest day of my life , and it is certainly the dreariest part of the world " .

On January 19 , 1880 , Jeannette 's hull was breached by the ice , and she began to take in water rapidly . De Long prepared to abandon ship , but she was saved by the actions of Nindemann and Sweetman , who waded into the freezing water in the hold and staunched the inflow by stuffing whatever materials were available into the breaches . Melville used elements of the discarded Edison apparatus to build a mechanical pumping system , and the problem was largely resolved by the construction of a new watertight bulkhead . De Long noted in his journal that the efforts of Nindemann and Sweetman were worthy of recommendation for the Medal of Honor .

For months on end Jeannette hardly moved at all ; De Long recorded on March 2 that their position was almost precisely what it had been three months earlier . On May 5 , the ship passed to the west of the 180 ° meridian , but two months later had retreated back to the other side of the line . The summer brought no relief ; although it briefly seemed possible in August that Jeannette might break free and find open water , this proved a false hope . The condition of Danenhower was a further source of anxiety . His syphilis began to take toll of his body , particularly his left eye which , despite Ambler 's repeated operations ? stoically endured , given the lack of anesthetic ? left the navigator largely incapacitated and unable to perform his duties . On the last day of 1880 De Long wrote in his journal : " I begin the new year by turning over a new leaf , and I hope to God we are turning over a new leaf in our book of luck " .

= = = Crushed = = =

At the beginning of 1881 De Long noted that , after 16 months , Jeannette was still only 220 nautical miles ( 410 km ; 250 mi ) from the point where she had been trapped . He wrote : " We are drifting about like a modern Flying Dutchman ... thirty @-@ three people are wearing out their lives and souls " . On May 16 an island was sighted , followed almost immediately by another ? the first land seen for well over a year . " There is something then beside ice in the world ! " , wrote De Long . They were in uncharted seas , so these islands were discoveries . De Long named the first " Henrietta Island " , after Bennett 's mother , and the second " Jeannette Island " . A sled party under Melville was despatched to Henrietta Island , to claim the territories for the United States .

At around this time , the revenue cutter Thomas L. Corwin was in Alaskan waters , seeking news of De Long 's expedition . Corwin 's captain , Calvin Hooper , heard stories of a shipwreck in the far north , and set off to investigate . For five weeks he circled the Bering Sea ; encounters with locals convinced him that the wreck was not that of Jeannette . On June 16 , 1881 , another relief vessel , USS Rodgers left San Francisco , but was destroyed by fire in Saint Lawrence Bay in November .

On board Jeannette , the discovery of the islands had raised De Long 's spirits ? the expedition would , wherever the drift took it , have some concrete geographical achievement to its credit . The onset of the brief Arctic summer brought fresh hopes that Jeannette would at last be released from the ice , and on June 11 she was briefly free , afloat in a small pool . However , the next day the ice returned with renewed force , which battered the ship and finally penetrated the hull beyond repair . De Long supervised an orderly evacuation of men , dogs , equipment and provisions . On the evening of June 12 , 1881 , Jeannette sank , her final recorded position being 77 ° 15N , 155 ° E , around 300 nautical miles ( 560 km ; 350 mi ) from the Siberian coast .

= = = Ice journey = = =

De Long 's general plan was to march with dogs and sleds to the New Siberian Islands , somewhere to the south , and then use the boats to carry his party to the Siberian mainland .

According to Petermann 's maps his intended landfall , the Lena Delta , was studded with settlements that would provide them with shelter and safety . By June 25 , after a week 's hard traveling on the ice , the northward drift had nullified their progress ; they were further from land than they had been when they set out . When the direction of the ice shifted , the party was finally able to advance in the right direction , but the going was slow and difficult . Part of the problem lay with the dogs who , after nearly two years of relative idleness , were either lethargic or quarrelsome , unable to work in harness . Some of the worst offenders were shot for food . On July 12 , land appeared to the south ; fleetingly , De Long thought this was part of the New Siberian Islands , but it was another uncharted island . When the party reached it on July 29 , De Long named it Bennett Island , and called the point of landing " Cape Emma " , after his wife . Meanwhile , hundreds of miles to the east , the Corwin had given up on its rescue mission . After months of searching vainly for definite news or traces of Jeannette , Hooper had concluded that the vessel was lost , and headed back to San Francisco .

After a week 's rest , the party departed Bennett Island on August 6 , leaving a message in a rock cairn . The ice was now too loose for sled travel , so the party transferred to the boats . Having no further use for the dogs , De Long ordered them shot . The general direction of the ice flow carried the party south @-@ west , and on August 20 the most easterly of the New Siberian Islands , Novaya Sibir , was in sight . For the first time since moving away from Herald Island nearly two years previously , they were in the charted world . De Long steered the boats through the channel between Novaya Sibir and Faddeyevsky Island , before skirting the southern coast of Kotelnik Island and beginning the final stage of the journey , across the open sea to the Lena Delta . Their last halt , on September 10 , was on the tiny Semyonovsky Island , less than 100 nautical miles ( 190 km ; 120 mi ) from the Siberian coast .

= = Lena Delta = =

= = = Storm and landfall = = =

The boats left Semenovskiy Island early in the morning of September 12 , in fair weather . Thirteen men were with De Long in the large cutter , Chipp with seven others took the smaller cutter , while Melville and ten men sailed in the whaleboat . Danenhower , who outranked Melville , complained bitterly to De Long about being placed under the engineer 's command , but De Long replied that Danenhower was unfit for duty , a view confirmed by Ambler . De Long instructed that the boats should each aim for a point indicated as " Cape Barkin " on the Petermann map ; if they became separated , and landed in different areas , the parties should rendezvous at Bulun , a sizeable settlement about 100 miles ( 160 km ) from the coast .

The boats made good progress through the morning , and Melville initially thought they might strike land after a single night at sea . In the afternoon the weather worsened ; the boats separated and lost sight of each other . De Long used a sea anchor to stabilize his craft in the ferocious seas , and despite having his sail torn away by the wind , managed to hold a course to the west . The storm had largely subsided by the morning of September 14 , but progress was erratic in the absence of the sail , and it was three more days before the cutter ran aground at the most northerly limit of the Lena Delta . De Long and his crew waded ashore , carrying their provisions from the boat , and prepared for a long foot journey . Based on their map , the nearest settlement appeared to lie 95 miles ( 153 km ) away . De Long thought their rations would last for three @-@ and @-@ a @-@ half days .

In the whaleboat , Melville had , like De Long , ridden out the storm by means of a sea anchor . The boat 's course was far to the south of De Long 's ; they finally reached land at one of the main mouths of the Lena , and were able to navigate upriver . Within a few days they encountered a native fishing camp , and by September 25 had reached the settlement of Arrhu . Chipp 's cutter never reached land ; overwhelmed by the storm , it foundered , with the loss of all eight on board .

== De Long party ==

The De Long party found no immediate sign at their landing @-@ place of any human habitation , and had only a sketchy idea of where they were ? Petermann 's map provided few useful details . On September 19 , having buried their non @-@ essential possessions in a mound marked by a tent pole , they set out in search of settlements . Progress was hampered by the poor physical condition of the men , in particular Eriksen , who was badly affected by frostbite . On September 21 they halted at two empty huts , probably part of a hunting camp , where Alexey raised spirits by shooting a deer to replenish their dwindling food stocks . De Long allowed his exhausted party several days ' rest before resuming the march .

On September 28 the party found a large hut , with signs of recent occupation ? edible food in the store , and moccasin tracks in the snow . When searches in the locality brought no sign of people , De Long decided to move on . By October 4 , Eriksen could not continue ; the party halted at another abandoned hut where , on October 6 , Eriksen died . On October 9 , with the condition of several men worsening , De Long decided to send two of the fittest in the group , Nindemann and Noros , to seek help . Ambler was offered the opportunity to go with them , but felt that his duty as a doctor required him to stay with the main body .

For the next week De Long 's party struggled on , sometimes making barely a mile a day . Although they jettisoned more of their possessions on the way , De Long insisted on carrying his maps and journals . His entry for October 10 recorded that there was " nothing for supper but a spoonful of glycerine " . A few days later Alexey , the group 's principal hunter , shot a ptarmigan which provided soup . But Alexey was weakening , and on October 17 he died . On October 20 , trapped by the weather and without supplies , the party came to a final halt . Throughout the march De Long had written up his journal each day , but after October 20 his entries became intermittent , largely limited to terse statements of the dying and the dead . He noted the deaths of Kaak and Lee on October 21 , Iverson on the 28th , Dressler on the 29th . His last entry , dated October 30 , records the deaths of Boyd and Görtz and ends " Mr Collins dying " .

== Melville , Nindemann , Noros ==

After resting at Arrhu , Melville 's group moved out , aiming for the agreed rendezvous at Bulun . On September 19 they encountered native Tungus huntsmen , who led the party first to the tiny settlement of Little Borkhia , and then on to the larger village of Zemovialach . Here , locals advised them that they would have to wait for the river to freeze before attempting to reach Bulun .

After several weeks , Melville learned from a Russian traveler that two Americans were recuperating at Bulun . Weather conditions were now suitable for travel , so Melville hired a pair of expert local dog drivers to take him to Bulun . He left Danenhower in charge , with instructions to lead the party to Bulun as soon as practicable , and from there to proceed as best he could to Yakutsk , a large city hundreds of miles to the south . Melville arrived in Bulun on November 3 , where he found Nindemann and Noros , weak but recovering . From them , Melville learned of De Long 's plight and his urgent need for rescue . The pair had endured a harrowing experience since leaving De Long nearly a month previously . They had struggled for ten days , sleeping in improvised shelters and eating what they could catch or shoot . In this fashion they reached a small , abandoned camp which they later learned was named Bulcour . Here , they had been found by a nomadic band of Yakut hunters , who had taken them to a large camp at Kumakh @-@ Surt . To their great frustration they were unable to make the Yakuts understand that they were shipwrecked mariners whose comrades were in dire straits . They did manage to convey their desire to reach Bulun , and were taken there by sled , arriving on October 29 a few days before Melville joined them there .

== Searches ==

From Bulun , Melville sent messages to Washington and the Herald , advising them of Jeannette 's



loss and listing the survivors and missing parties . On November 5 he set out with two local guides , using rough maps supplied by Nindemann and Noros , to begin his search for De Long . At the village of North Bulun , natives brought him notes left by De Long 's party in cairns . One note directed Melville to the cache of logbooks and instruments that De Long had buried at his landing @-@ place . Although now convinced that De Long and his comrades must have died , Melville continued the search , but the encroaching Arctic winter meant that he could do no more that season . He returned to Bulun at the end of November , and then traveled on to Yakutsk to be reunited with the other Jeannette survivors .

In January 1882 , while most of the survivors began their long journey home , Melville , Nindemann and James Bartlett prepared to head a new search in the delta when weather allowed . They left Yakutsk on January 16 , and resumed their search when the thaw began in mid @-@ March . Beginning at the spot where Nindemann and Noros had left De Long the previous October , Melville began a systematic examination of the area . On March 23 he found Alexey 's hunting rifle and , nearby , the remains of a camp . The team found further artifacts , a frozen human arm protruding from the snow , and finally De Long 's journal . From this they learned the story of the party 's final days .

Soon , all the bodies except that of Alexey , which was never found , had been recovered . Those of the last three to die ? De Long , Ambler and Ah Sam ? were some distance from the rest , where they had evidently attempted to set up a final camp on higher ground . Melville 's party wrapped all the bodies in canvas , and carried them to a hill high enough to be safe from seasonal flooding . There they placed them in a large coffin improvised from driftwood , which they covered with rocks surmounted by a large wooden cross , inscribed with the names of the lost men . Melville 's group left the site on April 7 , 1882 , then spent a further month in the delta , searching without success for signs of Chipp and his crew .

= = Aftermath = =

Of the total expedition party of 33 men , 13 returned alive to the United States . The first group of survivors landed in New York in May 1882 , but celebrations were deferred until the arrival , on September 13 , of Melville , Nindemann and Noros . They were welcomed as heroes , given a civic reception , and treated to a banquet at the celebrated restaurant Delmonico 's . Public interest in the Jeannette story had been high since the first news of the ship 's fate had been received from Yakutsk . Bennett had dispatched several reporters to Russia , including John P. Jackson , who had reached the Lena Delta and found the tomb of De Long . In his zeal for a story , Jackson had opened the tomb to search for papers or other records , an act of desecration that Emma De Long described to Bennett as " the bitterest potion I had to swallow in my whole life " . Jackson had also interviewed Danenhower , who made allegations of discord within the party and of ill @-@ treatment of certain officers , particularly himself .

A naval inquiry into the loss of the Jeannette convened at the beginning of October , at which the survivors were the principal witnesses . In February 1883 the board announced its findings : Jeannette was a fit vessel for Arctic service ; difficulties such as the late start and the diversion to search for news of Vega were not De Long 's fault , nor was he to blame for the ship 's loss . He had conducted the subsequent retreat in an exemplary manner . Not everybody was satisfied ; relatives of Collins , who had heard during the evidence of trouble between De Long and the meteorologist , did not believe that the whole truth had been told , and termed the enquiry a " whitewash " . In April 1884 a United States House of Representatives Naval Affairs subcommittee reviewed the evidence , and confirmed the findings of the earlier enquiry .

In February 1882 Secretary Thompson had despatched naval lieutenants Giles Harber and William Schuetze to the delta to search for any traces of the lost explorers , particularly of Chipp 's party . They were unsuccessful , but in November received orders from the secretary to supervise the return of the bodies of De Long and his comrades to the United States . Weather and bureaucracy delayed them for a year ; finally , in November 1883 the bodies were taken from Yakutsk by train to Moscow , Berlin , and finally Hamburg . Here they were placed on board the U.S. steamer Frisia ,

which arrived in New York in February 1884 . The funeral cortège was escorted by naval and military detachments to the Church of the Holy Trinity on Madison Avenue for a memorial service . Afterwards the bodies of Ambler , Collins and Boyd were claimed for private burial ; those of De Long and six others were taken to Woodlawn Cemetery in the Bronx , and buried together there . In October 1890 a large monument to the expedition 's dead was unveiled at the United States Naval Academy in Annapolis . Its design is based on the original cairn and cross raised at the burial site on the Lena Delta .

A mountain range in Alaska , and two naval ships , were named in De Long 's honor . The three Arctic islands discovered during the expedition bear the name Ostrova De Longa ; despite Melville 's planting of the American flag , the islands have always been accepted as Russian territory . Although the Open Polar Sea theory ended with Jeannette 's voyage , the ship 's meteorological and oceanographic records have provided 21st @-@ century climatologists with valuable data relating to climate change and the shrinking of the polar icecap . On June 18 , 1884 , wreckage from Jeannette was found on an ice floe near Julianehåb ( now Qaqortoq ) , near the south @-@ western corner of Greenland . This proved that a continuous ocean current flowed from east to west across the polar sea , and was the basis of Nansen 's Fram expedition of 1893 ? 96 .

On 30 September 1890 Congress authorized that suitable medals be struck in commemoration of the perils encountered by the officers and men of the expedition . Alone of the main survivors in the Jeannette drama , Melville returned to the Arctic , where he helped rescue survivors of Adolphus Greely 's Lady Franklin Bay Expedition of 1881 ? 84 . Melville 's naval career prospered , and he eventually achieved the rank of rear admiral . He died in 1912 . Danenhower continued in the navy , but shot himself during a fit of depression in 1887 . Nindemann worked as a naval engineer until his death in 1913 . The last survivor of the expedition was Herbert Leach , who became a factory worker ; he lived until 1933 . Emma De Long died at the age of 91 , in 1940 .

In February 2015 the Russian adventurer Andrey Khoroshev announced that he proposed to locate and raise the wreck of the Jeannette . Khoroshev told The Siberian Times that the vessel was in a known location , in relatively shallow water , " not such a hard task " . The event would , he thought , boost Russia 's deteriorating relations with America .