

German paddle-steamers on the Yenisey 1878–84

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Abstract

In 1878 industrialist Baron Ludwig von Knoop employed Captain Eduard Dallmann to take the screw-steamer *Louise* and the side-paddle-steamer *Moskva* via the Barents and Kara seas to the mouth of the Yenisey, with a view to exchanging cargoes with lighters which were to haul grain downriver from the grain-growing regions of southern Western Siberia. Dallmann had made a similar attempt the previous year but having reached the mouth of the Yenisey he had been thwarted by the failure of the grain lighters to reach the rendezvous. Hence in future years, under the command of Captain Louis Wieting and with a German crew, *Moskva* would be responsible for towing the grain lighters north to the river mouth. Wieting and his men settled down for the following winter (and the subsequent five winters) at Strelka at the confluence of the Angara and Yenisey rivers. During each of the following summers, having coped with securing *Moskva* and the more powerful paddle-steamer *Dallmann* which replaced it, against the rampaging ice break-up each spring, Wieting and his men successfully towed grain-laden lighters north to the river mouth. Unfortunately, the attempts by Baron Knoop's sea-going vessels to reach the rendezvous were successful in only three seasons out of the six (1878–83) and in 1884 the entire Kara Sea/Yenisey operation was wound up, the paddle-steamers were sold, and Wieting and his men returned to Germany overland.

Introduction

In the spring of 1877, Captain Eduard Dallmann (Fig. 1) of Blumenthal on the lower Weser was approached by Siberian mine-owner and entrepreneur Aleksandr M. Sibiryakov of Irkutsk, as to whether he might be interested in buying or chartering a steamer and, with it, hauling a cargo via the Kara Sea to the mouth of the Yenisey in western Siberia¹. The proposed voyage was only the latest in a series of attempts at establishing commercial links with the Ob' or the Yenisey via the Kara Sea, with a history which extended back for fifteen years. In 1862 the merchant M. K. Sidorov had sponsored the voyage by Pavel Pavlovich Kruzenshtern in the sailing vessel *Yermak*. It was less than successful. Beset in the ice off the west coast of Poluostrov Yamal [Yamal Peninsula], Kruzenshtern was forced to abandon his ship and, assisted by Nentsy, returned overland.² Commanding his own ship, the steamer *Georgiy*, Sidorov tried again in 1869 with even less success. Due to bad weather and a shortage of coal he was forced to abandon the attempt off the mouth of the Pechora.³

The next several attempts were made by a remarkable Englishman, Joseph Wiggins. In 1874, in the steamer *Diana*, he was delayed by ice off the west coast of Poluostrov Yamal for three weeks, but finally rounded that peninsula and Ostrov Belyy [White Island] and entered Obskaya Guba [Ob' Gulf]. Realizing that his vessel, which had quite a deep keel, was unsuitable for trying to navigate the shallow waters of that inlet without a pilot, he turned

¹ Rossberg, *Kapitän Dallmann*, p. 39.

² Kruzenshtern, 'Über die im Jahre', pp. 107–181.

³ Sidorov 'Poezdka iz S.-Peterburga', pp. 203–208.

back.⁴ Undaunted, Wiggins tried again the following year but, for lack of funds, this time in a 27-ton schooner, which he named *Whim*. His objective was Baydaratskaya Guba [Baydaratskaya Gulf], to investigate the possibility of portaging goods across the narrow isthmus at the base of Poluostrov Yamal to reach Obskaya Guba, or of cutting a canal across the isthmus. In the event he did not reach his objective. Delayed by foul winds he was forced to turn back having reached only the vicinity of Ostrov Kolguev [Kolguev Island].⁵

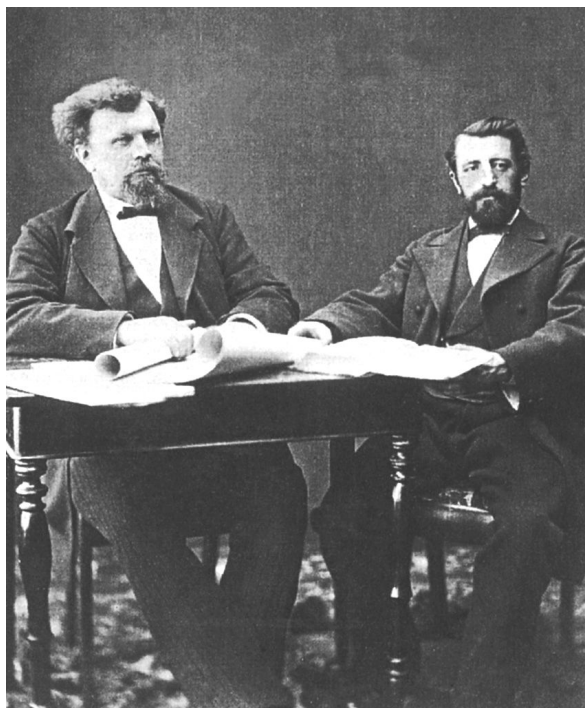


Figure 1. Captain Eduard Dallmann (left) and Louis Wieting (right)

Also in 1875 Swedish explorer N. A .E. Nordenskiöld headed for the Kara Sea in *Prøven*. This voyage, sponsored by Göteborg businessman Oscar Dickson, was aimed partly at scientific research in the Kara Sea and partly at investigating the possibility of reaching the Yenisey with a view to developing commercial links, via that river, with western Siberia. Entering the Kara Sea via Yugorskiy Shar [Yugor Strait], *Prøven* reached Ostrov Dikson [Dickson Island] on 15 August, thereby discovering the excellent harbour between that island and the mainland. Having demonstrated the feasibility of reaching Yeniseyskiy Zaliv [Yenisey Inlet], *Prøven* returned to Sweden, while Nordenskiöld headed up the Yenisey to Yeniseysk, first in the boat *Anna*, then in the local steamer *Aleksandr*, before returning home overland.⁶

Building on this success, with the sponsorship of Dickson and also that of Aleksandr Sibiryakov, in 1876 Nordenskiöld headed back to the Kara Sea again, this time on board *Ymer*, and this time with a cargo of trade goods.⁷ The plan was that *Ymer* should rendezvous with an overland party led by Johan Théel, which was to carry out scientific investigations in the Yenisey valley, and especially to carry out hydrographic soundings of the lower river to ensure that *Ymer* could get as far up the river as Dudinka. *Ymer* entered the Kara Sea via Matochkin Shar and reached Yeniseyskiy Zaliv on 15 August. There Nordenskiöld discovered

⁴ Johnson, *The life and voyages*, p.222–47; Stone, ‘Joseph Wiggins’, p. 404–406.

⁵ Johnson, *The life and voyages*, p. 54–68; Stone, ‘Joseph Wiggins’, p. 406.

⁶ Nordenskiöld, ‘Redogörelse för en expedition’.

⁷ Nordenskiöld and Théel, ‘Redogörelser för de svenska expeditionerna’.

and named Ostrov Sibiryakov [Sibiryakov Island]. Reaching the pre-arranged rendezvous of Karepovsk, he unloaded his cargo there and waited for Théel. The latter managed to get as far north, via various vessels, as the Brekhovskie Ostrova [Brekhov Islands] about 60 km south of Karepovsk. When he had not reached the rendezvous by 2 September, Nordenskiöld in *Ymer* started for home.

In 1877, with the support of a number of sponsors, including Aleksandr Sibiryakov, Wiggins tried yet again, this time with the steamer *Thames*. Delayed by ice off the west coast of Yamal, he took the opportunity to survey Baydaratskaya Guba. On his second attempt he rounded Yamal, and reaching the Yenisey, ran up the river to the mouth of the Kureyka, but arrived there only on 18 October. Since the winter ice was already forming, Wiggins secured his ship there for the winter and returned overland. He returned to his ship in the spring of 1878, and although she received some damage during the ice break-up, he was able to start down the river, but ran aground and ultimately had to abandon his steamer.⁸



Dallmann and Wieting

Eduard Dallmann, who, as we have seen, had agreed to attempt a similar voyage for Sibiryakov that year, would have been familiar, at least in general terms, with these various earlier attempts, and his background certainly qualified him for such a challenge. He had been commanding whaling/trading vessels in the Bering and Chukchi seas (1865–71); he had made a pioneering whaling voyage to the Antarctic (1873–4); and most recently he had served as an ‘expert consultant’ on a whaling voyage to Baffin Bay in 1875.⁹ On this proposed voyage Dallmann would be hauling a cargo assembled by the Bremen firm of Johann Lange Sohns Wwe. & Co., which would be exchanged at the mouth of the Yenisey for a cargo of grain to be shipped down the river by barge¹⁰. Dallmann chartered a small Swedish screw steamer, *Fraser*, length 30.78 m, beam 6.6 m, draft 3.75 m, engines of 30 hp and with a speed at full

⁸ Johnson, *The life and voyages*, pp. 82–188; Stone, ‘Joseph Wiggins’, p. 406–407.

⁹ Pawlik, *Von Siberien nach Neu Guinea*, p. 56–62.

¹⁰ Rossberg, *Kapitän Dallmann*, p. 39.

steam of 7 to 8 knots. After fitting her out at Göteborg, he took her to Bremerhaven to load cargo.¹¹ This consisted of 450 bales of Russian tobacco, 135 cases of sugar and a steam pump.¹²

Dallmann's mate was his nephew Louis Wieting (Fig. 1), also from Blumenthal, the son of a whaling captain also Louis Wieting, and born in 1851. He had first gone to sea at the age of fourteen and had served on board the vessels *Adler* and *Gauss*, plying between Bremen and North America.¹³ Thereafter he sailed, on various ships, under Bremen, Hawaiian and American flags. In 1872–3 he served as a volunteer in the Imperial German Navy. Next he made a two-year round-the-world voyage as seaman on board the Bremen sailing vessel *Canope*. In 1875 he passed his mate's exam and thereafter sailed as junior navigation officer then navigation officer on board the sailing ships *Themis*, *Galveston*, and *Laura & Cy*.

Fraser's voyage, 1877

Fraser put to sea from Bremerhaven on 25 July 1877 and having topped off her bunkers at Hammerfest, continued her voyage from there on 9 August. Still in ice-free seas she ran through Karskie Vorota into the Kara Sea on the 16th. Soon afterwards the edge of the pack ice appeared to port, but a stretch of open water along the west coast of Poluostrov Yamal and the north coast of Ostrov Belyy allowed Dallmann to reach Yeniseyskiy Zaliv on 20 August.¹⁴

The pre-arranged rendezvous point with a string of barges loaded with grain and towed by the river steamer *Nikolay*, was Karepovsk, but when *Fraser* arrived there soon afterwards there was no sign of them. Nor had they arrived by the pre-arranged deadline date of 5 September. Giving orders for his cargo to be put ashore and stored in a warehouse, Dallmann set off upriver in his steam launch. There was still no sign of *Nikolay* and her tow by the time he reached the Brekhovskie Ostrova, at which point he turned back north.¹⁵

Fraser started for home on 9 September and on the 17th entered the east end of Matochkin Shar, the spectacular, narrow strait bisecting Novaya Zemlya. By 24 September she was back at Hammerfest and reached Göteborg on the 26th.¹⁶ Despite the failure of the grain barges to reach the rendezvous, Dallmann had demonstrated that the route to the lower Yenisey via the Kara Sea was viable. The reason that *Nikolay* and her tow of barges had not reached the rendezvous was that they had encountered persistent strong headwinds from Dudinka northwards. Having missed the deadline *Nikolay's* captain had unloaded the grain at Dudinka and headed back up the Yenisey.¹⁷ Thus the failure to return to Western Europe with this grain cargo was through no fault of Dallmann.

Moskva to the Yenisey, 1878

Through his son-in-law George Albrecht, who was managing director of Johann Lange Sohns Wwe. & Co, Baron Ludwig von Knoop (Fig. 2), a native of Bremen, and a business tycoon with a major interest in the Russian cotton industry, now developed an interest in the potential of the Kara Sea route in terms of moving cargoes to and from western Siberia. On the basis of Dallmann's achievement in 1877 Baron Knoop hired him to try again in 1878, but, as a precaution he decided to take control of the river section of the transport operation as well as the marine section. On Knoop's instructions Dallmann bought *Sachsen*, a side-paddle-steamer

¹¹ Pawlik, *Von Sibirien nach Neu Guinea*, p. 63.

¹² Abel, 'Pioneer commercial voyages', p. 26.

¹³ Wieting, *Bremer Seeleute*, p. 207.

¹⁴ Abel, 'Commercial pioneer voyages', p. 26; Rossberg, *Kapitän Dallmann*, p. 40.

¹⁵ Rossberg, *Kapitän Dallmann*, p. 41.

¹⁶ Pawlik, *Von Sibirien nach Neu Guinea*, p. 63.

¹⁷ Abel, 'Commercial pioneer voyages', p. 26.

built in 1856 by Ruston & Co. of Prague for the Norddeutsche Fluszdampfschiffahrtsgesellschaft of Hamburg for towing barges on the Elbe. She was 45.1 m in length, with a beam of 4.9 m (9.7 m over the paddle-boxes) and with engines of 50 hp.¹⁸ Dallmann bought her from the Hamburg-Magdeburger Schleppschiffahrtsgesellschaft and renamed her *Moskva* (Fig. 3). She underwent some alterations and ice-strengthening at the yard of Janssen & Schmitinskiy in Hamburg and was then ready for the Kara Sea and for operations on the Yenisey.

For the voyage to the Yenisey she was to sail in company with the iron screw-steamer *Louise*, built for Baron Knoop by Henderson, Coulburn & Co. in Renfrew, Scotland in 1871. Baron Knoop had named her after his wife. At 741 gross tons, 455 tons net, she had a length of 58.3 m, beam of 7.9 m and a draft of 4.1 m. Her double-expansion steam engine could produce 90 hp.¹⁹ New boilers had been installed at the Weser Aktien Gesellschaft yard in Bremen in the spring of 1879. She was commanded by her usual captain, Eduard Burmeister of Lübeck. Between them the two vessels would be towing three 100-ton steel lighters. The plan was that *Louise* would haul freight to the Yenisey and a return cargo of grain, while *Moskva* would tow the lighters, laden with freight up the river to Yeniseysk.



Figure 2. Baron Ludwig von Knoop



Figure 3. Henirich Kröger, Baron Knoop's agent at Yeniseysk

With Dallmann in command of *Moskva*, and with his nephew Louis Wieting as mate, the small flotilla put to sea from Hamburg on 6 July 1878, with *Louise* laden with industrial freight and with the lighters full of coal. Almost immediately foul weather and heavy seas forced them to take shelter, first at Glückstadt and then at Cuxhaven, but they got under way again on 22 July.

As they headed north via Norway's inside passage, disaster struck off Kvalø north of Trondheim: *Louise*, towing two of the lighters ran aground.²⁰ After several attempts Dallmann managed to tow her off the rocks, but she was leaking badly and he was forced to beach her

¹⁸ Pawlik, *Von Sibirien nach Neu Guinea*, p. 69; Barr, Krause and Pawlik, 'Chukchi Sea, Southern Ocean, Kara Sea', p. 11.

¹⁹ Pawlik, *Von Sibirien nach Neu Guinea*, p. 91; Abel, 'Commercial pioneer voyages', p. 29.

²⁰ Abel, 'Commercial pioneer voyages,' p. 29.

on a sandbar. Over the next few days *Moskva* shuttled between the stranded ship and the town of Brønø with her salvaged cargo. Dallmann then chartered the wooden steamer *Tsaritsa* (Captain Bruhn). She reached Brønø on 13 August to load *Louise's* salvaged cargo, and on the 18th *Moskva*, *Tsaritsa* and one of the lighters put to sea, heading north. After calling at Hammerfest and skirting some ice off Ostrov Kolguev they reached Yugorskiy Shar to find it ice-free. Emerging into the Kara Sea the little fleet found it, too, ice-free.

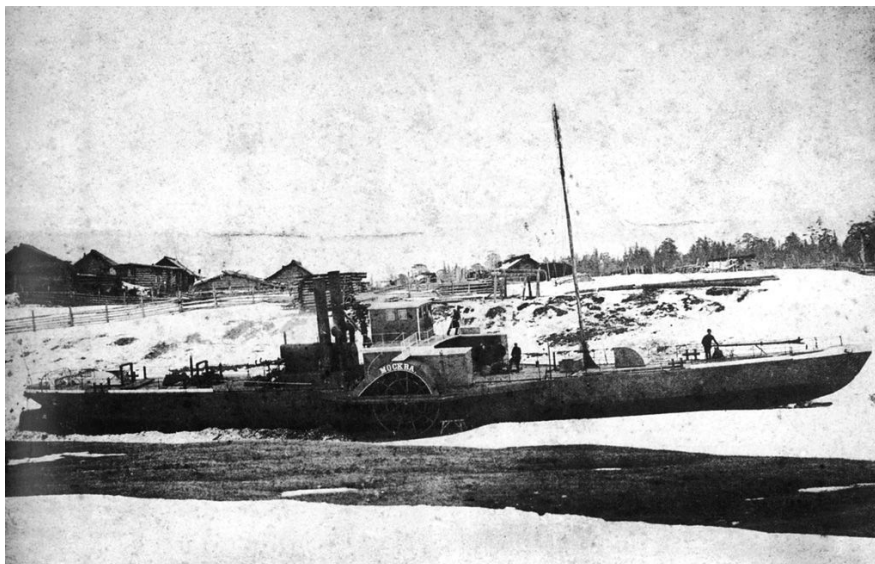


Figure 4. The paddle-steamer *Moskva* on the Yenisey

By 1 September the ships were off Ostrov Dikson where they swung south into Yeniseyskiy Zaliv. But on 2 September *Tsaritsa* ran aground on a sandbar off the Ostrova Korsakova [Korsakov Islands]. Over the subsequent few days as much of her cargo as possible was transhipped to *Moskva* and the lighter. Even then *Tsaritsa* could not be refloated and Dallmann was forced to leave her aground, in charge of a skeleton crew. *Moskva* then continued upriver to the prearranged rendezvous point at Gol'chikha, hoping to find the grain barges which had been brought downriver under the supervision of the company's Siberian agent, Robert Krafft. But there was no sign of the grain barges at Gol'chikha. Having waited as long as he thought reasonable Krafft had started back south only four days previously. Dallmann set off in pursuit and shortly afterwards encountered the steamer *Nikolay*, whose captain informed him that the grain barges were not far ahead. Transferring to his steam-launch to make better speed Dallmann raced south. He caught up with the grain barges at Karaulnoe at about 71°10'N. *Moskva* arrived shortly afterwards. Here too were the steamer *Fraser* and the sailing vessel *Express* which, from Yugorskiy Shar as far as Dikson, had accompanied A. E. Nordenskiöld's *Vega*, on her way to complete the first through-passage of the Northeast Passage. From there these two vessels had pushed south to Dudinka where they had exchanged their outgoing cargoes for cargoes of grain, and were now on their way back to Hammerfest and Göteborg,²¹ Dallmann took the opportunity of sending *Tsaritsa's* crew back to Norway on board *Fraser*.

²¹ Nordenskiöld, *The voyage of the Vega*.



First wintering 1878–79

With *Moskva* and her lighter Dallmann started upriver on 16 September, reaching Yeniseysk, then a city of 6000 inhabitants, on 15 October,²² then continued south some 75 km to the confluence of the Angara and the Yenisey. Relying on local advice this was where he had decided to place *Moskva* for the winter, at a site just beyond the village of Strelka, with its 300 inhabitants, which still occupies the arrow-shaped point between the two rivers, as a site where the steamer would be safe from the catastrophic spring break-up and flooding on the Yenisey. Here a shallow channel lay between a low island and the east shore of the Yenisey. Even in the fall, at 1.8 to 2 m in depth, it was deep enough to accommodate *Moskva*.²³ When she arrived there on 18 October there was already a skin of ice some 5 cm thick over the entire width of this channel, but this presented no obstacle to the steamer. Some distance down the channel a shallow, water-filled ditch led off from it. Dallmann was assured that when this ditch flooded during the spring break-up it would provide a safe refuge for his steamer and lighter. Some 17 km upriver on the west side of the Yenisey lay the village of Kargino, which was located on the north-south military highway, along which mail sledges or carriages travelled twice per week. Thus *Moskva*'s wintering site was not totally cut off from the outside world.²⁴ Next morning, using ice anchors, the steamer was warped into the channel as far as her draft permitted; the lighter, an iron vessel of 100 tons, was eased in astern of the steamer. The steam launch was hauled up on shore. With an air temperature of -10°R^{25} (-12.5°C), by that evening the ice was sufficiently thick that it bore a man's weight and hence the two vessels were securely frozen in.

Dallmann bought a two-storey log house in the village of Konovshina, lying a few kilometres to the south. It was dismantled, transported to the bank of the channel beside the vessels and re-erected there by a local carpenter. In the meantime officers and men continued to live on board *Moskva*. To make it habitable a number of additional stoves were set up. As a result the ship presented a somewhat bizarre appearance with seven stove pipes projecting from the deck in addition to the funnels. Both then and throughout the winter, sawing and splitting firewood became a never-ending task. All fifteen members of the crew were issued black sheepskin coats, grey felt boots reaching to above the knee, fur caps, felt mittens and leather gloves.

By 27 October the temperature had dropped to -23°R (-28.75°C) and by 4 November to -30°R (-37.5°C). By then the Yenisey was frozen solidly from shore to shore. A major snowstorm began on 8 November and lasted for two days. By the time it ended *Moskva* had almost disappeared under snowdrifts and the launch and several boats which had been hauled ashore, were totally covered.

On 20 November Captain Dallmann and Robert Krafft set off on the long overland journey back to Bremen via Krasnoyarsk, Moscow and St Petersburg. They departed in two troikas, via the military highway south to Krasnoyarsk. Louis Wieting was officially left in charge of operations on the Yenisey.²⁶ Still living on board the ship, the engine-room crew moth-balled the engines, while the deck crew were kept busy cutting firewood and shoveling snow. When the weather permitted skating and tobogganing occupied their leisure time in the brief daylight hours.

Work on building the house on shore proceeded quite slowly. It was delayed especially by the building of a traditional Russian brick stove, the bricks having been hauled

²² Abel, 'Commercial pioneer voyages', p. 30.

²³ Wieting, *Bremer Seeleute*, p. 12.

²⁴ Wieting, *Bremer Seeleute*, p. 13.

²⁵ By the Réamur system, the freezing point of water is 0° and the boiling point of water 80° .

²⁶ Wieting, *Bremer Seeleute*, p. 15.

by sleigh from Kargino, 17 km away across the Yenisey. The move to the house, involving both provisions and personal belongings, began on 16 December when the temperature was -38°R (-47.5°C). The expedition's supplies of beer and wine were not improved during the move. Some bottles broke while others blew their corks, and cognac and rum became a viscous, oily mass. For long-term storage of potatoes, turnips, etc., (readily available from the nearby villages) a deep root-cellar was dug in the yard, entered by a hatch which was covered by an insulating layer of more than two metres of snow.

In terms of the living arrangements in the house the stokers and deck-crew occupied two of the downstairs rooms; the third room there was the kitchen. Officers and engineers occupied a living room and bedroom upstairs, while the cook and steward had their own quarters there. Once all the cracks in the outer walls had been carefully caulked the central brick stove kept the entire house comfortably warm. It also provided a constant supply of freshly baked bread.

To provide a constant water supply, both for domestic use and in case of fire a waterhole was kept open in the river ice throughout the winter. With constant snowfalls the snow depth soon reached 8 to 10 feet, but well-trodden paths to regularly visited locations made regular movements quite feasible. A watch was posted on board the ship around the clock, and especially for his benefit the track to the ship was lined with closely spaced trees, since otherwise, especially at night, there was a real danger of losing the trail which meant floundering in the deep snow. Work now began on building a smithy and a store-shed right beside the house. The entire compound was surrounded by a substantial fence in part because of the real danger from wolves.

There was plenty of work for everyone. The engineer and stokers made and repaired various items in the smithy, while the seamen sawed and split firewood. On a rotating schedule two men functioned as watchmen, one on board *Moskva* the other at the house and yard. The latter also recorded temperature and air pressure on a scheduled basis.

Relations with the adjacent villages of Strelka and Konovshina were good, although initially there was some difficulty due to the lack of a common language. Wieting forged a particularly close friendship with an old trapper, Dmitry Vasilevich Podbornik, generally known simply as Mitri, with whom he often went hunting. Several of the Germans went hunting quite regularly, returning with hares and black grouse.

For Christmas a tree was brought indoors and decorated, complete with candles, while signal flags and coloured streamers gave a festive air to the common room. The New Year was also celebrated by typical German festivities, including gun salutes and a torchlight parade.

Early in 1879 Wieting and the engineer Binder were invited by Mitri to join him in hunting a bear, some distance to the east across the Angara. Soon afterwards Mitri again acted as guide when Wieting and the second engineer, Risse, expressed an interest in visiting a camp of nomadic, reindeer-herding Tungus which was reported nearby. They were warmly welcomed but found the interior of the yurts unbearable due to smoke. The Tungus, travelling with about 400 reindeer were on their way south to Irkutsk to sell their furs.

January drew to a close with a spell of low temperatures, reaching -42°R (-52.5°C) on the 31st. Even at this outside temperature the temperature inside the house was maintained at a comfortable $+12$ to $+14^{\circ}\text{R}$ ($+15$ to $+15.5^{\circ}\text{C}$). By March, however, temperatures had become relatively mild, ranging from -20 to -5°R . On 1 April work began on deepening the channel to allow *Moskva* and the lighter to be moved well into the ditch where they would be safe from the spring flood and break-up. For this Wieting recruited local men to assist the crews in that this was a serious challenge. The ice was over two metres thick in places, and covered by a considerable depth of snow. The work was greatly assisted by a rise in temperature — to even $+6^{\circ}\text{R}$ by 6 April, with a significant amount of snow melt. On 27 April, in preparation for

the anticipated challenge of the break-up on the Yenisey, Wieting and his men all moved back aboard their vessels.

By 22 April all the snow and ice had been dug and chopped from around *Moskva* and the lighter, so that they were sitting in a sort of ice-dock, but still frozen solidly to the bottom. But then the water began to accumulate around them and by 2 May was 1.5 m deep. On the 5th *Moskva* broke loose from the ice and was afloat again. After an initial minor rise in water level steamer and lighter were moved some distance forward. But on 6 May there was a surge of water and ice floes from the Yenisey. Within ten minutes the water had risen to a depth of 5.7 m. Steamer and lighter surged forward into the ditch but *Moskva* became temporarily jammed. The lighter collided with her and was holed by ice, while the steamer's rudder was bent and her steering gear was quite badly damaged. Finally, both vessels came to rest in relative safety around a bend in the former ditch, but now in a depth of about 12 metres.

Meanwhile, with vast amounts of ice floating down the Yenisey, ice-jams would occur from time to time and the water level in the refuge channel would abruptly rise (to a depth of 13.5 m on one occasion) and then drop again just as quickly as the ice-jam on the river gave way. By the evening of 8 May the water had largely receded and any danger to the vessels had passed. Work now began on repairing the damage to steamer and lighter and on overhauling *Moskva*'s engine. On 22 May the ice on the Angara went out but although the water level again rose drastically, no damage was done.

On 4 June Wieting received a message from Yeniseysk to ask if he would go to the assistance of the hamlet of Kasachinskoe, which was completely flooded, about 50 km upstream from Strelka on the left (west) bank of the Yenisey. With the steam launch and a large wood-hauling boat in tow *Moskva* headed upriver, battling a fierce current. On reaching the flooded village it was to find that most of the women and children had already taken refuge on a hill about 6 km away. For most of the day the steam launch and the wooding boat hauled people and provisions from the flooded village to the temporary camp on the hill. After two days, the crisis past, Wieting ran back down the river to his base at Strelka.²⁷

1879 navigation season

On 12 June 1879 three wooden grain barges arrived, having drifted downriver from Minusinsk. *Moskva* started downriver towing her lighter and two of the barges. Stopping at Yeniseysk Wieting hired twenty local men to load firewood at the various fuelling points where cordwood was stockpiled for the various steamers on the river, including *Moskva*, and to help in transshipping cargoes at the river mouth.

With the agent Robert Krafft on board, *Moskva* set off down river from Yeniseysk on 20 June. With the high water levels and strong current she made exceptionally good time. But on reaching Verkhne Imbatsk, just above the confluence with the Imbak, Wieting was warned that the Imbat had not yet broken up, but might do so imminently. To avoid possible danger when that event did occur, he ran back upriver for a few kilometres to above the confluence. Next day the ice on the Imbak surged out into the Yenisey. After three days which Wieting and some of the men put to good use by shooting geese, ducks and black grouse, on 24 June the steamer and its tow got under way again.

On the 29th a severe westerly gale produced large waves on the flood-swollen river and forced Wieting to take shelter behind an island for a day. But beyond the confluence with the Kureyka, which also contributed its share of drifting ice, a further hazard was the large amount of driftwood, picked up by the flood waters, which forced a reduction in speed. On 3 July heavy drifting ice and heavy weather led to a further enforced stop of two days in the mouth of a small tributary, but finally on the 7th *Moskva* and her tow reached the rendezvous

²⁷ Wieting, *Bremer Seeleute*, p. 48.

at Karaulnoe safely. The 3200 kilometres of the downriver trip had thus taken only seventeen days, despite the various delays.

Leaving the Siberian workers to unload the grain barges and to break them up for firewood for *Moskva*, the latter vessel started back upriver almost immediately, on 9 July, towing the lighter laden with barrels of oil and kerosene which she had been unable to handle the previous fall. With the high water levels and favourable northerly and northwesterly winds which allowed both vessels to carry sails, the trip back upriver was very fast, despite the strong current. By 26 July, i.e. after a passage of only seventeen days, the same time as the downriver trip, they had reached Yeniseysk. A minor engine problem led to a stop of a few hours, of which Wieting and some of his men took advantage to go hunting, bagging seventeen geese and thirty-two ducks. Heading back north, the steamer reached Karaulnoe on 4 August, after a passage of only five days and fourteen hours. Wieting and his men then settled down to wait for Captain Dallmann to arrive with *Louise*.

By now the brief arctic summer had arrived and the snow had disappeared. With 24 hours of daylight officers and men spent much of their leisure time in hunting and fishing. On shore, and even on board the anchored vessels, however, the dense clouds of mosquitoes made life almost unbearable when it fell calm.

By 23 August there was still no sign of *Louise* and hence on that date, taking six men, Wieting started north in the steam-launch with a boatload of firewood in tow, to explore the lower river and to sound the channel as much as possible. On the 29th a gale-force northwesterly raised a heavy sea which forced Wieting to seek shelter. With no sign of the wind slackening, after two days Wieting started back south, choosing a route through the Brekhovskie Ostrova. While some of the men cut and split driftwood for fuel Wieting and the engineer went hunting geese and ducks, while some of the men went fishing. They returned to Karaulnoe with a good haul of birds and fish on 6 September.

Wieting's instructions were to leave Karaulnoe no later than 15 September. By that date he had made all arrangements to depart on the following day, leaving with the watchman who was to stay for the winter, useful information for Captain Dallmann in case he arrived later and decided to winter, along with charts and mail. But while he and Krafft were eating breakfast Wieting spotted two men hurrying along the shore from a lookout point on Tolstoy Nos a few kilometres further north, whom he had posted as lookouts. They shouted that a steamer was approaching. It was indeed *Louise*, towing two iron lighters, and Wieting and Krafft ran out to meet her in the steam launch.

With Dallmann in command *Louise* (now fully repaired, and having had new boilers installed by Weser Aktien Gesellschaft of Bremen in the spring) had put to sea from Bremerhaven on 8 July 1879 with a cargo of kerosene, lamps, tobacco, olive oil, sugar and other consumer goods.²⁸ After picking up the lighters (also now repaired) which had been left at Brønø, *Louise* continued north from there on 13 July and by the 30th was off the west entrance to Karskie Vorota [Kara Gates]. They however were still icebound as, apparently, was the Kara Sea beyond. Dallmann next tried Yugorskiy Shar but found it, too, blocked by ice. Seven other steamers, British, Swedish, Norwegian and German, were also lying there, all trying to reach the Ob' or the Yenisey, but also blocked by the ice. Over the following month Dallmann and the other captains tried one strait after another – Yugorskiy Shar, Karskie Vorota or Matochkin Shar – but found them all icebound. All the other captains abandoned their attempts and turned back but Dallmann persisted, despite damage to *Louise*'s screw in the ice.²⁹ Finally, on 7 September he had found Yugorskiy Shar free of ice, and *Louise* had emerged into the Kara Sea. By 12 September she was off Ostrov Dikson and, as we have seen, she reached Karaulnoe on the 15th, to Wieting's great relief.

²⁸ Abel, *Commercial pioneer voyages*, p. 32; Rossberg, *Kapitän Dallmann*, p. 48.

²⁹ Wieting, *Bremer Seeleute*, p. 58.

Transshipment of cargoes was now given high priority and was completed by 21 September. That night Wieting hosted a farewell supper for Dallmann and *Louise*'s officers, and next day both steamers got under way, *Louise* homeward bound and *Moskva* back upriver, towing three lighters, the steam launch and the wooding boat.

Temperatures had already dropped to -6°R (-7.5°C), with some heavy snowfalls, and ice was forming along the shores. Water levels were quite low, which meant constant sounding but on the other hand, the current was relatively weak. With clear skies a quarter moon allowed Wieting to continue steaming all night. But by the morning of the 25th the temperature had dropped to -9°R (-11.25°C) and there was a significant increase in the ice drifting down the river. The paddle-boxes started to ice up badly, to the point that the ice had to be knocked or steamed off.

As *Moskva* progressed south, however the temperature rose steadily. On the night of the 30th there was no frost and next day there was no ice to be seen on the river, and the forests were still displaying full autumn colours. On the morning of 1 October the wooding station at Selivanovskoe, just below Turukhansk, was reached. Here Wieting took the opportunity to replace some paddles which had been smashed in the ice, and to straighten some iron components of the paddle-wheels. This work took 36 hours and thus it was 3 October before the voyage was resumed.

But now, with the current being stronger and the water generally shallower, which called for more frequent soundings, Wieting had to stop travelling at night. On reaching the cliff-lined Osinovskiy Porog [Osinovo Rapids] just above the confluence of the Podkamennaya Tunguska, where the river narrows to about 750 m, on 8 October, Wieting was forced to tow the lighters up one at a time, a process which took an entire day. Thereafter, with temperatures dropping to -8°R (-10°C) ice started to form along the shores again. Nonetheless *Moskva* and her tow reached Yeniseysk safely on 15 October and unloading her cargo began next morning. On the 19th a telegram arrived with the glad news that *Louise* had reached Hammerfest safely. The first exchange of cargoes between the upper Yenisey and Western Europe by sea had been accomplished.

1879–80 wintering

Also on 19 October *Moskva* reached the winter quarters at Strelka and the lighters were safely moved to their secure wintering berth. The old Siberian watchman was in the process of stowing his harvest of potatoes and turnips in the root cellar.

The launch and boats were winched up on shore. During the previous ice breakup *Moskva*'s paddles had caused problems so now they were removed and stored on shore, along with the rudders of the steamer and the lighters to prevent their being damaged. To reduce the vessels' drafts provisions, coal and spare parts were all unloaded and *Moskva*'s mast was unshipped. Snow was piled against and on top of the vessels to a depth of several metres, so that they appeared as a long ridge of snow with only the steamer's funnel and bridge protruding.

On 1 November everyone moved from the vessels to the warm, comfortable house on shore. By the 5th the temperature had dropped to -27°R (-33°C) and the Yenisey was solidly frozen from shore to shore. As in the previous winter a rota was established for the watch in the yard and on board. Once again toboggan runs and a skating rink were created and hunting trips organized. A telegram arrived via Yeniseysk with instructions that Wieting should let contracts for, and supervise, the building of a large barge at Yeniseysk. Since all the ironwork for it had to be made by *Moskva*'s engine-room crew at the smithy, and the rigging and sails by the seamen, there was plenty of work for everyone. It also involved Wieting making

numerous trips to Yeniseysk, some 75 km to the north. For this he bought two horses and had the men build a sleigh.

It was a relatively mild winter compared to the previous one; the temperature never dropped below -34°R (-42.5°C) and generally ranged only between -15 and -25°R (-19 and -31.25°C). Wieting and his men moved back aboard their vessels on 17 April 1880. Because of the great depths of snow which had been piled on them the vessels did not freeze to the bottom and hence this time they were all afloat again by 20 April. On the 22nd they were hauled forward for several hundred metres in the refuge ditch. When breakup began with its initial surge of water and ice on 2 May the vessels could be moved the rest of the way into the refuge ditch. This time, by chance, a large floe grounded at its entrance and hence, when the main surge and rise on water level occurred on 4 May, it blocked the entrance to the refuge ditch and the vessels were protected from any damage from ice.

1880 navigation season

On 15 May, Wieting ran down the river in the steam launch to take part in the launch of the new barge which he named *Bremen*. Once again he had planned to make two trips north to Karaulnoe since, as in the previous year there were still goods in storage there, which would be taken south on the first trip. In early June wooden barges arrive with the grain cargo, having drifted downriver from Minusinsk. It was transferred to the three lighters and leaving the new barge, which was not quite ready, *Moskva* started downriver from Yeniseysk on 15 June.

Below the confluence with the Podkamennaya Tunguska ice began to appear on the river, and on reaching the confluence with the Bakhta, the next tributary to the north, Wieting realized that its ice had not yet broken up. To avoid being caught by a surge of ice from astern when it did break up he stopped to wait for that event to occur. Nine days later he was able to continue his voyage north. But two days after that the surge of ice from another tributary forced him to stop for a couple of days at the Skopt village of Selivanovskoe. He took the opportunity to load up with extra firewood, and to buy a boat for the new barge since the Skopts were renowned as skilled boat-builders.

On reaching the last wooding station before the tree-line he loaded extra firewood, since this was the last opportunity. Taking advantage of a different opportunity Wieting took three men and went on a hunting trip to a nearby island. During eight hours of strenuous hunting they bagged forty-one birds (geese, ducks and black grouse) as well as nine arctic hares.

Thereafter they reached Karaulnoe without incident. After the grain had been stored in warehouses on shore and the remainder of last year's cargo loaded into one of the lighters, *Moskva* started back upriver with that lighter in tow. But on the fourth day, just past the confluence with the Kureyka a steadily thickening haze in the atmosphere and a strong smell of burning heralded a major forest fire just ahead. The smoke steadily increased until visibility was reduced to barely 50 metres. Prudently Wieting decided to turn back north; running back about 40 km to the mouth of the Kureyka he turned into that river and anchored to await events. Steamer and lighter were soon coated with a layer of ash. Two days later a southwest wind cleared the smoke and *Moskva* resumed her southward progress. As she did so it was realized that the fire had reached the river over a distance of 30 km. Had Wieting not turned back the results might well have been fatal. As it was the supply of firewood stacked up in readiness for the river steamers at the next wooding station had been completely burned, but *Moskva* had enough in hand to reach the station beyond.

By 26 July *Moskva* was negotiating the Osinovskiy Porog and its gorge just above the confluence with the Podkamennaya Tunguska. With only one lighter in tow she made light work of the strong current here, and on 1 August she reached Yeniseysk.

Waiting for her was the new barge, *Bremen*, loaded with grain, and also the company's new agent Heinrich Kröger (Fig. 4), from Lübeck, who was replacing Robert Krafft. Kröger had reached Yeniseysk overland and now came aboard *Moskva* for her second downriver trip to get a feel for the entire operation. Once *Moskva*'s lighter was also loaded with grain, the small flotilla started downriver on 3 August. This second trip proceeded without incident and *Moskva* reached Karaulnoe on 10 August. Wieting had been hoping to find the steamer *Louise* there, along with a new paddle-steamer, but there was no sign of them.



Figure 5. The paddle-steamer *Dallmann* on the Yenisey

The new vessel, *Dallmann* (Fig. 5), which was also intended for work on the river, was considerably more powerful than *Moskva*. Baron von Knoop had placed the order for this vessel with the Vulcan yard in Brewdow near Stettin in January 1880. She was a vessel of 211 gross tons, length 47.1 m, beam 6.3 m, with a draft of 1.1 m and engines of 400–450 hp.³⁰ An innovative feature was electric light. And yet another innovation was that the paddle-wheels could each operate independently, giving her greatly enhanced maneuverability. She was launched on 29 May 1880, her construction having been supervised by Captain Dallmann throughout. After calling at Hamburg the new steamer put to sea from there with a full cargo on 20 July 1880. Meanwhile *Louise* under the command of Captain Burmeister had sailed from Bremen, also with a full cargo. The two ships made rendezvous in Hammerfest and put to sea from there on 5 August, with *Louise* towing a sailing vessel, *Lydia*, laden with coal, from which the steamers would bunker en route. They reached the entrance to Matochkin Shar on 10 August, i.e. the same day on which Wieting had reached Karaulnoe. Finding the Kara Sea at the east end of Matochkin Shar solidly icebound, *Dallmann* tried instead to round Mys Zhelaniya [Cape Desire] at the northern tip of Novaya Zemlya. The two steamers

³⁰ Pawlik, *Von Sibirien nach Neu Guinea*, p. 72.

reached that cape, but soon afterwards ran into fog and close ice. They were soon beset and drifted north to about 79°N, i.e. almost to the latitude of the southern shores of Zemlya Frantsa-Iosifa [Franz Josef Land]. To prevent damage to *Dallmann's* vulnerable paddle-wheels in the pressure of ice, they were dismantled and *Louise* took the paddle-steamer in tow. Getting clear of the ice the two steamers headed south along the east coast of Novaya Zemlya to the east end of Matochkin Shar, which they reached on 15 September. *Dallmann's* paddle-wheels were reassembled there. Wieting had agreed to wait at Karaulnoe only until 13 September. In light of this, the fact that *Louise* had lost parts of three propeller blades through impacts with the ice, which made Burmeister loath to continue, and that *Dallmann* was leaking quite badly, it was decided, reluctantly, not to attempt to cross the Kara Sea to the Yenisey. The steamers thereafter ran back west through Matochkin Shar and then south. By 21 September they were back at Hammerfest, where *Dallmann* was laid up for the winter.

While waiting for *Louise* and *Dallmann* to arrive Wieting made two trips down the Yenisey estuary, the first in *Moskva* and the second in a sailing cutter. On this second trip, a severe storm blew up, and Wieting, Kröger and four men were wind-bound on shore for four days. When they got back to Karaulnoe after an absence of a week, *Moskva* was just about to start north to look for them.

The non-appearance of *Louise* and *Dallmann* placed Wieting in quite a predicament. *Moskva* did not have enough power to tow *Bremen* and three lighters upriver. His solution was to entrust two of the lighters to *Yeniseysk*, one of the relatively lightly-built Russian steamers which also plied the Yenisey. It was to tow them to Igarka, about 400 km upstream. Until 15 September Wieting felt there was still a chance of the steamers arriving from seaward, but thereafter he began preparations for heading back upriver. The steam launch and a wooden boat intended for *Dallmann* were hauled up on the river bank, the grain intended as *Louise's* return cargo having long since been stored in warehouses on shore. A supply of firewood was also landed in case *Dallmann* arrived after *Moskva* had left. Letters and charts were left with the watchman who was to remain for the winter, to give to *Dallmann* in case he was forced to winter on the lower river. On 18 September Wieting took *Moskva* north to the Ostrova Korsakova [Korsakov Islands] again, to leave a message in a bottle for *Dallmann*, as pre-arranged. With *Bremen* and one lighter in tow *Moskva* started back up the Yenisey on 24 September. By then the snow on land was 30 cm deep and the river ice extended a substantial distance out from shore although a wide, ice-free channel still remained in mid-river.

The steamer reached the mouth of the Igarka, to find the lighters which had been sent ahead, solidly frozen in. Taking their crews aboard, *Moskva* continued south. By the morning of 27 September the temperature had dropped to -15°R (-18.75°C) and new pancake ice was forming. The paddle-boxes were becoming badly iced up and this ice had to be cleared using jets of steam. By the 29th *Moskva* was steaming through thin ice all day. On the evening of 2 October she reached Verkhne Imbatsk, where she stopped to take on firewood. Here the ice extending out from shore was sufficiently thick that the steamer could lie alongside the ice edge, to where the firewood was hauled out in horse-drawn sledges. Getting under way again next morning *Moskva* had run south about 40 km when the shaft driving her paddle-wheels broke with a loud crack.

Wieting's solution to this crisis was to sail his steamer and the lighters back north to the mouth of the Imbak where they could be laid up for the winter, while he and his crews returned to Strelka overland by sleigh. Next morning the small fleet got under way under sail, reaching the Imbak that evening. After three days of cutting ice the crews managed to warp *Moskva* and the lighters close inshore in the mouth of the Imbak behind the village of Verkhne Imbatsk. The steamer's paddle-wheels were dismantled, and they and all the rudders were removed and moved ashore, while steamer and lighters were piled high with snow.

1880–1881 wintering

Wieting, Kröger and the crews now had to wait for the winter roads (which in places were on the river-ice on the Yenisey) to be opened. Since they totaled twenty men and would require ten sleighs and twenty horses it was unlikely that the small villages along the 700-kilometre route to Yeniseysk could provide sufficient horses or provisions. The party was therefore divided into two with Wieting leading one and Kröger the other. The latter group set off first on 13 November. Next day a letter arrived from Kröger from the first post-station 26 kilometres away to advise Wieting to wait a few days since the river ice was still dangerously thin in places. Wieting and his party followed on the 18th. The trip south to Yeniseysk took over a month with delays caused by having to wait for open-water stretches to freeze. It was quite a stressful journey, apart from the cold, since food was often very scarce as the smaller villages had little to spare. But finally Kröger's party reached Yeniseysk on 16 December and Wieting's on the 19th. Here they learned that *Louise* and *Dallmann* had been stopped by ice in the Kara Sea but that, to their relief, both vessels had returned safely – *Dallmann* to Hammerfest and *Louise* to Bremerhaven. They also learned that both ships would try again in 1881, with *Dallmann* bringing a replacement shaft for *Moskva*.

Wieting sent all the men south to Strelka but he himself stayed in Yeniseysk to take care of business. But two days later he received devastating news from the base at Strelka: 'Two men suffocated, three sick, come immediately with doctor.' An hour later Wieting was on his way by sleigh, along with the assistant doctor from the army battalion stationed at Yeniseysk. The details of the disaster were as follows: over the summer a second house had been built since it was anticipated that the population of the station would be increased by some or all of *Dallmann*'s crew. Five of Wieting's men had been sleeping in the new house. They had had a blazing fire burning but before going to bed had closed the damper too soon, before the fire had completely died down. A dog also sleeping in the house had wakened some of the men with its howling. Three of them woke to find themselves almost suffocated by smoke and toxic fumes, but managed to stagger outside. Two men, however were dead, *Bremen*'s captain, Jacob Becker, a German, and the captain of the lighter, Friedrich Smith, a Norwegian. The three survivors were in very poor health and were evacuated to Yeniseysk where they were kept in hospital for a long time. If the dog had not wakened them there almost certainly would have been five deaths and not just two.

This tragedy occurred just before Christmas and threw a pall over the holidays. The two men were buried in the village churchyard at Strelka between Christmas and the New Year. The deaths had a profoundly depressive effect on the entire group, which was exacerbated by an outbreak of sickness. The bosun, especially, became very sick with pneumonia. Almost all the men began to pester Wieting to be allowed to go home to Germany.³¹

In addition to the new house a larger workshop and a stable had also been built during the summer. Putting the finishing touches to these various buildings plus the usual winter activities kept everyone fully occupied over the next few months. Preparations also had to be made for the trip back to Verkhne Imbatsk. It was essential that the crews be back there by early April 1881 to protect *Moskva* and the lighters from the spring break-up, especially since conditions there were unfamiliar. The crews plus ten additional workers, led by the bosun, left Strelka in late February and Yeniseysk on 1 March. They travelled in a caravan of twenty-one sleighs. Wieting and the engine-room crew followed about a month later.

To pay the additional workers and to make all the arrangements for the repairs to *Moskva*, Kröger had presented Wieting with 2000 rubles in cash. One night at Yeniseysk, on his way to Verkhne Imbatsk, when Wieting returned to his lodgings from an evening playing

³¹ Wieting, *Bremer Seeleute*, p. 205.

billiards with the chief of police and another police officer, he discovered the money was missing, along with Kröger's revolver. Another occupant of the lodgings had disappeared, along with his fur coat, gloves and felt boots. Wieting immediately informed the police and a quick search revealed that the thief was no longer in town. Of the possible routes he might have taken the route to the southwest to the town of Achinsk, 370 km away on the main east-west Siberian highway, was the most likely. Wieting and a police officer set off in a troika in pursuit of the thief, who had a head-start of about four hours. After a mad 28-hour sleigh ride, whereby they were able to close that lead progressively, as they determined at each post-station, they caught up with the thief at Achinsk and arrested him. A body search revealed that he had spent about 600 rubles on hiring sleighs and horses, and on alcohol. Wieting and the police officer returned to Yeniseysk with the prisoner at a more sedate pace. The thief was sentenced to twenty lashes and to three years hard labour in the mines.

Continuing his northern journey, along with the chief engineer who had waited for him, Wieting reached Verkhne Imbatsk on 6 April 1881. The bosun and all the men had arrived a few days earlier. The first task was to shovel the steamer and lighters free of snow. This work took a full day but then, once stoves had been lit everyone was able to move aboard into their own quarters. After a further two days of work, the snow around the vessels was removed right down to the ice, and was hauled away with horse sleighs. Work then began on cutting the ice away from the hulls. On the third day all the vessels surged upwards, although still with substantial amounts of ice still clinging to their hulls. The following day, a Sunday, was declared a holiday. An extra ration of vodka was issued and quite a party developed, with the bosun playing his accordion and two of the stokers on triangle and drums, playing the 'Russian Entry March into Paris.' When the residents of Verkhne Imbatsk joined the party an open-air dance began.

Some 200 metres up the Imbak a small stream joined it from a small lake a short distance upstream. This was where Wieting planned to place the steamer and lighter to protect them from the spring break-up. On 18 April his men set to work to remove the snow and cut a channel in the river ice to reach this refuge. By 5 May this brutally hard task was completed and by then, too, the water was starting to rise. The next problem was that a mass of ice 1.3 m thick was frozen to *Moskva's* bottom. Wieting's solution was to raise steam and to let boiling water run down into the bilges. This operation was successful. By 18 May steamer and lighter had been moved up the Imbak to the mouth of the small tributary. By then the water had risen about 2.2 metres. Using two windlasses the barge *Bremen* was winched close in to the village beach, while the iron lighter was warped into the mouth of the small stream, followed by *Moskva*. On 22 May the ice on the Yenisey started to move and the water started rising rapidly. By the 24th the lighter had been hauled as far as the small lake and *Moskva* well up the tributary. At the same time *Bremen* was warped higher up the beach. But then the water level dropped rapidly and all the vessels were left high and dry, with *Moskva* heeling dangerously to one side.

Finally on 25 May the main surge of the spring break-up occurred. The lighter was driven across the lake and into the trees beyond, but was stranded on top of 1.3 metres of bottom-ice which had surged up from the lake bed. *Moskva* too ended up among the trees, but at least both these vessels were safe. *Bremen*, however, was still at risk as the rising water and ice were threatening her. By that evening, after an enormous effort she too had been warped into the lake astern of the steamer, to where she too was sheltered by the surrounding trees. The final task was to ease the lighter off the raft of bottom-ice on which it was perched, and into deeper water. Then all three vessels were secure. The water level had risen by an amazing 15.5 metres, and the tree-tops on the far side of the greatly expanded Yenisey were visible only through a telescope.

On 11 June the paddle-steamer *Yenisey* arrived. Towing the disabled *Moskva* with Wieting and four men on board, she started back up the Yenisey to Strelka. They arrived there on the 19th and *Moskva* was placed in the 'refuge ditch' where she would become stranded as the water level dropped.

1881 navigation season: *Dallmann* reaches the Yenisey

Next Wieting ran back downriver to Yeniseysk on board *Yenisey*. He had chartered her to return to Verkhne Imbatsk and from there to tow *Bremen* north to Karaulnoe. Kröger joined *Yenisey* at Yeniseysk and by 24 June 1881 she had reached Verkhne Imbatsk. Taking *Bremen* in tow she continued downriver.

Meanwhile, taking with him some of his men, Wieting moved aboard the lighter to make modifications including the addition of 'lee-boards' to improve the flat-bottomed craft's tacking abilities, in order to sail her down the river. A day later she started down the Yenisey under sail. Despite some far-from-favourable weather the lighter manoeuvred amazingly well, and reached the mouth of the Igarka on the night of 30 June. There one of the lighters was lying a short distance up the Igarka but both anchors and chains were missing. The solitary resident of Igarka reported that both lighters had been driven well up the Igarka during the spring break-up. He had found and rescued one but could find no sign of the other. On 1 July Wieting rowed some 15 to 20 km up the Igarka; there he found a chaos of bent and smashed trees with great ice floes still perched on top of them. There was no sign of the lighter.

The two lighters started north under sail on 5 July. They reached Karaulnoe safely on the afternoon of 9 July to find *Yenisey* and *Bremen* lying there, having arrived the previous day. The stored grain was in good order and the steam launch and wooding boat intact. Work began on preparations for the arrival of *Dallmann* and *Louise*, including the building of a jetty for unloading their cargoes and loading the grain. On 29 July Wieting and Kröger started north in the steam launch, in part to retrieve the message left at the Ostrova Korsakova but also to check ice conditions. En route they harvested a large number of eggs from a gull colony. Replacing the message at the Ostrova Korsakova with an updated one, they continued north to Krestovskiy Ostrov and were delighted to find the Kara Sea, as far as they could see, completely ice free. After shooting some arctic hares and ptarmigan they started back south, and settled down to wait.

As in the previous summer they had to endure vast clouds of mosquitoes, but despite this, in their leisure time hunting and fishing trips were very popular among the men. Fishing was very successful; for example on one day they caught seventy-two sturgeon, each weighing up to 29 kg. To entertain his men Wieting arranged for a bowling alley to be built. It was heavily used in the evenings and on Sundays. The Siberian workers, who had never encountered the sport before, turned out to be amazingly successful bowlers.

On 20 August Wieting and Kröger were hunting some 15 km east of the station when they encountered a Samoyed [Enets] riding a reindeer and driving a small herd of the animals. By signs he invited them back to his camp where they met his extended family. The Entsi treated them to some roast goose, and asked for powder for a flintlock rifle. It was agreed that if some of the Entsi returned with them to the station they could trade some powder, lead and tobacco in return for some reindeer hides. They travelled back in two sleighs, each pulled by five reindeer. The return trip took 1½ hours for a distance that had taken them seven hours on the outward journey.

Finally, on 23 August 1881 *Louise* and the paddle-steamer *Dallmann* arrived. *Dallmann* had wintered at Hammerfest, and there the damage she had suffered in the ice had been repaired.³² Meanwhile *Louise* under Captain Burmeister's command, had put to sea from

³² Pawlik, *Von Sibirien nach Neu Guinea*, p. 65.

Bremerhaven on 22 June with an assorted cargo which included furniture, mirrors, lamps, bales of tobacco, casks of sugar and olive oil, and a replacement shaft for *Moskva*. Accompanied by *Dallmann* she sailed from Hammerfest on 20 July, towing the sailing vessel, *Lydia*, with a cargo of coal.³³ This coal was transshipped to the two steamers off the mouth of the Pechora. *Yugorskiy Shar* and *Karskie Vorota* were initially blocked with ice and it was only on the third attempt (after being foiled by ice in *Yugorskiy Shar* at least twice) that the two steamers ran through *Karskie Vorota* on 16 August. The Kara Sea had proved to be free of ice, and they reached *Karaulnoe* without further trouble, apart from some fog.³⁴

Transshipment of the cargoes proceeded rapidly, with the assistance of the twenty labourers who had been brought north from *Yeniseysk*. *Louise* was able to start back westwards on 29 August. Then on 1 September *Dallmann* started upriver, towing *Bremen*, two iron lighters, two wooding boats and two steam launches; despite this tow she was able to make 8 to 9 knots and hence progress upriver was rapid.³⁵ By 7 September *Dallmann* had reached the mouth of the *Igarka*. Here a search for the missing lighter proved fruitless although the missing anchors and chain were recovered, having been exposed with the drop in water level. On 9–10 September a stop was made for wood at *Turukhansk*, and on the 12th at *Verkhne Imbatsk*. Whereas *Moskva* had been able to tow lighters up through the *Osinovskiy Porog* only one at a time, *Dallmann* was able to tow all the lighters and other craft through at the same time, after the towlines had been doubled as a precaution. On 22 September *Yeniseysk* was reached; *Dallmann* was only the second vessel (after *Moskva*) to reach the city from Western Europe and attracted a great deal of attention. From here the freight which had been hauled upriver was forwarded to *Irkutsk* by a total of 200 horse sleighs. On 1 October the steamer got under way again and reached the winter quarters at *Strelka* on the following day.

1881–82 wintering

Since the flotilla had arrived here about three weeks earlier than previously, water levels were significantly higher and *Bremen* and the two lighters could be moved right into the refuge ditch immediately; *Moskva* was already lying there. Thus only *Dallmann* was left somewhat exposed, and would be moved into the ditch later, once water levels started to rise with spring break-up. The two steam launches, the wooding boats and the ships' boats were winched high up on shore.

Wieting and his men then settled down to what had become a familiar winter routine. *Dallmann* moved to *Yeniseysk* once the vessels were secure and in early December, travelling by troika he and *Kröger* set off on a major sleigh trip to assess the trade potential, visiting *Irkutsk*, *Lake Baykal*, *Krasnoyarsk*, *Tyumen'*, *Irbit* and *Tomsk*. This meant that *Wieting* was left in charge of ongoing business which meant that he made the 75-kilometre trip to *Yeniseysk* quite frequently. Christmas was celebrated in traditional German fashion and on New Year's Eve a 'ball' was held attended by many of the residents of *Strelka* and *Konovshina*. The music was provided by a band consisting of accordion, triangle and drums.

Dallmann and *Kröger* stayed in contact by telegram and mail. They reported that they had sold *Moskva* to a merchant in *Krasnoyarsk* who planned to use her as a passenger steamer between there and *Minusinsk*. It was therefore essential to get the vessel ready to leave immediately after break-up. This meant a great deal of work, not the least part of which was installing the new shaft which had been delivered by the steamer *Dallmann*. This task was completed by mid-March 1882. Since the regular crew had their hands full with this and with

³³ Abel, 'Commercial pioneer voyages,' p. 35.

³⁴ *Wieting*, *Bremer Seeleute*, p. 212.

³⁵ *Ibid*, p. 240.

modifications to *Dallmann*, Wieting hired local men at the end of March to cut a channel in order to move *Dallmann* into the refuge ditch. The water level had begun to rise by 11 April; *Dalmann* was afloat by the 20th and was hauled to the entrance to the refuge ditch.

Wieting and his men moved aboard from the house on 23 April, and on the 26th the steamer was hauled into the refuge ditch. When the main break-up on the Yenisey occurred on 5 May it was a relatively mild event, with the water level rising little more than 6 metres, much less than what had been experienced at Verkhne Imbatsk the previous year. All the vessels were moved back out of the refuge ditch on 15 May. In the meantime *Moskva*'s new owner had arrived. He took delivery on the 18th and she steamed away upriver, bound for Krasnoyarsk.

1882 navigation season

Due to low water levels the barges with grain from Minusinsk did not arrive until early June. The rest of the month was spent in transshipping the grain to the lighters. Then on the 29th *Dallmann* started downriver, towing *Bremen*, two lighters, the steam launch *Prinz Wilhelm* and a wooding boat. That evening, after Kröger had come aboard at Yenisesk the flotilla continued downriver. Running down through the Osinovskiy Porog on 1 July it reached Verkhne Imbatsk on the 2nd and Selivanovskoe on the 3rd. From here, while firewood was being loaded *Dallmann* and Kröger took the *Prinz Wilhelm* to Turukhansk to deliver some gunpowder for the government.

On the 4th *Dallmann* ran up the Kureyka with the *Prinz Wilhelm* to investigate the graphite mines there. Meanwhile Wieting had continued north to the mouth of the Igarka where he made yet another fruitless search for the missing lighter. *Dallmann* and her tow reached Karaulnoe without incident on the evening of 7 July 1882 having made the entire downriver trip in eight days.

By pre-arrangement, while waiting for *Louise* to arrive *Dallmann* was to make an exploratory reconnaissance to Obskaya Guba. Also *Dallmann* had been informed that *Louise* would be accompanied by the steamer *Varna*, Captain Knudsen, with a group of Dutch scientists on board, bound for Ostrov Dikson where they planned to winter as a component of the First International Polar Year.³⁶ This operation, the first coordinated international attempt at a study of meteorology and terrestrial magnetism (and a range of secondary disciplines) in the polar regions, involved eleven nations which were to occupy twelve stations in a circumpolar ring in the Arctic and two stations in the subantarctic.

On 21 July, leaving Kröger in charge at Karaulnoe, *Dallmann* headed downriver with the steamer to try to reach Obskaya Guba, and, as a secondary objective, to check whether the Dutch party had reached Ostrov Dikson. Trying to follow the western shore of the estuary he found it blocked by ice, and hence was forced to hug the eastern shore. Calling at the Ostrova Korsakova and Ostrov Krestovskiy, at each of which he waited for a few days and indulged in some hunting, he reached Ostrov Dikson on 14 August to find no sign of *Varna* or of the Dutch party. An attempt to push straight west from there was still foiled by close ice, and hence *Dallmann* headed back south to Karaulnoe, arriving on 18 August.

The month of September came but there was still no sign of *Louise*. In case she had stopped at Ostrov Dikson to help the Dutch party get settled, on 6 September *Dallmann* ran north again, reaching Ostrov Dikson on the 8th, to find still no sign of the Dutch party or of *Louise*. On the 10th *Dallmann* pushed out into the Kara Sea. Although she encountered some broken ice a strong swell indicated that the Kara Sea was probably largely ice-free. By the 12th she was back at Karaulnoe, where preparations began for heading back south. The grain

³⁶ Barr, *The expeditions*, pp. 223–54; Snellen, *De Nederlandsche Pool-Expeditie*.

cargoes were stored in the ware-houses on the shore, the landing jetty was disassembled and *Dallmann*, *Bremen* and the lighters were stocked up with firewood for the return voyage.

Towing *Bremen* and three lighters *Dallmann* started south on 18 September, and reached Verkhne Imbatsk on the 26th. Having negotiated the Osinovskiy Porog safely, thereafter she encountered a fierce snowstorm which slowed progress due to the limited visibility, but also slowed the operation of getting firewood at the next wooding station, since everything was covered with about two feet of snow. But with an improvement in the weather by 5 October the steamer had reached Yeniseysk and Strelka by the 8th.³⁷

At Yeniseysk *Dallmann* learned via a telegram from Bremen, why *Louise* had not reached Karaulnoe. With the usual range of consumer goods in her holds Captain Burmeister had taken the steamer to sea from Bremerhaven on 19 June 1882 and had made rendezvous with *Varna* at Hammerfest on the 25th. By 1 August they were entering the first ice, in the Barents Sea. For the next month they tried in vain to reach the Kara Sea via Yugorskiy Shar, Karskie Vorota and Matochkin Shar in turn, but each time were foiled by ice. But then on 30 August, temporarily beset in the ice at the west end of Karskie Vorota the two ships were carried through the strait by the ice drift, into the Kara Sea.³⁸ They were soon beset again there, and were joined by the Danish steamer *Dijmphna* in which Lieutenant A. Hovgaard was trying to reach Mys Chelyuskin with a view to trying to find and explore the land he expected lay to the north – in fact Severnaya Zemlya.³⁹ But by 20 September, by which time it was much too late to continue to try to reach the Yenisey, even had the ice conditions cooperated, *Louise* had managed to fight her way out of the ice and started back to Bremerhaven. By 1 October 1882 she was back at Hammerfest.⁴⁰ Meanwhile *Varna* and *Dijmphna* drifted around the southern Kara Sea all winter until *Varna* was crushed and sank; *Dijmphna*, however, managed to get free of the ice and emerged through Karskie Vorota on 26 September 1883.⁴¹

1882–83 wintering

Relieved that *Louise* and her crew were safe, but disappointed that they had not achieved an exchange of cargoes with her, Wieting and his men settled down for a fifth winter at Strelka. As in the previous winters the lighters were hauled into the security of the refuge ditch, while *Dallmann* was moored securely, but outside the refuge ditch because of its shallow threshold. Her paddle wheels and rudder were moved ashore for safety. On 19 December, in response to an order from Bremen, *Dallmann* and Kröger, along with the chief engineer and bosun, who wanted to return home, left by sleigh on the start of the long journey back to Bremen to discuss the fate of the entire enterprise.⁴² The remaining fifteen men then settled down to a relatively comfortable winter. With both *Dallmann* and Kröger gone Wieting made quite frequent trips to Yeniseysk to discuss plans for the upcoming season.

Christmas and the New Year were again celebrated in typical German fashion. But then in January 1883 the winter's routine was severely disrupted when the smithy caught fire. The men working in the workshop next door all escaped and fortunately all the carpentry tools and most of the machine tools were saved but the launch engine, on which the men had been working, was badly damaged.⁴³ When news of this reached Bremen, *Dallmann* wrote to

³⁷ Wieting, *Bremer Seeleute*, p. 162.

³⁸ Barr, *The expeditions*, p. 232; Snellen, *De Nederlandsche Poolexpeditie*, p. 66.

³⁹ Hovgaard, *Dijmphna-Expeditionen*.

⁴⁰ Abel, *Commercial pioneer voyages*, p. 36; Pawlik, *Von Sibirien nach Neu Guinea*, p. 815.

⁴¹ Barr, *The expeditions*, p. 250.

⁴² Wieting, *Bremer Seeleute*, pp. 163–4.

⁴³ *Ibid*, pp. 205–06.

Wieting and expressed the view that ‘this fire accident represents a nail in the coffin of this business’.⁴⁴

Dallmann placed the entire blame for the failure of the enterprise on Burmeister’s shoulders. He felt that he had not tackled the ice of the Kara Sea with sufficient drive. In a letter on 11 April 1883 he wrote:

Louise’s failure this past summer has probably caused nobody more grief than me and I fear that the result will be that Baron von Knoop will abandon the business, and this will be the end of these fine arctic voyages, for which I have always been so enthusiastic. We have only Burmeister to thank for this; he had no desire for, or interest in, the entire project and has always wished only that the Baron might abandon it. Last year, too, Burmeister did not do his duty; otherwise he would have tried north of Novaya Zemlya.⁴⁵

Another topic that featured largely in Dallmann’s correspondence with Wieting in the spring of 1883 was Wieting’s engagement to Dallmann’s daughter Meta, whom Wieting had been courting by mail. He proposed to her in February 1883, and when he received a positive reply, it was the occasion of an evening of celebration, with vodka for the men and even champagne for Wieting and Kröger.⁴⁶ The official engagement was announced in March 1883, but since the impending collapse of the Kara/Yenisey project had introduced an element of uncertainty into Wieting’s future employment prospects, Dallmann advised him to wait,⁴⁷ but he did not wait long; the couple were married in Blumenthal on 30 September 1884.

The winter of 1882–3 at Strelka was unusually cold. On 22 February 1883 the temperature dropped to -45.5°R (-57°C), the lowest temperature recorded during the Germans’ stay there. This had serious consequences when it came to freeing *Dallmann* in preparation for moving the steamer into the refuge ditch in anticipation of the break-up on the Yenisey. Even when all the ice around her had been cut away, it was found that a layer of ice 60 cm thick lay beneath her hull and was frozen in turn to the river-bed. Thus when the water level began to rise in late April the ship did not budge, despite determined efforts with block-and-tackles and levers. When the rising water level had reached the ship’s side windows Wieting resorted to desperate measures. As he had done in the case of *Moskva* at Verkhne Imbatsk, he raised steam and let the boiling water flow down into the bilges. This manoeuvre worked. On the night of 5 May, with a loud crash the ship leaped up by about a metre. After further work to remove ice frozen to the ship’s hull *Dallmann* was hauled well up the refuge ditch. This was only just in time; break-up of the ice on the Yenisey began at noon that day. As the water level rose rapidly a chaos of large ice floes surged into the river mouth where *Dallmann* had been lying. Work then began on preparing the steamer, *Bremen* and the lighters for yet another voyage down the Yenisey.

Break-up on the Angara occurred significantly later, well after 2 June. At that point Mitri approached Wieting, offering to guide a party some 30 km up the Angara to the Strelkoviy Porog [Strelka Rapids], a series of cataracts in a gorge about 900 metres wide where, he promised, the sight of the ice break-up was particularly spectacular. A party of twelve set off on horseback and were indeed treated to an unforgettable sight as an endless chaos of ice-floes came crashing down over the rock ledges of the cataracts. That night the sailors were all quite saddle-sore, but felt that it was worth it.

⁴⁴ Pawlik, *Von Sibirien nach Neu Guinea*, p. 86.

⁴⁵ *Ibid.*, p. 88.

⁴⁶ Wieting, *Bremer Seeleute*, p. 206.

⁴⁷ Pawlik, *Von Sibirien nach Neu Guinea*, p. 87.

Shortly after this, on 10 June a very sad event occurred. *Dallmann*'s assistant engineer had been ill for some time with what Wieting described as 'an incurable internal complaint',⁴⁸ and had been transferred to Yeniseysk to receive medical attention, but died there. This was the third fatality during the Kara/Yenisey operation.

In early June Wieting received word from Kröger in Moscow that he was on his way back to Strelka. He reached Kargino, across the Yenisey from Strelka on the 16th, where Wieting picked him up with *Prinz Wilhelm* for the run back across to Strelka. Then he took Kröger downriver to Yeniseysk on board *Dallmann*. There they spent a few days in preparations for the summer's operations, including hiring twenty men to handle the transshipment operation at Karaulnoe, and then returned to Strelka.

1883 navigation season

In the early hours of 2 July 1883 *Dallmann* started downriver towing *Bremen*, the two iron lighters, a wooding boat and *Prinz Wilhelm*. Since the previous year's grain was still stored at Karaulnoe, no grain was being shipped in the lighters this time. There were plans for another two steamers, *A.E. Nordenskiöld* and *Obi*, dispatched by the entrepreneur A. Sibiryakov, to try to reach the Yenisey this season. Their transshipment point would be at the settlement of Zaostrovka, some distance upriver from Karaulnoe. In anticipation of their arrival Sibiryakov's agent and his men were on board *Dallmann*, to be dropped at Zaostrovka. Water levels were still high, covering most of the rocks in the Osinovskiy Porog. As a result *Dallmann* was able to steam straight down the gorge without the usual careful manoeuvring.

An unexpected and tragic complication in the 1883 season was a widespread outbreak of smallpox in the Yenisey valley. The Germans at Strelka had escaped but the extent and implications of the outbreak became evident at the first planned wooding stop at the village of Sumarokovo. A delegation put off from shore to warn Wieting that the disease was raging there and that thirteen people had already died.⁴⁹ Since the wood was stacked in the centre of the village Wieting decided to bypass it. Next day *Dallmann* reached Verkhne Imbatsk; again a delegation rowed out to warn of the disease there; twenty-five people had died. Even though the wood was stacked 5 km below the village, Wieting decided not to take a chance. Fortunately the disease had had little impact on the Skopt village of Selivanovskoe. Few people had been afflicted, there had been only one death and the disease appeared to have run its course. Wieting therefore thought it was safe to replenish his wood supply there.

On 9 July *Dallmann* reached Sibiryakov's establishment at Zaostrovka. The log house which represented that establishment was still half-buried in snow, and hence Wieting agreed to stay for a day so that the agent Peschinskiy could stay on board while his men shoveled the building clear. *Dallmann* could not have continued her voyage in any case due to ice on the river and fog. While waiting Wieting and others indulged in some hunting. They got under way again on 12 July and reached Karaulnoe on the following evening.

Wieting had been asked to make a trip north to Dikson to search for *Varna* and/or the Dutch expedition. But while *Dallmann* was so engaged Wieting was reluctant to leave *Bremen* and the lighters in the relatively exposed anchorage at Karaulnoe. He therefore decided to take them back upriver some 70 km to a better anchorage at Seleykina Bukhta.

On 24 July *Dallmann* started north from Karaulnoe. Wieting stopped at Gol'chikha; the local Entsi had seen nothing of any foreigners. Pushing on north Wieting investigated the shoreline of bays and inlets in case there was any sign of the Dutch or of *Varna*'s crew. He reached the Korsakova archipelago on the 26th and sent out boats to search all six islands. The same process was repeated at Ostrov Krestovskiy. On 30 July, a little further north *Dallmann*

⁴⁸ Wieting, *Bremer Seeleute*, p. 171.

⁴⁹ *Ibid.*, p. 173.

anchored for two days while boat parties searched the coast north and south. Continuing north the steamer reached the southern entrance to Dikson harbour late on 1 August, only to find the harbour solidly blocked with ice. Retreating a short distance south Wieting found a good anchorage and settled down there to wait. The abundant driftwood along the shore allowed him to replenish his wood supply. On the 13th, since the estuary appeared to be totally ice-free, he ran across to Ostrov Sibiriyakov to search its shores. No sign of the Dutch was found but Wieting had the satisfaction of being (as far as he knew) the first Europeans to land on that island.

That night *Dallmann* was back at the secure anchorage on the eastern shore of the estuary. On the 15th she ran north again and this time, finding it completely ice-free, ran into Dikson harbour. On the island itself Wieting and his men shot a polar bear and a reindeer. The message he had left the previous year was untouched and there was no sign of the Dutch.

Wieting then pushed out into the Kara Sea, but at 74°2'N; 76°21'E encountered both ice and fog. Since there was a good chance of missing *Louise* in the fog, he returned to Dikson. *Dallmann* lay there until 2 September, part of the time blocked by ice, but on that date she started back south. She ran into some heavy ice which resulted in some paddles being smashed but, reaching open water she arrived at Karaulnoe on 6 September and Seleykina Bukhta that evening. Wieting waited there until 15 September when he made a further sortie northwards; this time no ice was encountered and a long westerly swell in the Kara Sea suggested that it was largely free of ice, but still there was no sign of *Louise*. Wieting returned to Karaulnoe, arriving there on 19 September.

On the afternoon of the 23rd *Dallmann* headed back upriver. She picked up *Bremen*, the lighters and the steam launch at Seleykina Bukhta and, by pre-arrangement, since Sibiriyakov's ships had not arrived either, she embarked Peschinski and his men at Zaostrovka. The weather was far from cooperative: first a gale with heavy rain which forced Wieting to double his towlines, then dense fog.

At the Osinovskiy Porog Wieting encountered a very dangerous situation. The water level was relatively low so that many rocks were exposed. He had successfully negotiated about half of the 9 km of rapids when a dense fog descended, reducing visibility to about 50 metres. He could not forge ahead, but neither could he drift back downstream, for fear of the tow becoming entangled in the rocks. His solution was to hold his position with the engines running alternately at 'slow' and 'full ahead'; this tense situation lasted for about three hours until the fog lifted to allow *Dallmann* to renew her upstream progress. She reached Yeniseysk on the afternoon of 9 October – when Wieting and his men learned what had happened to *Louise*.

With *Dallmann* in command she had put to sea from Bremerhaven on 27 June 1883. At Hammerfest she had loaded the cargo left there the previous autumn, topped off her bunkers, then continued north on 17 July. *Dallmann* found Yugorskiy Shar almost free of ice and by 31 July was emerging from the eastern end into the Kara Sea. But there the steamer ran into heavy ice, and for three weeks was fighting the ice but making little progress. Sibiriyakov's two steamers, *Nordenskiöld* and *Obi* were in sight for most of this time, but making no better progress. *Dallmann* then decided to run back west through Yugorskiy Shar, and to try Matochkin Shar. But he now found Yugorskiy Shar choked with ice so that *Louise* became beset and on 25 August was pushed ashore on Ostrov Vaygach [Vaygach Island]. On the high tide on the evening of 25 August *Louise* managed to get free again, fortunately with very little damage. But shortly afterwards her propeller shaft sheered when the screw came in contact with a tough ice tongue. Fortunately Captain Johannesen of *Nordenskiöld* was persuaded to tow *Louise* back to Hammerfest, where they arrived on 1 September.⁵⁰

⁵⁰ Pawlik, *Von Sibirien nach Neu Guinea*, p. 96.

Relieved that *Louise* and her crew were safe, but disappointed yet resigned to the fact that the entire Kara/Yenisey operation was ended. Wieting took his little flotilla on south to Strelka, arriving on 13 October.

1883–84 wintering, and the project abandoned

Wieting and his men settled down for their sixth winter at Strelka. Of six voyages from Germany to the mouth of the Yenisey attempted by Baron von Knoop's ships only three had been successful. Thus when a message arrived from the Baron soon after their return to the effect that the operation was being discontinued, it came as no surprise to Wieting and his men. They could be proud of the fact that the failure of the operation had not been due to them, since they had made the rendezvous in good time every single year.

Baron von Knoop's message also included instructions to Wieting to retain only sufficient men to bring *Dallmann* and the lighters successfully through the ice break-up the following spring, and to send the remainder overland to Germany once the winter trails across Siberia had been established. In the meantime steamer and lighters were prepared for winter and moved into the usual safe wintering sites and covered up with snow. This work was completed by 23 October. Of the nine men whose services were no longer required, four opted to stay in Siberia. One of the engineers got a job looking after the machinery at a gold mine; one of the lighter skippers married a local woman and opened a store in Strelka; a stoker, originally a blacksmith, set himself up as a smith and mechanic in Yeniseysk; while the fourth man, also a stoker, but who had previously been a baker, opened a bakery in Yeniseysk.

For the five men who would be leaving, work began on building three very robust sleighs, furnished with protective hoods to shelter them from snow and bad weather. An assortment of frozen provisions was also prepared for them. Kröger's store-keeper in Yeniseysk, a Russian who wanted to go to Germany, joined the group at Strelka. The first party of four men left in two sleighs on 15 December; the other two departed in one sleigh soon afterwards. They reached Nizhniy Novgorod in 17 days, and reached Bremen, via Moscow, in a further 13 days. The six men who stayed behind, Wieting, his mate, two engineers, a stoker and the steward, settled down to a quiet, peaceful winter. Wieting spent quite a lot of time in Yeniseysk, working with Kröger on winding up operations there. It was therefore his mate, with the help of twenty men whom Wieting sent, who bore the brunt of breaking the steamer and lighter out of the ice. This work was practically finished by the end of April 1884. But then winter returned, with heavy snowfalls and temperatures which dropped to -25°R (-31.25°C) again. The vessels became solidly frozen in once again and again had to be chopped free. By 12 May, when break-up began on the Yenisey and the water began to rise, they had moved all the vessels into the refuge channel.

In the meantime Kröger had travelled south to Krasnoyarsk to negotiate the sale of *Dallmann*, *Bremen* the lighters and the steam launch, *Prinz Wilhelm*, to Nikolai G. Gadalov, who had earlier bought *Moskva*. Gadalov sent the future engineer and deck crew to Strelka to assist in getting the vessels ready and on 21 May Wieting handed over the entire flotilla to the new owner. In the meantime all the buildings of the winter quarters had been sold to a resident of Konovshina.

Wieting then delivered the second steam launch to a buyer in Yeniseysk and then, along with the five remaining men, started the long overland trip home, initially by *tarantass*, or springless carriage. Having first crossed by ferry to Kargino, their route was south to Krasnoyarsk on the military highway and then, in seven days, west to Tomsk. From there they took a steamer down the Tom and up the Ob' to Tobol'sk then up the Tobol and Tura to Tyumen'; this river section took seven days. From there two days of travel by *tarantass* (a

four-wheeled horse-drawn vehicle) took them to Yekaterinburg, from where they rode the train to Perm. Switching to river steamer again they headed down the Kama and up the Volga to reach Nizhniy Novgorod in five days. Then they travelled by train again to Moscow, arriving 26 days after they left Strelka. Having spent a few days sightseeing in Moscow, Wieting travelled to Bremen by express train in three days, arriving in early July. There he received a very warm welcome from Dallmann, his family and especially his fiancée, Meta.

Dallmann's and Wieting's later careers

Dallmann never saw ice-infested waters again, but his career as a resourceful, enterprising ship's captain was far from over. He left his home town of Blumenthal in May 1884, bound for Sydney, Australia, where he took command of a small passenger steamer, *Samoa*, belonging to the Neu Guinea Compagnie.⁵¹ For the next decade (apart from a few short leaves in Blumenthal), in this vessel and in *Ysabel* which replaced it, he explored the coasts and reef-strewn waters of German New Guinea, i.e. the northeastern quarter of the island, and the adjacent islands of Neu Pommern (now New Britain) and Neu Mecklenburg (now New Ireland). He established and resupplied settlements and plantations, made voyages to adjacent islands to recruit workers and generally made an invaluable contribution to the development of one of Germany's more successful colonies. But his health suffered. He was obliged, due to illness, to retire to Blumenthal in January 1894, where he died at the home of his son-in-law Louis Wieting and his daughter Meta on 23 December 1896.⁵²

After the abandonment of the Kara/Yenisey operation Wieting served for many years as first officer with first the Neptun and then the Hansa Line, and latterly as captain with the latter line. Thereafter he was first officer on a number of large sailing ships.⁵³

Then in 1905 he returned to the Kara Sea and the Yenisey again. The occasion was the Severnaya Morskaya Ekspeditsiya [Northern Marine Expedition] of the Ministerstvo Puti Soobshcheniya [Ministry of Communications], which had two objectives: the delivery of a fleet of river craft to the Yenisey and the delivery of freight for the Trans-Siberian Railway.⁵⁴ In overall command of the expedition was I. S. Sergeev, whose 'flagship' was *Pakhtusov* (Captain N. V. Morozov). The fleet consisted of fifteen vessels: four freighters with cargoes which would be transhipped at the mouth of the Yenisey, two steam tugs and nine lighters including two steam lighters, *Angara* and *Lena*. Wieting, who had been recruited for his specialized knowledge of the Yenisey, was captain of *Lena* which had a capacity of 840 tons.

The fleet put to sea from Hamburg in two detachments on 10 and 12 July and reached Yekaterinskaya Gavan' (now Murmansk) on the 31st. There it was joined by the icebreaker *Yermak* (Captain R. K. Fel'man), which was to conduct ice reconnaissance and also tow one lighter as far as Yugorskiy Shar. The first detachment (escorted by *Pakhtusov*) left Polyarnyy (near Yekaterinskaya Gavan') on 3 August and reached Bukhta Varnek [Varnek Bay] on Yugorskiy Shar on the 7th. The second detachment, escorted by *Yermak*, arrived there on 10 August.

When the first detachment arrived Yugorskiy Shar was ice-free, but soon thereafter it was blocked by ice drifting in from the Kara Sea. On 17 August *Yermak* and *Pakhtusov* tried to escort the fleet out into the Kara Sea, but, blocked by ice, were forced to return to their anchorage. *Yermak* then ran aground but, by jettisoning much of her coal and fresh water, got afloat again on 20 August. Being thereafter short of coal she retreated to Arkhangel'sk, and returned to Kronshadt.

⁵¹ Pawlik, *Von Sibirien nach Neu Guinea*, p. 101.

⁵² Ibid, p. 188; Rossberg, *Kapitän Dallmann*, p. 173.

⁵³ Wieting, *Bremer Seeleute*, p. 208.

⁵⁴ Pinkhenson, *Problema Severnogo morskogo puti*, p. 421; Armstrong, *The Northern Sea Route*, p. 10.

By 21 August Yugorskiy Shar had cleared of ice and the fleet, escorted by *Pakhtusov* headed out into the Kara Sea, where only scattered ice was encountered, and there was no ice at all in Yeniseyskiy Zaliv. The river craft started up the Yenisey in two detachments on 7 and 11 September. Here Wieting's detailed knowledge of the river was an enormous advantage. The Osinovskiy Porog represented a real challenge but tugs and lighters negotiated them safely and reached Yeniseysk on 10 October. Since freeze-up was fast approaching, they wintered there and continued south to Krasnoyarsk in 1906.

In a letter written in February 1907, when he was fifty-six years old, he wrote: 'I shall remain ashore from now on'.⁵⁵

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