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LIEUTENANT SCHUETZE'S MISSION.

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MESSAGE

FROM THE

PRESIDENT OF THE UNITED STATES,

TRANSMITTING

A letter from the Secretary of State, together with the report of Lieut. William H. Schuetze, U. S. Navy, relating to the distribution of testimonials of the Government to subjects of Russia who extended aid to the survivors of the Jeannette Exploring Expedition.

FEBRUARY 2, 1887.—Referred to the Committee on Printing and ordered to be printed.

To the Senate and House of Representatives:

I transmit herewith a letter from the Secretary of State, together with a copy of the report, which it incloses, of Lieut. William H. Schuetze, U. S. Navy, who was designated by the Secretary of the Navy, in pursuance of the act of Congress of March 3, 1885, making appropriations for the sundry civil expenses of the Government for the year ending June 30, 1886, to distribute the testimonials of the Government to subjects of Russia who extended aid to the survivors of the Jeannette Exploring Expedition and to the parties dispatched by this Government to aid the said survivors.

The report is interesting alike to the people of the United States and to the subjects of Russia; and will be gratifying to all who appreciated the generous and humane action of Congress in providing for the testimonials.

GROVER CLEVELAND.

EXECUTIVE MANSION,
Washington, February 1, 1887.

DEPARTMENT OF STATE,
Washington, February 1, 1887.

To the President:

I have the honor to transmit, with a view to its being communicated to Congress, a copy of the report of Lieut. William H. Schuetze, U. S. Navy, who was designated by the Secretary of the Navy, in pursuance of the act of Congress of March 3, 1885, making appropriations for the sundry civil expenses of the Government for the year ending June 30,

National Oceanic and Atmospheric Administration

International Polar Year (IPY) 2007-2008

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1886, to distribute the testimonials therein provided for to subjects of Russia who extended aid to the survivors of the Jeannette Exploring Expedition and to the parties dispatched by this Government to aid the said survivors.

Lieutenant Schuetze proceeded to Russia for the purposes indicated, under the instructions of this Department, in July, 1885, and after an exceedingly arduous journey, during which he seems to have fully accomplished the object of his mission so far as practicable, returned to Washington in September last:

Respectfully submitted.

T. F. BAYARD.

Lieutenant Schuetze to Mr. Bayard.

WASHINGTON, D. C., October 25, 1886. (Received October 29.)

SIR: In obedience to your instructions to me dated July 3, 1885, a copy of which is appended, marked A, I beg leave to submit the following report of the details of my mission to Russia and Siberia.

On July 8, 1885, I sailed from New York on the steamship Fulda, and reached the city of Bremen on the 18th day of the same month. I there called upon the American consul, Mr. Loening, and after having made arrangements to have the rifles which formed part of my baggage shipped direct to St. Petersburg, I left for Hamburg on July 20. During the short journey by rail I was obliged to deposit the sword, watches, and medals which I carried with me in a sealed car while they were in transit from the free port of Bremen to the free port of Hamburg. This was done in order to avoid the opening of the packages for inspection and probable customs charges.

The next day, in company with the American consul, Mr. Lang, I called upon the representative of the Russian Government in Hamburg to make a plan by which I might pass out of Hamburg and through Germany without inconvenience and complications regarding customs. After consultation with the Russian consul-general I decided to have the boxes containing the presents sealed in accordance with his suggestions and addressed to the minister of the interior, St. Petersburg. In addition I carried a letter from him in which the object of my mission was stated. In this way I avoided not only an inspection of my luggage upon leaving Hamburg, but also delay upon crossing the Russian frontier at Wirballen.

On the evening of July 28, I reached St. Petersburg. I paid my respects to the retiring minister, Mr. Taft, and called also upon Mr. Swan, the acting consul-general. Later I telegraphed Messrs. Brown, Shipley & Co., London, concerning the funds transferred by letter of credit for my use. I delivered the letter from the consul-general of Russia at Hamburg at the department of the interior, and had the boxes containing the presents formally turned over to me.

On August 1, I received from Messrs. Brown, Shipley & Co., through Baring Brothers, and the Joint Stock Bank of St. Petersburg, the amount with which I was credited in London, less charges for transfer; of this amount I transferred 10,500 rubles by letter of credit to the Bank of Siberia in Irkutsk.

On August 3, I called upon Mr. Lothrop, our minister in Russia. The secretary of the legation informed me that he had written previous to my arrival to the forsign office for the credentials to expedite

my journey. However, I was obliged to wait for these documents, especially necessary in Siberia, until August 5.

Upon learning that General Nassovitch, governor of Irkutsk, was in the capital on leave, I called and presented the letter addressed to him by you in acknowledgment of the honors paid to the remains of Lieutenant-Commander De Long and his companions while in Irkutsk in December, 1882.

On July 31 my attention had been called to the announcement in the newspapers of the death of Major-General George Tcherniaieff, late governor of Yakutsk, and I therefore left the sword intended for him in the care of Mr. Lothrop, and informed you of my action and the suggestions of the minister concerning the disposal of the same.

I received the expected letter of credence from the foreign office through Mr. Lothrop, on the evening of August 5, and left St. Petersburg at 8.30 p. m. of August 6. The following noon I arrived at Moscow, and learned that M. de Lagrene, formerly consul general of France in this city, had been relieved and returned home. I was the bearer of a letter of thanks to him for the attention shown the Jeannette's survivors and those officers sent out to conduct the search, as well as for the conspicuous honors paid by him in the name of his Government to the bodies of the Arctic explorers on their passage through Moscow.

Upon a map of Europe and Asia appended, and marked B, I have drawn the track of my journey, a reference to which will facilitate the tracing of the route as described in this report.

I arrived in Nishni Novgorod on August 9. I purchased furs and some other articles necessary for the journey, and was obliged to wait until August 11 for the steamer down the Volga. On this day I left in the Magdalena, designed and built in Nishni Novgorod by an American boat-builder from Pittsburgh. She was of the stern-wheel type, a counterpart of the boats plying on our Western rivers. Her engines were of German build and her speed was slow. The journey to Kazan, and thence up the Kama to Perm, was lengthened considerably owing to extreme low water. In some places much work has been done to regulate and deepen the channel, and at all difficult points signals are displayed showing the stage of the water. It seems, however, that there is less water from year to year, and the difficulties of navigation steadily increase owing to the rapid destruction of the forests. Especially is this the case on the Kama. Considerable delay was experienced by the frequency with which we grounded and the low speed often necessary in order to avoid these accidents. Several times we were compelled to anchor during the night on account of a peculiar dry fog said to be very common on the Volga. Refuse petroleum has nearly supplanted wood as steamer fuel in all the Volga boats—estimated to be about two thousand in number.

On August 17 the steamer reached Perm. I left the same evening by rail, arriving in Ekaterinburg at 6 p. m. of the 18th. From here to Tiumen, on the Tura River, it was necessary to proceed by wagon on the post-road. The railroad, Ekaterinburg-Tiumen, was not yet open to passenger traffic, though occasionally freight and supply trains were sent as far as Komashloff, about half the length of the road, in which travelers were allowed to take passage. It was said that all which remained to be done was the completion of some bridges, but I afterwards noticed in the immediate neighborhood of Tiumen that although the road-bed was complete, the ties had not yet been laid.

This road was opened for traffic on December 6, 1885. It joins the Ekaterinburg-Perm road, and completes the connection of the water-

ways from Nishni Novgorod to Tomsk in Siberia. When the canal which is building between the Yenisei and the Obi Rivers is finished, this short railway, Tiumen to Perm, 522 miles, will be the connecting link of the great water-courses of Siberia from Irkutsk, in the east, with those of Russia proper, to Nishni Novgorod, in the west. Tiumen on the Tura, a tributary of the Irtysh, is the eastern terminus of the railway and the beginning of the Siberian water-ways.

The whole road, a distance of 315 versts (a verst is two-thirds of a statute mile), was built in two and one-half years, and would have been completed sooner had it not been for the unfavorable climatic conditions. Rain in the fall of 1884 especially retarded its completion. As near as can be learned the cost, including bridges and rolling material, is 41,000 roubles per verst. There is no rail, nor car, nor locomotive of foreign manufacture. It was constructed by the Government, and the cost is considered to be the least for which a road can be built in this country, a cost, as stated above, which has never been equaled in cheapness in Russia.

On August 19 I left Ekaterinburg by post-wagon. The weather was wet, the roads deep, rough, and apparently uncared for. At night I was compelled to stop in the post stations, as it was so dark that the drivers were unable to guide the horses clear of the holes and ditches. However, after leaving Ekaterinburg well behind the road improved, and was in some places excellent until near Tiumen, when it enters the Tobolsk government. Here it was often necessary to walk, no attention having been paid the road evidently for years.

On August 21 Tiumen was reached. From here to Tomsk the summer travel is by water. I embarked the following night in a small steamer towing a barge, especially constructed for the transport of convicts and other exiles into Siberia. The next evening all passengers were transferred to a larger steamer, the regular one plying between Tiumen and Tomsk being unable to proceed farther up-stream on account of the low water. The travel eastward at this time of the year is inconsiderable; the bulk of passenger traffic consisting of Siberian traders, who leave their homes in the spring, as soon as navigation opens, to make their purchases in Russia, their main objective point being the fair at Nishni Novgorod, and who return in the fall just before navigation ceases.

We passed Tobolsk on August 24, where a short stop was made and a fresh detachment of convicts added to that from Tiumen. Following down the Irtysh, we reached the Obi Wednesday evening, the 26th of August. The weather here, in 62 degrees north latitude, was cold, and occasionally we were treated to a snow-squall. The country is generally flat and uninteresting. The villages are few and scattered. The natives who wander in these regions—the Ostiaks—came to trade with fish during the stops of the steamer for wood, and were roundly cheated by the Tartar peddlers of cheap calico and shawls. These natives, like all the rest in Siberia, are very fond of vodka, and prefer it in trade for their fish to anything else.

During the trip I was invited on board the barge which we had in tow by the army officer in charge. There were only four hundred convicts on board, the usual number being seven hundred. In this way the majority of exiles are sent to Siberia during the summer; of course the march eastward on the post-road beginning at Tomsk.

I arrived in Tomsk, distant 2,800 versts from Tiumen as I traveled, on September 2. I called on Vice-Governor and Acting Governor Petuchoff, and obtained from him a road-pass, an indispensable document

for Siberian travel. The governor of Tomsk, Councilor of State Kra-soffsky, had died in the spring of the year. He was one of the officials who had been very courteous to the officers in charge of the dead of the Jeannette. The letter of thanks which I had for him is returned with this report.

In Tomsk it became necessary to buy a traveling wagon (*tarantass*), often spoken of in Siberia as a "martyr-box," which required considerable care in selecting and much searching about before a suitable one could be found, as the roads were reported heavy and rough.

On September 4 I left Tomsk, and began the journey of 1,500 versts to Irkutsk by post-road or, as it is here known, the Moscow track. This road, during ordinarily good seasons, is a very fair highway. The rain in the summer had, however, been nearly incessant. The ground was soft, and, in consequence of the unfavorable weather, little or no repairing could be done this year. In addition to this, the numberless transport trains of freight wagons moving east and west contributed to make travel in many places an impossibility. Notwithstanding the utmost care and the necessarily slow driving frequent accidents to the wheels could not be avoided, and whenever the stage was reported particularly rough I considered it advisable to stop at the station-houses during darkness. In some cases though the drivers did not absolutely refuse to proceed, they showed by various excuses and subterfuges, usually concerning the horses, their unwillingness to take the road during night.

At times the horses could not be depended upon to make the distance of 20 to 30 versts, fagged out as they were with uninterrupted work. On several occasions it happened to me that a horse either fell dead in harness, or we were obliged to unhitch a tired animal and leave it by the roadside. As the track was impassable in many places, there were temporary paths followed through the forests and swampy lands, and sometimes the drivers preferred the risk of crossing cultivated fields to a break-down and long detention on the regular road. I having a so-called government road-pass was particularly fortunate, in not having to wait my turn when, as often happened, there were more travelers at a station than the limited number of horses could transport. Repeatedly during the night the driver was compelled to lead the horses, slowly selecting the best part of the path. Rain was almost continuous; bridges were broken; and in some places the ground had been corduroyed. I spent one night on the road between two stations, the wagon having been driven into a deep hole, out of which it was impossible to move. Early in the morning a tea caravan came along, and with the assistance of its drivers we succeeded in freeing our wagon. The street leading through the village, built on either side of this track, long and straggling, was so deep, that an extensive *detour* through the neighboring country was requisite to avoid these difficult places.

At Achinsk I was obliged to wait twenty-four hours in order to have the front wheels repaired. It occasionally took six or seven horses to drag the wagon, and I determined to use an extra vehicle for the baggage, the box of rifles especially being very heavy. Here I passed from the Tomsk into the Yeniseisk government.

On September 11 I reached Krasnoyarsk. I wanted to replace the front wheels by new ones, but none could be found, and a self-styled wheelwright agreed to make the repairs. From Krasnoyarsk travel was comparatively comfortable and fast. However, I was once more delayed by the burning out of one of the hubs, due to the unskillful work of the Krasnoyarsk mechanic.

On September 16, near Nishui Udinsk, I met Dr. Kapello, who was returning to Russia from Yakutsk, where he had served many years as medical director of that district. I delivered to him the letter from you, thanking him for his professional services to the survivors of the Jeannette. He had been the attending physician of General Tcherniaieff in his last illness, and informed me that the latter had died of congestion of the lungs on June 12, 1885.

The weather was now cold, and during the night there were frequent heavy frosts.

I reached Irkutsk on September 21, after a journey of sixteen days from Tomsk. Under favorable conditions this distance of 1,500 versts can easily be made in six or seven days, summer or winter.

A few of the rifles had been broken in the stock, owing to the excessive jolting over the rough roads, although the utmost care had been taken in packing them. Fortunately a capable gun-maker was found, who made the repairs in an efficient manner.

Owing to my late arrival and to the time required to make the above-mentioned repairs, as well as the purchase of the stores which I was instructed to procure as presents for the natives in the north, I was convinced that I should be unable to reach Yakutsk, my next objective point, before ice should make in the Lena River. I therefore decided to wait for the opening of winter travel. Could I have started at once I should probably yet have had time to reach Yakutsk, provided I had not the incumbrance of heavy baggage. As it proved, it was necessary to transport, in addition to my personal baggage, about 1,500 pounds of stores. This is always a difficult task except in the spring of the year, when advantage can be taken of the numerous rafts, or one of the mining company's steamers going down-stream (north) as far as Yakutsk. By waiting for the winter road only one extra sled would be required, and the unpleasant certainty of having to remain in a small settlement somewhere on the river until the ice formed avoided.

I informed both you and our minister at St. Petersburg of my conclusion, and settled down for a stay of two months in Irkutsk.

I carefully selected and purchased all such goods and stores for presents which I knew by experience could either not be obtained or were very much more costly in Yakutsk. In answer to inquiry by telegraph, I received authority from you to increase the amount to be expended for these presents.

Fortunately both Mr. Stepanoff and Mr. Charles Lee happened to be in Irkutsk, and I presented to them the gold watches from the President, in recognition of the aid rendered the Jeannette survivors and search parties. I also delivered at this time the letters indicated in my orders for General Civers and Mr. Demidoff, late mayor, or *golovah*, of Irkutsk.

The governor-general of East Siberia, Count A. Ignatieff, sent instructions to the authorities in Yakutsk to render me all official aid which I should require and request.

The first snow fell October 8, and on November 27 I telegraphed Mr. Lothrop of my intention to leave for the north the next day, but was delayed until the 29th, owing to some gross mistakes which had been made in the construction of the sleds which I had had prepared. On the above-mentioned date I left Irkutsk while the initial stages over the steppe were still bare of snow. Fortunately I was able to have the sleds dragged as far as Katchuga without delay, and from this village the road lay on the frozen Lena. No sooner had we driven on the river than there happened what might have proved a very serious accident. The heavy freight sled broke through the ice, although I had been as-

sured that the latter was strong enough for travel. By the use of a force of villagers we were able after four hours' work to extricate the sled, and I proceeded without further stop until near Vitimsk, where it was necessary to pass through much surface or black water, as it is here called, which is very common in the early winter.

I afterwards found that no damage was caused by these mishaps, as great care had been taken in packing the stores.

The snow was deep and unbroken, as I was the first traveler to go over the winter road this year. The weather was exceptionally mild, but much snow fell, making travel difficult and slow. The usual heavy felt boots and fur sleeping bags were not necessary until I reached Olekma, 600 versts south of Yakutsk, when the temperature became very low, and snow-storms and cold northerly gales were unremitting. On two occasions the drivers lost the way at night, and after much searching about we were compelled to wait for daylight before we were able to proceed on our journey.

Early on the morning of December 17 I drove into Yakutsk, distant 2,800 versts from Irkutsk. The thermometer marked -40° R. and the days were very short. Snow in the north was reported deep, especially in the Verchoyansk Mountains. Not long before, some officials on their way to Okhotsk were blockaded by the snow and obliged to turn back to wait for a more favorable opportunity later in the winter. The post from Irkutsk, though it had left one day ahead of me, did not reach Yakutsk until three days after my arrival.

The vice-governor, and acting governor since General Tcherniaieff's death, Mr. Ilin, placed two Cossacks at my disposal and gave me the necessary official documents for my journey north. One of the Cossacks, Peter Kaliukin, who had traveled with me in 1882 and 1883, accompanied me, and the other, Vasily Bareskin, I sent with the transport of stores, by a different route from mine, to Verchoyansk.

I made a contract (appended and marked C) with a Yakut trader for the delivery of the stores in Verchoyansk, and deemed it necessary to send Bareskin as a guard, since robberies were frequent not only in the town but also in the immediate country in the north. A train of stores intended for a Russian Arctic expedition had been attacked some time before, looted, and the drivers murdered. To send the transport over the regular track was out of the question, as there were hardly enough reindeer at the stations for myself and attendant.

I had sent instructions from Irkutsk to Kalinkin, and he had, in compliance with them, prepared fifteen reindeer sleds, and had attended to some other preparations for the expedition. Deer-skin clothing and furs were difficult to obtain, owing to the scarcity in the Yakutsk fair last summer. This was due to the prevalence of small pox among the natives on the Kolyma, the principal source of supply. I contrived, however, to get together a tolerable suit of Arctic clothing, partly old and partly new, consisting of a fur-lined jacket, trousers, stockings, boots, and a kuklanka, all of reindeer-skin, the latter being in the shape of a long double shirt reaching below the knee, with a hood attached. Besides these articles, the usual heavy woolen underclothing and stockings, rabbit-skin "nips" for the feet, double fox skin cap and gloves, and a long black squirrel boa completed the outfit.

I added the necessary quantity of stores to be taken for the natives by the purchase of tea, tobacco, various iron implements, such as reindeer spears, knives, and ice picks. Horse-hair used in making nets was not plentiful, and I took all that could be obtained in Yakutsk. Besides, I bought here 108 pounds of powder from the Government store, as I was

advised that the supply in Verchoyansk, where I had originally intended to purchase it, was probably very low.

While in Yakutsk I delivered at the residence of the vice-governor, to Cossacks Baieshoff, Kalinkin, and Bosbedomoff, and the criminal exiles Kusma Eremioff, and Yafim Kopóloff the medals, gun, and money, as noted in my instructions.

In following instructions with regard to the money presents I took the dollar as worth 2 roubles, which was nearly correct and rendered distribution convenient.

The two appended charts, marked D and E, show the positions of reindeer stations and the *pavarnias* or cooking-houses, as the shelter huts are called, on the track north 900 versts, as far as Verchoyansk.

On December 31, 1885, I left Yakutsk with five reindeer sleds, accompanied by Cossack Kalinkin as interpreter of the Yakut language, and cook. The transport had been dispatched on December 22, the agreement being for its delivery in Verchoyansk after twenty-five days. This apparently long time was necessary, as it was obliged to pass through a wilderness where there were no relays of deer. When making a long journey, distances of only 40 to 50 versts a day can be accomplished with these animals to prevent their breaking down.

On January 2, in the evening, we reached the Aldan River, 220 versts from Yakutsk. At noon the next day we left with a train of eight pack horses, having had to wait nearly twenty-four hours for them, although the vice-governor had sent a messenger to this point to prepare for my journey. The Aldan is usually considered the limit of travel with horses in winter, as supplied by the stations, where three pairs only are kept by contract. The traders traveling with their own horses take them as far as Sredni Kolymsk.

To the divide in the Verchoyansk Mountains which separates the Aldan basin on the south from that of the Yana on the north the reports regarding the exceptionally deep roads were fully verified. We were compelled to break a path the whole distance of 210 versts.

The first stage is 140 versts, through the narrow valley of the Tukulian River, the mountain ranges, probably 40 versts apart on the Aldan, forming a wedge-shaped valley to the divide where they meet. The path is thickly wooded, and at this time the snow was 6 feet deep on a level. The place where the two ranges meet is appropriately called Anasurch by the natives, meaning "no door," as one can see no outlet to the valley. The only two *pavarnias* in this distance were in a tumble-down condition, having been injured by forest fires in the preceding summer.

On January 5 we reached the first deer station. Heavy snow was falling. We proceeded from here with reindeer and spent the night in Anasurch *pavarnia*, 20 versts from the divide. This hut was in a disgusting condition, a couple of Tunguse women having been storm-bound here for several days. They had used all the available timber inside the hut for fuel, and had even cut off part of the logs which formed the walls of the structure. We waited for daylight before setting out to cross the ridge, which we accomplished by 3 p. m. of January 6, in the face of a northerly gale, reaching Kengurach in the evening.

The weather now grew steadily colder. I call attention to this, for afterwards, or as we approached Verchoyansk, it was almost unbearable, compelling a stop at nearly every inhabited *yourta* (native hut), not only on account of ourselves, but more owing to the reindeer, which suffered visibly during the low temperatures. Fortunately these inhabited *yourtas* are not far apart as one approaches the village. Some merchant transports were blocked on the road by the snow and cold

weather, having lost the greater part of their reindeer and some horses. Breathing was at times difficult, and on January 10 and 11 the temperature sank to -66° Celsius, corresponding to 86.8° Fahrenheit, below zero. This is the coldest temperature ever observed, and I afterwards had the satisfaction of establishing it beyond a doubt by the agreement of the thermometers at Verchoyansk, observed by exiles who were furnished with instruments by the Central Meteorological Observatory at Pavlovsk, near St. Petersburg. Verchoyansk thus maintained its reputation of being the pole of the greatest known cold, although its latitude is only 68° north.

I arrived at Verchoyansk on January 13. It required two days to make the last station of 120 versts, on account of the extremely cold weather, deep snow, and poor condition of the reindeer. The first part of the journey was made in exceptionally fast time, taking into consideration the fact that I had five sleds, requiring at least fifteen deer, the full number kept at the station. During the latter part I had also the ill luck to meet a Cossack messenger traveling south with four sleds. This compelled long stops, while the animals were resting after having made the double distance of the station. Occasionally we had to leave a deer by the roadside, it being unable to go on.

The Yakuti and Lamuti agreed that they had never experienced so cold a winter. At the last station I left my baggage behind to be brought on later, as it could not be sent along with me.

The day of my arrival in Verchoyansk was the Russian New Year's day. The village was decorated with a few national flags, which gave it rather a gay appearance in my eyes, after thirteen days' continual travel in the larch forests. The chief official of the Verchoyansk district, the Ispravnik, Mr. Ipatieff, received me with the greatest cordiality, and had quarters prepared for me in the government house. He had heard some time before of my mission, and in expectation of my arrival had done everything possible to have reindeer in readiness. They were very scarce. Cossacks had been sent to scour the country round about for 100 versts to impress deer from the neighboring Lamuti.

Early in the autumn rain had fallen in great quantities, which, upon freezing, covered with a sheet of ice the sparse grass upon which the horses depend for food, and prevented the reindeer from readily getting at the moss. The hay crop in Verchoyansk had been a failure, and in consequence many cattle and horses perished, and draft animals were not to be had. This same state of affairs existed on the tract to Kolymsk. Traders abandoned their horses, and bought weak, half-starved reindeer at unusually high prices, preferring to make the trial with these animals to get their stores to their destination. Many left part of their goods in the forests, building rude huts to protect them until opportunity should offer in the following year to expedite them. Others had sent their horses back to Aldan to keep them from starving before half the distance to Verchoyansk had been accomplished. The failure of the Government flour transport to get through to Sredue Kolymsk generally means starvation to many of the people there.

It was indeed a hard year for Verchoyansk. It was extremely cold, and there was no fodder for horses or cattle, upon which the Yakuti almost entirely depend for subsistence, the staple article of food being milk, and their chief luxury butter. In addition to this scurvy was prevalent, from which even the Ispravnik and the priest of the village suffered severely. The inhabitants looked pale and emaciated after the season of darkness.

Black rye flour is very expensive, as is everything that is brought from Yakutsk, owing to the great difficulties of transportation. The Verchoyansk Mountains are the great obstacle. Some political exiles living here have made attempts at cultivating the soil during the short summer, as many trials have been made before, but always ending in failure.

The track by which I had sent my transport is free from natural difficulties, the water-shed separating the basins of the Tumara from the Dulgalach River being of low altitude. On the chart marked F these rivers are shown. The transport had passed north through the valley of the Tumara, which falls into the Aldan, and came down the Dulgalach, which empties into the Yana River near Verchoyansk. The appended charts are only sketches. There is not even an approximately correct map of Northern Siberia in existence. This track will probably soon be used to the exclusion of the one over which I had traveled. Until within recent years it has only been known to a few wandering Lamuti. The objection to it is the absence of permanent inhabitants. To make a so-called road in these regions it is only necessary to erect a couple of *yourtas* for station-houses, with a few shelter huts between them, and to fell trees in the thickest of the forest to make space wide enough for a reindeer sled to pass. The transport arrived on the evening of January 14, having been twenty three days from Yakutsk. There were fifteen sleds. Everything was covered with ice and snow, the former due to some surface water through which it had been necessary to pass. The leather covers bore marks of hard knocks against trees while passing through the wilderness, and the Cossacks' and drivers' bleeding faces showed the effects of the cold weather to which they had been exposed for twenty days, without even a tent for shelter throughout that time. When resting they camped down around a fire in the snow. Several sleds had been broken and abandoned, being replaced by some borrowed from the wandering Lamuti.

I urged upon the Ispravnick the necessity of despatch in my journey to the north, and he exerted himself to gather together the necessary number of deer, about forty-five head. The *golovah*, or principal native official, informed me that it would take six days to drive up the animals.

I presented Mr. Ipatieff, the Ispravnick, with the gold watch and medal as directed by my instructions, and he gave an evening entertainment in honor of the event, to which the priest of the village, the chief of the Cossacks, and several traders—in fact all the Russians here—were invited. He expressed himself as greatly honored and pleased by this reward for his services to the Jeannette survivors, the more so as it was entirely unexpected, and requested me to present his thanks for the distinction to our President.

Slipsoff, the viborne, a native official of Verchoyansk, arrived during my stay, and I delivered to him the silver medal, rifle, and stores, as specified in instructions.

On the evening of January 21, I started the sleds northward. The deer having been driven up the evening before had had a day's rest. This was also necessary for the drivers, some of whom, coming from a distance of 200 versts, had been severely frost bitten, and presented a generally frozen appearance in their meager garments. The train was to proceed to Kulgarasurch Station, 220 versts distant, whence it was directed to push on at once, if possible, 290 versts farther, to Duellach or Tallakuel, the last station contracted for by Government, situated near the tree limit on the southern edge of the *tundra*.

The *ispravnik* now expressed his intention of accompanying me as far as the latter named place. I received this announcement with much pleasure, knowing from previous experience the difficulties to be encountered with so large a train as the one I had in charge.

Not deeming it necessary to retain a special guard for the stores from this village, I paid off Cossack Bareskin, and gave him the fare to return to Yakutsk by post. He left for the south, taking my mails, on January 23.

The *Ispravnik* was not ready until the evening of Monday, January 25, when we left Verchoyansk. The advantage of traveling in company with this official, the monarch of his district, soon showed itself, when some of our deer having given out, he pressed into service those of a Tunguse, whom we chanced to meet. On January 27 we reached Kulgarasurch, where we obtained fresh deer. The transport had also added a few deer to its complement here, and passed on. At a *pavarnia* 190 versts farther on we overhauled it. We left early in the morning, going on ahead of the other sleds, and in the evening, having made 100 versts, stopped at Duelach.

Negotiations to forward the transport to Buikoff, at the eastern mouth of the Lena, were at once entered upon with the keeper of the station, a Yakut named Ivan Strutchakoff, an acquaintance of mine who had done good work in transporting the remains of De Long and men in the spring of 1883. He owns about 1,500 reindeer, and is in fact the *Cæsus* of this region. He was averse to undertaking the journey to Buikoff direct on account of the undoubted danger of the route at this season of the year. The greater part of it lies through treeless mountains, and all fuel has to be packed on the sleds for a distance of 300 versts. Heavy storms are to be expected, and there are no shelter huts after leaving the *tundra*. However, the presence of the *Ispravnik* again proved of great value, and Ivan finally agreed to think the matter over during the night. In the morning he consented to undertake the journey, loading the stores on 13 sleds for the "progon" or regular fare of 3 kopecks a verst per sled. He showed a strong desire to go to Bulun. In this place it would be impossible to obtain deer to transfer the stores the 250 versts remaining to Buikoff, and the distance would be considerably greater by this roundabout way.

To show the character of such a contract I will add that I was to give Ivan, in addition to his fare, two bricks of tea and thirty fish on his arrival in the delta. As I learned from a messenger just arrived that there were very few fish in the north this winter, and that the people there were starving, I demurred at the latter part of Ivan's demand, and after several hours' argument he finally dispensed with his conditions so far as the fish were concerned. He wished very much to be paid in twenty-dollar gold pieces, with which he made acquaintance in 1882, when some of the officers of the United States steamer *Rodgers* had occasion for his services. When I told him I had none, he seemed much disappointed.

On the evening of January 30 the transport arrived, and being found in good condition, was at once sent on with a fine large set of deer which Ivan had driven up. I left the following morning for Bulun, the *Ispravnik* returning to Verchoyansk, as I had now arranged to have the stores delivered at their final destination, distant from Irkutsk, where I had made the purchases, 4,670 versts.

I soon overhauled the freight sleds, and we traveled in company. The *tundra*, or snow-covered plain, which extends all along the north coast of Asia, was covered, as usual, with a thin, hard crust of snow, through

which deer and sleds broke as the long train slowly passed to the northward, leaving the last of the low, stunted, and gnarled larch trees, which mark the tree limit, behind at about 9 a. m. of February 1.

The sun, very red in appearance, was visible at noon for a short time, its lower limb just skirting the horizon. Late in the afternoon we stopped at a small shelter hut, or *pavarnia*, on the *tundra*, having made 50 versts since morning. The air was heavy with mist. It was very dark, and a fresh wind was blowing when we left in the evening. Having brought but a small supply of wood for fuel, it was not advisable to delay longer. We now entered the foot-hills of the mountains of the Lena River. After a short time the drivers lost their way, not being able to see the landmarks (the mountain peaks) on account of the heavy mist prevailing. After consultation I decided to push on, having with me the *staroster*, or headman, for my driver, who was considered the expert path finder on the *tundra*. Soon we noticed sparks of a fire near by, and immediately afterwards were greeted by the transport drivers, who had not yet left the *pavarnia*. We had, as usual in such cases, traveled in a circle, and after several hours' work returned to the point from which we had started. It was then concluded to wait for daylight. Our driver's mistake was accounted for when we noticed upon our return that the wind, their principal guide, had shifted during our absence. Upon leaving in the morning, the weather having cleared, we saw the circle our sleds had described in the snow the evening before. We made 50 versts through the mountains, and shortly before reaching the next *pavarnia* came out again upon the *tundra* near the bottom of the Bay of Borchia. It was observed that a large number of sleds had passed west from the direction of Ust Yansk. The road or path here forks, one branch leading east toward Kasatche, on the Yana, and the other, by which we had traveled, south towards Verchoyansk. There was a high wind prevailing, and as it is dangerous to be caught in a storm or *pourga* with a small supply of drift-wood, which has to be brought from the shores of the Arctic Ocean, distant 7 versts, we left, after refreshing ourselves with a pot of tea. The *pavarnia* is called Tass Tumuse, meaning Rock Cape, from the high slate mountains which here approach the coast.

We parted company with the transport, which was accompanied by Ivan and two Tunguse drivers. One of the latter was very much averse to undertaking the prospective journey almost due north through the mountains, some distance from the shores of Borchia Bay to Bulkoff Muese. They had a small leather tent for shelter, and went to the bay for all the driftwood they could pack on the sleds without overloading them. We left them singing their mournful songs, principally expressive of regret at leaving their wives and children.

The road to Bulun lies through the Karaulach Mountains for 150 versts, the latter half being greatly dreaded by the natives on account of the fierceness of the storms. They prefer to be caught in a *pourga* on the open *tundra* to meeting it in this mountain range, where the reindeer are sometimes unable to cross the smooth ice of the many small streams even in an ordinary gale.

Early in the morning, after considerable walking during the night over the divides, we arrived at the Karaulach (black water) *pavarnia*, on a stream of the same name. This hut is situated in one of the typical spurs of the larch forest which make to the north from the tree limit, in the shape of a wedge, lining the river banks. There was a large number of sleds here whose track we had seen at Tass Tumuse. They

were on their way from Kasatche to Bulun, to fetch rye flour from the latter point for the Government store at the former.

A large quantity of flour is occasionally drifted down the Lena to Bulun, where the natives may purchase it at the cost price in Yakutsk. The flour is, however, primarily intended as a reserve food supply to ward off the frequently occurring famines in this part of the world.

My drivers here turned back, our new acquaintances agreeing to take us to Bulun. We traveled fast for 50 versts through the naked valleys, but just before reaching the next pavarnia, Ebertuen, struck heavy soft snow through which the deer could hardly drag the sleds. This hut being broken down and affording little shelter from a high wind which had arisen, we determined to make for a new hut 30 versts distant. After floundering about in the snow from 6 p. m. until 4 a. m., we succeeded, by walking the whole distance, in reaching the shelter of Tal-lachtach pavarnia, where we remained until daylight. The wind blew fiercely, but, being from the east and on our backs, it did not interfere seriously with our progress. The snow was exceptionally deep, soft, and drifting, and to make matters worse it continued to fall all day. Notwithstanding this impediment, our deer being good, we reached Bulun by 5 p. m., February 4, where the bright fire in the *yourta* of the Government writer soon thawed us out. However, we did not fail to think of the hard time our transport was having during the storm.

Fortunately Constantine Muxaploff, a native, the second officer of the district and an acquaintance of mine, was here. He had arrived a few days before from Tumat, his home, at the northern mouth of the Lena.

Bulun was in a sorry state. The reports I had heard concerning the scarcity of fish, which constitute, it may be said, the only food of the natives, were confirmed. There were about 150 pounds of flour (pound = 36 pounds) on hand, but the govalah, the head of the local government, had gone to his home, 300 versts up river. In his absence no one dared to open the storehouse, although some were seriously thinking of doing so. Many of the natives were able to get a meal of fish only once in three or four days. At Buikoff the catch in October, November, and early December, the principal fishing season, had been a complete failure. Consequently fish could not be bought; and as most of the natives in Bulun depend upon Buikoff, the suffering was great. I should have purchased flour here, as a present, for the people of Zeemovialach, but it could neither be obtained nor transported.

Affairs in Tumat were better. Two hundred reindeer had been speared in the autumn, and the fish-catch, though not plentiful, had been sufficient for the people residing there.

A number of Yakuti from Yakutsk were spending the winter in the north, where they usually cheat the natives out of their fish by trade, and having no nets, were simply a burden on the regular inhabitants.

There was only one trader here, and he was engaged in the hopeless task of trying to collect debts.

During the summer months several *cayukes* or large boats drift down the Lena River from Yakutsk. Some of these, carrying the traders and their wares, remain until spring, when they track back with the furs and mammoth tusks which they have obtained in trade; others simply proceed to Bulun and Kumachsursk for the purpose of catching and purchasing fish from the natives during the summer. They leave Yakutsk with the river ice in the beginning of June, and return in the fall. Privileges are sold to these men in the neighborhood of Bulun and further north by the local government, and many of the natives are engaged for this work. The traders, however, usually recover all the wages by trading

vodka, and hence these natives, having worked all summer, are pocketless at the end of the season, and depend upon charity and a big fish-catch at Buikoff in the beginning of the winter. This catch had been a failure, as above stated, and as a consequence want and starvation prevailed in Bulun among all the inhabitants, except the very few frugal and thrifty ones who had buried a sufficient quantity in the summer to keep them during the long winter months.

The Cossack *smatritel*, or overseer, to whom I had delivered an order from the Ispravnick to prepare for my journey to Buikoff, had the deer ready on the 6th day of February, when I left Bulun. The road down the Lena was excellent, but the deer, very poor. The weather was markedly warmer than in the neighborhood of Verchoyansk. The thermometer marked -41° C. Constantine Muxaploff accompanied me on this journey. Near Kumachsruk we stopped the next morning in a Tunguse hut, where we were to get a change of reindeer. I sent Constantine for Ivan Androssoff, one of the men to whom I was to deliver a medal, in order that he might accompany me to Buikoff. The wind increased to a heavy gale from the southward and westward, the prevailing direction of all heavy gales during the winter, and I was storm-bound until February 10. Ivan Androssoff appeared soon after my arrival, wearing the silver medal bestowed upon him by the Emperor in 1883 for the same reason that he was about to be presented by me with a gold medal from the President, viz, his having succored Seamen Nindemann and Noros at the huts of Bulcour. (See chart of delta.) As wrong versions of this incident have found their way into print, it is perhaps not improper to here relate the story as told by Androssoff himself and confirmed by Muxaploff and Savin, two of the men who were traveling with him at the time. Ivan is very fond of relating the story, and even during my visit could be induced to tell it almost daily, the natives gathering about him and apparently wondering at his tale as much now as when they first heard it. Among the Yakuti there are certain ones with a knack for story-telling. These professional yarn-spinners form about the only attraction at an evening entertainment, if we except the ubiquitous *shaman*—physician, priest, and clairvoyant of these people—in whose invocations they have much faith and whom they still fear, notwithstanding the warfare made upon him by the Russian priests.

Ivan says that when the Jeannette survivors landed in the delta in the fall of 1881 he happened to be in the village of Kitach, near the northern point of the delta. Nicolai Vinakuroff, who lived in Kumachsruk, was also there with his reindeer. Constantine Muxaploff, the Candidat Goiovah, Alexai Atskassoff, the Staroster of Tumat, and Tarras Savin, the Staroster of one of the western districts, were obliged to go to Bulun to the yearly meeting of all the native officials. They wished, however, to wait and proceed later with the dog sleds to Buikoff, and thence by Kumachsruk, passing to the southward of Bulcour, to their destination. Nicolai urged them to accompany him, as he had sufficient deer for all. This, after much hesitation, they agreed to do, and proceeded directly south accompanied by Ivan. When they reached a hut not far from Matvay (Mathias) they noticed footprints in the snow which had been made by Nindemann and Noros on their famous march south. Not knowing what to make of these unusual marks in this part of the delta, they proceeded on their journey without attempting to discover the cause of them. Their path here left the river and led through the mountains, where moss for the deer was plentiful. Androssoff was sent by Alexai Atskassoff to the huts of Bulcour to fetch an ice-pick and fish-

nets left there during the summer fishing season, while the others pitched their tent near a little stream 10 versts from where it empties into the Lena at Bulcour. Ivan went directly to the store-house where he knew the implements had been left, noticing at the time smoke issuing from the top of the neighboring hut, or *urassa*. He saw no footprints in the snow, and not being able to account for this strange condition of affairs, there being no sleds, deer, or dogs about, his first impulse was to flee. But, after making preparation, by crossing himself several times, he summoned sufficient courage to open the little door of the hut, where he was met by Nindemann, with rifle in hand. Very much frightened by this apparition, as he says, his only thought, after Nindemann had coaxed him inside, was to keep his way of retreat open, especially as he observed that Noros was trying to cut it off by getting between him and the door. He understood nothing at all of what the two seamen were trying to explain to him by sign language, except that they were hungry. His object then was to summon his companions. Nindemann and Noros, not being able to understand his anxiety to leave, after much opposition permitted him to do this, not, however, until he had offered to give up some of his fur clothing as a sign of good intent. Very soon Coustantine and Tarras Savin returned with him, and the starving men were made as comfortable as was possible under the circumstances.

So Ivan concludes, and Muxaploff agrees with him, that for all the rewards they have received from both their own Government and ours, they ought to be and are primarily thankful to old Nicolai Vinakuroff, to whose persistency in urging them to accompany him south they owe their present good fortune, and Nindemann and Noros undoubtedly their lives. Nicolai Vinakuroff, for whom also I had a medal, rifle, and various other presents, had died, and I therefore sent for his wife, and son, and made inquires to satisfy myself of this native's death. The son accompanied me to the delta.

The hut in which I lived was very crowded. Not only were the bunks occupied, some by whole families, but at night all available space on the floor was used. The fish-nets in the Lena could not be visited because of the prevailing storm, and here, too, there were long and loud complaints of scarcity of food. No fish at Buikoff, was the text always enlarged upon. In fact, the whole day was spent in relating stories of want, in smoking, and in eating. Had I not been forced to remain several days, or had I simply stopped to get fresh deer, I should probably have left with the impression that these people were truly suffering. To be sure they were not living in clover, and having only a few deer could ill afford to kill one, for a Tunguse without reindeer is next door to starvation, as then he cannot even go in search of food. But to show how easily strangers are and have been misled I transcribe from my notes an account of the meals of one day, as carefully jotted down at the time.

I will interpolate by saying that we have all had our sympathies aroused by statements that these people are often during famines compelled to resort to wood for food. Now, the fact is that careless observers have simply been imposed upon, or they have jumped at conclusions without caring or perhaps being able to make inquiries, and because they thought that a statement of these views would make a heartrending page for their books, and by inference show what a distressing time they themselves must have had among such surroundings. Wood in a certain form is a most common and constant article of diet on the Lena River all along the north coast and in the immediate neighborhood of Yakutsk, in fact wherever the Yakut resides. North of Verchoyansk,

except in a few sheltered valleys, it may be said there is no other wood than the larch, and for miles south of the tree-limit absolutely no other. The natives eat it because they like it. Even when fish are plentiful it usually forms part of the evening meal, as the many cleanly-stripped larch logs near every hut testify. They know by experience that the fact of their eating wood arouses the sympathies of strangers, and shrewdly use it to excite pity and to obtain a gift of tea and tobacco. They scrape off the thick layers immediately under the bark of a log, and chopping it fine mix it with snow. It is then boiled in a kettle. Sometimes a little fish-roe is mixed with it, and farther south cow's milk or butter. I have often seen it eaten without anything additional, though as in the present instance there was apparently enough other food on hand.

In the morning they had tea, and immediately afterwards boiled reindeer meat; later rye flour boiled in water. About noon tea and fish. At 4 p. m. raw frozen fish and tea. At 8 p. m., boiled fish; and just before turning in for the night, about 10 o'clock, a wood stew, as described above, with which a little fish was mixed. The latter is called *butugas*, and is either *bess butugas* or *tit butugas*, pine or larch, according to the wood used.

My host was not prosperous, for undoubtedly food was not as plentiful as usual. He was unable to sell fish weighing from four to five pounds each for one to three rubles a hundred, as he generally did, delivering them at Kumachsuk for that price, after transporting them 150 versts. When the natives have enough fish, tea, and tobacco they wish for nothing else. I have asked them, would they not like to go where food was easier to get—for instance to Yakutsk—and their invariable answer was, "No, there is no place like Buikoff, and we would die if taken away from here."

On February 10, the wind having gone down, we left at noon, following the usual road through the mountains to the northeast. The party, besides the Cossack and myself, consisted of Muxaploff, Ivau Androssoff, Vinakuroff's son, and a rascally-looking Yakut from Yakutsk, one of the blessings bestowed on this region by the Russian Meteorological Expedition of 1882-84. Several of the workmen employed by Lieutenant Yürgens in bringing his barges down the river have remained here, finding it easier to live by trading for fish than by working in Yakutsk.

We at first followed a small creek for 20 versts, the bed of which was very rocky, and correspondingly hard on the sleds. After that we passed through a comparatively wide valley, literally bare of snow for long stretches. Later, while on the *tundra*, clear of the mountains, we found good traveling. About 8 p. m. we stopped at a *pavarnia*, 110 versts from our starting point, but were glad to leave in a couple of hours, as it was full of now and exceedingly smoky. From here we crossed a bay 40 versts to Buikoff, and after waiting back of the village until the dogs could be secured, to prevent their attacking our deer, put up in a *yourta* about 3 a. m. of February 11.

I was now on the ground where part of the presents sent by our Government was to be distributed, distant, as I had traveled, 12,384 versts from St. Petersburg.

Nothing had been heard of the transport, and of course I had not expected to find it here, owing to the severe storms which had prevailed for nearly a week.

I had an opportunity of verifying the reports concerning the failure of the fish catch. The people were wretchedly poor, and living upon the few fish they took daily from the nets.

The ordinary fishing places had been fruitlessly tried, and the nets were set 10 to 20 versts away from the villages of Buikoff, Zeemovialach and Arruella. The great majority of the men, having no food for their dogs, visited their nets, whenever the weather permitted, on foot, going out in the morning and returning late in the evening, frost-bitten and covered with ice. The dogs were being fed every other day with the heads and bones, only that small part of the fish the natives could not eat themselves, and were consequently unfit for work. There were only a few regular delta natives here; but five huts were occupied by the Yakuti from Yakutsk, above referred to, who were naturally also suffering instead of making the profitable bargains they had expected.

Fish were running about two or three to a net, and were just about sufficient to keep the wolf from the door when hauled every day.

This unusual work at the time when the sun reappears, the stormiest season, was an additional source of complaint. Ordinarily there is little effort to take fish then, the necessary supply for food and trading purposes having been caught in the late fall. The dogs being unfit for work, the traps for taking the ice fox could not be visited. In fact, everything here depends upon the fish supply. It usually happens, the natives insist, that when a winter is exceptionally tempestuous the fish do not run well; but, on the other hand, the ice fox always appears in large numbers. The scarcity of fish this year they ascribe also to the presence in the summer of the *biluga* (great white sturgeon), which ascended the river as far as Sicktach, south of Bulun.

In view of the extreme want on every hand it will appear that a more fortunate time for the delivery of our Government's bounty could not have been selected.

On the annexed chart of the delta all the places referred to in this report are marked.

I had heard with regret, and now by investigation established the fact, that one of the traders who has his winter headquarters in Kasatche, on the river Yana, had managed to deprive the natives of certain shot-guns which had been presented to them by Lieutenant Harber, United States Navy, for Lieutenant Danenhower, in 1882. In one case he had taken a gun worth, perhaps, 80 roubles in Irkutsk for a debt of 11 roubles. This trader, a Yakutized individual, has a passion for buying everything of foreign make, or anything unusual in this part of the world, especially watches and breech-loading rifles. I afterwards met him, and learned that partly owing to this weakness he had become bankrupt, there being no market for his accumulated store of curiosities, as he called it.

Constantine organized himself into a high court of justice to investigate certain rumors regarding stores of fish in possession of the strange Yakuti who, it was said, had traded for them early in the autumn, when all looked bright for the usual run and were now holding them for a rising market. A search was made but revealed only a very few fish in each storehouse. Kalinkin employed the time while we were waiting for the transport in delivering lectures to the natives on the subject of their permitting the traders to cheat them out of their fish and furs, and thus prepared them for a talk I had with the leading men afterward regarding the disposal of the presents I was about to give them.

I sent for Vasily Bobrowsky, known as Kulgarch, and also Offanasi Bobrowsky, commonly called Chumohor or Tumat. They live in the village of Arrue. After a short conversation with them and Constantine it became apparent that it would be impossible to transport that part of the stores intended for Tumat or Kitach this winter, or even to

raise sufficient dogs for Kalinkin and myself to visit that place. There were dogs, in fact too many. Taking Vasily's as specimens, I readily understood that it would not do to attempt a long journey with them. Vasily himself had been to Tumat early in the season for fish, but returning empty-handed had lost half of his dogs from starvation. After the customary long talk it was agreed to send one man with six selected animals to Kitach to inform the people there of my arrival, and, if possible, have the leading men come to Zeemovialach. Vasily then left for home and sent one of his sons as the messenger, giving him six dogs and eighteen fish for the journey. I reluctantly consented to this arrangement. Nothing more could be done. I considered that I had been sent here to relieve in a measure the wants and burdens of this people and not to increase them. If dogs could have been had, say for four sleds, and counting only ten for a team, it would require at least forty fish daily to feed them in their present condition. If traveling well in three days to Tumat the fish needed would amount to two hundred and forty, not accounting for delay by storms. This number would feed an ordinary native family for forty days. Besides, there would undoubtedly be complaints afterward, to which the natives lean at all times, of my having used their small supply of food when I knew they were on short rations. In addition they needed the few dogs still able to work to visit their nets when this had not, as in the majority of cases, to be done on foot. After weighing all this, and in view of their most positive assertions of impending starvation, upon which subject they are, however, always inclined to exaggeration, I made the arrangements above alluded to.

On February 12 my host visited his nets afoot, and came back in the evening with the forlorn report that he had hauled three nets without finding one fish.

Nicolai Diakanoff, mentioned in my instructions, had died of small-pox in 1884. His widow and her son visited me and consented to give me the use of their hut as soon as Ivan arrived, when I would make Zeemovialach the headquarters for the distribution of all the presents. Spiridon, an old acquaintance from Arrue, also called. He was to be sent with the *starosta*, or head man, to Kumachsurr, to order reindeer to be brought here for my return journey.

About 7 p. m. of the 12th, Ivan Strutchakoff came into the hut and was received with great pleasure. He reported having left the transport in good condition 10 versts away, fearing for his deer at night should he suddenly come upon the dogs in the village. I thereupon sent a man to Zeemovialach to have sleds sent over the next day.

Ivan had had a trying journey. Heavy gales had detained him at Karaulach River near Tass Tumuse, until three days before his arrival. He had made 90 versts the last day. There was very little snow in the mountains, but a large number of wild reindeer, of which he brought us one as a specimen. His tent was blown down every time he set it up, and finally the three drivers rolled themselves up in it and thus weathered the gale. One of the drivers almost gave up. They experienced great difficulty in finding the reindeer after the blow, because the drifting snow had obliterated the trail, rendering it nearly impossible to trace the scattered animals.

On February 13 we had fine weather. Two men were sent to the transport to assist in catching the deer, which was more than usually troublesome, as this was the first time the animals had had a good opportunity to feed since leaving Tass Tumuse. Four sleds, 8 miserably weak dogs to each, came over from Zeemovialach and Arrue. After we had given

up the transport for the day, it arrived at 6 p. m. Everything seemed in good condition except the Tunguse drivers, who were severely frost-bitten in face and hands. There was a general laugh by the natives at their appearance, and especially the one who had during the storm considered his case hopeless was the object of a great deal of ridicule.

I sent four light loads of stores to Zeemovialach, to Chagre's hut, in the evening, it being very dark and the dogs in poor condition. During the night it began blowing again from southward and westward.

About noon on February 14 I crossed to Zeemovialach, taking one hour and a half to make the distance of 3 to 4 miles, and packed over the rest of the stores on five sleds.

I settled down in Chagre's hut, which was very clean and neat in comparison with all other huts I had occupied. The widow and her two sons were the only other occupants besides Kalinkin, Coustantine, and myself. Even two copper kettles were kept bright, a mark of unknown cleanliness in this part of the world. There were only ten fish on hand, and while in the delta I refrained from purchasng any, though five were given to me during my stay. My provisions while in the north consisted of reindeer meat, fish, eaten either boiled or raw, black bread, and tea.

The remainder of the stores did not arrive until evening, the wind blowing furiously from the southward and westward, and I had begun to fear that the drivers had lost their way.

My instructions, so far as they related to the Lena delta, required me to distribute certain medals, guns, and stores to specified persons who were living in the three villages of Zeemovialach, Arrue, and Kitach, and in one of the villages of the west delta. I was further directed to make a general distribution of stores to all the inhabitants of the first three villages. By referring to the chart of the delta the position of these places will readily be understood. (Chart appended, and marked F.)

The natives in winter live in three localities, viz, in the villages known as Buikoff or Tumuse, Zeemovialach, and Arrue or Arruella, all being frequently grouped together under the name of Buikoff; near the mouth of the northern branches of the Lena, in Bulun, Kitach, and Borchia, these three being comprised under the name of Tumat; and at or near the mouths of the western branches of the river in Turrach, Arrue, and Yangalach, frequently spoken of together under the title of Arrue. On the opposite side of the river to Kitach is the now deserted village of Sagastyr, marked prominently on all the charts of the delta. The villages in the west at the time of my visit were almost deserted, as the fishing grounds have been nearly worthless for years.

In 1885 water flooded the ice in the delta on June 22, and on July 2 the river was clear.

Ice formed on September 17, and the first natives crossed from Buikoff to Zeemovialach on October 8.

The average thickness of ice at the mouth of the river is 8 feet.

The inhabitants of this region have organized local government, and their abiding places are as permanent and well known as any people's in the world. Their ancestors have always lived here so far as the natives themselves have heard. They are visited yearly by the Russian priest living in Bulun, and frequently by the Cossack overseer, who lives in the same village, and by traders traveling here in winter. The district, which extends for hundreds of miles up the river, known as the *Shigansk uluss*, is presided over by a native official called *golovah*, with assistants such as *Candidat Golovah*, and *Viborne*. The *uluss* is divided into dis-

tricts, having for a chief a man entitled *Staroster*, whose assistants are *starshinas*. Of these last-named divisions there are three in the delta, as indicated by the three localities described above.

The Shigansk *uluss* is one of the parts of the Verchoyansk *okrug*, or circuit, at the head of which is the Ispravnik.

I think proper to mention this organization in this connection in order to give a clear understanding of the general character and condition of the delta natives, especially as it has been said that the existence of some of the villages was entirely unknown to the Russian Government previous to their discovery by some of the survivors of the Jeannette. Furthermore, we have been told that the natives knew of no such place as Sagastyr, when, in fact, the site of the village is plainly marked by several dilapidated huts on the river opposite Kitach.

The Ispravnik visits each *uluss* once a year. When he is not present the *golovah* is the chief official.

The Golovah, Candidat, Golovah, Viborne, Staroster, Starshina, and even the native who has charge of the issue of the Government flour, and known by the Teutonic title of Wachter, are elected directly or indirectly by the inhabitants of the place or places concerned.

In other words, these natives are not the wild, untamed children of nature, as is often supposed, but are ordinary, every-day Yakuti, or half Tungusi, doubtless not so cunning and shrewd as their brothers farther south, but not by any means innocent of the weaknesses of human nature as taught them by a yearly contact with civilization.

The Shigansk *uluss* is the poorest of all in the Verchoyansk *okrug*, though it is the richest in the principal commodity of the natives, namely, fish. Transportation from Yakutsk costs almost nothing in the summer, by river. The fact of Bulun, the principal village, being within such easy reach of Yakutsk, explains the apparent anomaly. The great Lena, instead of being a blessing to the people in the north, is the cause of their great poverty when compared with other parts of northeast Siberia, for if it cheapens the traders' articles somewhat, it also brings a number of traders with *vodka*, who, when they leave in the fall, leave the natives nothing.

In order to thoroughly and systematically carry out my instructions, I proceeded to make a list, including every hut in the villages, and the names of natives in each hut, as well as the number of members of each family. Taking this list (which is appended and marked G) as a basis, I could intelligently and impartially distribute the stores after the specified presents had been delivered. I also made careful inquiry as to all changes of residence since 1882 and 1883, and was able to place several families and individuals who had, however, simply moved from one village to another, none having left the delta.

Since my last visit nearly 40 per cent. of the delta inhabitants had died of small-pox, introduced by a trader from Bulun in the winter of 1883-'84.

At 5 p. m. of Sunday, February 21, during a heavy gale from southward and westward, four sleds arrived from Tumat, and brought Innokenti Shumiloff, the *staroster* of Tumat, Tarras Savin, Michael Mordovskoi, Nicolai Bobrowsky, Constantine's son, and the son of Alexai Atskassoff. Alexai was very ill and unable to make the journey. They had come from their home in three days. Mordovskoi had lost five dogs on the road, and the remainder was abandoned here, being unfit to return.

I now finished the list of inhabitants referred to above, so far as related to Tumat, with the assistance of the contingent just arrived.

We had unpacked the stores, finding everything in excellent condition, and having arranged them in an orderly manner in the unoccupied bunks, our domicile now had the appearance of a first-class country store.

The next day, February 22, the hut having been thoroughly cleaned up for the ceremony, a small table was covered with a many-colored shawl, upon which were arranged the medals, money, presents, flints, and steels, &c. Beside the table, an improvised gun-rack contained the rifles. Those who were to receive medals, having arrayed themselves in a neighboring hut in their best clothes, soon made their appearance, all looking very grave, and decorated with the medals bestowed upon them in 1883 by His Imperial Majesty, the Emperor of all the Russias. They were Vasily Bobrowsky, Affinaseff Bobrowsky, Ivan Androssoff, Constantine Muxaploff, Tarras Savin, and Michael Mordovskoi. While they stood in a row before the small table I addressed them through my Cossack, conveying to them the thanks of the President and people of the United States for the humane services they had rendered the survivors of the Jeannette and their efforts in searching for the lost of the unfortunate Arctic expedition, impressed upon them the necessity of always succoring people in distress, of whatever nationality, and, in conclusion, gave them some good advice, to prevent if possible the disposal of any of the stores to the traders, saying that only such had been sent them as we knew by experience would be of great use and a source of comfort.

Kalinkin pinned on the medals and explained the inscriptions, and I gave to each the sum of money as noted in my instructions, the gun, ax, flint and steel, flannel, horse-hair, &c. Afterwards they arranged themselves in front of the images of saints, placed in every hut above the berths, and gave thanks to God for their good fortune, frequently making the sign of the cross, kneeling and bowing till their foreheads touched the floor.

They all thanked me personally, assuring me at the same time that they would never part with anything which they had received from the Americans.

Kalinkin and I spent the rest of the day in preparing the presents intended for Tumat. The men were very anxious to return as soon as possible, having only a few fish left for their dogs, and, of course, not being able to obtain any here. In making up the packages for each family my list proved of great service. The bundles were thoroughly secured and sealed, and distributed to the sleds for delivery. The natives marked them with peculiar signs, and were thus able to identify the different parcels.

To Atskassoff's son I delivered the medal and other presents for his father, formerly staroster of Tumat, and one of the party by which Nindemann and Noros were succored. To the son of Nicolai Vinakuroff I gave the presents intended for his father, to be delivered to his mother, and those intended for Nicolai Diakanoff I presented to his widow.

Maxim Stepanoff, of Zeemovialach, known as Karannai, or the Black, appears twice in my instructions, once under the former name, and again under the latter. There were, hence, two medals for him. He, also had died of small-pox, and there was no one even distantly related to him. The medals are returned with this report. The mistake was due to the fact of each native's having two names, Christian and Yakutish. The former is given them by the Russian priest, but among themselves the latter only is used. Some are entirely ignorant of their Christian names.

The gun for Karannai I gave to Gabrielle Pachim, a native of Zeemovialach. Here the survivors of the Jeannette had lived about forty days. Gabrielle had been very highly spoken of by Lieut. John W. Danenhower. By giving the gun to this man I made a satisfactory distribution of these useful weapons in the villages of the delta, viz: Three guns in Tumat, two in Arrue, two in Zeemovialach, and one going to the West Delta.

Affanasi Bobrowsky is the only one surviving of the three men who found and rescued the officers and men of the Jeannette's whaleboat, when they were wandering about lost in the delta. Both Karannai, as above stated, and Feodor Seranoff died of small-pox in the winter of 1883 to 1884.

I had bullets cast, and instructed the natives in the use of their rifles, with which it is a satisfaction to say they made excellent practice, and will undoubtedly greatly increase their game lists in the coming summer and fall.

On February 24 the stores were divided for the inhabitants of Zeemovialach and Arrue, not forgetting those in Buikoff or Tumase who formerly lived here.

During the forenoon all the leading men came into my hut to offer their formal thanks for our Government's bounty, and those from Tumat to bid me good-bye.

The spokesman said :

We send our thanks to your President and his people, the Americans, of whom we heard the first time when the crew of the Jeannette came into our land. We cannot write, and therefore ask you to speak for us and deliver our messages of thanks. We ask you to be the bearer of our expressions of gratitude. Even our children's children will benefit by the presents you have brought us, and for many years the story of your nation's liberality and kindness will be related among our people. We now know what foreigners are, and will not fear them. We will spread the news everywhere, east and west, along the coast, so that all expeditions, all who may reach our land in want, may be assisted. We were in dire want, especially this year. Many were starving, and your nation has sent us everything we need.

And then, after many more assurances of gratitude from all, the Tumat people bid me farewell.

It may be said that it blew incessantly from southward and westward during my stay at Zeemovialach. The old men and women, as they were called into the hut to receive their shares of presents, were guided by long thongs stretched from hut to hut. The other three *yourtas* in the village were overcrowded by natives who had come from Arrue and Buikoff. One Yakut was lost while fishing, but was found after two days' search. A woman who ventured out alone in the evening to cross to her home, about half a mile distant, was found early in the morning about 5 miles beyond her hut, lying in the snow, waiting for daylight, under the impression that she had not gone far enough.

A peculiar instance of their superstition occurred about this time. An old Yakut was supposed to be dying one evening in the house of Pachim, who came over and asked Constantine to have the man removed. No one living in a hut where a death occurs is permitted to visit his fish-nets until the new moon, since by doing so all the fish would be driven away. As Pachim had no store of fish, it was of course necessary for him to haul his nets whenever possible. Hence, very naturally, he had decided objections to keeping the stranger who was so near dissolution in his house. Owing to the high wind, Constantine directed the removal to be postponed till morning, when the sick man was transferred to a house where women only lived.

On February 26 we heard that fifteen reindeer for us had arrived at Buikoff. The men had only succeeded in reaching us by lashing three sleds abreast to keep the wind from sweeping them away. Deer were reported plentiful at Bulun, belonging principally to traders.

February 27 was calm, but, as usual when there was no wind, the hut was unbearably smoky.

At noon, amid expressions of profuse thanks from the assembled villagers, we left Zeemovialach on dog sleds for Buikoff. The reindeer had arrived about four days ago, but were scattered during the last blow, so that only five out of fifteen could be found.

Sunday, the 28th, was the finest day I experienced in the delta. The temperature was comparatively mild, sun bright in a clear sky, and absolutely no wind.

Spiridon arrived from Kumachsursk, to which place, it may be remembered, he had accompanied the *staroster* to arrange concerning deer for my return journey. He had a woful tale to relate. He was covered with dirt and soot, and was severely-frost bitten. In short, he said that on his return journey, overtaken on the Lena by the storm, he was unable to find the *pavarnia* on Tass Arrue, and was obliged to burrow into a snow-bank, where he lay for three days. After this time he managed to reach the *pavarnia*, but on unbitching the dogs the wind carried away his sled, and he was unable to find it. He weathered the gale in the *pavarnia*, and arrived to-day on a small sled, which he had made with his knife, having lost seven dogs by starvation, and his ax, clothing, and fish, with his sled.

Having managed to get ten of our deer, we started for Bulun in the afternoon. Ivan left Buikoff at the same time for his home at Duclach, having been storm-bound for two weeks. We lost our way during the night, but were set right soon after by four Tungusi, who were on their way to Buikoff to try to get some food. Our deer were very weak, and early the next morning we left two that were unable to work. Before getting clear of the *tundra*, and just before we entered the mountains, we were treated for the last time to a southerly gale fair against us. We lay by until it blew over, losing six hours.

At 5 p. m. we replaced some of the deer at a hut on the Lena where the widow of Nicolai Vinakuroff was living, and about midnight got a relay 20 versts south of Kumachsursk.

On March 2 the weather was cold but fine, and I reached Bulun at noon.

The following is a list of those specially rewarded, in addition to the names indicated in my instructions:

Ivan Portnaggin and wife; they rendered services during the search for De Long and companions, and though at the time resident in Bulun, were taken to Kass Karta to assist in various ways.

Nicolai Bobrowsky; he lived formerly in the west delta, but is now a resident of Kitaach, and was employed as dog driver during the search.

Vasily Portnaggin, now living near Kumachsursk, was dog driver on several occasions, accompanying the search parties and transported fish from Buikoff to Kass Karta.

Gregori Kuchimiss was dog driver at the beginning of the search at Kass Karta, and lives in the west delta.

In Bulun I found several persons anxious to supply me with reindeer. The animals belonged to traders who were still in winter quarters at Kasatche.

All the chief men of the Shigansk *uluss* were now assembled here waiting for the Ispravnik in order to have their-yearly consultations.

I caused the government writer to execute a document in which the head men of the delta acknowledged the receipt of everything I had delivered to them, affixing their seals in lieu of signatures. This receipt, as well as all the others for presents, is submitted with this report. Among those to whom I was instructed to deliver a medal, gun, &c., appears the name of Peter Arrara, a Tchuckchee *Staroster*, living near Alaicha, on the Indighirka River. When I was in Verchoyansk, the *ispravnick* had sent a letter to Kolymsk, and one to Alaicha by a Cossack, who left with the post for the north before my departure for the Lena Delta. The former letter contained orders for Arrara to proceed home should he be in Kolymsk, where he goes yearly to trade.

To carry out this part of my instructions, it became necessary to travel eastward to Kasatche, 550 versts, and thence to Alaicha, a village on the Indighirka River, 750 versts directly east of Kasatche. My Cossack, Kalinkin, had met Arrara on the Kolyma and knew that he lived not far from Alaicha.

On the 3d of March I left Bulun, following the road leading to Verchoyansk as far as Tass Tumuse, where, as previously stated, it forks, one branch lying to the eastward and the other to the southward; I speak of roads, but they are simply routes indicated by shelter huts irregularly distributed on the *tundra*. Traveling was better than a month ago, as the snow was packed.

On March the 4th I met five traders going to Bulun, and on the 5th reached Tass Tumuse. The severe weather of winter was passed, and hereafter, although occasionally experiencing low temperatures, travel was not positively uncomfortable. Ivan with his empty transport train had arrived just before us, five days from Buikoff. Towards evening we started eastward across the *tundra*. It was a clear night, but there was no moon. Having separated from my other sleds, after proceeding 20 versts, I noticed that my driver had lost his way, and was wandering aimlessly about, first going north and then west. I set him a course by the stars, knowing the next *pavarnia*, 50 versts away, to bear south-east. He reluctantly consented to follow my directions, but after proceeding a short distance, he again became bewildered, and the deer being worried by the constant change of direction, lay down. We waited until daylight, when after some searching about, we found sled tracks and following them reached the *pavarnia*. Kalinkin's driver had also been entirely adrift. Fortunately Ivan on his way to Kasatche came along and joining him, the Cossack reached our resting place shortly before I did. This *pavarnia* lies in a small valley thickly wooded and is called Dagaruen.

By 6 p. m. we had made 60 versts more, and then sent our deer back to Bulun. After making 30 versts farther we reached Maxim Boltonoff's on the Omaloi River, 80 versts from where it empties into the bay of Borchia. Hence to Kasatche the distance is 160 versts. Not far from Maxim's we passed a hut called Batter Uerach, and after resting a short time in the tent of a Tunguse, who was fishing here in a small lake, I reached Kasatche early in the morning of March 7.

I had the pleasure of meeting Dr. Alexander Bunge, of the Russian imperial navy, whom I had met in the Lena Delta in 1883, when he was one of the officers at the meteorological station at Sagastyr. He and Baron Toll had been in Kasatche all winter preparing for an expedition to the New Siberian Islands in the spring. They had passed a comfortable winter in the government house or hut, which had been enlarged for them. Here they lived with two Cossacks, surrounded by natural history specimens which they had collected during the summer in the Yana

Valley. They had followed the Yana, together with its largest tributaries, from its source to the Arctic Ocean. Among their most prized specimens were several mountain sheep, plentiful in this part of Siberia, of which there is but one exemplar in the museum in St. Petersburg, and the skull of a musk ox, said to be the first trace of this animal ever found in Asia.

Kasatche is a village on the Lower Yana, in which reside the families of five or six Russian or half-breed traders. It contains a small church, and a priest lives here. The traders generally leave in the spring for Bulun and Yakutsk. In the fall, having disposed of their furs and mammoth tusks and laid in a supply of stores for trading, they return to Bulun, and as soon as snow falls proceed to Kasatche, in which place and the immediate vicinity they spend the winter gathering principally ice-fox skins. They rarely visit the Lena Delta now, owing to the poverty prevailing there. In the summer Kasatche is practically deserted.

Ust Yansk, marked on the charts, is 30 versts north, but now boasts of half a dozen *yourtas* only.

Natives had not visited the New Siberian Islands to gather mammoth tusks for seven or eight years until 1883, when a trader sent three or four men over for this purpose. Since then two unavailing searches have been made for them. The Liakoff Islands are visited yearly, the ivory gatherers crossing to them in the spring and returning in October or November to the mainland. These islands, so rich in mammoth remains, have given rise to a saying that they rest on mammoth tusks.

One of the objects of the Russian expedition was to find a perfectly preserved specimen of the mammoth, and at the time of my visit Baron Toll had so far succeeded in overcoming the prejudices or whatever causes the natives to deny all knowledge of the whereabouts of these very interesting remains, that he had induced a Tunguse to point out to him the locality where twenty years previous he had removed the tusks from one buried in the bank of a river about 200 versts to the southward and eastward of Kasatche.

I was most hospitably treated by Dr. Bunge and Baron Toll, as well as by the Russian traders, and had the pleasure of reading the latest newspapers from Russia, a Cossack having brought the expedition's mail from Verchoyansk.

The chief native official, in accordance with instructions he had received from Ispravnik Ipatieff, had taken steps to have reindeer prepared for me along the route to the eastward, and on the evening of March 13, I left Kasatche for Alaicha. I traveled over the *tundra*, stopping to change deer whenever we came upon natives who live near the tree limit.

After a very rapid journey, during which the weather was perfect, I reached Alaicha early in the morning of March 17.

The village consists of five or six huts and a chapel. I was received by the priest, the only Russian living here, with great cordiality, and soon made the necessary preparations for continuing my journey, leaving on the evening of the day of my arrival. Sixty versts from Alaicha, about midnight, we came upon a large camp of the Yukahiris, who are usually found in the neighborhood of the Indighirka, although they are nomads as well as the Tungusi and Lamuti.

After procuring fresh reindeer we started in search of Arrara, whom it was my mission to find at his home on the *tundra*. I took with me the chief of the Yukahiri as interpreter for the Tchuckchee language, and in addition five others accompanied me, in order, as they afterwards said, to get a good look at the American when day should break.

The weather was very cold, and although Arrara frequently changed his camp to get fresh feeding grounds for his five or six thousand reindeer, we succeeded in finding his resting place about noon, 120 versts from Alaicha, being attracted by his herd, which I at first mistook for the forest marking the tree limit to the southward.

Arrara's son received me. I learned that his father had gone to Sredne Kolymsk to trade and had sent a message home to the effect that he had met the Cossack mail-carrier from Verchoyansk, who had informed him of my mission. However, he had concluded that I was mistaken in the name, as he had never seen an American, and could not therefore understand why the Americans should wish to recompense him.

Arrara is the only native of those rewarded by the Government whom I had never seen. The fact of his living so far from the Lena Delta, taken in connection with his assertion of never having seen an American, made me conclude to search the records in Yakutsk upon my return south, before turning over at least the gun and medal which had been designated for him. I remembered having translated a letter for General Tcherniaeff in the year 1883, in which he enumerated the names of the natives who had been rewarded by the Russian Emperor. Among these was that of Arrara for services rendered the search party from the United States steamer Rodgers. I left all the stores, such as clothing, ax, knife, powder and lead, I had intended for him, but took the medal and gun with me to Yakutsk.

March 18 I spent in the tent of Arrara, being feasted with dried reindeer tongue, *ukala*, or smoked fish, and raw frozen marrow, the greatest luxury of Northern Siberia. My observations led me to confirm the statements I had heard concerning the superiority of the Tchuckchee tent over that of the Lamuti or Tungusi. The latter build their fires in the middle of the tent. The smoke escaping slowly at the top compels one to lie down or to frequently seek the fresh air outside to avoid suffocation. On the other hand, the Tchuckchee tent is a much larger one, in which the fire for cooking is built near the entrance, the opposite side containing a room or closed square tent made of reindeer skin with the hair turned to the inside. It is heated by a small lamp with a moss wick fed by reindeer fat, to a temperature of a Turkish bath. By living in this inside structure the Tchuckchee saves his sight, whereas among the other natives referred to one rarely meets old people who are not suffering with sore eyes, if they are not, as is frequently the case, totally blind.

Arrara may be said to be the advance guard of the Tchuckchees in the west. He has been on the Indighirka only ten years, having lived previously to the east of the Kolyma.

At noon on the 19th of March I was back in Alaicha and left for the west the next morning.

On March 28 I arrived at Kasatche, having visited Baron Toll at the "mammoth place" a little to the southward of the track leading to the Yana. He had built a couple of huts for himself and Yakut workmen, and was digging into the bank of a small river in search of the mammoth reported to have been discovered twenty years ago, as referred to above. Much to my disappointment no traces had been found at the time of my visit, but I was glad to learn afterwards in Yakutsk that the search had been successful and that a rare contribution to science had been the reward of the Baron's energy and enthusiasm.

I remained in Kasatche until Saturday, April 3, detained principally by stormy weather. After a fair journey I reached Verchoyansk on the

following Friday. The latter part of the journey was slow, owing to the deeply-drifted snow. Near Verchoyansk I met Mr. Ipatieff on his way north to make his yearly visit to Bulun, Kasatche, and Alaicha, inspecting the Verchoyansk district, which extends from Olenek in the west to Alazea river in the east.

There were no reindeer in Verchoyansk, as the *ispravnik* had taken all the available animals, but on Tuesday, April 13, a trader kindly furnished me with transportation to the first deer-station. The half starved deer had worked all winter, and we were forced to move slowly. We found it often necessary to lighten the load by walking, and wherever possible replaced the reindeer by horses obtained from the Yakuti who live around the headwaters of the Yana.

We dropped a number of the animals by the roadside, and at frequent intervals fed those remaining with butter, salt, and fish, the universal treatment for fagged-out reindeer whenever these articles can be readily obtained.

In the valley of the Tukanan we had heavy storms and the deer could move in a walk only, dragging the sleds through freshly fallen snow 4 feet deep.

After reaching the Aldan River we procured horses for all the sleds and traveled rapidly. Warm weather was setting in, and as we approached Yakutsk the melting snow warned us to hasten our journey.

I entered Yakutsk early in the morning of Saturday, April 24, after an absence of nearly four months in the Arctic regions. I was cordially received by the officials and other acquaintances, who had begun to feel some doubt regarding my return until after the spring floods, and had been made to feel anxious by the usual rumors, so prevalent in this country, about the loss of my party in a *pourga* or heavy storm on the *tundra*.

I at once forwarded a dispatch to Irkutsk, directing it to be sent by telegraph to our minister in St. Petersburg, announcing my arrival. The dispatch was sent from Irkutsk on May 21. The new governor, Colonel Svirlitsky, had taken office. After obtaining the necessary road-passes from him, I left Yakutsk on April 28 for the village of Villuisk, 700 versts to the westward, on the Villui River, where Mr. Kasharoffsky was occupying the same office—that of *Ispravnik*—which he held in Verchoyansk when the survivors of the *Jeannette* landed in the delta in 1881.

I reached Villuisk on the 1st of May, and presented to Mr. Kasharoffsky the watch and medal designated for him. I was most politely entertained, but was compelled to return to Yakutsk the next day, as the snow had now disappeared in many places and it was necessary to hasten back before the road or rather rivers, became impassable.

When I returned to Yakutsk, on May 5, it was impossible to proceed south, as the winter road was flooded, and no mail had arrived from Irkutsk for weeks.

While in Yakutsk I gave to the son and two daughters of Mr. Constantine Bobokoff, whose name appears in my instructions, the silver medal which was intended for their father. He had died in November, 1885, a short time before my arrival in Yakutsk.

I also presented to the mother of Feodor Seraunoff 200 rubles, after she had furnished me with the documents necessary to establish her identity. These are appended. Seraunoff was a Yakut, who had been exiled to Buikoff, and was one of the men who discovered and assisted the whale-boat's crew of the *Jeannette*, as mentioned in another part of

the report. He died in the spring of 1884, of small-pox, at a time when he was daily expecting permission to return to his home in the south.

I furnished Governor Svvitlitsky with the names of all who had been given medals, as it was necessary to write to St. Petersburg to obtain the consent of the Government before they could be worn. Letters referring to this matter are appended.

The governor permitted me to take copies of all papers relating to the case of Peter Arrara. These are also joined to this report. From these it appears that Arrara had volunteered in 1882 to deliver mail to Lieutenants Berry and Hunt, of the United States steamer Rodgers. The post arrived at Sredne Kolymsk after these officers had started on their search toward the Lena delta. In forwarding the package it was necessary to travel by reindeer about 1,000 miles. Whether the mail was ever received by Lieutenant Berry I was unable to ascertain.

I turned over the medal and gun for Arrara to the governor, who was to send them to the ispravnik of Kolymsk for delivery.

The ice broke in the Lena on May 25, and on the 29th of the month the river was clear enough for navigation, though travel by post-boat towed by horses was impracticable on account of the high stage of the water.

A small steamer arrived in Yakutsk June 1, and on the 6th I left for Irkutsk, having finished my work in the north. After a very slow and tedious trip I reached Vitim on June 22, and there took passage in one of the steamers of a gold-mining company to Omaloi, a post-station on the Lena near Ust Kut, where, owing to the low water, it became necessary to travel in a small open boat as far as Gialoa.

The governor-general of East Siberia, Count Ignatieff, was on his way north on a tour of inspection. I met him at a post-station, and, after taking formal leave of his Highness, continued my journey. I reached Irkutsk, the capital of East Siberia, on July 4, and reported my arrival by telegraph to the American minister in Russia.

I remained in Irkutsk a week to rest and procure a wagon, the one I had left here in the fall of 1885 being unfit for use.

I started west on July 11, but in Krasnoyarsk the post-wagon which had been presented to me in Irkutsk was disabled, and I was obliged to purchase another here. I arrived in Tomsk on July 21, and after spending five days in ascertaining the whereabouts of Mr. Joachim Groenbeck, left for Tara, a town on the Irtysh River, whence Mr. Groenbeck had telegraphed me, and where he was employed by a steamship company. Tara does not lie on the regular post-road, and I used free horses, as they are called, furnished by peasants at post rates in the villages along the route.

Mr. Groenbeck was not at home at the time of my arrival. On Monday, August 2, he returned, and after presenting him the silver medal from the President I left for Tiumen, reaching this town, the terminus of the railway, on the Friday following. Hence my journey was comfortable and rapid to St. Petersburg, where I had the pleasure of arriving on August 16.

Mr. Thornam, late interpreter for the Jeannette search parties, had written me, and I was daily expecting him in St. Petersburg. As he had not arrived when I was ready to leave, I turned over the money, 600 rubles, assigned him as a present, to our minister, Mr. Lothrop, and took measures to have Mr. Thornam call for it there.

General Anuchin was absent from the capital. General Kalpokoffsky was on leave in Russia when I passed through the government of Omsk, West Siberia. I had been unable to ascertain the whereabouts of Mr.

de Lagrené, late consul-general of France in Moscow. Mr. Lothrop therefore kindly consented to undertake the delivery of the three letters of thanks for these officials.

I left St. Petersburg on August 30, and after visiting Berlin, sailed from Hamburg, where I waited one week for a steamer, for New York on September 12, arriving in Washington on Sunday, September 26.

In conclusion, I would call the attention of the Department to the aid extended to me by the authorities in Siberia, without whose assistance the time of my journey would have been considerably prolonged.

I have the honor to be, sir, with great respect, your obedient servant,

W. H. SCHUETZE,
Lieutenant, United States Navy.

The SECRETARY OF STATE.

Inclusures.

- A.—Copy of instructions.
 - B.—Track chart of Europe and Asia.
 - D.—Track chart from boundary of Verchoyansk district to Yakutsk.
 - E.—Track chart from boundary of Verchoyansk district to village of Verchoyansk.
 - F.—Chart of Lena Delta, Siberia.
 - G.—List of names of natives in Lena Delta, Siberia, rewarded by United States Government.
 - N.—Table of distances.
 - O.—Table of temperatures, Verchoyansk, December, 1884, and January and February, 1885.
 - P.—List of stores distributed among natives in Lena Delta, Siberia.
- NOTE.—The inclusures lettered C, H, I, K, L, M, and R, being in the Russian language, are omitted.

A.

DEPARTMENT OF STATE,
Washington, July 3, 1885.

Lieut. WILLIAM H. SCHUETZE, U. S. N.:

SIR: The President of the United States, in accordance with the suggestions of the Secretary of the Navy, recommended Congress by a special message of January 27, 1885, to authorize him to bestow testimonials upon those officers and subjects of the Russian Government who extended aid and comfort to the survivors of the Jeannette Arctic exploring expedition, and assistance to the parties dispatched by the United States Government to relieve and succor the said survivors, and to convey to the Government and people of Russia an expression of the high appreciation in which the Government and people of the United States hold the humane services so rendered.

In accordance with this advice, Congress, on the 3d March last, voted a sum of money for the above purpose, and this Department, on the 6th April, requested the Secretary of the Navy to detail a competent officer to take charge of the presents to be sent to Russia, and to personally deliver them, with the thanks of the President and people of the United States to the officials and citizens in question.

In compliance with this request, the Secretary of the Navy has designated you to have charge of the purchase of the articles which this Government proposes to send to the benefactors of the survivors of the ill-starred Jeannette expedition, and to convey the same to Siberia for distribution, and to report to this Department for orders.

You are, therefore, hereby instructed to proceed without undue delay, and by the most expeditious and available route, to Russian Siberia and deliver to the governor of Yakutsk the letter of this Department addressed to him (and the accompanying sword), and to the other officials in Yakutsk, Irkutsk, Tomsk, and Omsk, the letters, watches, medals, and presents as described in the list which accompanies this instruction, and at the same time to express to all the recipients in the most fitting terms the thanks and appreciation of the President, the Secretary of the Navy, and the people of the United States for the noble and humane manner in which they directly and materially aided the survivors of the Jeannette and the parties sent out to search for them.

You will receive a letter of credit on the bankers of the United States at London for the payment of the amounts in the annexed list (aggregating, with cost of stores, \$2,600) and for your expenses, in respect of which you will duly account to this Department on your return.

I have instructed our minister at St. Petersburg to render you all necessary assistance in his power, and to ask for the free entry of your personal effects and of the testimonials, &c., which you convey, and the extension of proper courtesies to you on your arrival.

You will report the details of your mission to this Department on your return, and keep me informed by the ordinary channels of your progress at such periods as may seem to you convenient and desirable.

I inclose a special passport and letter of credit, as described below, on the bankers of the United States at London (in addition to the draft already given you for \$500 on this Department).

Transmitting herewith the letters to Russian officials named in the accompanying list and copies thereof, and wishing you an agreeable and successful journey.

I am, sir, your obedient servant,

T. F. BAYARD.

Inclosures.

- (1) Special passport.
 - (2) Letter of credit for \$5,986.93.
 - (3) Letters to Russian officials, &c., &c.
-

LIST OF LETTERS TO THE FOLLOWING.

- (1) His high excellency governor-general Lieut. Gen. Dmitri Gavrilovitch Anuchin (Irkutsk).
- (2) His high excellency governor-general Lieut. Gen. Guerassin Alexaeivitch Kalpokoffsky (Omsk).
- (3) His excellency governor Maj. Gen. Serge Ivanovitch Nassovitch (Irkutsk).
- (4) The mayor of Irkutsk, Mr. Demidoff.
- (5) His excellency, &c., the Counselor of State Vasili Ivanovitch Mertsaloff (Tomsk).
- (6) M. Edmund de Lagrené, consul-general of France (Moscow).
- (7) Medical Director R. Kapello (Yakutsk).
- (8) His excellency General Peter Sivers (Irkutsk).
- (9) Count Emil Ahlefeldt Laurvigen (St. Petersburg).
- (10) His excellency Maj. Gen. George Tchernaeff, governor of Yakutsk, Siberia.

SPECIAL REWARDS.

- (1) Sword for the governor of Yakutsk.
- (2) Gold watch and silver medal for Ispravuick Kasharoffski.
- (3) The same for Ispravuick Ipatieff, of Verchouansk.
- (4) Gold medal and sporting rifle for Cossack Baieshoff, also \$200.
- (5) Silver medal and \$100 for Cossack Kalinkin, \$100.
- (6) For Cossack Boshedomoff, \$50.
- (7) Gold watch for Mr. Stepanoff, of Veeska.
- (8) For Mr. Thornam, \$300.
- (9) Gold watch for Mr. Charles Lee.
- (10) Silver medal for Constantine Bobokoff.
- (11) Silver medal for Jaokim Grombeck.
For natives of Lena Delta:
- (1) Gold medal and \$200 for Vasily Bobrowsky,
- (2) Gold medal and \$100 for Ivan Androssoff.
- (3) The same for Constantine Mokoploff.
- (4) Silver medal for Peter Arrara.
- (5) Silver medal for Slipsoff Vibernie.
- (6) Silver medal for Alexai Atskassoff.
- (7) Silver medal for Michael.
- (8) Silver medal for Maxim Stepanoff.
- (9) Silver medal for Tarras Savin.
- (10) Silver medal for Nicolai Vinakuroff.
- (11) Gold medal to Obernashie Chumohor.
- (12) Gold medal to Maxim Corinnoi.



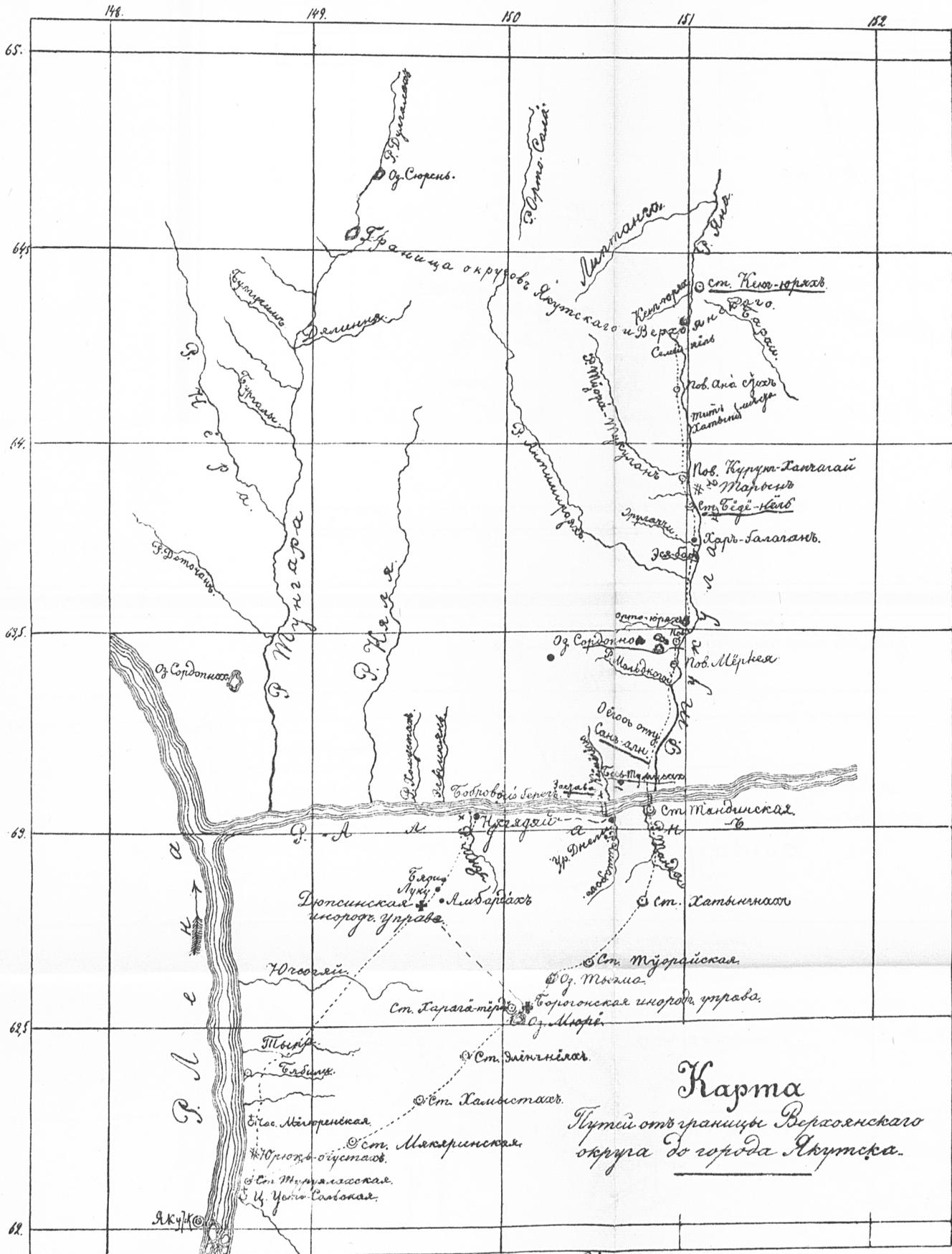
ASIA

SCALES
 Natural Scale 1 20,967,611 - 331 miles to an Inch.
 Geographical Miles 60 = 1 degree
 Kilometers 111 = 1 degree
 Russian Vershok 104.34 = 1 degree
 Indian Cow 40 = 1 degree
 Persian Farsakh (Persians) 104.34 = 1 degree
 Turkish Mile (Tatars) 66.67 = 1 degree
 English Statute Miles 69 = 1 degree

Submarine Telegraph Lines (See 37 for details)

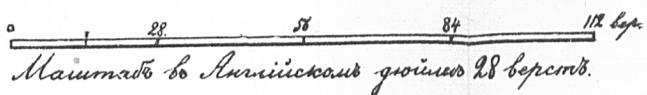
Longitude East of Greenwich

D.



Карта
 путей от границы Восточного
 округа до города Якутска.

Уяснение
 ○ Станции.
 ○ Товарни.
 ⊕ Часовня или церковь.
 • Урочище



Е.

148.

149.

150.

151.

152.

67.5

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66.

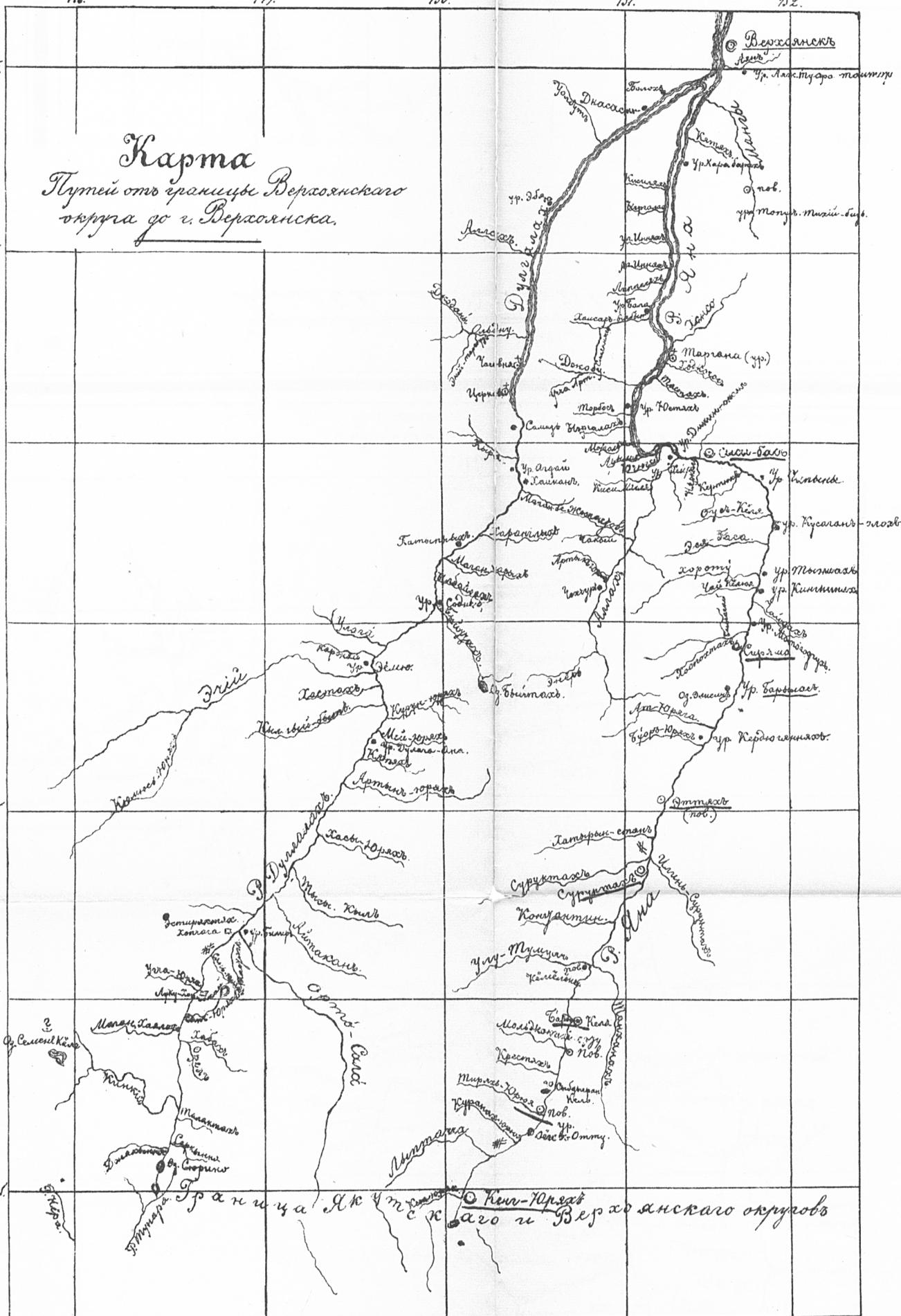
65.5

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64.5

Карта

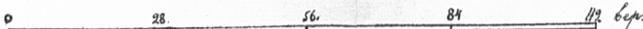
Путей отъ границы Верхоанскаго округа до г. Верхоанска.



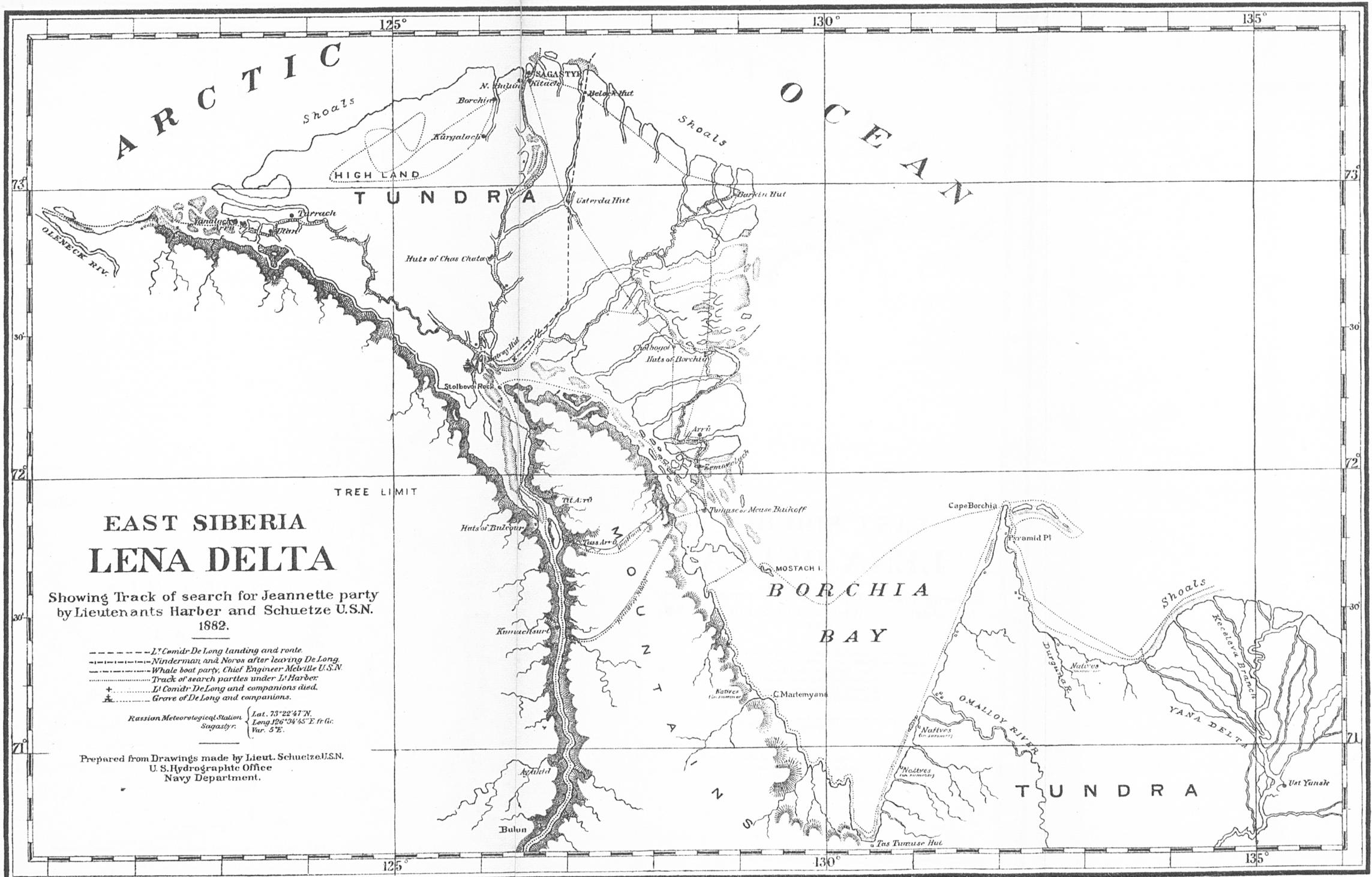
- Изъясненіе
- Станціи.
 - Поварни.
 - ⊕ Часовня или церковь.
 - Урочище. # Намеди и полыми.

H Ex 131492

THE AMERICAN GRAPHIC CO., N.Y.



Масштабъ въ Английской дюймѣ 28 верстъ.



EAST SIBERIA LENA DELTA

Showing Track of search for Jeannette party
by Lieutenants Harber and Schuetze U.S.N.
1882.

- Lt Comdr De Long landing and route
- Ninderman and Noros after leaving De Long
- Whale boat party, Chief Engineer Melville U.S.N.
- . - . Track of search parties under Lt Harber
- + Lt Comdr De Long and companions died
- ▲ Grave of De Long and companions

Rassion Meteorological Station
Sugastyn. { Lat. 73° 22' 47" N.
Long 126° 04' 45" E. fr G.
Var. 5 E.

Prepared from Drawings made by Lieut. Schuetze U.S.N.
U. S. Hydrographic Office
Navy Department.

(13) Gold medal and \$100 to Nicolai Diakonoff,
And to each of these one small-bore muzzle-loading rifle, cases and ammunition included.

To the criminal exiles:

- (1) Kusma Eremioff, \$250.
- (2) Yafim Kopoloff, \$100.
- (3) Feodor Serannoff, \$100.

And for general distribution the stores recommended in original letter of Navy Department, \$1,000.

G.

List of the names of natives in the Lena Delta rewarded by the United States Government for assistance rendered the survivors of the United States exploring steamer Jeannette.

NORTH BULUN (two huts):

- (1) Constantine Muxaploff, wife, two sons, married son, wife, two daughters, and son; Simeon Atskassoff, wife, and son; widow of Faday.
- (2) Innokenti Shumiloff, wife, two sons, and daughter; Shumiloff's sister; Simeon Kutchina, wife, sister, and daughter.

KITACH (ten huts):

- (1) Alexai Atskassoff, wife and daughter, son and wife; Kirick Gogoleff, wife, daughter, and sister; Peter Tiati and two sons.
- (2) Yafim Alexaioff, wife, two sons, and daughter; Gabriel Kabue, wife and two daughters; Nicolai Uka, wife, two sons, and daughter; Kirila Kuelach and sister.
- (3) Peter Gogoleff, wife and son; Ivan Gogoleff and wife; Georgi Mutucha, wife, daughter, and son.
- (4) Tarras Savin and two sons.
- (5) Stephan Gogoleff and wife; Michila Muechigi and wife.
- (6) Nicolai Karechin, wife, daughter, and brother.
- (7) Affanasi Tuen, mother, brother, wife, and daughter.
- (8) Nicolai Muxaploff; Simeon Ardach, or Karechin, and two daughters; mother of Ardach; Innokenti Gogoleff; Faday Gogoleff, daughter, and two sons.
- (9) Kirick Karechin, wife and daughter, son and wife, two daughters; Michila Karechin and wife.
- (10) Simeon Bobrowsky, wife and daughter, two sisters and a brother of Simeon Alexai Tuella, wife, son, and daughter.

ARRUE OR ARRUELLA (five huts):

- (1) Vasily Bobrowsky, wife and three sons; son and wife; son, wife, and daughter; mother of Maloi.
- (2) Spiridon, wife and son's widow; widow of brother; son.
- (3) Affanasi Bobrowsky, or Chumohor, wife and daughter; two sisters and mother; Innokenti, wife and two daughters.
- (4) Suka, wife, daughter, and wife's sister; Feodor Suksol, wife, son, and daughter.
- (5) Kerdiss, wife, three sons, and daughter.

ZEMOVIALACH (three huts):

- (1) Widow of Diakonoff and two sons.
- (2) Pachim, wife, two daughters, and son; wife's sister; brother of Pachim and wife, son, son and wife.
- (3) Andrushkin's mother, widow, daughter and sister.

BUIKOFF (seven huts, but only two occupied by delta natives):

- (1) Nicolai Saksa, wife and daughter.
- (2) Vasily Merkurkoi, wife, two sons and daughter.

Total, 170.

N.

Table of distances traveled in European Russia ad Siberia by Lieut. William H. Schuetze, U. S. N., 1885-'86.

	Vorsta.
St. Petersburg to Moscow, by rail	600
Moscow to Nijnii-Novgorod, by rail	354
Nijnii-Novgorod to Perm, by water	1,400
Perm to Tjumen, by rail	783
Tjumen to Tomsk, by water	2,800

Tomsk to Irkutsk, by post wagon	\$1,559
Irkutsk to Yakutsk, by post sled	2,818
Yakutsk to Verchoyansk, by reindeer sled	900
Verchoyansk via Bulun to Lena delta [Buikoff], by reindeer sled	1,170
Buikoff via Bulun to Kasatche, by reindeer sled	800
Kasatche, on the Yana, to Alaicha, on the Indighirku, by reindeer sled	750
Alaicha to Kasatche, by reindeer sled	750
Kasatche to Verchoyansk, by reindeer sled	930
Verchoyansk to Yakutsk, by reindeer sled	900
Yakutsk to Villui and return, by post sled	1,400
Yakutsk to Irkutsk, by water and post wagon	2,818
Irkutsk to Tomsk, by post wagon	1,559
Tomsk to Tara, by post wagon	872
Tara to Tjumen, by post wagon	760
Tjumen to St. Petersburg, by rail and water	3,097
Total	26,970

O.

Table of temperatures, as observed in the village of Verchoyansk, on the Yana River, North-east Siberia, latitude 68 degrees north, December, 1885, January and February, 1886.

[Two spirit thermometers, furnished by the Central Meteorological Observatory at Pavlovsk, near St. Petersburg. Compared with the standard; no corrections; centigrade scale. First reading is for hour of observation; second reading is the minimum.

Date.	7 a. m.	1 p. m.	9 p. m.
1885.			
December 25	-55.1	-55.5	-55.2
December 26	-58.5	-55.8	-55.8
December 27	-50.0	-54.5	-51.3
December 28	-56.0	-56.0	-55.3
December 29	-48.0	-48.0	-55.0
December 30	-51.0	-48.0	-55.0
December 31	-51.0	-54.2	-58.3
		-54.8	-60.0
	-59.5	-57.2	-55.2
	-61.3	-60.2	-57.5
	-50.2	-48.8	-50.1
	-55.0	-50.2	-51.8
	-46.5	-51.6	-51.0
	-50.5	-52.2	-52.7
1886.			
January 1	-45.1	-48.5	-52.0
January 2	-51.2	-48.5	-53.2
January 3	-40.1	-45.0	-40.5
January 4	-40.8	-45.8	-46.0
January 5	-44.5	-47.0	-50.5
January 6	-44.5	-47.0	-50.5
January 7	-41.1	-45.5	-54.5
January 8	-51.0	-45.6	-54.5
January 9	-57.0	-57.7	-48.0
January 10	-58.5	-57.4	-50.5
January 11	-51.0	-54.4	-59.0
January 12	-52.8	-55.0	-59.0
January 13	-60.5	-50.5	-61.5
January 14	-61.0	-61.0	-61.5
January 15	-62.5	-62.0	-63.5
January 16	-62.5	-63.0	-63.5
January 17	-64.5	-64.5	-65.5
January 18	-64.5	-64.5	-65.5
January 19	-66.0	-63.8	-65.0
January 20	-66.0	-65.5	-65.0
January 21	-65.5	-65.5	-64.5
January 22	-65.5	-65.5	-65.8
January 23	-63.0	-58.5	-57.5
January 24	-65.0	-63.0	-58.5
January 25	-56.5	-56.5	-55.5
January 26	-58.0	-56.4	-56.4
January 27	-56.0	-53.0	-57.5
January 28	-56.0	-56.1	-57.5
January 29	-62.0	-60.5	-60.0
January 30	-62.0	-62.6	-61.5

Table of temperatures, as observed in the village of Verchoyansk, &c.—Continued.

Date.	7 a. m.	1 p. m.	9 p. m.
1886.			
January 16	-60.1	-59.0	-57.5
	-60.0	-60.4	-60.0
	-59.5	-55.0	-54.1
January 17	-60.0	-57.5	-55.0
	-51.0	-52.0	-58.5
	-50.0	-54.0	-58.5
January 18	-58.5	-57.0	-50.4
	-60.5	-60.1	-61.0
	-56.0	-53.0	-49.0
January 20	-50.5	-55.8	-51.5
	-46.8	-43.0	-45.1
January 21	-52.0	-47.0	-48.0
		-44.1	-47.5
		-49.0	-47.5
January 22			
	-50.5	-51.5	-54.0
	-6.0	-55.5	-54.0
	-40.5	-48.0	-45.5
January 24*	-54.0	-49.0	-40.5
February 1	-26.5	-26.0	-27.5
February 2	-42.0	-35.1	-39.0
February 3	-47.0	-42.5	-44.5
February 4	-34.4	-34.5	-45.1
February 5	-45.1	-40.9	-38.1
February 6	-34.0	-33.1	-51.0
February 7	-50.5	-50.0	-60.3
February 8	-64.0	-57.8	-60.1
February 9	-60.0	-55.1	-54.1
February 10	-50.2	-44.6	-45.5
February 11	-43.8	-34.5	-40.0
February 12	-44.5	-41.0	-47.5
February 13	-41.5	-38.7	-45.0
February 14	-48.5	-41.2	-46.5
February 15	-45.0	-39.0	-41.0
February 16	-48.0	-30.5	-43.5
February 17		-20.7	-22.0
February 18	-47.5	-35.2	-40.0
February 19	-64.5	-43.6	-51.1
February 20	-58.0	-45.7	-54.0
February 21	-48.1	-48.1	-41.0
February 22	-46.5	-30.5	-46.5
February 23	-52.0	-39.5	-47.0
February 24	-52.0		-49.0
February 25	-45.8	-38.1	-47.0
February 26	-53.0	-27.0	-39.0
February 27	-52.0	-35.1	-43.0
February 28	-48.0	-34.0	-35.5

* January 25 to 31, observations wanting.

In 1885 the ice cleared the Yana River on June 5.

On the 4th of August, 1885, ice formed in the night—thermometer, -4° centigrade.

A average temperature in Verchoyansk for November and December, 1884, and January, 1885, was -55° centigrade.

P.

List of stores distributed among the natives in the Lena Delta, East Siberia, 1885-1886.

Thirteen muzzle-loading rifles, 68 boxes percussion-caps, 13 nipple wrenches, 13 spare nipples, 34 flints and steel, 10 braces and 75 bits, 2,000 glover's needles, 100 flint stones, 1 dozen files, 602½ arshines* hannel, 1,041 arshines calico, 6 dozen woolen scarfs, 30 dozen woolen shawls, 10 dozen colored handkerchiefs, 13 pairs earrings, 13½ gross buttons, 14 round nippers, 10 straight nippers, 15 dozen bead necklaces, 17 dozen bead necklaces, 8½ pounds small beads, 109 pounds thread (white, black, red, and gray), 6,000 needles, 20 leather belts, 100 thimbles, 2 packages hooks and eyes, 5 dozen scissors, 13 powder-horns, 16 pieces punk-string, 100 awls, 250 large sail-needles, 6 large augers, 12 gimlets, 48 porcelain-lined iron cups, 25 axes, 10 ice-picks, 10 gouges for making canoes, 20 knives, 10 spear-heads for killing reindeer, 3 pounds (35½ pounds) horsehair for nets, 10 skins leather for dog harness, 10 pounds 25 pounds leaf tobacco, 3 pounds 16 pounds gunpowder, 4 boxes brick tea (box contains 62 bricks, of 2½ pounds each), 6 pounds 20 pounds lead.

Arshine = 28 inches.

† Poud = 36 pounds.

SUPPLEMENTARY STATEMENT.

Lieutenant Schuetze to Mr. Bayard.

WASHINGTON, D. C., *October 25, 1886.*

SIR: I transmit herewith copies of two charts, the existence of which I believe has been forgotten outside of Russia.

In view of the general interest taken in anything pertaining to the Jeannette Arctic Expedition, it seems that these charts are worthy of special consideration, because they relate directly to two regions most prominent in the history of the above-named polar expedition, namely, Bennett Island and the Lena Delta, North Siberia.

The copies were obtained last winter in Kasatchi, near the mouth of the Yana River, Siberia, from two charts in possession of Dr. Alexander Bunge, the chief of an expedition now making researches on the New Siberian Islands.

The first, marked A A, an outline tracing of the New Siberian Islands, was the result of part of the work done in this region in 1809-1810 by Mathias Hedenström, an exile sent under instructions of the Russian Government to survey and describe all the islands which had been discovered to the northward of the Lena, Yana, and Indighirka Rivers, Northern Siberia.

A trader named Liakoff, who lived in Ust Yansk, the same after whom the Liakoff Islands were named, is credited with the discovery of Kotelnoi, the most western of the New Siberian Islands, in the year 1773.

Hedenstrom visited New Siberia and Fadievskoi twice, once in the winter of 1809 and again in 1810.

In 1811 a trader named Ssannikoff, of Ust Yansk, who had been in the employ of Hedenström during the expeditions of the two previous years, made an unsuccessful attempt from New Siberia to reach the land seen plainly by him to the northward in the summer which he had spent on these islands gathering mammoth tusks.

This land is indicated on the accompanying chart of Hedenström by the dotted lines to the northward of New Siberia, and is, in my opinion, without doubt the island which was discovered and visited by the Jeannette expedition on its march south to the mainland of Asia, after the vessel was lost in June, 1881—Bennett Island.

The expedition sent out in 1820 by the Russian Government, and known as the Wrangel-Anjou expedition, had for one of its objects the survey of the supposed land as seen and described by Ssannikoff and as marked on Hedenström's chart, both to the northeast and northwest of Kotelnoi.

Lieutenant Anjou failed in two attempts in trying to push to the northward for this purpose on dog-sleds, owing to open water, and, I dare say, want of dog food for such a long journey.

For a detailed and most interesting account of the discovery of the New Siberian Islands and Ssannikoff's land, see a brochure by Leopold von Schrenck, member of the Academy of Science, St. Petersburg, 1885.

The present map of the New Siberian Islands is due to Lieutenant Anjou (1821-1822).

The second copy of a chart (B. B.), referred to at the beginning of this communication, is an outline drawing of the Lena Delta (1808), evidently the result of work done in 1795-1796, judging from the figures marked on the north coast of the archipelago.

The interest in this appears when we compare it with a chart prepared by Lieutenant Jürgens and Dr. Bunge, Russian Imperial Navy, from observations made by them while resident in the polar meteorological station, Sagastyr, Lena Delta, 1882-1884. This chart is appended, marked C C.

On the general charts of the delta the pronounced peninsula in the northwest is entirely wanting.

It is worthy of remark that the most prominent portion of the delta is also missing on the chart prepared in 1882 by the search parties of the Jeannette Exploring Expedition who visited this part of the coast.

Turning to the chart of 1808 we notice that the configuration of the land is strikingly identical with that on the Jürgens chart of 1885.

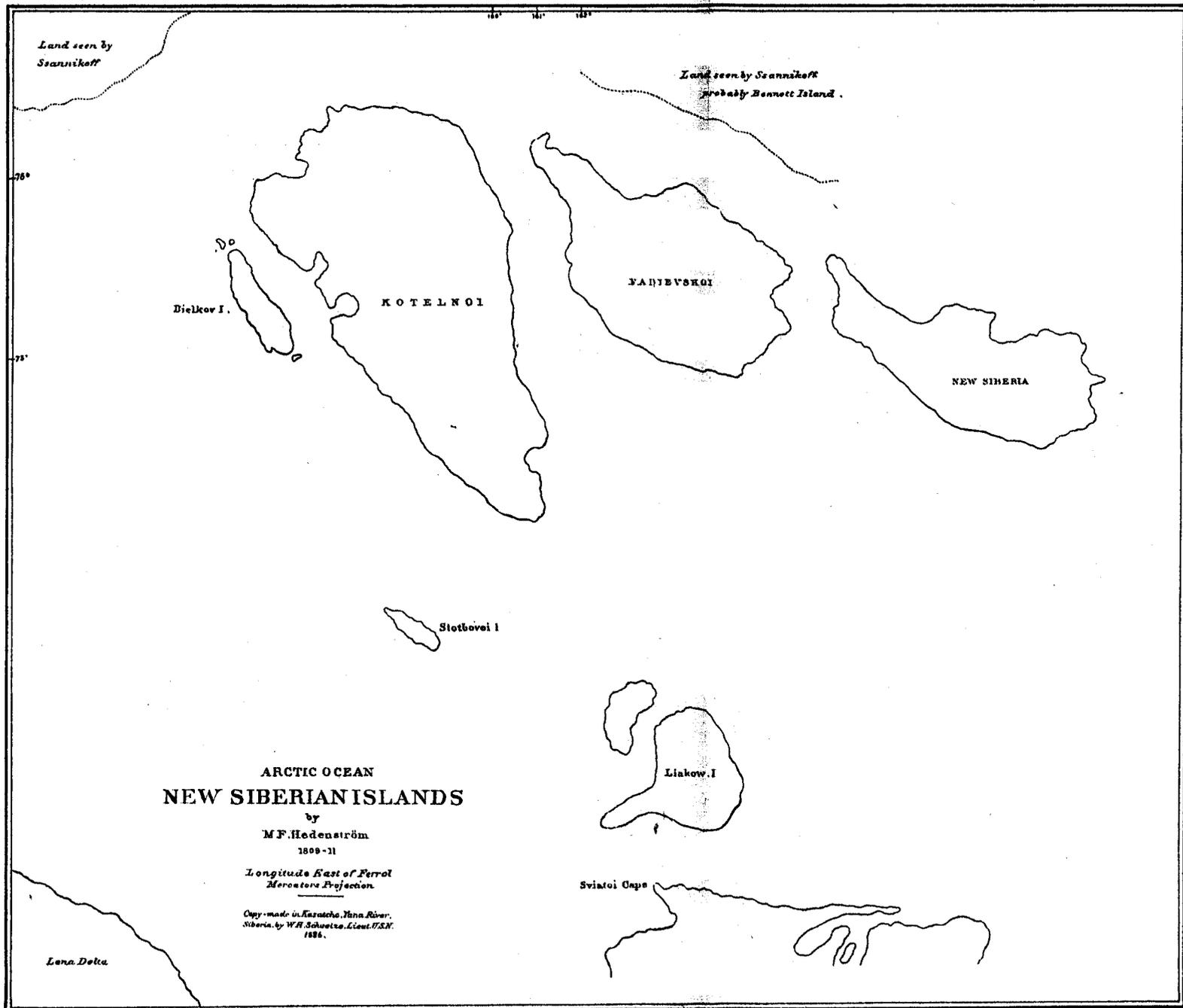
Lieutenant Jürgens established the most northern point by careful astronomical observations on the island of Duuai, as indicated on the chart.

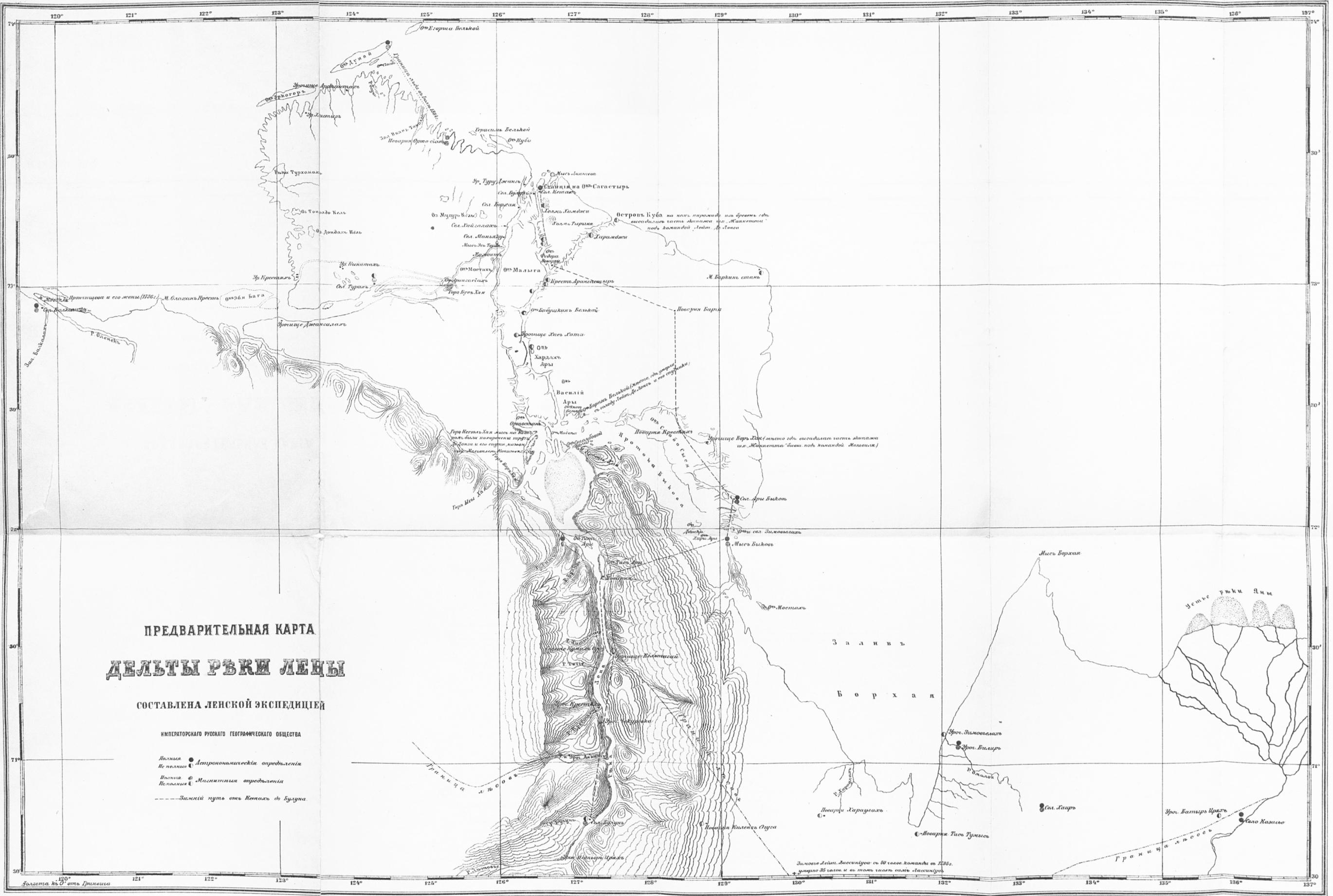
Dr. Alexander Bunge informed me last winter that he had carefully run in this part of the coast by following the shore line from Turrach in the southwest to Sagastyr.

I have, &c.,

W. H. SCHUETZE,
Lieutenant, United States Navy.

AA





**ПРЕДВАРИТЕЛЬНАЯ КАРТА
ДЕЛЬТЫ РЕКИ ЛЕНЫ**

СОСТАВЛЕНА ЛЕНСКОЙ ЭКСПЕДИЦИЕЙ

ИМПЕРАТОРСКОГО РУССКОГО ГЕОГРАФИЧЕСКОГО ОБЩЕСТВА

- Высота
- Неполярная
- Астрономическая
- определения
- Высота
- Миллиметровая
- определения
- Зимний путь от Копья до Булуна

Зимняя линия, составленная из 50 человек команды в 1882 г. ушло 35 суток и в том числе селом, составило