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1891

North Greenland Expedition OF 1891-'92.

Illustrated Lecture
BY
Civil Engineer R. E. PEARY, U. S. Navy.

Introduction by

ENGINEER-IN-CHIEF

GEO. W. MELVILLE,
U. S. NAVY.



UNDER THE AUSPICES OF THE

NATIONAL GEOGRAPHIC SOCIETY,

Academy of Music, Washington, D. C., Friday, April 17, at

TICKETS FOR SALE AT METZEROTT'S, 1110 F ST., COMMENCING AT 9 A. M., MONDAY, APRIL
Reserved Seats, 50 and 25 cts.



Peary's First Expedition and the Results to be Gained.

From "The First Crossing of Greenland," by Fridtjof Nansen.

The last expedition to the "Inland ice," previous to 1888, was that of Robert Peary, of the United States Navy, and Christian Maigaard, a Danish official in the Greenland service, which was undertaken in 1886.

Peary speaks of the journey as a preliminary reconnaissance. It was originally intended to make use of sledges and dogs, but the Eskimo who had been retained for the purpose deserted the travellers at the eleventh hour, and took the dogs and sledges with them. The two Europeans were therefore compelled to proceed on foot and alone. For the first few days, indeed, they had the help of one man and one woman, but neither of these could be persuaded to do much more than set their feet upon the ice.

The starting point was the head of Pakitsokfjord, or, perhaps, I should more correctly say Nordkalfjord, in latitude 69° 30' N. This was the very fjord where Wymper had made his attempt, and where the Norwegian geologist Helland had also been upon the ice.

The actual ascent of the ice began on June 28. The provisions, which were calculated to last thirty days, and the rest of the equipment were hauled on two "nine-foot sledges, thirteen inches wide, made of hickory, steel, and hide, on a modified Hudson Bay pattern, and weighing complete twenty-three pounds each." One pair of "ski" and one pair of Indian snowshoes each were taken, and these seem to have been in frequent use. There was no tent, but a shelter was made of a tarpaulin and the two sledges. Travelling was done by night and sleeping by day, and for a time, while the state of the snow permitted it, snow-huts were built every day.

On the evening of July 2, when the two had already been weather-bound for two days, they determined to return to the camp by the fjord and wait for a change, but left the sledges and other things behind. On July 6 they rejoined their baggage, and went on their way inwards, after leaving a deposit of provisions sufficient for a week. Next morning, as they were crossing a little lake with a thick covering of ice, Maigaard's sledge went through. It was recovered, but Maigaard states that the amount of water which his baggage took up made the load at least a hundred-weight heavier than before, and it was only with difficulty that he could now drag it.

During the greater part of the journey the temperature was below freezing point, and the snow consequently in a good condition for the use of "ski." On the night of July 12 the thermometer even sank as low as 7° F. (-14° C.). On July 9, however, there had been an unpleasant change in the weather, as a wind from the southeast caused the temperature to rise from 21° F. to 46° F., and made the snow wet and sticky. There seems to have been a typical "fohn" wind blowing over the "Inland ice." On July 11 another deposit of provisions and other things was left behind, a height of 5,000 feet having now been reached.

On July 17 the elevation was 7,325 feet, and the distance from the edge of the ice, according to a longitude reckoned by Peary, about a hundred miles. Here the two travellers were delayed by a snow-storm till July 19, when the weather cleared sufficiently to allow of an observation being taken at mid-day. In the evening they turned back, and, as they now had the wind behind them, they lashed the two sledges together, and rigged up a vessel with alpenstocks for a mast, a tarpaulin for a sail, and a "ski" with an axe attached to serve as a rudder.

On this craft they sailed, according to Maigaard's calculations, some 27 miles the first night, 32 the second, and 54 the third, while after this they were obliged to take to hauling again on account of the roughness of the ice. On the morning of July 24 they were once more at their camping-place by the fjord, after having spent 23 days in all upon the ice.

The ice these two passed over was, with the exception of the first part, very level throughout, and more so even than that which Nordenskiöld had traversed in 1883. There were not many crevasses, and for the greater part of the way the surface was covered with a layer of dry snow, into which, at the extreme point which they reached, Peary could drive his staff 6 feet deep. This state of things must have made progression very much easier than usual.

But another task, to which I perhaps attached greater importance, was the examination of the meteorological phenomena of the interior. Previous expeditions had done little or nothing to contribute to our knowledge, and I think I was justified when I wrote in the Norwegian periodical "Naturen" that "a series of climatic observations of measurements of temperature, atmospheric moisture, wind-force and air-currents, of data as to snow- and rain-fall and cloud-formations, would be material of great importance to meteorology, since on these huge tracts of ice and snow the climatic conditions must be entirely different from those of any region from which we now have regular and systematic records." Nor were we disappointed, as I shall subsequently show, in our expectation of meeting with striking climatic peculiarities. I might have added that these meteorological observations would be of great importance to geology as well, for the inquirer can scarcely pronounce with authority upon the internal economy, if I may so say, of the great ice-cap, unless he be familiar with the climatic conditions which prevail upon its surface. These I considered the most important of the problems which awaited solution in the interior of Greenland.

But of what use, it may be asked, can the solution of such problems really be? The same question has been put to many explorers, and will no doubt be repeated again and again as time goes on. There are many answers to the question, of general as well as special application. In this case the reader should bear in mind that so huge a tract of ice and snow must have a great influence upon the climate of all the surrounding regions; that, speaking more generally, every single section of the earth's surface stands in intimate and reciprocal relation with its neighbors; and lastly, that the mere fact that the interior of Greenland is a part, and no insignificant part, of that planet on which we dwell, is quite sufficient to make us wish to know it, and to impel us to persevere until we do know it, even though our way should lie over the graves of our predecessors.

Outline Plan,

My party, numbering five or six, to arrive next June or early in July, at Whale Sound.

Remained of season to be spent in putting up winter quarters in Whale Sound, laying in a store of fuel, collecting, surveying, making reconnaissance of the inland ice, & if the season be favorable, establishing an advanced depot of supplies near the southern angle of Humboldt Glacier.

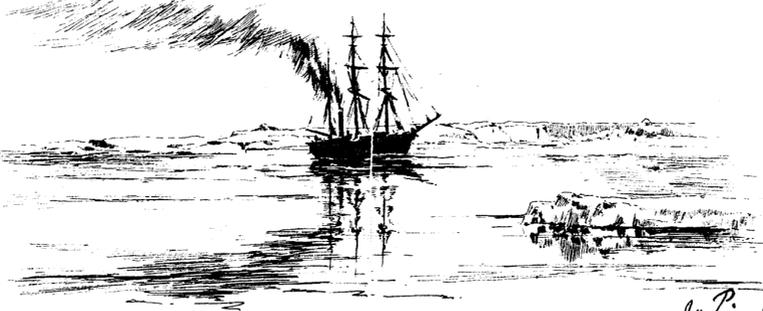
The winter to be occupied in putting sledges, clothing & travelling equipment, & in reserves & other provisions, for which the head of Whale Sound is well adapted. In the spring, four or five of the party will start over the inland ice to Humboldt Glacier, with full sledges, leaving one or two in charge of the house.

If favorable progress is made, the party will go on from Humboldt Glacier to the head of Petermann Fjord. There a second depot will be established, & two or three of the party, with full sleds, will push on, the others returning with light sleds, to Whale Sound.

The advance party will, with one from Petermann Fjord to the head of Sherar & Osborn Fjord, establish a depot there, thence to the head of the Long Fjord, establish a depot, thence to the northern terminus of Greenland.

This point reached & determined, the advance party will return its steps to Whale Sound, taking up the various depots, & seize the first opportunity to return home.

R. E. Peary
U. S. Navy, Ford
League Island, Feb. 7/91



Extract from Letter from Gen. Greely to Mr.

I have no doubt that you would be able to make inland ice. I have no faith, however, in your being able to reach the northern extremity of Greenland, or the strongest possible circumstantial evidence to prove it, rates the northern part of Greenland, and you will look for indications of the inland ice to the northward of Greer would reach the northern extremity of it and double question is, whether the mere skirting would be a gain to me it would be worth your while rather to reach the coast to the north of Cape Bismarck, where you need not section fjord from the east coast towards Sherar Osborn inlet. There is no doubt that the farther north you would have of travelling over good snow, particular Sabine and Kane's winter quarters you cannot look days in the year, at the most. Where everything is period of the year travelling must be good.

Lockwood says in a general way: "Owing to view of the interior was mainly confined to what I ascended; and, owing to their comparative lowness, with their universal covering of snow merging and it very difficult to distinguish the topography at very high, and on this account the farthest that I very many miles removed. I could see from Brit glaciers that I recognized as such, though from a very large one, and one or two quite small. From the east, perhaps twenty or thirty miles distant, at doubtless exists all along this coast for some distance the fjords invariably being at the base of steep cliff seen to the north. There was a noticeable abundance of snow on the ground, and his observation of the amount of snow is on the ground, and his conclusion, was to the effect that there was no ice-cap journeys, though possibly small glaciers existed in the interior of Greenland, at the practical impossibility of an ice-cap covering a very large area. The orographic features are against it. Of course impossible. I do not claim to know any phase of connected with Smith's Sound and the adjacent region of the sledge journeys of '75 and '76, and built true in one section of the country is not true even 50 one should attempt to follow the same methods of Arizona.

Extract from Mr. Peary's k
Most of the newspaper reports are erroneous, and vague as to the actual results. I am sure you will attain the northern extremity of Greenland, or, at least, to the northern extension of the Greenland inland ice are correct, to trace the northern border of the ice to the east coast above Cape Bismarck. I regret that I have not the time to write you my plan in full, for I feel confident that it would meet with your approval, as it has that of all scientific and geographical authorities to whom it has thus far been submitted.

Extract from Letter from Lieut. Schwatka.
From Peary's description of the inland ice of Greenland I would infer that while its level, plain-like character would undoubtedly be a great consideration in its favor for sledging, yet the "deep, dry snow" which "probably never softens," would, I think from my experience, be an obstruction thereto; although I would not pretend to say that it would be a corresponding one, and might be greatly overcome and possibly obviated by very broad runner shoes for the sledge. The greatest fault a sledgeman will find in soft snow, whether wet or dry, is the disadvantage encountered by the motive power, whether dogs or men. Everything else being equal, salt-water ice is superior to land ice or hardened snow for sledging in probably the ratio of two to one, but its almost constant "hummocky" condition makes it generally unfavorable and often reverses the ratio, if not even bearing a worse proportion at times.

There is one great advantage, I believe, in Peary's proposal to select the inland ice over that of the salt water along the shore, but which may or may not be seized upon. The greater altitude of the former over the latter undoubtedly insures a colder temperature, and if this is below the freezing point the shoe-runners of the sledge can be "iced," as done by the central Eskimos of America. I do not hesitate to state that an "iced" sledge will readily carry twice and more likely four times as much as one un-iced, with the same motive power. This would suggest the help of people acquainted with this peculiar practice. I think it is a good plan to reach the north cape of Greenland by the shore ice and return by the inland ice.

ACKNOWLEDGMENT.
Thanks are due to various members of the Society for assistance in the preparation of this circular, especially to Mr. Josiah Pierce, Jr., who made the sketches on this page; to the Hydrographic Office, for assistance in the preparation of the chart published herewith; and to the lithographers, who have been very obliging in many ways.

EVERETT HAYDEN,
Sec'y Com. on Communications.

National Oceanic and Atmospheric Administration

International Polar Year (IPY) 2007-2008

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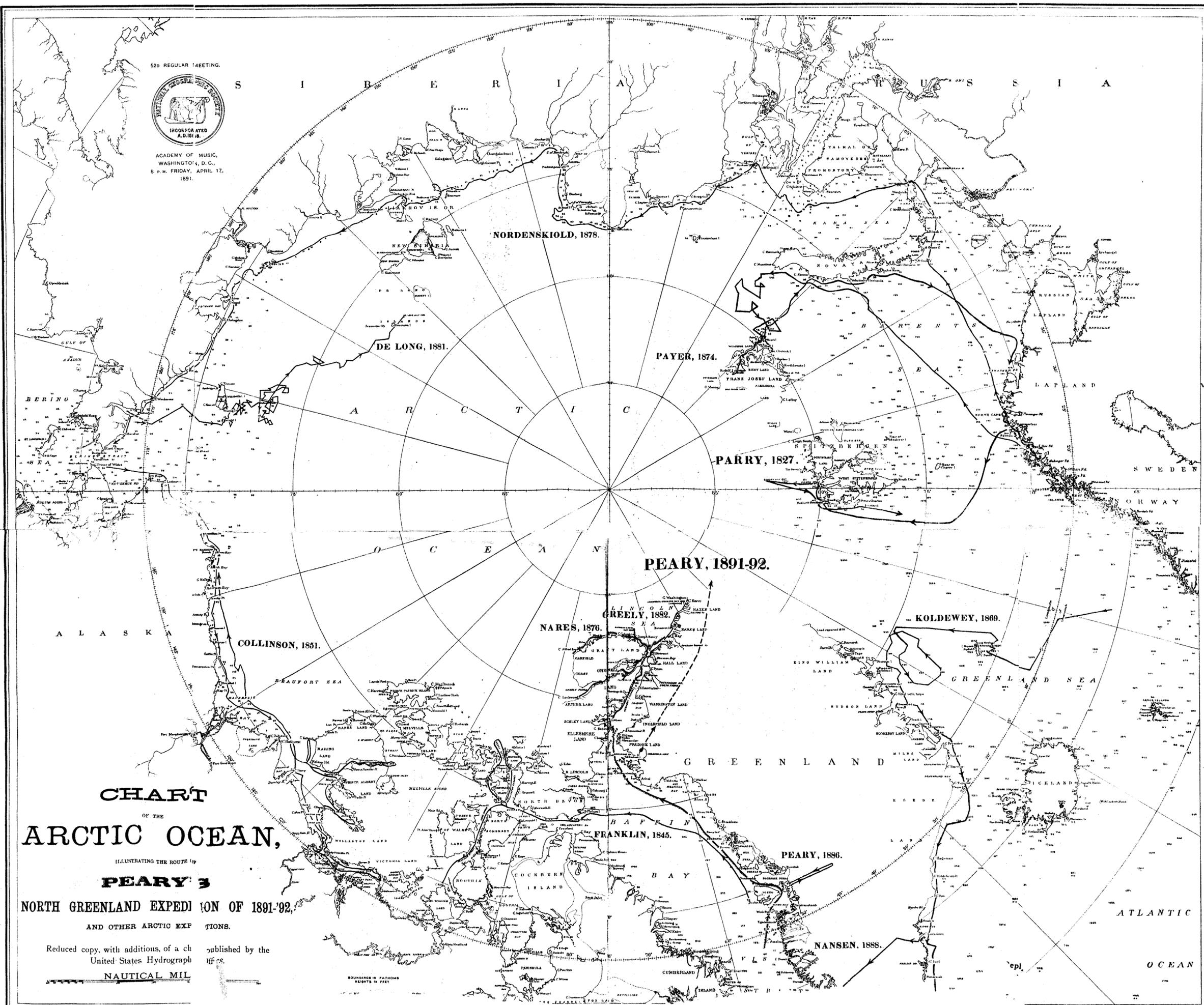


CHART OF THE ARCTIC OCEAN,

ILLUSTRATING THE ROUTE OF

PEARY'S

NORTH GREENLAND EXPEDITION OF 1891-92,

AND OTHER ARCTIC EXPEDITIONS.

Reduced copy, with additions, of a chart published by the
United States Hydrographic Office.

NAUTICAL MILE

Soundings in Fathoms
Heights in Feet