

# BY A SENIOR DR OF SCIENCE

## 'As it Was'

Gavriil Andreevich Sarychev, scientist, geographer and hydrographer, explored and surveyed parts of the North Pacific Ocean and the Baltic Sea during the eighteenth and nineteenth centuries. As a Vice-Admiral he became the first Russian Navy Hydrographer in 1827.

Gavriil Sarychev was born of a naval family on 11th December 1769. He entered the Naval Cadets Corps at the age of twelve, and seven years later he was appointed to the naval ship *Netron Menya* (Do not touch me). His first voyage was from Archangel to Kronstadt, and then he sailed as midshipman in a man-of-war engaged on a diplomatic mission to Livorno (Leghorn) the naval port of Tuscany.

In 1784 he gained his first experience of hydrography when he was sent to take part in surveys for the compilation of charts of the River Dnepr in the Ukraine. The following year, with the rank of lieutenant, he was appointed second-in-command to Captain Joseph Billings for the 'North Eastern Geophysical and Astronomical Expedition'™ to the North Pacific and Chukotka Peninsula. Billings had served with Captain Cook during his third Pacific Voyage and had enrolled in the Russian Navy at St Petersburg as a midshipman in 1783. His hydrographic knowledge enabled him to rise rapidly to the rank of captain.

The expedition travelled across Siberia to Okhotsk, during which time Sarychev was promoted to lieutenant commander. On arrival at Okhotsk the building of two seagoing vessels for the expedition was begun. Meanwhile, Sarychev and Billings went to Verkhnekolymsk on the Kolyma River where two smaller vessels, *Pallas* and *Yasashna*, were built for sailing the Eastern Siberian Sea. In June 1787 Billings in *Pallas* and Sarychev in *Yasashna* searched the mouth of the river and surveyed the extensive isthmus.

They then began to sail eastwards towards the Chukotka Peninsula with the hope of rounding East Cape into the Bering Sea, which Semen Dezhnev had done one hundred and forty years earlier. However, severe ice conditions prevented Billings's™ vessels from passing beyond Cape Baranov Kamen. Sarychev landed here, and finding evidence of a former campsite made some archaeological excavations to collect artefacts from the former Shelagy tribe. Such studies were the first of their kind in the Arctic. Sarychev was back in Okhotsk in the spring of 1789, when he made a plan of the port, surveyed the mouths of two local rivers and delineated the coastline to the west as far as the Ulkan River using a local boat known as a baydara.

In the summer of 1789 the two new ships were ready: *Slava Russii* (Glory of Russia) and a smaller one *Dbroe Namavene* (Good Intent). Disastrously, the latter vessel was lost upon a reef on her maiden voyage.

In the autumn of that year Sarychev boarded *Slava Russii* under the command of Captain Billings and sailed with him to Petropavlovsk in Kamchatka. The following year, in the same ship Sarychev again sailed with Billings for the Aleutian Archipelago and on eastwards as far as Kodiak Island, before returning to Petropavlovsk.

In May 1791, again in *Slava Russii* with Billings, he revisited Unalaska and then sailed northwards to St Matthew and St Lawrence Islands and to carry out some survey work on the eastern side of the Bering Strait, where Billings and the accompanying scientist, Dr Carl Merck, landed to explore.

In Laventi Bay on the Chukotka Peninsula Billings passed the command of the seagoing part of the expedition to Sarychev, so that he could land, cross to the northern coast of the Peninsula, and with Merck and eleven men travel westwards along the northern coast of the peninsula. Using reindeer as pack animals and overcoming attacks by Chukchi natives, the party finally reached the Kolyma River, having laid down the coastline as they went.

Sarychev returned to Petropavlovsk, where he and Captain Robert Hull, Billings's™ former mate, joined the *Chernyi Orel*, newly built in Okhotsk. Putting Hull in charge of *Slava Russii*, Sarychev took over the new vessel and returned to the Aleutians to continue his work there. He had with him a highly competent geodesist capable of taking the celestial observations for obtaining latitude and longitudes of selected sites throughout the region. This was Sergeant Osip Khudyakov, who with Sarychev's™ teaching had succeeded in uniting his precise scientific methods with those of hydrographic charting, together with comprehensive use of information obtained from the natives regarding local meteorological and sea conditions. I have studied Khudyakov's™ travel logs in the Russian State Navy Archives; they show that he fulfilled Sarychev's™ instructions with precision and creative effectiveness.

Osip Khudyakov was frequently landed for extended periods so that he could carry out coastline surveys on foot and inshore soundings from kayaks, often with the help of the tojons (village leaders); meanwhile, the offshore work was undertaken by Sarychev himself, often working from a baydara. Martin Sauer, Billings's™ secretary, who made a number of useful observations during the expedition, noted that the Aleuts had created their own system of navigational marks and reference points. These were mainly in the form of mounds of stones on the seashore for use as beacons, each native being obliged to add another stone as he passed that way.

So proceeded the surveys of Unimak and Unalaska, including Captain's™ Harbour. Then, with the Aleuts assistance, the Isanotsky Strait was crossed to the Alaska Peninsula, where the work continued. The whole of Billings Expedition had finally returned to St Petersburg by 1794. Eight years later, Sarychev as Captain of the First Rank was appointed Commander of the Baltic Sea Hydrographic

Survey, in which he was engaged for the next fifteen years. This resulted in publication of an Atlas of the Baltic Sea, including the Gulf of Finland and the Kategatt. But he still found time to publish in 1804 his "Rules of Sea Geodesy", which was a comprehensive manual of hydrography detailing how to carry out surveys from large sailing craft or small rowing boats. He was using experience gained during his eight years with the Billings Expedition.

In 1827 as a Vice-Admiral and Honorary Member of the Saint-Petersburg Academy, he was appointed as the first Hydrographer of the Russian Navy, and in 1830 he attained the rank of full Admiral. A cholera epidemic cut short Sarychev's time as Hydrographer to four years. He died on 30th July 1831 at the age of 68 years.

#### Further Reading

- Sauer, Martin, "An Account of the Billings Expedition in the years 1785-1794" Cadell & Davis (The Strand, London 1802).
- Sarychev, Gavriil A., "Account of a voyage of discovery in the north-east of Siberia, the Frozen ocean and the North-East sea. Translated from the Russian 2 volumes in 1. (London; reprinted 1969).
- Pierce, Richard A., "Russian America: A Biographical Dictionary" The Limestone Press (Kingston, Ontario: Fairbanks, Alaska 1990).