

REFORM, FOREIGN TECHNOLOGY, AND LEADERSHIP IN THE
RUSSIAN IMPERIAL AND SOVIET NAVIES, 1881–1941

by

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B.A., University of Dayton, 2005

M.A., University of Illinois, 2007

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of History
College of Arts and Sciences

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2016

Abstract

This dissertation examines the shifting patterns of naval reform and the implementation of foreign technology in the Russian Empire and Soviet Union from Alexander III's ascension to the Imperial throne in 1881 up to the outset of Operation Barbarossa in 1941. During this period, neither the Russian Imperial Fleet nor the Red Navy had a coherent, overall strategic plan. Instead, the expansion and modernization of the fleet was left largely to the whims of the ruler or his chosen representative. The Russian Imperial period, prior to the Russo-Japanese War, was characterized by the overbearing influence of General Admiral Grand Duke Alexei Alexandrovich, who haphazardly directed acquisition efforts and systematically opposed efforts to deal with the potential threat that Japan posed. The Russo-Japanese War and subsequent downfall of the Grand Duke forced Emperor Nicholas II to assert his own opinions, which vacillated between a coastal defense navy and a powerful battleship-centered navy superior to the one at the bottom of the Pacific Ocean. In the Soviet era, the dominant trend was benign neglect, as the Red Navy enjoyed relative autonomy for most of the 1920s, even as the Kronstadt Rebellion of 1921 ended the Red Navy's independence from the Red Army. M. V. Frunze, the People's Commissar of the Army of Navy for eighteen months in 1925 and 1926, shifted the navy from the vaguely Mahanian theoretical traditions of the past to a modern, proletarian vision of a navy devoted to joint actions with the army and a fleet composed mainly of submarines and light surface vessels. As in the Imperial period, these were general guidelines rather than an all-encompassing policy. The pattern of benign neglect was shattered only in 1935, when Stalin unilaterally imposed his own designs for a mighty offensive fleet on the Soviet military, a plan that was only interrupted by the outbreak of World War II.

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List of Abbreviations

Note: Any of the abbreviations that refer to People's Commissariats can also be used to refer to the People's Commissar for the position, as the abbreviations are identical.

AAA – anti-aircraft artillery

BSE – *Bolshaya Sovetskaya Entsiklopediya* [Big Soviet Encyclopedia]

CPSU – Communist Party of the Soviet Union

Gosplan – *Gosudarstvennyi planovyi komitet* [State Planning Commission]

GUK – *Glavnoe Upravlenie Korablestroenii* [Chief Directorate of Shipbuilding]

GUKIS – *Glavnoe Upravlenie Korablestroenii i Snabzhenii* [Chief Directorate of Shipbuilding and Supply]

KO – *Kommissiya oborony* [Commission of Defense]

KO [as part of KO GUKS] – *Korablestroitelnoe otdelenie* [Shipbuilding Department]

MTB – Motor torpedo boat; in Russian called *glisser*

MTK – *Morskoi Tekhnicheskii Komitet* [Naval Technical Committee]

NKO – *Narodnyi Komissariat Oborony* [People's Commissariat for Defense]

NKOP – *Narodnyi Komissariat Oboronitelnoi Promyshlennosti* [People's Commissariat of the Defense Industry]

NKSP – *Narodnyi Komissariat Sudostroitelnoi Promyshlennosti* [People's Commissariat of the Shipbuilding Industry]

NKTP – *Narodnyi Komissariat Tverdoi Promyshlennosti* [People's Commissar of Heavy Industry]

NKVM – *Narodnyi Komissariat Voennikh i Morskikh Del* [People's Commissariat for Military and Naval Affairs]

NKVMF – *Narodnyi Komissariat Voенno-Morskogo Flota* [People's Commissariat of the Navy]

OS [as part of OS GUKIS] – *Otdel Sooruzhenii* [Department of Construction]

Revvoensoviet – *Revolutsionnyi voennyi soviet* [Revolutionary Military Committee]

RGAVMF – *Rossiiskii Gosudarstvennyi Arkhiv Voенno-Morskogo Flota* [Russian State Archive of the Navy]

RGIA – *Rossiiskii Gosudarstvennyi Istoricheskii Arkhiv* [Russian State Historical Archive]

RKKA – *Raboche-Krestyanskaya Krasnaya Armiya* [Workers’ and Peasants’ Red Army]

RKKF – *Raboche-Krestyanskii Krasnyi Flot* [Workers’ and Peasants’ Red Fleet]

Sovnarkom – *Soviet Narodnykh Komissarov* [Council of People’s Commissars]

STO – *Soviet Truda i Oborony* [Council of Labor and Defense]

TNA – The National Archives, London

UVMS – *Upravlenie VoЕННО-Morskikh Sil* [Directorate of Naval Forces]

Vesenkha (or VSNKh) – *Vishyi Soviet Narodnogo Khozyaistva* [Supreme Soviet of the National Economy]

Voenspetsy – *Voennye spetsialisty* [“Military specialists”, or former Imperial officers serving in the Soviet fleet]

VMES – *Voенно-Morskoi Entsikopedicheskii Slovar* [Naval Encyclopedic Dictionary]

A note on transliteration and archival sources

Throughout this dissertation, I have used a modified form of the Library of Congress system. I have excluded all hard signs and soft signs for ease of reading (thus, Sevastopol and not Sevastopol') and have used the more common English versions for the names of members of the Imperial family, as well as well-known individuals during the Soviet era (thus, Nicholas II, not Nikolai II). The names of non-Russians serving in the Russian navy or government are generally spelled as they ought to be in their native language, wherever possible. However, for individuals born in Russia with non-Russian names, I have used Russian spellings (thus, Zherve instead of Gervais). For documents dated prior to the 1918 orthography reform, I have used the modern equivalents of the now obsolete letters.

The Russian archival system uses a standard notation for all sources, beginning with *fond* (abbreviated "f.", collection), *opis* (abbreviated "o.", usually meaning inventory, but here simply a sub-unit of the fond), *delo* (abbreviated "d.", file), and *list* (abbreviated "l." or "ll.", meaning page or pages, respectively). Throughout the dissertation, archival sources will begin with the name of the archive, followed by the *fond* number, the *opis* number, the *delo* number, and the page numbers. Thus, Nicholas II's letter to V. V. Kokovtsov from November 17, 1911 would be cited as "RGIA [Russian State Historical Archive], f. 966, o. 2, d. 11, ll. 6–7."

One of the archives used quite frequently is RGAVMF [Russian State Archive of the Navy]. This particular archive is divided into two separate buildings and some of the fond numbers get reused. For example, *fond* 1 of the Imperial branch is the personal papers of V. M. Altfater, an officer who served with the Russian and Soviet navies. In the Soviet branch, *fond* 1 is the collection of the Naval General Staff's papers from 1919 to 1926. To avoid confusion, all archival citations for chapters 1 through 3 are from the Imperial branch; those for chapters 4 and

5 are from the Soviet branch. Exceptions will always clearly be identified by either “RGAVMF [Imperial]” or “RGAVMF [Soviet],” as appropriate.

Acknowledgements

In order to complete this work, I relied on the support and assistance of many individuals. First among them is David R. Stone, my major professor and mentor, who provided me with help when I needed it, but also knew when to let me figure things out for myself. He was also an invaluable guide to archival research in Russia. My other committee members, Dale Herspring, Jacob Kipp, and Michael Krysko, were wellsprings of information. Dr. Herspring encouraged me to look more deeply into civil-military relations. Dr. Kipp helped me understand naval history, particularly Russian naval history, and how it applied to my topic. Dr. Krysko, both as co-major professor and as the head of the History Department, provided a useful perspective as a non-Russia specialist and was extremely valuable in providing administrative and financial support. Two other professors at Kansas State University, Marsha Frey and Donald Mrozek, were also instrumental in the production of this dissertation. I was Dr. Frey's graduate teaching assistant, and she taught me much about pedagogy, gave me moral support when I was frustrated with grant applications, and contributed some general information about France. Dr. Mrozek forced me to be circumspect in my writing, to think critically about the choice of every word, and also gave me my first real opportunity to do archival research for one of his courses.

Outside of Kansas State University, other colleagues and former teachers were extraordinarily supportive throughout the process. Dr. Richard Tempest, my master's advisor at the University of Illinois, provided good advice and moral support. Dr. David Darrow, from the University of Dayton, gave me my first paid speaking appearance and helped me make sense of some of the more obscure Imperial institutions. Dr. John Lynn of Illinois gave me my first graduate assistantship and further inspired me to continue in military history at a time when I

was not even sure I wanted to pursue a doctorate at all. I would also like to thank Nadya Derbenyova, Aleksandr Patoman, Elena Grechkina, Galina Lytkina, and many other instructors at the Herzen State Pedagogical University in St. Petersburg, all of whom were wonderful teachers and improved my spoken Russian to the point where I was no longer immediately identified as an American every time I opened my mouth, as well as their unique and personal introductions into Russia's rich cultural heritage. Helena Isaeva, Head of the International Exchange Office, was an especially helpful resource, both for knowledge of the city and for the various administrative difficulties that attend any foreigner studying abroad. I would also be remiss if I did not properly thank the archival staff of RGIA and RGAVMF in St. Petersburg, particularly Natalya Alekseyevna Filipova at the Soviet branch of RGAVMF, who put up with my numerous requests, even if the numbers were not exactly correct, and helped me find documents I did not even know I was looking for. John Kellenher was instrumental in helping me track down two obscure articles; Patrick Swann assisted me with a Polish translation. There are dozens of others, far too numerous to mention, who made contributions to this dissertation great and small.

Last, but not least, I have to thank the family and friends who supported me throughout this long process. Mark Caterinacci was not only a fount of inspiration and a good friend; he also helped me tremendously with some engineering questions. Kevin Feasel read parts of my manuscript and applied his unique insight to multiple problems, both literary and technical. I am deeply indebted to my mother, Marilyn, for her love and encouragement; my father, Terry, for instilling in me a strong work ethic and the discipline necessary to complete this project; and my sister, Tracy, who along with her husband and two children, kept me grounded. Last, but

certainly not least, is my loving wife of seven years, to whom this work is dedicated. Without her love and endless patience, none of this work would ever have been written.

Dedication

To my wife Jacki

Introduction

Between 1881 and 1941, the navies of the Russian Empire and Soviet Union underwent several extensive transformations. Prior to 1881, the Russian Empire had, effectively, a single fleet in the Baltic Sea. By the outset of World War II, the Soviet Union had four separate fleets: one in the Baltic Sea, one in the Baltic Sea, one in the White Sea and Arctic Ocean, and one in the Pacific Ocean. Even more remarkably, the bulk of the Russian navy was wiped out in the Russo-Japanese War (1904–05) and built back up by 1914, only to lose another significant portion during World War I (1914–1918) and the Russian Civil War (1918–1922). Between the end of World War I and the beginning of World War II, the Red Navy of the Soviet Union built the largest submarine fleet in the world and a respectable surface fleet, including some of the world's most advanced cruisers. In order to accomplish these goals, the Russian Empire and Soviet Union had to overcome the obstacles of a landmass that had resources and shipyards far apart from one another, an underdeveloped shipbuilding industry, overall technological backwardness, and a host of other problems, domestic and international. The most critical element in the successful development, modernization, and reform of the Russian and Soviet Navies from 1881 to 1941, however, was interpersonal relationships. The relationship between the leader of the country and the head of the navy was the most important, when the leader of the country took an interest in the affairs of the navy. When the head of the government did not, the head of the navy was forced to find other political allies in order to modernize and build the fleet.

The effects of this critical relationship on naval affairs were profound. The head of the government was more than simply the final word on naval decision making; he was often the key impetus behind changes to naval policy. The Russian Imperial Navy, in particular, lacked a coherent and cohesive strategic vision, which left policy to the whims of the Emperor. Failing to

accomplish the Emperor's goals, whatever they might be at the moment, often resulted in the head of the navy's dismissal. Before the Russo-Japanese War, Grand Duke Alexei Alexandrovich was the titular head of the navy but had little interest in meeting the responsibilities of that position. He acted as an instrument of the Emperor's will when it was necessary, but he made few significant changes on his own. After the Russo-Japanese War, Nicholas II went through a succession of Naval Ministers until he found one that could carry out his wishes: I. K. Grigorovich. The combination of Grigorovich's close personal relationship with the Imperial family and his own competence made him the most effective head of the Imperial navy from 1881 to 1917.

In the Soviet era, naval strategic theory shifted from the more traditional/Mahanian emphasis on large battle fleets to a "mosquito fleet" consisting primarily of light surface forces and submarines. As with all military matters, V. I. Lenin trusted L. D. Trotsky to manage the Soviet fleet. Trotsky, in turn, needed to rely upon Tsarist naval officers (termed "military specialists," or *voenspetsy*) in order to manage even a greatly reduced Baltic Fleet. As a result, some of the Mahanian tendencies in the navy's upper ranks continued until Trotsky's deposal from his office in 1924, despite a Soviet industrial base and economy that was completely unable to fulfill any Mahanian expectations. These "traditionalist" ideas continued even after the Kronstadt Rebellion of 1921 and the navy's subsequent reduction in status to being a mere adjunct of the Red Army, largely because Trotsky still needed the help of the *voenspetsy*, but partially because their grandiose dreams were impossible and, thus, harmless. It was simpler to accommodate these visions, however misguided, in the short term.

Once Trotsky was deposed and replaced with M. V. Frunze, however, the strategic tenor began to shift in favor of the "mosquito fleet." This shift occurred for two major reasons: first,

the influence of Frunze himself, and second, the navy's need to rely upon the goodwill of the Red Army for any resources. Loyalty to the regime and organizational skills were more highly valued by the Soviet high command than experience or skill in naval affairs. The heads of the Soviet navy from 1924 to 1937—V. I. Zof, R. A. Muklevich, and V. M. Orlov—all shared these fundamental traits and rarely defied the new “modernist” perspective. Only Stalin's own interest in the fleet, which began in 1935, radically changed this situation, reverting to the old Mahanian trends of the Russian Imperial Navy. After a series of purges in 1937 and 1938, Stalin ultimately selected N. G. Kuznetsov as People's Commissar of the Navy, a post which Kuznetsov held until 1946. Even a handpicked leader such as Kuznetsov, however, still had to deal with the vagaries of Stalin's ideas in the years leading up to World War II.

This brief summary of events highlights two conclusions. First, broad changes to naval policy or strategy were always initiated from outside the navy. Most of the time, it was the head of the government who made these changes. For example, Nicholas II briefly entertained a phase of purely coastal defense after the Russo-Japanese War, only to change his mind and insist upon the construction of dreadnoughts a few months later. Stalin singlehandedly changed the entire focus of the Soviet navy, as noted above. In some instances, the head of the government delegated more authority to a trusted subordinate, such as Trotsky (in Lenin's case) or Frunze and K. E. Voroshilov (in Stalin's case, prior to 1935). In those cases, it was the subordinate's duty to oversee and implement the government's policies.

The second significant conclusion is that these changes had little to do with the actual strategic realities facing the Russian Empire or the Soviet Union. Throughout the period 1881 to 1941, the most important fleet was the Baltic Fleet. It received most of the funding and resources, including some of the most powerful battleships constructed during this period, yet the

broad geographical and strategic circumstances argued for a small, defensive fleet, backed by extensive minefields, coastal artillery, and land-based aircraft. Given the presence of substantially more powerful German and British fleets in the region, projecting power on an offensive basis would have been difficult at best and more likely impossible. If anything, the chances of the success of a large-scale offensive fleet diminished over time, as the Soviet Union lost key naval bases in Finland, Estonia, and Latvia over the course of the interwar period, yet Soviet interest in such a fleet actually increased during the late 1930s. Similarly, Russian and Soviet interest in a strong battle fleet in the Pacific after 1905 ignored the realities of Japanese superiority and the awkward geographical position of Vladivostok relative to the theaters most likely to be contested.

If these policies were militarily illogical, then why were they pursued? Alexander III, Nicholas II, and Stalin all pursued these policies for similar reasons. All three were authoritarian and held the final say in all naval matters. All three wanted to use battleships and a large, powerful surface fleet as pieces in a larger diplomatic game. Alexander III wanted to ensure that the Russian Empire had a proper Black Sea Fleet in the likely scenario that the Russians and Ottoman Turks fought again. Nicholas II wanted to challenge British hegemony, while simultaneously expanding Russia's presence in China and the Far East. Stalin wanted to improve the Soviet Union's ability to have an influence on European affairs, such as the Civil War in Spain, and improve the international prestige of his country (and by extension, himself). These larger foreign policy implications were the driving force behind the decisions to expand the fleet in a significant way. One of the clearest indicators of changes in foreign policy was Russian and Soviet policy toward foreign technology and how to use it.

A common element running throughout the period 1881–1941 was the need for foreign technological aid. Technological improvement, especially for the military, is only made in one of two ways: innovation, which is based on the application of significant time and resources to developing new technologies and new ideas; or technological procurement from other nations, which are willing to sell or license their own domestically innovated technologies to another country. For the Russian Empire and Soviet Union, the rulers had neither the inclination nor the capability to invest significantly in naval innovation. This unwillingness to innovate was not specific to the navy; for example, Jonathan Coopersmith, in *The Electrification of Russia*, noted that bureaucracy and a general unease with significant changes delayed the installation of electric lighting in a St. Petersburg police station for six years. More generally, he writes, that the “central dominance of local officials, coupled with interministerial disputes, hindered the development of the local political initiative essential to introduce and implement new technologies.”¹ To the extent that funds and resources were available for military research and development, those resources were almost always allocated to the army or, later, to the air force. Any modernization of the Russian or Soviet navy, therefore, needed to rely on the technology of foreigners, whether purchased outright or licensed. If the head of the navy had a close relationship with the head of the government, acquiring those technologies was easier. For example, until the Russo-Japanese War, General Admiral Grand Duke Alexei Alexandrovich was able to procure any warship he wanted and could presume upon Nicholas II’s support, which led to several powerful warships being constructed abroad.

¹ Jonathan Coopersmith, *The Electrification of Russia, 1880–1926* (Ithaca, NY: Cornell University Press, 1992), 13.

Just as the choices that the head of the government made were not always in tune with military realities, the procurement of foreign technology was also subject to personal whims and factors outside of military expediency. Alexei Alexandrovich based his decision to award the contracts for the battleship *Tsesarevich* and cruiser *Bayan* on his own personal proclivities for France and, specifically, his mistress. The American-built battleship *Retvizan* was equipped with dangerous boilers (from the Russian perspective) based on the opinion of an American shipbuilder with economic ties to that boiler manufacturer. Stalin insisted on the construction of a destroyer leader in Italy rather than Germany, France, or the United Kingdom because the Italians would afford the Soviet Union greater access to their shipbuilding facilities. As with overall strategic decisions, foreign policy also played a key role in the acquisition of foreign technology. The 16” guns for the massive battleships Stalin wanted in the late 1930s were especially difficult to acquire, as the Soviets turned to the United Kingdom, United States, and Germany for help in constructing them, all of whom refused for various reasons. Nicholas II signed a lucrative contract for armor plate with Krupp in Essen largely because of his friendship with Kaiser Wilhelm II of Germany (although in this case, the product was also excellent; it was only the extremely favorable terms that seem unusual).

One of the most important factors in the acquisition of foreign technology, beyond foreign policy, military expediency, and personal whim, was exactly how foreign technology was intended to be used. Prior to the Russo-Japanese War, Alexander III and Nicholas II favored entire warships built abroad, as well as large scale advanced technology (such as armor plate, engines, and naval artillery). The Russo-Japanese War brought an end to that practice, as Nicholas II banned the importation of foreign technology in an attempt to address the Russian Empire’s unemployment problems. Only in 1908 did the Russian Empire begin actively pursuing

foreign technology once again, but on a much smaller scale. While items such as engines and artillery were still relatively common, whole warships larger than destroyers or submarines were exclusively built domestically. During World War I itself, the Naval Ministry's priority was for small vessels that would make an immediate impact, such as minesweepers and icebreakers.

In contrast, Soviet policy was almost always to acquire foreign technology with the objective of reverse-engineering it for domestic production. Plans, designs, and technical manuals were pursued as eagerly as more tangible models or examples of new technology. The largest ship built abroad for the Soviet Union before World War II was the destroyer leader *Tashkent*. Naval artillery (particularly anti-aircraft artillery) and engines were highly prized, but one of the most important factors in those decisions was the general applicability to pre-existing Soviet hulls. Even when the Soviet Union wanted to build one of their massive battleships in an American shipyard, the objective was to acquire the 16" guns they wanted, which the Americans would not sell without the rest of the battleship. The only example of mass scale technological importation occurred as a result of the Molotov-Ribbentrop Pact. Even then, much of the equipment the Soviets wished to import was not transferred as a result of the Nazi invasion of the Soviet Union.

There is, as of this writing, no in-depth examination of the relationship between naval and governmental leaders, or foreign technology as a function of that relationship, either in English or in Russian. Indeed, the Russian and Soviet navies are, in general, understudied as opposed to the Russian army or the Red Army, or even the navies of other nations, such as the United States, United Kingdom, or Germany. There are perfectly valid reasons for the lack of such histories. Russian archival material is virtually inaccessible to scholars who cannot read or understand Russian, and prior to the end of the Cold War, almost completely out of reach for foreigners.

Within the sphere of naval history, there is traditionally an emphasis on naval battles, campaigns, and leaders. For Russian naval history between 1881 and 1941, coverage of Tsushima is dominant. The other battles and campaigns of the Russo-Japanese War also get some attention, but World War I, for instance, has traditionally been neglected for the sheer lack of major engagements between the Russian Imperial Navy and Germany or the Ottoman Empire. The most frequently consulted source on Russian naval operations during World War I, for example, is *Flot v pervoi mirovoi voine: deistviya russkogo flota* [The fleet in the First World War: operations of the Russian fleet] by N. B. Pavlovich, which was written almost 50 years ago.² Works that focus on the history of Russian naval technology or even the inner workings of the Russian and Soviet naval administrations are virtually unheard of. The five volumes of *Istoriya otechestvennogo sudostroeniya* [History of Domestic Shipbuilding] are excellent and contain plenty of detail on design decisions, but lack a distinct historical narrative to put those decisions in context. K. B. Nazarenko's *Morskoe ministerstvo Rossii 1906–1914* [Naval Ministry of Russia, 1906–1914] is a wonderful resource for the intricacies of the Naval Ministry during that time period, but is an organizational history more than it is a history of the people who actually headed the organization.

However, with the end of the Cold War, more books on the Soviet-era navy have been published. The most influential among these works is Robert W. Herrick's *Soviet Naval Theory and Policy*. Even here, Herrick is not interested in specifically in the pre-1945 Soviet era navy for its own sake, but rather for the explanatory value it provides on Commander in Chief of the

² Complete citations for all of the books referenced in the introduction may be found in the bibliography or in various footnotes throughout the dissertation.

Soviet Navy Sergei Gorshkov's naval policy.³ Herrick argues that the Soviet School of Gorshkov and his predecessor, Nikolai Kuznetsov, was a hybrid of two earlier naval strategies, the battleship heavy fleet Old School (also known as the “traditionalists”) and the smaller, submarine based fleet of the Young School (also called the modernists). Only about half of his book covers the pre-World War II navy, but his work remains critical for its insight into the naval theory of the Soviet Navy before World War II, simply because it was relatively unstudied prior to his publication. However, like many naval historians after him, he focuses on personalities and not processes. He does an excellent job discussing the origins of modern Soviet naval theory, but does not describe what the direct consequences of the theoretical debate were on the fleet.

In the traditional historiographical sense, there really is no "revisionist" per se, as there is simply no criticism of Herrick to be found. Authors writing after Herrick generally either praise him or do not engage his writing. The trend tends to be for increasingly specialist literature that does not deal with Soviet naval theory or technology in a broad scope. The only author openly critical of Herrick is Kuznetsov himself, who in his memoirs argues that Herrick oversimplifies matters. However, Kuznetsov only devotes a sentence or two to Herrick, so even his criticism is not particularly well-developed.

Another key source in Russian naval historiography is Gunnar Aselius's *The Rise and Fall of the Soviet Navy in the Baltic, 1921–1941*. Using an innovative approach, Aselius studies the Baltic Fleet in three dimensions: strategic, operational, and tactical. Using sources from Russian and Swedish archives, he assesses what Soviet war planners saw as threats and how they countered these threats. Aselius also discusses the purges and their effect on the Baltic Fleet as

³ Sergei Gorshkov was Commander in Chief of the Soviet Navy from 1956 to 1985.

well as cultural ramifications and the role of the organizational rivalry between the Red Fleet and the Red Army in naval strategy.

Although Aselius does an excellent job discussing Soviet war planning, his consideration of the purges is not well-founded. He acknowledges that although the purges did make the Soviet navy less effective, there is evidence to suggest that the purge may have actually helped the Soviet navy in the short run by eliminating unqualified commanders, drunkards, and actual traitors. Given that the capabilities of a particular commander are, in most cases, somewhat subjective, Aselius simply does not build a strong enough case. He does use statistical evidence to show the trends of the purges, disregarding non-Russian officers and those with an Imperial background, but his claim that the purge helped in the short run is unfounded.

Another wealth of statistical information is Jürgen Rohwer and Mikhail Monakov's book on the Soviet shipbuilding plans during the Five Year Plans. Entitled *Stalin's Oceangoing Fleet*, their book makes the argument that there is a clear shift in shipbuilding priority toward capital ships in 1935 and 1936. Prior to this period, Soviet priorities had been on building submarines and auxiliary ships, but afterwards, there is a demonstrable increase in capital ship construction that shows a change in naval policy.

Although the argument is not particularly controversial, the real core of their book is the tables of technical and construction data, available for the first time in English. Although some of the tables are incomplete, evidence seems to suggest the incompleteness rests with the archival sources, not with the book. The book does not always explain where improvements in engine design, torpedoes, or general ship design come from; for the most part, the authors present the raw data and allow the reader to make their own judgments. The essay at the end of the book, which discusses *why* Stalin effectively changed his mind, does cover a number of possibilities

but the authors do not indicate whether one is stronger than any other. Answering this question will be one focus of this dissertation.

Another book that explores shipbuilding is Jurg Meister's *Soviet Warships of the Second World War*. Although he does not cover the scope that Rohwer and Monakov do (from about 1928 to 1953), he does give in-depth technical knowledge on the ships that actually fought in World War II. His actual documentation is somewhat limited, and there is no bibliography, but again, without much supplementary literature in this field, he is still a valuable source. Like Rohwer and Monakov, Meister discusses ship design, but does not explain technical progression or what spurred the changes in ship design over time. Two additional books, Stephen McLaughlin's *Russian & Soviet Battleships* and Norman Polmar's *Submarines of the Russian and Soviet Navies* provide considerable detail on those two classes of ships, but comparatively little analysis.

The standard work for the actual performance of Soviet ships in battle during World War II is *Soviet Naval Operations in the Great Patriotic War 1941–1945* by V. I. Achkasov and N. B. Pavlovich. Translated from a Russian book of the same name by US naval officers, this book is the only systematic study of Soviet operations during World War II. Achkasov and Pavlovich, as Soviet naval officers, are understandably interested in rehabilitating the reputation of the Soviet navy, and focus on the various tasks the navies were asked to carry out. The book is sparsely documented, which makes some of the claims they make somewhat difficult to accept. Very early on, the authors insist that there is no "qualitative inferiority" to Western ships, and yet offer no evidence to support this claim.⁴

⁴ V.I. Achkasov and N.B. Pavlovich, *Soviet Naval Operations in the Great Patriotic War 1941–1945* (Annapolis, MD: Naval Institute Press, 1981), 2.

One more notable book on the pre-World War II Soviet Navy is Tobias Philbin's *The Lure of Neptune*. Philbin writes on the German-Soviet collaboration on naval technology during the interwar period. With access to German archives, Philbin retraces the beginning of the collaboration up to 1941. He builds a compelling narrative, well supported by evidence, although he does not use much Russian material. This decision is somewhat puzzling, given that Philbin can read Russian (he mentions a few works in his bibliography). This evidence can and occasionally does appear one-sided, in the sense that many of the motivations and decisions are described from the German perspective alone.

The first book on the Imperial Navy is Constantine Pleshakov's *The Tsar's Last Armada*. Pleshakov reconstructs the journey of Admiral Z. P. Rozhdestvenskii, the Chief of the Naval General Staff in 1903, who was handpicked by Nicholas II to take ships from the Baltic Sea to the Pacific Ocean to shore up Russian defenses during the Russo-Japanese War. His book only discusses technology or strategy as they relate indirectly to this voyage; it is more a chronicle than a historical monograph. He uses archival evidence from the Russian and British Archives, but his citation style is very unorthodox and can make tracing his evidence difficult at times. He builds a narrative, and builds it well, but he is ultimately unconcerned with the larger naval issues of the day.

The other notable book is Norman Saul's *Sailors in Revolt*. Like Pleshakov, Saul's book is primarily a narrative, in his case on the revolt of the sailors in the Baltic Fleet in 1917. He does an excellent job presenting his evidence, and by tracing these revolts, he provides insight into

future naval leaders for the Soviet Union. He does provide some oblique references to technology, but understandably disregards naval strategy as it is not part of his story.

The best overall source on the Imperial Russian Navy is the article by Evgenii F. Podsoblyayev, Francis King, and John Biggart, entitled "The Russian Naval General Staff and the Evolution of Naval Policy, 1905–1914" in the *Journal of Military History*. The article focuses on how naval policy and strategy changed after Tsushima but before World War I. Focusing largely on *Morskoi sbornik*, the Russian naval journal, and archival evidence, the authors recreate the debates between preeminent naval authorities and what they planned on doing with the navy after the disaster at Tsushima. While the article is fairly new (2002), it seems that it will become a key part of naval historiography.

There are two other books, which are not primarily naval histories, that do deserve mention as key contributors to naval historiography. The first is John Erickson's *The Soviet High Command* and the second is Peter Gatrell's *The Last Argument of Tsarism*. Erickson's book, a classic in every sense of the word, discusses the creation of the Soviet officer corps from the Russian Civil War to World War II. He discusses both Red Army and Red Fleet commanders, as well as offering a few pages on the German-Soviet naval collaboration. His book is more geared towards the Red Army, but he does have plenty of useful information on the naval commanders as well.

Gatrell's book is primarily an economic study of Imperial rearmament between the Russo-Japanese War and World War I. He argues that Russia was ill-prepared for World War I because of the ineffective allocation of resources and heavy handed treatment of the private defense sector. While he discusses the defense industry, he spends considerable space on private shipyards and shipbuilding. Because the navy was such a large portion of Russian defense

spending, Gatrell's book, although technically not a work of military history, still provides crucial insight into shipbuilding processes and the success (or failure) of the shipbuilding industry.

In order to fill the clear gap in the historical literature, I have carefully examined archives in the Russian Federation and the United Kingdom, published memoirs, and the work of other scholars in order to understand and analyze the decision-making process behind the appointment of the heads of the navy, with an emphasis on their acquisition of foreign technology. This work is broken up into five roughly chronological chapters. Chapter 1 explores the creation of the first modern Russian fleet after the Russo-Turkish War of 1877–78, particularly after Alexander III ascended to the throne in 1881. The new Emperor put his younger brother, Grand Duke Alexei Alexandrovich, in charge of the navy. The Grand Duke began the process of building the fleet, albeit inefficiently and haphazardly, that fought the Russo-Japanese War. This chapter also examines the origins of that war, how Nicholas II intended to fight it, and briefly recounts the major events of the war. Chapter 2 covers a six year period, 1905 to 1911, and analyzes the strategic debates that shaped the navy going forward, particularly as the Naval Ministry underwent extreme turnover. It depicts the beginning of the construction of the first Russian dreadnoughts, as well as Nicholas II's changing opinions about the place of the Imperial Fleet in Russian foreign policy. Chapter 3 shows how I. K. Grigorovich, Nicholas II's longest serving Naval Minister, built upon the work of his predecessors to develop the navy that fought World War I. It also examines the basic strategy, key events, and actors of World War I from a naval perspective. Chapter 4 looks at the origins of the Soviet Navy in the aftermath of World War I. An important event during this period was the Kronstadt Rebellion, which ultimately reduced the navy to a subservient role under the direction of the Red Army. The Chiefs of the *Upravlenie*

Morskikh Sil RKKA, or “Directorate of the Naval Forces of the Worker’s and Peasant’s Red Army,” rarely had direct access to Lenin or Stalin as a result, which was something beneficial and sometimes detrimental. Chapter 5 explores the navy’s slow return to bureaucratic independence, coupled with the direct intervention of Stalin into naval affairs. It begins with the Five-Year Plans that governed the creation and force composition of the navy, goes through the navy’s most difficult time in the Soviet Era (the Great Terror, sometimes called the Great Purge), and underlines how a 34 year old named N. G. Kuznetsov came to be the head of the navy, and positively shaped its development entering into World War II.

The following pages portray a Russian and Soviet navy that was almost constantly in flux. New ships were added, new strategies were developed, and new people rose to the highest positions in the fleet. With no desire or ability to innovate uniquely Russian technologies, naval leaders were forced to import and adapt technologies from abroad in an attempt to modernize the fleet cheaply, efficiently, and effectively. However, naval reforms take time. More so than armies or air forces, navies require considerable money and time to make significant changes. Developing, testing, and mass producing a new rifle or an even an airplane is far faster and simpler than developing a new battleship, cruiser, or submarine. Throughout the shipbuilding process, there are plenty of opportunities for individuals to make changes to designs, add their own idiosyncratic touches to ships, and adjust platforms to account for new possibilities. The most important element to keep the shipbuilding process as smooth as possible is to ensure continuity and stability over the long period necessary to complete a warship. In order to maintain continuity and stability, the head of the navy must maintain a strong relationship with the head of the government, or the head of the government’s designated representative. This

statement is especially true regarding the turbulent times of the late Russian Empire and early Soviet Union.

Chapter 1 - The construction and destruction of Russia's first modern fleet: 1881–1905⁵

The Russian Imperial Navy of 1881 to 1905 was dominated largely by one figure: Grand Duke Alexei Alexandrovich, who was made General Admiral shortly after his older brother, Alexander III, took the throne. Alexander III wanted a General Admiral who would not defy his wishes or exert too much influence over naval policy, and Alexei Alexandrovich was the perfect candidate for that role. After Alexander III's death in 1894, the new Emperor, Nicholas II, retained his uncle as General Admiral, but the roles were reversed. It was Alexei Alexandrovich who tended to dominate the young Emperor and impose his own will on how the navy should be run. It was the General Admiral's whims, not the Emperor's, that mattered most between 1894 and 1905. Most of the foreign technology acquisitions in that period bear the stamp of the General Admiral, not the Emperor. The only sufficiently loud voice that demanded reform was Grand Duke Alexander Mikhailovich, but most of his desires were frustrated until the dismissal of Alexei Alexandrovich after the Russo-Japanese War.

Alexander III and Alexei Alexandrovich

Alexander III's inheritance of the Imperial throne after the assassination of his father, Alexander II, had a number of profound effects on the society of the Russian Empire. Where Alexander II was liberal (for a Russian autocrat, at any rate) and initiated the Great Reforms, among which was the ending of serfdom, Alexander III was a conservative. Alexander II engaged in warfare to expand the Russian Empire in 1877; Alexander III preferred to be known

⁵ All dates in the first three chapters are based upon the Julian calendar, which was twelve days off in the nineteenth century and thirteen days off in the twentieth century, as compared to the Gregorian calendar used in most of the rest of the world.

as “the Tsar-Peacemaker.” Alexander II believed that a powerful army would be perfectly sufficient to meet all of the Russian Empire’s security needs after the loss of the Black Sea Fleet as a result of the Crimean War; Alexander III, however, used the example of the Russo-Turkish War to give the Imperial navy a level of attention, in the guise of dramatic expansion, that it had not received since the Age of Napoleon.

Alexander III did not actively pursue Constantinople or the Turkish Straits during his reign, as his father had, but they remained a significant presence in Russian strategic thought. Russia’s desire for the Turkish Straits was certainly not a new development. It had directly or indirectly caused multiple wars with the Ottoman Empire, stretching back to the eighteenth century, which culminated in the sole disruption of the so-called *Pax Britannica*: the Crimean War. Russia’s defeat at the hands of a combined French-British-Piedmontese expedition forced them to sign the Treaty of Paris of 1856 and the London Convention, which governed the Turkish Straits, the same year. Article XI of the Treaty of Paris demilitarized the Black Sea, apart from a small coastal defense force for Russia and the Ottoman Empire and a small flotilla, composed of two ships from each of the signing powers, at the mouth of the Danube, which would serve as an enforcement mechanism for Article XI. The London Convention specifically closed the Turkish Straits to all foreign warships in time of peace. These documents were modified by an 1871 treaty which permitted the Ottoman Empire to allow “friendly and allied” powers to use the Turkish Straits in time of peace and remilitarized the Black Sea. The Russian Foreign Minister at the time, A. M. Gorchakov, argued among other things that permitting the Ottoman Empire to use the straits to bring in warships whenever they wished made the state of neutrality forced upon the Black Sea one-sided; i.e. the Ottoman Empire could have as large a navy as it wished, but Russia was permitted none. Initially, Gorchakov repudiated the Treaty of

Paris on the eve of Prussia's victory at Metz during the Franco-Prussian War. The direct result of that battle that eventually led to the treaty of 1871, which essentially legalized Gorchakov's *fait accompli*.⁶ Gorchakov's diplomatic victory permitted the Russian Empire to begin building warships in the Black Sea once again, but it was the Russian Empire's hard-fought victory in the Russo-Turkish War of 1877-78 that convinced Alexander III to actually build the ships.

The Russo-Turkish War was, broadly speaking, an attempt to settle the infamous "Eastern Question"—the supposedly impending collapse of the Ottoman Empire and the ultimate fate of the peoples and territories that belonged to the Ottoman Empire—once and for all. It was a war that the Russian Empire expected to win, and win quickly. While Russia did eventually win the war, the resulting Treaty of Berlin did not give Constantinople or the Straits to the Russian Empire. All Russia actually had to show from their victory was an autonomous Bulgaria (albeit one dominated by Russia) much smaller than the one Russia had originally imposed on the Ottoman Empire via the Treaty of San Stefano, while Austria received the right to administer, but not occupy, Bosnia and Herzegovina. The United Kingdom received Cyprus.⁷ The Russian Empire did not win the war quickly enough to forestall British diplomatic interference, and at least one cause of that delay was an inadequate fleet in the Black Sea.

The Black Sea Fleet that Russia had possessed at the time of the Russo-Turkish War was inadequate, from a technological standpoint. The fleet Russia possessed at the time was a

⁶ Sir Augustus Oakes, ed., *The Great European Treaties of the Nineteenth Century* (Oxford: The Clarendon Press, 1918), 178, 180, 184–85, and 330–32. Oakes' commentary on the 1871 treaty is on 312–22, albeit it is somewhat biased against Gorchakov in particular and Russia in general. See also Seton-Watson, *The Russian Empire*, 437. For Alexander III's foreign policy goals, see Margaret Maxwell, "A Re-Examination of the role of N. K. Giers as Russian Foreign Minister under Alexander III," *European Studies Review* 1, no. 4 (1971), 351-78.

⁷ Barbara Jelavich, *St. Petersburg and Moscow: Tsarist and Soviet Foreign Policy, 1814–1974* (Bloomington, IN: Indiana University Press, 1974), 172-87.

haphazard mix of sailing ships, screw frigates, and a handful of armored cruisers.⁸ The largest of the cruisers, the *Minin*, took twelve years to complete and was only commissioned toward the end of the war. The only new armored vessels laid down between 1870 and 1881 were the *Popovki*, two circular ironclads that served as floating batteries. These ironclads, because of their odd circular design and rudder problems, tended to slowly rotate when put into motion, making them almost impossible to steer. As a result, they were all but useless in combat in the open sea. This fleet was purely defensive and designed only to prevent enemy landings.⁹

That did not mean, however, that the fleet was wholly ineffective. A lieutenant in the Russian fleet, by the name of S. O. Makarov, developed a new type of vessel: the torpedo boat tender. The first ship of this type, the *Velikii Knyaz Konstantin* [Grand Duke Constantine], was a converted passenger steamer that carried six smaller torpedo launches. The vessel first experienced combat on June 10, 1877. The individual launches carried a mix of towed torpedoes and spar torpedoes (that is, torpedoes towed behind the ship and torpedoes mounted on the end of long wooden poles, respectively). This first attack was unsuccessful, but that did not stop Makarov from trying again, and repeated raids on the Turkish port city of Batum finally yielded the sinking of the 2000-ton *Intikbah*. This vessel became the first sunk by self-propelled torpedoes in history. Because of his ingenuity and bravery, Makarov was promoted to captain.¹⁰

⁸ A screw frigate is a sailing vessel, possessing either a wooden hull or a wooden hull reinforced with iron, which was powered by a steam engine and propelled by a screw propeller.

⁹ Lawrence Sondhaus, *Naval Warfare, 1815–1914* (London: Routledge, 2001), 122; William C. Fuller Jr., *Strategy and Power in Russia: 1600–1914* (New York: The Free Press, 1992), 326; R. M. Melnikov, *Parovoe i metallicheskie sudostroenie vo vtoroi polovine XIX v.* [Steam and metal shipbuilding in the second half of the nineteenth century], volume II of *Istoriya otechestvennogo sudostroeniya* [History of domestic shipbuilding, hereafter *Sudostroenie vo vtoroi polovine XIX v.*] (St. Petersburg, Sudostroenie, 1996), 160.

¹⁰ One of these launches was commanded by another soon-to-become-famous lieutenant, Zinoyi Petrovich Rozhdestvesny, the future commander of the Second Pacific Squadron during the Russo-Japanese War.

Despite this innovation, however, Turkish command of the Black Sea was never seriously threatened, and the war as a whole was decided mostly on land.

In order to modernize the Russian Fleet, Alexander III turned to his younger brother, the Grand Duke Alexei Alexandrovich, to serve as General Admiral, which was the highest rank in the navy at the time.¹¹ Alexei Alexandrovich was named to the Guards equipage on the day of his birth, January 2, 1850, and was appointed *michman* (ensign or midshipman) at the age of seven. He went out to sea for the first time in 1860 with the Baltic Fleet, under the guidance of Prince Admiral K. N. Poset. Alexei Alexandrovich learned the officer's craft at sea, apprenticed to an older officer, as opposed to going to the Naval Academy. Alexei Alexandrovich had international sailing experience as well, going to the United States, Japan, and China as the executive officer of the screw frigate *Svetlana* from 1870 to 1873. That same frigate would be his first command in 1873. The Grand Duke also had some experience in combat during the Russo-Turkish War, although the exact nature of that experience is under dispute. In one sense, Alexander III was simply following the precedent of his father in naming the Grand Duke Alexei Alexandrovich as General Admiral; Alexander II had confirmed his own older brother, Grand Duke Constantine Nikolayevich, as General Admiral, an appointment which Constantine Nikolayevich had held since 1853 (in the days of Nicholas I).¹² Emperor Alexander III implicitly

Mairin Mitchell, *The Maritime History of Russia, 848–1948* (London: Sidgwick and Jackson Limited, 1949), 312; Sondhaus, *Naval Warfare*, 123–24; David Woodward, *The Russians at Sea* (London: William Kimber, 1965), 113, 115.

¹¹ As with most countries at the time, Russia had a system of nobility, where Baron was the lowest rank, *Graf* (Count) was the middle rank, and *Knyaz* (Prince or Duke) was the highest. For the Imperial family, *Velikii Knyaz* (Grand Duke/Grand Prince) was used.

¹² The Grand Duke's naval career is detailed in V. I. Kuroyedov, ed., *Voенно-Морскои Entsiklopedicheskii slovar* [Naval Encyclopedic Dictionary, hereafter VMES] (Moscow: Voенное Izdatelstvo, 2003), 33. As for the General Admiral's combat experience, it is unclear how much of it he had. He was the Commander in Chief of the Danube

trusted the General Admiral to implement his policies; in turn, General Admiral Grand Duke Alexei Alexandrovich let the everyday operation of the Imperial Fleet devolve to his deputy, I. A. Shestakov.

Vice Admiral I. A. Shestakov was Alexei Alexandrovich's chief deputy and the day-to-day administrator of the Naval Ministry. The General Admiral was certainly not a reformer, but Shestakov was, and began implementing a series of changes later termed "the 1885 system." The system, as a whole, was geared towards making certain that naval officers had experience at sea, and not merely the more prestigious (and often less strenuous) shore postings. Recognizing the difficulty of gaining sufficient experience at sea without traveling abroad, due to Russia's inhospitable maritime climate, the new system allowed officers to serve in foreign navies to gain that experience, although service in foreign navies did not count as much for the purposes of promotion as domestic service did. As an example, a captain first rank seeking promotion to rear admiral required command of a ship for four years, of which either five months had to be in active service in the Russian fleet, or eight months of active service in a foreign fleet. It also established firm dates for officers to retire from active service and enter into the reserves, based on rank. If a *michman* (ensign) had not been promoted to lieutenant within ten years of becoming a *michman*, he was placed into the reserves. For other ranks, the officer's age was the guideline, ranging from 47 for a lieutenant to 65 for a vice admiral.¹³

Flotilla during the war. Brokgauz and Efron credits him with overseeing the construction of the temporary bridges, which allowed the Russian Army to easily cross the Danube River. See also "Aleksi Aleksandrovich," *Entsiklopedicheskii Slovar F. A. Brokgauza i I. A. Efrona* [Encyclopedic Dictionary of F. A. Brokgauz and I.A. Efron, hereafter Brokgauz and Efron], <http://www.vehi.net/brokgauz/all/002/2060.shtml>, accessed September 14, 2014.

¹³ K. B. Nazarenko, *Morskoe ministerstvo Rossii 1906–1914* [Naval Ministry of Russia] (St. Petersburg: Gangut Press, 2010), 21, 23. Nazarenko also confirms the Grand Duke's role in finding the crossing over the Danube.

The “1885 system” also specified a detailed reorganization of the decision making process throughout the navy. The previous system—the “1867 system”—assigned joint responsibilities for nearly every facet of naval administration to two people: the Chief of the Naval Staff and the Naval Minister. Both the Minister and the Chief of Staff served on the Admiralty College, a body of individuals who made naval policy, as well as the Admiralty Department, which specifically dealt with the construction of new ships, the creation of maps and charts, and publishing documents and books. Through these organs, the Chief of Staff and the Minister directed the navy. The Naval Minister could claim preeminence as the Chairman of the Admiralty College, but in all other matters their authority was roughly equal. The “1885 system,” in comparison, was much more streamlined and efficient. The persons of the Naval Minister and Chief of the Naval Staff were effectively fused into one person, the Commander in Chief of the Navy and Naval Department (that is, Alexei Alexandrovich). The Administrator of the Naval Ministry (that is, Shestakov) was his direct subordinate. The formal legal body with the right to make structural changes to the department, set the budget, and settle the claims of private individuals vis-à-vis the state was the Admiralty Council. However, the Chairman of the Council was the Commander in Chief, the Vice Chairman was the Administrator of the Naval Ministry, and all of the other members of the Admiralty Council were appointed by the Emperor at the suggestion of the General Admiral (once again, Alexei Alexandrovich), so effectively, the

However, only Brokgauz and Efron claim that “he built” the crossing (*sooruzhil*), whereas Nazarenko says that he “discovered the crossing” (Navodivshevo perepravu).

Admiralty Council was at best purely advisory and at worst merely a rubber stamp.¹⁴ This arrangement gave the Commander in Chief supreme power over all aspects of the navy, and without at least his tacit approval, no further reforms or changes could proceed. Oftentimes, the General Admiral chose to let Shestakov exercise that authority in his name, but the General Admiral was at the head of the efforts to build Russia's first modern fleet.

One of Alexei Alexandrovich's first decisions as General Admiral was to discuss the construction of a massive ship construction program that would take approximately twenty years to complete. He convened a special conference in August 1881. This conference's mission was to find the means to build a proper fleet for the Russian Empire, and to extract the existing fleet out of a condition of "stagnation and weakness," in the words of the General Admiral. The conference established the need for Russia to possess three fleets. The immediate priority was the Black Sea Fleet; this fleet needed to have the capability to force the Bosphorus straits, if needed, and have the necessary transport capacity to convey 30,000 troops. The Baltic Fleet needed to be superior to all other fleets operating in that sea, conduct an active defense, with the possibility to quickly shift to an offensive mission once the enemy fleet was destroyed or deemed not to be a threat. The Pacific Squadron, at least initially, had a purely observational mission, and if threats were anticipated, an additional squadron would be formed from elements of the Baltic or Black Sea Fleets as needed.¹⁵ The quantity of ships recommended by the committee is indicated in Table 1.1.

¹⁴ Nazarenko, *Morskoe ministerstvo*, 24, 239–40. The specific title of the junior official was "Upravlyayushchii Morskim ministerstvom," roughly translated as "The person who governs or administers the Naval Ministry." I have selected the term "Administrator" as the best English-language translation and will use it throughout the dissertation.

¹⁵ Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 161–62.

Although Alexei Alexandrovich initiated the proceedings that led to the program, Shestakov was the figure who oversaw it on a daily basis. In reality, Alexei Alexandrovich preferred to do as little as possible in his role as General Admiral. He enjoyed the access to power and prestige that the position and his pedigree entitled him to, but in the days of Alexander III, that was the extent of the Grand Duke's involvement in everyday affairs. The General Admiral's only direct contact with naval affairs came at weekly suppers with the heads of the Naval Department, and those only occurred when Alexei Alexandrovich was in St. Petersburg. Those dinners were entertainments between friends, not serious discussions of naval policy or strategy. The Grand Duke was far more interested in gambling and women than the exigencies of modern naval strategy; "his knowledge of naval affairs was stuck in the days of sail," as biographer of the Romanovs David Chavchavadze put it.¹⁶

Shestakov, on the other hand, was a conscientious, hard working administrator and put the 1881 program into practice. The program began shortly after he was appointed Administrator of the Navy by the General Admiral in 1882. Shestakov had been a very close companion to the former General Admiral, Constantine Nikolayevich, and continued that relationship with Alexei Alexandrovich. According to the multi-volume *History of Domestic Shipbuilding*, the new General Admiral "practically never enmeshed himself in the business of the fleet, but entrusted the management of it to his [A]dministrator." As a result, "with [Shestakov's] direct participation, the specifications of seven classes of battleships, five of cruisers, thirteen of gunboats, 49 of torpedo boats, and seven of torpedo cruisers were designed, completed, or began

¹⁶ Pepsi Nunes, "The Evolution of the Imperial Russian Navy and the Grand Dukes 1850-1917 [part 2]," *Atlantis Magazine: In the Courts of Memory* 2, no. 4, 61; David Chavchavadze, *The Grand Dukes* (New York: Atlantic International Publications, 1990), 115-116. Quote from Chavchavadze, *The Grand Dukes*, 115.

construction.” The battleships in particular signaled an overlying trend throughout most of the Imperial era for a Mahanian-style battle fleet, primarily designed to engage enemy fleets and cripple enemy lines of communications. Alexei Alexandrovich himself actually provided the first translation into Russian of A. T. Mahan’s *The Influence of Sea Power upon History*, which one historian called “Alexei [Alexandrovich’s] sole noteworthy contribution to the Russian navy as its General-Admiral.”¹⁷ Although the Russian Empire never adopted Mahan’s ideas to the extent that Germany or the United Kingdom did prior to World War I, Alexei Alexandrovich consistently steered Russian procurement strategies toward the battleships of which Mahan was so fond.

¹⁷ Kuroyedov, *VMES*, 912; Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 159; Nunes, “Evolution of the Imperial Russian Navy,” 62. For a good summary of Mahan’s views, see Philip A. Crowl, “Alfred Thayer Mahan: The Naval Historian,” in *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, Peter Paret ed. (Oxford, UK: Oxford University Press, 1986), 444-477.

Table 1.1 Quantity of ships intended for each fleet or flotilla, as of August 1881¹⁸

Type of ship	Baltic Fleet		Black Sea Fleet		Siberian Flotilla ¹⁹	
	In service	Additional needed	In service	Additional needed	In service	Additional needed
Battleship	2	16	--	8	--	--
Coastal defense battleships	20	--	--	--	--	--
Cruiser first rank ²⁰	5	4	--	--	--	--
Cruiser second rank	12	9	--	2	--	--
Dispatch boat (16 knots) ²¹	--	--	1	2	--	--
Gun boats	9	11	--	--	--	8
Torpedo boats	100	95 ²²	1	19	6	6
Transports	--	3	--	--	--	2

¹⁸ Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 165 and F. N. Gromov, ed., *Tri veka Rossisskogo flota* [Three centuries of the Russian fleet] (St. Petersburg: Logos, 1996), I: 260.

¹⁹ The Siberian Flotilla was the predecessor of the First Pacific Squadron.

²⁰ According to Melnikov, the distinction between these ships in the 1881 plan is that first rank cruisers were either unarmored or possessed only an armored belt at the waterline and were capable of 17 knots. Second rank cruisers possessed no armor whatsoever, had lighter guns, and were capable of 15 knots. For ships already in existence prior to 1881, the first rank cruisers are those that had armor. The second rank cruisers consisted of one screw frigate (*Svetlana*), two screw corvettes (*Askold* and *Vityaz*), and nine screw sloops. Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 163.

²¹ A dispatch boat is a vessel specifically designed for speed, used to carry messages as rapidly possible. They were typically either lightly armed or completely unarmed and carried no armor. Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 165–66.

²² According to a footnote on Melnikov’s original table, the torpedo boats destined for the Baltic Sea were 1:1 replacements instead of additions, so the sum total of torpedo boats at the end of the program was set at 100 torpedo boats. Gromov gives the final number as 95, specifying 94 torpedo boats and one “torpedo cruiser” as the desired target.

As the table demonstrates, this new shipbuilding program was incredibly ambitious. After the Russo-Turkish War, Russia only possessed a single proper combat fleet, located in the Baltic Sea. The remnants of the Black Sea Fleet, which Alexander II had demobilized shortly after the war's conclusion, were used to transport Russian troops back to the Russian Empire. Only a single dispatch boat and one torpedo boat were worth retaining in the new Black Sea Fleet that was envisioned in the new shipbuilding program. Even the Siberian Flotilla, a small group of commerce raiders based in Vladivostok, was larger than the Black Sea Fleet. Shestakov's plan was going to change that, adding no fewer than 24 battleships to the Baltic and Black Sea Fleets, fifteen cruisers, and a variety of support vessels. This impressive-sounding program was reduced in 1885, just three years later. The Baltic Fleet's contingent of battleships was slashed to nine battleships, a reduction of almost 50%; the Black Sea Fleet also lost two of its originally allotted eight battleships. The naval historian R. M. Melnikov speculates that one of the reasons for such a dramatic cutback was that the vessels that were under construction had already cost significantly more than the original estimates. The revised program also cut the 95 torpedo boats allocated to the Baltic Sea to 45. All told, the changes to the program saved the Russian government 38 million rubles.²³

Unfortunately for Russia, the combination of the 1885 reduction and the response by some of the other Great Powers actually left the Imperial Russian Navy worse off in 1890 than it had been in 1882. The British started a new shipbuilding program of their own in 1885 under First Lord of the Admiralty, the Earl of Northbrook, and supplemented it still further in 1889. The resulting *Royal Sovereign*-class dwarfed any of the Russian battleships laid down up to that point. These vessels had a displacement of 14,150 tons, carried four 13.5" guns, a secondary

²³ Gromov, ed., *Tri veka Rossisskogo flota*, I: 255; Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 173.

armament of ten 6” guns, sixteen six pounders, twelve 3 pounders, and seven 18” torpedo tubes. By the time the *Sovereigns* were laid down in 1889, the largest Russian battleships were the *Ekaterina II*-class, ships that ranged from 11,032 to 11,396 tons displacement. They did carry more main guns, six to the *Sovereigns*’ four, but they were only 12” guns. The Russian ships also had a far smaller secondary armament, with fewer total guns; smaller torpedo tubes; and most importantly, thinner armor. They were outclassed in every significant way, despite being only six years older than the *Sovereigns*. Only in top speed were they evenly matched, although only the last two ships of the *Ekaterina II*-class could reach the 16.5 knot maximum speed achieved by all of the Royal Sovereigns.²⁴ Even that minor achievement is less impressive than it first appears, since the British ships were able to attain the same rate of speed as ships that were approximately 3000 tons lighter, while carrying more guns and more armor.

The fleets of Germany and France also experienced dramatic growth right along with the British and Russian navies. The three most obsolete vessels in the German navy, as of 1890, had a maximum speed of 10 to 13 knots. In the Baltic Fleet, Russia still relied upon vessels that were much slower, including thirteen monitors and three floating batteries, with a maximum speed of 5 knots. Considering that Germany, as a unified political entity, was only nineteen years old in 1890 and inherited virtually nothing from the old Prussian navy, that speaks volumes as to how backward Russia’s fleet was. Although the French navy was thoroughly under the influence of Admiral Theophile Aube’s *Jeune Ecole*, or “Young School,” and thus built no battleships, it still laid down thirteen protected cruisers and 88 torpedo boats to accompany an existing fleet

²⁴ Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 265; Lawrence Sondhaus, *Navies in Modern World History* (London: Reaktion Books, 2004), 16; Robert Gardiner, ed. *Conway’s All the World’s Fighting Ships, 1860–1905* [hereafter *All the World’s Fighting Ships I*] (New York: Mayflower Books, 1979), 32, 178.

that was, at the time, second in size the world to the Royal Navy.²⁵ France also had a much easier task concentrating its Atlantic and Mediterranean fleets, if need be, than Russia did with the Baltic Sea and Black Sea Fleets.

The only clear answer, in the view of the General Admiral, was to supplement the original 1882 program. In addition to the 30,000 tons of ships already approved for the period 1891–1895, Russia would require 76,450 more tons of ships to keep superiority in the Baltic. General Admiral Alexei Alexandrovich quickly used his influence to get this increase approved, which amounted to four additional battleships, three coastal defense battleships, a cruiser, and three gunboats, all for the Baltic Fleet. The plan also included six gunboats for the Black Sea Fleet. The actual results of the 1882 (including the 1885 reductions) and 1890 shipbuilding programs, as of 1895, are listed in Table 1.2. While Russia did not quite achieve their original goals as set out in 1882, the final tally was still very impressive. Russia reached a total displacement of 300,000 tons and third place in the world, behind the United Kingdom and France.²⁶ However, after the death of Alexander III, the new Emperor, Nicholas II, made the Far East a priority, which meant conflicting with one of the world's rising powers, Japan, and its almost entirely foreign-built fleet. Consequently, Russia developed a *de facto* third fleet in the Pacific and started to make use of foreign technology herself in a significant way.

²⁵ Aube believed that France's path to naval success was to ignore the costly and unwieldy battleship and to focus on torpedo boats and cruisers, swarming its enemies with sheer weight of numbers. Some of his evidence came from Russia's success in the Russo-Turkish War, ironically enough. Sondhaus, *Navies in Modern World History*, 57–59; Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 265.

²⁶ Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 265–67. Yu. Mikhailov, "Predposylki dlya porazheniya," *Morskoi sbornik*, no. 12 (December 2005), 69.

Table 1.2. Total ships in the Imperial Russian Navy, as of 1895²⁷

Class of ship	1882 program	Proposed in 1885 program	Proposed in 1890 program	Actually built	% of 1890 program fulfilled	Total ²⁸
Baltic Fleet						
Battleships	16	9	10	8	80	30 ²⁹
Cruisers	13	14	17	9	52.9	26 ³⁰
Gunboats	11	11	14	4	28.6	13
Torpedo boats	100	50	56	34	63	34 ³¹
Transports	--	--	--	--	--	--
Siberian Flotilla						
Gunboats	8	The requirements for the Siberian Flotilla were never reviewed prior to 1895.		4	50	4
Torpedo boats	6			4	66.7	4
Transports	2			--	--	--
Black Sea Fleet						
Battleships	8	There was no review of the Black Sea Fleet's needs for these ships prior to 1895.		7	87.5	7
Cruisers	3			--	--	--
Gunboats	--	6		6	100	6
Torpedo boats	19	There was no review of the Black Sea Fleet's needs for these ships prior to 1895.		21	111 ³²	21
Transports	--			--	--	--

²⁷ Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 270 and Gardiner, *All the World's Fighting Ships I*, 174–213.

²⁸ These numbers are derived by adding the existing totals from the second column of Table 1.1 and the proposed plan numbers from 1890.

²⁹ Includes 20 coastal defense battleships. See Table 1.1.

³⁰ Includes first and second rank cruisers. Although the number is impressive, nine of those ships were wooden and hardly suitable for late nineteenth century combat.

³¹ The 100 pre-1881 torpedo boats had already been scrapped by 1895.

³² 78.9 is the number in Melnikov's original table. His explanatory footnote indicates, "The additional ships are included in the program with operational alterations." However, he does not explain the discrepancy any further than that. It is possible he is referring to a limited conversion program. If the percentage of completion he originally gave is accurate, that would mean approximately 15 vessels were actually constructed.

Nicholas II and the Imperial Fleet prior to the Russo-Japanese War

The unexpected death of Alexander III, Emperor of All the Russias, on October 20, 1894, thrust his unprepared son, Nicholas onto the world stage. It also provided General Admiral Alexei Alexandrovich with an opportunity to mold the young Emperor in his own image when it came to naval policies and ideas. The newly crowned Nicholas II had had an education befitting an heir to the throne. Beginning at the age of ten, Nicholas learned four languages (Russian, German, English, and French), mathematics, history, geography, and chemistry. By age seventeen, he began learning the rudiments of government in the Russian Empire from the Chief Procurator of the Holy Synod, K. P. Pobedonostsev, and Nicholas Bunge, a former Minister of Finance and professor of economics. Two years later, Nicholas II started his military service in the Preobrazhenskii Guards, along with brief periods in the Guards Hussars and Horse Artillery. However, as biographer and historian Dominic Lieven notes, “Not only in Russia but everywhere in Europe, the most exclusive regiments of the Guards came closer to being a pleasant and sociable finishing school for wealthy young aristocrats than a serious professional training for a military career.” In 1890, when the heir to the throne was 22 years old, he began the Grand Tour of Europe, North Africa, and the Far East. He received an abrupt education into the dangers of the world when a Japanese policeman attempted to assassinate him during his stay in Japan.³³ This assassination attempt fueled Nicholas II’s interest in Far Eastern affairs and supplemented the already latent racism against the Japanese that many Europeans had.

Nicholas II’s cousin, the Grand Duke Alexander Mikhailovich (“Sandro” to his friends and family), wrote about this assassination attempt in his memoir, *Once a Grand Duke*. “At the

³³ Dominic Lieven, *Nicholas II: Twilight of the Empire* (New York: St. Martin’s Press, 1993), 34–39. Quote is from page 37.

railroad station of Kioto [*sic*], he was struck by the saber of a fanatic and would have been killed had it not been for the quickness of Prince George of Greece.” While Nicholas never wrote about the assassination attempt in his journals, which he only began keeping in 1894, four years after the event, there is more detail in a biographical note accompanying Prince George’s memoirs. According to that account, “Prince George, showing great presence of mind, jumped down from his rickshaw, parried the assailant’s second blow, and gave him a tremendous whack on the head with his walking-stick, thereby stunning him.” The Japanese government did its best to make amends, even instructing the Japanese courts to treat the assailant’s attack as if it were an attempt on the family of the Japanese Emperor, thus incurring the death penalty. Chief Justice Kojima imposed, instead, a sentence of life imprisonment, one of the earliest examples of the Japanese court system asserting independence from the government. According to historian Richard Connaughton, however,

Nicholas entirely misread the ensuing kowtowing and genuine embarrassment. In concluding that the Japanese were dangerous and unbalanced he spread abroad through the courts of Europe his own psychological propaganda against the Yellow Peril. He had not paused to wonder what the real cause of the attack had been.³⁴

³⁴ The title of “Grand Duke” or “Grand Duchess” was applied to all members of the Imperial family. Alexander Mikhailovich’s father was the younger brother of Alexander II. The walking-stick referenced is presently in the Benaki Museum in Athens. In the memoir itself, Prince George was devoted entirely to discussing the situation in Crete and never directly referenced the incident. Alexander Mikhailovich Romanov, *Once a Grand Duke* (Murray Hill, NY: Cosmopolitan Book Corporation, 1932), 167; A. A. Pallis, *The Cretan Drama: The life and memoirs of Prince George of Greece, High Commissioner in Crete (1898–1906)* (New York: Robert Speller and Sons, 1959), xxii; Takaaki Hattori, “The Role of the Supreme Court of Japan in the Field of Judicial Administration,” *The Washington Law Review* 60 [December 1984], 69–70; Richard Connaughton, *Rising Sun and Tumbling Bear: Russia’s War with Japan* (London: Cassel, 2004), 15.

Connaughton specifically considers the construction of the Siberian Railway Project, which began in 1891, as the cause for assassination attempt. The railway was to run through Manchuria with the terminus in Vladivostok, which was the main naval base for the Russian Empire in the Pacific. Indeed, one of Nicholas's first government assignments after his appointment to the State Council at age 21 was actually to chair the Siberian Railway Committee in 1893. According to Lieven, "He began to express independent views in both committees [the other being a Special Committee on Famine Relief in 1891], read their papers conscientiously and came to know some of his father's leading officials."³⁵ His work with the Siberian Railway Committee did provide him an opportunity to continue his association with the Far East, for good or ill, and kept him interested in a critical region of the world.

This same region of the world continued to be important even as he was adjusting to his new role as Emperor. Nicholas II took the death of his father very hard, writing in his journal: "'My God, my God, what a day! The Lord has taken unto himself our adored, dear, ardently beloved Papa. My head is spinning, I do not want to believe—it seems unlikely before the horrible reality [sets in].'" Although it is perfectly understandable that he would be devastated by the untimely death of his father, Nicholas was nonetheless painfully unaware of his ignorance of important aspects of the Russian Empire and its government. Nicholas even confessed to the Foreign Minister, Nikolai Giers, that "I know nothing. The late Emperor did not foresee his death and did not let me in on any government business."³⁶ So, when he had an important decision to

³⁵ Connaughton, *Rising Sun and Tumbling Bear*, 14. Connaughton claims that the railway had "no economic justification," which is absurd given the importance of Vladivostok both as a military and commercial port. Quote is from Lieven, *Nicholas II*, 39.

³⁶ Nicholas II, *Dnevnik Imperatora Nikolaya II* [The Diaries of the Emperor Nicholas II, hereafter *Diaries I*], ed. S. V. Mironenko (Moscow: Rosspen, 2011), 123. Giers is quoted in Lieven, *Nicholas II*, 42.

make, such as what Russia's policy would be at the conclusion of the Sino-Japanese War of 1894–95, he quite naturally called a conference to discuss it.

This conference, which took place on April 4, 1895, included Nicholas and five important advisers. The first person listed in the Emperor's diary was "Uncle Alexei", General Admiral Grand Duke Alexei Alexandrovich, who also chaired the conference. P. S. Vannovskii, the Minister of War; S. Yu. Witte, the Minister of Finance; N. M. Chikhachov, the Head of the Naval Ministry; and a friend and statesman named A. B. Lobanov-Rostovsky also discussed the problem of Japan with Nicholas. As a result of this meeting, Nicholas decided "to energetically insist upon the cleansing [*ochishchenii*] of the Japanese from the southern part of Manchuria and Port Arthur; and if they do not heed this advice, then to compel them by force." He added to this statement of policy, "God forbid we do not get dragged into a war!" The Treaty of Shimonoseki, signed one day later, included the Liaotung Peninsula as territory taken by Japan, but the subsequent Liaotung Convention returned the peninsula to China in exchange for an additional indemnity.³⁷

Three years later, on March 15, 1898, China leased part of the Liaotung Peninsula, including Port Arthur (modern-day Lüshun), the village of Talienwan, and the waters surrounding them to Russia for 25 years. Beholden to Russian protection to prevent another catastrophic war with Japan, China made the lease under duress under terms favorable to Russia.

³⁷Alexei Alexandrovich Romanov was the fourth son of Alexander II. He was appointed General Admiral on May 15, 1888. "Aleksei Aleksandrovich," *Brokgauz and Efron*, <http://www.vehi.net/brokgauz/all/002/2060.shtml>, accessed September 12, 2014; Nicholas II, *Diaries I*, 195; "Treaty of Shimonoseki," The Taiwan Documents Project, <http://www.taiwandocuments.org/shimonoseki01.htm> and "Liaotung Convention", the Taiwan Documents Project, <http://www.taiwandocuments.org/liaotung.htm>, both accessed September 4, 2014. According to Connaughton, the indemnity paid by China equaled approximately £5,000,000. Connaughton, *Rising Sun and Tumbling Bear*, 17.

Under the terms of the agreement, Port Arthur was designated a naval base, and thus only open to Russian and Chinese ships. Purely as a naval base, Port Arthur was not ideal. The opening to the port was protected by the so-called “Tiger Tail Peninsula”, which made the actual opening into the harbor very narrow. The water in the harbor was six meters deep at low tide, which prevented battleships from entering or departing the harbor until high tide, when the water was closer to nine meters deep. High tide only occurred during the day, making it impossible for battleships to clandestinely enter or exit Port Arthur. However, it did offer one key advantage over the main Pacific naval base of Vladivostok: it was ice-free year round. At the same time, its close proximity to Korea concerned the Japanese government, who feared Russian involvement in, if not the annexation of, the Korean peninsula. If that annexation occurred, Russia would be able to threaten Japan and its navy directly by cutting off access to the Sea of Japan. As a naval officer named E. Arens wrote in 1907, “After the intervention of Russia in the Shimonoseki Treaty, and its acquisition of Kwantung in 1898, the opening of a struggle with Japan was, obviously, only a question of time.”³⁸ Of course, “struggle” leaves some room for interpretation. There could certainly have been a war, but they could also have reached a diplomatic solution. Nicholas II, certainly, was undecided.

Despite Nicholas’s personal animosity toward Japan (as a result of the assassination attempt), or whatever racist attitudes he might have had towards the Japanese people, it is far

³⁸ David Schimmelpennick van der Oye, *Toward the Rising Sun: Russian Ideologies of Empire and the Path to War with Japan* (DeKalb, IL: Northern Illinois University Press, 2001), 155-56. Author unknown, “Convention between Russia and China for Lease to Russia of Port Arthur, Talienswan, and the Adjacent Waters,” *American Society of International Law* 4, no. 4 (October 1910), 289–93; Connaughton, *Rising Sun and Tumbling Bear*, 44 and map on 45; E. Arens, *Znachenie yaponskoi voyny v istorii nashego flota* [The significance of the Japanese war in the history of our fleet] (St. Petersburg: Press of the Naval Ministry, 1907), 5.

from clear that he intended to fight the Japanese in a war. In 1900, his cousin, Grand Duke Alexander Mikhailovich, chairing a committee designed for the purpose of acquiring more concessions in Manchuria, asked him, “Do we want to have a war with Japan? If we do, then we should immediately begin building the second track of the Trans-Siberian Railway, concentrating our troops in Eastern Siberia and launching a large number of modern battleships.” As Nicholas did not take any of the suggestions the Grand Duke suggested, the answer to that question would appear to have been ‘No,’ at least at that time. However, that same committee just a year later recommended pressing the Chinese, in the throes of the Boxer Rebellion, into surrendering not only additional concessions in Manchuria, but Korea as well. The Grand Duke resigned from the committee in protest.³⁹

Grand Duke Alexander Mikhailovich was at the forefront of those individuals who favored extensive naval reforms even prior to the confrontation with Japan. Unusually for a member of the Imperial family, who typically sought service in one of the Guards regiments of the army, the Grand Duke wanted a career as a naval officer. He attributed this desire to a Lieutenant Zelenyi, whom the Grand Duke met when he was ten years old. The lieutenant was one of the impressionable Grand Duke’s tutors, and he had described the navy as “a glamorous adventure.” The Emperor at that time, Alexander III, approved of the Grand Duke’s decision to enter the navy, as he had embarked on a program of expanding the navy and considered it an important symbol to have a member of the Imperial family serving with the fleet.⁴⁰

Alexander Mikhailovich entered the naval academy in 1881, studying a variety of topics, from astronomy to shipbuilding to political economy to the relatively new field of torpedo

³⁹ A. M. Romanov, *Once a Grand Duke*, 207.

⁴⁰ *Ibid.*, 78, 80. Quote is from page 80.

warfare. As a Romanov, he was kept apart from other students, even receiving his own accommodations during training cruises, a highly unusual practice. In all of his exams, he received the highest possible score, except for one: shipbuilding, in which he received the second best possible score. As he recalled it in the 1930s, “Up to this day I cannot see any sense in trying to make engineers out of sailors, for which reason my next-to-best mark received at that particular examination failed to cause me any anguish.” He graduated four years later and received the rank of *michman*. He was immediately assigned to the prestigious Guards equipage.⁴¹

The equipage system is worth discussing at some length, as it was unique to Russia in this period. At its core, the system organized sailors, when not actively serving on ships, into groups called “equipages” (*ekipazh* in Russian).⁴² One equipage was typically either the crew of one large ship (a battleship or cruiser) or a division of smaller ships (destroyers or submarines). While they were not actively serving at sea, they lived together in barracks on shore and functioned like a regular army unit. The practice originated due to the climate of the Baltic Sea, which prevented sailing for about four months out of the year because the Gulf of Finland was frozen over, perhaps even a significant portion of the eastern Baltic itself. While the practice was also sensible for the Pacific Fleet at Vladivostok for the same reason, it was purely for the sake of tradition that the system continued to operate in the Black Sea. Another part of that tradition was that the officers usually lived apart from their men, either in their own homes or among their

⁴¹ A. M. Romanov, *Once a Grand Duke*, 81–82, 86–87; Kuroyedov, VMES, 31–32. Quote is from 86–87 of Romanov.

⁴² The specific term is *flotiskii ekipazh*. Somewhat confusingly, the word *ekipazh* was occasionally used to refer to a ship’s active crew, instead of the more common *komand*. In this work, *ekipazh* only refers to *flotiskii ekipazh* unless otherwise noted.

social peers.⁴³ What made this latter practice odious was that in other countries, where there was no system of equipage, sailors could also live at home or wherever else they chose when they were not actually serving. In Russia, only the officers had that privilege. The equipage system contributed to a feeling of isolation among individual sailors, both from their superiors and from their community, which in turn bred resentment against naval tradition.

This system, of course, did not affect the Grand Duke's naval career, as he was both an officer and a Romanov. Upon his graduation, he went on a trip around the world on the corvette "Rynda," which lasted from 1886 to 1889. He followed that up by going from St. Petersburg to India on his personal yacht, the "Tamara," from 1890 to 1891. Alexander Mikhailovich's first naval command was the French-built destroyer *Revel* from 1892 to 1894, known as "destroyer no. 6" while he was in command. His destroyer was part of a contingent that traveled to the United States as part of the 400th anniversary of the discovery of America by Christopher Columbus, a high honor for a young officer.⁴⁴ Despite his youth, Alexander Mikhailovich was among the most important individuals in Russian Imperial Navy, in large part to his high status

⁴³ Kuroyedov, *VMES*, 929; M. Georgievskii, "Chto nuzhno flotu [What does the fleet need?]", *Morskoi sbornik* 334, no. 5 (May 1906), 86. All citations for *Morskoi sbornik* are from the unofficial section of the journal unless specifically noted otherwise.

⁴⁴ V. D. Dotsenko, ed., *Slovar biograficheskii morskoi* [Naval biographical dictionary] (St. Petersburg: Izdatelstvo "Logos", 2000), 14. "Aleksandr Mikhailovich, velikii knyaz," *Brokgauz and Efron*, <http://www.vehi.net/brokgauz/all/001/1921.shtml>, accessed September 14, 2014; "Minonosets 'Revel' [destroyer 'Revel']", *Nash flot* [our fleet], <http://www.nashflot.ru/page/imperia/revel%20%20/3>, accessed September 14, 2014; The trip that Alexander Mikhailovich made with his brother Sergei is detailed in the book G. I. Radde, *23,000 mil na yakhte 'Tamara': puteshestvie Ikh Imperatorskikh Vysochestv velikikh knyazei Aleksandra i Sergiya Mikhailovichei v 1890–1891 gg.* [23,000 miles on the yacht 'Tamara': the travels of Their Imperial Highnesses Alexander and Sergei Mikhailovich in 1890–1891] (St. Petersburg: Press of Eduard Goppe, 1892–1893).

in Russian society as a member of the Imperial family, as well as his close personal connection to the Emperor.

The relationship between Nicholas II and Grand Duke Alexander Mikhailovich offered an opportunity for those who wished to challenge the *status quo* under the General Admiral Grand Duke Alexei Alexandrovich. Since “Nicky” (Nicholas II) and “Sandro” (Alexander Mikhailovich) were quite close, due in large part to their proximity in age and Alexander Mikhailovich’s marriage to Nicholas II’s sister, this avenue was the only one open to anybody dissatisfied with the General Admiral’s leadership, because only the Emperor had the authority to overrule the General Admiral. The families of the Grand Dukes had been fighting ever since the tragedy at Khodynskii Field, when during the coronation celebrations for Nicholas II, over 1000 people were trampled to death and many more injured in a rush to receive the best gifts from the new Emperor.⁴⁵ As for his views on naval policy, Alexander Mikhailovich was a proponent of the latest naval technologies and had several reference books on foreign fleets translated into Russian and published. Alexander Mikhailovich was also a firm believer in the threat that Japan posed to the Russian Empire, writing: “The chief task of our fleet in the Far

⁴⁵ The official report deemed the Governor-General of Moscow, Grand Duke Sergei Alexandrovich (Alexei’s brother), to be at fault for having insufficient numbers of police present. However, pressure from the other Grand Dukes convinced Nicholas II to reconsider. Only Alexander Mikhailovich and his father, Grand Duke Michael Nikolayevich (the youngest son of Nicholas I) openly tried to have Sergei Alexandrovich replaced, and Alexei Alexandrovich’s response was that the “Mikhailovichi [that is, “the sons of Mikhail,” or “Michael” in English] are play[ing] to the radical grandstand. They are openly siding with the revolution. They are trying to get the Moscow governorship for one of their own.” (Romanov, *Once a Grand Duke*, 172.) See Lieven, *Nicholas II*, 69; A. M. Romanov, *Once a Grand Duke*, 172; “Memories of Alexei Volkov,” *Alexander Palace*, <http://www.alexanderpalace.org/volkov/4.html>, accessed September 14, 2014.

Alexander Mikhailovich gives a figure of 5000 dead; Alexei Volkov, who was a valet to the Empress Alexandra, gives a figure of 2000.

East will be the extermination of the Japanese navy.” The young Grand Duke was so obsessed with the Japanese that he and his friends ran private naval war games, some of which were adopted for use at the Russian Naval Academy.⁴⁶ It was these attitudes that convinced Alexander Mikhailovich of the urgent need for a powerful Pacific or Far Eastern fleet, in which he was opposed by the General Admiral.

Grand Duke Alexander Mikhailovich did not have a high personal opinion of Alexei Alexandrovich or his naval capabilities, which made the younger Grand Duke even more determined to challenge the General Admiral. In the memoirs of Alexander Mikhailovich, he wrote:

[Alexei Alexandrovich’s] knowledge of naval affairs could not have been more limited. The very mention of the pending naval reforms brought a hostile frown on his handsome face. Not interested in anything that did not pertain to love-making, food and liquor, he invented a convenient way of staging his weekly conferences with the admirals. He invited them to dinner in his palace, and after the Napoleon brandy would find its way into the stomachs of the appreciative guests, the host would open the naval conferences with a story going back to the antediluvian days of the sailing ships. ... His was a case of fast women and slow ships.

On one occasion, Alexander Mikhailovich tried to appeal directly to his imperial cousin for support on naval reform, specifically to build up the Pacific Fleet. Nicholas replied, “It sounds awfully good, Sandro, but I know Uncle Alexis. He will be acting up terribly. Everybody in the palace will be certain to hear his voice.” Alexander Mikhailovich’s somewhat incredulous

⁴⁶ Nunes, “Evolution of the Russian Imperial Navy,” 78-80. The quote is from 78.

response was "Great guns, Nicky, you are the Czar [*sic*]. You can do whatever you feel is necessary for the protection of our national interests!"⁴⁷

On another occasion in 1896, Alexander Mikhailovich openly proposed to Nicholas II that a large Pacific battle fleet was necessary for Russia's survival. The Emperor ordered the Grand Duke to formally write up his proposal and distribute it to the senior admirals of the navy. The General Admiral, among others, threatened to resign if such a plan were ever implemented, and Nicholas gave his cousin Sandro a choice: he could either resign or accept the command of the battleship *Nicholas I*, which was based in China (and thus far away from St. Petersburg and the ear of the Emperor). The Grand Duke called this offer, disingenuously, "demeaning" in his memoirs. However, given that he had never commanded anything larger than a destroyer before, it would have actually been quite a promotion. Most likely, the Grand Duke was more upset about losing his ability to influence the Emperor than he was pleased at the clear advancement of his naval career. He chose to resign. In 1899, Alexander Mikhailovich returned, only to have the General Admiral remark, "So, that Caucasian rebel, that troublemaker Sandro has finally understood his mistake."⁴⁸

Up until the beginning of hostilities with Japan, Alexander Mikhailovich never gave up trying to reform, and he continued to advance in his career despite Alexei Alexandrovich's

⁴⁷ A. M. Romanov, *Once a Grand Duke*, 138–39 and 175. The quote is on 138–39.

⁴⁸ According to his memoirs, he resigned, which is confirmed by Brokgauz and Efron (which does not give him an assignment for the years 1896 to 1898), *VMES* extends his 1895 post (as executive officer on the battleship *Sisoi Velikii*) through the year 1898. It is possible that he continued to hold the position in name only before his return. A.M. Romanov, *Once a Grand Duke*, 202–03, 205; "Aleksandr Mikhailovich, velikii knyaz," *Brokgauz and Efron*, <http://www.vehi.net/brokgauz/all/001/1921.shtml>, accessed September 14, 2014; Kuroyedov, *VMES*, 31.

Quote is from page 205 of Romanov. The Grand Duke Alexander Mikhailovich was born in Tiflis (modern day Tbilisi), Georgia, which is where the snide remark comes from.

occasional opposition. His first assignment upon his return was as executive officer of the coastal defense battleship *General Admiral Apraksin*. In 1900, he was promoted to captain first rank and commanded the battleship *Rostislav*, based in the Black Sea. He held the appointment concurrently with being named Minister of the Merchant Marine in 1902, when he was promoted to rear admiral. Upon this promotion, the Grand Duke had a confrontation with the Finance Minister, Witte. In the past, commercial sea traffic had belonged to the Ministry of Finance, so the creation of the new Ministry reduced the power of the Ministry of Finance. A popular newspaper had the headline “Grand Duke Alexander Mikhailovich has taken away Witte's pants;” the word *portki* in Russian can either mean “ports” or, colloquially “pants.” The Grand Duke tried, one final time, to use his influence to have the fleet greatly expanded, and even found a way to do it. He wanted to have the Russian government found and operate an oil company, based in Baku, and use some of the profits to build up the fleet. Instead, the Cabinet of Ministers voted him down and sold controlling interest in the company to a group of Armenians.⁴⁹

After his failure to start a government-controlled oil company, Alexander Mikhailovich's efforts to seek an expansion of the Russian battle fleet stopped. He contributed in a number of other ways, but he abandoned the battle with Alexei Alexandrovich. Debates are a natural and healthy part of any discussion of defense spending or procurement. However, what proceeded between the two Grand Dukes was not a debate. Alexei Alexandrovich either ignored Alexander Mikhailovich or used his superior influence with Nicholas II to have the younger Grand Duke's proposals quashed. At no point did Alexei Alexandrovich actually engage in a conversation, whether in person or in writing, with Alexander Mikhailovich. Instead, the General Admiral devoted his energy to neutralizing all opposition to his vision of the fleet and charming the

⁴⁹ Kuroyedov, *VMES*, 31; A. M. Romanov, *Once a Grand Duke*, 206, 208–10. Quote is from Romanov, 208–09.

Emperor and other government officials. The “1885 system” simply formalized the complete level of control he already possessed informally. With the younger Grand Duke’s influence effectively neutralized, the General Admiral had the ability to dictate any further expansion of the fleet in the manner he thought best, with little disagreement or debate. As a result, the 1898 building program was decided upon almost entirely by the General Admiral or those he directly appointed to the task.

The 1898 supplement and foreign technology prior to the war

Prior to the 1898 supplemental building program, Russia had made some use of foreign technology in its fleet, establishing a clear tradition of modernizing the fleet with foreign assistance. Two British citizens, purchasing agent Matthew Carr and naval architect Mark MacPherson, founded the Baltic Shipyard in 1856, which still builds ships for the present-day Russian Federation. The company Cockerill, based in Seraing, Belgium, built ironclads for the Russian Empire, although they were all stricken in 1900. Even more ironclads, which had been built in the 1860s and 1870s, were not stricken until after the Russo-Japanese War, and many of those were built with the assistance of a British engineer, Charles Mitchell.⁵⁰ Mitchell’s experience helps to illustrate the challenges that awaited foreign firms trying to do business with the Russian Empire.

Mitchell’s first direct encounters with the Russian Empire began with his own private company, Mitchell & Co., based in Low Walker, a suburb of Newcastle on the Tyne. In thirty years (1852–1882), Mitchell & Co. constructed 450 ships. While it is unknown precisely how

⁵⁰ “Istoriya zavoda,” [The history of the shipyard] <http://www.bz.ru/about/history/>, accessed January 29, 2016; Gardiner, *All the World’s Fighting Ships I*, 175. In a naval context, “stricken” means mothballed. The vessels in question were not scrapped, but active maintenance was not carried out on them either.

many of those ships Russia purchased, historian David Saunders suggests that seventy of them had “recognizably Russian names.” However, all of those were commercial vessels, at least ostensibly. In point of fact, many of these ships began life as commercial vessels and sold to a newly founded private corporation in the Black Sea. Russia was legally forbidden from building warships on the Black Sea because of the 1856 Treaty of Paris, but simple conversions of commercial steamships into warships provided a way around that particular agreement.⁵¹

Russia’s first purpose-built ironclad warship, aptly named the *Pervenets* (or “the firstborn”), was commissioned in 1860 from the Thames Iron Works and completed in 1864. However, the General Admiral at the time, Constantine Nikolayevich (Alexander II’s brother), was deeply disappointed that Russia lacked the capability to produce such ships of its own. This deficiency became even more pronounced as a result of Russian’s repression of the 1863 uprising in Poland. The subsequent worsening of relations between the Russian and British Empires was so severe that the unfinished *Pervenets* was actually towed from England to Russia and completed in Russia, for fear of the British impounding it.⁵² Any modernization of a shipyard to make it capable of building ironclads, or even vessels with a solid iron hull, required foreign technological assistance, and Mitchell’s long-standing business relationship with Russia provided him a unique opportunity to get the contract to build such a shipyard.

Mitchell’s task was somewhat complicated by the strict conditions imposed upon him by the Naval Ministry. Apart from an initial payment, Mitchell would receive no money until a formal contract was signed; he had to provide a number of English-made machine tools at his

⁵¹ David Saunders, “Charles Mitchell, Tyneside, and Russia’s first ironclads,” [hereafter “Russia’s first ironclads,”] *Northern History* 48, no. 1 (March 2011), 75–76, 79–80.

⁵² Gardiner, *All the World’s Fighting Ships I*, 174 and Saunders, “Russia’s first ironclads,” 80–81.

own expense, which would become Russian property; and apart from that specific list of tools, any and all technology imported by Mitchell also became property of the Russian government. Mitchell's new shipyard on Galernyi Island built two ships for Russia – the *Ne tron menya* and *Smerch* – but had difficulty getting additional contracts. His difficulties arose from competition from other shipyards, including other foreign yards as well as newly constructed Russian yards. The Naval Technical Committee, which had supervisory authority to approve or reject any foreign contracts before construction could begin, objected to his new designs for a variety of reasons. Chief among them were the lightness of French vessels (as opposed to vessels of British construction), the weakness of the engines he was to install, and insufficient space for the armaments Mitchell proposed to install.⁵³

Even with these difficulties, Mitchell still built three more warships for Russia prior to autumn of 1867. By that time, Russia was able to produce its own ironclads. An 1866 decree by Alexander II placed a ban on all future military orders from foreigners, a measure designed to protect and develop Russian domestic industries. Mitchell could not build complete vessels for the Russian government himself, as he lacked the ability to manufacture naval artillery. Mitchell returned to England at the end of 1867 and continued to produce commercial vessels for Russia until his merger with Armstrong in 1882. The partnership was profitable for Mitchell and beneficial for Russia, allowing Russians to gain practical experience at his yard in building ironclads. Some of the ironclads built by Mitchell and his shipyard fought in the Russo-Turkish War, to varying degrees of success.⁵⁴

⁵³ Saunders, "Russia's first ironclads," 82, 90.

⁵⁴ Saunders, "Russia's first ironclads," 91–95; Jack Greene and Alessandro Massignani, *Ironclads at War: The Origin and Development of the Armored Warship, 1854–1892* (Boston: Da Capo Press, 1998), 351–72. See also Jacob W. Kipp, "The Russian Navy and the Problem of Technological Transfer," in Ben Eklof, John Bushnell, and

The pattern that the Russian Empire established with Mitchell continued through the fall of the Empire in 1917. When a new technology appeared in a foreign country, Russia tried to either license the technology directly or entice foreigners to build manufacturing plants in Russia. Then, once domestic industry could take up the slack in producing the new technology, foreigners faced more and more difficulty acquiring contracts, until Russian shipyards ultimately drove them out. After Mitchell's departure for England in 1867, Russian firms built all of Russia's capital ships (that is, battleships, in this period) prior to the 1898 supplemental building program. The largest ship constructed in a foreign shipyard from 1867 to 1898 was the *Admiral Kornilov*, a protected cruiser of just under 6000 tons. Over time, however, the practice of licensing technology became less and less successful (partially because of foreign opposition) and especially under Nicholas II and General Admiral Alexei Alexandrovich, foreign warships were pursued not as an end to modernizing Russian shipyards and shipbuilding techniques, but as a way to supplement the fleet in the short term.⁵⁵

Two significant events forced a dramatic reevaluation of Russian foreign policy and, thus, its naval policy. The first of these was the Franco-Russian Alliance of 1894.⁵⁶ This alliance turned the second-ranked naval power into a friend. The presence of a partner in Europe improved Russian security there and allowed the Russian Empire the opportunity to expand in Asia and the Far East. The second major event was the accession of Nicholas II to the throne, who brought along with him his Asian orientation on foreign policy. After 1895, Russia had both

Larissa Zakaharova, eds., *Russia's Great Reforms, 1855–1881* (Bloomington, IN: Indiana University Press, 1994), 125–132

⁵⁵ Gardiner, *All the World's Fighting Ships I*, 193.

⁵⁶ One of the best works on this alliance remains George F. Kennan, *The Fateful Alliance: France, Russia, and the Coming of the First World War* (New York: Pantheon Books, 1984.)

the capability (or at least thought it did) and the desire to expand at the expense of China and Japan. A key step along that road was the acquisition of Port Arthur and the creation of the Port Arthur-based First Pacific Squadron.

One of the first voices who argued for an expansion of Russia's naval presence in the Pacific was Grand Duke Alexander Mikhailovich. In a report published in 1896, the Grand Duke opined, "Whatever forces Russia might have in the Baltic Sea against Germany, the fate of a war between these states will always be decided only on land."⁵⁷ In contrast, however, for Russia to have any sort of sustained success against Japan in the Far East, a powerful offensive navy was vital. Because the shipbuilding facilities in Vladivostok were incapable of building large ships, the only way to give Russia that powerful Pacific fleet was to build ships in the Baltic and Black Seas and transfer them to the Far East. With a substantial portion of Russia's shipbuilding industry still working on the 1885 program, the navy turned to foreign shipyards to pick up the slack.

The organization that led the way in acquiring foreign technology was a product of the 1885 system: the *Glavnoe upravlenie korablestroeniya i snabzheniya*, the Chief Directorate for Shipbuilding and Provisioning, which is most commonly known by its Russian acronym, GUKIS. As the name implies, GUKIS was responsible for all aspects of shipbuilding, including the day-to-day administration of Russia's government-owned shipyards, as well as logistical support. Another part of the naval bureaucracy, the *Morskoi tekhnicheskii komitet* (MTK), or Naval Technical Committee, was responsible for the design and testing of new technology, and

⁵⁷ Quoted in Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 272.

occasionally held contests to award contracts among various bidders, domestic and foreign.⁵⁸

However, the specific relationship between the two organs was often nebulous. Some companies were able to evade the entire competitive process by simply sending proposals directly to GUKIS or the Department of Construction of GUKIS, or on occasion, to the Emperor himself.

An example of a corporation applying directly to the Emperor was the German firm Krupp, based in Essen. Krupp's relationship with the Russian Empire began in the 1830s and 1840s, when Alfred Krupp, then the head of the factory, sold steel, steam-powered hammers, and other basic industrial goods to Russia. Krupp began selling artillery to Russia in the 1850s. William Manchester notes that Nicholas I was among the very best clients of Krupp's early efforts to sell artillery, even when the Prussian government would not buy from them. Alexander II continued his predecessor's policy to purchase from Krupp, even decorating Alfred Krupp when the industrialist gifted a 14" gun to Russia in 1868. During the Russo-Turkish War of 1877–1878, Krupp refused to sell guns to the Ottoman Empire (another excellent and longstanding client) out of respect for Russia's purchase history.⁵⁹ Yet, when it came time for Nicholas II to continue Russia's relationship with the German firm, it was not artillery he sought, but armor.

Armor made with Krupp steel, an alloy of nickel and chromium which was augmented with their special proprietary process of hardening, was the best in the world. Russian naval engineers, upon testing 10" Krupp plates for the first time, were amazed at how effective they were. Under normal conditions, a standard 10" armor plate of the period could stop any 8" shell,

⁵⁸ The MTK absorbed the functions of the old Department of Shipbuilding Technology in 1867; prior to that, it was purely a panel of specialists. Nazarenko, *Morskoe ministerstvo*, 21, 27.

⁵⁹ William Manchester, *The Arms of Krupp, 1587–1968* (Boston: Little, Brown, and Company, 1968), 47, 56, 69–70, 76, 105, 176.

without an armor-piercing tip, with a maximum velocity of 1091 feet per second. A Krupp steel plate of the same thickness could stop the same shell with a maximum velocity of 2487 feet per second. Even more impressive, a 6” shell could not pierce a 10” Krupp plate even at point blank range, and Krupp armor could withstand a blow from a 12” shell at three nautical miles, which would be a medium-ranged shot for a 12” gun of the day. These extensive tests of Krupp armor proved the quality of the product, and the Russian Empire entered into a long-term contract with Krupp to purchase their armor. The length of the contract was from 13 May 1898 to 13 May 1910. Russia had to buy a minimum of 600,000 rubles of armor within the first six years, which would lock in a rate of 1.64 rubles per pood for all future purchases for the length of the contract.⁶⁰ This deal was the only one that Nicholas II formally approved personally prior to the Russo-Japanese War, giving some measure of its importance to the Russian navy.⁶¹

In addition to acquiring armor plate from Krupp, GUKIS ordered a number of ships from shipyards, foreign and domestic, as part of the new shipbuilding program of 1898, entitled “For the needs of the Far East.” The complete program was to add seven battleships, seven armored cruisers, and eighteen cruisers which were either protected cruisers or entirely unarmored.⁶² In addition to the existing ships scheduled for transfer to Port Arthur and Vladivostok, these new

⁶⁰ A pood is equivalent to 16.8 kg or about 37 pounds. Therefore, the minimum purchase weight of armor turns out to be approximately 18,204 tons.

⁶¹ “Foreign orders produced in 1909,” Rossiiskii Gosudarstvennyi Arkhiv Voenno-morskogo Flota [Russian State Archive of the Navy, hereafter RGAVMF], f. 427, o. 1, d. 2042, l. 211; S. O. Makarov, *Bronenostsy ili bezbronnye suda?* [Battleships or unarmored vessels?] (St. Petersburg: Press of the Naval Ministry, 1905), 12, 17. A nautical mile is longer than a standard mile: 6076 feet as opposed to 5280 feet. Three nautical miles, therefore, is about 3.5 standard miles. Vice Admiral Makarov considered medium range for a 12” gun to be 24 cable lengths (or 2.4 nautical miles) and long range to be 42 cable lengths (or 4.2 nautical miles).

⁶² Protected cruisers, unlikely fully armored cruisers, had armor plating along the waterline only; armored cruisers armored the entire hull.

ships would give Russia a Pacific squadron of ten total battleships; every armored cruiser Russia possessed (a total of ten, according to *Conway's*); twenty “scout-cruisers;” either one or two floating workshops; two minelayers; and 36 torpedo boats. If all of these ships were completed on schedule, the result would be giving Russia a Pacific squadron 30% larger than the Japanese fleet. Such a shipbuilding program, combined with the 1882/5 program that was still in effect, simply could not have been completed on time without the assistance of foreign shipyards. The ships ordered from foreign yards included two battleships, the *Retvizan* and *Tsesarevich*; an armored cruiser, *Bayan*; five protected cruisers (*Varyag*, *Askold*, *Bogatyr*, *Novik*, and *Boyarin*); ten destroyers; and several torpedo boats. The battleships and cruisers came from France, the United States, Germany, and Denmark, whereas Denmark, Germany and the United Kingdom provided most of the destroyers and torpedo boats.⁶³

Two shipyards built four of the most significant ships. Philadelphia-based William Cramp and Sons built the battleship *Retvizan* and the cruiser *Varyag*, while the French company Société Nouvelle des Forges et Chantiers de la Méditerranée (or FCM), based in La Seyne, built the battleship *Tsesarevich* and the cruiser *Bayan*. The construction process of these ships is worth investigating because all four vessels not only served in the Russo-Japanese War, but World War I as well. In addition, important Russian officials (including the General Admiral) permitted both shipyards to circumvent the normal process of receiving contracts from the Russian government. Cramp did so intentionally, by appealing to business connections within the Russian navy; FCM did so unintentionally, as the General Admiral's personal preference enabled them to win their contracts.

⁶³ Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 275–76; Gardiner, *All the World's Fighting Ships I*, 183, 186–90, 195–97, 202–09.

Charles H. Cramp began working in his uncle's shipyard immediately after his graduation from high school and moved on to his father's shipyard in 1846, at the age of nineteen. His first practical experience in military shipbuilding came with his assistance in designing the landing craft used by General Winfield Scott at Vera Cruz during the Mexican-American War. Charles inherited the company from his father, William, in 1879, and played a key role in building the fleet that won the Spanish-American War. However, Charles Cramp was not content with dominating American naval shipbuilding: he had bigger dreams than that. According to his biographer, Cramp remarked after visiting Sir William Armstrong's shipyard in Elswick, "Armstrong and his establishment had ceased to be ship-builders in the ordinary acceptation of the term and had become navy-builders. They do not trouble themselves with isolated ships; to all intents and purposes they undertake to build whole navies in bulk for ambitious maritime states in South American and Asia." In fact, only two navies had never purchased a ship constructed by Armstrong: Russia and France.⁶⁴ Cramp, seeking a global industrial Empire of his own, immediately sought to tap the Russian market.

Cramp was extremely well positioned to take advantage of the Russian market. His shipyard had already sold ships to Russia in 1878–1879, conversions of merchant steamers into warships. The Russian delegation to his company was extremely impressive, headed by the General Admiral Constantine Nikolayevich, a future naval minister (F. K. Avelan), the future

⁶⁴ Ian Charlton, "Cramp Shipyard – A Community Organization and a Community Institution," <http://www.philaplace.org/story/710/>, accessed November 20, 2014; Augustus C. Buell, *The Memoirs of Charles H. Cramp* (Philadelphia: J. B. Lippincott Company, 1906), 47–49, 208. Quote is from page 208. According to Stephen McLaughlin, Cramp's shipyard built four of the battleships and seven of the cruisers in the Spanish-American War, more than any other single shipyard. See Stephen McLaughlin, "The *Retvizan*: An American battleship for the Tsar" in *Warship 2000–2001*, ed. Antony Preston (London: Conway Maritime Press, 2000), 49.

Viceroy of the Far East (E. I. Alekseyev) and even a future head of the Department of Construction for GUKIS (A. P. Rodionov). They returned to Russia, satisfied with the work of Cramp, and provided Cramp with excellent connections when the time was ripe to expand the Russian fleet.⁶⁵ That opportunity came with the new shipbuilding program of 1897–98.

Cramp actually learned about the opportunity from some European contacts. Theodore Seligman, a board member of the Belgian firm Cockerill, informed Cramp of a very lucrative proposal to Cockerill for the construction of a complete shipyard in the Far East. The deal was valued at 30 million francs. Cramp used Seligman as an intermediary to probe for further details about precisely what Russia was looking for in the expansion of its navy. Cramp submitted a proposal based on the USS *Iowa*; the MTK countered with a design based on the *Peresvet*-class of Russian battleships. McLaughlin emphasizes how quickly he had to respond, noting that in addition to competition from French shipyards (which were preferred by certain officers within GUKIS), the Italian shipyard of Ansaldo and Russia's old partner Krupp were also in the running. Cramp's connections, particularly with Avelan, and his physical presence in St. Petersburg during the negotiations, gave him the edge. The result was a contract to construct two vessels – a battleship and a cruiser – worth a total of \$6,498,000. The General Admiral, Grand Duke Alexei Alexandrovich, approved the contract for the government only nine days after it was originally agreed upon.⁶⁶

⁶⁵ The vessels never saw service in wartime. Cramp himself indicated that Russia was very pleased with the ships, and that one of the cruisers, the *Aziia*, became Grand Duke Alexei Alexandrovich's personal yacht. However, *Conway's* dismisses the ships as actual fighting ships, because the engines were not well armored and in fact were above the waterline, making for an excellent target in combat. Buell, *Memoirs of Charles H. Cramp*, 211, 222–24; Gardiner, *All the World's Fighting Ships I*, 192.

⁶⁶ Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 323.

With the contract signed, all that remained was to work out some technical debates in the construction of both the *Retvizan* and the *Varyag*. As was the general practice at the time, an oversight committee traveled to the shipyard from Russia, with the task of inspecting the vessel during various stages of its construction, approving or rejecting last minute changes to the design, and clarifying any other technical, economic, or legal questions the shipyard had. Settling the final technical specifications was fairly easy in the case of the *Retvizan*: there were some concerns about the specific type of steel to be used in the ship's hull, but that was the only major dispute unique to the *Retvizan*. The design process for the *Varyag* was much more controversial: according to a 2005 article by Vice Admiral Yu. Mikhailov, Cramp insisted upon a lower caliber for the main guns (6" as opposed to the original design requested by MTK), the removal of armored shields for the deck guns, and a smaller rudder blade ("allegedly for the setting of a speed record").⁶⁷ While Mikhailov does not explain why these changes were insisted upon, most likely they were either in an effort to reduce weight or save money, if not both. There was one significant decision common to both ships that made a huge impact on their combat-worthiness: the boilers.

The Russians, as a rule, preferred to use French Belleville boilers in all of their ships. Cramp insisted upon another model of French boiler, the Niclausse system. MTK had actually rated the Niclausse system as "dangerous," and had only ever used it on one vessel previously,

⁶⁷ Mikhailov claims the final price paid for the *Varyag* was double the contracted price, but Melnikov only suggests the increase is \$156,459 – a substantial sum, but hardly double the original price. Mikhailov also insists that the original MTK design was for a cruiser with 12" guns; whether he had the cruiser and battleship confused is unclear, but he is almost certainly incorrect. He provides no sources in his article, so there is no way to verify his evidence. McLaughlin, "The *Retvizan*," 54; Mikhailov, "Predposylki dlya porazheniya," 73; Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 326. Quote is from the Mikhailov article.

the *Khabry*, a gunboat. The Niclausse boilers typically reached pressures of up to 15.4 atmospheres, but the normal safety limit for boilers of the period was 14 atmospheres. This reluctance later proved justified, as the example of the *Varyag* demonstrates. On the *Varyag*, using the Niclausse boilers for three years for light duty in peacetime had done irreparable damage and permanently lowered the vessel's maximum speed, even if the boilers were all replaced with the preferred Belleville model. In conjunction with the other changes, in particular the decision to have no shields on the gunnery stations, the Niclausse boilers effectively crippled the *Varyag* as a warship. *Varyag* also experienced higher than normal casualties in combat due to the lack of speed and lack of protection. According to Adam Smigelski, "It was found, during [*Varyag*'s] action with the Japanese, that the crew casualty rate was very high due to half their number having battle stations in unprotected positions." The *Retvizan* did experience a boiler accident during its initial voyage to Russia, but the battleship fared far better with the boiler system than the cruiser did, and suffered no significant loss of speed. In fact, it was able to generate significantly more horsepower than the originally contracted design as a result of the new boilers. All the same, the experiences of the *Varyag* and the USS *Maine*, which had the same boilers, ensured that Niclausse boilers were no longer used in any navy by the beginning of World War I, not even the French navy.⁶⁸

The Russian initial reluctance to use the Niclausse boilers obviously seems wise in light of the problems experienced with their usage. However, Cramp had considerable leverage during the construction process, due to the hurried nature of the process, and was able to insist on their

⁶⁸ McLaughlin, "The *Retvizan*," 52, 59; Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 325, 328; Mikhailov, "Predposylki dlya porazheniya," 73; Adam Smigelski, "Imperial Russian Navy Cruiser *Varyag*" in *Warship Volume III*, ed. John Roberts (London: Conway Maritime Press, 1979), 166. Quote is from Smigelski, 166.

usage. The Philadelphia shipbuilder phrased his argument for the Niclausse boiler as a way of evading a “monopoly” in the Russian navy. If Russia relied too heavily on a single type of boiler, they would miss out on other models which might be more experimental and thus provide better service. Something Cramp’s biographer did not note was that Cramp was also the American agent for Niclausse, which meant he would receive a finder’s fee for using their boilers.⁶⁹ The Niclausse boilers did, in fact, provide a very high top speed and range compared to their actual horsepower, proving that they did have some technical merit, as seen in Table 1.4.

⁶⁹ Buell, *Memoirs of Charles H. Cramp*, 260; McLaughlin, “The *Retvizan*,” 52.

Table 1.3. Comparison of first rank cruisers in the Russian navy through the beginning of the twentieth century⁷⁰

Name of ship or class⁷¹	<i>Ryurik</i>	<i>Rossiia</i>	<i>Pallada</i>	<i>Askold</i>	<i>Bayan</i>	<i>Bogatyr</i>	<i>Varyag</i>	<i>Vityaz</i>
Actual displacement (tons)	11,690	12,580	7081	5950	7330	7428	7100	6675
Engine capacity (horsepower)	13,588	17,680	13,108	20,430	16,500	20,370	14,158	19,500
Speed during builder's trials (knots)	18.8	19.74	19.3	23.4	20.9	23.55	23.18	23
Range (nautical miles)	6700	7740	4000	4300	3900	4900	6100	4900

As the data shows, *Varyag* had a higher top speed than every vessel, except *Askold* and *Bogatyr*; a range better than any other vessel of its size; and achieved these feats with the lowest horsepower of any ship its size. Melnikov points out a secondary benefit of using Niclausse boilers: “the adoption of the Niclausse boilers opened the way for the appearance of other water-tube boilers [in the Russian fleet].”⁷² It is certainly possible that the specific boilers installed on *Varyag* were either faulty or not up to specifications, which would explain why the cruiser experienced such horrific problems with them, in comparison to *Retvizan*. Regardless of the cause, Cramp was able to use his ability to circumvent the normal competition process to secure

⁷⁰ Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 346–47.

⁷¹ There were two ships in the *Rossiia*-class and three in the *Pallada* and *Vityaz*-classes. The others are all single ships.

⁷² Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 326.

additional concessions from GUKIS, including using an experimental type of boiler. France's FCM did not have that luxury of a lack of competition, which ultimately resulted in superior vessels.

FCM's most important advantage in the construction of the *Tsesarevich* and the *Bayan* was time. FCM had 42 months to complete the battleship *Tsesarevich*; Cramp only had 30 for the *Retvizan*. Cramp was eager, perhaps overeager, to get the contracts and was forced to deal with an artificially shortened design term. FCM had no such restrictions, because it was at least initially subject to the standard competition process and because it was an established firm with a proven reputation, at least with regard to producing ships for Russia. For the competition to build the battleship, the state-owned Baltic Yard produced four of their own ship designs, based on the *Peresvet*-class, submitting them for review on May 15, 1898. Antoine-Jean Amable Lagane, the director of FCM, had actually proposed his design a day earlier. What Lagane and the Baltic Yard were competing for was nothing less than the prototype for an entire class of battleships, unlike the *Retvizan*, which was always going to be a single ship.⁷³

Like Cramp, Lagane was able to make his case in person. Since March 1897, he had been in St. Petersburg on numerous occasions trying to negotiate a contract for an armored cruiser, the future *Bayan*. MTK reviewed his design and the Russian designs, and the Administrator of the Naval Ministry, Vice Admiral P. P. Tyrtov, recommended that some changes were needed in Lagane's proposal. Specifically, the Vice Admiral insisted upon Krupp armor (which was not used for *Retvizan*). However, the French design was clearly winning the competition, with

⁷³ Stephen McLaughlin, *Russian & Soviet Battleships* (Annapolis, MD: Naval Institute Press, 2003), 130–31; Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 328. For the time allotted to the construction of the *Retvizan*, see Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 323.

Tyrtov and the MTK noting that the armoring of the submerged portion of the hull was superior to the Russian designs. The committee narrowed down the search to two designs, Lagane's and a Russian design. The General Admiral selected the French design and awarded FCM a contract to not only build one battleship for Russia in France, but to design *Tsesarevich's* sister ships for construction in Russian shipyards. The specific reason that FCM won the contract is unknown. Melnikov attributes the selection of FCM's design as purely due to Alexei Alexandrovich's inclination "to all things French." McLaughlin breaks down the decision in a little more detail, noting that some Russian writers hinted towards corruption on the part of Tyrtov and the General Admiral, but in the end concludes, "In the end, we are left with a mystery." Neither author provides the details of the rejected Russian design, so it is difficult to judge what advantages or disadvantages the French design had by way of a direct comparison. However, the underwater compartmentalization, a novelty in ship design at the time, certainly played a part in the decision making process, and there is no unmistakable or irrefutable evidence to support any indications of malfeasance on the part of anyone involved in the process.⁷⁴ Once FCM had won the contract, of course, the Russian government had plenty of incentive to make certain they were pleased.

The Naval Ministry made every effort to cater to the wishes of FCM, possibly because of Alexei Alexandrovich's influence or the alliance with France, although the specific causes are unknown. Not only did the French shipyard receive 42 months to build their battleship (which Melnikov calls a "fantastically long period"), they received the unheard-of benefit of having the 42-month period begin not from the day of the contract's signing, or even from the day the oversight committee arrived (which had been implemented for Cramp's project), but from the day the final designs were approved. Even with these favors, the construction of *Tsesarevich*

⁷⁴ Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 328–30; McLaughlin, *Russian & Soviet Battleships*, 130.

experienced numerous delays, some due to faults on the part of Russia (for example, delays in providing designs for the Russian-made guns and mounts) and some due to problems with the French labor force. The head of the oversight committee and future captain of the ship, Captain First Rank I. K. Grigorovich, castigated the French yard for “often unexplainable sluggishness, negligence, and shortages in the work force.” The vessel took 50 months to complete, eight months longer than the originally agreed-upon period, but in the end *Tsesarevich* was a very fine ship. Grigorovich wrote in his memoirs, “This battleship was one of the best in the 1st Pacific Squadron.” The new French battleship, equipped with Belleville boilers (at the insistence of the Naval Ministry), experienced none of the problems of *Retvizan* and *Varyag*, achieving a regular speed of 18.77 knots and thanks to some economizers, demonstrating excellent fuel efficiency. It did undergo some damage to its left engine on the way to the Pacific, but it was repaired quickly enough to participate in the Russo-Japanese War.⁷⁵ The Russians were similarly pleased by FCM’s other project, the *Bayan*.

Bayan, the armored cruiser built by FCM, was part of a Russian strategy to provide cruisers that were capable of engaging in combat alongside the new battleships. Because all of the Russian shipyards were occupied with domestic construction, FCM was entrusted with the construction of this new class of cruisers. The captain of the *Svetlana*, an older cruiser that was also French-built, presented a total of eight different designs for the cruisers. MTK quickly rejected all of them, including a larger version of the *Svetlana*, for various reasons, such as weak guns, insufficient protection for gunners, or a lack of armor on the sides of the ship. Eventually,

⁷⁵ Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 331, 333; McLaughlin, *Russian & Soviet Battleships*, 130, 134; I. K. Grigorovich, *Vospominaniya Byvshego Morskogo Ministra* [Memoirs of a former Naval Minister] (Kronstadt and Moscow: Morskaya Gazeta and Kuchkovo Pole, 2005), 9. First quote is from Melnikov, 331; second quote is from Grigorovich, 9.

MTK and FCM worked out a design for a cruiser that best suited Russian needs, with a displacement of at least 7000 tons, a speed of 21 knots, and a range of 7000 to 8000 nautical miles at a speed of 10 knots.⁷⁶ *Bayan*'s design was so successful that two other vessels were constructed in its class, one of which will be the subject of a section of the following chapter, the *Admiral Makarov*. All four of these ships, the *Tsesarevich*, *Retvizan*, *Bayan*, and *Varyag*, formed an integral part of the First Pacific Squadron that was stationed at Port Arthur at the beginning of the Russo-Japanese War.

The Russo-Japanese War and foreign technology

In the Russo-Japanese War, both sides relied heavily on foreign technology to make up their fleets. In the Russian case, Alexei Alexandrovich or those he trusted—rather than any significant or wide-ranging program of shipbuilding—decided which foreign powers got which of the larger contracts, leaving smaller supply contracts to GUKIS. The only clear sign of Nicholas II's involvement was the deal he struck with the German firm Krupp for armor plate. Even Russian-built ships often had significant portions of the armament, engines, or armor imported from abroad. The infamous *Avrora*, the cruiser that fired upon the Winter Palace during the October Revolution, fired upon it with guns made in France. As historian J. N. Westwood notes in his compilation of witness accounts, *Witnesses of Tsushima*, although the hulls were almost invariably made of Russian metal in Russian shipyards, the engines themselves were often imported from England or Scotland. In addition to the capital ships of foreign construction, such as the *Retvizan* and the *Tsesarevich*, twelve destroyers were built abroad: three in the United Kingdom, five in Germany, and four in France. The Japanese were even more obligated

⁷⁶ Melnikov, *Sudostroenie vo vtoroi polovine XIX v.*, 369–370.

to foreign technology in their fleet. All six of its battleships were British-built. Japan's eight armored cruisers originated in the UK, Italy, Germany, and France. Of Japan's eight protected cruisers, two were American (one of them built by Cramp's shipyard) and one was British; the rest were of Japanese origin.⁷⁷

Figure 1.1 The breech of one of the *Avrora's* guns⁷⁸



In addition to the purchases of complete warships, the Russian Empire also purchased materiel and equipment from abroad, both immediately before and during the Russo-Japanese

⁷⁷ J. N. Westwood, *Witnesses of Tsushima* (Tokyo: Sophia University, 1970), 2–3; Newton A. McCully, *The McCully Report: The Russo-Japanese War, 1904–5* (Annapolis, MD: Naval Institute Press, 1977), 90–1; Sondhaus, *Naval Warfare, 1815–1914*, 187.

⁷⁸ Author's collection.

War. GUKIS initiated most of these orders, as they tended to be small in quantity and cost, which meant that the General Admiral and other high-ranking naval officials had little to do with the process. For example, in 1903, GUKIS purchased 62 Maxim guns from Vickers, Sons, and Maxim in the United Kingdom at a cost of approximately 80,000 rubles. Other major items purchased that same year included spare drive shafts for the Russian battleships *Slava* and *Knyaz Suvorov* from France, manganese and bronze castings from a company in London, a gas motor for a torpedo boat from Daimler in Germany, all the way down to replacement tightening screws for *Tsesarevich's* 14" guns. By the end of 1904, however, big budget requests replaced those relatively minor sums. On December 17, 1904, Administrator of the Naval Ministry Vice Admiral F. K. Avelan reported to the Minister of Finance, V. N. Kokovtsov, that the Naval Ministry would need 18,000,000 francs (or approximately 6,750,000 rubles) in loans from French banks for 1905. This sum would pay for additional guns and cartridges, searchlights, eleven torpedo boats from FCM, back payments for *Tsesarevich* and *Bayan*, and torpedo boat motors, among other things. To put that sum into context, Russia had never borrowed more than 5,711,657 rubles from France in any year between 1894 and 1903.⁷⁹

In addition to extensive purchases from France, GUKIS also procured ammunition from factories in France, Austria-Hungary, and Germany. While the shells themselves were produced abroad, the armor piercing tips were invariably of Russian design. In early 1904, the Administrator of the Naval Ministry gave *carte blanche* to provide those designs to Krupp, Hotchkiss in France, and the Austrian firm Böhler Brothers and Company. The testing of shells prior to purchase was extremely extensive. They were exposed to extreme heat and then extreme

⁷⁹ "On foreign orders produced in 1903," RGAVMF, f. 427, o. 1, d. 1238, l. 49, 55, 56; Kokovtsov to Avelan and Avelan to Kokovtsov, December 17, 1904, ll. 130–132.

cold (to test for cracking), the exterior inspected very closely for blisters or deformations, examinations of the rifling of the shells to ensure evenness, and even the sound tested, when struck with a small hammer. Finally, the shells were fired at an armor plate, to test their ability to penetrate the armor without significant damage to the shell.⁸⁰ The somewhat unusual nature of Russian testing revealed many defects in the construction of shells, which varied from country to country.

While most of the tests were perfectly normal, the Russians demanded that armor-piercing shells be able to penetrate 10” Krupp steel plating at point-blank range, an incredibly high standard. The Japanese battleship *Mikasa*, their best-armored ship, only possessed 9” armor at the absolute thickest part of its armored belt, as an example. *Mikasa* did have armor on its barbets, which was thicker at 14”, but those would have been difficult targets to hit. Böhler had the most difficulty meeting this high standard, as Russian-made shells routinely outperformed their Austrian counterparts. During one test, of the six shells fired at the plate, only two of the shells penetrated the armor: one of them was the Russian control shell, and the other an Austrian shell with an unusually high velocity. The company’s reply to these unsatisfactory tests was to ask for leniency; their shells had successfully passed internal company testing, after all. They also complained that the deadlines that the Russians had imposed caused quality control issues.⁸¹

⁸⁰ GUKIS to MTK, February 20, 1904, RGAVMF, f. 421, o. 2, d. 1463, l. 3. Specific testing standards for 75mm shells are available on 37–39, and for 6” shells, 41–42.

⁸¹ The successful Austrian shell had a velocity of 3261 feet per second; the second fastest shell was 2633 feet per second. Committee for Naval Artillery Tests to Chief Inspector of Naval Artillery, April 19, 1904. RGAVMF, f. 421, o. 2, d. 1463, l. 127–28; Gardiner, *All the World’s Fighting Ships*, 222; Böhler and Company to Chief Inspector of Naval Artillery, May 1, 1904, RGAVMF, f. 421, o. 2, d. 1463, ll. 153–54.

Hotchkiss also had problems dealing with the strict Russian protocols. Lieutenant Colonel Ryzanin, the Assistant Chief Inspector for Artillery, submitted a lengthy report to the Chief Inspector describing his experiences in the Paris-based factory. Many of the shells he was to test were unfinished when he arrived on April 11, 1904. In fact, the French had yet to receive the bottoms of the shells from a subcontractor. Ryzanin wrote in his report: "In response to my doubts about the possibility of being on time, it was said to me that everything would be sent successfully on [17] April, and that the bottoms of the 'grenades' [high explosive shells] were being made at another factory, but from the steel of Hotchkiss." The Russian inspector emphasized the absolute need for secrecy, and was willing to make allowances for the rushed nature of the order. He waived the more stringent weight tolerances Russian factories insisted upon (+/- 15 grams) in favor of the French requirements (+/- 25 grams).⁸² The need to produce these shells quickly and quietly unsurprisingly lead to significant quality control problems.

The results of the testing, once the shells were finished, were not promising. The shells did pierce through the armor plate, but two of the three fragmented upon impact. The faulty portion of the shell was the same in both instances: the grooves where the loading belts were to be attached. To counterbalance that, Ryzanin noted that all of the fragments, at least, did end up on the other side of the plate. A control test proved that the armor plate was not the problem; when he approached the factory owner with the results, the owner simply shrugged and indicated that had he achieved those same results for the French military, which he had done in the past, he would have received a bonus. The inspector's conclusion about Hotchkiss was not one to inspire confidence in the French factory: "On the whole, under similar conditions, I might propose not to give this factory orders henceforth, at the very least for shells; during the rounds of the factory I

⁸² Report from Ryzanin to Krotkin, May 1, 1904. RGAVMF, f. 421, o. 2, d. 1463, ll. 156–57.

saw that their main production, at the present time, is automobiles, not artillery."⁸³ The laconic attitude of the factor owner irritated Ryzanin, but Ryzanin and the Russian Empire needed French shells. Other countries produced better quality ammunition, thankfully.

Ryzanin made two more stops on this particular trip. First, he went to Essen in Germany to inspect the Krupp facilities. His attitude towards the German facilities was, on the whole, positive. However, he did object to German attempts at concealing their proprietary tempering process from him. The Russian colonel immediately notified the Germans that the contract specifically gave him the right to see anything he wanted with only fifteen minutes' notice. The Germans complied the next day and Ryzanin dutifully reported the details of their process, although he did not find anything exceptional in it. His final stop on the tour was to Riga to visit a factory recently purchased by a British company based in Sheffield. It was purely an informational meeting, as the factory did not expect to produce shells for six to seven weeks, but hoped to find GUKIS a possible customer. Ryzanin told the owners about Russia's requirement (that all shells must be able to pierce 10" Krupp plates) and the British were shocked, claiming that the normal British standard was 6" plating.⁸⁴

Of the three countries from which the Russian Empire bought or tried to buy shells, only Germany proved consistently able to meet Russian quality control procedures. Krupp even went out of their way to correct problems: when an allotment of shells showed that 155 of them were too light, ranging from a deficit of 100 to 300 grams, the German company simply apologized, identified the fault (improperly calibrated measuring instruments), and refused to charge for shells which did not meet the standard. Over time, however, Russia's need for more ammunition

⁸³ Ibid., 157–58.

⁸⁴ Ibid., 159–60.

outweighed their need for strict standards: GUKIS regularly urged the Chief Naval Inspector to rush all possible tests. After 8% of a French shipment of shells failed aural tests in July 1904, GUKIS simply asked them to forward the shells to a Russian factory for correction so that they could order 60,000 more shells from Hotchkiss. Even when the same shells completely failed test firing, on a much easier 70mm plate (or about 2 ¾ inches), GUKIS's only concern was to make sure that testing continued as quickly as possible before another shipment of 10,000 shells went out to the Pacific.⁸⁵ GUKIS continued to order these French shells, not due to corruption or incompetence, but simply because resource shortages demanded it. Russia's performance in the Russo-Japanese War up to July 1904 had already been abysmal, particularly in naval actions, and ammunition shortages would have made the problem worse, not better.

The first confrontation between Japanese and Russian forces, the Battle of Chemulpo on January 26, 1904, featured the *Varyag* and an old gunboat, the *Koreyets*. These two ships constituted the entire naval forces available to Russia when Japan attacked Chemulpo, Korea. The *Koreyets* left Chemulpo harbor to investigate the cause of a sudden break in telegraph communications with Port Arthur; as it happened, the telegraph wires for Chemulpo ran through Nagasaki, Japan, before reaching Port Arthur, which gave the Japanese an easy opportunity to cut the wires. Japanese torpedo boats intercepted the *Koreyets*, forcing the Russian ship to turn around, and allowing the Japanese cruisers to blockade Chemulpo. The Japanese commander offered the Russians the chance to sail out to the open sea and fight, or to remain in the harbor

⁸⁵ Wachter and Company [Krupp representatives in St. Petersburg] to MTK, May 29, 1904, RGAVMF, f. 421, o. 1, d. 1463, l. 255; Results of a test of 47mm Hotchkiss shells, June 30, 1904, RGAVMF, f. 421, o. 1, d. 1464, l. 9–10; OS GUKIS to Chief Inspector of Artillery, July 3, 1904, *ibid.*, l. 20; Committee of Naval Artillery Tests to Chief Inspector of Artillery, July 5, 1904, *ibid.*, 23–25; OS GUKIS to Chief Inspector of Artillery, July 12, 1904, *Ibid.*, 65–66.

and be destroyed; the Russian commander chose the latter. A Japanese cruiser, the *Chiyoda*, had slipped out of Chemulpo's harbor earlier that day and reported on the forces available to Russia in the Korean port. *Koreyets* fired upon the Japanese ships, which gave the Japanese a *casus belli*, although as the historian Richard Connaughton puts it, "[the Japanese] studiously ignored reference to their warlike presence, the earlier capture of a Russian ship at Pusan, and the loosing off of three torpedoes prior to *Koreyets* opening fire." The resulting battle resulted in both *Varyag* and *Koreyets* being sunk, although *Varyag* was raised by the Japanese after the war. The attack on Port Arthur a few hours later caused significant damage to the *Retvizan* and the *Tsesarevich*, among other ships of the Russian fleet.⁸⁶

At first glance, the early performance of the foreign-built ships appears to be very bad. However, the *Varyag* faced eight Japanese ships, some of them fully armored cruisers: even if she had perfectly working boilers, there is little she could have done against those odds. Grigorovich, the commander of the *Tsesarevich*, which was one of the ships damaged at Port Arthur, reported that the anti-torpedo bulkhead system established by its designer "excellently kept out the torpedo explosions." The battleship had a list of 17°, but continued to fend off Japanese attacks for the remainder of the evening. Both of the foreign-built battleships, *Tsesarevich* and *Retvizan*, were repaired after the surprise attack and continued to provide useful service. *Tsesarevich* became the flagship of the First Pacific Squadron and survived the Battle of the Yellow Sea (July 27–8, 1904), although she spent the rest of the war interned in a German port. *Retvizan* also participated in the same battle and was sunk by the Japanese at the end of

⁸⁶ Margaret Maxwell, "The Changing Dimensions of a Tragedy: The Battle of Chemulpo," *The Historian* 39, no. 3 (1977), 490; Connaughton, *Rising Sun and Tumbling Bear*, 38–39, 50; J. N. Westwood, *The Illustrated History of the Russo-Japanese War* (London: Sidgwick and Jackson Limited, 1973), 36.

1904 by land-based siege guns after the fall of Port Arthur. However, the Japanese raised the American-built vessel and used it in their own fleet during World War I and the Russian Civil War.⁸⁷

The Battle of the Yellow Sea was the death knell for the Russian Pacific Squadron as a unit, even if *Retvizan* and *Tsesarevich* survived it. The origins of this battle began with the death of the beloved Russian admiral, S. O. Makarov. Makarov was the second commander of the Pacific Squadron, replacing Vice Admiral O. V. Stark after the defeat at Chemulpo. The new commander was aggressive and wanted to pursue the Japanese fleet and destroy it. He put his flag on the *Petropavlovsk*. Unfortunately, on his first attempt to fulfill his mission at the end of March 1904, his battleship hit a mine; the resulting explosion decapitated Makarov and destroyed the ship. The Emperor wrote in his journal for March 31, “the entire day, I could not recover from this horrible misfortune.” Even Kaiser Wilhelm of Germany was concerned about the loss of the Admiral, writing to his cousin, the Russian Emperor, “[A]llow me to express sincerest and heartfelt sympathy to you at the loss of so brave an admiral.” By April 19, Nicholas II signed the order to appoint Z. P. Rozhdestvenskii, the former chief of the Main Naval Staff, as the Commander of the Second Pacific Squadron, which was cobbled together from various ships from the Baltic Fleet.⁸⁸

Until the Second Pacific Squadron could join the First Pacific Squadron at Port Arthur, however, the First Pacific Squadron was alone. Nicholas II named Vice Admiral N. I. Skrydlov

⁸⁷ Grigorovich, *Vospominaniya*, 10; McLaughlin, *Russian & Soviet Battleships*, 127–28, 135.

⁸⁸ Constantine Pleshakov, *The Tsar’s Last Armada: The Epic Journey to the Battle of Tsushima* (New York: Basic Books, 2003), 34–35, 37, Nicholas II, *Diaries I*, 797. The first quote is from Nicholas’s diary; the second quote is from page 35 of Pleshakov’s book.

as Makarov's interim replacement.⁸⁹ Skrydlov was an officer who had most recently commanded the Black Sea Fleet, but had experience in the Far East as the Pacific Squadron's commander in 1900. He traveled to Vladivostok to take up his new post, but had no way to reach Port Arthur with the Japanese blockade and siege. All he had to actually command was a squadron of cruisers, based in Vladivostok, while the bulk of the First Pacific Squadron remained at Port Arthur.⁹⁰ The man who actually commanded the First Pacific Squadron was Vice Admiral W. K. Vitgeft. Vitgeft had been closely associated with the Viceroy of the Far East, Admiral E. I. Alekseyev, for years, first serving as the chief of the naval department for Alekseyev from 1899 until the outbreak of the war with Japan, at which point he became Alekseyev's chief of staff.⁹¹ Vitgeft was never intended to be in active command, and his inadequacies in that role only exacerbated the Russian Empire's difficulties at sea.

Commander Newton A. McCully, an observer for the US Navy, had this to say about Vitgeft:

"The Russians themselves said that on account of [Vitgeft's] mediocrity he had been chosen for chief of staff by the Viceroy [Alekseyev], who did not wish to have clever or energetic men about him, as being likely to be disturbers... Admiral Vitgeft was a typical bureaucrat of very limited intelligence, and an intense dislike to action. He was obstinate, superstitious, and fearful of responsibility, being always oppressed by the idea that he was only temporarily commander in chief and lacked full power... He was

⁸⁹ Nicholas II, *Diaries I*, 798

⁹⁰ "Skrydlov, Nikolai Illarionovich" in Rotem Kowner, *Historical Dictionary of the Russo-Japanese War* (Lanham, MD: The Scarecrow Press, 2006), 356.

⁹¹ Nicholas II, *Diaries I*, 798; Skrydlov, Nikolai Illarionovich" in Kowner, *Historical Dictionary of the Russo-Japanese War*, 356; "Vitgeft, Vilgelm Karlovich" in Kowner, *ibid.*, 410–411.

exceedingly affable to his inferiors, and looked on the enlisted men as his children. Disliking energy or action in both theory and practice, he spent the entire time in the cabin of his flagship, reported to be fondest of lying in his bunk and reading Zola."

McCully's assessment of the Admiral was, perhaps, excessively unkind, but regarding Vitgeft's disinclination towards action, he was perfectly accurate. It took not one, but two direct orders—one from Alekseyev and one from Nicholas II—to convince him to depart Port Arthur and make a break for Vladivostok on July 27, 1904. Vitgeft's final signal to the Emperor advised Nicholas II that he only made the sortie under protest, and that it would "hasten the capitulation of Port Arthur." It turned out to be his final signal to anyone: he was killed that afternoon by a pair of 12" shells. As detailed in *Rising Sun and Tumbling Bear*, "all that remained of [Vitgeft] that was recognizable was part of a leg." *Tsesarevich* and three destroyers made it to German-owned Kiaochou, China. The cruiser *Diana* made it all the way to the friendly French port of Saigon. Two other ships, the *Askold* and a destroyer, were interned in Shanghai. The destroyer *Novik* also escaped and lived to fight until the following day.⁹² The Second Pacific Squadron continued steaming east, but until it arrived, something had to be done to provide some way of continuing to harass and pressure the Japanese fleet.

One method of continuing the fight came from Grand Duke Alexander Mikhailovich. The Grand Duke had already directly intervened in naval affairs once prior, making a deal to purchase twelve Maxim guns. While twelve Maxim guns were, of course, unlikely to change the outcome of the war, the order does show that the Grand Duke was eager to improve the Russian Imperial Fleet, even to the smallest of details. Any discrepancies or problems with the order were

⁹² McCully, *The McCully Report*, 164; Connaughton, *Rising Sun and Tumbling Bear*, 209–12. The first quote is from the McCully Report; the second quote is from page 210 of Connaughton's book.

to be reported to him directly; unsurprisingly, the deal went through very quickly and smoothly. The Grand Duke's next challenge was to establish some sort of commerce-raiding operation against the Japanese. He did so very rapidly, purchasing four civilian steamships (*Don, Kuban, Ural, and Terek*) and equipping them with foreign-made 75mm guns. Alexander Mikhailovich even took it upon his own initiative to inquire into the design by Russian factories of lighter versions of 75mm mounts, contacting the Chief Inspector for Artillery directly to ensure that they would be tested as soon as it was possible. Although the original mounts took too long to recover from recoil—eleven seconds at an inclination of 20° and six seconds for any smaller inclination—and leaked hydraulic fluid, later models corrected the problem. The Grand Duke personally paid for the testing of the new models, with a view towards having them installed on destroyers and perhaps cruisers by the beginning of 1905. Although the new mounts were never used for his commerce raiders, the Grand Duke was nonetheless effective. By stationing his raiders at the entrance to the Red Sea, he was able to capture twelve merchant vessels, loaded with ammunition and other war materiel. The Germans and British, however, were outraged at this violation of their neutrality, and he eventually lost his raiding cruisers.⁹³

Another individual interested in helping the Russian navy recover from the losses at the Battle of the Yellow Sea was Kaiser Wilhelm of Germany. The Kaiser said in a telegram to

⁹³ GUKIS to Mr. Balinskii [representative of Vickers and Maxim], April 5, 1904. RGAVMF, f. 421, o. 1, d. 1463, ll. 109–110; Avelan to Alexander Mikhailovich, July 9, 1904. RGAVMF, f. 421, o. 1, d. 1464, l. 50; Alexander Mikhailovich to Chief Inspector of Artillery, July 26, 1904, *ibid.*, l. 124; Chief Inspector of Artillery to Alexander Mikhailovich, July 29, 1904, *ibid.*, l. 136; Chief Inspector of Artillery to Alexander Mikhailovich, September 7, 1904, *ibid.*, l. 283; Alexander Mikhailovich to Chief Inspector of Artillery, September 15, 1904, *ibid.*, l. 321; A. M. Romanov, *Once a Grand Duke*, 219–20. The July 26 letter refers to the guns as having “75cm” mounts—since no naval gun in history has had a two-foot caliber, and the second letter confirms them as “75mm” mounts, the first is almost certainly a typo.

Nicholas II, “I hope [the Second Pacific Squadron] will learn their duty soundly and introduced telescopic sights, which the Japanese have on their guns, but were wanting in the Port Arthur fleet.” He closed that very same telegram by implicitly offering to sell Russia battleships. Wilhelm simply noted that Japan, after all, was buying battleships from the United Kingdom, and that it was logical that Russia do the same, although he artfully left the selling country unspecified. He definitely offered the services of the Hamburg-Amerika Line in selling colliers and other less overly military steamships to Russia. Even when the UK protested about German coaling of Russian ships, Wilhelm II tried to prove their hypocrisy, noting, “The naval battles fought by [Japanese Admiral Heihachiro] Togo are fought with Cardiff coals.” In a September telegram, Wilhelm informs his cousin that the Italians are also manufacturing battleships (although he does not say to whom) and now specifically claimed that “Our private firms would be most glad to receive contracts [for battleships].”⁹⁴ While Russia did not end up buying battleships from Germany, they did decide to purchase what was then a little-used weapon in naval warfare: submarines. The inexpensiveness of submarines (as opposed to battleships) and their relatively fast construction times made them an attractive alternative to counterbalance the loss of the Russian battle fleet.

Russia’s history with submarines began almost the same time as the Russian fleet itself did. According to naval historian Norman Polmar, the very first Russian submarine design, the *Morel*, was made in 1718. The prototype—which used oak planks and watertight animal skins to comprise the hull— was tested successfully, but the death of Peter I and setbacks in the later

⁹⁴ Wilhelm II to Nicholas II, September 25, 1904, from Herman Bernstein, *The Willy-Nicky Correspondence: Being the Secret and Intimate Telegrams Between the Kaiser and the Tsar* (New York: Alfred A. Knopf, 1918), 56–59; Wilhelm II to Nicholas II, October 14, 1904, *ibid.*, 69–71. The first quote is from the first telegram; the second and third quote are from the second telegram.

development of the *Morel* ended any hope of full-scale production for the inventor. Throughout the eighteenth and nineteenth centuries, multiple inventors tried to convince the Russian navy to mass-produce their designs. Only one design was ever successfully produced in such quantities. S. K. Dzhevetskii built 50 submarines for coastal defense from 1879 to 1885; these two-man crafts would probably have had minimal combat value, and once the Naval Ministry regained control of coastal defense from the Imperial Army in 1885, his submarines were abandoned.⁹⁵

The first modern submarine built for the Russian Navy was the brainchild of I. G. Bubnov. Bubnov was the head of a special committee on submarine building, authorized in December 1900. This committee bore fruit in July 1901, with the creation of a design for a submarine of 113 tons. The Administrator of the Naval Ministry, F. K. Avelan, approved the production of a prototype the next day, with orders to send the design to GUKIS. GUKIS assigned the construction of the prototype to the Baltic Yard. The Baltic Yard's report on September 16, 1901, indicated that the prototype would cost 220,000 rubles. The hull itself was 70,000 rubles, and made of nickel steel, designed to withstand pressures of up to 100 atmospheres. The remaining cost included the electric motor and accompanying batteries, capable of producing 130 horsepower; a gasoline motor, capable of producing 300 horsepower (and charging the batteries); and two torpedo tubes, of the same system as designed by S. K. Dzhevetskii.⁹⁶

⁹⁵ Norman Polmar and Jurrien Noot, *Submarines of the Russian and Soviet Navies, 1718–1990* (Annapolis, MD: Naval Institute Press, 1991), 1, 6.

⁹⁶ “From a report of the MTK to the Administrator of the Naval Ministry about the creation of a committee for the design of underwater vessels,” December 11, 1901 in *Podvodnoe korablestroenie v Rossii 1900–1917: Sbornik dokumentov* [Submarine construction in Russia 1900–1917: a collection of documents, hereafter cited as *PKR*], compiled by I. A. Livshitz (Moscow: Izdatelstvo “Sudostroenie”, 1965), 15–16; “From the journal of the MTK for shipbuilding about the approval of a design of a submarine of 113 tons displacement, created by the committee

The new vessel, originally designated “torpedo boat no. 150”, underwent trials in 1903 with great success. There were some concerns about a pitching of one to two feet as the submarine submerged, which made achieving a specific depth tricky. It could dive up to 56 feet and “easily surface,” according to the trials.⁹⁷ It took approximately 15 minutes to completely submerge the vessel from the surface. On the surface, it achieved speeds 6 ¼ knots using only four fifths of the engine capacity. Underwater, the speed was reduced to 5–5 ½ knots. Bubnov hinted that with a large propeller, it might move faster, but more testing was needed.⁹⁸

Bubnov and his committee made improvements to the vessel, and a second round of testing in October 1903 saw the vessel achieve surface speeds of 7.8 knots with the electric motor and 8.5 knots with the gasoline motor; underwater, it had speeds of 6–7 knots. The ship could carry enough gasoline to travel 1000 nautical miles at a speed of 7 knots; its range with the electric motor was much shorter, approximately 80 nautical miles at a speed of 5 knots. Charging the batteries took about five hours. The vessel could also achieve a greater depth, of up to 91 feet “with no weakening of the hull.” The crew was 15 people; due to the length of the time needed to regenerate fresh air, the vessel could only practically stay submerged for 2 ½ hours. However, at

under the leadership of I. G. Bubnov,” July 3, 1901 in *PKR*, 17; “Report of the chief of the Baltic Yard to the Administrator of the Naval Ministry with a proposal to entrust the construction of an entire submarine of 113 tons [to the factory],” September 16, 1901 in *PKR*, 18–19. The approval date, July 4, 1901, is confirmed by the appearance of marginalia written by Avelan.

⁹⁷ The report specifically says eight fathoms (*sazhen*), which would normally be six feet, for a total of 48 feet; however, Russian fathoms are seven feet.

⁹⁸ “Report of I. G. Bubnov to the Chief Inspector of Shipbuilding about the results of the trials of the submarine – torpedo boat no. 150,” June 21, 1903 in *PKR*, 20–21.

periscope depth, where the vessel could take in fresh air at need, the submarine could remain for fifteen hours.⁹⁹

Bubnov's efforts, done entirely without any sort of foreign assistance, convinced the Chief Inspector of Shipbuilding N. Kuteinikov, among others, that there was no need to buy foreign submarines. John Holland's Electric Boat Company had offered to sell Russia submarines back in 1900, the first one costing approximately \$190,000 (or 368,600 rubles). Russia's refusal to purchase the submarine had, according to the Inspector, saved Russia approximately three million rubles in the long term, and the early returns from the next design of Bubnov demonstrated that speeds of up to 14 knots might be achievable. That first vessel, named the *Delfin*, was used as a training for future generations of submariners.¹⁰⁰ If the Russo-Japanese War had not intervened, it is entirely conceivable that Russia might never have wanted or used foreign help to build submarines. However, the exigencies of war propelled the Russian naval high command to reconsider the offers of foreigners to sell Russia submarines, which was only exacerbated by the heavy losses in the Battle of the Yellow Sea.

The first submarine to arrive at Vladivostok was a "*Delphin*-type [*sic*]" which arrived by rail on September 24, 1904. It was, in fact, Bubnov's original submarine. American naval observer Newton McCully was impressed with its ability to dive so quickly. Four more Russian-made submarines arrived December 13, although McCully erroneously identified them as

⁹⁹ "Report of I. G. Bubnov and M. N. Beklemishev to the chairman of MTK about the results of the trials of submarine – torpedo boat no. 150," October 13, 1903 in *PKR*, 24–25.

¹⁰⁰ "From the report of the Chief Inspector of Shipbuilding to the Chairman of MTK about the completion of the construction of the first Russian underwater combat vessel and the decoration of the of the members of the committee who headed its construction," November 17, 1903 in *PKR*, 269; Polmar and Noot, *Submarines of the Russian and Soviet Navies*, 11. It is worth noting that this ship does not appear in *All the World's Fighting Ships* in the 1860–1905 edition, despite the fact it was completed in 1904.

“Drzewicki [*sic*]” models. The final three submarines, however, were all of American make, according to McCully. Polmar and Noot identify the first as the *Som*, formerly the *USS Fulton*. The second was actually German, the *Forel*, and the third was a Russian made submarine based on *Som*.¹⁰¹ Russia recognized the potential of this weapon, although none of them were successful during the Russo-Japanese War, and placed orders with Electric Boat and the Lake Torpedo Boat Company in the United States and Krupp’s Germania shipyard.¹⁰²

It is not clear why Russia’s submarines, perhaps the only technological advantage they possessed that the Japanese did not, were so ineffective during the Russo-Japanese War. The only notable success of submarines was as a means of intercepting enemy radio communications. As far as actual combat patrols, McCully said that the submarines were never used as warships, positively identifying the *Som* as one submarine which never saw combat.¹⁰³ Even if the submarines had put to sea, however, there were several factors acting against them. First, they had to operate out of Vladivostok, some distance from Japanese shipping lanes and the Imperial Japanese Navy, which denied the submariners access to a target-rich environment. Second, all of the submarines were very small (all of them less than 200 tons displacement), which made them

¹⁰¹ Pomar and Noot, *Submarines of the Russian and Soviet Navies*, 226–29; McCully, *The McCully Report*, 195, 200–01, 205, 215. McCully might have been referring to Dzhevetskii, but none of the four submarines that arrived were designed by him, apart from the torpedo tubes. Polmar and Noot identify the boats as the *Kasatka*, *Feldmarshal Graf Sheremetev*, *Skat*, and *Nalim*, all designed by Bubnov. As far as McCully’s misidentification of the three submarines as American, he was prevented from personally inspecting any of the submarines as they arrived and could only base his conclusions on secondhand accounts.

¹⁰² See the following chapter for details on these orders; while the orders were initiated during the Russo-Japanese War, the ships themselves were not completed until well after the war finished.

¹⁰³ Evgenii Yurievich Sergeev, “Russian Military Intelligence in the War with Japan, 1904–1905,” in John W. Steinberg, Bruce W. Menning, David Schimmelpennick van der Oye, David Wolfe, and Shinji Yokote, *The Russo-Japanese War in Global Perspective: World War Zero* (Leiden, the Netherlands: Brill, 2005), I: 297–98; McCully, *The McCully Report*, 205.

of little use for anything besides coastal defense. Third, all of the submarines were relatively slow, far too slow to chase anything faster than a large commercial vessel. Even if they had been present for the disaster at Tsushima, it is difficult to imagine them having any sort of real impact.

The Battle of Tsushima, fought on May 13–14, 1905, belongs on the very short list of decisive naval battles. At a single stroke, it removed Russia from consideration as a respectable naval power and cemented Japan’s place among the Great Powers (even if many of the European states would not respect them as such). It came at the end of a voyage lasting thousands of miles and involving delicate diplomatic negotiations to secure bases for the Second and Third Pacific Squadrons to coal up and replenish their provisions, conditions that would have made victory extremely difficult under the best of circumstances. The Commander of the combined fleet, Rozhstvenskii, told Grand Duke Alexander Mikhailovich before he even left St. Petersburg, “What can I do? Public opinion has to be satisfied. I know it. But I likewise know that we haven't a chance against the Japanese.”¹⁰⁴ Given how badly the war had gone for Russia at that point, Rozhstvenskii and the Russian Empire desperately needed to appear that they were doing *something* to change Russian fortunes.

The Commander was even more pessimistic once he reached Nosy Be, Madagascar and met with the Third Pacific Squadron on January 8, 1905. He returned two coal steamers to Russia, steamers he could have used to transport supplies, because they too slow and would have delayed the fleet. One of the torpedo boats was in such bad shape that it could not exceed seven knots – its original design called for 27 knots. Regarding the Third Pacific Squadron, he said, “[those ships] which have joined the squadron do not strengthen it, but significantly weaken and tie it up.” He had sharp words for Russian shipping as a whole.

¹⁰⁴ A. M. Romanov, *Once a Grand Duke*, 216–217.

It must be confessed that Russian technology can build ships only for navigation in peace time, when there is the possibility at every port to use the services of foreigners to correct defects. It appears that, for war, we should either order ships entirely from abroad, or build them ourselves under the direction of foreign engineers and head masters. We too early refused to send our youth to training at sea, and that is why [we] are so sharply behind in the matters of shipbuilding and engine building, even compared to the Japanese.¹⁰⁵

The sailors' morale was already flagging due to the length of the journey and minimal opportunities for recreation. That their commanding officer was so dismissive of their chances for any sort of victory undoubtedly dimmed their spirits still further.

By the time *Rozhestvenskii's* fleet approached Japan, Port Arthur had already fallen, taken by the Japanese. That left the Russian fleet only two options—press on to Vladivostok or return home, defeated. Thanks in large part to early-warning wireless telegraphy stations, the Japanese were aware of the Russian approach and were able to use this knowledge to concentrate their fleet. The Japanese commander, Heihachiro Togo, did have to guess whether the Russians would use the Tsushima strait and pass by Korea and China, or go around Japan to the east and sail north of Sakhalin to reach Vladivostok. As naval officer and historian Alfred Thayer Mahan noted, however, even had Togo guessed incorrectly, the combination of wireless telegraphy and superior Japanese speed would have given them a chance to intercept the Russian fleet. He drily

¹⁰⁵ "Excerpts from the report of the Commander of the Second Squadron of the Pacific Fleet," January 8, 1905. RGAVMF, f. 427, o. 1, d. 1363, ll. 40–41.

remarked that the only way Russia could have overcome that speed advantage would have been to throw their guns overboard.¹⁰⁶

As a matter of fact, Togo did guess correctly, which gave him the opportunity to set his formation properly and be in the perfect position to attack the Russians. As naval historian G. B. Aleksandrovskii wrote: “At the critical moment of the meeting of both fleets, our squadron was not in a set formation, ready to open concentrated fire on the enemy.” Rozhestvenskii’s chief deputy was killed in the opening moments of the battle, which was a fact that the commander actually kept concealed so as not to induce a panic. Rozhestvenskii himself was injured multiple times during the battle, and with his deputy dead (and nobody aware of that fact) the ultimate result was a disorganized mess and the almost total annihilation of the Russian fleet.¹⁰⁷

The toll Tsushima had on Russia and its fleet was immense, as was the Russo-Japanese War as a whole. Every single Russian battleship that fought in the war, a total of eighteen, was a casualty. Only *Tsesarevich*, of those eighteen, even made it back to Russia after the war. As a point of comparison, Japan only lost 23 ships of all types, and only two of those were battleships. Russia, on the other hand, lost a total of 96 ships, nearly five times as many as its adversary. Economic historian Peter Gatrell estimates that 20% of the Russian Navy’s manpower—a total which included the completely untouched Black Sea Fleet—was killed in the war. Somewhat surprisingly, Russia’s territorial losses following the war and the Treaty of Portsmouth were almost negligible, despite the overwhelming Japanese victory. It lost the northern half of the island of Sakhalin and Russian territory in Manchuria. Japan gained the Liaotung Peninsula (and

¹⁰⁶ Alfred Thayer Mahan, “Reflections, historic and other, suggested by the Battle of the Japan Sea,” *Naval War College Proceedings* 36, no. 2 (1906), 454–56.

¹⁰⁷ G. B. Aleksandrovskii, *Tsusimskii Boi* [The Battle of Tsushima] (Moscow: Veche, 2012), 38, 46; Connaughton, *Rising Sun and Tumbling Bear*, 332–35. Quote is from page 38 of *Tsusimskii Boi*.

as a consequence, Port Arthur).¹⁰⁸ Russia had won the peace, from a territorial perspective, in that the Russian Empire lost comparatively little land despite a decisive Japanese victory. However, the Russian Empire lost almost its entire fleet in the process; the Russian Imperial Fleet spent the next nine years trying to recover from its losses in the Russo-Japanese War.

¹⁰⁸ Mikhailov, "Predposylki dlya porazheniya," 75; Peter Gatrell, *Government, industry, and rearmament in Russia, 1900–1914* (New York: Cambridge University Press, 1994), 71; Kowner, *Historical Dictionary of the Russo-Japanese War*, 446–50.

Chapter 2 - Experimentation and missed opportunities: 1905–1911¹⁰⁹

The Russian navy faced an incredible challenge after the Russo-Japanese War. The Battle of the Yellow Sea cost Russia their Pacific Squadron, while the Battle of Tsushima essentially deprived them of most of their Baltic Fleet. With the capital of the Russian Empire easily threatened from the Baltic Sea, maritime defense was essential to the country's security. Minefields and coastal batteries originally formed the backbone of that defense, but over time, the construction of a navy which might also be used for offense became a top priority. The Emperor, despite the Revolution of 1905, remained the most important figure in military policy of any kind. However, at the same time, significant changes to the way the Russian government worked as a result of the October Manifesto and the new Fundamental State Laws greatly complicated the matters of the construction and modernization of the navy.¹¹⁰ Two government organs—the State Duma and the Council of Ministers—had an important voice in matters of naval policy, since they had direct control over the navy's funding. While they did not have the same force that the Emperor's voice did in naval affairs, the Duma and Council of Ministers did play an important role in the period between the Russo-Japanese War and World War I.

¹⁰⁹ Portions of this chapter appeared as “Rebuilding the Russian Fleet: The Duma and Naval Rearmament”, *Journal of Slavic Military Studies* 26, no. 1, 25–40.

¹¹⁰ My source for the *Osnovye Gosudarstvennye Zakony*, or Fundamental State Laws, is "Zakoni 23 apreliia 1906 g.," <http://www.hist.msu.ru/ER/Etext/apr1906.htm>, accessed on June 21, 2010 (hereafter OGZ). This source is based on a Soviet historian's publication of the Fundamental State Laws and is an edited version of the complete edition of the Russian Empire's laws. Although the website does not contain an exhaustive list of the laws, all of the laws relevant to naval or military affairs are included. However, this does affect the numeration of the articles. They are identical in both editions up to article 23. After that, for example, article 27 in this edition is actually article 69 of the original laws. The following citations (hereafter OGZ) use the numeration of the original Fundamental State Laws, not the numeration used in the website.

The State Duma, a representative legislature, was first introduced in the October Manifesto. In that particular document, the Duma's rights and responsibilities are somewhat vague. It has the right to approve new legislation, and is popularly elected, but there are no specific powers enumerated. The Fundamental State Laws, the Russian Empire's post-revolutionary constitution, explicitly granted to the Duma and the State Council (a more conservative legislature, with half of the members popularly elected and half appointed by the Emperor) the right to reject or approve budgets for all aspects of government expenditures, particularly the army and navy.¹¹¹

The responsibility to approve the budget came with some serious limitations, however. Even if both the Duma and the State Council approved a law (including the new annual budget), the Emperor had to sign it for it to become binding; there was no legislative override option. The Emperor could also spend the budget however he liked, as the legislature simply assigned a budget to the War and Naval Ministries. If he exceeded the budget, the Emperor had a number of alternative recourses, none of which required parliamentary approval. He could dismiss the Duma and State Council or send them into recess and use his emergency powers to simply force the budget increases through temporarily. He could resort to foreign or domestic loans, which were not only not under the purview of the legislature, but the interest on those loans was "protected" and had to be included in all future budgets until the loan was paid off. He also had a yearly discretionary budget of 10 million rubles. In time of war (and the Emperor alone declared war or peace), the Duma and State Council lost the right to any sort of budgetary control for the duration of the conflict. Of course, not all of these tactics were used with equal measure: the

¹¹¹ "Manifest 17 oktyabrya 1905 g" [Manifesto of 17 October 1905], <http://www.hist.msu.ru/ER/Text/oct1905.htm>, accessed on June 17, 2010; OGZ, Article 99.

Emperor's preferred method for getting shipbuilding approved if the Duma did not agree was using his discretionary funds.¹¹²

There was one other avenue for getting around the legally constituted budget: the Council of Ministers. The Council of Ministers included the heads of every ministry in the Russian government, headed by the Chairman of the Council of Ministers, who served as the *de facto* Prime Minister of the Russian Empire. Unlike Western-style parliamentary democracies, none of the ministers were responsible to the Duma or the State Council, and the Emperor could replace any of them, including the Chairman, whenever he wished. Most importantly for the purposes of the naval budget, the Council of Ministers had the right to grant additional funds, totaling up to one-twelfth of the annual budget of the department making the request, without consulting either the Duma or the State Council.¹¹³

With all of these options to evade the legislature, the most important voices in the naval budget process were the Emperor and the Naval Minister.¹¹⁴ The post of Naval Minister, which had existed prior to 1882, was restored as a *de facto* unification of the posts of General Admiral and Administrator of the Naval Ministry. Grand Duke Alexei Alexandrovich resigned as General Admiral on May 30, 1905, fifteen days after Tsushima, and the post itself was eliminated. A.A.

¹¹² OGZ, Articles 9, 13, 77, 96, 99, 105, 109, 118; Peter Gatrell, Government, industry, and rearmament *in Russia*, 148–51. The Emperor's power to pass laws without the consent of the Duma or State Council was theoretically limited to a 60-day period. However, practically speaking, it is difficult to see the new Duma or State Council rejecting the new budget, and even if they did, there was nothing stopping the Emperor from exercising his emergency powers *ad infinitum*. In practical terms, 10 million rubles a year would be equivalent to approximately one battleship; the four battleships of the 1908 program cost approximately 30 million rubles total. See McLaughlin, *Russian & Soviet Battleships*, 194.

¹¹³ OGZ, Articles 17 and 116.

¹¹⁴ Some western sources translate *Morskoi ministr* as “Minister of Marine,” which is a more literally correct translation, but the primary job of the minister was the navy, not commercial sea traffic.

Birilev replaced F. K. Avelan as Naval Minister on June 26, 1905; that transfer would have occurred sooner had Birilev not been based in Vladivostok. The new Naval Minister owed his appointment largely to his close connection to the Imperial family, although he did have a long career as an administrator and military educator, including a three-year stint as Commander of the Baltic Training Squadron, and several assignments commanding military ports and coastal defense attachments. In May 1905, Birilev was appointed Commander of the Pacific Fleet, but he did not arrive in Vladivostok until after the Battle of Tsushima, and he was almost immediately recalled to St. Petersburg to fill his new role.¹¹⁵ Birilev had the unenviable task of trying to reform and rebuild the Imperial navy, at a time when everybody had their own ideas as to why Russia lost the Russo-Japanese War and what ought to be done about it.

Perceptions of defeat and prescriptions for reconstruction

Russia's loss to Japan in 1904–05 stirred up a great deal of debate. A defeat of that magnitude could not simply be blamed on bad decisions by key personnel; it prompted a re-consideration of the entire system and the way that the Russian Empire fought a naval war. Without the General Admiral's commanding, even somewhat overbearing presence at the top of the naval high command, there was room for new voices in the areas of strategy and reform, at least until the Emperor's own voice began to control naval policy. Much of this discussion, of course, took place within the community of naval officers, in particular in the pages of *Morskoi sbornik*, or Naval Digest, the official publication of the Naval Ministry. At the same time, the

¹¹⁵ *Diaries I*, 218; Nicholas II, *Dnevnik Nikolaiya II* [Diary of Nicholas II, hereafter *Diaries II*], ed. K. F. Shatsillo. (Moscow: Orbita, 1991), 267; Kuroyedov, *VMES*, 88. A footnote to Nicholas II's diary indicates that Birilev's (unspecified) connection to the Emperor's family secured his position. See *Diaries II*, 696.

Naval Ministry (and the Imperial Russian Navy as a whole) did much to keep even this relatively limited criticism from being too open or public.

One of the first critiques of Russian naval thinking, which accurately predicted some of the problems that Russia faced in the Russo-Japanese War, was an article originally written March 4, 1903, but republished by the Naval Ministry's press in 1905 as a separate book. This book, titled *Bronenostsi ili bezbronnye suda?* [Battleships or unarmored vessels?] and written by Vice Admiral S. O. Makarov, envisioned a radical reconceptualization of the Russian navy around a large fleet of comparatively small, well-armed cruisers. Makarov recognized that his opinions would be controversial and unpopular, as most Russian naval theoreticians considered the battleship the proper focal of naval power. Indeed, the very first sentence of the book read "The aim of the present article is not criticism of our shipbuilding figures, as we are building in the same way as every [other] nation, and consequently, the opinions which are stated here must not offend anybody's pride." He emphasized his objectives again a few sentences later: "I speak objectively, not subjectively, and apart from that, about the matter [itself] and not the people [involved]."¹¹⁶

The substance of Makarov's proposal was to construct smaller but still relatively powerful, well-armed cruisers, instead of the larger armored cruisers that were present in the Russian fleet prior to 1903. These ships would be largely unarmored, giving them a tremendous advantage in speed and range at the cost of less survivability in the event of their engaging in combat directly. They would not serve as scouts, which was the light cruiser's traditional role, but as the main line of battle, supported by small "flying squadrons" of destroyers. His new strategy was entirely in keeping with his image as an aggressive, offensive tactician and was

¹¹⁶ Makarov, *Bronenostsy ili bezbronnye suda?*, 1–2.

partially informed by his experiences with torpedo boats in the Russo-Turkish War. Makarov's first attempt to design such a cruiser, initially of 3000 tons, occurred in the pages of *Morskoi sbornik* no. 6 in 1894, ten years prior to the Russo-Japanese War. Over time, he improved his original design, incorporating advancements made by the French.¹¹⁷

Artillery tests of the guns intended for French floating batteries encouraged Makarov in the sense that an unarmored design was possible and accurate enough to hit and cripple a target. Those tests proved that the French guns, which had a bore of 15 centimeters, or approximately 6 inches, could be accurate even in extremely unfavorable conditions. One of these ships, the *Dragonne*, got a hit rate of over 50% in very choppy waters at night (with pitching of 20°), from ranges of 300 to 1500 meters. Makarov took that basic principle and made a number of changes. First, he started with a much larger platform. Makarov intended his vessels to be 3000-ton cruisers, not floating batteries of 79 tons. His design gave these cruisers a maximum range of 12,000 nautical miles at 6 knots; that is, enough to get from St. Petersburg to Vladivostok without re-coaling. In shorter bursts, the cruiser had a maximum speed of 20 knots, which was two knots faster than most battleships of the period. Second, unlike the French ships, he placed the engines under the waterline, which gave them greater protection, both to due to water pressure and making them harder to with gunfire. Finally, Makarov's design raised the forecastle, reducing the amount of the drag due to the bow digging into the water, a problem he had noted with the British-built Chilean vessel *Esmeralda*.¹¹⁸

¹¹⁷ Ibid., 3.

¹¹⁸ Ibid., 4, 8. Makarov specifically mentions tests at 300, 500, 1000 and 1500 meters. Of 58 shots, 38 hit. He does not specify how many shots were fired at each range, but does emphasize that the vessel had excessive pitching (of about 20°), which is very logical for vessels of that size (about 79 tons).

To emphasize the advantages of his vessel, Makarov compared his ship with a 9000-ton armored cruiser of the period.¹¹⁹ His vessel achieved the same speed as the larger vessel, but did so with a much less powerful engine, citing a figure of 6800 HP for the 3000-ton ship versus 12,300 HP for the larger ship, entirely due to the increased weight of the armor on the 9000-ton cruiser. Makarov's cruiser was also more efficient in terms of fuel economy and it required a smaller crew. The only way somebody could justify the cost and construction time of the larger vessel would be to prove it was superior to three 3000-ton cruisers, which was an impossible task, according to Makarov.¹²⁰

Although Makarov spent the majority of his book justifying his 3000-ton cruiser, he also addressed other vessels. The greatest weakness of submarines of the period, in his opinion, were the steel hulls, which interfered with ships' compasses and made it difficult to navigate. He postulated making hulls out of bronze or aluminum, which would not cause problems with magnetic compasses, or perhaps an improvement to compasses so that they did not rely upon magnetism. He also spoke in favor of smokeless powder, in particular the ability to see one's target even during firing, and make corrections as needed.¹²¹

Most importantly, Makarov addressed a few general principles that applied to combat ships. One of his main arguments was to reduce the visibility of ships by lowering their sides: that is, to keep as much of the vessel as possible under the waterline. By doing so, shipbuilders

¹¹⁹ Makarov does not name a specific vessel as his model.

¹²⁰ Makarov specifies an engine of 10,000 HP and a maximum speed of 20 knots for the ship earlier in the book, but here cites only 18 knots as the maximum speed and has a lower HP rating. It is reasonable to expect that he intentionally made the engine more powerful than it needed to be simply to allow for engine problems. See *Ibid.*, 7, 12.

¹²¹ *Ibid.*, 25, 28.

could reduce the amount of armor necessary to protect warships, as it would be much more difficult to hit them. He also rejected the idea of providing thin armor plating for gun batteries. Unless the armor was thick enough to provide real protection, thin armor would only make it easier to hit the gun, by giving it a larger profile, and help trigger contact explosives, as well as providing additional material that could become shrapnel. He also rejected the idea of building small numbers of extremely powerful ships, as opposed to building large numbers of relatively smaller ships, because fewer ships meant fewer opportunities to completely and accurately test survivability and durability. The rigorous testing of a battleship's vulnerability could mean losing the battleship, which would be a waste of money, time, and manpower; losing comparatively cheaper cruisers made comparatively less waste and, therefore, more accurate results, as officers would be less concerned with risking the ship. Makarov's most consistent point was reducing the size of vessels as much as possible. Battleships should be 9000 tons, in order to maximize speed. Armored cruisers should be no more than 6000 tons, and the 3000-ton ships of the type Makarov proposed should be the workhorses, so to speak, of the Russian navy. His last point was to point out that naval vessels were fighting ships, and therefore the prime consideration was their ability to fight, not comfort.¹²² In other words, warships could not afford to waste weight and precious space on anything other than Spartan accommodations for officers or crew; they would simply have to live the best they could with whatever space could be spared.

Makarov recognized that his planned ship did have one notable flaw: vulnerability to mines or torpedoes. In fact, the Vice Admiral addressed this directly in one of his conclusions, writing: "Every vessel must have full torpedo netting, because this is the only defense against

¹²² Ibid., 59–60.

torpedoes [and mines.]”¹²³ The purpose of the torpedo netting would be to detonate the mines or torpedoes prematurely, reducing the impact of the explosion’s shockwave. Some drawings appended to the book also demonstrate that his proposed vessel would feature multiple watertight compartments, so that even if a shockwave did penetrate the vessel and tear a hole in the hull, the ship would still survive.¹²⁴

Makarov’s untimely death, due somewhat ironically to a lack of torpedo netting on his flagship, the *Petropavlovsk*, prevented his design from being implemented. Makarov’s popularity, combined with his experience as a theoretician, would have almost certainly garnered at least a prototype had he survived. His book, instead, had to speak for him, and the navy thought highly enough of his concept that it published Makarov’s book. The Russian experience in that conflict had, perhaps, cast some doubt on the viability of a fleet based heavily around a core of battleships. Makarov never went as far as the French Admiral Theophile Aube and his *Jeune Ecole* did; Makarov still recognized the value of battleships and even made provisions for them in his idealized navy. Makarov’s 3000-ton cruisers were to replace armored cruisers, not battleships, whereas Aube greatly preferred a navy without battleships at all.¹²⁵ Even given this somewhat conservative approach to reform, Makarov’s ideas gained no more traction after his

¹²³ Ibid., 59. In the later days of the Russian Empire, the word for “mine” and “torpedo” was *mina*. The word *torpeda* (torpedo) only became common after World War I.

¹²⁴ The appendix does not include page numbers, but the drawing referred to above is drawing #9.

¹²⁵ An excellent summary of Aube’s views are in Georges Clemenceau, “The French Navy—II,” *The North American Review* 164, no. 484 (March 1897), 308. Clemenceau reprinted an extract from an article of Aube’s in the *Revue de Deux Mondes*, which stated “the ironclad [meaning battleship in this instance] navy has outlived its time, and together with the *great war*, of which it was the weapon, it must disappear to make room for a new navy, the implement of the wars of the future; wars of cruise [or *guerre de course*, as the term is usually kept in the original French]—that is, mercantile wars.” Given the time frame, the “great war” (italics in original) almost certainly refers to the Franco-Prussian War.

death than they had in the original article of 1903. In fact, the smallest pre-WWI cruisers, the German-built *Muravyev Amurski*-class, had weaker armament (5.1” guns, as opposed to 6” guns) and were about 1000 tons larger than Makarov’s design.¹²⁶

The more popular alternative to Makarov’s suggestion was a fleet based around submarines, at least as a short-term solution. At the same time, however, submarines were still a very new technology, and most officers were reluctant to openly vouch for their effectiveness and risk their careers. As a result, most officers who did write on submarines did so anonymously or using pseudonyms. A “Lieutenant K.” published an article in the April 1906 edition of *Morskoi sbornik* entitled “Delo podvodnogo plavanii” [The Matter of Underwater Navigation] in which he advocated a fleet of 400-ton submarines, stationed at various ports in the Baltic Sea. This fleet would have two subs per 100 miles of coastline, acting as underwater scouts. If an enemy ship was detected, these submarines would then race for the nearest of a network of submarine depots, share the information, and then use signaling devices to gather a sufficient force to engage the enemy. A different article recommended extremely small submarines (15 to 25 tons), manned by a crew of two people, with a speed of 12 knots. It considered any construction of battleships or larger ships as a waste of time, since they would require hundreds of millions of rubles just to keep up with existing battleship fleets, assuming those fleets added no new ships.¹²⁷

¹²⁶ Robert Gardiner, *Conway’s All the World’s Fighting Ships, 1906–1921* (London: Conway Maritime Press, 1985), 308. Hereafter *All the World’s Fighting Ships II*.

¹²⁷ Lieutenant K., “Delo podvodnogo plavanii” [The Matter of Underwater Navigation], *Morskoi sbornik* 333, no. 4 (April 1906), 113; N. K-di, “O razmerakh podvodnykh lodok” [On the sizes of submarines], *Morskoi sbornik* 336, no. 9 (September 1906), 87–88, 90–91.

Neither of these proposals was entirely realistic, but given the period in which these ideas were put forth, they might have seemed reasonable. Lieutenant K's plan would only have worked after building up a considerable network of coastal infrastructure, not to mention the submarines themselves. That plan might have been militarily feasible, but it is unclear whether the extremely traditional naval establishment would have wanted to risk the entire defense of the Baltic on unproven technologies. In addition, Russia itself, in 1906, possessed a substantial portion of the Baltic coastline but not all of it. Therefore, if enemies sailed closer to Swedish waters, for example, the submarines might not be able to spot the enemy in time. The other proposal, that of a massive fleet of miniature submarines, could only have succeeded if they could have remained completely undetectable, would have been difficult to maneuver in the choppy waters of the Baltic, and would have offered no ability to project power in an offensive war. They could not protect Russian commerce effectively, nor allow Russia to exercise "gunboat diplomacy" or even effectively intimidate a naval Great Power.

What the proposal of Makarov and the two submarine proposals had in common was a willingness to break with established naval tradition. Makarov's stature within the community of naval officers offered him protection against ridicule or retaliation, as well as the fact that the conversion of his articles into a book occurred posthumously, while the two authors that favored submarines used anonymity to conceal their identities. All these new proposals did was recommend new strategic directions for the Russian fleet. Other authors were far more daring, suggesting wholesale changes to the way the Russian Empire trained its sailors and to the administration of the Naval Ministry itself.

A member of the nobility, Lieutenant Graf Kapnist, offered some comprehensive reform suggestions in a trilogy of articles published in early 1906.¹²⁸ As a member of the nobility, his suggestions carried more weight, and his vision for the Naval Ministry was far more all-encompassing than some of the other proposals mentioned above. He wanted to see the Russian Naval Ministry function much like its German equivalent did: with clearly defined responsibilities and everybody working in concert toward a common goal. During the Russo-Japanese War, one of the problems that Kapnist noted were arguments between Grand Duke Alexei Alexandrovich and the Administrator of the Navy, F. K. Avelan. Specifically, the General Admiral was acting as if the Naval Ministry was his own personal fiefdom (which in a practical sense, it was) and unwilling to listen to ideas or opinions from Avelan. Other scholars have noted that the lack of cooperation extended far beyond St. Petersburg. Nicholas Papastratigakis, for example, suggested that the navy's operational plans were devised entirely at the local level, by the Viceroy in the Far East Alekseyev and his Chief of Staff. Indeed, the Naval Department had no liaisons with the other ministries, not even the War Ministry. Within the department, Kapnist criticized naval officers for being too isolated from non-professionals, especially from those individuals who "saw naval questions from the point of general state interests." Kapnist suggested that, at the very least, the Ministries of War, Foreign Affairs, and Finance needed to be kept abreast of the thinking within the Naval Ministry. He cited a specific instance in which this lack of communication cost the Russian Navy a chance to acquire six Italian cruisers and two

¹²⁸ Although he does not provide his first name or initials, it is almost certainly Aleksei Pavlovich Kapnist. "Graf" is a title of nobility, meaning "Count." Kapnist had a very distinguished career, fighting during the Boxer Rebellion in China, serving as a naval attaché in Austria-Hungary and Italy, and serving as the executive officer of a battleship during the period he wrote the articles. He served as Assistant Chief of the Naval General Staff during World War I, after which he was arrested and executed by the Bolshevik regime. See Kuroyedov, *VMES*, 330.

British battleships, ships that ultimately went to Chile and Argentina, due to extensive and excessive delays in the process of negotiations.¹²⁹ Kapnist was particularly harsh about the procurement of new warships, and analyzed the process of procurement with some detail.

Within the Naval Ministry, Kapnist identified three key bodies, all of which were involved in the process of building or procuring new ships: the Main Naval Staff, the MTK, and GUKIS. The Main Naval Staff was concerned with personnel, which meant that they wanted technology to be as standardized as possible for training and teaching purposes, as well as maintenance. As Kapnist put it, "It is also in the [Main Naval Staff's] interest that any important technological improvement be spread throughout the entire fleet as quickly as possible." The more quickly officers and crew could familiarize themselves with a new technology, in other words, the more efficiently they would fight. MTK, the Naval Technical Committee, was on the other end of the spectrum, wanting to perfect technologies before introducing them into the fleet as a whole. Kapnist saved his harshest criticism for GUKIS, which he insisted was composed of "almost exclusively bureaucrats, having, moreover, the vaguest understanding of the difference between the battleships and barges, which are being built opposite the windows of the Admiralty." GUKIS was, in his opinion, excessively interested in purely economic questions: that is, modernizing the Russian navy as cheaply as possible, without regard to military efficiency or expediency.¹³⁰

¹²⁹ Lieutenant Graf Kapnist, "O tsentralnom upravlenii morskogo vedomstva" [About the central directorate of the Naval Department], *Morskoi sbornik* 332, no. 1 (January 1906), 58–59. On the development of the Russian Empire's naval operational plans, see Nicholas Papastratigakis (with Dominic Lieven), "The Russian Far Eastern Squadron's Operational Plans," in *The Russo-Japanese War in Global Perspective*, op. cit., I: 203–228.

¹³⁰ *Ibid.*, 59–61; quoted section is on 59–60.

Kapnist provided a concrete example of the difficulty of sorting out the different interests of the three major groups, discussing new optics for Russian gunnery:

The possibility of war is expected. It is necessary to acquire optical sights, which allow for accurate fire at very long distances, as soon as possible, so that the personnel can become accustomed to these sights and train to fire with them.

The Naval Technical Committee begins, according its custom, to search for ideals. For a long time it searches for them, testing takes even longer. GUKIS 'takes measures' for their acquisition. War catches up to Russia in this period, and the fleet receives the sights [just] before its departure for the theater of combat operations. In accordance with the sight's use during sailing, the gunners do not have the possibility to become completely adapted to the peculiarity of the sight, and as a result—Tsushima.

Kapnist also had in mind the average sailor, whom he called “bright and composed, but poorly educated.” He criticized the MTK for not taking that into consideration, thinking only of technologically perfect systems, as a result of which the MTK “bestowed upon our sailor electrical wiring in the turrets that was so difficult, the devil himself could break his leg.” He pointed out that the wiring was even more complicated and tangled than it was in foreign turrets, and foreign navies had the benefit of much more educated personnel.¹³¹

Kapnist concludes the first part of his trilogy of articles with a very simple statement: "Our press strives to find the guilty. But there are no guilty [people]—because everyone and no one is to blame. The system is to blame." His specific prescription for improving that system continues along the theme he had emphasized up to that point: communication. He argued that

¹³¹ Ibid., 60–62. First quote is on 60–61, second and third quotes on 61 and 61–62.

both the MTK and Main Naval Staff needed to focus on intradepartmental communication, suggesting that there needed to be a single journal, which contained all correspondence, including secret correspondence. This journal would be accessible by all departments at all times.¹³² After establishing the importance of communications within the Naval Ministry, Kapnist's next goal was to reform the department itself.

Kapnist's new model for the inner workings of the Naval Ministry was outlined in the second article of his series. He proposed a single organ (which he left unnamed), composed of the Naval Minister, all of the directorate heads, the high command of each individual fleet, and a few permanent members of the most senior officials in the navy. This council had absolute control over all significant aspects of the daily activities of the fleet. They answered only to the Council of the Admiralty (for all matters requiring new or altered legislations) and the Emperor.¹³³ Under this system, the Main Naval Staff answered directly to the Naval Minister, as did a new organization called the Chief Inspectorate of the Admiralty. The Main Naval Staff's job was to handle the actual military operations of the fleet; that is, the traditional duty of a general staff. The Chief Inspectorate handled all of the bureaucratic aspects of the navy, including GUKIS. GUKIS itself reported to the Assistant Chief Inspector of the Admiralty. The MTK existed, but each individual department had relative autonomy, and some were attached to the Chief Inspectorate of the Admiralty, others were attached to GUKIS, and some existed entirely independent of either body.¹³⁴

¹³² Ibid., 62–64.

¹³³ Lieutenant Graf Kapnist, "O tsentralnom upravlenii morskogo vedomostva" [About the central directorate of the Naval Department], *Morskoi sbornik*, vol. 332, no. 2 (February 1906), 38.

¹³⁴ Lieutenant Graf Kapnist, "O tsentralnom upravlenii morskogo vedomostva" [About the central directorate of the Naval Department], *Morskoi sbornik* 332, no. 2 (February 1906), 38, 42–51.

The final article established how the navy would acquire new ships. The Main Naval Staff or the Naval Minister would determine that the navy needed a new ship. They would get preliminary approval from the Council of the Admiralty, after which the Chief Inspector for the Admiralty would hold a contest. The MTK would evaluate the designs, choose a basic design (or composite of designs) and hold a second contest to determine who would build the ships and solidify the specific details of the ship. The Council of the Admiralty then made their final approval, after which the Naval Minister officially granted his approval and made any last-minute changes. The shipbuilder would then discuss the design with the MTK and Admiralty Council, sign contracts, and have resources allocated. The Naval Minister himself or, at his preference, the Chief Inspector of the Admiralty, would supervise the finalization of the deal.¹³⁵

Kapnist, unlike Makarov or the anonymous authors who wrote on submarines, focused his arguments on the organization of the fleet, rather than on new ship designs or technologies. This emphasis on bureaucracy set him apart from other officers seeking reform. He highlighted the communications issues that plagued the Naval Ministry. He was also unusual in his focus on the business of shipbuilding and how contracts would be allocated. However, he also had a secondary concern, that of personnel, and that particular concern was one of the most discussed and controversial causes for Russia's defeat. Kapnist noted the challenges of training Russian sailors when he referred to the unnecessary technical complexity of the systems of Russian warships. He also took some time in the final part of his series to discuss naval attaches, recommending longer periods abroad and greater independence from the naval command

¹³⁵ Lieutenant Graf Kapnist, "O tsentralnom upravlenii morskogo vedomostva" [About the central directorate of the Naval Department], *Morskoi sbornik* 333, no. 3 (March 1906), 15–16.

structure, "because they need to have the courage to write their own opinion about those deficiencies in his fleet, in comparison with a foreign fleet."¹³⁶

Other authors, writing both before and after Kapnist, highlighted personnel issues as the most significant cause of Russia's defeat in the Russo-Japanese War. Personnel reform was intimately linked with the problem of technological reform because poor education and training of officers and crew only exacerbated the challenges of learning new, often foreign technologies. As with officers who wanted to discuss naval strategy or bureaucratic reform, the officers who wanted to address personnel issues could do so, but often found their opinions either unwanted or misunderstood. They had the opportunity to challenge traditional thinking, but only in a purely theoretical capacity, and rarely using their own names. One officer, who chose to remain anonymous, stated his case very plainly: "Involuntarily, there is the awareness that in our personnel, in their unpreparedness, is the main cause of our misfortunes. As a matter of fact, we have many admirals, but is there among them a Nelson, are many of them at least experienced and knowledgeable? The war answered these questions." His solutions were straightforward, but his tone was so sarcastic that his anonymity might have been well-advised. He advised regular maneuvers, that young officers should listen to experienced seamen, and to give admirals, in particular, more practice in drawing up operational plans. This last step would teach admirals initiative and allow them to respond more quickly if those same plans failed. There would be a focus on unconventional solutions to conventional problems, which would be a critical skill given the overall lack of resources and ships at Russia's command.¹³⁷

¹³⁶ Ibid., 20–21.

¹³⁷ Anonymous, "K voprosu sozdaniia novogo russkogo flota," [Toward the question of the creation of a new Russian fleet] *Morskoi sbornik* 33 3, no. 3 (March 1906), 120, 122–23, 126. Quote is from 120.

Another officer named Georgievskii had much more to say about the training and selection of personnel. He opened his two-part contribution to the question of reforms by attacking the antiquated equipage system. While discussing the system with a foreign admiral, he had an impossible time trying to explain it: “He could not in any way grasp that our fleet is a two-faced Janus—on shore, it is entirely infantry, because it has infantry barracks, [but] at sea, this same infantry sails on ships in the quality of dashing sailors.” Georgievskii admitted that this practice had value before the era of steamships and when steam power was a novel technology, as the harsh wintry conditions of the Baltic Sea made extended trips dangerous and too risky for much of the year. However, these conditions had never existed in the much more mild and temperate Black Sea, yet the equipage system was still transferred in its entirety to that fleet as well.¹³⁸

What made this tradition so damaging was, in part, referred to in the anonymous author’s criticism: it denied both sailors and naval officers the opportunity to gain experience. The officers only had four months’ contact with their crew, which made it difficult to get to know them, and only prepared them to fight a campaign lasting four months. Worse still, the ships themselves had almost no maintenance during the eight months they were not in use, which meant that Russian ships decayed much more quickly than foreign vessels of the same type and capabilities. Georgievskii immediately countered the usual economic arguments that were generally raised, namely that it would be more expensive to run the ships more frequently, by stating that it was even more expensive to continue the present system of four months of extensive repairs followed by eight months of atrophy and neglect.¹³⁹

¹³⁸ M. Georgievskii, “Chto nuzhno flotu,” 85–86.

¹³⁹ *Ibid.*, 86–87.

Georgievskii's solution was to divide all of the ships in the Russian fleet into three categories: the active fleet (which received a full crew, year round); the first reserve (those vessels which required only minimal repairs; they got a 75% crew); and the second reserve (vessels which required major repairs and had a skeleton crew of one-third their normal complement.) For the immediate future, Russia would only operate a fleet in the Baltic and a fleet in the Black Sea. Any new ships, once purchased or completed, would go immediately into the active reserve. The second reserve would, in time, disappear entirely (either being scrapped, put into the first reserve, or sold). He emphasized the need to get as many personnel at sea as possible. In his system, only fifteen admirals would have permanent shore stations: the Naval Minister, three admirals for the Admiralty Council, the Chief of the Main Naval Staff, the Commanders-in-Chief of the Baltic Sea and Black Sea Fleets, and the eight port commanders. There would be eight admirals that worked with the active fleet. While Georgievskii acknowledged the need for staff officers, granting the eight active admirals a total of 150 staff officers, he was in general against the idea of a large shore-based officer contingent. Indeed, any officer who expressed a desire for shore duty "must unconditionally lose the right to call themselves officers."¹⁴⁰

Addressing the actual selection and training of officers, Georgievskii insisted that political connections or nepotism must have no role in the process: "I am deeply convinced that this was one of the main reasons that Admiral Rozhstvenskii paid so little attention to the opinions of the commanders of his squadron." As a rule, officers should be generalists, as much as possible, with the exception of gunnery officers and torpedo/mine officers. Engineers should be outside the normal command structure, befitting their importance in the modern fleet, and to

¹⁴⁰ Ibid., 92–94. Quote from 100.

ensure that only qualified officers gave engineers orders. All other positions, from watch officers to navigation to staff officers, would be taken from the pool of generalists. Regarding the selection of officers for significant commands, Georgievskii advised a minimum of six years' experience: the first two commanding a torpedo boat, the next two as helmsman for a larger ship, and finally, two years as an executive officer (depending on his qualifications.)¹⁴¹

His second article focused on how to train crews and offered some comments on the selection and construction of ships. The biggest difficulty in recruiting for the navy was the longer service period, as opposed to that of the army. Sailors had to serve for seven years, while soldiers only had a four-year term. That system, much like the equipage system, actually made sense initially. Sailors wishing to become specialists required three years of education, which meant that they only got four truly useful years out of the specialists. For non-specialists, the seven-year term was a hindrance, as it forced incompetent sailors to stay in the navy and put them in situations that were too challenging for them. Georgievskii recommended transferring inept sailors to naval infantry; they would qualify as "soldiers" and be cycled out of the navy that much quicker. He specifically rejected the idea of drafting civilian sailors into the navy, specifically because they often refused to take risks that might lose the ship but win the battle.¹⁴²

Regarding the process of acquiring ships, Georgievskii had little to say about the particular type of ships (other than insisting that a modern fleet needed battleships, submarines, and torpedo boats), but criticized the excessively domestic focus of shipbuilding in the nineteenth century. In the past thirty years, there was only one Russian-built cruiser—the *Admiral Nakhimov*—that he considered "exceptionally well-built." He cited the fact that almost

¹⁴¹ Ibid., 98–100.

¹⁴² M. Georgievskii, "Chto nuzhno flotu," *Morskoi sbornik* 334, no. 6 (June 1906), 83–86.

the entire Japanese navy was built abroad as a counterpoint to the obsession with constructing ships only within the Russian Empire. Georgievskii proposed to slash budgets by approximately one-fourth by slashing bureaucratic expenses, and to use some of those savings to ensure that every engineer spent some time abroad.¹⁴³

Georgievskii made one criticism—the practice of overloading ships with fuel and provisions—that had already been identified as a key weakness of the Russian navy. A detailed analysis of this very issue was published in *Morskoi sbornik* in February 1905, before the Battle of Tsushima had taken place. The author, identifying himself only as “L. K.,” established that, as a general rule, “big ships” (by which the author most likely meant battleships and cruisers) were 10–20% over the designed maximum displacement, while gunboats and torpedo boats could exceed maximum displacement by 40% or more. Although this practice was more common for long trips, virtually every ship had too many extra provisions, fuel, and spare parts. Most directly, this cost the big ships 1 to 2 knots of maximum speed and the smaller ships up to 3 knots. As L.K. stated, “To demonstrate the importance of the speed of movement in battle—there is no such need. Our entire naval war with Japan serves as a vivid corroboration of this.” The justification for the overloading of the Second Pacific Squadron was the need to avoid the Suez Canal (as a result of the Dogger Bank Crisis and the cooling of Anglo-Russian relations), but he thought that the increased displacement might actually make the draft of some of the vessels too deep to enter Vladivostok harbor. One torpedo boat, the *Burnyi*, actually sunk in the Bay of Biscay because it was so overloaded.¹⁴⁴

¹⁴³ Ibid., 90–92.

¹⁴⁴ Ibid., 91; L.K., “O peregruzhenii voennykh korablei” [On the overloading of warships], *Morskoi sbornik* 326, no. 2 (February 1905), 95–97.

The author identified eight serious problems that could occur as a result of overloading ships: reduced speed, reduced buoyancy, the inability to use torpedo tubes in rough seas, increased draft, a loss of stability, loss of seaworthiness, overstress to the keel, and a waste of money during the initial construction process and on maintenance throughout the life of the vessel. L.K. blamed builders, for the most part, for improperly calculating the needs of the vessel. He recommended research into new steel alloys, issuing fines to private shipyards that did not meet the stringent requirements of weight tables, and being far more selective in the allocation of projects to shipbuilders. One particular item that L.K. missed, but Alfred Thayer Mahan correctly noted shortly after Tsushima, was that overloaded vessels had their armored belts dip below the waterline, which made penetrating the ship's hull much easier.¹⁴⁵

Even a clear and non-controversial topic such as the one that L. K. wrote about was still very difficult to express. That author, like so many others, chose to conceal his identity rather than openly criticize naval policy before and during the Russo-Japanese War. One possible reason was a very powerful "taboo" against openly expressed doubt in the Russian navy's recent conduct. This taboo had completely choked off meaningful debate prior to the Russo-Japanese War, and only began to loosen when Russian flag officers, such as the former Commander of the Pacific Fleet, Admiral O. V. Stark, openly sought out alternative theories on the operation of the fleet. Even with Stark's encouragement, some officers were still harshly and severely attacked for even minor transgressions. For example, a lieutenant named Evgenyi Schmidt had a perfectly

¹⁴⁵ L. K., "O peregruzhenii voennykh korablei," 98, 113; "Mahan, "Reflections, historic and other, suggested by the Battle of the Japan Sea," 465.

respectable service record prior to attending a single political demonstration in October 1905, after which his career effectively came to an end.¹⁴⁶

There was also a great deal of self-censorship as well. A group of young and talented naval officers, “the St. Petersburg Naval Circle,” agonized about what their group should be doing about the vastly altered political situation which existed in Russia after the war. One officer, Lieutenant Berens, said in a November 1905 meeting of the Naval Circle that “we justly deserve reproach if we do not attempt to struggle for our naval principles, which are being ripped from our hands by revolutionaries.” A lieutenant (and future White Admiral) A. V. Kolchak disagreed with his colleague. For Kolchak, the sole cause of defeat for Russia during the Russo-Japanese War was inept officers at the highest levels of command, who were inadequately prepared for modern warfare and thus lost the trust of their subordinates. Therefore, it was more important to devote themselves purely to perfecting their profession and not to waste time with politics. A third lieutenant, Kirilin, wanted nothing at all to do with the rebellions in Russia: “I do not see value in such platonic discussion about the events of the day, since we do not [have] the forces to have an influence on their outcome. It is impossible for us to plunge into propaganda.” When a vote was called on the question of whether or not the Naval Circle should get involved, exactly half of the twelve members were for and half against it. The compromise (which was approved unanimously) was to discuss political questions only if the “naval command had no objections to [them].”¹⁴⁷

¹⁴⁶ N. V. Manvelov, *Obychai i traditsii rosiiskogo imperatorskogo flota* [Customs and Traditions of the Russian Imperial Fleet] (Moscow: Yauza, 2008), 145–49.

¹⁴⁷ Protocols of the meeting of November 21, 1905 [of the St. Petersburg Naval Circle], RGAVMF, f. 703, o. 1, d. 2, ll. 6–7. A second meeting, held in early December, even granted high-ranking officers the right to sit in on meetings, with a vote of 10–2. Berens, predictably, was one of those against that proposal. See *ibid.*, 11.

However, over time, that reticence toward criticism started to gradually fade away, at least within an officially sanctioned body. A ship's engineer named N. N. Kuteinikov wrote a lengthy report entitled "the organization of shipbuilding in our fleet" in November 1906 that was extremely harsh, lashing out at multiple organizations within the Naval Ministry. The beginning of his report analyzed various laws and demonstrated how they established the framework of the Naval Ministry with regard to ship construction. Kuteinikov made it clear that GUKIS was the "boss" (*khozyain*) of shipbuilding, and that GUKIS had regularly taken advantage of that legal status to disregard the recommendations or decisions of the Naval Technical Committee. As a general rule, of the three parts of the naval department (which he defined as administrative, economic, and technical), "the technical part is subordinate to the economic."¹⁴⁸ Shipyards, under the existing system, were given direct orders and expected to fill them, not to show any kind of initiative or to ask questions.¹⁴⁹

The direct result of GUKIS' preeminence was, according to Kuteinikov, was two serious problems: a slow pace of construction and a tendency to overload ships, in terms of both regularly exceeding construction weight maximums due to last minute changes to designs and permitting captains to take on too many provisions. Most of the contributing factors to these two issues originated from a handful of basic deficiencies. Chief among these was a lack of a single individual appointed to make important decisions during the shipbuilding process. Thus, delays were very common, as decisions either went unmade for months at a time because multiple departments claimed jurisdiction, or were made frivolously without careful consideration of the

¹⁴⁸ Underline in original.

¹⁴⁹ N. N. Kuteinikov, "The organization of shipbuilding in our fleet," November 16, 1906, RGAVMF, f. 703, o. 1, d. 3, ll. 2, 5, 7.

length of time needed to complete changes or the cost or paucity of materials. In state-owned shipyards, in particular, bureaucrats and not shipbuilders dominated the decision-making process, which meant incompetent personnel made the key decisions. Engineers had no direct access to communicate with the shipwrights, which caused further delays and problems.¹⁵⁰

One of the most common ways to encourage faster construction was (and is) setting bonuses for reaching various milestones ahead of schedule. The benchmarks, however, were too difficult to reach and actually ended up costing the master shipwright money. Kuteinikov provided a simple example. Suppose that a shipmaster received 20 kopeks an hour to complete a job that normally required 400 hours of work. Under normal circumstances, he would then receive 8000 kopeks, or 80 rubles for his work. A standard bonus would be, according to Kuteinikov, a 25% bonus in the hourly rate if he reduced construction times by 25%. So, if he completed the job in 300 hours, he would receive 25 kopeks x 300 hours, which would actually give him a total payment of 75 rubles. Therefore, completing the work more quickly actually cost the builder money, although it could theoretically grant him additional time to work on other projects. However, the entire payment system, regardless of amounts, was needlessly complicated, so some of that extra time would be tied up with bureaucratic red tape. Every single purchase had to be justified to the Admiralty, the Senior Assistant to the Commander of the Port, and to the Commander of the Port himself, which naturally generated a massive quantity of paperwork, all of which had to be completed before anybody got paid. Of course, one workaround was to simply not tell people when purchases needed to be made, and to pay the

¹⁵⁰ Ibid., 9.

builders without approval. That simply engendered further mistrust, which resulted in even more paperwork.¹⁵¹

The design process in building ships also encountered significant delays. The MTK, which oversaw that process, was understaffed, which meant that requests took much longer to fulfill. Compounding that problem was the fact that interdepartmental communication within the MTK remained poor, and some requests required three or more departments for completion. Once construction began, those designs were often met very irregularly. Finished industrial products were ordered by GUKIS, but the raw materials for those same products were ordered by the Port Commanders. Often, substandard materials were ordered by the Ports (either to save money or simply because they do not know how to judge proper materials), which made the finished components lower quality. Armor was particularly susceptible to this problem. During the Russo-Japanese War, Newton McCully, a US naval observer, heard of entire armor plates sliding off of the battleship *Ostryabya*. This structural weakness could have been the result of substandard materials or a desire to save on rivets or welds, problems that Kuteinikov identified as still serious over a year later.¹⁵²

In addition to bureaucratic delays, incompetent officials making key decisions, and excessively strict oversight, Kuteinikov highlighted one other cause for slow construction: a lack of standardization. Unlike the British system, Russians tended not to build ships in “classes,” where multiple ships were built according to the same design, but as individual ships. Even when

¹⁵¹ Kuteinikov does not consider that finishing one job more quickly would allow the shipbuilder to move on to a new task more quickly; however, that would not necessarily be a direct economic benefit, especially if the rates for all jobs remained constant. *Ibid.*, 10.

¹⁵² *Ibid.*, 11; McCully, *The McCully Report*, 250. McCully did not directly witness the plates falling off, but he considered the sources reliable. McCully himself suggested that bad construction was likely the culprit.

ships were built in the same class, GUKIS often directed different factories to construct the same parts for sister ships. The commander of the ship and his staff were appointed early on in the construction process, and each commander's foibles resulted in even less standardization. The preset angle of fire for artillery, as one example, was largely a matter of personal preference, and so that had to be altered according to the tastes of the commander of the vessel. The location of staterooms, service bulkheads, how speaking tubes or telephones were wired, locations of spare parts, even down to the type of anchors used were also up to the commander.¹⁵³

The commander also played in a significant role in the other problem that Kuteinikov highlighted in his report: vessels consistently being overweight. The truth was that, "according to our laws, nobody answers for the overloading of ships during their construction." The hull alone could be carefully measured and required exacting standards, but even then, attempting to closely inspect the hull for weight tolerances was discouraged, as it would cause delays. When ships were designed and built, they had very specific limitations for cargo weight, limitations which were inevitably ignored by the flag officers in charge of the squadron, who argued that their mission requirements counted for more than the engineers' warnings. The Russian naval law agreed with the flag officers, and so that made the engineers' job twice as difficult.¹⁵⁴

Kuteinikov provided two specific examples of overloading. One of the *Knyaz Suvorov*-class battleships was designed with a maximum cargo capacity of 416 tons. However, the vessel's commander decided to take on additional cargo, including more coal, thicker armor, spare parts for engineering and other departments, ammunition, and extra water and food, for a total cargo weight of 1759 tons, over four times the original maximum. The ship's draft was 3

¹⁵³ Kuteinikov, "The organization of shipbuilding in our fleet," ll. 11–12.

¹⁵⁴ *Ibid.*, 12–13.

1/8 feet deeper than it should have been, leading to all of the problems that L. K. noted above in his article. Another ship, the battleship *Borodino*, took on 2200 tons of coal, when the specified maximum was 787 tons. The *Borodino*'s draft was over 30 feet, 4 1/3 feet deeper than prescribed. Kuteinikov recommended a maximum of 7% of the ship's displacement as reserves, with perhaps another 2–3% at the commander's discretion.¹⁵⁵

After a review of foreign shipyards and their practices, Kuteinikov provided a detailed plan for reforming the shipbuilding process. His first rule was to assign a single individual responsible for the construction of a ship. He did not grant this role to a government official, but to the master shipwright. This person would need to have sailing experience and would be an engineer. Every decision necessary for the construction of the ship was made by him and only him. During the design phase, one single person would be responsible for all aspects of the ship's design. He calls this person the "Glavnyi direktor korablestroeniya" [Chief Director of Shipbuilding], or GDK. The GDK (necessarily an engineer, ideally with experience in construction) would be the only individual allowed to make changes to the ship's specifications after plans are approved. The Office of Construction of GUKIS and MTK would be abolished under Kuteinikov's proposal. In their place would be a Technical Council, which answered directly to the GDK and was composed of nine people, each of whom served as an expert in various aspects of the construction process. These experts included shipwrights, artilleryists, torpedo specialists, and electrical engineers, among others. This Technical Council would draw

¹⁵⁵ Ibid., 13–14. If Kuteinikov's limits were imposed, the *Borodino*, of 14,091 tons displacement, would have had a maximum cargo capacity of 1409 tons; twice the maximum recommended by the initial builder, but not nearly as much as the vessel actually held. See McLaughlin, *Russian & Soviet Battleships*, 136.

up all plans (one of the nine experts was a draftsman), the GDK approved them, and that was that.¹⁵⁶

Directly subordinate to the GDK under this proposal were the *nachalniki sudostroenii* or Chiefs of Shipbuilding. They served as the liaisons between the GDK and the shipbuilders for each ship and one was assigned to each port.¹⁵⁷ Remarkably, this position was an elected one. Any engineer, engineer-technician, or engineer-mechanic was eligible for the position, provided he had at least fifteen years of experience. The Chief of Shipbuilding assigned contracts to shipyards, each of which was expected to build the entire ship.¹⁵⁸ For exceeding certain deadlines, a single bonus was awarded to all of the individuals involved in the process, from which 3% was allocated to the respective Chief of Shipbuilding in that port, all the way up to 50% for the shipwright.¹⁵⁹

Once a ship was finished, there was to be a period of inspection and testing. The GDK was expected to carry out all inspections personally, along with any staff he considered necessary. If a ship passed inspection, the Chief of Shipbuilding for the Port would designate when the builder's trials were to begin, set the parameters for each test, and the results expected. If those trials were completed successfully, a Receiving Committee (chosen by the Naval Minister) did one final inspection and round of testing before formally accepting the ship into the

¹⁵⁶ Ibid., 19–22.

¹⁵⁷ It is not explicit whether there is a single Chief of Shipbuilding or one for each port. The bonuses, as Kuteinikov seeks to assign them, suggest that there is one for each port.

¹⁵⁸ The possibility of subcontractors is not entirely precluded, but Kuteinikov does say “w h o l e” (“*ts e l o e*”), with that exact spacing, which indicates emphasis.

¹⁵⁹ Ibid., 24–26.

service of the Russian Empire. “Only after the ship is formally accepted is a commander and crew designated,” wrote Kuteinikov.¹⁶⁰

Kuteinikov’s proposal was one of the most well-considered and fleshed out reform packages submitted after the Russo-Japanese War. The emphasis on accountability and responsibility was a welcome one, and an emphasis which previous reform plans lacked. Kuteinikov had a key advantage that none of the other reforms had: his father, N. E. Kuteinikov, was the Chief Inspector of Shipbuilding for the MTK.¹⁶¹ Even so, that did not stop the younger Kuteinikov from essentially abolishing his father’s position under his proposal, proving that he had the independent spirit necessary to make criticisms of the existing system.

Unfortunately for the Russian Imperial Navy, virtually none of the above reforms, regardless of author, received serious consideration under the Naval Minister A. A. Birilev. Birilev’s tenure in the post was too brief to make meaningful reforms, even if he wished to, and there is little evidence that he did. A. S. Novikov-Priboy, a participant at the battle of Tsushima and popular novelist, sardonically claimed that Birilev’s main task was to “continue the business of Rozhestvenskii and, with glory, to add to the victory of the Empire in the east.”¹⁶² In terms of his actions, the new Naval Minister did his best to rebuild the Russian fleet, while simultaneously dealing with far-reaching political and cultural changes, a rapidly shifting international picture, and huge leaps forward in naval technical innovation. These challenges would have been difficult for anyone, particularly a traditionalist who, right or wrong, spent most of his time trying to rebuild the fleet after the pattern of the pre-Tsushima fleet.

¹⁶⁰ Ibid., 26–8.

¹⁶¹ See Kuroyedov, *VMES*, 412.

¹⁶² Quoted in Nazarenko, *Morskoe ministerstvo*, 43.

Birilev and the first steps towards a new navy

Birilev had an opportunity to make a significant impact on the course of Russian naval policy as the first Naval Minister that served after Alexei Alexandrovich. He was trusted by Emperor Nicholas II, so much so that Birilev signed the secret treaty of Björko, which created an alliance between Germany and Russia (albeit, one which never properly took effect), doing so without even reading the document in question.¹⁶³ He was not, however, able to parlay this trust into significant reforms or changes to the Imperial navy. Birilev's ideas for the Imperial fleet were not in tune with those of the Emperor, who favored coastal defense and a smaller fleet at that stage. When Birilev openly defied the Emperor, his tenure as Naval Minister was cut short, ushering in an era of short-lived Naval Ministers.

Organizationally, two major changes occurred under Birilev. On January 17, 1906, the post of Deputy Naval Minister was created through an initiative by the Governing Senate.¹⁶⁴ The post's specific duties as assigned by Birilev included oversight over GUKIS and MTK and the state-owned shipyards. The first Deputy Naval Minister was Rear Admiral N. A. Rimsky-Korsakov.¹⁶⁵ This selection was surprising; many expected Grand Duke Alexander

¹⁶³ D. C. B. Lieven, "Stereotyping an Elite: The Appointed Members of the State Council, 1894–1914," *The Slavonic and East European Review* 63, no. 2 (April, 1985), 259. The treaty was ultimately nullified after the then-Russian Foreign Minister V. N. Lamsdorf convinced the Emperor that honoring the treaty with Germany would nullify the treaty with France that had existed since 1894. See Sidney B. Fay, "The Kaiser's Secret Negotiations with the Tsar," *American Historical Review* 24, no. 1 (October 1918), 48–72.

¹⁶⁴ The Governing Senate was roughly the equivalent of the US Supreme Court. It did not have a truly legislative function by the end of the Russian Empire, so the actual originator of the law is unknown. Nazarenko points out that the idea of a competent deputy had been raised in the final days of Grand Duke Alexei Alexandrovich's tenure as General Admiral. *Ibid.*, 46.

¹⁶⁵ This was Nikolai Alexandrovich Rimsky-Korsakov, not his rough contemporary, Nikolai Andreyevich Rimsky-Korsakov, the famous Russian composer (although the latter Rimsky-Korsakov did serve in the navy very briefly). The family itself was very large and had a long naval tradition.

Mikhailovich, also a Rear Admiral, to receive the selection. Those officers who thought that Grand Duke Kirill Vladimirovich would be selected, who, although he held a lower rank than Alexander Mikhailovich (Captain Second Rank, a full two ranks below Rear Admiral), had nonetheless served in the fleet longer than any other officer. There was precedent for appointing a relatively junior officer to an important position based on seniority and royal pedigree: it was how Alexei Alexandrovich earned the role of General Admiral. That did not make N. A. Rimsky-Korsakov unqualified, however: he had served as Naval Attaché in Paris and commanded a number of ships, including battleships, prior to his tenure as head of the Naval Academy from 1904 to 1906.¹⁶⁶

The second major organizational change under Birilev was the creation of a separate Naval General Staff, as opposed to the previous Main Naval Staff (*Morskoi Generalnyi Shtab* and *Glavnyi Morskoi Shtab*, respectively). The new Naval General Staff oversaw operations, a historical archive unit, planning for mobilization, and a department of statistics that examined both the Russian and foreign fleets. The old Main Naval Staff handled personnel matters, including training, as well as legislative functions for the Naval Ministry. Both answered directly to the Naval Minister, and not to the Deputy Naval Minister. This relationship occurred in the army as well, where the War Minister and General Staff spent considerable time arguing over who had responsibility for the army's operation.¹⁶⁷

¹⁶⁶ Nazarenko, *Morskoe ministerstvo*, 46; Electronic edition of Manvelov, *Obychai i traditsii rossiiskogo imperatorskogo flota*, http://militera.lib.ru/h/manvelov_nv/26.html, accessed March 19, 2015.

¹⁶⁷ Nazarenko, *Morskoe ministerstvo*, 247. For the army's situation, see David R. Stone, *The Russian Army in the Great War: The Eastern Front, 1914–1917* (Lawrence, KS: University Press of Kansas, 2015), 54–55. (eBook edition)

These two changes further complicated the shipbuilding process instead of making it simpler, a direct contradiction to the recommendations in Kuteinikov's report. The Deputy Naval Minister had authority over GUKIS and MTK, but the Naval General Staff set the overall tone of naval operations, which meant they often had a say, at least in the early planning stages, as to which kinds of ships should be prioritized. Because the Naval General Staff answered only to the Naval Minister, the chain of command was even less clear. Nicholas II gave Birilev clear instructions in an Imperial manifest on June 29, 1905, three days after the new Naval Minister's appointment: "I set as the first sacred obligation of the naval department, the urgent security of the naval defense of the shores of all our waters, and depending on resources, to already rebuild [offensive] combat squadrons." The Naval Minister had comparatively little to work with to achieve even those relatively simple goals. Russia had already fallen from third place in the world's navies to sixth purely as a result of the Russo-Japanese War.¹⁶⁸

¹⁶⁸ Quoted in *Ibid.*, 47; Gardiner, *All the World's Fighting Ships II*, 291.

Table 2.1. The Russian Imperial Navy as of January 1, 1906¹⁶⁹

<i>Type of Warship</i>	Baltic Fleet		Black Sea Fleet	
	In service ¹⁷⁰	Under construction	In service	Under construction
Battleships	9 ¹⁷¹	2	7	2
Cruisers ¹⁷²	13	4	1	1
Destroyers	41	8	29	4
Torpedo boats ¹⁷³	127 ¹⁷⁴	0	20	0
Submarines	0	15	0	2
Auxiliary ships ¹⁷⁵	3	0	7	1

¹⁶⁹ Melnikov, *Sudostroenie vo vtoroi polovine XIX v*, 223; McLaughlin, *Russian & Soviet Battleships*, 147 and 180; Gardiner, *All the World's Fighting Ships II*, 291–302; L. G. Beskrovnyi, *Armiya i flot Rossii v nachale XX v.: ocherki voenno-ekonomicheskogo potentsiala* [The army and fleet of Russia in the beginning of the 20th century: sketches of military-economic potential] (Moscow: Nauka, 1986), 163–5. Beskrovnyi's book contains an up-to-date listing of all of the ships in the two main fleets as of December 1907. The other sources were cross-checked for completion dates to make the above table as accurate as possible. Excludes the Pacific Fleet, which was comprised of two cruisers (*Askold* and *Zhemchug*) and a number of destroyers and submarines, and the Caspian Sea Flotilla, comprised of two torpedo boats. See Beskrovnyi, *Armiya i flota Rossii*, 164.

¹⁷⁰ Includes all ships formally commissioned into the Russian fleet. Some of these ships were heavily damaged as a result of the Russo-Japanese War, and so were still under repairs at the beginning of 1906.

¹⁷¹ Includes *Petr Velikii*, which was converted to a training ship sometime in 1905–6 and the five coastal defense battleships launched in 1867–8. Four of the coastal defense battleships were decommitted in 1907; the last one, *Admiral Greig*, was decommitted in 1909. Gardiner, *All the World's Fighting Ships II*, 294–5.

¹⁷² For the sake of brevity, includes all cruisers: armored, protected, and unarmored. It also includes several older vessels, which served primarily as training ships.

¹⁷³ Includes both *minnosevtsy* (standard sized torpedo boats) and *minonoski* (smaller torpedo boats). The latter were developed during the waning days of the Russo-Turkish War of 1877–78 and weighed around 25 tons, roughly one-third to one-quarter the size of a normal torpedo boat. Gardiner, *All the World's Fighting Ships II*, 299.

¹⁷⁴ Ten of these torpedo boats (*minonoski* in this case) had gasoline engines as opposed to the normal steam engines used at this time. Beskrovnyi, *Armiya i flot Rossii*, 163.

¹⁷⁵ Includes gunboats and minelayers.

Making his task doubly difficult was an Imperial prohibition on purchasing ships from abroad. S. I. Witte, the Chairman of the Council of Ministers, which was the closest position that the Russian Empire had to a Prime Minister, gave Birilev very specific instructions to that effect. First, he insisted that all orders (foreign and domestic) had to be placed within three months of the beginning of the fiscal year. Because foreign prices, in particular, were extremely high, “contracts which are concluded with suppliers or their brokers must include terms that orders must be fulfilled by Russian factories and of domestic [lit. non-foreign] materials; exemption from this rule is only permitted concerning those materials which Russia does not have.” Birilev dutifully sent out a circular to GUKIS, passing along those restrictions, a few days later. Even so, the Finance Minister, V. N. Kokovtsov, sent him a reminder at the end of 1906. Kokovtsov also noted that buying as many domestic materials as possible would reduce unemployment in Russia. He closed his letter with a subtle threat, reminding the Naval Minister that this initiative had been approved by the Emperor.¹⁷⁶

However, these restrictions did not prevent foreign ships from entering the Russian fleet during Birilev’s tenure as Naval Minister. The ex-General Admiral, Grand Duke Alexei Alexandrovich, and former Administrator of the Naval Department F. K. Avelan had placed foreign orders in the waning days of the Russo-Japanese War. These orders included several submarines from Germany and the United States, ten American “Nixon” escort ships, and two cruisers: the *Rurik* from the United Kingdom and the *Admiral Makarov* from France. Funding for

¹⁷⁶ Witte to Birilev, February 2, 1906, RGAVMF, f. 427, o. 1, d. 1659, ll. 61–62; Circular to GUKIS, February 13, 1906; *ibid.*, l. 67; Kokovtsov to Birilev, December 6, 1906; RGAVMF, f. 427, o. 1, d. 1691, l. 1.

each of those ships continued until their completion.¹⁷⁷ Although the three German submarines were actually completed in March 1905, predating Birilev's appointment, multiple technical delays and concerns about payments to Krupp's Germania shipyard meant that they were not formally accepted into the fleet until July 27, 1907, and did not arrive in the Black Sea until 1908.¹⁷⁸ The other ships were finished during the tenures of Birilev's successors, I. M. Dikov and S. A. Voevodskii.¹⁷⁹

Birilev did authorize construction on two new ships. On August 1, 1905, shortly after he began as Naval Minister, Birilev cancelled the construction of two battleships in favor of two new cruisers. To the Naval Minister's way of thinking, these battleships, which were originally intended to be part of the *Andrei Pervozvannyi*-class, were already obsolete. The navy would be better served by redesigning a new class of battleship, in his opinion. He stated in a letter to GUKIS that "the development of such a design is associated with a necessity to verify data in experiments, [which] require a lot of time, and therefore, to avoid mistakes, it is considered to be more prudent to delay the construction of the battleships until a new design is developed and approved." In other words, Birilev did not think that a modernization of the existing Russian

¹⁷⁷According to the official list of foreign orders, the official order date of the *Rurik* was 15 June 1905; the Emperor had actually approved it on 23 May 1905, or about eleven days after Tsushima. "On foreign orders produced in 1909," RGAVMF, f. 427, o. 1, d. 2042, ll. 211–212.

¹⁷⁸ Report of the receiving committee, 27 July 1907, RGAVMF, f. 427, o. 1, d. 1189, l. 344 and telegram from the staff at Port Emperor Alexander III, 8 October 1907, RGAVMF, f. 427, o. 1, d. 1190, l. 11. Polmar and Noot state that the three new submarines were reassembled after rail transport to Odessa sometime in 1908 but do not provide a specific date. Polmar and Noot, *Submarines of the Russian and Soviet Navies*, 230.

¹⁷⁹ Archival documents give completion dates of September 11, 1907 for *Rurik* and December 1, 1907 for *Admiral Makarov*. "On foreign orders produced in 1909," RGAVMF, f. 427, o. 1, d. 2042, ll. 211–212. Stephen McLaughlin's research indicates the *Admiral Makarov* was commissioned first, in 1908, while the *Rurik* was commissioned in July 1909. Stephen McLaughlin, "From Riurik to Riurik: Russia's Armoured Cruisers" in *Warship 1999–2000*, ed. Antony Preston (London: Conway Maritime Press, 1999), 73.

designs was sufficient: he wanted an entirely new class of battleships, even if it meant reformulating the dimensions of the ship and the designs of the main naval guns. At the same time, Birilev also recognized that the Port of Saint Petersburg and the Baltic Shipyard would suffer financial hardships without these orders, and so he proposed to request the funds be allocated to the construction of two cruisers, one based on the *Bayan* [the original ship that the *Admiral Makarov* was based on] and the other on the *Rurik*.¹⁸⁰

However, even though Birilev did not oppose the construction of these new ships and continued to see them funded, his record with supporting new technology was, initially, very bad. During the construction of the *Rurik*, the Naval Minister vetoed the installation of turbine engines, which would have garnered much higher speeds more efficiently. He specifically did so because he doubted the ability of Russian commanders to navigate at such high speeds, and that “they could not avoid shipwrecks.” Initially, this decision provoked outrage from a correspondent for the newspaper *Novoe vremya*, E. K. Brut, who had thought that the British had denied the Russian fleet the ability to use the new technology. After a careful review of the documents, Brut sorrowfully proclaimed, “Of these mistakes, we [i.e., the Russians] are entirely guilty.”¹⁸¹

What ultimately changed Birilev’s mind, at least in terms of the turbine engine, was the completion of the *HMS Dreadnought* by the United Kingdom in 1906. Completed in fourteen months, an amazing pace for battleship construction, the *Dreadnought* boasted ten 12-inch guns at a time when no other ship at sea had more than four. The uniform caliber of big guns had two

¹⁸⁰ Birilev to GUKIS, 1 August 1905, RGAVMF, f. 427, o. 1, d. 1506, l. 20.

¹⁸¹ Quoted from V. V. Polikarpov, “Vlast i flot v Rossii v 1905–1909 godax” [Authority and the fleet in Russia in 1905–1909] from *Ot Tsusimy k Fevralyu: Tsarizm i voennaya promyshlennost v nachale XX veka* [From Tsushima to February: Tsarism and military industry in the beginning of the twentieth century] (Moscow: Indrik, 2008), 274.

major advantages: the need to stock only a single type of ammunition and more simplified fire control, as there was no need to recalibrate settings for a different size shell or type of gun. A smaller number of larger guns also made it easier to concentrate fire on a single target. Paired with Parsons turbines, which were capable of 21 knots, the resulting ship could outrange any other battleship, outrun most cruisers, and absorb astonishing punishment due to five thousand tons of armor.¹⁸² Its very existence rendered every other battleship on the seas obsolete, and this fact was not lost on Birilev.

On October 17, 1906, about a month and a half shy of *HMS Dreadnought's* commissioning into the Royal Navy, Birilev sent a lengthy letter to the new Chairman of the Council of Ministers, P. A. Stolypin.¹⁸³ Stolypin had been Minister of Internal Affairs ever since the Duma was first established and had been Chairman since July 9. Nicholas II was extremely fond of Stolypin, remarking in his journal that “from the first, I had the very best impression of him.”¹⁸⁴ In this letter to an imperial favorite, Birilev made his case for Russia to begin constructing dreadnoughts of its own.

Birilev's request began by asking for 19 million rubles for 1907, of which 4 million was for two *Rurik*-class cruisers, based on the original British design. A sizeable portion of the remainder, however, was earmarked for extensive experimentation so that Russia could build its

¹⁸² Robert K. Massie, *Dreadnought: Britain, Germany, and the Coming of the Great War* (New York: Ballantine Books, 1991), 565–72; Roger Parkinson, *Dreadnought: The Ship that Changed the World* (London: I. B. Tauris, 2015), 89–92.

¹⁸³ According to Massie, the official commissioning of the *Dreadnought* occurred on December 11, 1906. Converted to Old Style, that would be November 29, meaning that Birilev's letter came 42 days in advance. Massie, *Dreadnought*, 580.

¹⁸⁴ “Stolypin Pyotr Arkadeyevich,” *Brokgauz i Efron*, <http://www.vehi.net/brokgauz/all/097/97361.shtml>, accessed April 12, 2015; Nicholas II, *Dnevnik Imperatora Nikolaya II*, ed. A. S. Budrykin (Moscow: Polistar, 1991), 263–4. Hereafter *Diaries III*.

own turbine engines. As he put it, “In a word, the introduction of the new [turbine] engine has shaken the science of shipbuilding to its very foundations.” The Naval Minister was careful to point out the risks of spending significant sums on a domestic research program, but with the proper funding, he estimated that a design, ready for production, could be ready by the second half of 1907. The first two ships to have turbines would be two battleships already under construction. In addition, he wanted to begin design and construction of two brand new dreadnoughts, which he estimated would cost 42 million rubles over three to four years.¹⁸⁵

Unfortunately for Birilev, he was opposed by the Finance Minister, V. N. Kokovtsov. The Finance Minister did not want to spend millions of rubles on what he saw as unproven technology, and delayed even responding to Birilev for two months. Kokovtsov preferred to spend the money on something else, and even as Birilev brought up the unemployment that might occur if the new building program is not approved, Kokovtsov countered by emphasizing how few workers in Russia actually worked in the shipbuilding industry. The Finance Minister was willing to authorize 2.7 million rubles for the initial designs for the battleships to be converted to turbine engines, and the Naval Minister had to agree to a corresponding reduction in 1907. Birilev had also requested 8.6 million rubles for the actual construction, but Kokovtsov refused to consider it.¹⁸⁶

¹⁸⁵ Birilev does not specify which two battleships he means. He only specified that they were “already laid down,” which offers four possibilities: *Evstafi*, *Ioann Zlatoust*, *Andrei Pervozvannyi*, and *Imperator Pavel I*. As the first two were ticketed for the Black Sea, the latter two seem to be the most likely candidates. Gardiner, *All the World's Fighting Ships II*, 294. Birilev to Stolypin, October 17, 1906, Rossiskii Gosudarstvennyi Istoricheskii Arkhiv [Russian State Historical Archive, hereafter RGIA], f. 1276, o. 2, d. 444, ll. 2–4. Quote is from Birilev letter, l. 2.

¹⁸⁶ Peter Gatrell gives a total of 19,893 workers in both state-owned and private shipyards in 1908. Within the Imperial defense industry alone, that placed them third, behind the factories of the Chief Artillery Directorate and the Department of Mines. Gatrell, *Government, industry, and rearmament in Russia*, 244; Birilev to Stolypin, October 17, 1906, RGIA, f. 1276, o. 2, d. 444, ll. 5–6.

Frustrated, Birilev sent a follow up letter to Stolypin one week later. The Naval Minister blamed the lack of a clear foreign policy directive for the relative lack of progress on a detailed shipbuilding program, beyond what he had already requested for the new dreadnoughts and the conversion of the older battleships. Birilev's solution to the problem was to call for a committee of the Ministers of Foreign Affairs, Finance, and the Navy, and Stolypin. Nicholas II himself was to be the chair of the committee. There was precedent for so dramatic a proposal, in Birilev's view, as he cited the Emperor's participation in a Duma committee on education earlier in 1906. Without the Emperor's personal attention to the navy, Birilev suggested, any serious reform proposal was doomed.¹⁸⁷ This second letter, ultimately, led to Birilev's dismissal.

If the Naval Minister had not sent the second letter, he might have kept his position and been in a far better position to see dreadnoughts constructed in the Russian Empire. By trying to spread the blame for his future failure to other departments, however justified, he effectively cost himself all possible support. Perhaps Birilev considered that his close relationship to Nicholas II would prevail, but to be perfectly fair, Birilev's original mandate was to defend the coasts of the Baltic Sea first. Then, and only if there was extra funding and/or time, he could build up combat squadrons. Instead, he pursued his own program for dreadnoughts, even at the expense of any other ships. When this gambit failed, he resigned.¹⁸⁸ Birilev's tenure as Naval Minister was not entirely devoid of new ships, however: the Naval Ministry took important steps to add three new foreign submarines during his tenure, which represented significant improvements to the fleet he inherited after the Russo-Japanese War.

¹⁸⁷ Birilev to Stolypin, October 24, 1907, RGIA, f. 1276, o. 2, d. 444, ll. 19–23.

¹⁸⁸ Birilev's official resignation occurred on January 7, 1907. The Naval Minister had made one final plea to the Emperor for his dreadnoughts, but in the end failed. Nicholas II, *Diaries II*, 350.

The submarines were built by the German company Krupp's "Germania" shipyard in Kiel. Krupp faced considerable competition on the international market in selling their submarines; an attempt to collude with the American firm Lake for the lucrative Russian market was rejected by Lake. In fact, Krupp built submarines for Russia before it ever built submarines for Germany. Wachter & Company, based in St. Petersburg, handled all of the negotiations. K. L. Wachter made the initial approach to the Chairman of the MTK on March 24, 1904. He proposed selling the first submarine for 1.6 million marks; up to two additional submarines could be purchased for an additional 1 million marks each. He promised delivery of all three submarines in ten months, and if there was a significant delay, Wachter promised to refund the Russians up to one-third of the cost of each submarine that failed to meet his deadlines. MTK forwarded the offer to the head of Office of Construction of GUKIS, Rear Admiral A. P. Rodionov, who in turned passed the offer on to the then-Naval Minister, F. K. Avelan, recommending the purchase. Rodionov also conjectured that Krupp might sell Russia four submarines if they asked, and converted the purchase cost into rubles: 1,656,000 rubles for all three.¹⁸⁹

Rodionov, who was the point of contact on the Russian side for the deal, replied to Wachter on April 10, 1904, just two days after he requested the Naval Minister's decision. The terms of the deal required that Krupp build the submarines with a Russian delegation in Kiel, then disassembled and transported to Russia via rail. After a detailed inspection at a border station, the Russian Navy would formally accept the vessels. Krupp was also to provide a single

¹⁸⁹ The first U-boats for Germany were laid down in 1906, two years after Krupp built and sold three electric submarines to the Russian Empire. Gary E. Weir, "Tirpitz, Technology, and Building U-boats, 1897–1916", *The International History Review* 6, no. 2, (May 1984), 179, 181; Wachter to the Chairman of MTK, March 24, 1904, RGAVMF, f. 427, o. 1, d. 1189, l. 1; Rodionov to Avelan, April 8, 1904, *ibid.*, l. 2.

engineer to assist with reassembly. The Naval Ministry would pay for the engineer's room and board and would make an insurance payment to the engineer's family "in case of death or serious injury."¹⁹⁰

These new submarines were 39.5 meters long, had a diameter of 2.7 meters, and displaced approximately 170 tons (excluding fuel reserves). The submarines had a dual propulsion system, using kerosene engines on the surface and electric motors while submerged. The kerosene engines provided a range of 1600 nautical miles at a speed of six knots; the motors had a range of 80 nautical miles at 4 knots. The maximum speed of the vessel was 11 knots surfaced, 9 knots submerged, with a maximum depth of 30 meters. The submarine could carry up to five torpedoes (although the Germans would not provide them), which could be fired from two torpedo tubes while surfaced or submerged. It had a crew of ten and could supply enough fresh air for 20 hours of continuous service underwater.¹⁹¹

The contract was signed May 10, 1904, with delivery of the first submarine due January 10, 1905. The final draft of the contract provided for eight Russian engineers to observe and participate in the construction process in Kiel; six were machinists (two per submarine), while the other two had unspecified duties. One third of the total cost was due at signing, one third after the builder's trials, and the final third after delivery. Although no specific amount was attached to the German engineer's insurance, the Russians insisted it would be paid "in the ways of Imperial [lit. monarchical] charity." The Russian naval attaché in Germany was notified on

¹⁹⁰ Rodionov to Wachter, April 10, 1904, RGAVMF, f. 427, o. 1, d. 1189, l. 3 and draft of the contract, undated, RGAVMF, f. 427, o. 1, d. 1189, l. 4–5. Instead of the more usual term "strakhovanie" for insurance, here the word "obespechenie" is used, which usually means "protection" or "guarantee."

¹⁹¹ Technical specifications of the "avtonomnaya lodka" [autonomous boat], undated, RGAVMF, f. 427, o. 1, d. 1189, l. 6–8.

June 21, 1904; the attaché had strict orders to keep the transactions secret, and he was to personally handle all payments. The actual first payment was authorized on June 15, 1904, totaling 558,259 rubles.¹⁹²

However, the matter of payment significantly delayed the completion of the submarines. Disputes over the construction of an earlier submarine, *Forel*, caused relations to sour between Russia and Krupp. The Russian Empire refused to pay 8000 marks to the company for the housing and salary of the engineer who had originally accompanied *Forel* to Vladivostok, which in turn caused problems with the arrangements of Russian engineers in Kiel. During the construction of *Forel*, another key piece of information necessitated further delays: Russian torpedoes would not fit in German torpedo tubes, and the launching mechanisms were slightly different, which required some careful engineering to modify. Instead of the first submarine being completed in January 1905, the engineers to supervise the construction process in Kiel were not even dispatched until July 14, 1905.¹⁹³

With the extensive delays, Rodionov wondered whether it might not be more suitable to have the Germans simply sail the submarines to a convenient port and bypass the entire disassembly and reassembly process. He put the request in writing to the new Naval Minister, A. A. Birilev, and began discussing the presumptive home of the new submarines with the Chief

¹⁹² Final copy of the contract, May 10, 1904, RGAVMF, f. 427, o. 1, d. 1189, l. 29–30; Rodionov to the naval attache in Germany [here unnamed], June 21, 1904, *ibid.*, l. 45; Rodionov to the Special Chancellery for the Budgetary Unit, June 15, 1904, *ibid.*, l. 68–69. For customs purposes, the first submarine and its tubes were classified as a “mobile safety buoy.” Wachter to Rodionov, May 18, 1904, *ibid.*, l. 36.

¹⁹³ Why, specifically, Russia refused to pay the 8000 marks, a trivial sum, is unknown. Ultimately, Russia did pay the sum, but not until September 15, 1905. Untitled memo, July 14, 1905, *ibid.*, l. 107; Vice Admiral Oseteltskii [Chief Inspector for Torpedoes] to the head of the Baltic Shipyard, undated, *ibid.*, l. 76. The initial refusal of the payment is on page 104 of the *delo*; the payment authorization is on page 118.

of Submarine Navigation, Rear Admiral Shchensnovich. They agreed on sending the submarines to the Port Emperor Alexander III (modern day Liepaja, Latvia) and notified Krupp. Krupp refused to do so unless Russia agreed to pay insurance for the German crews of the submarines; ultimately, after consultations with the Naval Minister, Rodionov decided to send Russian crews to Germany via freighter, who would then sail the submarines back to Russia, gaining invaluable experience in the process.¹⁹⁴ Yet even with this situation settled, difficulties continued to arise, delaying delivery of the German submarines still farther.

The new issue was a German subcontractor, Koerting, which Krupp had hired to provide the kerosene engines. Of the six required (two per submarine), they only had two, but the remaining four would be available no later than May 30, 1906. This letter was a direct response to a letter from a very irritated Rodionov, who wrote to Wachter that “At the present time, a year has already passed, and the boats are not only not ready, there is not even any information as to when the beginning of the receiving trials can be expected for the first of them.” Finally, by October 1906, builder’s trials were scheduled for March 1907; although the submarines were going to be ready on November 2, Shchensnovich could not provide personnel for the receiving committee until March, partially because of the Russian winter and the freezing of the Gulf of Finland, but also a simple shortage of trained personnel. A brief warm period in February 1907

¹⁹⁴ Rodionov to Birilev, August 27, 1905, RGAVMF, f. 427, o. 1, d. 1189, l. 114; Rodionov to Shchensnovich, October 11, 1905, *ibid.*, l. 126; Shchensnovich to Rodionov, October 18, 1905, *ibid.*, l. 133; Krupp [as opposed to Wachter; there is no signature at the bottom of the letter] to Rodionov, December 16, 1905, *ibid.*, l. 159. Rodionov and Shchensnovich also discussed the possibility of towing the submarines to Port Emperor Alexander III, but this was deemed impractical and would require a very substantial crew to accomplish. Thus, Rodionov proposed sending Russian crews to Birilev, who agreed. See Rodionov to Shchensnovich, December 10, 1905, *ibid.*, l. 164; Rodionov to Shchensnovich, December 21, 1905, *ibid.*, l. 165; Rodionov to Birilev, December 22, 1905, *ibid.*, l. 166–67; Rodionov to Shchensnovich, December 28, 1905, *ibid.*, l. 168.

actually permitted trials to begin sooner, which were scheduled for the end of that month.¹⁹⁵ By that time, Birilev was out of office.

The three submarines were completed and formally accepted in October 1907, nearly two full years after the agreed-upon completion date. The submarines had failed their builder's trials due to substandard batteries; the batteries had apparently been in a warehouse for over two years and, naturally, their ability to hold a charge was compromised. Krupp offered to supply all new batteries, but requested a payment of 50,000 marks for parts and labor. Again, despite a relatively trivial sum, the Russians dithered and delayed. The receiving committee voted to accept the new submarines, which had the new batteries installed, on July 27, 1907. Test firing of the torpedo tubes took a little longer, but by August 20, Russia had agreed to pay the second of the three payments. The submarines arrived at the Port Emperor Alexander III on October 8, 1907, necessitating the payment of the third and final installment. Krupp never did get their 50,000 marks for the new batteries, as delays for the new batteries for the second and third submarines required further changes, which Rodionov's successor, O. L. Radlov, argued invalidated the original request.¹⁹⁶ The three submarines—*Karp*, *Karas*, and *Kambala*—

¹⁹⁵ Quoted section from Rodionov to Wachter, April 12, 1906, *ibid.*, l. 190. Also see Wachter to Rodionov, April 20, 1906, *ibid.*, l. 198–201; Shchensnovich to Rodionov, October 13, 1906, *ibid.*, l. 310; Rodionov to Soldatov [senior Russian naval officer present in Germany], October 27, 1906, *ibid.*, l. 319; Rodionov to Wachter, December 18, 1906, *ibid.*, l. 333; Wachter to Rodionov, February 14, 1907, *ibid.*, l. 335.

¹⁹⁶ Wachter to Rodionov, July 3, 1907, RGAVMF, f. 427, o. 1, d. 1189, l. 337–8; Report of the receiving committee, July 27, 1907, RGAVMF, f. 427, o. 1, d. 1189, l. 344; Protocols of a session of the receiving committee, July 31, 1907, RGAVMF, f. 427, o. 1, d. 1189, l. 347; Wachter to Rodionov, September 24, 1907, RGAVMF, f. 427, o. 1, d. 1189, l. 423–5; Telegram from Chief of Staff at Port Emperor Alexander III, RGAVMF, f. 427, o. 1, d. 1190, l. 11; Chief Inspector of the Torpedo Unit to Radlov, RGAVMF, f. 427, o. 1, d. 1190, l. 138. Radlov actually began as Chief of the Department of Construction for GUKIS on April 2, 1906, but Rodionov continued to serve as a liaison for Krupp until October 1907.

represented at least an attempt for Birilev to comply with the Emperor's original orders to focus on coastal defense.

That Birilev failed to rebuild the Imperial Russian Navy in a significant way was not entirely his doing. It is certainly true that he specifically disobeyed the Emperor's orders to concentrate on coastal defense before expending sums on new combat squadrons, with the exception of the foreign submarines. Birilev recognized that, and defended this position at a conference on shipbuilding he chaired on April 22, 1906:

Coastal defense is impossible if it is not supported by a combat fleet, which is why it is necessary to have a war fleet simultaneously with coastal defense. As a result of the evolution of a type of warship [presumably dreadnoughts], the present moment is extremely auspicious for the reconstitution of the fleet, which is why it should be developed now. We, as yet, have no modern warships, [but] everyone needs to build the new type of battleship. That includes us, if we are not to fall behind the forces of our opposition in the near future. It is necessary to undertake the construction of big ships as soon as possible.¹⁹⁷

At the same time, he was denied the ability to purchase foreign warships (apart from the German submarines). With the advent of the *Dreadnought*, the Russian Empire had a unique opportunity to make up considerable ground on the other Great Powers. They could have purchased older, but still useful naval technology to build up the Russian Navy's numbers after the Russo-Japanese War. Finance Minister Kokovtsov and the Emperor himself rejected that

¹⁹⁷ Quoted in I. F. Tsvetkov, *Sudostroenie v nachale XX vv.* [Shipbuilding at the beginning of the 20th century], volume III of *Istoriya otechestvennogo sudostroeniya* (St. Petersburg: Sudostroenie, 1995), 17. Hereafter *Sudostroenie v nachale XX v.* Birilev used the term "protivnik," which normally refers to a specific opponent or enemy, but he did not specify which country in his remarks.

option. They also could have dived headlong into their own dreadnought construction program, taking advantage of the fact that every other naval power was, however briefly, equal in terms of capital ships. Birilev's attempts to do precisely that cost him his position. That left Birilev's successor, Admiral I. M. Dikov, in an incredibly tenuous position that was only alleviated because events outside the Naval Ministry's control gave Russia the impetus necessary to begin rebuilding their fleet in earnest.

Dikov, the Duma, and the “small shipbuilding program”

The situation that Dikov inherited was unfavorable, but he made significant gains as Naval Minister, including beginning the Russian Empire's dreadnought program. Dikov was a much more skilled politician than Birilev had been, adept at working with the Emperor and the Council of Ministers. However, he was never able to convince the Duma of the value of the new program. Indeed, the Duma debates (at which Dikov was not present) further confused the question of naval reform and shipbuilding, by allowing the Duma to insert itself into the discussion of that question. Politicians like A. I. Guckhov and V. V. Shulgin questioned the path of Russian naval reform as Nicholas II's mind became more fixed on the powerful battle fleet he wanted, primarily as a way to gain diplomatic and international credibility.

Nicholas II formally received Dikov as the new Naval Minister on January 11, 1907, just three days after Birilev resigned. Dikov was nearly 75 at the beginning of his appointment and was one of the few active naval officers to have experience in both the Crimean War and the Russo-Turkish War of 1877–8. During the Russo-Japanese War, Dikov served principally as an administrator, specifically as a member of Admiralty Council. His career also included a three-year term as Chairman of the MTK from 1897 to 1900, which gave him useful experience in shipbuilding and technical discussions. The former Chairman of the Council of Ministers, S. Yu.

Witte, opined that Dikov had received the position “not for his capabilities, but because of his age... and that he would not hold the post for very long.”¹⁹⁸ In other words, Dikov was viewed as a purely transitional figure, although as a transition to whom, it is not clear.

Regardless of why the Emperor chose him, Dikov got to work almost immediately after receiving his position. The day after he was appointed, the new Naval Minister resolved an issue about the setting up of mine obstacles around Vladivostok. After a brief memo from Finance Minister V. N. Kokovtsov about Dikov’s inability to unilaterally approve funds, Dikov convinced the Emperor to call a special session of the Council of Ministers to approve the funding he needed. The Chairman of the Council of Ministers, P. A. Stolypin, asked if Dikov shared Birilev’s opinion on the construction of dreadnoughts. Dikov said that he agreed with Birilev’s plan, and the Emperor did too, based on marginalia from a resolution published on December 23, 1906.¹⁹⁹ These two interactions established a pair of key advantages that Dikov had over Birilev; he had a stronger relationship with the Emperor (or, at least, was more willing to use that relationship), and he was more polite towards and more willing to work with the Council of Ministers. They might not have differed fundamentally on their vision of the navy’s future, but Dikov could get things done by relying upon the Emperor’s support and with his general skill at handling politicians. If Dikov could not accomplish a task, he did not try to avoid responsibility or blame others for his failures, which further endeared him to the Imperial political establishment.

¹⁹⁸ Nicholas II, *Diaries II*, 350; Kuroyedov, *VMES*, 248. Quoted text is from Tsvetkov, *Sudostroenie v nachale XX vv.*, 20–21.

¹⁹⁹ Kokovtsov to Dikov, January 12, 1907, RGIA, f. 1276, o. 2, d. 450, l. 26; Journal of a Special Session of the Council of Ministers, January 23, 1907, RGIA, f. 1276, o. 2, d. 450, l. 28; Stolypin to Dikov, January 19, 1907, RGIA, f. 1276, o. 2, d. 444, l. 27; and Dikov to Stolypin, January 27, 1907, RGIA, f. 1276, o. 2, d. 444, l. 28.

An example of the close relationship between Dikov and Nicholas II came when Dikov discussed the Navy's budget. In May, the Naval Minister directly applied to the Emperor to ensure a healthy budget of 31 million rubles per year from 1908 to 1911. The Emperor approved a special session of the Council of Ministers to discuss the question, and even lent his own support to Dikov's plan. The Council of Ministers approved an immediate grant of 2.7 million rubles, for the design of the dreadnoughts, but hesitated about approving his entire rather ambitious program: "the release of such funds can only follow with the establishment of a budget via the legal establishment [i.e. the Duma]."²⁰⁰ Still, while Birilev could not even get the 2.7 million without reducing his budget in other areas, the Council of Ministers gave Dikov the money with no strings attached. Furthermore, the Council's rejection of Dikov's larger budgetary requests was not because they were rejecting his program outright, but so that they could transfer the ultimate responsibility to the Duma.

As it so happened, the Duma was becoming much more conservative. Neither of the first two Dumas had much of an opportunity to have an impact on naval affairs. Combined, they lasted for less than six months. Finding it difficult to work with the First Duma's liberal party, the Constitutional-Democrats (usually known as the Cadets), the Emperor decided to dissolve the Duma and call for new elections. After all, Nicholas was reluctant to accept any limitation on his power. A true liberal democracy, of the kind that P. N. Milyukov, the leader of the Cadets envisioned, was simply foreign to somebody who had grown up with the tradition that he was anointed by God. Essentially, the Emperor could not truly share power with anybody because the power was not his to share. He had to do everything himself, relying on the judgment of others

²⁰⁰ Special Journal of the Council of Ministers, May 8, 1907, RGIA, f. 1276, o. 2, d. 444, l. 33. The very first paragraph of the journal contained two direct references to the Emperor by Dikov.

only for advice.²⁰¹ The second Duma was even worse, as now the Socialists had the majority in government. The Emperor had absolutely no desire to work with these parties, so he decided to change the election law after dissolving the second Duma.

Article 87 did give him the authority to make laws when Duma was not in session. However, it specifically forbade him from making any changes to the electoral law.²⁰² P. A. Stolypin, the Chairman of the Council of Ministers, dissolved the second Duma and promulgated the new electoral law on 3 June 1907.²⁰³ Before 1907, the Emperor had traditionally seen peasants as conservatives; these traditions went back centuries.²⁰⁴ In order to ensure that changes were not too rapid or too sweeping, the Emperor and his administration had engineered the original electoral laws to ensure a healthy return of peasants. It worked, since 43% of the members of the first two Dumas were of peasant background.²⁰⁵ However, when both of the first two Dumas constantly pushed for radical reforms, mostly agrarian in nature, Stolypin knew he

²⁰¹ Lieven, *Nicholas II*, 113, 117. Perhaps the most remarkable illustration of Nicholas's determination to do everything himself was the fact he did not have any private secretary—he stamped every single envelope himself, and even personally wrote notes to have his carriage made ready.

²⁰² Specifically: *Mera eta ne mozhet, odnako, vnocit' izmennii ...viborakh v Sovet ili v Duma*. [This measure may not, however, make changes to the elections of the Council or Duma.] Also excluded were changes to the Fundamental Laws and institutional changes to the Duma or State Council.

²⁰³ Geoffrey A. Hosking, *The Russian Constitutional Experiment: Government and Duma, 1907–1914*, (Cambridge, UK: Cambridge University Press, 1973), 41. Stolypin accused some of the Social Democratic deputies of speaking with soldiers, technically treason but fairly common at the time. However, Duma representatives had parliamentary immunity. Therefore, Stolypin demanded these deputies have their immunity revoked; when the Duma refused, he had an excuse to dissolve them. Stolypin had been planning the new law for months.

²⁰⁴ The biggest threat to autocracy was usually seen as liberals and capitalists. The peasants naturally opposed anything that deprived them of land or labor; the commune system rewarded peasants with large households with more land, so a peasant that went to work in the city for more money made the commune worse off.

²⁰⁵ P. N. Milyukov, "The Representative System in Russia", in J. D. Duff, ed., *Russian Realities and Problems* (Cambridge: Cambridge University Press, 1917), 28.

had to change the electoral law in order to prevent the third Duma from focusing so heavily on agrarian issues.

The net result was that 51% of the third and fourth Dumas were landed gentry, and the three Russian parties with the highest concentration of gentry—the Octobrists, the Nationalists, and the Union of Rightist Forces—benefited, with the Octobrists earning a solid majority in the third Duma.²⁰⁶ Interestingly, there was no successful challenge to the new election law, despite the fact it was flagrantly illegal. When the new Duma formed, the Octobrists called the new law a "regrettable necessity." Formally known as the "Union of 17 October," the Octobrists were something of an anomaly in the Duma. They were not truly a coherent political party, but more of a loose coalition held together by their leader, A. I. Guchkov. They supported the October Manifesto (hence the name) and for the most part were either centrist or slightly left of center. When it came to agrarian reform, they agreed with Stolypin's limited plans for land redistribution. On most social issues they were relatively conservative. This attempt to stay in the center was disastrous, as Guchkov and the Octobrists were unable to please anybody, which significantly reduced their influence compared to their actual electoral successes. For example, in his opening address to the Duma, Guchkov purposefully avoided the words "autocracy" and "constitution." An important official of the Orthodox Church chastised him for leaving out the former; Milyukov criticized Guchkov for forgetting the latter. Ultimately, nobody was satisfied and the Duma did not officially approve his opening remarks.²⁰⁷ Guchkov naturally had a very difficult keeping his coalition together, but being at the head of even a fragile bloc offered him

²⁰⁶ The "Right" was a combination of two parties, the Union of the Russian Nation and the Union of the Russian People (*Narod* and *Lyudei*, respectively). They favored the autocracy and supported the Emperor no matter what. Statistics from Milyukov, "The Representative System in Russia", 28 and 30.

²⁰⁷ Hosking, *The Russian Constitutional Experiment*, 45, 51–55.

personal opportunities to wield power, and one of those opportunities came when the third Duma met to discuss Dikov's naval budget.

Guchkov himself was a very unusual character. He was college educated, graduating from the historical-philological faculty of Moscow University. He was a banker, yet also a soldier, fighting on the side of the Boers during the Boer War and assisting with medical facilities during the Russo-Japanese War. His family had a strong "Old Believer" tradition, and on issues of religious freedom, he always sided with the Cadets. The most important issue to him, however, was military reform. His first real opportunity to make an impact on military matters came shortly after the third Duma convened. The Council of Ministers had referred Dikov's massive ten-year construction plan involving hundreds of ships and four new state-of-the-art dreadnoughts, officially approved by the Emperor, to the Duma for further debate and an eventual vote. The actual program submitted was less than that, as the Finance and Naval Ministries understood the dangers of spending too much money on new ships. The Naval Ministry was also concerned about the difficulties of training new crews and the severe manpower shortage the Russo-Japanese War created. The Chairman of the Duma assigned Guchkov to report on the shipbuilding program on 24 December 1907.²⁰⁸ He was not an obvious choice for the position, as he had no prior naval experience, but given his role as Chairman of the

²⁰⁸ A. I. Guchkov, *Aleksandr Ivanovich Guchkov rasskazivaet: Vospominania Predcedatel'ia Gosudarstvennoi Duma i voennogo ministra Vremennogo pravitel'stva* [Alexander Ivanovich Guchkov speaks: Memoirs of the Chairman of the State Duma and war minister in the Provisional Government] (Moscow: TOO Redaktsia zhurnala "Voprosi Istorii", 1993), 3–4; Hosking, *The Russian Constitutional Experiment*, 97–98; Gatrell, *Government, industry, and rearmament in Russia*, 98–100; "Rossiya. Gosudarstvennaia Duma. Stenograficheskie otchetu. 1-aia - 4-aia Duma. 1906–1917" [Russia. State Duma, Stenographic Report. 1st - 4th Duma in Frederick Rodkey, ed. *Russian Historical Sources*, Part XI, (New York: Readex Microprint, 1963), 3rd Duma, 1st Session, Part I, 899. Hereafter cited as GDSO, Duma number, Session Number, Part Number, Page Number.

Committee for State Defense, Guchkov was probably a better fit than many other people would have been. As Guchkov prepared to carry his out assignment, there was a storm of criticism of the Naval Ministry coming from a somewhat unexpected source: public opinion.

Two journalists, both of them writing for the conservative *Novoe vremya*, wrote critically on the subject of the Russian Imperial Fleet. The first of these, E. K. Brut, wrote a six-part series on the need for extensive naval reforms. Brut, whose real last name was Belov, was no stranger to controversy. His former job was as the Paris correspondent for the newspaper *Russkoe slovo*, where he found himself forced out of his position when the manager of the newspaper constantly reduced his salary (culminating at an unlivable 9 rubles per month). Brut's superior disliked him so much that he would intentionally not print Brut's stories (for example, about play openings in Paris) just so that he could claim Brut had failed in his duties and insert his own preferred man into the office.²⁰⁹ In that particular instance, Brut had no choice but to resign. Nevertheless, the incident demonstrated that the failing was in no way his own and that he was not afraid to pursue unpopular ideas.

His new series, which he entitled "Reforma flota" ["Reforms of the Fleet"], ran from January 23 to February 3, 1908. Brut opened his series with a description of the fundamental problem facing the Imperial Russian Navy: "the idea [that] arose about the need to reorganize the naval department during the unfortunate war [meaning the Russo-Japanese War] was a result of the monstrous defects in the materiel and organization of the units of our fleet." Brut understood, however, that a balance was required. Any reforms that might be undertaken had to consider the lessons of the Russo-Japanese War, but also that "these lessons themselves only indicate the

²⁰⁹ I. D. Sytin, *My life for the book: the memoirs of a Russian publisher* (Montreal: McGill-Queen's University Press, 2012), 130–34.

need for reorganization, and cannot say anything about their substance.” He enumerated several problems that plagued the fleet during the war: Russian shells failed to explode, gun carriages broke upon firing, and crew had no knowledge of how to fire Russian guns accurately. The first task toward comprehensive reforms, in his opinion, was to find out “the reasons why it was possible for the Naval Ministry to arm ships with gun carriages which break, supply them with useless shells, and not to train crews in gunnery.” He especially criticized the Naval Department for waiting three years before finally making any sort of genuine effort to reform.²¹⁰

Within the Naval Department, Brut’s target was the MTK, which he insisted spent too much time considering too many possible outcomes before deciding on what was best for new ship construction. Only when the high command (specifically referring to Birilev in this case) insisted upon a firm decision did the MTK begin to move in that direction. The blame was not entirely theirs, however. Brut also attacked the people of Russia for being insufficiently vigilant and accepting the pronouncements of naval officers uncritically.

Naïve people expect that the authors of [the battles of] Tsushima, Port Arthur, and the other so glorious moments in the history of the fleet are just about now ready to burst into action [lit. catch themselves on fire, *sami sebya vysekut*], but these gentlemen are already in the third year [after Tsushima] and with the permission of the [high] command, make up for themselves new privileges and encouragements.²¹¹

²¹⁰ E. K. Brut, “Reforma flota”, *Novoe vremya*, January 23, 1908, RGAVMF, f. 421, o. 7, d. 409, l. 52. Subsequent entries in the series will be numbered with Roman numerals.

²¹¹ Ibid. Obviously, when speaking of “glorious victories”, Brut was being sarcastic.

In other words, without a wholesale program of driving the obsolete officers out of office (which probably included Dikov, although he was never mentioned by name), no honest or thorough investigation could occur, which meant that no genuine reforms could be implemented.

Brut's final target was the press, his colleagues. The press had drawn attention to the failures of the Naval Ministry, but "almost exclusively limited themselves to the collection of factual material and indicated to society the mistakes, shortcomings, and abuses [of the Naval Ministry.]" Although, ultimately, only the State Duma could redress the wrongs of the Naval Ministry, it was the press's responsibility to undertake the "preparatory work" to make the Duma's job easier. In order to accomplish that task, Brut proposed to uncover the causes of the problems facing the Naval Ministry, not simply to indicate those same problems. His part was to publish "everything that I know about this question from my own personal observations."²¹²

His subsequent articles in the series examined specific failings of the Naval Ministry in greater detail. Parts two and three asked the question "Why did we have weak guns?" Parts four and five asked why the gun carriages were so liable to breakdowns. Part six, which was untitled, ended his series prematurely, because he considered it more important to report on the activities on the Duma at that moment (February 3, 1908) rather than continue the series.²¹³ In the previous four parts, he systematically and critically examined the inadequacies of Russian armaments during the Russo-Japanese War.²¹⁴

The most consistent target of Brut's typewriter during these four articles was the MTK. When the MTK, "with the customary delay," adopted the French-made Hotchkiss guns for

²¹² Ibid.

²¹³ The literal title of the piece was "Bez zaglaviya", which directly translates to "Without title." Part one had no subtitle at all.

²¹⁴ Brut, "Reforma flota", RGAVMF, f. 421, o. 7, d. 409, l. 52-7.

destroyers and torpedo boats, they selected 37mm models, based on the fact that all of the major naval powers had adopted those guns. By the time the Russian navy actually began installing them, however, the rest of Europe had upgraded to 47mm guns, which imposed another severe setback while the Russian navy made the corresponding changes. The Japanese had even outstripped Europe in this particular regard, as they possessed 57mm guns. Thus, according to Brut, when the Russo-Japanese War broke out, the Russian destroyers were from two to four times weaker than their Japanese counterparts. Only after the defeat at Tsushima did the MTK realize the problem, and insisted on skipping over 75mm guns to install 120mm guns on all future ships, which would become the new minimum standard.²¹⁵

Yet even here, Brut was critical. He condemned the MTK for being overly responsive to critics and leaping to rash judgment in order to appeal to “the representatives of the people.”²¹⁶ He understood that a “running start [*razbeg*]” was necessary to overcome the “inertia” of MTK’s past actions, but adopting 120mm guns was irresponsible to the point of recklessness, in his view. An experimental test firing of a six-inch gun on a destroyer actually partially submerged the vessel for a moment, and given that the essential quality of guns on a destroyer is and was their rate of fire, a 120mm gun (which was actually closer to five inches) might well have sunk the vessel with repeated use.²¹⁷ He also added that the ammunition for 120mm guns would weigh more than that those of 75mm guns, citing a figure of 24 pounds for the shells of the latter gun,

²¹⁵ Brut, “Reforma flota II”, RGAVMF, f. 421, o. 7, d. 409, l. 52–3.

²¹⁶ Brut uses the phrase “u narodnykh predstavitelei.” It could either mean representatives of the Duma or perhaps public opinion in general.

²¹⁷ Brut follows the then-standard Russian practice of using Imperial measurements for big guns (6”, 8”, 10”) but metric measurements for smaller guns (37mm, 47mm, 75mm). A 120mm gun is approximately five inches (4.72441 to be exact.)

and that the loader of a 75mm gun already required the “focus of a juggler” during rapid firing. The heavier rounds of a 120mm gun would only further complicate matters, not to mention adding weight to the destroyer, a precious commodity in every warship. Brut closed the article by questioning the navy’s decision to purchase large-caliber Canet guns, which shocked French naval officers upon a visit to Kronstadt after the Russo-Japanese War. These particular guns were only intended for sale to “exotic states” that had little need for precision in their weapons.²¹⁸ Brut’s complaint was, simply put, that the Russian Empire was trying to make up too much technological ground too quickly, which was resulting in lax safety standards.

The other articles in the series take much the same tone, condemning the MTK’s slowness to adopt proven weapons without extensive study and its tendency to overreact to the lessons of the Russo-Japanese War. For all of his criticism, Brut was very much in favor of naval expansion and expenditure; he merely wanted to see the funding applied properly and effectively. His colleague at *Novoe vremya*, M. O. Menshikov, considered any funding assigned for the navy to be wasteful. Menshikov, quoting an unnamed engineer, called the Admiralty a “horrible parasite, which is sucking the precious juices of the Motherland.” He had opposed the Russo-Japanese War in general, and the expansion of the navy in general, in 1905. He wrote, “spend a half billion [rubles] not on the fleet, but on the redemption [payments] for the land of noblemen or on the education of the people, and each of these reforms will, in a decade, double the [military] force of Russia.”²¹⁹ He repeated this admonishment on the eve of World War I as well, writing in 1912: “we waste up to a billion [rubles] every year on the army and the fleet, and

²¹⁸ Brut, “Reforma flota II”, RGAVMF, f. 421, o. 7, d. 409, l. 53.

²¹⁹ Redemption payments were a legacy of the Great Reforms of 1861, which freed the serfs but required compensation to the nobility in exchange for the land they received. Redemption payments were eventually abolished in 1906–7. Richard Pipes, *Russia under the Old Regime* (New York: Charles Scribner’s Sons, 1974), 169.

for all that we have neither a fleet, nor an army which is prepared for war. But this same billion, invested in whatever cultural matter you want... could move us away from the shoals [of war].”²²⁰

Menshikov also responded directly to Brut’s series on naval reforms in his own piece, entitled “Polyaki i Tsusima” [Poles and Tsushima], on February 5, 1908, in which he blamed the allegedly subversive qualities of ethnic Poles (including Rozhestvenskii, although Menshikov ignored the fact that Rozhestvenskii was born in St. Petersburg) for Russia’s defeat at Tsushima. In the opening, he praised the character of Brut’s series, saying “If there are those in the State Council, in the State Duma, in the national authority, who feel sorry for Russia – they need to pay the greatest attention to [Brut’s] remarkable articles, in [their] strength and truth.” Yet without carefully considering Brut’s criticisms, Menshikov suggested that “whole years” or even “decades of empty and fruitless labor” would result. However, Menshikov suggested that Brut had misattributed the scale of the blame; the MTK or the Naval Department as a whole was not at fault, but rather, certain individuals within the Naval Ministry and the Ministry of Foreign Affairs. In the latter Ministry, he attacked the Foreign Minister, V. N. Lamsdorf, for dragging Russia into the war in the first place. Menshikov insisted that, as a German, Lamsdorf could not possibly have had Russia’s best interests at heart. The author, however, failed to mention that Lamsdorf, while indeed of Baltic German ancestry, was born in St. Petersburg.²²¹

²²⁰ Quoted in V. V. Polikarpov, “Voennaya promyshlennost Rossii v nachale XX beka” [Military industry in Russia at the beginning of the twentieth century], in *Ot Tsusimy k Fevralyu*, op. cit., 164.

²²¹ M. O. Menshikov, “Polyaki i Tsusima” [The Poles and Tsushima], *Novoe vremya*, February 5, 1908, RGAVMF, f. 421, o. 7, d. 409, l. 58. Lamsdorf was not only born in St. Petersburg, but his father was a high-ranking officer in the Imperial Army. In fact, he spent a considerable portion of his career opposing the same policies that Germany would have favored (Russian entanglement in the Far East, a potential Russo-German alliance or understanding). Kowner, *Historical Dictionary of the Russo-Japanese War*, 200–01.

Within the Naval Ministry (and MTK in particular), Menshikov targeted officers of Polish and/or Jewish descent. The first name mentioned was Major-General Brink, who Brut criticized for selecting the Canet guns (along with a Colonel named Sanotskii). Brut considered Brink's selection faulty based on technological grounds. Brink was an army officer, not a naval officer, and made his decision because Canet guns had proven effective in fortresses. When Russia's first three battleships were built on the Black Sea after the Russo-Turkish War, they used Obukhovskii guns, made in Russia. After Brink became a member of the MTK, all future capital ships used Canet guns, which continued for 20 years. For Menshikov, xenophobia was sufficient cause to find Brink's decisions unpalatable. His evidence for Brink's alleged treason was a conversation between Brink, Brink's son, and an unnamed Russian colonel. Menshikov spent the rest of his article simply naming various Poles in important positions without even bothering to provide evidence of their failure.²²²

Menshikov was a notable xenophobe in a society that had experienced its share of ethnic and national tensions. In the guise of making Brut's articles (which were hardly full of jargon to begin with) more accessible to the "reader unacquainted with the naval department," Menshikov actually steered the discussion to entirely nationalist lines. Foreigners were untrustworthy because they were foreigners, which could logically extend to foreign technology (although Menshikov himself did not make this assertion). Brut was not opposed to foreign technology, only badly selected or repurposed foreign technology. In fact, he suggested that Russia seek out another foreign manufacturer's guns, the German firm Krupp, not to necessarily focus entirely on domestic production. The fact that both authors were given space in *Novoe vremya* meant that

²²² Brut, "Reforma flota III", RGAVMF, f. 421, o. 7, d. 409, l. 54–55; Menshikov, "Polyaki i Tsusima", RGAVMF, f. 421, o. 7, d. 409, l. 58–59.

many Russians could have treated their arguments equally, which would have clouded the actual issues at hand. *Novoe vremya* was extremely influential, with a peak circulation of 150,000 in 1911–14, and was read daily by Nicholas II and many important military officials.²²³ Both Brut's reasoned analysis of naval policy and Menshikov's appeal to nationalism, regardless of their actual merits, raised awareness of the navy and naval reforms. Although specific readership data is not available, there were almost certainly members of the Duma and State Council who had read both articles when A. I. Guchkov delivered his report later in 1908.

Guchkov's first speech on shipbuilding and naval affairs came in May of 1908.²²⁴ This particular speech was very powerful. Right away, he addressed the inherent ambiguity over who was to direct naval affairs, quoting both Article 14 and Article 96 of the Fundamental State Laws. He made his position clear: the Duma, as the "voice of the people," ought to have considerable say. He stated: "Our first duty [is to] tell the truth to the Supreme Commander, and we must remember [that] the old system died of lies." He was met with applause and shouts of "Bravo!" and "True!" He emphasized the need for reforms, even quoting the Minister of the Navy, who insisted they were needed without delay.²²⁵ Yet at no point did Guchkov elucidate what those reforms ought to be; instead he took the opportunity to attack the policy of the Naval Ministry.

²²³ Ibid., and Astrid S. Tuminez, *Russian Nationalism since 1856: Ideology and the Making of Foreign Policy* (Lanham, MD: Rowan & Littlefield Publishers, 2000), 133. A good biography of Menshikov is Aleksandr Repnikov, "Menshikov Mikhail Osipovich (1859–1918)", <http://www.pravaya.ru/ludi/450/348>, accessed May 22, 2015. .

²²⁴ It is unclear whether this constituted the report he was to give, but according to the index to Rodkey, this speech was the next time Guchkov spoke on the topic, so it seems likely.

²²⁵ GDSO, 3, 1, III, 1393–94.

He chastised the Naval Ministry openly, claiming that "Old, familiar charts distinguish our naval policy—a passion for shipbuilding, disdainful personnel, defects of organization, equipment, and technology." The result of these "old, familiar charts" was "a terrifying [*groznyia*] squadron" that "might appear to shine in reviews and business meetings, but ... the fleet is worked to the bone, and [the Naval Ministry] economized on coal, on shells, on mines, on everything, yet sailed ridiculously little." He even accused the Naval Ministry of trying to get the budget of four or five years into one year's budget.²²⁶ Guchkov was attacking the Naval Ministry for, essentially, throwing good money after bad. Any massive spending program that did not include significant reforms would only further entrench the traditions that led to Russia's defeat against Japan.

At the close of his speech, to thunderous applause from everyone seated, he accused those who did want to delay these much-needed reforms of "dreaming", and that "these phantoms of an excellent day crush the real outlines and wrest authority from new hands." He demanded that a special committee or individual deal with these problems, as the Supreme Commander, among others, had "led our fleet to catastrophe."²²⁷ This speech is significant for a number of reasons. Guchkov, unlike any previous member of the Duma, clearly insisted that the Duma needed greater authority over military matters. In fact, his decision to withhold credits was supposed to be a way to instigate the "real reforms" he advocated.²²⁸ He openly criticized the

²²⁶ Ibid., 1394.

²²⁷ GDSO, 3, 1, III, 1397.

²²⁸ Continuing an odd nautical metaphor, Guchkov said that only "when the terrible specter of the refusal of credits came before the department, only then did a certain movement of water [*dvizhenie vody*] manifest itself." GDSO, 3, 1, III, 1394.

Emperor's previous policies.²²⁹ At the same time, he did not offer any concrete new policies of his own. The entire speech was little more than demagoguery and rhetoric, but effective rhetoric, as the response of the crowd shows. He also drew a response from Stolypin, who acted as the representative of the Emperor (who was conveniently not present at this meeting).

Stolypin criticized Guchkov from the standpoint that Guchkov and his allies were outstepping the legal rights of the Duma. In Stolypin's view, Guchkov had no right to insist upon reforms in exchange for voting for the shipbuilding program. His task was simply to evaluate the program and then, along with the other members of the Duma, vote yes or no. Stolypin responded to Guchkov's criticism by saying, "You ask me: why does the Government not bow to the inevitable, why not join the majority of the State Duma, why not reject the credits?" He responded (to his own question): "Why, to everyone it is obvious that the negative position of the majority of the Duma has no anti-government motivation: by this refusal the majority wants to strike a blow at the naval department!" Stolypin blamed the recent history of the fleet for their opinions; it is unclear whether he referred to the Russo-Japanese War, the mutinies by Baltic and Black Sea sailors, or perhaps both. However, even this generally anti-naval attitude had limits, and Stolypin even showed some hypocrisy by Guchkov, reading from a recent report by the Committee for State Defense that said Russia needed two equally strong fleets. Stolypin's own speech focused on the need for Russia to have a fleet, and a strong one at that. He would later say, in 1910, that "the fleet is a lever for the expression of the right to express a voice in resolving world affairs."²³⁰

²²⁹ Supreme Commander clearly referred to Nicholas II, as Article 14 of the Fundamental State Laws specifically addressed him as such.

²³⁰ GDSO, 3, 1, III 1399–1400; The Stolypin quote is in Gatrell, *Government, industry, and rearmament in Russia*, 99.

Stolypin did an excellent job of countering Guchkov's criticisms in his speech. Guchkov had repeatedly attacked the naval department, and his earlier promotion of "equally strong fleets" seemed to discredit his own insistence that further shipbuilding was unnecessary. Stolypin changed the popular perception of Guchkov's demand for real reform in the navy to a partisan attack on an unpopular government institution. While Stolypin did not entirely neutralize Guchkov or the effect of his speech, he at least ended the discussion of significant reform for the naval department. To provide an opportunity to vote on and thereby settle the situation, the Chairman of the Duma ordered a reading of a report from the budget committee. This report made a number of recommendations and each one was voted on by the members of the Duma. Some of these recommendations included the recognition that the Russian Imperial Navy needed two fleets and a shipbuilding program to match and an acknowledgement that the Naval Ministry needed some sort of reform. More concrete recommendations were also made, such as:

- 3) The utilization of all [possible] navigational time for sailing of ships of the active fleet
- 4) The establishment of a youth school, for the complete preparation of a cadre of experienced and accustomed [youths] for naval service in the lower ranks
- 5) A reduced number of shore-based officials and civilian ranks in the naval department and at the same time, a [reduction of the] disproportionately large relationship of staff officer ranks [to sea-going officer ranks].

The only significant change was to the recommendation for a new shipbuilding program, which was accepted after substituting the words "Presentation of a State Duma financial program" for "legislative order for a financial program." This semantic change ensured that the Duma would submit the program, not the Emperor or any of the Council of Ministers. The

remaining points were all accepted without changes. After the vote, a member of the Duma named Vazigin insisted that the Duma had no right to insist on a shipbuilding program or reforms, because it was a matter for the Emperor. There was some applause from the right of the room (the Nationalists and the two pro-monarchy parties), but not nearly the wild applause Guchkov received.²³¹

They moved on to voting on the naval budget line by line. The government requested an annual credit of 30 million rubles over four years to rebuild the fleet, but the Duma cut the budget by 8.5 million rubles, a nearly 30% cut. To put this in perspective, a 20,000-ton dreadnought would have cost about 17 million rubles, so in effect it eliminated two battleships over the four year period.²³² Guchkov won a significant victory here, not only in getting the phrasing altered on a key recommendation, but by effectively denying needed funds to the Emperor. Both the Emperor and Stolypin were very displeased, but ultimately accepted it.²³³

The atmosphere during the vote was politically charged, and not merely because of the dueling speeches of Guchkov and Stolypin. One member of the Duma, V. V. Shulgin, said in his memoirs that “all [of those present] criticized the Naval Ministry from one standpoint or another and proposed measures to improve the strength and fighting efficiency of the Russian fleet.” Shulgin’s stepfather, D. I. Shulgin, was anti-naval spending dating back to before the Russo-Japanese War, where he criticized the Russian Empire for spending money on battleships in an attempt to compete with the British. D. I. Shulgin considered that the naval geography of the Baltic Sea made a powerful battle fleet nonsensical, because it could not reach the North Sea

²³¹ GDSO, 3, 1, III, 1412–14, 1417–18. Lengthy quote is from 1412–13. Other quotes from 1414–17.

²³² Gatrell gives a cost of 809 rubles per ton. Gatrell, *Government, industry, and rearmament in Russia*, 288.

²³³ GDSO, 3, 1, III, 1472–1473; Hosking, *The Russian Constitutional Experiment*, 77–78.

without a friendly or at least neutral United Kingdom, an unlikely prospect in the event of Russia seeking to expand its naval influence. He ended his conversation with his stepson by saying that “I predict we will be ruined if we build huge battleships.” V. V. Shulgin, although a solid member of the Nationalist Party and supporter of Stolypin, took his stepfather’s thoughts to heart and acted very cautiously during the 1908 debate.²³⁴

Even if he was unsure about his final position, V. V. Shulgin wasted little time in opposing those who sought to eliminate the navy entirely, such as the Russo-Japanese War veteran and Bolshevik, I. P. Pokrovskii. Pokrovskii thought the criticism of the Naval Ministry was far too lenient. He accused those who favored the new naval program as admitting to “insignificant” faults so as to disguise the actual problems that existed. He closed the speech with a thunderous line: “The Duma's majority [meaning the conservatives which dominated the Duma] dares invite the country to spend billions to build a fleet to satisfy the fancy of the government and the babbling Russian bourgeoisie. No, this must not be!” Shulgin’s retort earned him praise from his fellow conservatives: “When the proletariat arms itself and musters its troops, it will have to deal with army, not the navy, so there's no point in the left worrying about it.” Pithiness aside, Shulgin’s main argument was that the navy should be purely defensive, relying on submarines rather than battleships.²³⁵

Shulgin recounted a party, which both Stolypin and Guchkov attended, where Stolypin revealed that he personally supported a small navy, based around submarines and light cruisers. However, “proponents of a large program – a navy made up of battleships” had gotten to

²³⁴ V. V. Shulgin, *The Years: Memoirs of a Member of the Russian Duma, 1906–1917* (New York: Hippocrene Books, 1984), xi, 53, 55.

²³⁵ *Ibid.*, 56–57.

Nicholas II's ear and convinced the Emperor to support and insist upon the more expensive program. It was all Stolypin could do to cut the program from 3 billion to 1.5 billion rubles. According to Stolypin, Nicholas II would dissolve the Duma yet again if Stolypin could not convince them to support the large naval program. The Chairman of the Council of Ministers did not precisely say who had turned Nicholas' opinion toward the larger fleet, but speculated that it was the Russian shipbuilding industry who influenced the Emperor. Regardless, Stolypin asked Shulgin to convince his fellow conservatives to vote for the bill; Shulgin agreed, but to make a larger point, they would leave immediately after the vote.²³⁶ Guchkov, of course, did oppose the naval bill, but his personal political ambitions and ambitions for his party ultimately cost him the debate and later on his position as leader of the Octobrists.

If Guchkov had stopped after criticizing the fleet on purely financial and strategic grounds, he might have ended up affecting much needed reforms in the Naval Ministry as well as controlled spending on the fleet. Unfortunately, he did not. In another speech a couple of days later, Guchkov blasted "certain" members of the Royal Family for incompetence. In a possibly apocryphal conversation (as Shulgin was not present at the time), Milyukov came up to Guchkov, worried that this action would get the Duma dissolved. Guchkov insisted, "The people and army are with me!"²³⁷ In his memoirs, Guchkov identified the worst of the bunch as Grand Duke Nikolai Nikolayevich (the Emperor's uncle), who was head of the Imperial Council on Defense. He could only be trusted with the most basic questions and had absolutely no idea how to reform the military.²³⁸ Even here, Guchkov had only alienated the Emperor and his family, but

²³⁶ Ibid., 57–58.

²³⁷ Hosking, *The Russian Constitutional Experiment*, 77–79. Note he specifically said "army" and not "military" or "army and navy."

²³⁸ Guchkov, *Aleksandr Ivanovich Guchkov rasskazivaet*, 51.

not yet lost the confidence of his constituents or drawn any substantial repercussions. In fact, the Imperial Council on Defense was dissolved and the Grand Duke fired as a result. However, he made a number of enemies in this process, including the Imperial family, so when he tried to push for further reforms in 1909, his coalition crumbled. It fell apart because some of his opponent were able to situate the Octobrists as anti-Imperial family, which was a dangerous charge to make for a conservative electrical bloc. For the Naval Ministry, the final result of the discussion was a much-needed injection of funds and resources to build up the fleet (albeit not from the Duma), termed the “small shipbuilding program.” The origins of this program predated Guchkov’s involvement in the process, although Guchkov was instrumental in at least delaying the implementation of the small shipbuilding program after it had already been proposed to the Duma.

The small shipbuilding program was only “small” in the sense that it did not encompass the Naval Ministry’s original vision of two full squadrons of dreadnoughts, a full squadron of armored cruisers (for both dreadnoughts and armored cruisers, one squadron was four ships), eight to nine light cruisers, and nine divisions of four destroyers each. However, the Main Naval Staff also prepared a secondary option, which consisted of four dreadnoughts for the Baltic Sea (as well as three submarines), while the Black Sea would receive fourteen destroyers and three submarines of its own. That second option served as the basis for the “small shipbuilding program.” Most naval officers considered the existing complement of battleships in the Black Sea to be sufficient against the Ottoman Empire and to blockade the Bosphorus as needed. The Duma actually rejected the portion of the budget that included the battleships, although they permitted the construction of the destroyers. Stolypin got approval from the more conservative State Council for the battleship money, as well as using the Emperor’s discretionary funds.

While the navy still got the funding it needed in the end, Dikov was fired early in 1909 because he could not gain “the support of the Duma.”²³⁹

Overall, I. M. Dikov accomplished a great deal during his tenure as Naval Minister. He used his connections to the Emperor to great effect and succeeded where Birilev failed in securing the funding to first design and ultimately build Russia’s first dreadnoughts, the *Gangut*-class. Originally, Dikov tried to acquire two British-built dreadnoughts. Russia’s involvement with the firm of choice, Vickers and Company, actually began with the construction of the cruiser *Rurik*, a relationship that Dikov and his Deputy Naval Minister, I. F. Bostrem, attempted to parlay into dreadnoughts.

Bostrem was the key figure in the early stages of the process of building dreadnoughts. His experience as the naval attaché to the United Kingdom from 1901 to 1905 was invaluable and gave him a unique perspective on the issue. He made the proposal to Stolypin and N. V. Plehve on June 30, 1907, which included a formal proposal from the Naval Ministry.²⁴⁰ Bostrem’s proposal was for Vickers to design and supervise the construction of two dreadnoughts of 21,000 tons displacement in Russian factories with Russian materials and Russian engineers. Vickers’ fee would be 12.5% of the total cost of the dreadnoughts. The Naval Ministry would purchase the first dreadnought’s turbine from the British firm Parsons Marine Steam Turbine Company, while the second turbine would be designed by the Franco-Russian Factory and built at the Baltic Shipyard. Although the payment to Vickers would make the

²³⁹ Tsvetkov, *Sudostroenie v nachale XX veka*, 24 and 26–7.

²⁴⁰ N. V. Plehve was the son of the former Minister of Internal Affairs, V. K. Plehve, who had been assassinated in 1904. N. V. Plehve’s role in 1907 was as Deputy Minister of Internal Affairs. Why he, specifically, served as an intermediary at this time is not clear. “Plehve, Nikolai Vyacheslavovich,” http://rusdeutsch-panorama.ru/jencik_statja.php?mode=view&site_id=34&own_menu_id=2955, accessed May 30, 2015.

dreadnoughts more expensive, Vickers could provide “an experienced cadre of workers” and “a practical acquaintance with the business of shipbuilding.”²⁴¹

Plehve forwarded the request to the Minister of Commerce and Industry, D. V. Filosofov. Filosofov noted that he “for [his] part, would not meet with any objections,” so the Council of Ministers, as a whole, met in a special session on July 13, 1907. During this session, the Council rejected the proposal to build the dreadnoughts with British assistance. The successful completion of two battleships, the *Andrei Pervozvannyi* and *Imperator Pavel I*, convinced those present that Russia was perfectly capable of building its own dreadnoughts. The turbines could always be purchased from the Franco-Russian Factory, who had a deal with Parsons. The Council of Ministers returned to proposal to the Naval Ministry for further consideration at Bostrem’s own recommendation. After a few months to reconsider, Bostrem again recommended offering the contract to Vickers, stating that Russia had no time to lose in the dreadnought race. He estimated that the contract would cost Russia approximately £1 million, which included Vickers’ fee as well as funding a trip to the United Kingdom to train Russian engineers.²⁴²

The matter was ultimately settled in the press, who somehow acquired a copy of Bostrem’s report the day after it was received by the Council of Ministers. The November 2, 1907 edition of the Russian newspaper *Rus* contained an article authored by “*Ne moryak*” [Not a Sailor]. The author acknowledged that Russia had never constructed turbine engines in the past,

²⁴¹ Bostrem to N. V. Plehve, June 30, 1907, RGIA, f. 1276, o. 3, d. 628, l. 2; Bostrem to Stolypin, June 30, 1907, *ibid.*, l. 3; Bostrem, “Proposal of the Naval Ministry,” June 30, 1907, *ibid.*, l. 4–5. See “Bostrem Ivan Fedorovich,” http://www.hrono.ru/biograf/bio_b/bostrem.php, accessed May 30, 2015, for a short biography of Bostrem’s career.

²⁴² Plehve to Filosofov, July 2, 1907, *ibid.*, l. 6; Filosofov to Plehve, July 4/5, 1907, *ibid.*, l. 7; Special Journal of the Council of Ministers, July 13, 1907, *ibid.*, l. 9–10; Bostrem to the Council of Ministers, November 1, 1907, *ibid.*, l. 26–29.

and that therefore purchasing them from a British company made some sense. However, the author opined that the British could very well use the experience they gained in building turbines for Russia, at Russia's expense, in their own turbines, which would only increase the gap between the UK and Russia. The policy of Parsons had actually forbidden the use of their turbines outside of the UK, according to the author, and "in what way Mr. Vickers proposes to eliminate this condition is not understood." Finally, Vickers wanted 2 million rubles, in advance, for their work. Filosofov added his own objections in a letter to the Council of Ministers a week later, all of which stated that Russian factories had informed him that they could do the job better, faster, and more cheaply than Vickers. In addition, Filosofov mentioned an exclusive agreement that Russia had made with the German company Turbinia, a licensor of Parsons turbines. This agreement required Russia to buy any and all Parsons turbines from Turbinia and no other company, and further excluded Russia from building its own. Bostrem's proposal was buried under a mountain of committees and eventually superseded by Dikov's domestic dreadnought plan.²⁴³

These dreadnoughts were Dikov's crowning achievement, the direct result of the international competition he authorized while the Duma and the State Council deliberated on the funding. Two firms, the German company Blohm und Voss and the Italian shipbuilder Ansaldo, Armstrong, and Company, were the frontrunners. Ansaldo delayed in transmitting the complete proposal to the MTK, blaming a Colonel Cuniberti for the lack of timely information. The Naval General Staff actually preferred the Italian design, but MTK rejected it because Ansaldo had

²⁴³ Article from *Rus* (untitled), November 2, 1907, RGIA, f. 1276, o. 3, d. 628, l. 33; Filosofov to the Council of Ministers, November 9, 1907, *ibid.*, l. 36–42; "Memo on the question about the participation of Vickers in domestic shipbuilding," November 13, 1907, *ibid.*, l. 59–63; Special Journal of the Council of Ministers, November 13, 1907, *ibid.*, l. 65–69; Kokovtsov to Plehve, November 29, 1907, *ibid.*, l. 103–05.

used turrets for the secondary armament (120mm guns), not casemates as the Russian government had specified. Thus, by the time the Council of Ministers could consider Ansaldo's proposal, MTK had already rejected it. The Chief of the Chancellery of the Naval Ministry, a Colonel Stenger, duly notified the company, condemning them for their "pretension" in sending a complete preliminary contract prior to hearing the results of the contest. Moreover, the Russian navy was going to keep the design without any sort of compensation to Ansaldo, both for the poor quality of the design and the presumption of the firm. Dikov backed up his subordinate, and Ansaldo found themselves having done months of work for no pay.²⁴⁴

The *Gangut*-class, which consisted of four ships (the *Gangut*, *Petropavlovsk*, *Poltava*, and *Sevastopol*), were loosely based on Blohm und Voss's winning design, but the international climate at the time made using German designs for Russian battleships extremely difficult, both in Russia and in France. Ultimately, the basis was a Russian design, which incorporated elements from the German and Italian designs, as well as modifications by the British shipyard John Brown. The new ships were referred to as "Baltic-dreadnoughts" and were a hybrid of the dreadnought and battle cruiser designs. If the ships had been completed on time, they would have represented a serious improvement over their British and German contemporaries. They had twelve 12-inch guns (in four triple turrets), sixteen 120mm guns, four 47mm guns, and four torpedo tubes. A new boiler system, the British Yarrow design, replaced the favored French

²⁴⁴ D. Gravengov [Representative of Ansaldo] to Dikov, July 5, 1908, RGIA, f. 1276, o. 4, d. 250, l. 1; Gravengov to Dikov, July 16, 1908, *ibid.*, l. 2; Kokovtsov to Stolypin, September 22, 1908, *ibid.*, l. 9; Shtenger to Stolypin, September 27, 1908, *ibid.*, l. 15; Shtenger to the Director of Ansaldo [unnamed], September 26, 1908, *ibid.*, l. 16; Dikov to Stolypin, November 11, 1908, *ibid.* l. 17; Gardiner, *All the World's Fighting Ships II*, 302. The Italians tried to get some compensation, but a sternly worded letter from Stolypin to the Italian Ambassador finally ended the matter on December 13, 1910. See Stolypin to Italian Ambassador, December 13, 1910, *ibid.*, l. 53.

Belleville boilers. The Yarrows were both lighter and more efficient than the Bellevilles, resulting in ships that were 2 to 3 knots faster than any other dreadnought. The armored belt, although thinner than normal practice dictated (9 to 11 inches instead of 12), covered the entire hull of the ship. Delays in the construction of the hull, however, ultimately meant that the *Ganguts* were actually less powerful than foreign counterparts when they were actually commissioned into the fleet in late 1914/early 1915.²⁴⁵

Dikov also continued supporting the development of the foreign technology for the Russian fleet as well, as work continued on two armored cruisers (one built in France, one built in the United Kingdom) and three American submarines throughout his tenure (see below). He invested in new torpedoes, purchasing 10 torpedoes from Whitehead in Austria and 3000 sets of designs for the German Schwartzkopf torpedo. He ordered the purchase of a new 4” gun from Vickers and several sets of range-finding equipment from the Vickers, the Italian firm of Galileo, and the German/Swiss firm Zeiss.²⁴⁶ Improved torpedoes and better optics for naval artillery fit in with the generally held conception that these areas had directly contributed to the Russian defeat in the Russo-Japanese War.

For all of his accomplishments as Naval Minister, Dikov also had a serious flaw. He was unwilling to work with the Duma or even appear during the sessions of the Duma. While Stolypin was more than willing to pitch the government’s program, he was not a naval officer and could not effectively respond to Duma inquiries. This flaw was not unique to Dikov—neither Birilev nor his immediate successor, S. A. Voevodskii, ever addressed the Duma either.

²⁴⁵ Gardiner, *All the World’s Fighting Ships II*, 302. Blohm und Voss did receive 500,000 rubles for winning the contest. Voevodskii to Pleve, February 10, 1909, RGIA, f. 1276, o. 5, d. 493, l. 2.

²⁴⁶ “Foreign orders produced in 1909”, RGAVMF, f. 427, o. 1, d. 2042, ll. 216–9.

What made it intolerable in Dikov's circumstance was that a Duma vote in favor of the new shipbuilding program would have demonstrated that the Russian government and its legislature were thinking along the same lines and had similar objectives. Most of the opposition to the small shipbuilding program was financial, but members of the Duma later expressed frustration that Dikov had refused to appear before them and answer questions.²⁴⁷ Stolypin, therefore, had to defend the shipbuilding program, a program he did not truly believe in, which probably led to the bill's defeat in Duma. That Stolypin got the money elsewhere did not compensate for Dikov's failure to work with politicians. Unfortunately, his successor did not learn that lesson either.

Voevodskii, the Naval General Staff, and foreign technology

S.A. Voevodskii, unlike Birilev or Dikov, was enthusiastic about naval reforms. He was energetic and eager to make substantive changes to the Naval Ministry, including a much-needed overhaul of shipbuilding and procurement. He had an extensive background in naval technology and was able to offer useful suggestions and ideas to shipbuilders. During his tenure, several warships were completed and new forms of foreign technology were imported. Ultimately, however, he lacked an overall vision for the navy and was ineffective in dealing with the Duma. When he did try to exercise his influence, he was frustrated by the bureaucratic delays of the Russian Imperial system and ultimately overstepped his authority, leading to his dismissal.

S. A. Voevodskii replaced I. M. Dikov on January 8, 1909. Much like Dikov (and, to a lesser extent, Birilev), Voevodskii's appointment was a surprise. Sergei Witte, in his memoirs, claimed that Voevodskii "imagined himself as an officer of the Horse Guards, not as a sailor." He was a good man, and "possessed all the best qualities," but Witte ultimately saw Voevodskii

²⁴⁷ See, for instance, the speeches of members of the Duma Savich and Chelnokov, RGIA, f. 1276, o. 2, d. 444, ll. 64–67.

as a non-entity as a Naval Minister. Witte wrote, “After speaking with him for half an hour, it was clear that this appointment was not serious.” Witte speculated that Voevodskii’s new position originated from Voevodskii’s skill with small craft in the Gulf of Finland, where he had sailed with both the Emperor and the Empress.²⁴⁸ Yet despite Witte’s dismissive remarks about the new Naval Minister, Voevodskii was qualified for the job.

The Russian Navy was in Voevodskii’s blood. His father, A. V. Voevodskii, served in the fleet for almost fifty years. As the Director of the Shipbuilding from 1858 to 1867, he supervised the beginnings of Russian’s transition from sail to screw propulsion, after a tour in the Inspector’s office that provided valuable experience in shipbuilding. He transmitted his passion for shipbuilding to his son, S. A. Voevodskii. The future Naval Minister specialized in shipbuilding after his first years in the navy and graduated from the Shipbuilding Section of the Nikolayev Naval Academy in 1896. Although the sea-based portion of his career was rather short, encompassing only four years of his career, he was the Director of the Naval College and head of his old *alma mater* at Nikolayev from 1906 to 1908, before serving as Deputy Naval Minister from 1908 to 1909. At the time of his appointment as Naval Minister, S. A. Voevodskii was only 45 years old, the youngest Naval Minister in the history of the Russian Empire.²⁴⁹

Voevodskii proved to be a much more active Naval Minister than Dikov had. In March 1909, shortly after taking over as Naval Minister, Voevodskii told the Chief of the Naval General Staff that he intended to have weekly meetings with commanders to facilitate “an exchange of opinions.” He intended to make changes to other facets of the Ministry as well, including the concentration of all shipbuilding matters in one agency, known as GUK (*Glavnoe upravlenie*

²⁴⁸ Quoted in Tsvetkov, *Sudostroenie v nachale XX veka*, 27 and Grigorovich, *Vospominaniya*, 11–12.

²⁴⁹ Kuroyedov, *VMES*, 145 and Nazarenko, *Morskoe ministerstvo*, 128.

sudostroeniya), or the Chief Directorate of Shipbuilding. However, most of his ambitious reform plans were never realized; if anything, Voevodskii was too involved in the minutiae of reforming his Ministry and had tremendous difficulty getting anything actually accomplished in this sphere. He ordered multiple new studies and shuffled personnel around, but could not settle on a single scheme.²⁵⁰ Where Voevodskii did have a clear impact was in further expanding Russia's usage of foreign technology. His introduction to this area of naval policy began when he was still Deputy Naval Minister. GUKIS was his responsibility, as were the state-owned shipyards, and he exercised that influence to finally get the *Admiral Makarov* commissioned.

The *Admiral Makarov* was a cruiser, built by the French firm FCM. The value of the *Bayan* in the Russo-Japanese War convinced Russia to turn to France to supply more cruisers with the same general characteristics. *Bayan* had distinguished itself during the Japanese advance on Wolf Hills by providing capable naval gunfire support until it struck a mine; after the war, Japan raised the cruiser and used it until 1932 in various capacities, including as a minelayer. Nicholas II formally approved the order of the *Makarov* on October 18, 1904, with the order itself beginning from December 22, 1904.²⁵¹ The construction process had been largely smooth up until the launching of the vessel. Wherever possible (in keeping with the instruction to Birilev to keep foreign expenditure to a minimum), the parts of the ship were built in Russia. The boilers were French (the usual Belleville boilers), but the lighting for the coal bunkers, for example, was done in Russia. Rodionov, Chief of the Department of Construction for GUKIS, reported on

²⁵⁰ Nazarenko, *Morskoe Ministerstvo*, 129. Also see *Ibid.*, 128–148, which outlines some of his proposals and personnel transfers in greater detail.

²⁵¹ The actual contract was signed March 10, 1904. Chief Inspector of the Mine Department of MTK to GUKIS, undated, RGAVMF, f. 427, o. 1, d. 1575, 12–13. This letter is undated, but falls between documents dated January 3 and January 19, 1906, so it is reasonable to expect it was written in mid-January.

March 13, 1906 that everything was going according to plan, although the ship was overweight by 4644 kilograms and over budget by about 3700 francs. The cruiser's launch actually happened ahead of schedule; originally set for May, Captain First Rank Zalveskii, the head of *Makarov's* oversight committee, reported a "problem-free launch" on April 26, 1906.²⁵²

However, shortly after the launch, problems started occurring with regularity. At first, the problems were minor. For example, steel plates for the conning tower, scheduled to arrive on May 1, 1906 (in time for the originally scheduled launch) were not even completed until May 5, 1906, which meant that after transit, they would arrive at least a week late. The MTK also made a number of changes at the end of May, including removing the torpedo nets from the ship (a sadly ironic decision given Admiral S. O. Makarov's fate) to reduce the weight of the vessel, a brand new electric telegraph system, experimental devices to automate or at least more consistently regulate the coal stoking process, and armored plating over the engine hatches. All of these changes resulted in additional costs (around £24,000) and added additional weight (8156 tons). In early June, one of the bulkheads burst near the left engine, approximately 3.2 meters over the waterline, due to inequalities in water pressure.²⁵³

By 1908, the list of changes to the vessel was imposing. Perhaps no single individual was more responsible for the frequent changes than the commander of the new vessel, Captain First

²⁵² "On foreign orders, produced in 1905," RGAVMF, f. 427, o. 1, d. 2042, l. 211; Chief Inspector of the Mine Department of MTK to GUKIS, undated, RGAVMF, f. 427, o. 1, d. 1575, 12–13; Untitled note from FCM requesting payment for boilers, undated, *ibid.*, l. 65; Report from the Mechanical Unit of MTK, March 13, 1906, *ibid.*, l. 99; Telegram from Zalevskii, April 26, 1906, *ibid.*, l. 149. For *Bayan's* performance, see McLaughlin, "From *Riurik* to *Riurik*," 78 and Pertti Luntinen and Bruce W. Menning, "The Russian Navy at War, 1904-05" in *The Russo-Japanese War In Global Perspective*, *op. cit.*, 240.

²⁵³ Igorskii Factory to GUKIS, May 5, 1906, RGAVMF, f. 427, o. 1, d. 1575, l. 164; Report of the Mechanical Unit of MTK, May 31, 1906, *ibid.*, l. 206–07; Radlov [Chief of OS GUKIS] to Chief Inspector of Shipbuilding, June 12, 1906, *ibid.*, l. 230.

Rank Ponomarev. Once again, the Russian system of not only appointing a vessel's commander prior to completion but also permitting that commander to make changes at his whim proved to be pernicious in the completion of ships in a timely fashion. At the beginning of 1908, Ponomarev had approved 18 changes to the vessel, totaling an extra 116,807 francs and adding an additional 28 tons (or 25,751 kilograms) to the weight of the vessel. One of the most expensive changes, both in terms of the added weight and added cost, was the decision to replace all of the wood on the deck of the cruiser with a Swedish resin, perhaps to improve the footing of officers and crew during violent storms (although a specific explanation was never given). This decision, which Ponomarev made on March 16, 1907, was changed again in January of 1908 because during test firing of the 8-inch guns, the gas pressure caused the resin to melt. His new suggestion was to remove all of the resin on the forecastle (an area of approximately 80 square meters) and replace it with a steel deck and three full coats of paint. Ponomarev changed his mind yet again in 1909, and ordered all of the resin removed and the original wooden decks restored.²⁵⁴

The delays in construction were not entirely Russia's fault. French politician Georges Clemenceau noted that delays in the construction of French ships were quite common at the end of the nineteenth century and resulted from a combination of insufficiently skilled labor and frequent mishaps. When FCM contracted the French telephone company Le Las to install telephones on the Makarov, it took nearly three years and a substantial portion did not work.²⁵⁵

²⁵⁴ "List of changes to the weight and cost of the cruiser 'Admiral Makarov', January 1908 [no date], RGAVMF, f. 427, o. 1, d. 1821, ll. 1–2; Ponomarev to GUKIS, January 3, 1908, RGAVMF, f. 427, o. 1, d. 1822, l. 7; Baltic and Admiralty Shipyards to Sergeev [Chief of OS GUKIS], August 22, 1909.

²⁵⁵ The specific timeframe is unknown, but a letter from September 1906 suggests that the telephones were to be of Russian make but installed by Le Las. The installation was complete on May 13, 1908, and everything tested fine at

Unfortunately for France, the Russian government tended to be extremely heavy-handed in using the denial of mandatory payments as a way to compensate for construction delays, and this tendency applied equally to the *Makarov*'s construction. At one point, the MTK quibbled over 80 rubles for springs, which had been damaged during the construction of the cruiser. FCM did not receive its final payment for the cruiser until the fall of 1911, even though the vessel itself was commissioned in the spring of 1908.²⁵⁶

Voevodskii's role was mostly to help clear up bureaucratic obstacles and to serve as the point of the contact at the Naval Ministry whenever clarification was required. Dikov's name is never mentioned during the entire construction process; either Voevodskii himself or GUKIS handled everything. Voevodskii personally approved the purchase of a foreign motor for one of the *Makarov*'s sloops and ordered the ship to complete preparations in October 1908 for its maiden voyage, under the Russian flag, to Vigo, Spain. Ponomarev reported to Voevodskii on the status of the vessel as the cruiser traveled to Spain. Voevodskii's personal interest continued

that time, but by April 1909, Russia had not received the detailed designs of the telephone installation, and some of them completely failed to work at all. Technical Committee of the Mine/Torpedo Unit to GUKIS, September 12, 1906, RGAVMF, f. 427, o. 1, d. 1576, l. 83; "List of changes to the weight and cost of the cruiser 'Admiral Makarov', January 1908 [no date], RGAVMF, f. 427, o. 1, d. 1822, ll. 1–2; Ponomarev to Radlov [Chief of OS GUKIS], May 13, 1908, RGAVMF, f. 427, o.1, d. 1821, ll. 268–69; and Sergeev to Verkhovskii [Russian representative of Le Las], April 17, 1909, RGAVMF, f. 427, o. 1, d. 1822, l. 141.

²⁵⁶ By August 7, 1911, the final payment had still not been made, although Sergeev asked Ponomarev if he was satisfied with the cruiser and if he would recommend making the final payment. The balance remaining, according to Alfred Tamy, FCM's representative, was 47,515 Francs. Georges Clemenceau, "The French Navy—II", 311; MTK to Ponomarev, August 5, 1909, RGAVMF, f. 427, o. 1, d. 1822, l. 241; Tamy to Sergeev, February 10, 1910, *ibid.*, l. 340; Tamy to Sergeev, July 3, 1910, *ibid.*, l. 380; Tamy to Sergeev, February 28, 1911, *ibid.*, l. 397; Letters from the Naval Attache in Paris to Sergeev, May 21, 1911 and June 15, 1911, *ibid.*, l. 398–400, 402, and Sergeev to Ponomarev, August 7, 1911, *ibid.*, l. 404.

even as he received the promotion to Naval Minister, as evidenced by his receipt of detailed reports on the operation of the *Makarov* while it was in Gibraltar.²⁵⁷

Another powerful armored cruiser of foreign construction joined the Russian fleet under Voevodskii's tenure as Deputy Naval Minister and Naval Minister: the British-built *Rurik*, which was the second Russian cruiser to bear the name. As with *Admiral Makarov*, *Rurik* was also ordered during the Russo-Japanese War and its purchase approved by Nicholas II. The *Rurik* was Russia's last non-turbine powered cruiser, although the decision to not install turbines was made at the last minute by Naval Minister Birilev. It was also the largest foreign-built ship to join the Russian navy between the Russo-Japanese War and World War I. Both Russia and the United Kingdom recognized the value that this cruiser would add to the Russian fleet, not simply as an addition in purely military terms, but as a way to improve relations between the UK and Russia in general and between the Naval Ministry and Vickers in particular. One unnamed British clerk wrote, in March 1906, that "a Russian order for a cruiser placed in this country is good; it is to be hoped more will follow."²⁵⁸ Although the obsolescent nature of pre-turbine engines made a second cruiser like *Rurik* unwise, the *Rurik* itself more than repaid the Russian investment in British technology.²⁵⁹

²⁵⁷ Voevodskii to the Commander of the Port of Kronstadt, October 4, 1908, RGAVMF, f. 427, o. 1, d. 1822, l. 38; Yakovlev [Chief of the Main Naval Staff] to the Commander of the Baltic Fleet, October 8 1908, *ibid.*, l. 40; Ponomarev to Voevodskii, October 14, 1908, *ibid.*, l. 43; Voevodskii to Ponomarev, October 27, 1908, *ibid.*, l. 53; Litvinov [Chief of the Baltic Squadron] to Grigorovich [then Deputy Naval Minister], January 31, 1909, *ibid.*, l. 95–96. The last letter, although addressed to Grigorovich, was forwarded to Voevodskii.

²⁵⁸ Customs Office memorandum, March 1, 1906, The National Archives of the UK (hereafter TNA): FO 372/28, Treaty Department, Russia, 1906, 209.

²⁵⁹ Nicholas II's approval of *Rurik* came on May 23, 1905, with the official order coming June 15, 1905. "On foreign orders produced in 1909," RGAVMF, f. 427, o. 1, d. 2042, l. 212. The cruiser's displacement was 15,130 tons, according to Stephen McLaughlin, although Conway's lists the cruiser's displacement as 15,544 tons, and Tsvetkov

As designed, the *Rurik* was a very formidable weapon. The engines could provide 19,700 horsepower, consuming 22.6 pounds of coal per horsepower per hour, when running at a full speed of 21 knots with all boilers. *Rurik* was equipped with four ten-inch guns, eight eight-inch guns, twenty 120mm guns, and four 47mm Hotchkiss machine guns. All of the ship's optics and fire control were also of Vickers manufacture. In comparison, *Admiral Makarov* had a slightly faster maximum speed, reaching 22.55 knots during the builder's trials, but was much less heavily armed, featuring only a pair of eight-inch guns as primary armament and a secondary armament of eight six-inch guns and twenty 75mm guns. Even the eight-inch guns on *Makarov* were inferior to those of *Rurik*, rated at 45 caliber as opposed to the 50 caliber on *Rurik*, which gave the *Rurik* a longer barrel for its secondary armament and thus superior range and accuracy.²⁶⁰

Vickers was extremely efficient during the construction of the *Rurik*, especially when compared to the construction of the *Admiral Makarov*. When the contract was officially signed in January 1906, the vessel was already 2600 tons, approximately 17% of its final weight, and the keel had been laid down on August 9, 1905, four months before the contract was signed. Throughout the construction process, a sizable team of Russian engineers attended and observed the Vickers staff while they worked on the cruiser. Basil Zakharov, Vickers' representative, actually extended the invitation on February 23, 1906, in the same letter that Vickers offered to

gives a figure of 15,133 tons during the builder's trials. Even at the lowest possible estimate, *Rurik* dwarfed every other Russian cruiser and even most of the battleships apart from the *Andre Pervozhannyi*-class and the dreadnoughts commissioned in the early years of World War I. See McLaughlin, "From *Rurik* to *Rurik*", 75; Gardiner, *All the World's Fighting Ships II*, 295; and Tsvetkov, *Sudostroenie v nachale XX veka*, 61.

²⁶⁰ "Specifications of the cruiser *Rurik* being built at the factory 'Vickers and Co.' in England," undated, RGAVMF, f. 564, o. 1, d. 2, l. 37 and 65; McLaughlin, "From *Rurik* to *Rurik*," 75. The first twenty pages of the specifications of *Rurik* at RGAVMF are lost.

upgrade the cruiser's torpedo tubes free of charge, because "it is a pity that we should put an old model of torpedo tubes in the most modern ship of this day." Zakharov would supervise and educate the Russians. The Chief Inspector of Shipbuilding supported Zakharov's proposal, although set specific conditions that the young Russian engineers would not conduct any actual work on *Rurik* nor would they participate in the formal oversight process. The engineers could, however, work on any other project that Vickers assigned to them and, presumably, at least watch the construction of the cruiser. Zakharov added his own condition as well: "When these young gentlemen are sent to me, they should be distinctly told that if they do not attend conscientiously and seriously to their work, I have full powers to send them back to Russia."²⁶¹ Zakharov gave Russian engineers a unique opportunity to inspect and work in one of the most advanced shipyards in the world, and the construction of the *Rurik* only reinforced that reputation.

Even when things did go wrong during the *Rurik*'s construction, they were rapidly corrected. The original date for the *Rurik*'s launch was September 3, 1906, but an explosion "resulting from the vapors of gasoline and turpentine" caused a two week delay for repairs from the fire damage. The ship's successful launch actually occurred November 4, 1906, and the vessel passed all of its builder's trials on July 8, 1907. The armaments, which were subcontracted to the British firm Sheffield, were all installed and mounted by the spring of 1908. The Sheffield

²⁶¹ Tsvetkov, *Sudostroenie v nachale XX veka*, 57; Zakharov [sometimes spelled Zachary] to Rodionov [of OS GUKIS], February 23, 1906, RGAVMF, f. 427, o. 1, d. 1583, ll. 1–2; Chief Inspector of Shipbuilding to Rodionov, March 14, 1906, RGAVMF, f. 427, o.1, d. 1583, l. 4. Zakharov is a legendary figure in the history of Vickers, and apparently not above paying bribes to government officials to ensure a healthy business relationship. According to J. D. Scott, the official historian of Vickers, Zakharov definitely bribed Russian officials specifically at least once sometime after 1898 and "the likeliest thing is that they [the officials] were to forestall German and other rivals." J. D. Scott, *Vickers: A History* (London: Weidenfeld and Nicolson, 1962), 80–81.

armaments provoked a minor scandal in the Duma when their drawings and specifications, drawn up by Russian naval officers, were given to the engineers at Sheffield for fulfilment. Some Duma members considered the information to have been confidential and too sensitive to provide to foreigners. The armaments also delayed the completion of the vessel, as MTK's testing "found deformations and vibrations within intolerable [limits]" when the guns were fired. Ultimately, the *Rurik* was formally commissioned in July 1909.²⁶²

Apart from the cruiser's armaments, which were not built by Vickers, but by Sheffield, the construction process went very smoothly. However, the Naval Ministry did not miss an opportunity to profit from even the modest delays that did occur. Both Vickers and the Naval Ministry agreed to extend the original delivery date to December 24, 1907 (New Style), but the actual delivery date was August 23, 1908 (New Style). That entitled Russia to a discount off the total purchase price, which was £1.5 million, of £67,100. Whereas the Naval Ministry was ruthless in enforcing contract penalties and delaying payments until the last possible moment in their dealings with FCM, it was far more liberal in its terms with Vickers. Indeed, as a gesture of goodwill, the Deputy State Inspector volunteered to halve the penalty, and to take that penalty in free technology (specifically, electric fire control) rather than cash. Of course, Russia's legendary bureaucratic inertia dragged out the debate for years, with the determination of the final sum passed between the Naval Ministry, the Governing Senate, the State Inspectorate, the Ministry of Finances, the Council of Ministers, and the Admiralty Council, as well as a host of minor agencies. As it turned out, World War I intervened and Russia ended up receiving nothing

²⁶² Tsvetkov, *Sudostroenie v nachale XX veka*, 60–2, and McLaughlin, "From *Rurik* to *Rurik*," 76.

for the delay.²⁶³ Although Voevodskii did not intervene directly in the construction of the *Rurik*, as he did with the *Admiral Makarov*, *Rurik* was still commissioned during his tenure. As Naval Minister, Voevodskii did have a significant impact in another area of foreign technology: the procurement of turbines for the dreadnoughts *Gangut* and *Poltava*.

Toward the end of 1908, when Stolypin secured the funding for the four Baltic Sea dreadnoughts, all four contracts originally were granted to the Baltic Shipyard, with the assistance of the British firm John Brown. However, Nicholas II changed his mind (for reasons unspecified in the archival materials), and in December 1908, two of the contracts were transferred to the Admiralty Yard (which would build the hull) and the Franco-Russian Factory (who would build the engines; hereafter FRZ). FRZ had an exclusive license with the German firm Turbinia, a license which they purchased for 1 million rubles. FRZ completed the designs, which the Naval Ministry approved, at the end of 1909. The total contract price was 14.4 million rubles, so FRZ expected to make a handsome profit on their initial license. Unlike the Baltic Shipyard and the Admiralty Shipyard, both of which were government-owned, FRZ was a privately owned facility and needed the profits to survive. There was only one sticking point. The Admiralty Yard gave FRZ a 1.5 million ruble loan, in the form of a government bond, to compensate them for the initial outlay for the license as well as provide them with some capital to retool their factories. FRZ, however, preferred a loan from the St. Petersburg International

²⁶³ Report of the Deputy State Inspector to the First Department of the Governing Senate, September 16, 1911, RGIA, f. 1276, o. 3, d. 628, ll. 152–55; P. I. Balikskii [a member of the State Council] to Nicholas II, RGIA, *ibid.*, ll. 166–68. Balikskii's letter shows that there was a precedent for receiving free equipment as recompense for delays, citing a penalty of 200,000 rubles assessed to the German firm Schwartzkopf. Instead, Russia received free experimental torpedoes. Scholars interested in the legal minutiae can find them in RGIA, f. 1276, o. 3, d. 628, ll. 152–257.

Commercial Bank instead of the government bond. Although FRZ never explicitly gave a reason for this request, the Russian government was notorious for not paying bills on time and ruthlessly pursuing every possible fine or penalty they could enact, whereas a private institution might be more flexible. Both Senator Kharitonov (the head of the State Inspectorate) and V. N. Kokovtsov, the Minister of Finance, approved this new arrangement, but Stolypin wanted the entire Council of Ministers to approve it, and the uncertainty of funding availability made him cautious to approve the arrangement.²⁶⁴

FRZ's representative Radlov (no relation to the former Chief of the Office of Shipbuilding of GUKIS) wrote a desperate letter to Stolypin and Voevodskii to convince them to reach a decision. He noted that FRZ had already incurred a total of three million rubles in expenses (one million for the license, two million rubles to modernize their factory) and as of yet had received no money from the government, nor could they begin work because the State Inspectorate had raised the issue of whether or not four dreadnoughts "[met] the requirements of the government." Radlov openly stated that "such uncertainty puts the company in an extremely tough position, since it had expended its own reserves on special equipment for the factory and [the equipment's] maintenance." He threatened bankruptcy if a decision was not made quickly, which would have repercussions for the Russian fleet in the future. He noted that FRZ was one of only two factories in Russia capable of building turbines, the other being the government-owned Baltic Shipyard. Voevodskii urged Stolypin to decide in two letters, one written in March

²⁶⁴ Voevodskii to the Council of Ministers, February 20, 1910, RGIA, f. 1276, o. 6, d. 424, ll. 2–3; Stolypin to Voevodskii, March 9, 1910, *ibid.*, l. 4.

and the other in June 1910. The Naval Minister noted that *Sevastopol* and *Petropavlovsk* were already coming along nicely, which meant that the design was viable.²⁶⁵

Voevodskii's second letter finally got the Council of Ministers to reconsider the proposal and to make a decision. Kokovtsov, acting as Chairman, said that the Council of Ministers was still unable to make a decision, but as a gesture of good faith to FRZ, were thinking about giving the contracts for all four dreadnought turbines to FRZ. Finally, after more months of delays, Voevodskii found a way to maneuver around the government bureaucracy, and in early 1911, ordered (via his Deputy Naval Minister) the Admiralty and Baltic Shipyards to place their contracts directly with FRZ. The State Inspector Kharitonov complained to Kokovtsov (in the latter's capacity as Minister of Finance), but Voevodskii defended his actions, stating that without the engines, even in an incomplete state, they could not meet the required launching schedule. Presented with a *fait accompli*, the government did not punish Voevodskii directly, although he did not keep his position for much longer.²⁶⁶ Indeed, Voevodskii was replaced on March 9, 1911 by his Deputy Naval Minister, I. K. Grigorovich.

Unlike the departures of Birilev or Dikov, there was no single incident or event that led to Voevodskii's dismissal. The affair over the FRZ engines is, in terms of chronological proximity, the most likely cause, but at least one historian suggests that Voevodskii's shortcomings were more general, in particular his failure to reform the Naval Ministry. K. B. Nazarenko states that "the unsuitability of S. A. Voevodskii to fulfill his obligations as Naval Minister gradually

²⁶⁵ F. Radlov to Stolypin, March 11, 1910, RGIA, f. 1276, o. 6, d. 424, ll. 6–8; Radlov to Voevodskii, March 2, 1910, *ibid.*, ll. 9–10; Voevodskii to Stolypin, March 16 and June 18, 1910, *ibid.*, ll. 11–14.

²⁶⁶ Kokovtsov to Voevodskii, June 22, 1910, RGIA, f. 1276, o. 6, d. 424, l. 15; Kharitonov to Kokovtsov, January 11, 1911, RGIA, f. 1276, o. 6, d. 424, ll. 19; Voevodskii to Stolypin, January 30, 1911, RGIA, f. 1276, o. 6, d. 424, ll. 20–1.

became much more obvious.”²⁶⁷ Another possible reason could have been the Naval General Staff crisis, in which the Duma (in particular A. I. Guchkov) attempted to gain leverage over naval affairs by insisting on the right to approve or reject members of the Naval General Staff during the discussion of a bill that formalized the Naval General Staff’s subordination to the Naval Minister, as well as funding it. Guchkov’s altered bill eventually passed both the Duma and the State Council, but was rejected by the Emperor, who funded the Naval General Staff out of his discretionary funds. Nicholas II’s response—“There can be no question of confidence or no confidence. Such is my will. Remember that we live in Russia, and not abroad or in Finland”—ended the crisis and saw Guchkov’s control over the Octobrists completely evaporate.²⁶⁸ In this crisis, Voevodskii played no role, in keeping with the tradition set by his predecessors that no sitting Naval Minister address the Duma. Indeed, it was the lack of “a common language with the Duma” that Soviet historian A. N. Krylov used to criticize all three Naval Ministers, as well as an atmosphere of mistrust peculiar to Voevodskii, where his representatives to the Duma made wildly inaccurate promises or outright lied to Duma members.²⁶⁹ Regardless of the proximate cause, the decision to replace him was already underway in the winter of 1910, where Nicholas II proposed giving the office to E. I. Alekseyev, the former Viceroy of the Far East during the Russo-Japanese War, partly as a way to rehabilitate Alekseyev’s “unpopularity.” Alekseyev himself did not seek the post, and as Rotem Kowner writes, “in later years [Alekseyev] became a schoolteacher in Russian Armenia and never made

²⁶⁷ Nazarenko, *Morskoe ministerstvo*, 147–8.

²⁶⁸ Quoted in Hosking, *The Russian Constitutional Experiment*, 96.

²⁶⁹ Hosking, *The Russian Constitutional Experiment*, 80–96. Krylov is quoted in Grigorovich, *Vospominaniya*, 11–2 and Tsvetkov, *Sudostroenie v nachale XX veka*, 157.

any attempt to defend himself against the copious criticism of his conduct of the war.”²⁷⁰ The post fell to Grigorovich, Voevodskii’s Deputy Naval Minister, who would go on to hold the office longer than Birilev, Dikov, and Voevodskii combined.

On the whole, Voevodskii was most effective when his influence could be used to accomplish a concrete goal, as the construction of the *Admiral Makarov* and the procurement of the *Gangut*-class turbines demonstrates. He was a more active participant in everyday affairs than either Birilev or Dikov, whether because of his youth or personal inclination, although his inability to formulate a clear overall vision for the Naval Ministry was a key factor in his dismissal. Voevodskii also still had a fairly impressive career after his dismissal, unlike Birilev (who retired) and Dikov (who was appointed to the State Council until his death in 1914).

Voevodskii was promoted to full admiral in 1913 and served on the State Council and the board of the Nikolayev Naval Academy until his emigration in 1917 to Germany and later France. He remained active in the affairs of former Imperial Russian naval officers, chairing his local branch in Nice, France, and wrote regularly for the Parisian naval journal. He died in 1934 and is buried in Nice.²⁷¹

²⁷⁰ Nazarenko, *Morskoe ministerstvo*, 147–8; Hosking, *The Russian Constitutional Experiment*, 96. Krylov is quoted in Grigorovich, *Vospominaniya*, 11–2 and Tsvetkov, *Sudostroenie v nachale XX veka*, 157. For a good summary of the Naval General Staff Crisis, see Hosking, *The Russian Constitutional Experiment*, 80–96. Final quote is from Kowner, *Historical Dictionary of the Russo-Japanese War*, 33. Also see Nazarenko, *Morskoe ministerstvo*, 147–48, for the recommendation of Alekseyev as Voevodskii’s replacement.

²⁷¹ Kuroyedov, *VMES*, 88, 145, and 248; “Voevodskii, Stepan Arkadyevich”, <http://encyclopedia.mil.ru/encyclopedia/heroes/USSR/more.htm?id=11913189@morfHeroes>, accessed June 1, 2015.

Chapter 3 - I. K. Grigorovich and World War I, 1911–1918

In reality, the navy that faced the Central Powers during World War I was not Nicholas II's: it was I. K. Grigorovich's fleet. No Naval Minister had as much impact on the fleet as Grigorovich did, and not simply because he was the only Naval Minister to serve more than two years between 1905 and 1917. Grigorovich, unlike his predecessors, openly proselytized for naval expansion, addressed the Duma in person to convince them to support his ambitious program, and cultivated a very close and personal relationship with not only Nicholas II, but the entire Imperial family. He was a much more skilled politician than any of his predecessors and was able to leverage his Imperial relationship much more effectively. Moreover, he was the only Naval Minister to have combat experience in the Russo-Japanese War, and he understood how modern vessels worked.²⁷² In a sense, Grigorovich was like Germany's Alfred von Tirpitz: skillful politicians who had the ear of their monarchs, in favor of powerful navies based around battleships/dreadnoughts. Tirpitz was arguably more successful, of course, but he also had almost seventeen years to improve his navy before World War I; Grigorovich had five (including two years as Deputy Naval Minister).

Grigorovich was born June 7, 1858. At the time of his birth, Grigorovich's father, K. I. Grigorovich, was a Captain First Rank and commander of the Fifth Fleet Equipage. Later, his father was promoted to Major General; Russian regulations of the period only permitted advancement in naval ranks if the individual had sufficient time at sea, which K. I. Grigorovich did not have. I. K. Grigorovich had the advantage of nobility both through his father's service

²⁷² Although Voevodskii did command a cruiser during the Russo-Japanese War, the *Gerzog Edinburgskii* was an antiquated and obsolete model that, during the war, was a training ship, which never left the Baltic Sea. See http://www.korabli.eu/blogs/kreysera/rossiya/bronenosnye/General_Admiral/istoriya, accessed June 1, 2015.

and through his mother, which helped him enter the Naval Academy in 1871, graduating three years later. In 1878, he got his first long-range cruise, travelling to the United States aboard an American-built cruiser, the *Zabiyaka*, as part of an expedition to distract the British from the Russo-Turkish War by operating against British naval communications. Despite his low rank, he nonetheless served as a “senior officer” (*starshii ofitser*) aboard the cruiser. He was promoted to Lieutenant upon his return, gained his first command (a steam-powered harbor supply vessel) in 1883, and spent the next few years either serving on or commanding various ships.²⁷³

In 1896, Grigorovich was promoted to Captain Second Rank and moved to the UK to serve as naval attaché. He held the post for two years before returning to Russia and taking command of the French-built battleship *Tsesarevich* while it was under construction. When *Tsesarevich* was commissioned in 1901, Grigorovich was promoted to Captain First Rank and transferred, along with his new ship, to the Pacific Squadron. Grigorovich and the *Tsesarevich* actively fought in the Battle of the Yellow Sea; his battleship was the only one to actually survive the battle, despite significant damage. The *Tsesarevich* was interned in neutral Kiaochi'ao (which belonged to Germany) after the battle, and in April 1904, Grigorovich received another promotion, this time to Rear Admiral, and named Commander of Port Arthur, a position he held until the Japanese captured it in January 1905. Grigorovich was permitted to return to St. Petersburg and was temporarily attached to the Main Naval Staff for the duration of the Russo-Japanese War. He was Chief of Staff for the Black Sea Fleet following the war until 1906, when he became Commander of the Port Emperor Alexander III (modern day Liepaja Naval Port in

²⁷³ Grigorovich, *Vospominaniya*, 8–9; Birth Certificate of Grigorovich, RGAVMF, f. 701, o. 1, d. 1, l. 1.

Latvia).²⁷⁴ His next assignment, as Commander of Kronstadt, provides a glimpse into his abilities as a politician.

Then-Naval Minister Dikov gave the position to Grigorovich in recognition for his exemplary service. The letter itself is handwritten, which is unusual for the period as far as formal assignments are concerned. However, the assignment, while prestigious, did come with some disadvantages. Instead of receiving the house that normally came with the position, he was going to get an inferior apartment, because the house was instead ticketed for the Commander of the Baltic Fleet, N. O. Essen. After consulting with a friend, Grigorovich wrote a long letter to the Chief of the Main Naval Staff, N. M. Yakovlev. Grigorovich, initially, had the choice of two assignments: Sevastopol or Kronstadt. He originally preferred the former, but accepted the latter because he was going to receive the nicer house and, moreover, the ability to act freely to make reforms or modifications in Kronstadt as he saw fit. Surrendering the house to the Commander of the Baltic Fleet would send a signal that Grigorovich must answer to the Commander instead of having the autonomy that Dikov promised him. Accepting the Chief of the Main Naval Staff's proposal, in other words, cheapened both the position and Grigorovich. It made even less sense because the Commander of the Fleet would be at sea for two-thirds of the year. He closed the letter by pointing out that in England, France, Germany, and even on the Black Sea, the Commander of the Fleet did not live at the port. Dikov intervened, confirmed that the original arrangement was still intact, and the Emperor formally gave him the position on October 20, 1908.²⁷⁵ By standing his ground and not accepting a diminishment in the prestige of his office or

²⁷⁴ Grigorovich, *Vospominaniya*, 9–10; Main Naval Staff to Grigorovich, July 3, 1898, RGAVMF, f. 701, o. 1, d. 1, l. 4; Decree of His Imperial Highness [although signed by Birilev], December 28, 1906, *ibid.*, l. 6.

²⁷⁵ Dikov to Grigorovich, August 24, 1908, RGAVMF, f. 701, o. 1, d. 1, l. 7; Yakovlev to Grigorovich, September 12, 1908, *ibid.*, l. 8; Telegram from Uderiard [? Name was illegible], September 16, 1908, *ibid.*, l. 9; Grigorovich to

himself, Grigorovich demonstrated a firm will that some of his predecessors lacked, a critical trait that helped him during his career as Deputy Naval Minister and Naval Minister.

Grigorovich as Deputy Naval Minister

Voevodskii appointed Grigorovich as Deputy Naval Minister shortly after he himself received the post of Naval Minister on February 9, 1909. He wrote in his telegram that he “congratulat[ed] you [Grigorovich] from the bottom of my heart. I wish you full success in the activities of the fleet.”²⁷⁶ While Deputy Naval Minister, Grigorovich began to push for dreadnoughts for the Black Sea Fleet, as well as the continued construction of the *Gangut*-class that Dikov and Voevodskii had already earmarked for the Baltic Sea. Grigorovich commented that, in the past, the balance of power in the Black Sea had favored Russia. He estimated that the Ottoman Empire had seven battleships, three cruisers, four torpedo cruisers, ten destroyers, and eighteen torpedo boats.²⁷⁷ The two most worrisome battleships were the ex-German *Weissenburg* and *Kurfurst Friedrich Wilhelm*, 10,000-ton ships built in 1894, capable of speeds of 17 knots and carrying six 11” guns. The other battleships, although they had modern guns, were not a serious threat, in Grigorovich’s estimation. The Ottomans did have fast cruisers and destroyers, including four new destroyers capable of up to 32 knots. Most troubling of all were rumors that the Ottoman Empire was in negotiations to acquire two other battleships and an armored cruiser

Yakovlev, September 1908 [no date], *ibid.* l. 11–12; Telegram from Yakovlev to Grigorovich, September 28, 1908, *ibid.*, l. 15; *Ukaz* [decree] from the Emperor, October 20, 1908, *ibid.*, l. 16.

²⁷⁶ Voevodskii to Grigorovich, February 9, 1909, RGAVMF, f. 701, o. 1, d. 1, l. 16a.

²⁷⁷ A “torpedo cruiser” (*minnyi kreiser*) served much the same function as destroyer-leaders did in the Soviet Navy: they were somewhere between a traditional cruiser and a traditional destroyer, larger than the latter but smaller than the former. See R. M. Melnikov, *Minnye kreiseri Rossii (1886–1917gg.)*,

http://wunderwaffe.narod.ru/Magazine/BKM/mkr_ru/index.htm, accessed January 30, 2016. Conway’s classifies them as “torpedo gunboats,” after the British fashion. Gardiner, *All the World’s Fighting Ships II*, 297.

from an unspecified foreign firm (most likely German, possibly British). From the Russian perspective, although they numerically outnumbered the Ottoman Fleet at the present, three of the eight Russian battleships were obsolete and two more needed extensive modernization for their armaments. Only thirteen Russian destroyers (out of 36) were modern enough, in his opinion. Somewhat offsetting this inequality was that the Russian Empire had 26 submarines; the Ottomans had zero.²⁷⁸ Even with an overall advantage, however, if the Ottoman Empire acquired even a single dreadnought, the force equation would tip almost instantly to their side, and so Grigorovich argued that Russia had to get one first.

Another way to counter the growing Ottoman threat was naval aviation, something that Grigorovich and Voevodskii worked on together. In the pre-World War I years, the Russian Empire pursued two varieties of naval aviation: dirigibles and, for short range missions, fixed wing aircraft. According to a report of the Naval General Staff, the Emperor himself approved the purchase of the necessary aircraft from foreign countries, and immediately assigned them to the Black Sea. The Naval General Staff preferred the larger Zeppelins for coastal observation, which could carry more crew, and Parsevals for their ability to accompany the fleet, due to their superior range. A clear sign of how new aviation technology was in 1909 was the fact that the navy had to turn to the All-Russian Imperial Aero-Club, a group of amateur enthusiasts, for information on where to purchase aircraft, what prices they could expect, and what capabilities these aircraft would have. The Chief Engineering Directorate provided the necessary information on Parseval airships, information that was confirmed by the All-Russian Imperial Aero-Club a

²⁷⁸ Report of OS GUKIS [signed by Grigorovich; actual authorship is unknown], September 23, 1910, RGIA, f. 1276, o. 7, d. 471, 2–4. Note that the figures mentioned in the report are as of March 19, 1907; no new Russian ships had been added to the Black Sea Fleet in that period. Quote from

few days later. The club did provide information on the cost of Zeppelin airships, approximately 1.2 million rubles, but thought that Zeppelin did not sell to foreigners, so that other companies needed to be consulted. The type of Parseval airship selected was Option “C,” with a size of 2000 cubic meters, a 50 HP engine, capable of climbing eleven meters per second for a maximum height of 1000 meters, and able to travel for eight hours without refueling.²⁷⁹

Given the range of options presented to the Russian Empire, Option “C” offered the best compromise between carrying capacity (a crew of two with the capacity to carry up to four passengers), endurance, cost, and time to completion. An intermediary, F. Iokhim and Company, also provided data on a French company, Clement-Bayard, who offered a so-called “flying cruiser” of 6500 cubic meters, which could carry up to five passengers for 26 hours at 38 km/h on one 130 HP engine or for 14 hours at 48.5 km/h on two 130 HP engines. A 220 HP package offered faster speeds (up to 57.5 km/h if using two) but for a shorter period (six hours). While naval officers mulled over the French model, Grigorovich requested funds from Voevodskii to purchase the Parseval airship, although there is no indication that Voevodskii approved the request. Only a single airship in the Russian Imperial Fleet’s inventory was close to the description given for “Option C,” and that was the Russian-built *Golub*, which was initially built for the Russian Army and only given to the fleet in 1916. Indeed, most of the balloons used by the navy were smaller aerostats – that is, balloons which were small and fixed in position,

²⁷⁹ Report of the Naval General Staff, signed by Rear Admiral Ebergard, Chief of Staff, April 22, 1909, RGAVMF, f. 427, o. 1, d. 1978, l. 1; Chief of GUKIS to Ebergard, June 10, 1909, *ibid.*, l. 2; Ebergard to GUKIS, June 16, 1909, *ibid.*, l. 3; Chief of OS GUKIS to All-Russian Imperial Aero-Club, June 20, 1909, *ibid.*, l. 4; Chief of OS GUKIS to Chief Engineering Directorate, June 20, 1909, *ibid.*, l. 5; Chief Engineering Directorate to Chief of OS GUKIS, June 26, 1909, *ibid.*, 6–7; All-Russian Imperial Aero-Club to Chief of OS GUKIS, July 4, 1909, *ibid.*, 8; Chief of OS GUKIS to Iokhim and Co., July 9, 1909, *ibid.*, l. 14; Ebergard to GUKIS, July 17, 1909, *ibid.*, l. 16.

capable of only limited movement – for coastal reconnaissance. The exception were four airships, purchased from the United Kingdom in 1916, with a volume of 4000 m³ and a pair of 150 HP engines. However, they did not see much service, as they only successfully conducted their first test flights in Russia in early 1917.²⁸⁰

Grigorovich had a small hand in acquiring fixed-wing aircraft as well. Among the report of Iokhim and Company were prices for a Wright airplane, which included training for the pilot in Paris, a French Voisin airplane, and motors from various companies around the world. Grigorovich's initial request for funding to Voevodskii did not include anything for the airplanes, and indeed, it was a struggle for the Black Sea Fleet to get any funding at all for naval aviation. The request for the initial airplane came from the Commander of the Black Sea Fleet, who said that for 12,000 rubles, they could get the plane, training for the first pilot, and the ability to observe as the airplane was built, which was knowledge that he argued could be used to build airplanes in Russian factories. The Commander of Sevastopol added his own endorsement and mentioned that Grand Duke Alexander Mikhailovich also approved of the idea. The Grand Duke had raised funds through his Committee for the Strengthening of the Naval Fleet by Voluntary Contributions to build some torpedo boats, but still had plenty of money in 1909, which he then invested in aviation. With the support of the Grand Duke (and consequently the Emperor), the Commander of Sevastopol further improved his offer by suggesting that funding could be reallocated from the budget to construct permanent observation posts on the Black Sea, meaning

²⁸⁰ Iokhim and Co. to Chief of OS GUKIS, July 20, 1909, RGAVMF, f. 427, o. 1, d. 1978, l. 18–23; Grigorovich to Voevodskii, August 4, 1909, *ibid.*, l. 30–1. The most complete record of aerostats/dirigibles/airships owned by the Russian Navy is in Andrei Alexandrov, *Achievements, Defeats, Tasks, Units, Commanding Officers, Aircraft, Weaponry, Victories, and Losses of Russian Naval Aviation and Aeronautics 1894–1920*, (St. Petersburg: Andrei Alexandrov, 2000), 17–18; 42–43.

that no new money was actually required. Voevodskii first checked with the Minister for Commerce and Industry to make sure that there were no objections to purchasing the plane abroad, then formally submitted the request to the Council of Ministers, noting that the Emperor had already approved a “similar arrangement” in February 1907.²⁸¹

GUKIS, at least, clearly expected funds to be approved quickly. The Chief of OS GUKIS sent a request to Sevastopol about the specific airplane they expected to purchase and any other spare parts the airplane might need. GUKIS had even sent a pilot for training to Paris, a Lieutenant Dorozhinskii, in October 1909, before Voevodskii even made the formal request for funding. Yet the funding had not come through by the summer of 1910. One complicating factor was the proposal of a newly founded Russian aeronautics corporation, Krylya [or “Wings”]. The company, who already had licenses from some of the most prestigious aircraft manufacturers in the world, planned to complete its workshop soon, and claimed that “Krylya has the possibility fulfill extremely quickly, precisely, and under the most suitable terms any orders for [airplanes (literally apparatuses)]... and everything which is associated with them.” In addition to the new domestic competitor, the original estimate for the French airplane was increased when the specifics were finally sent to GUKIS. For the Antoinette airplane, the total cost was 13,010 rubles (of which 12,000 was the two Gnome motors). The Ministry of Commerce and Industry refused to permit the airplane to be transported duty free, because a clerk insisted that there were

²⁸¹ Iokhim and Co. to Chief of OS GUKIS, July 20, 1909, RGAVMF, f. 427, o. 1, d. 1978, l. 24–26; Chief of the Naval Forces of the Black Sea to Voevodskii, September 24, 1909, *ibid.*, l. 32; Chief Commander of the Port of Sevastopol, October 15, 1909, *ibid.*, l. 39–40; Voevodskii to the Minister of Commerce and Industry, November 25, 1909, *ibid.*, l. 41; Minister of Commerce and Industry to Voevodskii, December 5, 1909, *ibid.*, l. 42. For Grand Duke Alexander Mikhailovich’s role in building up the air force, see David R. Jones, “The Beginnings of Russian Air power, 1907–1922” in *Soviet Aviation and Air Power*, eds. Robin Higham and Jacob W. Kipp (Boulder, CO: Westview Press, 1977), 17 and A. M. Romanov, *Once a Grand Duke*, 237–241.

“no benefits” to be gained by doing so, which added an additional cost to the airplane. Lt. Dorozhinskii had actually crashed the airplane during an earlier test flight, meaning another 1250 rubles to fix the airplane (although the pilot got away without serious injury). Undercutting the French airplane manufacturer even more was the offer of a Polish company, Aviata, to sell an airplane with even more powerful engines (55 HP as opposed to 50 HP) for much less money, 9500 rubles. A retired Lieutenant of the Guards endorsed Aviata, mentioning that German and Belgium had purchased a total of fifteen airplanes from that same company. Russia did purchase the original Antoinette and two others, and ended up buying none from Aviata, but the amount of time it took to justify such a trivial sum is absurd. The total spent on the airplane, 14,260 rubles, represented a fraction of one percent of the total budget for 1909, which was over 88 million rubles, and the 1910 budget was over 95 million.²⁸² The problems involved in acquiring the French airplane highlighted the inefficiency of the procurement process, particularly when high-ranking naval officers were not directly involved. The extended budget deliberations were certainly nothing new for the Russian Empire, and were not a major reason for Voevodskii’s dismissal, but nonetheless, did factor in the decision to have Grigorovich take over.

²⁸² Quote from Russian Aeronautics Company “Krylya” to Grigorovich, May 29, 1910, RGAVMF, f. 427, o. 1, d. 1978, l. 57. Chief of GUKIS to the Commander of Sevastopol, December 8, 1909, *ibid.*, l. 43; Commander of Sevastopol to GUKIS, February 17, 1910, *ibid.*, l. 50; OS GUKIS to Assistant Chief of the Naval General Staff, February 24, 1910, *ibid.*, l. 53; Russian Aeronautics Company Krylya to Grigorovich, May 29, 1910, *ibid.*, l. 57–58; Chief of Staff of the Black Sea Fleet to the Naval Ministry, June 2, 1910, *ibid.*, l. 60–61; Department of Customs Collections of the Ministry of Finance to OS GUKIS, June 4, 1910, *ibid.*, l. 62; Chief of the Black Sea Fleet to the Naval Ministry, June 17, 1910, *ibid.*, l. 65; OS GUKIS to Naval General Staff, *ibid.*, l. 73; OS GUKIS to Grigorovich, October 6, 1910, *ibid.*, l. 91; A. V. von Krumm to GUKIS and the Naval Ministry, undated, RGAVMF, *ibid.*, l. 92. For the naval budget, see N. Nordman, “Nashi morskii budzheti” [Our naval budgets], *Morskoi sbornik* 379, no. 12 (December 1913), 65.

Grigorovich as Naval Minister and the fleet prior to World War I

Once Grigorovich took over as Naval Minister in his own right, he successfully did what his predecessors had failed to do: accomplish reforms and expand the navy. Grigorovich had a much closer relationship with the Emperor than Dikov or Voevodskii had enjoyed, but he was also willing to speak to the Duma and engage in parliamentary debate. He was personally friendly with many members of the Council of Ministers, none more so than the Minister of Finance (and future Chairman of the Council of Ministers), V. N. Kokovtsov. Most importantly of all, he made sure that the platform and policies he advocated were in tune with those of the Emperor.

Grigorovich's track record during the Russo-Japanese War earned him both praise and condemnation. His *Tsesarevich* was the only surviving battleship of the First Pacific Squadron, but he was also the Commander of Port Arthur when the fortress fell. He even spent a brief period in Japanese captivity. His experience as Naval Attaché to the United Kingdom helped bolster his case, but even so, he was somewhat controversial. One reporter, N. M. Portugalov, "accused [Grigorovich] of all of the deadly sins." Grigorovich himself did not expect to be promoted after Voevodskii's ouster: he suspected that A. A. Ebergard, the Chief of the Naval General Staff, would be promoted, with S. P. Dushen, the head of GUKIS, as his Deputy. Voevodskii, however, thought differently, and cautioned Grigorovich to be ready to present a budget to the Duma.²⁸³ The Emperor himself called Grigorovich to Tsarskoe Selo (the Imperial residence outside of St. Petersburg; the village is now called Pushkin) on March 19, 1911.

²⁸³ The proper spelling of Ebergard's name is a bit obscure, as he was a Swede born in Greece. Some sources use Eberhard, some use Ebergard, some use Eberhardt. I have chosen the spelling "Ebergard," the Russian spelling, for consistency, as it is used most frequently.

During the conference, Nicholas II told Grigorovich that he had followed his career from his command at Sevastopol all the way through his tenure of Deputy Naval Minister, and said that “you will bring all of your energy and knowledge to your new, high-ranking [*otvetsvennom*] post of Minister, you will rebuild the navy and remove from the Department those reproaches, which have fallen upon it.” Grigorovich remained on good terms with his predecessor, even assisting him in finding a new apartment, since Voevodskii had to vacate the apartments assigned to the Naval Minister. The provisional Deputy Naval Minister was to be then-Captain First Rank M. V. Bubnov. Bubnov had served with Grigorovich at Port Arthur as Commander of the Kwantung Fleet Equipage and played a role in the defense of the fortress. However, there were also rumors that Bubnov speculated very heavily on the stock market, which was a source for concern. Grigorovich wrote that “I considered [his actions speculation] absolutely impermissible for somebody serving in the economic unit of GUK in general, and moreover for the Deputy Naval Minister, it might already be a crime.” However, Grigorovich decided to retain Bubnov, because his personal qualities were overwhelmingly positive and because he trusted Bubnov. Bubnov served in the office until his retirement in 1915, when the responsibilities of the office were transferred to the First and Second Assistant Naval Ministers.²⁸⁴

On October 11, 1911, Grigorovich finally accomplished the long-needed restructuring of the Naval Ministry that Voevodskii had failed to implement. The most important change was the dissolution of the MTK as an independent entity and its subordination to the newly created *Glavnoe Upravlenie Korablestroenii* (GUK), or Chief Directorate of Shipbuilding, which

²⁸⁴ Nazarenko, *Morskoe ministerstvo*, 128–9 and 149–150; Grigorovich, *Vospominaniya*, 44–47; “Bubnov Mikhail Vladimirovich”, <http://ordjon.com/index.php?page=bubnov>, accessed June 18, 2015; Nicholas II to Grigorovich, March 19, 1911, RGAVMF, f. 701, o. 1, d. 29, l. 7. First quote is from Nazarenko, pg. 149; second quote is from Grigorovich, pg. 46; third quote is from Grigorovich, pg. 47.

replaced GUKIS. The MTK had received the brunt of the criticism in the long, drawn out process of the adoption of foreign technology. Its disappearance would, theoretically, allow for much quicker decision making in the ship construction and procurement process. GUK was directly responsible to the Deputy Naval Minister, who in turn was directly responsible to the Naval Minister. GUK was subdivided into five separate departments: Shipbuilding, Mechanics, Artillery, Mines/Torpedoes, and a General Affairs department to handle the day-to-day administration of the directorates. More generally, as much responsibility was devolved to the Naval General Staff as possible and the overall ministry was streamlined. The Operations Unit of the Naval General Staff was divided into three parts, one for the Baltic Sea, one for the Black Sea, and one for the Pacific. The Naval General Staff was also given responsibility for naval espionage.²⁸⁵ After getting these crucial reforms out of the way, Grigorovich turned to the mandate that the Emperor gave him: the restoration of the fleet.

Grigorovich's greatest asset that his predecessors lacked was interpersonal skills. He especially cultivated a close relationship with Nicholas II. Grigorovich hosted the Emperor on numerous occasions for breakfasts on his yacht, *Neva*, and kept in constant contact with the entire Imperial family.²⁸⁶ When Grigorovich's daughter was ill in April 1914, the Emperor not only visited her in the hospital, but even donated buildings to the hospital. He also got along well with fellow ministers, such as the Minister of Foreign Affairs, S. D. Sazonov, and the Minister of

²⁸⁵ Nazarenko, *Morskoe ministerstvo*, 162 and 254 and the *putovoditel* [finding aid] for RGAVMF fond 401, *Glavnoe Upravlenie Korablestroenii*. Cf. Nazarenko, *Morskoe Ministerstvo*, 247 and 254 for the differences between Birilev's reforms and Grigorovich's.

²⁸⁶ Nicholas II, *Diaries II*, 482, 490, 533, 539. Although the breakfasts only started regularly in 1914, none of the published editions of diaries I located had entries from June 30, 1907 to January 1, 1913. Those records are located in GARF (State Archive of the Russian Federation), fond 601, in Moscow, which I was unable to visit.

Finance, V. N. Kokovtsov. The relationship with Kokovtsov was especially valuable after he became Chairman of the Council of Ministers after Stolypin's assassination in September 1911. While Stolypin had not opposed naval expansion, there is some evidence that he did not entirely embrace it either, particularly the type of navy that the Emperor and the Naval Ministers favored: one centered on dreadnoughts. Kokovtsov, on the other hand, was entirely concerned about the financial implications of naval expansion, not what type of naval expansion was undertaken. He generally opposed giving contracts to foreign shipyards, preferring to more firmly establish the native Russian shipbuilding industry, and when foreign shipyards were involved, he tended to favor France whenever possible. As long as Grigorovich stuck to those guidelines (and occasionally, even when he did not), Kokovtsov was a powerful ally for Grigorovich. Kokovtsov wrote about his relationship with Grigorovich in his memoirs: "There were only the very best relations between us. We never had any kind of disagreements, not even on one of the most important questions [*krupnykh voprosov*] about the restoration of our fleet after its devastation in 1905." Kokovtsov's relations with the War Ministry, for example, were much worse.²⁸⁷ With powerful allies in the Council of Ministers and the Imperial family supporting him, Grigorovich's most significant challenge was to win over the Duma. Confident of Imperial backing—something that his predecessors normally did not have—Grigorovich was able to

²⁸⁷ Quote is from V. N. Kokovtsov, *Iz moego proshlago: Vospominaniya 1903–1919*, [Out of my past: Memoirs, 1903–1919] (Paris: Izdanie zhurnala illyustrirovannaya Rossiya, 1933), I: 337. See also Nazarenko, *Morskoe ministerstvo*, 149; Gatrell, *Government, industry, and rearmament in Russia*, 274. Also see footnotes on pg. 105 for Kokovtsov's thoughts on the navy, as well as Polikarpov, "Vlast i flot," 266–8. An entire *delo* (f. 701, o. 1, d. 29) of Grigorovich's papers in RGAVMF is devoted to telegrams and/or letters between Grigorovich and the Imperial family, which includes telegrams not only from the Emperor, but Empress Alexandra and all of their children (including Aleksei, the heir to the throne). The telegram about Grigorovich's daughter is RGAVMF, f. 701, o. 1, d. 29, l. 1.

effectively answer the criticisms of the Duma and succeeded in getting legislation passed to finally fund the overdue expansion of the navy.

Grigorovich first had to defend Voevodskii's final budget request from the Duma. The *Gangut*-class dreadnoughts turned out to be more expensive than the original budgetary projections, and so Voevodskii wrote a draft proposal requesting more funds; he first submitted the request to the Council of Ministers for review before sending it to the Duma. The *Ganguts* would be completed in 1915 according to the new budget, but in order to do so, he needed 129,250,004 rubles, most of which he needed in 1912. The Council of Ministers approved his request and passed it along to the Committee for State Defense of the Duma. The Duma was less sanguine about the need for the funds. The Committee pointed out that the dreadnoughts were already well over budget and behind schedule. One of the subcontractors, the Obukhovskii Factory, had already committed financial malfeasance by spending the sum allocated to them for turrets on their own long-standing debts, after which they immediately asked for money to complete the work for which they were contracted. The Committee, on the one hand, pointed out that there were already dreadnoughts under constructions in other countries that were superior to the *Ganguts*, but on the other hand, the *Ganguts* were "stronger than the majority of dreadnoughts which had already been built in England and Germany, and all of the dreadnoughts built in Italy and Austria[-Hungary]." The Committee did authorize an immediate release of funds, totaling 28 million rubles (7 million for each dreadnought), but refused to consider any further allocations without the consent of the Duma as a whole. It also set a fixed ceiling on the cost of the dreadnoughts, totaling 147,464,568 rubles, based on the Naval Ministry's own numbers, and mandated that even if the additional funding were eventually provided to the Naval

Ministry in a future session of the Duma, it could never exceed that amount.²⁸⁸ The Duma officially considered the remaining sum on May 7, 1911, in a session which Grigorovich, breaking the tradition set by his predecessors, attended in person.

The session opened with a statement by an Octobrist, a representative from Kharkov province, N. V. Savich, who was the Deputy Chairman for the Committee on State Defense and the Chairman of the Budgetary Committee.²⁸⁹ In the latter capacity, he spoke about the proposed allocation and raised an important issue: “The question has never been discussed [by the Duma], whether on the whole Russia needs a fleet or not and whether on the whole it is necessary to build these four ships. Another question was actually discussed [:] whether we need to assign the money which the department has requested for these ships?” Savich explained the committee’s original decision to refuse the extra credits (minus those already granted): the Naval Ministry had not, to the committee’s satisfaction, proven that they could build ships of this level of technical sophistication, but now, according to him, “Circumstances have changed.” Specifically, the fact that construction had already begun on the ships made it somewhat foolish to consider refusing to build them.²⁹⁰ Grigorovich replied to Savich’s concerns, blaming the lack of construction progress on the uncertain nature of funding, which kept the dreadnoughts in their slipways too long, subsequently preventing other ships from being completed. Another important factor in the high costs was the price of shipbuilding labor in Russia. Grigorovich testified that Russia’s labor

²⁸⁸ Draft statement from the Naval Ministry to the State Duma, February 1911 [no date], RGIA, f. 1276, o. 2, d. 444, l. 55ob; Special Journal of the Council of Ministers, February 3, 1911, *ibid.*, l. 57; Report from the Committee for State Defense of the Duma, February 16, 1911, *ibid.*, l. 60–61.

²⁸⁹ For more on Savich, see http://sklaviny.ru/biograf/bio_s/savich_nv.php, accessed June 20, 2015.

²⁹⁰ Stenographic notes of the State Duma, third convocation, session IV, part III, Saturday, May 7, 1911, RGIA, f. 1276, o. 2, d. 444, l. 65. It is not clear which refusal Savich is referring to, but most likely, he means the original refusal in 1908, under the “small shipbuilding program.”

costs were 1280 rubles per ton; the largest dreadnought of the class, *Gangut*, was 25,946 tons, meaning that labor alone would have cost 33,210,880 rubles, and that for just one of the dreadnoughts. The United Kingdom, however, paid only 980 rubles per ton, and in some cases, 800 rubles per ton: a savings of from 23% to 37%. He also promised that the first two dreadnoughts would be completed in 1914, ahead of the original schedule he provided to the Council of Ministers.²⁹¹

After Grigorovich's lengthy speech, a vote formally extended the session to 7 PM, at which point M. V. Chelnokov, a Constitutional Democrat from Moscow, spoke. Chelnokov said that he and his party would vote against the increased funding; while he was not the leader of the Cadets, he was very influential as the chair of the Moscow branch of the party, so his opinion carried significant weight. Chelnokov attacked the Naval Ministry's plan based on a plan of relative threats; he considered the Ottoman Empire to be the greatest threat to Russia at sea. The Ottoman Empire had already ordered two dreadnoughts from the United Kingdom, with 13.5 inch guns. However, even the Ottomans were not the same threat that it once was, as Chelnokov noted that they got weaker "in the course of two years." He too highlighted (albeit without numbers) the higher cost of Russian ships as opposed to its foreign counterparts, but used that to imply that Russia would be better served buying dreadnoughts from foreign powers. There was absolutely no way that Russia could keep up with German spending; Chelnokov cited a figure of

²⁹¹ *Ibid*, 1. 65–66. The tonnage figure for *Gangut* comes from McLaughlin, *Russian & Soviet Battleships*, 207. Grigorovich did not provide a source for his figures, but that does not necessarily make them untrue. Peter Gatrell offers a per-ton cost of 674 rubles per ton in the UK and 809 rubles per ton in Russia, but this assessment comes with three caveats: his data comes from 1909, not 1911; refers to *bronenostsy*, that is, battleships in a generic sense, not necessarily dreadnoughts specifically, which were much more expensive than pre-dreadnoughts; and considered construction costs only, which did not include labor costs. Gatrell, *Government, industry, and rearmament in Russia*, 288.

2.5 billion rubles to match Germany's navy, an obviously impossible sum. However, his biggest complaint was the lack of information given to the Duma. As he put it, "We are told that Russia needs a battle fleet, which could be in every given place measured with the forces of a modern fleet, which is built to a high technical standard. And we are told absolutely nothing more." He further accused the late Stolypin of intentionally limiting the discussion of budgetary questions, but noted that even Stolypin was against expenditures on the navy, quoting him on two occasions: "it is impossible to build a new fleet, not having a full program of shipbuilding" and "we need a plan, which needs to address the unified activity of all state organs."²⁹² He spoke for over an hour (to the dismay of the right-leaning politicians), emphasizing that the Naval Ministry had no real plan for shipbuilding and that the government simply imposed its will on the Duma without encouraging genuine debate.²⁹³ Chelnokov's reasoned rejection of Grigorovich's funding represents one of the most common objections to Grigorovich's plan: few members of the Duma believed that the navy deserved no expansion, but they wanted the right to debate the plan's merits instead of simply being told to vote yes or no.

The following day, Grigorovich spoke again, citing the legal precedents that the dreadnoughts themselves and naval policy in general was not up for debate. The Emperor himself had approved the program, and the Duma itself had already approved the construction of the dreadnoughts in two other laws. Although Grigorovich was correct from a legal standpoint,

²⁹² Stenographic notes of the State Duma, third convocation, session IV, part III, Saturday, May 7, 1911, RGIA, f. 1276, o. 2, d. 444, l. 66–67. All quotes, except the first, from page 67; the first quote is from page 66. Although Chelnokov did not specifically say why or how the Ottomans got weaker, he most probably is referring to the failed Young Turk revolution of 1908–09.

²⁹³ For a very detailed biography of Chelnokov, see V. M. Shevyrin, "Mikhail Vasilevich Chelnokov", http://www.inion.ru/index.php?page_id=527, accessed June 20, 2015. His full speech is in Stenographic notes of the State Duma, third convocation, session IV, part III, Saturday, May 7, 1911, RGIA, f. 1276, o. 2, d. 444, l. 66–70.

the debate still continued. The next speaker, A. I. Shingarev, another Cadet from the province of Voronezh, to a certain extent reiterated the critiques of his colleague Chelnokov. He stated that “briefly speaking, there is neither a plan, nor a clear mission, nor clearly defined goals before us.” However, he did not oppose the plan on the basis of military expediency. As he put it,

I think it is perfectly incorrect to put forth the question of state defense only in terms of cannons, battleships, and bayonets. ... In this way, you, depriving these monies from the cultural needs of the nation, [are] impeding the development of national education, even hindering the national health of the masses of rural localities and urban initiatives, you undermine not only the capability of the nation in the economy, but even the defensive capability of the people, you undermine [Russia’s] capability [to be part of] the international competition of the [Great P]owers, you weaken Russia instead of strengthening her.

An attempt to regain some momentum came from A. A. Motovilov of Simbirsk province, a member of the All-Russian Nationalist Union. His argument was very simple: “It is necessary for the Baltic Fleet to have such combat forces, which could give the possibility to meet an approaching enemy. Therefore we will vote for the allocation to the fleet for the glory of our fatherland, and not to murder it, as would be desired by a few people from the left benches.” A. A. Uvarov, from Saratov province and a member of the Party of Progressives, asked Motovilov to explain who the “approaching enemy” was. “What is meant, in the first place, to be prepared: for war either with Germany, or with England, or perhaps both powers together?” Neither four nor eight dreadnoughts would make any difference against Germany, and combined, they held 40 dreadnoughts. Subsequent speakers simply reiterated points already made, and it ultimately came time for a vote. Overall, while the left-leaning parties did have the more eloquent speakers, there were far more centrists and rightists in the Third Duma. Every time a liberal representative

tried to make a point, he was shouted down by rightists: Chelnokov's long, rambling speech was the worst of the lot, not least because it extended long into the night. Despite the heated liberal opposition, the bill was passed by the Duma and signed by Nicholas II on May 19, 1911.²⁹⁴ The dreadnought program was at last properly funded, and the funding came as the result of Grigorovich's willingness to speak before the Duma and make the government's case in person.

In one sense, Grigorovich's achievement seems underwhelming. After all, the Octobrists and various nationalist parties significantly outnumbered the Cadets, Progressives, and other more liberal parties: according to P. N. Milyukov, of the 424 members of the Third Duma, 279 were either members of the "center" (which included the Octobrists) or the "right," which meant that even the most determined liberal attempts to block a law were doomed if the government could mobilize the other parties.²⁹⁵ At the same time, however, the composition of the Third Duma in 1908 had largely been the same, and that Duma rejected naval spending. One of the loudest voices in opposing naval spending, A. I. Guchkov, had been all but marginalized by the time of the 1911 debate, but he had lost his authority in the party and in the Duma after the Naval General Staff crisis, which occurred before Grigorovich's time. However, the biggest difference between 1908 and 1911 was Grigorovich. His decision to appear before the Duma and present the government's case effectively, even if his presentation lacked rhetorical skill, is the single biggest contributing factor in the successful funding of the Baltic dreadnoughts.

²⁹⁴ Stenographic notes of the State Duma, third convocation, session IV, part III, Saturday, May 7, 1911, RGIA, f. 1276, o. 2, d. 444, l. 72–73, 77–78; all quotes from 72.. Also see Igor Arkhipov, "A. I. Shingarev – 'obkhoditelnyi [well-mannered] liberal'," <http://magazines.russ.ru/zvezda/2007/9/ar8.html>, accessed June 21, 2015. The specific vote totals were not provided in the stenographic record, only that the bill was passed.

²⁹⁵ P. N. Milyukov, "Representative System in Russia," 32. Hugh Seton-Watson has a slightly different enumeration, but they are very close, with parties off only by one or two seats in most cases. Hugh Seton-Watson, *The Russian Empire, 1801–1917* (Oxford: Clarendon Press, 1967), 628.

Also signed by Nicholas II on May 19, 1911 was a law authorizing funding for the Black Sea Fleet, and in this decision Grigorovich also played a key role. Voevodskii had first brought a proposal to increase the size of the Black Sea Fleet to the Council of Ministers in October 1910. Up to that point, the Baltic Sea Fleet had received the lion's share of the Naval Ministry's budget. The Black Sea Fleet received only 50.1 million rubles, far closer to the largely defunct Pacific Fleet (33.8 million rubles) than the Baltic Fleet (614.1 million rubles).²⁹⁶ The only new ships under construction were nine destroyers and torpedo boats and six submarines.²⁹⁷ Part of that funding also went to the repair and modernization of two of the Black Sea Fleet's pre-dreadnoughts. To further strengthen the Black Sea Fleet, the Naval Ministry requested 135.7 million rubles, most of which was allocated for three Black Sea dreadnoughts, nine more destroyers, and six more submarines. To begin construction, the Ministry needed 40 to 45 million rubles (depending on which shipyard did the construction and how much foreign assistance they received). The Council of Ministers established a committee to study the precise sums needed, under the chairmanship of then-Deputy Naval Minister Grigorovich, including the Assistant War Minister, inspectors from the Navy and the Ministry of Finance, the Chief of the General Staff and the Chief of the Naval General Staff. The Emperor approved that decision on January 13, 1911.²⁹⁸

²⁹⁶ The archival document does not specify the period for these numbers; adding up the naval budgets from 1904 to 1910 gives a total of 727.4 million rubles, of which approximately 16.85 million was to pay off naval debts in 1910, so depending on how Voevodskii calculated his budgets, that is a fair guess for the period he meant. Beskrovnyi, *Armiia i flot Rossii*, 226–229.

²⁹⁷ The document treats the “destroyers and torpedo boats” collectively, so it is unclear how many there were of each.

²⁹⁸ Special session of the Council of Ministers, October 6, 1910, RGIA, f. 1276, o. 2, d. 444, l. 113–123.

The Council of Ministers sent Grigorovich and War Minister V. A. Sukhomlinov to the Duma to present a 10-year plan to modernize not only the Black Sea Fleet but to upgrade fortifications along the Black Sea coastline as well.²⁹⁹ Grigorovich had a comparatively easier time getting the funding for the Black Sea Fleet because there was a clear but manageable threat to Russia: the Ottoman Empire's soon-to-be-completed British dreadnoughts. The British Naval Mission to the Ottoman Empire began on February 2, 1909 with Vice Admiral Sir Douglas Gamble's arrival in Constantinople. Of the Ottoman Empire's 52-ship navy, only 28 were even still seaworthy, without discussing their actual combat capabilities. Their primary long-term strategic threat at that time was not Russia, but Greece, and when the British tried to recommend smaller battleships to fight Greece, 16,000-ton ships instead of the 20,000-ton ships the Ottomans preferred, the Ottoman Empire refused to accept the British proposal. This refusal put the British in an uncomfortable position. They wanted to maintain Anglo-Russian relations based on the 1907 Entente but, at the same time, prevent Germany from gaining further influence in the Ottoman Empire. If the British Empire did not help the Ottomans acquire dreadnoughts, the Ottomans could get them from Germany, who had already stepped in when the UK refused to sell the Ottomans the battleships *Swiftsure* and *Triumph*. When Russia protested in 1910, the British countered by emphasizing the Ottoman Empire's true opponent (Greece) and that it would take years for the Ottoman Navy to have any real effectiveness. One of the heads of the British Naval Mission actually said that, in April 1912, 95% of the Ottoman seamen were illiterate, emphasizing the Ottoman Empire's relative weakness. Russia had no choice but to accept the arrangement between the British and Ottoman Empires, as they did not want to

²⁹⁹ For those interested in the Army's portion of the plan, see Special session of the Council of Ministers, December 2, 1910, RGIA, f. 1276, o. 2, d. 444, l. 125–130.

endanger the 1907 Entente any more than the British did.³⁰⁰ The problem of the dreadnoughts still remained, however.

Without the ability to deny the Ottoman Empire access to dreadnoughts via diplomacy, it fell to Russia to build its own in the Black Sea. As noted above, even those members of the Duma who had opposed additional funding for dreadnoughts in the Baltic Sea supported their construction in the Black Sea. The Duma formally approved the funding on May 4, 1911, and the law was signed by Nicholas II on May 19, 1911, the same day he signed the law funding the Baltic dreadnoughts. The law for the Black Sea gave the Black Sea Fleet an immediate allocation of 10.1 million rubles, with a total of 102.2 million rubles earmarked throughout the ten-year period. The funding would ensure the construction of three dreadnoughts, nine destroyers, and six submarines. For the destroyers, Russian shipyards would compete against foreign shipyards in Germany, France, and the United Kingdom in an international design competition. Grigorovich proposed to build all of the submarines and the dreadnoughts in Russian shipyards; the first three submarines were Russian-designed, but the second three were based on the American Holland design. The dreadnoughts also required extensive foreign assistance, and three Russian shipyards – the Admiralty shipyard at Nikolayev, which was on the Bug River, near the Black Sea; the Baltic Shipyard; and the firm “Engineers Bunge and Ivanov”—already had foreign partners lined up to help with the design process. Grigorovich decided, in advance, to allocate the dreadnought contracts to one of Russia’s privately-owned shipyards, reasoning that it was much easier for them to get foreign parts or assistance as they did not require the

³⁰⁰ Special session of the Council of Ministers, December 2, 1910, RGIA, f. 1276, o. 2, d. 444, l. 122–130; Chris B. Rooney, “The International Significance of British Naval Missions to the Ottoman Empire, 1908–14,” *Middle Eastern Studies* 34, no. 1 (January 1998), 1–8.

government's approval, whereas the state-owned shipyards would. Each dreadnought had to have at least 13.5" guns (to match the prospective Turkish dreadnoughts) and were projected to be at least 29,000 tons. Grigorovich decided to award the dreadnought contracts to two different shipyards in Nikolayev: Russud (short for Russkii Sudostroitelnyi Zavod, or Russian Shipbuilding Factory) got the *Imperatritsa Maria* and the *Imperator Aleksandr III*, while ONZiV (sometimes known as Naval, as per its telegraphic address) got *Imperatritsa Ekaterina Velikaya* (commonly known simply as *Ekaterina II*). The first two dreadnoughts were laid down at 10 AM, October 17, 1911; *Ekaterina II* was laid down at 3:30 PM the same day. For the small ships, Russud got four of the destroyers, Naval got one, two went to the St. Petersburg Metal Factory, and one went to the Nevskii shipyard in St. Petersburg. The submarines were divided equally between the Baltic Shipyard and Nevskii. The smaller ships could be more easily built in Baltic shipyards, then sent by rail to the Black Sea for their eventual deployment (either in sections or whole for some of the smaller submarines), which freed up the Black Sea shipyards to handle the dreadnoughts, which could not easily be transported.³⁰¹

The highlight of the Black Sea Fleet's building program were the new dreadnoughts. The Russud dreadnoughts, excluding the turbines, which were acquired under license from the British firm John Brown, were made of Russian materials by Russian shipwrights. The Izhorskii factory made the armor plate for both ships (albeit to the Krupp design), while the boilers were provided by factories in Kharkov and by the shipbuilder itself. Russud itself was a new company, which

³⁰¹ "Law on the release from the state treasury of funds for the construction of new ships on the Black Sea," May 19, 1911, RGIA, f. 1276, o. 2, d. 444, l. 156–58; Grigorovich to Council of Ministers, May 25, 1911, *ibid.*, l. 159–60; Special Journal of the Council of Ministers, June 6, 1911, *ibid.*, l. 174; Grigorovich to Council of Ministers, August 1 [possibly 4], 1911, *ibid.*, l. 187–88; Decree of the Naval Minister, October 11, 1911, *ibid.*, l. 243; McLaughlin, *Russian & Soviet Battleships*, xviii, 228–29; Beskrovnyi, *Armia i flot Rossii*, 198–99.

included funding from the Imperial family and foreigners around the world. It provided the designs for all three dreadnoughts, including the one built at ONZiV. The turbines for *Imperatritsa Maria* only arrived from the United Kingdom in May 1914, just in time for World War I; the *Imperator Aleksandr III*, on the other hand, had to have its turbines delivered during the war itself. After being sent to Arkhangelsk, they were sent via railway to the Black Sea. The *Imperatritsa Maria* and *Imperator Aleksandr III* was launched prior to receiving their turbines—the normal practice—on October 19, 1913 and April 2, 1914 respectively. *Ekaterina II*, built by ONZiV, was launched May 24, 1914, later than the other two dreadnoughts, but was still completed prior to the *Imperator Aleksandr III* because ONZiV was able to build the turbines for *Ekaterina II*, with help from Vickers, at their own factory. All three ships had 12” guns; the Naval Ministry had originally specified 13.5” guns, and had even investigated the possibility of using 14” guns, but studies by the Naval Ministry showed that carrying a greater quantity of guns and keeping the three dreadnoughts relatively close together would neutralize the projected Turkish dreadnoughts, which had 13.5” guns. If the Naval Ministry wanted to use 14” guns, it would add another 18 months to the delivery date for the dreadnoughts for the Obukhovskii Works to complete them. Therefore, each dreadnought was equipped with twelve 12” guns and twenty 5.1” guns (although *Imperator Aleksandr III* only had eighteen). By Russian standards, the first two dreadnoughts were completed incredibly fast. Construction formally began (apart from the keel-laying in October 1911) on all three dreadnoughts in 1912; *Imperatritsa Maria* sometime in July, *Imperator Aleksandr III* in August, and *Ekaterina II* October 20, 1912. *Imperatritsa Maria* and *Ekaterina II* were commissioned in 1915, on May 28 and October 5, respectively, for a total period just under three years for both ships between the start of construction and commissioning. That was despite an order from the Naval Ministry to

strengthen the bolts on the dreadnoughts' armor plating, based on tests of the *Gangut*-class's armor plating. *Imperator Aleksandr III* took much longer, partially due to the delayed delivery of the turbines and partially because its labor and some of its equipment were transferred to *Imperatritsa Maria* to get her finished ahead of schedule. It was commissioned June 15, 1917.³⁰²

Had Grigorovich only been responsible for the construction of three new dreadnoughts and secured additional funding for four others, he would have far surpassed his predecessors as Naval Ministers, but he was still more ambitious. At the Emperor's direction, Grigorovich wrote a lengthy report, entitled "To the question of the program of increased shipbuilding, 1912–1916," which he later forwarded to the Council of Ministers. Nicholas II had ordered and approved five-year and twenty-year variants of a larger program of shipbuilding, to begin in 1912. This program, Grigorovich argued, was necessary because of the threat that Germany (and, to a lesser extent, Austria-Hungary) presented to Russia. Even if the German navy was directed at the United Kingdom, Grigorovich could not, for planning purposes, assume that Germany would not use a part of their navy against the Russian Empire. France, Russia's only formal ally, would be of no help in the Baltic Sea for geographical reasons. Therefore, Russia had to anticipate fighting at least part of the German navy alone. By 1912, Germany would have ten dreadnoughts, three battle cruisers, fourteen light cruisers, and sixty destroyers. Technologically, these ships were five years ahead of Russia's. The Russian Empire's present fleet could handle the original German dreadnoughts (such as *Nassau*), having in mind the pre-dreadnought battleships *Andrei Pervozvannyi* and *Imperator Pavel I* and the cruiser *Rurik* as the best weapons against those German dreadnoughts. The other two battleships, *Slava* and *Tsesarevich*, however, were obsolete compared to German dreadnoughts. Regarding Russia's other cruisers, Grigorovich said that "all

³⁰² McLaughlin, *Russian & Soviet Battleships*, 228–33, 236; Tsvetkov, *Sudostroenie v nachale XX veka*, 360–66.

of the remaining cruisers need to be considered ‘second rate’ ships, obsolete for their type and most suitable as a class of ‘light cruisers’.” Among the destroyers, he only concerned *Novik* to be a worthy vessel. As soon as the Baltic dreadnoughts were finished, they could be paired with *Andrei Pervozvannyi* and *Imperator Pavel I* to be a respectable front-line squadron. However, Germany was going to have two full squadrons, now defined as eight ships, by 1916. Austria would have four dreadnoughts by 1913 and four more in 1916. Italy, by 1916, would also possess eight dreadnoughts. Turkey was going to have two by 1916. Therefore, Russia needed more ships if they were going to keep up with their potential enemies, especially if the Ottoman Empire supported the Triple Alliance and permitted Italian or Austrian ships to enter the Black Sea. Grigorovich requested 512,613,000 rubles from 1912 to 1916 for the ships in Table 3.1. In addition to the ships he wanted, he also requested the engines and hulls of two more light cruisers to be built abroad. The “stars” of the new building program, so to speak, were the four *Izmail*-class battle cruisers.³⁰³

Battle cruisers—essentially dreadnoughts without the armor—were the creation of Admiral Sir John “Jackie” Fisher of the Royal Navy. As far back as 1902, Fisher conceived of the battle cruiser as a way to counter every other cruiser in the world, with a minimum speed of 25 knots. Carrying the big guns of a dreadnought, they could also face pre-dreadnought battleships with superior range and firepower, although Fisher himself did not intend this particular mission. The first battle cruiser design, which Fisher called HMS *Perfection* but which was ultimately named the *Invincible*-class, “was a warship capable of destroying any vessel fast enough to catch it, and fast enough to escape any vessel capable of destroying it.” At least one

³⁰³ “To the question of the program of increased shipbuilding, 1912–1916,” November 19, 1911, RGIA, f. 1276, o. 2, d. 444, l. 251–56; quote from 253.

Russian naval officer, V. Yurkevich, considered battle cruisers preferable to dreadnoughts, albeit mostly for reasons of cost than out of any genuine strategic advantage. While the dreadnoughts the Russian Empire was building in the Baltic were helpful, and would, according to him, force Germany to keep at least six of its own dreadnoughts out of the North Sea, battle cruisers offered a less expensive alternative to dreadnoughts. He thought so highly of battle cruisers that he predicted a second naval race, because “other powers will frenetically apply the recent successes of the newest technology and create similar colossi.” HMS *Lion* and *Princess Royal* cost, according to the author, 20 million rubles each. Although Russia could expect some assistance from British firms and Russia could take advantage of the cost savings from using an established design, the Black Sea dreadnoughts actually cost less than 20 million rubles, based on original design projections. The *Izmail*-class was far more heavily armed than the *Lion* or *Princess Royal*; while they had eight 13.5” main guns and sixteen 4” guns, with a collection of lighter pieces on the bridge and machine guns and five torpedo tubes, the *Izmail*-class was to have nine 14” guns and 24 130mm guns (or about 5.1 inches), with their own collection of smaller pieces.³⁰⁴

The projected cost of the entire new plan of shipbuilding, the battle cruisers included, triggered extensive discussions and so the Council of Ministers authorized an interdepartmental conference, chaired by the Naval Minister, and including representatives from the Ministries of

³⁰⁴ Massie, *Dreadnought*, 588–92; V. Yurkevich, “Novyi tip boevogo korablya battle cruiser” [New type of warship battle cruiser], *Morskoi sbornik* 370, no. 5 (May 1912), 81–84; “To the question of the program of increased shipbuilding 1912–1916”, November 19, 1911, RGIA, f. 1276, o. 2, d. 444, l. 285. First quote from Massie, pg. 591; second quote from Yurkevich, pg. 82. For the approximate costs of the Russian dreadnoughts as originally assigned, see Grigorovich to Council of Ministers, August 1 or 4, 1911, RGIA, f. 1276, o. 2, d. 444, l. 188. The official price that Russud gave to the Naval Ministry for two dreadnoughts was 19,248,505 rubles each.

Table 3.1. Proposed five-year shipbuilding program, 1912–6³⁰⁵

Year of plan	Funding for shipbuilding	Funding for ports	Funding for govt. factories	Total funding	Ships for private yards³⁰⁶	Ships for state-owned yards³⁰⁷
1912	69,136,000	12,841,000	7,306,000	89,283,000	2 BC ('15)	2 BC ('16), 2 CL ('15), 6 SS ('14) 12 DD ('14)
1913	101,650,000	17,224,000	2,680,000	121,554,000	2 CL ('16) ³⁰⁸	6 SS ('15) 12 DD ('15)
1914	106,057,000	15,049,000	---	121,106,000	--	6 SS ('16) 12 DD ('16)
1915	87,326,000	15,449,000	---	102,775,000	--	--
1916	65,681,000	12,214,000	---	77,895,000	--	--

War, Finance, Commerce and Industry, and Foreign Affairs, as well as the State Inspectorate.

The Naval Ministry made some minor cuts as a show of good faith, but Finance, Commerce and Industry, and the State Inspectorate wanted an additional cut of 11,537,666 rubles, specifically on the new battle cruisers. To further ensure cost savings, the Ministry of Finance also wanted a freeze on any other new ships in 1912 and to have all of the battle cruisers built in privately-

³⁰⁵ “To the question of the program of increased shipbuilding, 1912–1916,” November 19, 1911, RGIA, f. 1276, o. 2, d. 444, l. 260–61.

³⁰⁶ BC = battle cruiser; CL = light cruiser; DD = destroyer; SS = submarine. 2 BC ('16) means two battlecruisers, with projected completion in 1916.

³⁰⁷ Includes two submarines for the Pacific Fleet every year from 1912 to 1914.

³⁰⁸ For the Black Sea Fleet.

owned shipyards, expecting that those shipyards would charge lower prices than the state-owned yards because they were not legally required to use only Russian materials and could purchase much cheaper materials abroad. The Ministry of Foreign Affairs did not go as far as the Ministry of Finance, as it agreed to the new ships of the five-year plan of shipbuilding in the Black Sea, but not the Baltic, apart from the battle cruisers. The Minister of Foreign Affairs, in particular, expected that improved coastal fortifications would counter any threat Germany might pose. After receiving the committee's report, the Council of Ministers agreed to the Minister of Finance's plan, that none of the ships in the five-year plan would begin construction in 1912, and sent Grigorovich to the Duma to get approval for the shipbuilding program with those changes.³⁰⁹

Grigorovich was extremely nervous about the five-year program passing the Duma. It was the last expansion to the fleet that the Russian Empire was able to make prior to World War I, and in order to secure that funding, Grigorovich had to promise that he would not again ask for more money for shipbuilding until the program expired in 1917. The session was closed to the public, and the Naval Minister reported that one particular member (probably Guchkov, according to the compiler of Grigorovich's memoirs) of the Duma vehemently opposed the funding, and that "money [was] required only for the army." A few serving naval officers raised a "powerful disturbance" at such an attack on their institution. The deliberations continued until 1 AM, only including breaks for meals, when the Duma finally passed the bill, 288 votes to 124. Grigorovich wrote in his journal at the time, "Glory to God! Now I can rest: there will be a

³⁰⁹ Special Journal of the Council of Ministers, December 15, 1911, RGIA, f. 1276, o. 2, d. 444, l. 331–5; Memo of the Interdepartmental Conference [undated], *ibid.*, l. 404–05; Special Journal of the Council of Ministers, February 23, 1912, *ibid.*, l. 411.

fleet!” Nicholas II was equally pleased, congratulating his Naval Minister in an Imperial rescript, and said that the fleet would bring “glory to Russia.”³¹⁰

The Russian Imperial Navy that fought World War I was largely the work of I. K. Grigorovich. Although the seven dreadnoughts that Russia was building were not finished until the war itself, many smaller ships of various classes were completed during his tenure prior to the war, including the *Novik*, a large destroyer that served as a template for many other destroyers (albeit with some adjustments) and several submarines. He worked tirelessly in all arenas to promote the expansion of the navy and to do so in a way that was fiscally sound, as much as possible. Even Kokovtsov, the Minister of Finance, supported Grigorovich when people criticized the fleet for spending so much money. In the discussions of the 1913 budget, Kokovtsov demonstrated that the Russian economy was “stable,” and that the Russian budget would continue to have a positive balance through 1913 and 1914 (of course, not anticipating the outbreak of World War I). In fact, he estimated that, all else being equal, by 1923, Russian revenues would exceed expenses by 659 million rubles, based on a 3.5% growth rate that he actually considered unnecessarily conservative. He confidently said that “we can go forward, not being afraid of such expenses that are necessary for strengthening our defenses, regardless of whether [they are] on dry land or on the water. ... To say that expenses for defense will destroy the state, that they are beyond our strength, this means to not give an account of the true position

³¹⁰ Most of this account comes from Grigorovich, *Vospominaniya*, 63–64. The specific tally of the vote is from Tsvetkov, *Sudostroenie v nachale XX veka*, 172. Grigorovich’s promise comes from McLaughlin, *Russian & Soviet Battleships*, 245. The quote from Nicholas II is in Imperial Rescript from Nicholas II to Grigorovich, June 23, 1912, RGIA, f. 1276, o. 2, d. 444, l. 450.

of things.”³¹¹ The results of the navy’s building programs from 1905 to 1914 are displayed in Table 3.2.

³¹¹ “Report of Kokovtsov to the Council of Ministers about the budget of 1913,” RGIA, f. 966, o. 2, d. 2, ll. 4–6.

Table 3.2. The Russian Imperial Navy on the eve of World War I³¹²

Type of warship ³¹³	Baltic Fleet	Black Sea Fleet	Siberian Flotilla	Arctic Flotilla
Battleships	4	5	--	--
Heavy cruisers	6	--	--	--
Light cruisers	4	2	2	2
Large destroyers	21	--	--	--
Small destroyers	36 ³¹⁴	17	--	--
Submarines	12	4	5	4
Auxiliary vessels³¹⁵	28	18	8	10

The Russian Imperial Fleet on August 1, 1914, was considerably smaller, but of higher quality, than the fleet from January 1, 1906. There were fewer battleships and destroyers, slightly more cruisers, and considerably more submarines and auxiliary vessels. At the same time, the 1914 fleet was qualitatively better than the fleet in 1906; *Rurik* was vastly superior to not just the original *Rurik*, but to every other cruiser from the 1906 fleet. Indeed, it was probably the finest non-battle cruiser in the world, as of the beginning of World War I. The newer battleships in the Baltic and Black Sea Fleets were, similarly, better than *Tsesarevich*, the best battleship in the Russian Imperial Fleet in 1906. The submarines that did exist in 1906 were all very small and not capable of going much farther than the coast; although some of those smaller submarines were

³¹² The Baltic Fleet data is from “Razvitie russkogo baltiiskogo flota vo vremya voiny 1914–18 gg.,” RGAVMF [Soviet], f. 1678, o. 1, d. 205, l. 28. The Black Sea Fleet data is from Rene Greger, *The Russian Fleet 1914–17* (London: Ian Allan, 1972), 76–8 and I. V. Kasatanov, ed., *Tri veka Rossisskogo flota* [Three centuries of the Russian fleet], (St. Petersburg: Logos, 1996), II: 65. Siberian and Arctic Flotillas are from Greger, 75–6.

³¹³ Heavy cruisers are defined as cruisers with an 8” main armament or higher. Large destroyers had 4” main guns, whereas small destroyers had 3” main guns.

³¹⁴ Eight of these were converted into minesweepers.

³¹⁵ Includes gunboats, minelayers, and minesweepers.

still part of the fleet in 1914, they played no role of importance in the fighting and rarely went far from port. Torpedo boats were also gradually deemphasized as part of the fleet; there were 29 torpedo boats in the 1914 Baltic Fleet, plus another eighteen that were converted to minesweepers. In 1906, the Baltic Fleet had 127 torpedo boats (see Table 2.1). The Black Sea Fleet had slightly more in 1914, but many of those were remnants of the 1906 fleet, and many were built in the 19th century. They remained an important part of the Arctic and Siberian Flotillas and to the extent that more modern torpedo boats were available, those two flotillas received them. They were a cheap way of augmenting what Russian strategists considered to be secondary, even tertiary theaters.³¹⁶ While the 1914 fleet was undeniably superior to the 1906 fleet, the many breakthroughs in naval technology actually left the Russian fleet relatively worse off compared to its rivals. Specifically, Russia's extremely late start on its dreadnought program and initial reluctance to modify ships with turbines instead of the older steam engines posed significant challenges for Russian commanders during World War I.

Among the belligerents, the Russian Empire was the only power which possessed no dreadnoughts as of the beginning of World War I. The *Ganguts* would all be completed in 1914, while two of the Black Sea dreadnoughts would join the Black Sea Fleet in 1915, but at the beginning of the war, every other European fleet had at least three dreadnoughts commissioned and Japan had two. Ironically, the dreadnoughts that Russian strategists feared the most—dreadnoughts for the Ottoman Empire—never materialized, as the United Kingdom confiscated them on the outbreak of war, one of the diplomatic moves that pushed the Ottoman Empire to join the Central Powers. The United Kingdom and Germany had the largest and most powerful navies of their respective alliance systems, and Russia's fleet would have been easily annihilated

³¹⁶ Greger, *The Russian Fleet*, 72–3, 76–8.

by either one of them in a pitched battle. The Russian Imperial Fleet, once clearly third in the world, was probably sixth in the world on the eve of World War I, behind the UK, Germany, France, the United States, and Japan. Fortunately for Russia, three of those countries would join the Triple Entente, and Russia's navy was just as superior to the Ottoman and Austro-Hungarian fleets as it was inferior to the German and British fleets, even without dreadnoughts.³¹⁷ While most of Russia's fleet was built in Russia, after the Emperor's ban in 1906 on acquiring foreign vessels, it still needed foreign technology, particularly for the new turbine engines that made dreadnoughts what they were and to license other technological systems, such as submarines and aircraft, until Russia could produce its own. During the war itself, that ban on foreign vessels was lifted, and Russia relied heavily on its allies to help provide the smaller vessels she so desperately needed, even buying back its own ships from its former enemy, Japan.

The Naval Ministry and World War I at sea³¹⁸

There is no need to revisit, in great detail, the circumstances that led Russia into World War I. A recent book, published in Russia, on World War I devotes a total of 73 pages to the origins of World War I and the goals of the various powers.³¹⁹ Hew Strachan's first volume of

³¹⁷ A. M. Zainchkovskii, *Pervaya mirovaya voina* [First World War] (St. Petersburg, Poligon, 2002), 28; "Razvitie germanskogo flota vo vremya voiny 1914–1918 gg.," [Development of the German fleet during the war of 1914–8], RGAVMF [Soviet], f. 1678, o. 1, d. 205, l. 29; "Razvitie angliiskogo flota vo vremya voiny 1914–1918 gg.," [Development of the British [*lit.* English] fleet during the war of 1914–8], *ibid.*, l. 30; and "Razvitie flotov Frantsii, Italii, i SSha vo vremya voiny 1914–18 gg.," [Development of the fleets of France, Italy, and the USA during the war of 1914–18], *ibid.*, l. 31. See Scott, *Vickers*, 110–11, on the British decision to confiscate the Ottoman dreadnoughts.

³¹⁸ As a reminder, all dates below are according to the Julian calendar, which was thirteen days behind the Gregorian calendar used by the rest of the world. Most secondary sources, even Russian sources, use the Gregorian calendar, but archival sources use the original Julian calendar. I have made adjustments where necessary.

³¹⁹ A. I. Utkin, *Pervaya mirovaya voina* [First World War] (Moscow: Kulturnaya revoliutsiya, 2013), pp. 17–90.

his series on World War I uses 162 pages for the same purpose, including a discussion of how willing the powers were to go to war, both the main actors and the public as a whole (where public opinion is available).³²⁰ Other eminent scholars have devoted entire volumes or substantial portions of their volumes to examining Russia's entry into the war.³²¹ One of the best single-sentence summaries of why Russia got involved in World War is delivered by Nicholas II himself, who wrote in the declaration of war on Germany: "Now it is not only to intercede for the unjustly offended country [that is, Serbia], which is related to Us, but to protect the honor, dignity, and safety of Russia and its position among the Great [P]owers."³²² It neatly encapsulates the major reasons Russia went to war: to improve its own prestige and standing within the ranks of the European Great Powers and to protect Russia's brother Slavs in Serbia. It is also important to note that Grigorovich played only a minor role in the decision to go to war; his name does not appear on David Alan Rich's *dramatis personae* for Russia in *The Origins of World War I*, nor is he mentioned by name or position in the article itself, except as part of the Council of Ministers.³²³ Grigorovich himself said in his memoirs that the original order for

³²⁰ Hew Strachan, *The First World War, Volume I: To Arms* (New York: Oxford University Press, 2001), pp. 1–162.

³²¹ D. C. B. Lieven, *Russia and the Origins of the First World War* (London: Macmillan Press, Ltd., 1983); Christopher Clark, *The Sleepwalkers: How Europe Went to War in 1914* (New York: Harper Perennial, 2012), in particular chapters 3–5, 9, and 11–12, which all deal with Russia to a greater or lesser degree; David Alan Rich, "Russia," in *The Origins of World War I*, eds. Richard F. Hamilton and Holger H. Herwig (New York: Cambridge University Press, 2003), pp. 233–276 (in the eBook edition). Also see Annika Mombauer, ed., *The Origins of the First World War* (Manchester, UK: Manchester University Press, 2013), which collects the most important primary source documents on World War I. That book's introduction (pp. 1–30) provides an excellent historiographical essay on how World War I's origins have been examined since the war's end.

³²² Declaration of war of Nicholas II on Germany, *Morskoi sbornik*, vol. 383, no. 8 (August 1914), official section, pg. 1.

³²³ See Rich, *op. cit.* Grigorovich is present at the Council of Ministers meeting that prepares a Russian response to the Austro-Hungarian ultimatum, but primarily as an observer, and to try to convince Nicholas II to agree to a partial

mobilization on July 17 (or July 30, New Style) “forgot the navy in general,” which delayed the navy’s mobilization.³²⁴ The Naval Minister also played only a minor role in the actual fighting of the war itself, instead relying upon N. O. Essen and A. A. Ebergard, the commanders of the Baltic and Black Sea Fleets, respectively. Grigorovich devoted his time to logistical support and especially acquiring ships to supplement the Russian fleet. He did play a role in setting the basic strategic tone of the Imperial Fleet, however.

The Naval Minister’s typical style of leadership regarding operations was to defer to his subordinates, and he implicitly trusted both Essen and Ebergard on the basis of their strong professional relationships.³²⁵ Grigorovich inherited both of them from his predecessor, S. A. Voevodskii, but Grigorovich had met both of them during the Russo-Japanese War. Essen was Commander of the battleship *Sevastopol* during the Russo-Japanese War and participated in the defense of Port Arthur, as well as Vitgeft’s Chief of Staff, while Grigorovich was Commander of Port Arthur. Essen and Grigorovich crossed paths again when Grigorovich became Commander of Kronstadt, as Essen was the naval officer who tried to claim the superior quarters at the port

mobilization of the Black Sea and Baltic Fleets. Council of Ministers Meeting, July 24 (July 11), 1914 in Mombauer, *The Origins of the First World War*, 331–2.

³²⁴ Grigorovich, *Vospominaniya*, 90–91.

³²⁵ It is worth noting that McLaughlin makes a point that the Emperor selected the Chief of the Naval General Staff and the fleet commanders, which is incorrect. The Emperor certainly had to sign off on those selections, but the decisions were made by the Naval Minister. Grigorovich discusses throughout his memoirs making appointments and the Emperor approving them. When the Naval General Staff was created and N. A. Rimskii-Korsakov appointed, Nazarenko writes that “*Nikolai II odobril naznachenie na etot post kontr-admirala* [Rimskii-Korsakov].” The operative verb, *odobril* (*odobryat’* in the infinitive imperfect) means “approve” or “endorse”, not appoint. (The whole sentence reads “Nicholas II approved the assignment of Rear Admiral [Rimskii-Korsakov] to this post.”

Stephen McLaughlin, “Rossiskii imperatorskii flot” [Russian Imperial Fleet] in *To Crown the Waves: The Great Navies of the First World War*, Vincent O’Hara, W. David Dickson, and Richard Worth, eds. (Annapolis MD: Naval Institute Press, 2013), 208 and Nazarenko, *Morskoi ministerstvo*, 46.

that nearly caused Grigorovich to turn down the job.³²⁶ Essen's rise after the Russo-Japanese War was meteoric, going from the commander of the First Mine Division in 1906 to *de facto* command of the Baltic Fleet in 1908, first as Commander of the Unified Squadrons of the Baltic Fleet, then Commander of the Naval Forces of the Baltic Fleet in 1909, and finally Commander of the Baltic Fleet in 1911.³²⁷ Ebergard had been Chief of the Naval General Staff from 1908 to 1911 before taking over as Commander of the Black Sea Fleet in 1911. During the Russo-Japanese War, Ebergard had been the flag captain of Makarov's First Pacific Squadron. Ebergard's ties after the loss of the First Pacific Squadron had been to the Black Sea, and it was Ebergard who was chosen to command the *ex-Potemkin*, renamed *Panteleimon*, after its mutiny in 1905, a clear sign that the naval high command trusted him, and he was promoted to Assistant Chief of Staff for the Black Sea shortly after completing that assignment in 1906. As evidence of Grigorovich's trust in Ebergard, the Naval Minister backed the then-Chief of the Naval General Staff against the Legislative Department of the Naval Ministry over who would control the reformation of the Naval Ministry. The Legislative Department was eliminated in the October 1911 reform of the Naval Ministry, amplifying Ebergard's victory.³²⁸

Grigorovich's trust in his subordinates, of course, was not absolute. As Deputy Naval Minister, Grigorovich met with Essen in 1910, and he wrote in his memoirs that "I very much respect N. O. Essen, but partially I differ with him; I think the cause of this [difference] are his closest assistants, such as Captain Second Rank Richter, who I find extremely irritating [lit. *Ya*

³²⁶ Note that while Essen is never mentioned by name in Grigorovich's letter, Essen was the Commander of the Unified Squadrons of the Baltic Fleet at the time. See pp. 145–46.

³²⁷ The difference in titles is mostly meaningless and purely semantic; his duties were the same.

³²⁸ Kuroyedov, *VMES*, 927 and 939; Nazarenko, *Morskoe ministerstvo Rossii*, 155–63. Newton McCully called Essen the "Chief of Staff" for Vitgeft, although *VMES* does not mention it. McCully, *The McCully Report*, 88–89.

schitayu mukhoi, or I think (him) a fly], and other similar types.” Grigorovich also disliked those individuals that Essen had put in charge of submarines, but conceded that few officers of that specialty existed, so it was difficult to find officers who might be “more suitable,” as he put it. As for Ebergard, Grigorovich was convinced that Ebergard was going to become Naval Minister once the Emperor decided to fire Voevodskii. A few days before Voevodskii’s ouster (Grigorovich wrote that it was around March 15, 1911), Grigorovich was preparing to give an important report about the state of the shipbuilding program, when at the last possible moment, Ebergard was given the task to deliver the report. This change signaled to Grigorovich that something was happening within the Naval Ministry, but a few days later Grigorovich was told by Nicholas II that he got the job. Grigorovich never found out why Ebergard had even been considered in the first place, or why Ebergard did not get it. Most probably, Voevodskii himself recommended Grigorovich, considering Ebergard’s delivery of the report to be a test, one which Ebergard apparently failed. In any case, Grigorovich initially retained Ebergard as Chief of the Naval General Staff,

“hoping that he would work with me as I desired, according to my directions, and raise the significance of this young establishment [what he means here is unclear, but probably he means the Naval General Staff, based on context], but in case [it is] undesirable to retain him, I will ask His Serene Highness Prince Lieven to fulfill this office.”

The fact that Grigorovich already had a replacement in mind when he became Naval Minister would not normally bode well for Ebergard’s future, and indeed Lieven was named Chief of the Naval General Staff in October 1911. However, Grigorovich did not bury Ebergard’s career by sending him to a backwater post; instead, he gave him the second-most prestigious fleet command in the Russian fleet. As he appointed Ebergard to the position, Grigorovich wrote in

his journal that “[I am] certain that [Ebergard] will do everything possible to restore the discipline and spirit of the Black Sea Fleet, tighten up the officer corps, and will not be as careless in attending to his obligations as his predecessor [I. F. Bostrem].” Indeed, Ebergard’s ability to instill discipline was needed almost immediately after his appointment, as he had to crush a mutiny that included his own flagship in 1912, which he did quickly and efficiently.³²⁹ Both fleet commanders were capable, which simplified Grigorovich’s tasks immensely, and allowed him to leave operational decisions to them in full confidence.

To a certain extent, Russia’s strategic decisions were circumscribed by the realities of its naval geography. The fundamental strategic dilemma that the Russian Army had to consider, whether to concentrate against Germany or Austria-Hungary, or whether to find a middle ground, did not apply to the Imperial Fleet. Geographically, Russian’s strategic options were circumscribed. The fleets would have to operate independently and could not cooperate except in the broadest possible sense. The Siberian Flotilla had nobody to fight because Japan was attached to the Entente via its alliance with the United Kingdom, although it did participate in a minor way in chasing down the German cruiser squadrons in the Pacific. The Arctic Flotilla helped protect convoys of supplies coming from abroad, but did not participate in general operations. That left the two main fleets to be the focal point for Russia’s exercise of naval power.

³²⁹ Quotes from Grigorovich, *Vospominaniya*, 39, 47, and 54, respectively. See also Nazarenko, *Morskoe ministerstvo Rossii*, 161 and George Nekrasov, *North of Gallipoli: The Black Sea Fleet at War 1914–1917* (Boulder, CO: East European Monographs, 1992), 22.

Pre-war strategy in the Baltic Sea

Facing a vastly superior opponent in Germany, the plan for the Baltic Fleet was largely defensive, which was somewhat surprising, given the amount of money spent on powerful battleships and cruisers since 1905. The lack of a unified strategic vision, combined with the realities of the geography of the Baltic Sea and the quality of the opponent that Russia was likely to face (Germany), dictated this posture. Nicholas II and his Naval Ministers were so focused on acquiring dreadnoughts that they failed to consider how to account for the absence of those vessels on the eve of World War I. Russian strategic planners had no choice but to plan for a coastal defensive campaign, ironically not unlike the one that Nicholas had insisted upon after the Russo-Japanese War, using submarines and mines, as well as local geography, to neutralize the larger and more powerful German fleet. However, even if Russia had no realistic opportunities to engage in large-scale offensive scales, that did not make the Baltic Fleet useless.

The simple fact that Russia had a fleet in the Baltic meant that Germany could not entirely concentrate its fleet against the Royal Navy, because then the Baltic Fleet could conduct operations against Germany's Baltic coast, harass German merchant traffic, and generally disrupt Germany's lines of communication to Sweden. Whether or not the Baltic Fleet was actually capable of successfully conducting these operations was immaterial; what mattered was that the potential to conduct them existed. It was a classic example of the "fleet-in-being" strategy. Russia did have two major offensive weapons in its arsenal: offensive minefields and submarines, the latter of which could operate even when the Gulf of Finland was frozen. Offensive minefields were an excellent way to address the disparity between the German and Russian fleets in the Baltic. A. V. Kolchak, the future Chief of Staff for the Black Sea Fleet and preeminent White commander in Siberia, wrote a report advocating this policy in January 1906.

To open the report, he stated that “[a]utomatic minefields, as they are adopted in the Russian fleet, are a weapon of attack and not defense. As such, they must not be used for the defense of those waterways [over] which we have absolute dominion; the most correct place for their positioning is enemy waters.”³³⁰ He pointed out that the Japanese had used offensive minefields to seal off Port Arthur, which prevented the First Pacific Squadron from making sorties and allowed the Imperial Japanese Navy operational freedom. When Russia started using them as well, they sunk a pair of battleships, severely damaged another cruiser, and “annihilated” a number of smaller ships, including destroyers, transports, and a light cruiser. Kolchak’s ideal minelayer was a cruiser, due to their superior carrying capacity and ability to operate independently against light enemy forces, but he conceded that destroyers would also work if the minefield itself did not need to be very large. He estimated that a 300-ton destroyer could probably carry twenty mines. He strongly favored purpose-built minelayers as opposed to modifying existing vessels, but also recognized that the exigencies of war might require such modifications. His only watchword in that scenario: “As a general principle, cruisers and destroyers must not have mines on them permanently, but [should] take them from mine transports only at the time of deployment.” The Baltic Fleet in 1914 had six dedicated minelayers, added five more by converting riverine gunboats, and had a total of 7000 mines available at the beginning of the war, many of which would end up in offensive minefields (see below). The larger destroyers, such as *Novik*, were also equipped with minelaying capabilities.³³¹

³³⁰ “Automatic” in the sense of not requiring manual detonation via cables from coastal stations.

³³¹ Report of Lieutenant A. V. Kolchak, January 30, 1906, RGAVMF, f. 703, o. 1, d. 2, ll. 1–2; “Razvitie russkogo baltiiskogo flota vo vremya voyny 1914–18 gg.,” RGAVMF [Soviet], f. 1678, o. 1, d. 205, l. 28 and James Goldrick, *Before Jutland: The Naval War in Northern European Wars, August 1914-February 1915* (Annapolis, MD: Naval Institute Press, 2015), 40. Both quotes are from the Kolchak report.

The other weapon at Russia's disposal to strike at the German fleet was the submarine, which had undergone an evolution since its original usage in the Russo-Japanese War.

One of the most important aspects of this evolution was a tendency towards larger and larger submarines. For example, the German-built submarines ordered by Russia in March 1904 were 170 tons (without extra fuel). The American-built submarines, ordered from Lake Torpedo Boat in January 1905, less than a year later, were 400 tons (again, without reserve fuel). The larger American submarines, as designed, were faster (a maximum speed of 16 knots vs. 11 knots), had a much longer effective range (4000 nautical miles at 8 knots vs. 1600 nautical miles at 9 knots), and could dive deeper (30 meters or about 98 feet for the German submarines, a minimum of 150 feet for the American submarines). The American design included not only torpedo tubes (a total of four, against two for the German model), but a pair of 47mm guns, mounted in the conning tower. The American submarines were more expensive, costing approximately 3,886,800 rubles total, whereas the German submarines only cost 1,656,000 rubles. The cost difference was counterbalanced by the fact that Russia bought only three German subs, as opposed to four American subs, and a good deal of the difference in price was the difference in exchange rate. One ruble was worth 2.17 marks but only .5146 dollars. The Americans even included the initial load of torpedoes, whereas the Germans did not.³³² These larger American submarines were a key part of the Baltic Fleet's strategy, as larger submarines would be more stable and capable of going farther from bases. However, the Lake submarines

³³² OS GUKIS to Avelan, April 8, 1904, RGAVMF, f. 427, o. 1, d. 1189, l. 2; Draft contract between Krupp and the Naval Ministry, no date, RGAVMF, *ibid.*, l. 6; Reports on [American] submarines, no date, RGAVMF, f. 427, o. 1, d. 1509, ll. 8–9; OS GUKIS to Main Naval Staff, March 2, 1905, *ibid.*, ll. 42–4.

underwent some substantial changes in the construction process and significantly underperformed on those statistics.

Russia had ordered the four *Kaiman*-class submarines on the basis of their prior relationship with Lake Torpedo Boat in the acquisition of the ex-*Protector* before the Russo-Japanese War, which the Russians renamed *Osetr*.³³³ That submarine was much smaller, 136 tons, but capable of speeds of 12 knots on the surface, could carry three torpedoes out of three tubes, and only required a crew of six. The Russians liked that design so much that they contracted Newport News Shipbuilding and Dry Dock Company to build another five submarines to the same design. The *Kaiman*-class, then, was to be an upgraded version of the original *Osetr* design. However, what the Naval Ministry had not anticipated was how little experience Lake Torpedo Boat actually had with building boats to that design, and that problem was only compounded by Russia's insistence on building the submarines, as much as possible, in Russia. The submarines were overweight by 10 to 13 tons, and to help save on weight, the Russian oversight committee elected to alter the engines. The three gasoline engines on each submarine each had three four-cylinder sections on them; the committee removed one of those sections from one engine on each submarine, changing the total projected engine capacity from 900 to 800 horsepower. The original design actually required four of those engines on each submarine, which would have added still more to the weight of each submarine. Instead of the 16 knots surface speed that the original design promised, the *Kaiman*-class had a maximum speed of 8.4 knots, and its effective range was cut from 4000 nautical miles to 750. According to article eight of the contract, that gave the Naval Ministry the right to cancel the order entirely or

³³³ For an entertaining, if somewhat self-serving, description of *Osetr*'s journey to Russia, see Simon Lake, *Submarine: The Autobiography of Simon Lake* (New York: D. Appleton-Century Company, 1935), 164–193.

negotiate a reduced price. The Naval Ministry opted for the latter and ended up paying 3,327,912 rubles, a savings of about 500,000 rubles, which were only completed in 1911.³³⁴

Lake Torpedo Boat went bankrupt in 1913, and the Naval Ministry considered suing them for breach of contract for another 865,000 rubles, partially due to the lengthy period of construction. The company's representative, a Mr. Whitney, explained that the cause of the extended period of construction was a period of labor unrest in the United States and the subsequent shutdown of railroads during the construction process.³³⁵ He pointed out that Russia had received significant savings on the submarines, based on construction estimates at other factories or under other designs, and especially blamed the Baltic Shipyard for unreasonable overhead, charged to the government, on the price of labor. Whitney claimed that in the United States, a government-owned shipyard charged the government the cost of labor plus 40% for overhead; the Baltic Shipyard actually charged an overhead of 121%. He categorically refused to pay for any of the work that Russian engineers had done to the submarines that deviated from the original design.³³⁶ Whether or not the Naval Ministry got any of that sum refunded at this point is

³³⁴ Polmar and Noot, *Russian and Soviet Submarines*, 227–8; Tsvetkov, *Sudostroenie v nachale XX veka*, 91–3; “Memo about the calculation of percentages for insurance of the submarines, in according with point 3 of the statement of the mentioned company Lake, from 20 November 1909,” November 20, 1909, RGAVMF, f. 401, o. 1, d. 1059, l. 9; Contract between Lake and Rodionov, Chief of OS GUKIS, April 1, 1905, *ibid.*, ll. 150–54; Statement of Whitney to Department of Underwater Navigation, February 23, 1913, *ibid.*, l. 190.

³³⁵ Whitney did not go into any detail about the length or timing of the strikes, but strikes at the Bridgeport, CT factory were hardly unusual. Machinists in Bridgeport struck more than eleven times between 1901 and 1915, including a citywide strike in 1901. See Jeffrey Haydu, *Between Craft and Class: Skilled Workers in the United States and Britain, 1890–1922* (Berkeley, CA: University of California Press, 1988), 117.

³³⁶ Edward C. Whitman, “The Submarine Heritage of Simon Lake,” http://www.navy.mil/navydata/cno/n87/usw/issue_16/simonlake.html, accessed June 30, 2015; Report of unnamed legal consultant at the Naval Ministry, January 8, 1914, RGAVMF, f. 401, o. 1, d. 1059, l. 47; Journal of the Committee for the review of the claim of firm ‘S. Lake’ in the matter of the construction of the submarines of the

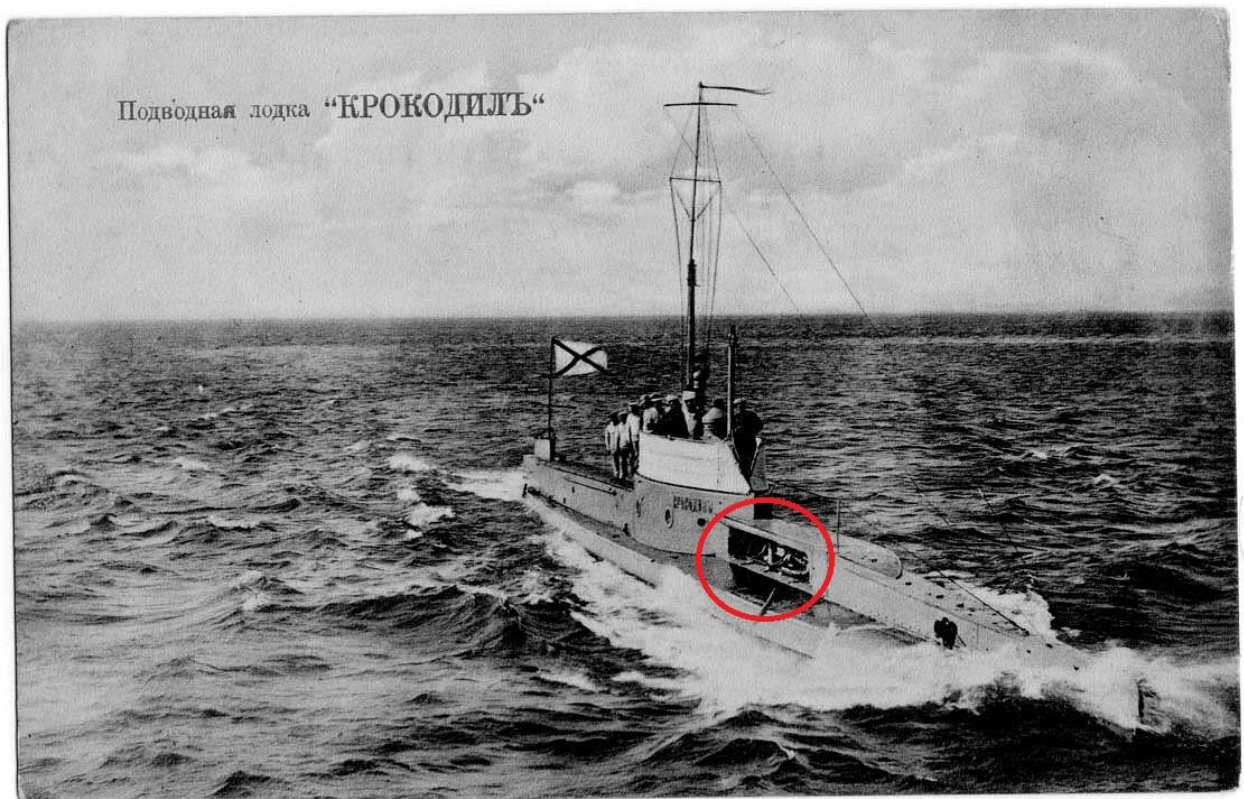
unknown, or even if they went through with the suit, but the practice of very heavy-handed dealings with foreign contractors is definitely a recurring theme in Russian procurement. Regardless of the financial or legal implications, the fact remains that the submarines that Russia got were very good, and better than anything else Russia had at the time.

Despite the original design of the *Kaiman*-class being foreign, one of the modifications that Russia made to the submarine was a Russian innovation: the Dzhevetskii apparatus. The Dzhevetskii apparatus was a way to add additional torpedo tubes to a submarine, by mounting extra tubes to the sides of the submarine. These tubes extended outward, away from the submarine, during firing, then retract into the submarine when not in use. In the final part of a three-part series in *Morskoi sbornik*, a Lieutenant Pozdeyev enumerated the advantages of the new system. Specifically, they were much lighter and did not occupy as much as space in the submarine, which meant you could add more of them. They were also cheaper than internal tubes. The apparatus, when firing, did not allow the enemy to get a precise fix on the submarine's position, as a torpedo from a standard tube would, because the external tubes themselves were not in a fixed position; a direct trace back to the submarine would only find water if the tubes were retracted. It was even possible to fire from multiple angles at the same time because the Dzhevetskii tubes were not fixed in one position. The apparatus did have some drawbacks as well. Because there was no way to completely seal the tubes, they were not usable in cold weather because the torpedoes would freeze in the tube. They were impossible to fire when surfaced, and the apparatus itself needed regular maintenance. The external tubes also shifted the submarine's metacenter, which could cause problems when turning, surfacing, or

type of *Kaiman*, session 10, March 29, 1913 *ibid.*, ll. 117–20; Statement of Whitney, February 23, 1913, *ibid.*, l. 190–93.

diving (if the new metacenter were not taken into account). Finally, the external tubes had to be sealed hydrostatically to permit firing underwater, which meant the torpedoes were actually negatively buoyant. That occasionally caused problems with getting torpedoes to detonate at the proper depth. The solution, according to Pozdeyev, was to use both external and internal tubes, and every Russian-built submarine after the *Kaiman*-class included.³³⁷ The extra firepower proved irresistible.

Figure 3.1. The *Krokodil*, with Dzhevetskii apparatus retracted.³³⁸



³³⁷ Lieutenant Pozdeyev, "Eksperimentalnyi ocherk issledovaniya takticheskikh elementov podvodnoi lodki" [Experimental essay of the research of the tactical elements of the submarine] part III, *Morskoi sbornik* 363, no. 3 (March 1911), 97–98. See Polmar and Noot, *Russian and Soviet Submarines*, 232 and 235–38 on the usage of the apparatus in Russian submarines. The AG-class, prefabricated in the United States and Canada, did not include them. See *Ibid.*, 239–241.

³³⁸ From "Podvodnye lodki tipa 'Kaiman'", <http://topwar.ru/20917-podvodnye-lodki-tipa-kayman.html>, accessed June 30, 2015.

Even with more powerful submarines, at the outset of World War I, most of Russia's strategy in the Baltic Sea was defensive. A. V. Kolchak, at this point the flag captain for Commander of the Baltic Fleet N. O. Essen aboard the cruiser *Rurik*, said after the Russian Civil War that "the assignments which had been worked out and given to the fleet had at first one single object: to guarantee the eastern part of the Finnish Gulf against penetration by enemy ships during our mobilization, so that the enemy might not interfere with the latter by threatening a landing in our rear and the like."³³⁹ Provided that the enemy stayed out of the Gulf of Finland, the Baltic Fleet, as a whole, would have little to do, particularly without dreadnoughts to support any sort of offensive operation. However, if the enemy did threaten the Gulf of Finland, and thus St. Petersburg, then the submarines would be released to harry enemy attempts at landings. That did not mean that the Russian role was entirely passive: indeed, Essen favored offensive minefield deployments when the opportunity arose, of the style that his subordinate Kolchak recommended when he was a lieutenant (see above). Defensive minefields, combined with coastal artillery, were also a key part of the strategy, particularly along the Moon Sound and the so-called "Central Position," a line stretching from Nargen to Porkkala to Udd. The approaches to Kronstadt were already mined as of July 28, 1914, before the war began. The 1912 strategy, developed by Essen, intended a form of "naval trench warfare," as naval historian Paul G. Halpern puts it, in which the larger Russian ships would sit safely behind the defensive minefield and hammer enemy ships from afar in conjunction with coastal batteries. Only minelayers, their escorts, and submarines were permitted to leave the defensive minefield. Even if Essen had

³³⁹ A "flag captain" is the captain of the flagship of a squadron, fleet, or task force. He is usually hand-picked or at least trusted by the commander of the unit and, as such, has a great deal of influence in strategic policy. Quote is from Elena Varneck and H. H. Fisher, *The Testimony of Kolchak and other Siberian Materials* (Stanford, CA: Stanford University Press, 1935), 28.

desired a more risky offensive strategy, the Baltic Fleet was under the operational control of Sixth Army (the army responsible for defending St. Petersburg) until 1916.³⁴⁰

Figure 3.2. The Baltic Sea³⁴¹



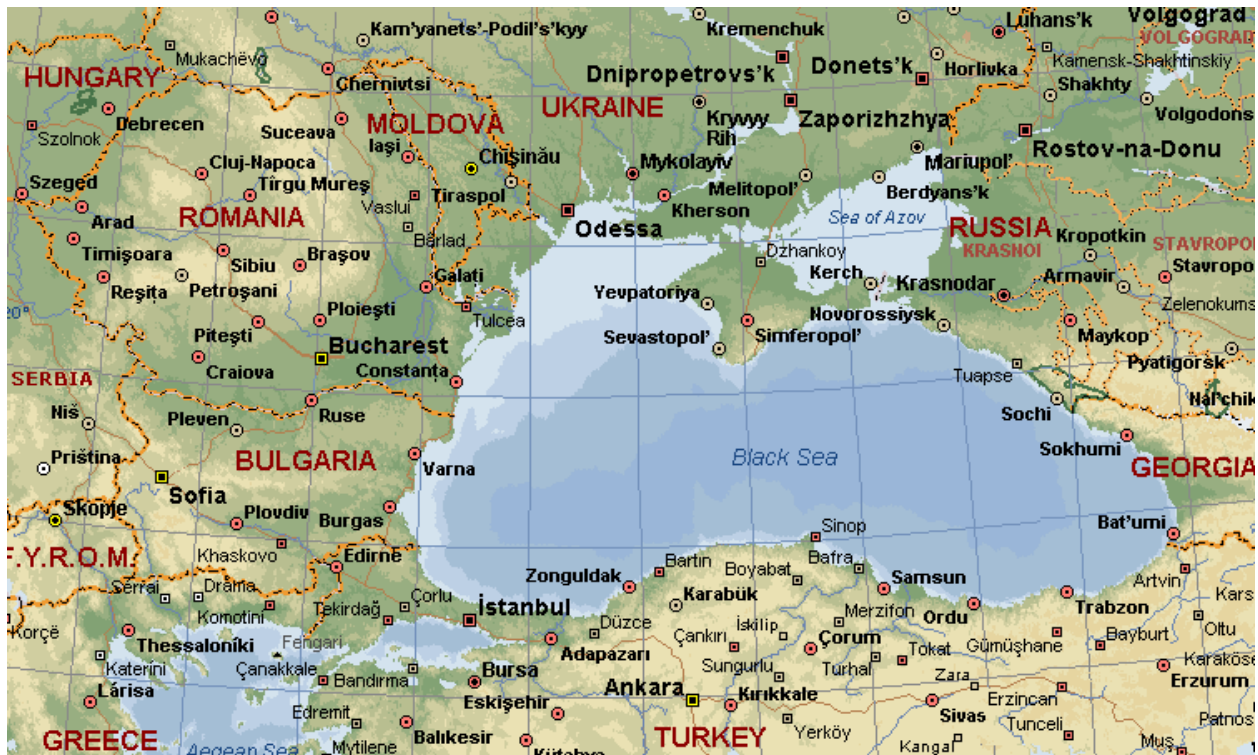
³⁴⁰ See *ibid.*, 26–28; Paul G. Halpern, *A Naval History of World War I* (Annapolis, MD: Naval Institute Press, 1994), 181; Kasatanov, ed., *Tri veka Rossisskogo flota II*, 70; Goldrick, *Before Jutland*, 77–78 and 223; Michael B. Barrett, *Operation Albion: The German Conquest of the Baltic Islands* (Bloomington, IN: Bloomington University Press, 2008), 27.

³⁴¹ Source image from <http://novaonline.nvcc.edu/eli/evans/his241/notes/geography/Baltic.html>, accessed July 6, 2015. Tallinn was known as Revel at the time.

Pre-war strategy in the Black Sea

The same lack of vision that complicated affairs in the Baltic Sea also existed in the Black Sea, but there were some important differences as well. The Black Sea was far more suitable for large ships, like dreadnoughts, in a purely navigational sense. More importantly, the nature of the opposition (the Ottoman Empire, chiefly, albeit with German reinforcements) allowed for more offensive creativity and for the possibility of success in a pitched battle. Blockading the Baltic Sea coastline of Germany or even shelling significant German positions was an impossible dream, barring a serious Royal Navy incursion that never materialized. However, Turkish positions were far less secured and far more poorly defended. Taking Constantinople was at least theoretically achievable. Put simply, the broadly Mahanian principles that Russia could never have applied in the Baltic were actually conceivable in the Black Sea.

Figure 3.3. The Black Sea³⁴²



The Straits were a valuable objective, economically and militarily, and naval war planning took that into account. The Russian Empire's economy relied heavily on agricultural exports, and many of those agricultural exports were transported via the Black Sea. In a lecture delivered in the United States, Russian economist Peter Struve demonstrated that Russia was the largest producer of edible cereals in the world, accounting for 20% of the global supply. Russia was second in corn (which he termed maize) to the United States, second in potatoes to Germany, first in flax and timber, and a major producer of sugar beets. A considerable portion of that produce was exported to other countries; 73% of all trade was sent along maritime routes, and 43% of Russian trade went through the Dardanelles and Bosphorus. While only 46% of Russia's imports came into the country via the sea, those imports were "paid for by the export of

³⁴² Image from <http://www.alternatehistory.com/discussion/showthread.php?t=132021&page=3>, accessed July 6, 2015. Post #51.

Black Sea grain,” in the words of Stephen McLaughlin.³⁴³ In time of war, the Black Sea’s economic influence would be more important, not less. 10% of Russia’s exports in 1912 were to France and Italy, which travelled through the Mediterranean. However, in the event of a war that included Germany, the Baltic Sea would be a less reliable highway, and the United Kingdom claimed a 21% share of exports in 1912, mostly in food. The simultaneous loss of Russia’s biggest trading partner—Germany— would only make Russia more likely to sell to the UK and France, and the Mediterranean was much easier to secure for Russia’s French and British allies.³⁴⁴

Militarily, control of the Turkish Straits was important both offensively and defensively. Controlling the Straits would allow Russia to project power into the Mediterranean, adding another dimension to Russia’s Balkan policy. Of course, neither France nor particularly the United Kingdom were eager to see Russia enter an area they had long considered their domain. A Russian naval presence in the Mediterranean could allow the Russian Empire to threaten British strategic interests in Egypt, especially the Suez Canal, increasing Russia’s capacity to challenge British influence in India. The “Great Game” had only recently been concluded with the Anglo-Russian Entente in 1907, largely favorably for the United Kingdom; a revision of that agreement would most likely be in Russia’s favor.³⁴⁵ There was a defensive component to the

³⁴³ McLaughlin, “Rossiskii imperatorskii flot,” 214.

³⁴⁴ Gatrell, *Government, industry, and rearmament in Russia*, 301; Peter Struve, “Past and Present of Russian Economics” in J. D. Duff, ed., *Russian Realities and Problems* (Cambridge, UK: The University Press, 1917), 71; Memo of E. F. Wise, January 6, 1920, TNA, ADM 1/8574/323, “The Situation in Turkey”, 1–2.

³⁴⁵ For a good summary of Anglo-Russian foreign relations regarding the Straits and how it led to the Crimean War, see John Merriman, *A History of Modern Europe* (New York: W. W. Norton and Company, 2010), 688–91. For Anglo-Russian relations on the eve of World War I, especially regarding the Ottoman Empire and the Straits, see William Mulligan, “‘We Can’t Be More Russian than the Russians’: British Policy During the Liman von Sanders Crisis, 1913–1914,” *Diplomacy and Statecraft*, no. 17 (2006), 261–82 and Rooney, “The International Significance

acquisition of the Straits as well. Russia was concerned about a repeat of the Crimean War throughout most of the nineteenth century, which made control of the Straits (specifically the Bosphorus) vital to protecting the Black Sea Coast from the United Kingdom. The war between Italy and Turkey in 1911–12 over Tripolitania (modern day Libya) effectively blockaded the Black Sea, even though Russia was neutral in that conflict. There was a final dimension to Ottoman control over the Dardanelles and Bosphorus that concerned Russian thought, partially offensive and partially defensive: the ability to shift forces in and out of the Black Sea. The inability to use the Black Sea Fleet during the Russo-Japanese War denied Russia a potentially shorter trip for reinforcements that might have had a significant impact on the results of Tsushima. On the eve of the Ottoman Empire's attack on Russia in October 1914, one author lamented that denying Russia the right to use the Straits was disrespectful to Russia as a Great Power:

Jointly with the rank of the Russian Empire as a Great Power, do we not have the right to go, in peace time, from one of our seas to the other, or is it to be a position of permanent blockade in the limits of the Black Sea region? To this question, of course, there cannot be two answers. The limitation of free trade and the right of unobstructed movements of warships from one Russian port to another, is a forced, onerous, and humiliating proposition for a great state.³⁴⁶

of British Naval Missions to the Ottoman Empire”, op. cit. Another good source is Lieven, *Russia and the Origins of the First World War*, chapter 2.

³⁴⁶ William C. Fuller, Jr., *Strategy and Power in Russia, 1600–1914*, 335 and 436; N. Nordman, “Voina s Turtsiei i ei posledsviya” [War with Turkey and its Consequences], *Morskoi sbornik* 385, no. 11 (November 1914), 103, 105; quoted section is from 105.

All of these considerations convinced Russian naval strategic thinkers that an offensive strategy was possible in the Black Sea, in a way that offensive warfare was not tenable in the Baltic Sea, although precisely what type of offensive was warranted remained up for debate.

Captain I. A. Kononov, the Chief of Staff for Operations in the Black Sea Fleet, had the most ambitious plan. He proposed taking the two newest Baltic battleships, *Imperator Pavel I* and *Andrei Pervozvannyi*; the cruisers *Rossiya* and *Gromoboi*; and one of the Baltic dreadnoughts under construction, and forming a Mediterranean Squadron out of them. The base for these ships would be the Greek port of Piraeus. Kononov's plan was to claim that there was an "accident" or something that needed extensive repairs which, unfortunately, could not be provided at Piraeus. Thus, the new Mediterranean Squadron would have to go to the nearest Russian dry dock for such repairs—which would just so happen to be in the Black Sea. The new, more powerful Black Sea Fleet would be more than a match for anything the Ottoman Empire could provide. To further supplement his plan, Kononov also pushed for the construction of massive triple-bottomed floating batteries to counteract Ottoman coastal fortifications, a light "Landing Corps" which would specialize in amphibious invasions, and if at all possible, to purchase additional dreadnoughts from South America or whomever might be willing to sell. While the Commander of the Black Sea Fleet, A. A. Ebergard, approved of the plan, as did Prince A. A. Lieven, the Chief of the Naval General Staff from 1911, there was stiff opposition in other quarters. One unnamed interlocutor told Kononov that "Germany would be grateful to you for such a move," referring to the fact that such a move would cause the Ottoman Empire to join the war immediately, without the need for diplomatic cajoling on the part of Germany.³⁴⁷ In

³⁴⁷ Varneck and Fisher, *Testimony of Kolchak*, 220; Nekrasov, *North of Gallipoli*, 12–15. Quote is from Nekrasov, page 15.

the end, Kononov's plan was suppressed because a significant portion of the Russian high command considered Germany the most important threat at sea.

Kononov's plan would have brought significant forces to bear against the Ottoman Navy. It did require either the tacit or open cooperation of the Greek government, which was by no means a certainty. Greece had complicated ties to both the Triple Entente and the Triple Alliance, and a move that so overtly committed Greece to the Triple Entente might not have been welcome. At the same time, Kononov clearly intended the Piraeus base to be a temporary one, and it is certainly possible that Russia could have found some form of suitable compensation to secure Piraeus on that understanding. Naval historian George Nekrasov points out that the two battleships that Kononov requested had shallow drafts of nine meters, while the eastern portions of the Gulf of Finland had (and still have) an average depth of only five meters. Indeed, *Andrei Pervozvannyi* ran aground in June of 1914, albeit near Odensholm Island off of Estonia, which reinforces the sense that these battleships were not well suited to the theater. However, Nekrasov's argument is somewhat disingenuous as every single battleship in the Baltic Fleet, including the *Gangut*-class dreadnoughts, had drafts of at least 7.92 meters, and most were around nine meters. By his logic, the Black Sea Fleet ought to have requisitioned the entire battleship fleet of the Baltic Sea.³⁴⁸ Regardless of the somewhat spurious justifications, Kononov's plan, while it had merit, relied too much on foreign countries and diplomacy to work properly. The Ottoman Empire could simply have refused entrance to the Mediterranean Squadron, Greece could have rejected the Russian proposal to base its squadron at Piraeus, and

³⁴⁸ Richard C. Hall, "Bulgaria, Romania, and Greece" in *The Origins of World War I*, op. cit., 484–7; Nekrasov, *North of Gallipoli*, 12; McLaughlin, *Russian & Soviet Battleships*, 129, 136, 180, 188 and 207; Pekka Alenius, Kai Myrberg, and Alexei Nekrasov, "The physical oceanography of the Gulf of Finland: a review," *Boreal Environment Research*, no. 3 (November 1998), 97–125; 98.

Russia's supposed friends in the United Kingdom and France would almost certainly have objected vociferously to any kind of Russian presence in the Eastern Mediterranean.³⁴⁹

However, even if Kononov's plan was ambitious and somewhat unrealistic, it was still better than what amounted to no plan at all. Unfortunately, that was what the Black Sea Fleet effectively had on the eve of World War I. Russia's naval strategic vision oscillated between offensive and defensive concepts from about 1907 to 1914. The overall tone of most of these plans was extremely optimistic and invariably ended with the triumphant Russian army seizing Constantinople, even though the Chief of the Naval General Staff only thought that Russia could send 5000 troops by sea in about 20 days. According to D. Yu. Kozlov, a minimum of one corps (approximately 40,000 soldiers) would have been necessary to seize the Ottoman capital. In 1907–08, for example, the Russian plan was extremely aggressive. It called for the concentration of all available Russian forces within 36 hours of the beginning of the war and an offensive mining campaign in the upper Bosphorus. These forces would annihilate the Ottoman Fleet, gain command of the sea, and then commence landing operations. Later in 1908, Russian plans became more conservative, as naval officers were concerned about a possible coalition of Austria-Hungary, Germany, Romania, and Turkey, who might be able to overpower the Black Sea Fleet if they could concentrate. Therefore, the Black Sea Fleet was to stay closer to the coast and use coastal artillery to help even the odds. 1909 saw yet another change, as the Naval General Staff now intended to use an extremely aggressive submarine presence to destroy the Ottoman Fleet in the Bosphorus, or perhaps even at the Golden Horn or Sea of Marmora itself. By 1912, the Naval General Staff had returned to a fundamentally defensive strategy, albeit one

³⁴⁹ France did agree to station the *Izmail*-class battlecruisers at Bizerte, but those ships were not going to be ready until 1919. Nekrasov, *North of Gallipoli*, 14.

which permitted occasional forays near the Bosphorus if circumstances allowed. The 1914 “plan,” as it existed, was a variant of the 1908 plan, where the Black Sea Fleet stayed concentrated near Sevastopol and there gave “decisive battle” to the opposition. Submarines, naval aviation, and small destroyers would help the numerically inferior Black Sea Fleet drive off the enemy’s forces. Defensive minefields were targeted for Odessa and the Kerch Straits, which allowed entry into the Sea of Azov. There was a slight offensive component: mining the Bosphorus, the one element that remained a consistent part of operations. If Russia won the presumptive “Battle of Sevastopol,” these minefields would prevent enemy reinforcements; if they lose, they would delay the Ottoman landings at Russian locations. However, the Naval Minister rejected these plans because they did not consider the ramifications of possible army actions in the Caucasus. The Naval General Staff, for its part, never drew up a replacement. As historian N. B. Pavlovich wrote in a stinging criticism, “In conclusion, by the summer of 1914, an operational plan for the Black Sea Fleet actually did not exist, and even unified opinions about the conduct of war in the theater were absent. As a result, the fleet did not have concrete military missions in case of the beginning of combat activities.”³⁵⁰

Grigorovich’s decision to veto the Black Sea Fleet’s plan, while completely within his powers, represented an unusual step for him, as he typically preferred to have operational issues

³⁵⁰ N. B. Pavlovich, *Flot v pervoi mirovoi voine: deistviya russkogo flota* [The fleet in the First World War: operations of the Russian fleet] (Moscow: Voennoe izdatelstvo ministerstva oborony SSSR, 1964), volume I: 321–24. Quote from 324. The second volume, *Deistviya flotov na Severnom, Sredizemnomorskom i okeanskikh teatrakh* [Operations of the fleets in the North and Mediterranean Seas and oceanic theaters] is extremely difficult to find and more recent books have largely superseded it; see the bibliography for recommendations. See also D. Yu. Kozlov, “Rossisskie plany voiny na Chernom more i ‘problema prolivov’, 1907–1914 gg.” [Russian plans for war in the Black Sea and the ‘Problem of the Straits,’ 1907–1914], *Voprosi istorii* [Questions of history] 8 (2007), 100–110, especially 104 and 106.

handled by subordinates. However, the Naval General Staff itself was in a state of transition. Prince Lieven died of heart disease in February 1914 while abroad visiting family in Germany, leaving the office of Chief of the Naval General Staff vacant. There were signs that even while he was alive, Lieven's ability to fulfill his position might have been compromised. Grigorovich emphasized that Lieven, despite his Germanic origin, was "a true Russian," and worked tirelessly to prepare against that likely foe, but "as a result of his kindness and integrity, he did not see that around him were people of other opinions [implying a pro-German stance], for example, Baron N. N. von Hoyningen-Huene, and even his own [Lieven's] wife, who drew [Lieven] closer to many harmful [*vrednyikh*] people." Lieven's status as a foreigner was hardly unusual in the fleet—Essen was also a Baltic German, while Ebergard was of Swedish origin—and Grigorovich did not consider these pernicious influences enough to replace Lieven before the Chief of the Naval General Staff's untimely death. Nevertheless, the fact that Grigorovich felt compelled to note Lieven's loyalty in his journal suggests that there was some cause for concern. Lieven's replacement, A. I. Rusin, was previously Chief of the Main Naval Staff, where his duties had been largely administrative, and before that he was an educator.³⁵¹ Lieven's status and subsequent untimely death, Rusin's inexperience, and the general orientation of the navy toward the Baltic Fleet and, consequentially, Germany, as the main threat put Ebergard in a position where he had to improvise his strategy in the Black Sea.

Further complicating Ebergard's task to plan for his fleet was the difficult nature of foreign relations with the other powers on the Black Sea. While Russia was at war with Austria-Hungary and Germany, the status of the most likely opponents for the Black Sea Fleet—the Ottoman Empire, Romania, and Bulgaria—was neutral. A number of factors suggested to him

³⁵¹ Grigorovich, *Vospominaniya*, 84; Kuroyedov, *VMES*, 720. Quote is from Grigorovich.

the appeal of a fundamentally offensive strategy. Chief among those factors was the relative weakness of the Ottoman Empire, the most formidable opponent the Russian Empire was likely to face during World War I on the Black Sea. A Bulgarian officer with Russian training wrote about his experiences in the First Balkan War in *Morskoi sbornik*, noting that his unit, which consisted of a single 700-ton gunboat (the *Nadezhda*) and six 97-ton torpedo boats, required half of the Ottoman Fleet's attention.³⁵² They engaged an Ottoman convoy on the night of November 8, 1912, protected by a battleship, a cruiser, three torpedo cruisers, and two destroyers. One of the torpedo boats engaged the Ottoman cruiser *Hamidiye*, a 3820-ton cruiser, and put a 10-foot hole in the side, and escaped with no serious damage. The Bulgarian squadron may have also hit a destroyer, although that is not certain. The author wrote, justifiably proud, that "we have no kind of losses. On two torpedo boats, the smokestacks are damaged, and one sailor is lightly wounded. I bring to your attention that we, right after a battle with half of the Turkish fleet, had no casualties of any kind. It could be considered, that the result we received is extremely good."³⁵³ If the tiny Bulgarian navy could make a successful raid with little to no damage, then it was logical to assume that the much larger and better equipped Russian fleet had nothing to fear from the Ottoman Fleet.

³⁵² Although the Bulgarian officer calls *Nadezhda* a "cruiser," no other country in the world would have called such a small vessel a cruiser. *All the World's Fighting Ships* calls it a gunboat, and that term is more in line with the vessel's actual capabilities. Gardiner, *All the World's Fighting Ships II*, 411.

³⁵³ *Ibid.*, 389; [Midshipman First Rank Minkov], "Vzryv v noch na 8-ye noyabrya 1912 goda turetskogo kreisera 'Gamidiye'" [Explosion of the Turkish cruiser *Hamidiye* during the night of November 8, 1912], *Morskoi sbornik* 374, no. 1 (January 1913), 145–48; quote is from 148. Note that the author identified himself as anonymous, but a footnote to the article on page 146 identified him as Midshipman First Rank Minkov, a graduate of the Russian Naval College, who had completed the torpedo officer's course shortly before the war began. *Hamidiye* was originally known as *Abdul Hamid* before the 1908 Turkish revolution, and is called by the original name in Gardiner's reference.

However, that strategic calculus changed with the introduction of the German cruisers *Goeben* and *Breslau* into the Ottoman Fleet on August 2, 1914.³⁵⁴ *Goeben*, a battle cruiser, possessed 11.1” guns, which were larger than anything in the Black Sea Fleet at the time. Once the Black Sea dreadnoughts were completed, Russia would once again have the most powerful ships in the region. Until that point, *Goeben* not only represented a substantial upgrade to the Ottoman navy; it was actually better than the two battleships Germany sold the Ottomans in 1910, and was the flagship for the new “Ottoman” admiral, Admiral Wilhelm Souchon. Ebergard recognized the power of the battle cruiser (*Breslau*, while useful, was a light cruiser and did not enter much into Russian thought) and proposed a plan to destroy the newly-acquired ships. Ebergard wanted a diplomatic note sent to Constantinople, demanding that the German ships be expelled south, where the Royal Navy could easily deal with them. He assumed that the Ottomans would refuse, which would provide him the justification to send ships into the Bosphorus and sink the enemy ships; at point-blank range, the superior speed and range of the German ships would not come in to play. The Ministry of Foreign Affairs and other Allied diplomats in the newly renamed Petrograd (St. Petersburg was considered “too German” a name) refused, fearing that Ebergard’s actions might provoke the Ottoman Empire to declare war on the side of the Central Powers. Minister of Foreign Affairs Sazonov did not have the same confidence in the Black Sea Fleet that Ebergard and Chief of the Naval General Staff Rusin had; for most of August and September, he acted to prevent any sort of preemptive action on the German ships. Only on September 11, 1914, did Sazonov grant Ebergard the freedom to pursue the enemy ships, but only once they entered the Black Sea, and only if Russia would suffer no

³⁵⁴ For a good synopsis of the odyssey of the German ships to Constantinople, see Lawrence Sondhaus, *The Great War at Sea: A Naval History of the First World War* (Cambridge, UK: Cambridge University Press, 2014), 95–107.

serious losses. *Breslau* alone entered the Black Sea on September 7, but it returned to port the same day, providing no opportunity for Russia to interdict it.³⁵⁵

The diplomatic impasse was only resolved when the Ottoman Navy made a surprise attack on the Black Sea coastline of Russia on October 16, 1914. The German Admiral Souchon used the fact that Russian ships had “shadowed all movements of the Turkish fleet and systematically disrupted all exercises” as a *casus belli* to justify the raid on Odessa, Sevastopol, Feodosiya, and Novorossiysk. Russia had a very substantial presence in Sevastopol and Odessa, as well as the ports of Ochakov and Evpatoriya. Russian and Ottoman ships had actually met on October 14, two days before the attack, but Ebergard, mindful of his orders, ordered the Russian fleet to return to Sevastopol rather than engage the Ottomans. On the morning of October 15, a Russian steamer identified *Goeben* and reported it near Amasra, a Black Sea port of the Ottoman Empire just northeast of Bartin. The report, however, was unconfirmed, and so Ebergard could not alter his orders. The first casualty of the war in the Black Sea was the gunboat *Donets*, which was sunk by an Ottoman destroyer at 4:15 AM on October 16. The lack of a detailed plan hindered efforts to respond to the enemy attack; the Chief of the Security of Harbors of Sevastopol informed the fortresses to prepare coastal artillery to respond to the Ottoman attack on his own initiative. In the early afternoon, the Black Sea Fleet put to sea, to search for the enemy ships, but did not find any. Russia’s losses were light: apart from *Donets*, the Ottomans sank the minelayer *Prut* and damaged the gunboat *Kubanets*, the minelayer *Beshtau*, and the destroyer *Leitenant Pushchin*; German mines claimed a few commercial ships. The Russian

³⁵⁵ Gardiner, *All the World’s Fighting Ships II*, 390–1; Nekrasov, *North of Gallipoli*, 19–20; Bobroff, *Roads to Glory*, 108–9.

Empire formally declared war on Turkey on October 19, 1914, freeing Ebergard's hand and allowing him to pursue the enemy wherever he might go.³⁵⁶

The war at sea and supplementing the Russian navy³⁵⁷

With the Baltic Sea and Black Sea in capable hands, it fell to Grigorovich and the Naval Ministry to address the short-term needs of the Russian Imperial Navy. Any broader concerns about domestic construction or large-scale construction were set aside. The Emperor stopped interfering in naval affairs altogether once the war broke out, which meant that Grigorovich and his staff had the dominant voice in naval affairs. It was up to the Naval Ministry to solve the critical shortage of auxiliary vessels, for which they had Imperial support but little to no Imperial oversight. As the war progressed, some officers even tried to raise questions of post-war construction with a relative freedom from Imperial interference that the navy had not enjoyed since the period immediately following the Russo-Japanese War. Had Russia won World War I, some of those ideas might even have been implemented. In the beginning of World War I, however, the most important consideration was to address the shortage of minesweepers and icebreakers.

It became clear to Grigorovich and the naval high command that Russia was in desperate need of auxiliary vessels immediately after the outbreak of war. Russia had already begun purchasing foreign vessels again in 1912, including three minesweepers from the United Kingdom and an icebreaker from Germany. Icebreakers were a serious deficiency, as noted by the Minister of Commerce and Industry: Russia only had three icebreakers in the entire Baltic

³⁵⁶Sondhaus, *The Great War at Sea*, 107–09; Pavlovich, *Flot v pervoi mirovoi voine*, 333–41. Quote is from Sondhaus, 107.

³⁵⁷ In order to save on space, this section will not include an extensive discussion of Russian naval operations during the first World War. Interested readers may find appropriate works in the bibliography.

Sea, *Yermak*, *Vladimir* and the imaginatively named *Ledokol 2* (or “icebreaker #2”), yet Russia had at least five important ports that needed clearing: St. Petersburg, Kronstadt, Helsinki, Riga, and Revel. On top of that, only *Yermak* was really in a position to do effective icebreaking; the others were too small to clear much ice in an efficient manner. The search for a new icebreaker was originally supposed to be mostly domestic, with a single foreign bid from the British firm Armstrong to keep the domestic companies honest about their prices. This contest, conducted in May-June 1911, had some surprising results: Armstrong’s price was, by far, the lowest. The Putilov Works, the Russian firm with the lowest bid, wanted 1,058,732 rubles for an icebreaker with a 46’ beam or 1,211,000 for a 50.5’ beam. Armstrong’s price for the same models was 650,000 rubles and 667,000 rubles, respectively, with an additional 23,000 rubles for delivery. A second contest, with many more foreign firms, was the direct result, including firms in Sweden, Denmark, Germany, and the United Kingdom. Eight firms sent in bids and designs; two of those submitted unsatisfactory designs and one voluntarily withdrew, leaving Nevskii, Nikolayev, New Goteborg of Sweden, Armstrong from the UK, and Vulcan from Germany. Vulcan offered the lowest bid for a 55’ beam icebreaker, 939,283 rubles, compared to Nikolayev’s 1,638,500.³⁵⁸ Russia offered Vulcan a contract for 1,470,600 rubles, including a base price of 945,000 rubles, possible bonuses totaling 280,000 rubles for fast completion, and 245,100 as a discretionary budget to cover potential overruns. N. V. Plehve, at this time serving as a secretary for the Council of Ministers, agreed in principle to the Ministry of Commerce and Industry’s request, but only if they could find some way to subcontract some of the work to Russian factories, or perhaps subcontract other naval work to make sure that Russian factories continued to receive

³⁵⁸ Although Armstrong was listed among the firms that submitted a bid, there was no Armstrong bid in the file for the second contest.

orders. The icebreaker was completed in 1914, before the outbreak of war, and named the *Tsar Mikhail Feodorovich*, after the first Romanov ruler of Russia after the Time of Troubles (1598–1613). The completion date of the minesweepers is unknown, but they underwent builders’ trials in September–October 1913, which means they were almost certainly completed and delivered prior to World War I.³⁵⁹ What made these four ships unusual is that they represented the first time that the 1906 prohibition on foreign ships was lifted.

The minesweepers and icebreaker represented the only pre-war additions to the fleet from foreign companies. The war at sea in 1914 went fairly well, all things considered, and there was no urgent need for replacements. The British sent submarines into the Baltic, and all four dreadnoughts for the Baltic Fleet were commissioned in 1914, beginning with *Sevastopol* in November and ending with *Gangut* on December 30. As for the Black Sea Fleet, it first left port on October 23. The early lessons of 1914 seemed to vindicate Russian pre-war strategy in the Baltic; they had inflicted losses on Germany, which was their main objective, and forced them to commit forces to the Baltic Sea, making the Royal Navy’s blockade easier to enforce. However, it was not an unqualified success, given the loss of *Pallada*, and Germany always considered the Baltic a secondary theater. Indeed, Admiral Alfred von Tirpitz, the German equivalent to Grigorovich, wrote to their Chief of Staff, General Erich von Falkenhayn, that “Germany cannot

³⁵⁹ Minister of Commerce and Industry to N. V. Plehve, October 25, 1912, RGIA, f. 1276, o. 8, d. 171, l. 2–11 and Plehve to Minister of Commerce and Industry, November 12, 1912, *ibid.*, l. 37. The *Tsar Mikhail Feodorovich* is now the *Suur Tõll* and exists as a museum ship in Estonia. See “Steam-icebreaker *Suur Tõll*,” <http://www.lennusadam.eu/en/visit-the-museum/museum-highlights?layout=edit&id=339>, accessed July 20, 2015. The British minesweepers, *Iskra*, *Plamya*, and *Patron*, are covered in RGAVMF, f. 401, o. 1, d. 240; the note that indicates the builders’ trials is f. 401, o. 1, d. 240, l. 44, dated September 19, 1913 (New Style, as the letter was sent from the United Kingdom).

win a war on two fronts, and it is necessary to concentrate all [naval] forces against England.”³⁶⁰ In the Black Sea, while the *Goeben* gave the Ottoman Empire an advantage over the Russian fleet and forced Ebergard to concentrate his forces, the Black Sea Fleet still managed to conduct operations against the Ottoman coast and mine the Bosphorus. Ebergard was forced to improvise, which retarded the pace of his operations, but nonetheless he was mostly effective and suffered no significant losses.³⁶¹

1915, the first full year of World War I, presented plenty of opportunities for the Russian fleet, but also forced Grigorovich and the Naval Ministry to make a difficult change, as Russia lost the Baltic Fleet’s N. O. Essen, their most capable naval commander. Essen died from pneumonia on May 7. Nicholas II wrote in his journal the following day that Essen was “an irreplaceable loss for the Baltic Fleet!” It was even worse for Grigorovich and the navy as a whole, and Grigorovich wrote in his journal that “the heavy loss of this year [1915] was the death of Nikolai Ottovich von Essen, taking away an unforgettable inspirer of the sailors and the command of the Baltic Fleet.” Essen’s replacement, Vice Admiral V. A. Kanin, was an expert in mining operations but nowhere near the overall quality of Essen. Grigorovich liked Kanin, but did not consider him a suitable replacement;

According to all accounts, he deserved the appointment, but, unfortunately, this [appointment] was a mistake, and it quickly came to be a disappointment. This was an officer who could still

³⁶⁰ Quoted in D. Yu. Kozlov, *Narushenie morskikh kommunikatsii po opytu deistvii Rossiiskogo flota v Pervoi mirovoi voine (1914–1917)* [The disruption of naval communications, according to the experience of the operations of the Russian fleet in the First World War] (Moscow: Universitet Dmitrii Pozharskogo, 2013), 152.

³⁶¹ Goldrick, *Before Jutland*, 100–3 and 110; Halpern, *A Naval History of World War I*, 183–9 and 226–8; McLaughlin, *Russian & Soviet Battleships*, 207; “Razvitie russkogo baltiiskogo flota vo vremya voiny 1914–18 gg.,” RGAVMF [Soviet], f. 1678, o. 1, d. 205, l. 281; Sondhaus, *Great War at Sea*, 108–110; Pavlovich, *Flot v pervoi mirovoi voine*, 348–51. .

be considered good when there was a commander over him, but when he himself was made a commander, he absolutely became unraveled and disrupted almost everything solid and good that was welded together [*spayano*] by the deceased Admiral Essen.

Kanin's promotion was, however, not quite as bad as Grigorovich thought at the time, and it is likely he was simply overreacting to the loss of a good friend and a truly exceptional commander. Kanin did well enough in his new role, helping to defend the key Russian city of Riga (in modern day Latvia) from a German naval attack.³⁶²

The Black Sea in 1915 was more active than the Baltic Sea, partially because of the weather and partially because Ebergard was more aggressive by nature and had less oversight than Essen or Kanin in the Baltic. As with the Baltic Fleet in 1915, the Black Sea Fleet conducted its operations successfully, with minimal losses, and gaining the first of its three Black Sea dreadnoughts. Russia did not lose a single warship in the Black Sea in 1915, while sinking eleven enemy warships, including the largest warship sunk in the Black Sea by either side, the light cruiser *Medzhidiye*. Russian surface ships inflicted significant losses on Ottoman shipping as well, including 27 large steamers ranging from just under 300 tons to over 3000 tons. Russian submarines added three more steamers to the tally, including the 1545-ton *Zonguldak* and a few sailing ships. Russian performance was not flawless, of course. Admiral Sir Richard Phillimore, assigned to Nicholas II as the British liaison officer to Russia, accompanied the Russian fleet's

³⁶² First quote is from Nicholas II, *Diaries II*, 528; second and third quotes are from Grigorovich, *Vospominaniya*, 106. See also Sondhaus, *The Great War at Sea*, 192–94; Pavlovich, *Flot v pervoi mirovoi voine*, 161–64. Sondhaus's assessment of Kanin is positive, given the important of mine warfare to the Baltic Strategy (see pg. 194, op. cit.), while Pavlovich never mentions the death of Essen at all. Halpern's assessment is also generally positive—he calls Kanin “competent”—but notes that Essen's own preferred choice to succeed him was Essen's Chief of Staff, Vice Admiral L. B. Kerber. Kerber was rejected as being “too German,” according to the British. See Halpern, *A Naval History of World War I*, 193 and footnote 33 on 500.

attack on Varna. He wrote in his diary that “As far as I could tell the firing was good, but our target was ‘the area near the big trees’.” He did commend Russian officers for responding well to submarine attacks, and noted the use of naval aviation for reconnaissance, although a French observer told Phillimore that Russian pilots tended to overestimate the effect of artillery bombardments. Phillimore also noted that Russian warships were forced to proceed slowly until minesweepers cleared the Bulgarian coast.³⁶³ Clashes between warships were relatively infrequent, but only because of the size and openness of Black Sea, as well as the inherent difficulty in finding enemy ships at sea in the era before GPS or even radar and sonar. Even though Russian goals had been accomplished in 1915, those successes did not mean that Grigorovich intended to rest on his laurels, and throughout the year he and his subordinates sought to find ways to add to the fleet.

The setbacks of 1915 on land, during what was known as the Great Retreat, played a direct role in Grigorovich’s decision to go abroad in 1915 to find new ships, in conjunction with Russia’s shipyards being taxed to capacity with the 1908 and 1912 shipbuilding programs. In his journal, Grigorovich wrote that “deficiencies in the armaments of the army and shortages of materiel, as well as the expansion of the navy and the new requirements of war, compelled me to place orders abroad, mainly in England and America.” Three particular types of vessels were desperately needed and bought in large quantities: minesweepers, icebreakers, and submarines. The first purchase of minesweepers was made June 11, 1915, for five minesweepers from Sweden. Over the course of 1915, the head of the Shipbuilding Department of GUKS, General-

³⁶³ Greger, *The Russian Fleet 1914–1917*, 66–69. Quote is from Diary of Phillimore, entry for 14/27 October, *1915–1916 Letters of Admiral Sir Richard Phillimore*, PP/MCR/C34, Reel 1, Imperial War Museum, London, UK. Hereafter “Diary of Phillimore.” Note that the diary, regrettably, does not include page numbers.

Lieutenant P. F. Veshkurtsev, had Russian naval attachés in Norway, Sweden, the United Kingdom, and the United States hunt down possible minesweepers or ships suitable for conversion to minesweepers.³⁶⁴ By September, a Captain Nosek reported that Russia had acquired seven additional minesweepers from Norway and Sweden, with negotiations proceeding to purchase eight more from the United Kingdom. The White Sea became a focal point of these minesweeper acquisitions, as it offered relatively safe access for British supplies to reach Russian shores. Grigorovich specifically ordered the purchase of six of them by mid-September. However, the Norwegian government had requisitioned four of the minesweepers that Russia had purchased, and so Nosek argued that Russia ought to find ten more. The negotiations for the British minesweepers were more difficult, as by the time the Russian government was ready to purchase them, most of the original eight were already sold, and the only one still available for sale was far too expensive for the Russian budget. Russian requirements were exacting, originally for 300 ton minesweepers with engines of at least 90 HP, later upgraded to 800–1000 ton minesweepers capable of traveling at 16 to 20 knots, which excluded quite a few of the available minesweepers.³⁶⁵ Given the dangerousness of sending British ships to the Baltic Sea, all of these ships were delivered to northern Russian ports, including Archangelsk and Murmansk.

³⁶⁴ Naval engineering officers in the days of the Russian Empire sometimes had ranks in the style of the army, rather than the fleet, because in order to receive promotion in the navy, a certain amount of duty at sea was required, duty that engineering officers had difficulty acquiring.

³⁶⁵ Veshkurtsev to Department of General Affairs of GUKS, June 11, 1915, RGAVMF, f. 401, o. 1, d. 645, l. 14; Rusin to Chief Commander of Arkhangelsk, September 5, 1915, *ibid.*, l. 27; Memo of Captain Engineer A. Nosek [could be Nosenko, but name is illegible], undated, *ibid.*, l. 28; Second memo of Captain Engineer A. Nosek, undated, *ibid.*, ll. 29–30. Also see Peter Gatrell, *Russia's First World War: A Social and Economic History* (Harlow, UK: Pearson Education Limited, 2005), 142. Quote is from Grigorovich, *Vospominaniya*, 101–02.

Continuing with the theme of establishing regular supply routes between the United Kingdom and the Russian Empire, Grigorovich also sought to acquire more icebreakers in the fall and winter of 1915. The Russian naval attaché in the United States, I. V. Mishtovt, found three suitable steamers that he thought could be effectively converted to icebreakers: the Canadian *Beothic*, the British *Nascopie*, and the British *Adventure*. All three were large ships, but smaller than standard icebreakers, at 1600, 2600, and 2180 tons respectively.³⁶⁶ After getting the approval of Chief of the Naval General Staff Rusin to begin negotiations, Mishtovt contacted David Reid of Reid-Newfoundland about purchasing *Beothic* and *Nascopie*. The former would cost \$350,000 (Canadian), while the latter was valued at £105,000. The prices included crews to sail the ships to Aleksandrovsk and a separate trip for the crews to return to a British port, but Reid would not offer insurance. Apart from a minor dispute about the condition of the vessels, which Reid settled to Mishtovt's satisfaction, purchase of the *Beothic* was confirmed, while *Nascopie* was chartered (that is, leased) for one winter after October 1915. N. A. Volkov, the Russian naval attaché in the United Kingdom, offered to purchase another icebreaker, but it needed three months to be completed. A detailed memorandum, sent to the Naval Minister by an unknown author, reported that by November 1915, Russia had acquired four new icebreakers—*Beothic*, *Adventure*, *Bellaventure*, and *Bonaventure*—and chartered *Nascopie* and *Lady Gwendolyn*. However, the author advised a minimum of 15,000 total tons of icebreakers, while the first four only totaled 6100 tons.³⁶⁷ The *Adventure* also needed three months to be fully operational, and the owner of that ship would not sail it to Russia, leaving Russia responsible for

³⁶⁶ For reference, the *Tsar Mikhail Feodorovich* was 4579 tons. See “Steam-icebreaker Suur Töll,” <http://www.lennusadam.eu/en/visit-the-museum/museum-highlights?layout=edit&id=339>, accessed July 20, 2015.

³⁶⁷ There is a discrepancy in the size of *Adventure*; Mishtovt reported it was 2180 tons, but the anonymous memo gave a total size of 1800 tons.

transporting it from Canada. Russian efforts to buy icebreakers outright were becoming increasingly difficult; Vickers offered to build Russia two icebreakers, but they would take approximately two years to commission, because much of Vickers' shipyard capacity was devoted to the needs of the Royal Navy. The author suggested that two American steamers might be available, *Evangelina* and *Nevada*, although the latter was missing evaporators and was very expensive, \$675,000. Nonetheless, the author recommended making the purchases as Russia badly needed the additional icebreakers.³⁶⁸ While the minesweepers and icebreakers were primarily destined to secure Russia's trade with the United Kingdom via the Arctic trade route, Grigorovich also had one final target: to acquire submarines to go on the offensive against the Ottoman Empire and Germany.

Chief of the Naval General Staff Rusin wrote a memorandum in the summer of 1915 recommending the significant expansion of Russia's submarine fleet. Rusin reported that the experiences of the war suggested that Russia needed larger submarines, and more importantly, to build as many of them domestically as possible. The total Russian submarine fleet, according to Rusin, should be 115 submarines, including 41 in the Baltic Sea, 34 in the Black Sea, and 40 in the Pacific Ocean. As Russia already had 30 perfectly suitable submarines under construction, the fleet only needed 85 additional submarines. Rusin gave an approximate timetable of 1920 for the Baltic and Black Sea submarines and 1921 for the Pacific Ocean. The total cost of his plan was 172,215,540 rubles from 1915 to 1921, which included the costs of the submarines, torpedo tubes, two experimental models, radio-telegraphs for each submarine, and deck guns. The Chief

³⁶⁸ Mishtovt to Rusin, September 20, 1915, RGAVMF, f. 401, o. 1, d. 645, l. 31; Reid to Mishtovt, October 11, 1915, *ibid.*, l. 44; Mishtovt to Reid, October 12, 1915, *ibid.*, l. 45; Mishtovt to Reid, October 14, 1915, *ibid.*, l. 46; E. D. Mid [a friend of Reid's] to Mishtovt, undated, *ibid.*, l. 47; Volkov to Rusin, October 31, 1915, *ibid.*, l. 54; Anonymous memo for Grigorovich, undated, *ibid.*, l. 58.

of the Naval General Staff was relatively positive about Russia's chances in the war, noting that "at the final result of the war, changes of geographical conditions should be expected," but that these potential changes should not delay submarine construction, because "the creation of the necessary forces for the defense of the state cannot be postponed."³⁶⁹ Rusin happened to be alone in this particular case; most other naval officers, including those who gathered for a conference in June 1915, thought that any domestic construction should be postponed until 1916. The only officer who wanted to see the program begin immediately—Vice Admiral P. P. Muravyev, the Assistant Naval Minister—did so only because he was concerned that Russian shipyards would increase prices if they waited too long to sign contracts. Although Muravyev did not openly consider the potential loss of skilled labor to other factories, that problem certainly must have been on his mind as well. All the same, Muravyev conceded that "presentations to the factories of our requirements cannot result in obstructions for the supply of the army."³⁷⁰ Thus, for any sort of short term expansion of the Russian submarine fleet, foreign purchases were the only real option.

Grigorovich found some submarines that fit Russian requirements with the assistance of the private shipyard Noblessner, based in Revel. Noblessner representatives told the Naval Minister that they could acquire three to five Holland submarines from the Electric Boat Company in Groton, Connecticut. The actual construction of the prefabricated sections would be done in British Columbia to American designs, then shipped to the Baltic Shipyard for assembly and completion. These submarines boasted a speed of 13 knots on the surface and 10.5 knots

³⁶⁹ Report of the Chief of the Naval General Staff, July 8, 1915, RGIA, f. 1276, o. 11, d. 885, ll. 3–4. Underline in the original.

³⁷⁰ Ibid., ll. 3–12 and Interdepartmental conference about the first two years of the submarine building plan, June 18, 1915, RGIA, f. 1276, o. 11, d. 885, ll. 20–2.

underwater, and were equipped with four torpedo tubes and eight torpedoes. Grigorovich confirmed that both GUK and the Naval General Staff were enthusiastic about the combat capabilities of these submarines, and recommended their purchase. Grigorovich proposed to buy all five for a total of cost of \$4,425,000 or 8,628,750 rubles. He called together an interdepartmental conference to work out the final details, which included British transport of the submarines, as the United States was still neutral. Grigorovich then sent the request to the Council of Ministers, who approved the order, although they did ask if Russia could pay the advance as well as the cost of the submarines in rubles, which would save them money and preserve precious foreign currency that the government might need for other matters. Those five submarines were the initial models of the *AG* class (for *Amerikanskii Golland*, American Holland), a class which eventually totaled seventeen submarines, although six of them were purchased by the United States prior to delivery and commissioned into the US Navy, as by the time they were laid down (1918), the Russian Empire no longer existed. Later models of the *AG*-class were built in Nikolayev, according to the original design, and added to what would become the Soviet Navy. The Russian Empire also purchased several motor boats from the United States, a few cutters from Norway, and some steel cable from Japan in 1915, as well as equipment for Russian shipyards and spare parts from Italy and the United States.³⁷¹

Finally, 1915 also saw some purely administrative changes to the functioning of the Russian navy. Nicholas II relieved Grand Duke Nikolai Nikolayevich of his post as Commander

³⁷¹ Polmar and Noot, *Russian and Soviet Submarines*, 239–41; Grigorovich to the Council of Ministers, July 12, 1915, RGIA, f. 1276, o. 11, d. 885, ll. 52–6; Interdepartmental conference, July 15, 1915, *ibid.*, ll. 57–9; Council of Ministers to Grigorovich, July 22, 1915, *ibid.*, l. 63; Veshkurtsev to the Chief of the Department of General Affairs for GUK, October 10, 1915, RGAVMF, f. 401, o. 1, d. 693, 6–8; “List of foreign orders for January-September 1915,” RGAVMF, f. 401, o. 1, d. 681, l. 3.

in Chief of the Russian Army, proclaiming himself Commander in Chief of all Armed and Naval Forces in August 1915, although this decision had absolutely no effect on the workings of the navy. The Emperor was focused on the army during his time in the role, a logical decision given the army's performance in the Great Retreat, and he still implicitly trusted Grigorovich to handle the affairs of the navy. One of the changes that did occur was the elimination of the old Deputy Naval Ministers and creation of two Assistant Naval Ministers. The First Assistant Naval Minister was entrusted with combat operations, and so Rusin, the Chief of the Naval General Staff, filled that post. Technical and financial matters were the province of the Second Assistant Naval Minister, and Muravyev took that post as the head of GUK.³⁷² In actual practice, these changes did not make a significant impact, apart from raising Rusin's profile in the eyes of his colleagues.

1916, on the other hand, began with a far more significant change: the creation of the Naval Field Staff. This new organ, which Rusin commanded, finally brought the Black Sea Fleet directly under the control of the navy, while the Baltic Fleet became attached to the Northwestern Front, rather than Sixth Army.³⁷³ These changes simplified the administration of the navy and made communication between Stavka and the navy easier, eliminating any number of delays in the conduct of naval operations. However, even with the streamlining of command, 1916 was not a busy year for the Baltic Fleet. A riot on the *Gangut* in winter 1915 over food rationing showed that Russian discipline in the Baltic was starting to slip, although it had little direct effect on Russian operations up to that point. As ever, the character of the Baltic operations was defensive in nature, and Russian successes dropped off with the introduction of

³⁷² McLaughlin, "Rossiskii imperatorskii flot," 208; Nicholas II, *Dnevnik II*, 544.

³⁷³ "Fronts" are roughly equivalent to Army Groups in Western parlance.

German convoys in the Baltic beginning after the spring thaw in April 1916. German naval officers wanted to try the Gulf of Riga again, particularly Prince Heinrich, but the army refused, preoccupied with offensives at Verdun and repelling the Russian Brusilov offensive on the Eastern Front. Russian defenses on the Gulf of Finland were improved, including new shore batteries, and overall the Baltic Fleet laid an additional 3963 mines over the course of the year. Both Russia and Germany ran sorties from time to time, but they tended to be ineffective. Exceptions included the November 1916 submarine attack on *Rurik*, which badly damaged it, and a few Russian submarine attacks that claimed German steamers. No warship larger than a destroyer was sunk by either side, most of those by mines. In September, Kanin, the Commander of the Baltic Fleet, was relieved of his duties after another disturbance on the *Gangut*. The commander of the warship asked for assistance from Kanin, and wanted to arrest and sentence most of the crew to work camps. Kanin, however, only reprimanded the sailors. Nicholas II personally asked Grigorovich to replace Kanin, and Grigorovich chose the former head of Russian naval intelligence, Vice Admiral A. I. Nepenin to fill the role. Nepenin had headed the operation to seize the codebooks from the German cruiser *Magdeburg* in 1914, which helped British codebreakers solve several German codes.³⁷⁴ However, Nepenin only got the position in September 1916, which gave him little time to enact any of his theories on how to improve the Russian fleet's performance in the Baltic before the winter freeze.

In the Black Sea, there was an attempted change in strategy. The Chief of the Naval General Staff argued that, given Russia's setbacks in 1915, it made sense to shift some of the

³⁷⁴ McLaughlin, "Rossiskii imperatorskii flot," 209, 232, 234; Grigorovich, *Vospominaniya*, 107 and 113; Halpern, *A Naval History of World War I*, 207–12; Pavlovich, *Flot v pervoi mirovoi voine*, 211–2; Greger, *The Russian Fleet*, 35–9; Goldrick, *Beyond Jutland*, 227–235; Gardiner, *All the World's Fighting Ships II*, 143.

weight of Russia's army to knocking Turkey out of the war, gaining Russia Constantinople. The Emperor and the Ministry of Foreign Affairs backed Rusin's strategy; Rusin claimed that he could transport two and a half divisions every four days with the Black Sea Fleet's transport flotilla. General M. V. Alekseyev, the Chief of Staff for Nicholas II, argued that, at a minimum, it would take three to four full corps to successfully take the Bosphorus, which would take far too long. Rusin's counteroffer—a joint army/navy expedition which would combine an extremely heavy bombardment and landings directly at the Bosphorus—was more palatable, and while Alekseyev remained unimpressed, the Emperor liked the plan, and wanted to adopt it in conjunction with an offensive against Germany in spring 1917. However, the only tangible progress towards an attack on the Bosphorus was the training of a Naval Infantry Division (the equivalent of Marines in the US or British military establishments).³⁷⁵ There were other, smaller, specialized formations for amphibious assault, but even Rusin's promise of two and a half full divisions was probably unlikely to be fulfilled in time, especially in light of Alekseyev's lukewarm support.

For 1916, therefore, it was business as usual for the Black Sea Fleet, and was initially another successful year, including regular raids on the Ottoman "Coal Coast." However, the German submarine *U-33*'s torpedoing of the Russian ship *Portugal*, a ship of over 5000 tons, was more significant than any Russian submarine attack during the same period. The loss of the ship, and Russia's general ineptitude with either making use of Russian submarines or preventing enemy submarine attacks, prompted Rusin to write a report recommending Ebergard's dismissal. Grigorovich concurred, although the Naval Minister blamed "the stubborn arguer," Captain First Rank Ketlinskii, for the delays in the Black Sea Fleet's operations against *Goeben* and *Breslau*.

³⁷⁵ Nekrasov, *North of Gallipoli*, 73–76.

Nonetheless, the decision to remove Ebergard from command was nearly unanimous. Even the Emperor approved the removal, although without comment, and it is difficult to say whether or not he was simply following his subordinates' recommendations. Regardless of what the Emperor thought, the most pressing question was about the decision of the next Commander of the Black Sea Fleet.³⁷⁶

Two officers were considered as Ebergard's replacement: Rear Admiral S. S. Pogulyayev and Rear Admiral A. V. Kolchak. The former was the commander of the Black Sea's dreadnoughts and knew the Black Sea intimately; Kolchak's career had been mostly in the Baltic Sea up to that point, and he had most recently been the commander of the Baltic Fleet's destroyers and responsible for the defense of the Gulf of Riga. Pogulyayev was the more logical choice in many ways, as he was more familiar with the personnel of the Black Sea Fleet and graduating from command of the fleet's dreadnoughts to the entire fleet was not a huge step. Kolchak, on the other hand, represented a far more radical change. He was popular with the Duma, and was more likely to shake up the Black Sea Fleet's leadership, although Kolchak personally was more abrasive and less popular with his shipmates than Pogulyayev. S. N. Timerev, a staff officer and a friend of Kolchak, suggested that another possible alternative was Nepenin, who had replaced Kanin in the Baltic Fleet, and that Kolchak would have received the Baltic posting instead, "for which he was more suitable." Timerev only hinted that "motives of a personal character" with a member of the committee, future commander of the navy under Lenin V. M. Altfater, resulted in Kolchak getting the Black Sea posting instead, which was less prestigious. The final decision, in the absence of Rusin, was Grigorovich's, who recommended

³⁷⁶ Nekrasov, *North of Gallipoli*, 94–5; Halpern, *A Naval History of World War I*, 245; Grigorovich, *Vospominaniya*, 109; Greger, *The Russian Fleet*, 56.

Kolchak to the Emperor. The Emperor agreed, and Kolchak received the news about his appointment a few days later.³⁷⁷ Kolchak received his orders from Alekseyev and Nicholas II, who confirmed that his priority was to be the Bosphorus operation of 1917, although the Emperor also suggested that he prepare for possible operations on the western portion of the Black Sea with the expected entry of Romania. The Emperor was not at all pleased with Romania's entry into the war, thinking that it would prove a disaster, and hinted to Kolchak that France had insisted upon it for reasons of their own.³⁷⁸ In any case, Kolchak had his assignment and his orders, and prepared to lead the Black Sea Fleet in the second half of 1916.

Only a single incident marred the Black Sea Fleet's performance in the second half of 1916: the explosion of the *Imperatritsa Maria*, Russia's most significant naval loss in World War I, due to an accidental fire in the forward magazine of the 12" guns. The loss of the dreadnought included 900 casualties, of which 200 were dead. A few naval officers at the time attributed the loss to sabotage, including Grigorovich, who wrote that "To find the cause of the explosion is difficult, but my personal opinion is inclined to the fact that this ill-intentioned explosion was under the aid of an infernal machine, and that this matter is at the hands of our enemies," but most naval historians agree that it was an accident.³⁷⁹ Russia's command of the

³⁷⁷ The specific timing is unclear. Kolchak stated that he heard about the appointment in the last ten days of July, but could not remember specifically. Varneck and Fisher, *Testimony of Kolchak*, 33.

³⁷⁸ Nekrasov, *North of Gallipoli*, 93–5; Grigorovich, *Vospominaniya*, 109; Varneck and Fisher, *Testimony of Kolchak*, 34–5. Some individuals considered Romania's entry into World War I a sure sign of the Entente's impending victory; see, for example, Sydney Brooks, "The Effect of Roumania's Decision," *The North American Review* 204, no. 731 (October 1916), 531–43. Quotes are from S. N. Timerev, *Vospominaniya morskogo ofitsera* [Memoirs of a Naval Officer], (St. Petersburg: OOO 'Galeya Print', 1998), 49–50.

³⁷⁹ Varneck and Fisher, *The Testimony of Kolchak*, 36–7; Halpern, *A Naval History of World War I*, 247–9; Sondhaus, *The Great War at Sea*, 237; Nekrasov, *North of Gallipoli*, 100–01. Quote is from Grigorovich, *Vospominaniya*, 110.

Black Sea was complete, however, and even the loss of a dreadnought would not shake that superiority.

For the Naval Ministry, 1916 was much the same as 1915, as Grigorovich and Second Assistant Minister Muravyev spent most of their time pursuing ships to serve as minesweepers or other light craft, from the United States, Spain, Argentina, the United Kingdom, France, Norway, and the Netherlands. However, Russia also had a more difficult time paying for these ships, particularly because most countries demanded foreign currency (that is, not rubles) to pay for them. If Russia needed to borrow foreign currency to pay for these ships, they had to turn to the United Kingdom, the only country willing to lend it to Russia, which gave the British government a *de facto* veto on Russian purchases; in some cases, the British denied funds to the Russian Empire in order to buy the same ships themselves. For example, the British withdrew the credits they had promised to Russia to buy three tugs from the Netherlands at the last minute in June 1916. On another occasion, the British could not provide Russia with Swedish crowns, which were in short supply. Most of the time the British did not use their veto, and Russia was able to gain most of the small craft they needed.³⁸⁰ The Russian Empire was also able to add warships from an unlikely source: their old enemy, Japan.

³⁸⁰ KO GUK to Department of General Affairs of GUK [hereafter OOD GUK], June 23, 1916, RGAVMF, f. 401, o. 1, d. 909, l. 86; Porechkin and Sax [Inspector of the Mechanical Department of GUK and Naval Attaché to London, respectively] to Muravyev, September 19, 1916, *ibid.*, l. 108. The entire *delo* contains telegrams about the purchase of the smaller craft and is worth reviewing for scholars interested in this area. Also see I. V. Shugalei, M. A. Ilyushin, and A. M. Sudarikov, “Voенно-tekhnicheskoe sotrudinichestvo Rossiiskoi Imperii i Velikobritanii v godi Pervoi mirovoi voine” [Military-technical collaboration of the Russian Empire and Great Britain in the years of the First World War], *Pervaya mirovaya voina i problemy rossiiskogo obshchestva* [The First World War and problems of Russian society] (St. Petersburg: Herzen State Pedagogical University, 2014), 281–6, accessible at <http://www.herzen.spb.ru/uploads/katerinakri/files/%D0%9A%D0%A0%D0%98/%D0%9C%D0%90%20%D0%97%D0%BB%D0%B0%D1%82%D0%B8%D0%BD%D0%B0/%D0%9F%D1%83%D0%B1%D0%BB%D0%B8%D>

Japan approached the Russian Empire in early 1916 about selling two battleships and one cruiser that Japan had captured from Russia during the Russo-Japanese War. These ships, the *Peresvet*, *Poltava*, and *Varyag* (or known to Japan as *Sagami*, *Tango*, and *Soya*, respectively), were needed to help protect the White Sea and the coast of Murmansk. According to the Russian naval attaché in Tokyo, Captain Second Rank Voskresenskii, the total price was 15.5 million yen or approximately 10,333,333 rubles. The Japanese hinted to Voskresenskii that they might offer a discount if they got foreign currency (that is, neither Japanese nor Russian) to pay for the ships. The Council of Ministers, however, was somewhat uneasy about purchasing the ships sight unseen, and authorized Grigorovich to begin negotiations. Voskresenskii reported back that the Japanese promised to make all necessary repairs and deliver them to Vladivostok; they would permit Russian officers to inspect the vessels, but they wanted a decision as quickly as possible. The Council of Ministers approved the purchase, as did the Emperor, based on that information. There was some question about whether these ships might be used for minesweeping, but Grigorovich noted that Russia had already purchased motor boats from the United States for that purpose.³⁸¹

[0%BA%D0%B0%D1%86%D0%B8%D0%B8/%D0%A1%D0%B1%D0%BE%D1%80%D0%BD%D0%B8%D0%BA%20-%20%D0%9F%D0%95%D0%A0%D0%92%D0%90%D0%AF%20%D0%9C%D0%98%D0%A0%D0%9E%D0%92%D0%90%D0%AF%20%D0%92%D0%9E%D0%99%D0%9D%D0%90%20%D0%98%20%D0%9F%D0%A0%D0%9E%D0%91%D0%9B%D0%95%D0%9C%D0%AB%20%D0%A0%D0%9E%D0%A1%D0%A1%D0%98%D0%99%D0%A1%D0%9A%D0%9E%D0%93%D0%9E%20%D0%9E%D0%91%D0%A9%D0%95%D0%A1%D0%A2%D0%92%D0%90.pdf](#), accessed August 5, 2015.

³⁸¹ Grigorovich to I. L. Goremykin [Chairman of the Council of Ministers], January 12, 1916, RGIA, f. 1276, o. 12, d. 1080, l. 1–2; Special journal of the Council of Ministers, January 12, 1916, *ibid.*, l. 10–11; Voskresenskii to the Chief of the Main Naval Staff, February 5, 1916, *ibid.*, l. 13; Special journal of the Council of Ministers, February 7, 1916, *ibid.*, l. 14 and 16; Grigorovich to B. V. Shtyurmer [Chairman of the Council of Ministers], April 6, 1916, *ibid.*, l. 19 and 21.

However, not all foreign technology was useful to the Russian Empire, and over the course of 1916, Russia began using more and more domestic equivalents for previously foreign equipment, such as aircraft. By 1916, Russian shipyards were perfectly capable of producing any type of ship the fleet might need; a delayed project, known as “Battleship 1915,” would have included oil-fired turbines for the first time in a Russian dreadnought, but production on it could only begin after the *Izmail*-class battlecruisers were complete. Russia used foreign technology to supplement its fleet in 1915 and 1916 not because they could not build the ships themselves, but because their own shipyards were at capacity and many of Russia’s factories were working for the army. That was becoming true for aircraft as well. Naval aviation fulfilled a variety of roles, mostly reconnaissance, but also including some close air support and bombing, albeit largely ineffectively. Both the Baltic and Black Sea fleets originally needed foreign partners to develop their aircraft during the war; the Baltic Fleet used French seaplanes, while the Black Sea Fleet used American Curtiss flying boats and four British airships. Yet, over time, Russia found that the Curtiss flying boats no longer met their needs, and aircraft designer D. P. Grigorovich (no direct relation to the Naval Minister) was given the task of building a uniquely Russian design of flying boat. In particular, the Curtiss K-boat design was rife with problems in both design and manufacturing, which prompted the Russian government to demand a refund and set naval aviation on the Black Sea back considerably.³⁸²

³⁸² Jacob W. Kipp, “The Development of Naval Aviation, 1908–1975” in *Soviet Aviation and Airpower*, eds. Robin Higham and Jacob W. Kipp (Boulder, CO: Westview Press, 1977), 139–42; Christopher C. Lovett, “Russian and Soviet Naval Aviation, 1908–96,” in *Russian Aviation and Air Power in the Twentieth Century*, eds. Robin Higham, John T. Greenwood, and Von Hardesty (Portland, OR: Frank Cass Publishers, 1998), 111–12; McLaughlin, “Rossiiskii imperatorskii flot,” 231; and Timothy Wilson, “Broken Wings: The Curtiss Aeroplane Company, K-Boats, and the Russian Navy, 1914–16,” *The Journal of Military History* 66, no. 4 (October 2002), 1061, 1079, 1082. On “Battleship 1915,” see especially McLaughlin, *Russian & Soviet Battleships*, ch. 32.

Both of Russia's main fleets, the Baltic Fleet and the Black Sea Fleet, had reason to expect, at a minimum, the continuation of their successful efforts in the previous 28 months of war, if not even more success in 1917. Foreign orders had supplemented domestic construction effectively, for the most part, and the *Izmail*-class battlecruisers for the Baltic Fleet and the *Imperator Nikolai I* and *Imperator Aleskandr III* dreadnoughts for the Black Sea Fleet were due to be commissioned in 1917. Kolchak was planning an operation to seize the Bosphorus in the spring of 1917, while Nepenin fought to restore discipline and planned a more aggressive campaign of his own in the Baltic Sea. However, a combination of the failure of Russian offensives in late 1916 and early 1917, the general mismanagement of the war by Nicholas II and his subsequent absence from Petrograd in a time of domestic crisis, and food shortages in the country all led to riots in Petrograd in late February 1917. The Emperor hurried back to the capital, only to be stranded in Pskov on March 1, 1917. Guchkov and Shulgin, representing the Duma, traveled to Pskov to get the Emperor's signature for a manifesto announcing his abdication in the early morning of March 2, 1917, followed by the Emperor's brother abdicating the next day in favor of a Constituent Assembly to draw up a new constitution and a Provisional Government to rule Russia in the interim. Grigorovich was replaced as Naval Minister by A. I. Guchkov (who also served as the new Minister of War) on March 22, 1917, with his retirement from the fleet effective March 31, 1917. The former Naval Minister left Russia for France, arriving in Marseilles soon after, although he did return to Russia in the 1920s.³⁸³

³⁸³ Stone, *The Russian Army in the Great War*, 266–74; McLaughlin, *Russian & Soviet Battleships*, 249 and 258; Nicholas II, *Diaries II*, 625; Lieven, *Nicholas II*, 229–232; Guchkov to Grigorovich, March 22, 1917, RGAVMF, f. 701, o. 1, d. 1, l. 21; Decree of the Army and Fleet (signed by Guchkov), March 31, 1917, *ibid.*, l. 22; French translation of article in the *New York Herald*, April 20, 1917, *ibid.*, 23. Note the Herald's article is New Style; he actually arrived on April 7, according to the Julian calendar still in use in Russia. For a thorough breakdown of the

Grigorovich's legacy is difficult to overstate. The navy that dominated the Black Sea and held off a much larger and more sophisticated German fleet in the Baltic was largely his creation, both as Deputy Naval Minister and Naval Minister. When World War I broke out, he recognized his own limitations and left the fighting to his capable commanders while he focused on administration and acquiring more badly needed ships for Russian fleet. He did an excellent job with selecting replacement commanders as they were needed, with the possible exception of Nepenin, who had serious difficulties with maintaining discipline and was generally unpopular in his brief time with the fleet. It is even possible that Nepenin was not Grigorovich's choice, but the choice of some of his more politically engaged subordinates, who passed a recommendation for him to Grigorovich. This possibility is reinforced by the fact that Grigorovich normally wrote extensively about the replacement of commanders in his journal, explaining why the old officer had done poorly and what he expected the new commander to accomplish. For Nepenin, the only positive traits that Grigorovich mentioned was that he was "younger and more energetic" than Kanin, which is hardly a ringing endorsement, given that literally hundreds, if not thousands, of officers met those same criteria.³⁸⁴ A single personnel mistake, however, does not significantly detract from the otherwise impressive record of achievements registered by the former Naval Minister.

The key element to Grigorovich's success was his relationship with Nicholas II and the rest of the Imperial administration. Grigorovich was one of the few government ministers who remained in office from the beginning of World War I until the fall of the Imperial government.

events of the February Revolution, see Tsuyoshi Hasegawa, *The February Revolution: Petrograd, 1917* (Seattle: University of Washington Press, 1981).

³⁸⁴ Grigorovich, *Vospominaniya*, 113; Norman Saul, *Sailors in Revolt: The Russian Baltic Fleet in 1917* (Lawrence, KS: The Regents Press of Kansas, 1978), 47–48.

By contrast, the Ministry of War had four ministers during that same period. Even when Nicholas II took personal command of the country's armed forces in 1915, he left Grigorovich and his subordinates in charge of the navy, which was a clear sign of the Emperor's trust in him. It was a trust that Grigorovich amply repaid, and Grigorovich's replacements certainly did not equal the former Naval Minister in stature or in accomplishments. Neither A. I. Guchkov nor A. F. Kerensky had the same level of trust with the Provisional Government (or, for that matter, the Petrograd Soviet) that Grigorovich did with Nicholas II. The Provisional Government had too many other concerns to look seriously at reform or the importation of foreign technology and ultimately collapsed without leaving any mark whatsoever on the Russian Navy. The only enduring legacy of the February Revolution was mutiny, revolutionary violence, and a spirited but ultimately futile defense of the Baltic Islands from German invasion that served as the final action of the Baltic Fleet in World War I.

The navy's role in the October Revolution was more symbolic and less bloody than it was in the February Revolution. The cruiser *Avrora* sailed up the Neva in Petrograd and opened fire on the Winter Palace on October 25, 1917. The shot was a blank, but the Naval Minister, Verderevskii, informed Kerensky and the other members of the Provisional Government that just that cruiser alone could easily level the Winter Palace, and Dybenko and other Bolsheviks in the navy were coming to take over the former residence of the Emperor. Several sailors from Kronstadt openly supported the revolution as well and sent several detachments to Petrograd to secure it against counterrevolutionaries. The Winter Palace was abandoned the following day, with the Bolsheviks victorious. Dybenko became the first People's Commissar of the Navy as a reward for his actions. The Bolshevik government immediately requested an armistice from the Germans, which was granted on December 2, 1917. Although fighting continued until the

signing of the Treaty of Brest-Litovsk on March 3, 1918 (New Style), as part of People's Commissar for Foreign Affairs L. D. Trotsky's "no peace, no war" initiative, the Russian navy was quiet.³⁸⁵ Its part in World War I was already over.

Overall, the Russian fleet's performance in World War I was very good. Petrograd was never seriously threatened in World War I; Germany could not even enter the Gulf of Finland. Russia had total command of the Black Sea from 1916 on, including in 1917, despite all of the domestic upheaval in the Russian Empire. Russian losses at sea were much lighter than any other major belligerent, while inflicting more losses on Germany than they received. In the Black Sea, the losses were even more lopsidedly in favor of Russia, save only the accidental sinking of the *Imperatriza Maria*.³⁸⁶ There was no single outstanding victory, but neither was there a Tsushima or Yellow Sea. Despite a lack of significant pre-war joint exercises between the army and navy, they cooperated well in the Caucasus and in defense of Riga.

That said, the chief criticism of the Russian fleet during World War I has not traditionally been its performance, but rather its cost. Politicians of the period and scholars today both questioned the wisdom of building such a powerful fleet. Peter Gatrell wrote in 1994 that the economic rationale for building the fleet was somewhat weak, and that if Germany wished to disrupt Russian trade, that "could not realistically be prevented by a large Russian fleet."³⁸⁷ Rebuilding the Russian fleet between 1905 and 1914 was undeniably expensive. Between 1908 and 1913, the shipbuilding portion of the Russian budget quintupled. The navy's share of the defensive budget also increased during the same period; in 1908, the navy had 17% of the

³⁸⁵ Sondhaus, *The Great War at Sea*, 304–306; Saul, *Sailors in Revolt*, 163–190; Stone, *The Russian Army in the Great War*, 302; Evan Mawdsley, *The Russian Civil War* (Edinburgh, UK: Birlinn, 2000), 32–3.

³⁸⁶ Greger, *The Russian Fleet*, 35–37 and 66–67.

³⁸⁷ Gatrell, *Government, industry, and rearmament in Russia*, 302.

budget, but by 1913, it was 28%. The Emperor and Russian politicians both wanted to see as much of the Russian fleet built domestically as possible, so cheaper foreign ships rarely supplemented the domestic production. That decision helped make the fleet more expensive than it ought to have been, given Russian labor costs, long building periods, and regular overruns. At the same time, these sums were not unupportable by the Russian economy. Even in the proposed budget for 1914, the naval budget was less than 8% of the total expenditures. That same budget actually suggested that, had World War I not intervened, Russia would have had a budgetary surplus of approximately 285,440,000 rubles.³⁸⁸ Therefore, the question of whether or not the navy's expansion was economically viable is somewhat moot; even if the navy was a complete waste of money, Russia could afford a waste of that magnitude with no ill effects. It also kept people employed and earned them valuable skills that could also be used to increase the size of the Russian merchant marine.

However, the navy was not a waste of money, by and large. An argument can be made that the never completed *Izmail*-class battlecruisers, whose construction was rife with problems, were poorly considered. Even if the Soviet government had decided to continue their construction, they would have needed until 1920 to complete all four, although *Izmail* might have been finished in 1919, assuming nothing else went wrong. The Baltic dreadnoughts also might seem a poor investment, as they rarely left port, but counterbalancing that is that the existence of the dreadnoughts caused Germany to shift more forces to the Baltic than they otherwise might have, which eased the Royal Navy's difficulties. While Russia might have maintained naval superiority in the Black Sea without any dreadnoughts, it was impossible to

³⁸⁸ Nordman, "Nashi morskije budzhety," 77; "Inventory of government expenses and expenditures in 1914..." RGIA, f. 966, o. 1, d. 10, l. 3-4.

know that the British would have confiscated the dreadnoughts the Ottoman Empire ordered, and if the Ottomans had two dreadnoughts and the Russians none, the balance of power in the Black Sea would have been completely altered. There is one other logical reason that the Russian navy might seem to be a waste of money. That particular line of argument suggests that had Russia had more money to produce shells and armaments, perhaps by transferring the funds used to build Russia's fleet to the army, the Russian army's offensives would have met with more success. However, the shell shortage was universal, not merely a Russian phenomenon, and more connected to the concept of a short war than to any desire to save money or allocate funds differently. Indeed, a weaker navy might have actually made gaining munitions more difficult rather than less, as it would have been more difficult to guarantee the safe passage of munitions to Russian ports.³⁸⁹

³⁸⁹ McLaughlin, *Russian & Soviet Battleships*, 249; Strachan, *To Arms!*, 998–1014; Gatrell, *Russia's First World War*, 24–25.

Chapter 4 - The Soviet navy under Lenin and Stalin, 1918–1929³⁹⁰

The Soviet era heralded a variety of new and important shifts in policy for the Red Navy, but at the same time, there were elements of continuity as well. The most significant change was the disappearance of a strong, dominant voice in naval affairs. V. I. Lenin was far more concerned with the creation of the Soviet state than he ever was with naval affairs. Even L. D. Trotsky, Lenin's choice to oversee the Soviet military establishment, did little to impose any sense of vision on the navy. Instead, the attitude of the Soviet military toward the navy was largely benign neglect. The "traditionalists," a group of ex-Imperialist naval officers who clung to Mahanian traditions, were surprisingly well tolerated because they would never have been able to realistically implement their plans or policies. Keeping the "military specialists" (*voenspetsy*, a general term for all ex-Imperialist officers serving in the Soviet military) happy was more useful to Trotsky than making wholesale changes. As a result, in the early days, the Red Navy operated under a policy of "benign neglect": the Soviet navy was free to do what it thought best in terms of theory and strategy but could not count on significant resources to accomplish its tasks.

The effects of the Kronstadt rebellion, which resulted in the direct subordination of the Red Navy to the Red Army, did little to disrupt this benign neglect. The then-head of the navy, A. V. Nemits, was replaced a few months after Kronstadt, but the new head of the navy was even more of a traditionalist than he was. E. S. Pantserzhanskii, who led the navy until 1924, constantly pushed for more resources and for a more powerful fleet, sending several articles to

³⁹⁰ As a reminder, all dates in this chapter and Chapter 5 are in the Gregorian style; that is, the calendar that most nations use today in 2015. All references to RGAVMF now refer to the Soviet-era portion of the archive unless otherwise specified.

Trotsky on this subject. It was only after Trotsky himself was deposed that the overall naval strategy of the Soviet Union changed, but even then, benign neglect continued.

The “modernists”, who rejected the principles of Mahan (or, at least, their applicability to the Soviet Union) were led by the new People’s Commissar of the Army and Navy, M. V. Frunze. Frunze favored a more “proletarian” method of operating the Soviet military, which meant close cooperation between the Red Army and Red Navy. In order to facilitate that cooperation, Frunze and the modernists placed a premium on naval technology that could disrupt enemy navies with as few resources as possible, which included submarines. At the same time, the existing capital ships and cruisers that the Soviet Union inherited from the Russian Empire were extensively modernized, as some of these ships would have been useful in support of the Red Army in the event of amphibious landings or the defense of the coastal flank of the Red Army.

After Stalin’s victory in the succession struggle after Lenin’s death in 1924 and Frunze’s death in 1925, K. E. Voroshilov became the new People’s Commissar of the Army and Navy. Voroshilov continued the overall strategic principles of Frunze and the Soviet tradition of benign neglect for the navy. The only significant change under Voroshilov was that the head of the navy was chosen for political reliability and revolutionary credentials. Both V. V. Zof and R. A. Muklevich were naval officers with extremely limited experience (Zof’s experiences during the Civil War were with the army, not the navy) with unquestioned loyalty to the Soviet regime. Although Zof’s tenure was short, Muklevich proved a capable administrator and acted as head of the navy for five years. Muklevich built a strong relationship with the Red Army Chief of Staff, M. N. Tukhachevsky, which helped the navy begin its first significant expansion during the Soviet era.

One of Muklevich's enduring achievements was a new shipbuilding program based on the modernist principles adopted by Frunze. Under Muklevich, a new pattern of foreign technology procurement emerged. Instead of purchasing entire warships or importing huge quantities of foreign technology, the new Soviet model relied on purchasing one or two models of technology for study, reverse-engineering, and ultimately production in Soviet factories. Plans, designs, and particularly technological assistance were as important, if not more so, than concrete examples of foreign technology. This pattern remained intact until Stalin's increased involvement in the Red Navy (see Chapter 5). Part of the reason that Muklevich was so successful was that he worked well within the somewhat loose structure of the Soviet military.

The leadership of the Soviet military was collegial in the early days of Soviet Russia. The head of the Soviet military was the People's Commissar for the Army and Navy (NKVM) and thus, a part of *Sovnarkom* (the Council of People's Commissars), the Soviet executive branch. The first NKVM was L. D. Trotsky. The NKVM stood at the head of the Revolutionary Military Council (*Revvoensoviet*), which debated all major policy decisions. This council was dominated by army officers, with no more than one or two naval officers serving on it. The NKVMF also held a seat on the *Politburo*, or Political Bureau of the Central Committee of the All-Russian Communist Party, later Communist Party of the Soviet Union (CPSU). The NKVM's membership on all of these committees enabled many voices to contribute to the military's operation in a way that was not possible in the Russian Empire. Even if the NKVM's vision predominated, other actors helped shape military policy. For the navy specifically, the most important voice was usually the Commander in Chief of the *Raboche-Krestyanskii Krasnii Flot*

(RKKF, or Red Navy), who in the beginning was the ex-Imperialist Admiral V. M. Altfater.³⁹¹ Altfater inherited an extremely unfavorable situation during the Russian Civil War, including a significantly smaller than fleet than had existed during World War I.

The Red Navy and the Russian Civil War

The nascent Red Fleet operated at a severe disadvantage, relative to the fleet that had existed in Russia prior to the October Revolution. The Treaty of Brest-Litovsk, which concluded World War I for the new Soviet Russia, caused significant problems for both the Baltic Fleet and the Black Sea Fleet. In the Baltic, Soviet Russia lost Finland, Estonia, Latvia, and Lithuania, which deprived Russia of a substantial portion of its Baltic coastline as well as most of its naval bases; only Kronstadt and Petrograd remained. For the Black Sea Fleet, the treaty formally established Ukraine as independent (although that status did not last long); thus, Russia lost virtually its entire Black Sea coastline as well, including all of its most important naval bases, apart from Novorossiisk. Furthermore, Article 5 of the treaty stipulated that all Russian warships had to either return to Russian ports and remain there for the duration of the war or be scuttled. Germany's military occupation of much of modern Ukraine during the signature of the treaty made Article 5 more onerous for the Black Sea Fleet than it was for the Baltic Fleet, most of which was stationed in Helsinki in 1917.³⁹² As a result of the treaty, a considerable portion of the Russian fleet was scuttled or abandoned, and far more warships were lost to scuttling, defection to the Whites, or capture by the Germans than were lost to combat action during World War I (see Table 4.1).

³⁹¹ Mawdsley, *The Russian Civil War*, 68–9; Trotsky to Lenin and Sverdlov [Chairman of the Central Executive Committee], October 13, 1918, in Jan M. Meijer, ed., *The Trotsky Papers, 1917–1922*, 2 vols. (London: Mouton & Co., 1964), I: 146–9.

³⁹² “Peace Treaty of Brest-Litovsk,” http://avalon.law.yale.edu/20th_century/bl34.asp, accessed August 18, 2015

The Black Sea Fleet got the worst of it, as none of its dreadnoughts remained with the Bolsheviks except the incomplete *Imperator Nikolai I*, renamed *Demokratiya* in 1917, but ultimately never finished. The “Ice Passage,” when the Baltic Fleet was forced to sail from Revel and Helsinki to Kronstadt during the early winter of 1918, claimed several ships as well. Because ports like Revel and Helsinki no longer belonged to the new Russia, they did not have the luxury of waiting until the normal spring thaw to leave. The passage was extremely treacherous, claiming the lives of just under half of the crew of the cruiser *Admiral Makarov*, and in places the ice was 75 centimeters thick (about 30 inches). At Revel, the Red Fleet abandoned five cruisers, six submarines, and a number of auxiliary ships, totaling more than 130 ships. The Baltic Fleet retained one active dreadnought, the *Petropavlovsk*, and one active battleship, a nineteenth-century battleship formerly named *Imperator Aleksandr II*, but renamed *Zarya Svobody* in 1917. Other capital ships were in various states of disrepair, but the new Red Navy had serious crew shortages as many officers and sailors defected to the Whites or simply left the country, while several others were simply demobilized. Another factor was Lenin’s Decree on Land, which declared an end to private ownership of land and redistributed it to any peasants who wished to claim it, which included some sailors, who deserted their posts to get their share of the land. In January 1918, the fleet’s total personnel numbered 8371 officers and around 119,000 personnel, including those based on shore and aboard the fleet. As a point of comparison, the pre-war size of the navy was 52,011 personnel, while by 1917 there were 137,215 personnel. However, in the first three months of 1918, the Black Sea Fleet’s total crew dropped from 41,914 in 1917 to only 6,677 sailors, mostly due to the loss of Russian ships.³⁹³

³⁹³ The source is unclear as to whether or not this number includes officers – the term used is *lichnyi sostav*, which only means “personnel.” However, it probably does not.

The situation was so grim that even F. F. Raskolnikov (real last name Ilin), a revolutionary who would later serve as the Commissar for the Baltic Fleet, advocated that imprisoned Tsarist naval officers be released and allowed to serve in the Red Navy if they swore an oath of loyalty, a policy that Trotsky agreed with. For the most part, the RKKF was a fleet of destroyers and submarines, with minimal capital ship support and inexperienced officers and crew at the outset of the Russian Civil War.³⁹⁴

Even had Trotsky or Altfater wished to expand the fleet, Soviet Russia found it almost impossible to get foreign assistance to expand it and lacked the domestic infrastructure to do so without foreign aid. Lenin's decision to repudiate all foreign debts arguably did as much damage to its international reputation as the simple existence of a Communist regime, opposed to all things capitalist, did. After all, non-Communist regimes could and did sell things to the Soviet Union throughout most of its existence. The repudiation of debts, however, particularly damaged the navy, because while it did not affect any goods the Russian fleet already had, Russia's reputation and credit were severely damaged. Purchases made by the Imperial regime and Provisional Government in 1917 alone totaled to 581,771,787 rubles, with 37% of that total owed to the United Kingdom. Other creditors included the United States, Japan, France, Italy, and Sweden, in order of the relative amount of debt owed. The People's Commissar of Finance asked the People's Commissar for Naval Affairs to provide a list of the navy's obligations to foreign creditors, in an effort to "to clarify our financial relations with other countries" after the

³⁹⁴ Mawdsley, *The Russian Civil War*, 37–9; "Peace Treaty of Brest-Litovsk," http://avalon.law.yale.edu/20th_century/bl34.asp, accessed August 18, 2015; Kasatanov, *Tri veka Rossiiskogo flota II*, 163–165 and 181–82; McLaughlin, *Russian & Soviet Battleships*, 38 and 227; Beskrovnyi, *Armiya i flota Rossii*, 211; Trotsky to Lenin, August 23, 1918, in Meier, *The Trotsky Papers*, I: 106–109; "Dekret II Vserossiiskogo syezda Sovetov o zemle," http://www.hist.msu.ru/ER/Etext/DEKRET/o_zemle.htm, accessed August 19, 2015.

conclusion of “universal peace” proceeding after the end of World War I.³⁹⁵ The objective, most likely, was to try to pay off some of the debts that Lenin had repudiated in an effort to repair the damage done to Soviet Russia’s fiscal reputation. Most of Russia’s former partners in the Entente simply refused to deal with the new regime, which included refusing to sell Soviet Russia naval technology.

³⁹⁵ People’s Commissar for Finance to the People’s Commissar for Naval Affairs, September 5, 1918, RGAVMF, f. 5, o. 1, d. 299, l. 1. The rest of the *delo* was actually empty, so whether or not the task was ever completed is unknown.

Table 4.1. Losses of major Russian warships, all fleets, 1914–1918³⁹⁶

Type of ship	Active in August 1914	During World War I			After World War I			
		Added	Combat losses ³⁹⁷	Other losses ³⁹⁸	Scuttled	Defected/other loss ³⁹⁹	Active	Inactive ⁴⁰⁰
Dreadnought	0	7	0	1	1	1	1	3
Battleships	10	2	2 ⁴⁰¹	0	0	7	1	2
Seaplane carriers	0	6	0	0	0	6	0	0
Armored cruisers	6	0	1	0	0	0	1	4
Light cruisers	10	1	1	0	0	5	1	5

Beyond simply denying additional aid to the Bolsheviks, the Entente had another option: directly intervening in the Civil War on the side of the Whites.⁴⁰² As with most historical events, there were multiple causes and factors in the decision making process, but the initial motivation

³⁹⁶ McLaughlin, *Russian & Soviet Battleships*, 91, 98, 115, 121, 135, 146, 152, 188, 225–27, 241–42; Greger, *The Russian Fleet*, 35, 43, 66, 71–78; McLaughlin, “From Rurik to Rurik,” 76–79; R. M. Melnikov, *Kreiser Varyag* (Leningrad: “Sudostroenie,” 1983), 259–60.

³⁹⁷ Includes losses due to mines.

³⁹⁸ Includes ships decommissioned or scuttled for reasons other than combat during the war.

³⁹⁹ Includes ships which defected to the Whites, captured by the Germans, and/or turned over the Anglo-French intervention in the Baltic Sea.

⁴⁰⁰ Many ships were demobilized due to lack of crew shortages during the Civil War; this also includes ships that were damaged during World War I and eventually scrapped.

⁴⁰¹ One of these was the *Peresvet*, lost during the Russo-Japanese War and subsequently reacquired during the war. It was actually rated an armored cruiser during 1916, but left as a battleship here for consistency.

⁴⁰² The colors used to refer to the two sides during the Russian Civil War – Reds for the Bolshevik forces and Whites for the anti-communists – date from the French Revolutionary era, where Red referred to the radical republicans and White to the Bourbon monarchy.

to support the Whites was the Bolshevik regime's decision to make a separate peace with the Central Powers. Other factors, which became more important later on, included the aforementioned repudiation of debts, the wholesale nationalization of companies owned by foreigners, and the simple existence of a regime that lived by an ideology that was categorically opposed to capitalism. Initial planning for the Allied intervention began in late 1917, when France and the United Kingdom started dividing responsibilities in the Black Sea between them; France would focus on Ukraine, while the UK would handle the Caucasus. Neither country could afford to devote significant resources to intervene while the Central Powers remained a threat, but after the German surrender, the option to intervene became more financially and militarily palatable, which occurred after the revolt of the Czechoslovak Corps on May 25, 1918, provided the opportunity.⁴⁰³ The Allied intervention ultimately did little to unseat the Bolshevik regime, but a British flotilla in the Baltic was enough to keep the Baltic Fleet out of the Civil War. At best, a Baltic Fleet that had a free hand could have contributed to Soviet operations along the Baltic coastline but not in a decisive way. Still, any contributions that the Baltic Fleet might have made were completely neutralized by the presence of the British flotilla.

Even without the British contesting Soviet naval power in the Baltic, the Baltic Fleet was in a poor state in early 1918. The Bolsheviks did have an unexpected surplus of supplies, weapons, and men, with the partial demobilization of the Baltic Fleet and dismantling of fortifications in the areas along the Baltic that now belonged to independent nations. By January 1918, there were 59,300 men in a greatly reduced Baltic Fleet that had even less to do as a result of the Baltic freeze, and some of these sailors became infantry, in effect. However, training took some time, and by the time the units were ready in July 1918, the Czechoslovak Corps was

⁴⁰³ Mawdsley, *The Russian Civil War*, 46–47.

considered a greater threat, and the sailors-turned-infantry were deployed against them in Perm and other places in Siberia. In any case, the units were never very large—the original unit was less than 200 men—and even the limited British forces repelled the attempted Soviet counterattacks, establishing defenses about 300 miles south of Murmansk.⁴⁰⁴ The fleet itself did provide some support for the Red Army, but only in a limited sense.

The fully mobilized Baltic Fleet first conducted operations in late 1918. Altfater and F. F. Raskolnikov, as Commander in Chief and Commissar, respectively, took over command on November 23.⁴⁰⁵ The Baltic Fleet was subordinated to Seventh Army's operational command, who in turn detached units of the Sixth Rifle Division for amphibious landings. Their original objective was to drive German units out of regions they still occupied, including the Narva River and the island of Gogland in the Gulf of Finland. Already on November 27, Russia captured the city of Hungerburg (now known as Narva-Jõesuu), and continued to advance into Estonia with lightning raids, using small numbers of units with naval gunfire support, much as the Entente had done in Arkhangelsk. Ultimately, these carefully coordinated attacks helped Russia claim Pskov and Narva. The success of these attacks, in turn, convinced Soviet partisans to proclaim the Estonian Soviet Republic, and the Baltic Fleet was then sent to respond to the threat of the British naval presence. While the new Soviet Republic in Estonia collapsed a few months later under the weight of anti-Bolshevik Russians as well as Finnish and Swedish volunteers in June

⁴⁰⁴ Kasatanov, *Tri veka Rossiskogo flota II*, 163; Lieutenant F. A. Petrov, "Ekspeditsionnye otryady moryakov krasnogo Baltiiskogo flota na sukhoputnykh frontax Grazhdanskoi voyny v 1917–1919 gg." [Expeditionary units of sailors of the Red Baltic Fleet on the land fronts of the Civil War in 1917–1919], *Morskoi sbornik*, no. 11 (November 1938), 86–87; Mawdsley, *The Russian Civil War*, 50–51.

⁴⁰⁵ Commissars were assigned to units to provide political education and act as oversight on the commanders, especially when the commander was formerly part of the Imperial fleet.

1919, the operation proved that carefully planned joint operations could use small numbers of troops for maximum impact.⁴⁰⁶

When conducting operations against other navies, however, the Red Fleet often proved less successful. A squadron of *Andrei Pervozvannyi*, *Oleg*, and two destroyers were sent to patrol the area around Tallinn, particularly its harbor, on December 25, 1918, under the command of S. V. Zarubayev, the commander of the Baltic Fleet, a position he had held since May. Zarubayev reported to Altfater, under the formal title of *Namorsi*, an acronym of *Nachalnik morskikh sil*, or Chief of Naval Forces, as the Soviet regime did away with formal ranks in early 1918 as being excessively bourgeois. Zarubayev was a participant in the infamous “Ice Passage” to Kronstadt and had plenty of experience in combat as a former commander of the first brigade of battleships, i.e. the dreadnoughts, in January 1917, and before that had commanded his own dreadnought, the *Poltava*. Despite his experience, when the squadron encountered a pair of British light cruisers on December 26, everything went wrong. One of the destroyers, *Spartak*, rushed a course correction, ran aground on the bank of the river Kuradimuna (also known as Develsyei), and was captured by the British. *Avtroil*, the other destroyer, was also captured by the British after a battle of about two hours. The other two ships, the battleship and the cruiser, returned to base without participating in the battle. Raskolnikov, aboard *Spartak*, was taken prisoner, along with 251 other crew members. 36 of those captives were executed by Estonian forces in early 1919; only 94 of them survived until the end of the Civil War. Vatsetis, as overall commander of the Bolshevik military, was understandably furious, and demanded an investigation, specifically noting that *Oleg* did not have sufficient fuel to participate, and that the

⁴⁰⁶ Kasatanov, *Tri veka Rossiskogo flota II*, 167–69; Mawdsley, *The Russian Civil War*, 116–17.

battleship never fired a single round.⁴⁰⁷ The Baltic Fleet may have been a minor participant in the proceedings of the Russian Civil War, but other portions of the RKKF were more active.

Perhaps the Red Navy's greatest contributions were in the Caucasus, where the Caspian and Volga flotillas provided support to Red Army operations in the south and helped protect Soviet Russia's oil supply. Commissar Raskolnikov, by September 1919, had recommended to Lenin and Trotsky that all available resources be shifted from the Baltic to the Caspian Sea. Raskolnikov mentioned that an additional six to ten destroyers would be enough to drive the British entirely out of the Caspian, whereas Russia lacked the resources to do the same to Cowan's forces in the Baltic. The most important tool in the Baltic Fleet's arsenal was Kronstadt, which prevented the British fleet from effectively supporting Yudenich's assault even as the Baltic Fleet itself could do little. The overall strategic picture suggested that a Red victory was highly probable, with or without active fleet support. After all, the Bolsheviks had a much larger population than the Whites, controlled the most significant industrial areas, and enjoyed a single purpose that united them: survival. The Whites, on the other hand, did possess more experienced officers, but without a single unified vision and effective coordination between the armies, the Bolsheviks could and did focus their superior numbers on one area at a time, allowing them to defeat their enemies piecemeal. A large coordinated and concentrated effort by the Entente might have tipped the balance, but domestic political concerns and a general sense of war-weariness after World War I prevented the Entente intervention from gaining the necessary momentum and materiel to affect the outcome.⁴⁰⁸

⁴⁰⁷ Dotsenko, *Slovar biograficheskii morskoi*, 152; Kasatanov, *Tri veka Rossiskogo flota II*, 171–72; Vatsetis to Trotsky and Lenin, December 28, 1918, in Meier, *The Trotsky Papers*, I: 222–23.

⁴⁰⁸ Raskolnikov to Lenin, September 6, 1919, in Meier, ed., *The Trotsky Papers*, I: 666–69.

The Kronstadt Rebellion and the traditionalists

The Kronstadt Rebellion should have made a significant impact on naval affairs, but in the short term, it did not. After all, a portion of the Soviet Navy with previously impeccable loyalty had directly and openly challenged the Bolshevik regime. Despite that, the consequences for the navy were surprisingly mild. Those directly involved in the uprising were swiftly and brutally punished, to be sure, but the navy as an institution was not. The Red Army took over control of the Red Fleet, renaming it the *Upravlenie Voennno-Morskikh Sil RKKA*, or the Directorate of Naval Forces of the Red Army, but largely left the normal operation of the fleet to those who were already in place. A. V. Nemits lasted a few months before being replaced, and the person who replaced him (E. S. Pantserzhanskii) was a traditionalist to an even greater extent than Nemits. Benign neglect continued without much more oversight than had existed previously. The main reason that so little changed was Trotsky, who did his best to protect the navy as much as he could. Disposing of the traditionalists would have meant removing the *voenspetsy* in large numbers, and the Red Navy was simply not in a position to endure those blows, particularly after the damage done in World War I and the Russian Civil War.

Fighting for the Bolshevik regime and the Red Army in particular did not end with the successful conclusion of the Russian Civil War. In the waning stages of the Civil War, Field Marshal Józef Piłsudski and the Polish army took advantage of the Bolshevik distraction to claim those portions of Ukraine which were historically Polish, beginning with an impressively fast drive on Kiev on May 6, 1920, that took less than two weeks. The Red Fleet played no major role in that conflict, as the Polish coastline consisted only of the city of Gdansk (formerly Danzig) and a small area surrounding it. Gdansk's unique status as a Free City precluded it from blockade or, at the very least, made blockading it extremely unattractive and risked an expansion

of international involvement in the Russian Civil War, which was winding down but still going on during the Soviet war with Poland. Thus, the Red Army would bear the brunt of offensive operations during the Soviet-Polish War. As for the results of the war, they had no territorial implication for the Red Fleet, as the successful Poland ultimately gained little territory from the Treaty of Riga. However, the war did have some indirect implications. M. N. Tukhachevsky gained a considerable amount of prestige as the main Red Army commander during the war, eventually leading him to the office of Chief of Staff of the Red Army in 1925. The war, specifically the contentious debate over whether to target Lublin or Warsaw as the principle Soviet objective during the summer of 1920, also finalized the break between Stalin and Trotsky.⁴⁰⁹ With the various intrigues in Moscow and the fighting in Poland, the Red Fleet was left to its own devices, and one of the first tasks that the Red Fleet set for itself was to analyze its own performance in World War I and the Russian Civil War.

The Red Fleet underwent considerable turnover at the highest levels in 1919 and 1920. The People's Commissariat for Naval Affairs, on the whole, existed purely as a bureaucratic organ and most of the important decisions were made by the Commanders of Naval Forces. V. M. Altfater died of a heart attack in 1919 and was replaced by Y. A. Berens, whose tenure lasted until February 1920, when Berens was in turn replaced by A. V. Nemits. After completing his

⁴⁰⁹ For the status of Gdansk (referred to in the Treaty of Versailles as Danzig, the German name), see Section XI, Articles 100–108 of the Treaty of Versailles, available at <http://avalon.law.yale.edu/imt/partiii.asp#art100>, accessed September 6, 2015. A good overview of the Soviet-Polish War (sometimes referred to as the Russo-Polish War) is Mawdsley, *The Russian Civil War*, 250–61. The Treaty of Riga is at <http://www.forost.ungarisches-institut.de/pdf/19210318-1.pdf>, accessed September 6, 2015. There is a brief biography of Tukhachevsky at A. V. Ganin, "Tukhachevsky Mikhail Nikolayevich," <http://100.histrf.ru/commanders/tukhachevskiy-mikhail-nikolaevich/>, accessed September 6, 2015. Finally, for the break between Trotsky and Stalin during the Russo-Polish War, see Mawdsley, 257–9 and Robert C. Tucker, *Stalin as Revolutionary 1879–1929: A Study in History and Personality*, (New York: W. W. Norton & Company, 1973), 203–7.

initial training at the Naval Academy in 1900, Nemits held a number of minor posts, including teaching artillery assistants for a brief period in 1903. Beginning in 1907, he was attached to the Naval General Staff, and became a staff officer at *Stavka* during World War I. In 1915 he received his first active fleet command as commander of the gunboat *Donets*, parlaying this assignment into greater and more active command roles, culminating as a Rear Admiral in command of the Black Sea Fleet in the summer of 1917. He held that post until his promotion to Commander of Naval Forces in February 1920. F. F. Raskolnikov, the Deputy People's Commissar for Naval Affairs, requested and was given the duty of securing Soviet Russia's access to oil from Baku in May 1920 after his success in the Caspian Sea. Instability at the top ensured that any official history of the Red Fleet's World War I performance had no patron willing to spend resources on such a project, so the navy had to turn to outside help. One of the experts that Nemits brought in was the former Naval Minister I. K. Grigorovich.⁴¹⁰ Although the committee that Grigorovich served on did not accomplish much (despite Grigorovich himself penning articles for *Morskoi sbornik*), one member of that committee, B. B. Zherve, ended up as an important naval strategist and participated in the debates that captured the attention of the naval high command throughout the 1920s.

⁴¹⁰ Dotsenko, *Slovar biograficheskii morskoi*, 19, 275–76; Kuroyedov, *VMES*, 83, 525, 586; Trotsky to Lenin, Sklyanskii [Member of the Council of Labor and Defense], and Sverdlov [also a member], May 21, 1920, in Meier, ed., *The Trotsky Papers*, II: 178–81; Committee of Maritime Excursions to Grigorovich, November 14, 1918, RGAVMF [Imperial], f. 701, o. 1, d. 2, l. 1; Decree from the Naval Committee on the Research and Application of the Experience of the War of 1914–1918 at Sea, July 28, 1920, *ibid.*, l. 2; B. B. Zherve [Professor of naval science and member of the Committee] to Grigorovich, July 27, 1920, *ibid.*, l. 3; Zherve to Grigorovich, September 13, 1920, *ibid.*, l. 4; Approval for research in the Russian Public Library from Petroglavarkhiv [Main Archive of Petrograd], *ibid.*, l. 6; Head of the Supreme School of the Navigation Department to Grigorovich, July 2, 1920, July 15, 1920, and August 3, 1922, *ibid.*, l. 7–9; Memo #4 from the Petrograd Province Department of Administration, April 14, 1923, *ibid.*, l. 15; Kuroyedov, *VMES*, 220.

Zherve and a colleague of his, M. A. Petrov, were the leaders of what have been referred either as “the Old School” or the “traditionalists.”⁴¹¹ Zherve had combat experience in both the Russo-Japanese War and World War I, but never held an independent command of a ship, often considered the *sine qua non* to admiral’s rank in the Russian Imperial Navy (or its equivalent in the Soviet Navy). In the early 1920s, he spent most of his time on the naval historical committee, including giving a couple of well-received lectures and writing two books, *Znachenie morskoi sily dlya gosudarstva* [The significance of a naval force for a state] and *Morskaya strategiya Napoleona* [The naval strategy of Napoleon]. Petrov, younger than Zherve, did not participate in the Russo-Japanese War, but served as a staff officer during World War I, with his career culminating as Chief of Staff for the Baltic Fleet in 1918. After that, Petrov was placed into reserve status, but was named to head the Soviet Naval Academy shortly thereafter, an appointment he held periodically throughout the 1920s. He occasionally was restored to active service, unlike Zherve, including a brief term as Chief of the Operations Directorate for the Red Fleet in 1920–21.⁴¹² Petrov and Zherve were both proponents of a strong navy for Soviet Russia, a navy similar to the one that fought World War I. They—and their traditionalist allies—dominated naval strategic thinking for much of the early 1920s, and in the absence of a strong figure at the top of the navy, effectively set the tone for naval policy.

Zherve and Petrov were both Mahanians, in the sense of American naval theorist Alfred Thayer Mahan. They favored a powerful battleship fleet as a means to secure “command of the sea.” Soviet theory, unlike Mahan, recognized various stages of command of the sea: *full*

⁴¹¹ I will use George Hudson’s terminology, “traditionalists” for the neo-Mahanians and “modernists” for the devotees of the Civil War experience in the Red Fleet, in this section.

⁴¹² Dotsenko, *Slovar biograficheskii morskoi*, 145; Kuroyedov, *VMES*, 603.

command of the sea, which meant that a navy had complete freedom of action to carry out any mission it saw fit; *conditional* command of the sea, which existed when the enemy fleet was blockaded, as there was a chance of a breakout at any time; and *disputed* command of the sea, which meant that neither fleet had true command of the sea. The traditionalists initially considered anything less than *full* command of the sea a failure for Soviet naval forces. Zherve defended this concept of Mahan's in his own words in the Soviet-era naval journal *Krasnyi Flot*: "It is minor, you see, to cut the sea communications of the enemy with the outside world; this is only half the job in the sea. There remains still another position, no less if not more important: *to guarantee your [own] communications with the outside world. Can this mission be realized by the submarine?*"⁴¹³

In other words, submarines alone could not protect Soviet shipping or allow the Red Army to shift troops to new theaters; they needed escort vessels and a battleship fleet to achieve full command of the sea. At the same time, of course, it was unlikely that Soviet Russia could afford to build a fleet of the size or caliber demanded by the naval situation of the new country. Some theorists, like Zherve, argued that the construction of a battleship fleet was top priority, even to the exclusion of economic considerations. Petrov differed from his colleague in this respect, recommending a temporary reliance on what he termed "positional warfare": using fixed coastal fortifications to augment the power of the fleet and focusing, in the short term, on cruisers and destroyers. At the same time, however, a purely passive role for the navy could

⁴¹³ Quoted in George E. Hudson, "Soviet Naval Doctrine under Lenin and Stalin," *Soviet Studies* 28, no. 1 (January 1976), 44. Emphasis in the original, per footnote in the article. For Soviet concepts of command of the sea, see Robert Waring Herrick, *Soviet Naval Theory and Policy* (Washington: US Government Printing Office, 1988), 3–4. Herrick credits these concepts to an article of Zherve's in *Morskoi sbornik* written in June 1923 (see Herrick, *Soviet Naval Theory*, 17, footnotes 8–10).

never truly achieve command of the sea in any substantial way. It had to have some means of counterattack, which was why battleships were ultimately necessary, even if they were delayed until the Soviet economy recovered.⁴¹⁴

Another key component of the traditionalist viewpoint was that the Red Fleet deserved equal treatment with respect to the Red Army. This viewpoint included equality of funding and prestige. The traditionalists gladly accepted that the fleet was subordinate to the *Revvoensoviet*, but insisted that a member of the fleet must be part of the committee. Future Chief of Naval Forces V. I. Zof wrote in *Morskoi sbornik* in 1922 that “the fleet must be part and parcel of the workers’ and peasants’ government.” The struggle for the traditionalists was to find what kind of place there was for the navy within the Bolshevik regime. The *Revvoensoviet* was dominated by army officers, who naturally favored their own service in discussions of funding and resources. Even as late as 1925, Zof complained that the RKKF was underrepresented on the *Revvoensoviet*. However, the political circumstances that governed the regime’s relationship with navy changed radically early in 1921. Even the most hardened traditionalist was forced to reevaluate his position and his opinions after the Kronstadt Rebellion, which ultimately resulted in a Red Fleet completely subordinated to Red Army control.⁴¹⁵

With the loss of Finland, Estonia, Latvia, and Lithuania, Soviet Russia had a much smaller Baltic coastline than the Russian Empire, which only elevated the importance of Kronstadt as the main naval base of the Baltic Fleet. As a result, any sort of disturbance at Kronstadt would have been a serious impediment to the operation of the fleet as well as a possible position from which to challenge the Bolshevik regime once again. A Russian émigré

⁴¹⁴ Ibid., 46 and Herrick, *Soviet Naval Theory*, 1–5.

⁴¹⁵ Hudson, “Soviet Naval Doctrine”, 47.

organization, called the Russian National Committee, identified the inherent weakness of Kronstadt within the construct of the Soviet government as a whole. In a document dated February 28, 1921, G. F. Tseidler wrote about the possibility of a rebellion on Kronstadt supported by France or other members of the Entente. Kronstadt was naturally isolated from the rest of Russia by virtue of Kronstadt being an island, at least when the Gulf of Finland was not frozen; there was a pre-existing tendency against the Bolshevik regime; and most importantly, it was relatively easy to prepare such an uprising in complete secrecy from major government officials in Moscow. However, the Russian National Committee recognized that success was impossible without foreign support, specifically French support, in the sense of money, food, and a possible appearance by the French navy after the uprising was successful. Another important element could have been possible support from Wrangel, who was still holding onto Crimea in 1920. Lending some credence to the idea that France did support the Kronstadt mutiny was the fact that reports of the uprising appeared in the French press two weeks before the actual event, something noted by Lenin himself in his piece, “The Lessons of Kronstadt.” Scholar Paul Avrich attributes the article in the French newspaper *Le Matin*, as well as other papers, to a correspondent for the Russian émigré news agency “Russunion,” based in Helsinki. The motivation—and strange timing—for the articles is unknown, but Avrich considers the most likely candidate the detention of a Kronstadt delegation in Moscow around that period.⁴¹⁶ There

⁴¹⁶ G. F. Tseidler, “Memorandum on the Organization of an Uprising in Kronstadt,” in V. I. Lenin and L. D. Trotsky, *Kronstadt* (New York: Monad Press, 1979), 26–31; V. I. Lenin, “The Lessons of Kronstadt”, March 8, 1921, in *ibid.*, 44. There is an article in the *Le Matin* of February 9, 1921 that does indeed reference a mutiny at Kronstadt. See <http://gallica.bnf.fr/ark:/12148/bpt6k573509g/f3.image.r=kronstadt.langEN>, accessed September 16, 2015. The original version of the Tseidler memorandum, currently housed at Columbia University in New York, has the date 28/ /1921 on it, with no month. Paul Avrich, the scholar who discovered the document, considers February

is no recorded evidence of open French support for the Kronstadt Rebellion, or from any other Entente country's government. However, the idea that an Entente power might support the Kronstadt rebels was a very real threat to many key Bolsheviks, especially when the fact of Kronstadt rebelling was itself a complete shock.

One of the reasons that major Bolshevik figures, including Lenin and Trotsky, were so taken aback by the Kronstadt Rebellion was that Kronstadt had been one of the most steadfastly Communist areas in all of Soviet Russia, dating back to the October Revolution. A measure of Kronstadt's importance was that Raskolnikov was taken out of Baku and sent to Kronstadt to conduct a purge of the Communist party there.⁴¹⁷ Even after that purge, however, Kronstadt had 2900 full members of the Communist party and 600 candidate members, out of 50,000 total inhabitants, about 27,000 of which were directly associated with the Baltic Fleet. The Political Directorate of the Baltic Fleet even entertained ideas of Kronstadt sailors being the potential seed for global revolution, as they could train select activists from other countries. However, there were already some signs by the late summer or early autumn of 1920 that some of this resolve was beginning to wane.⁴¹⁸

the most likely candidate based on information within the memo. See Paul Avrich, *Kronstadt, 1921* (Princeton, NJ: Princeton University Press, 1970), 108. For the timing of the Kronstadt articles, see *Ibid.*, 98.

⁴¹⁷ This particular purge—as with most purges of the Communist party before the 1930s—was not along the lines of the Stalinist purges of 1937–38. The purges of the 1920s were simply about removing people from the party's membership lists, whether because they were opportunists (i.e. joined the party simply to help with employment or prestige), had questionable loyalty (perhaps as formerly associated with either the Imperial regime or the Provisional Government), or simply were not enthusiastic enough for the party's leadership. Nobody was executed or imprisoned, only removed from the party.

⁴¹⁸ Israel Getzler, *Kronstadt 1917–1921: The Fate of A Soviet Democracy* (Cambridge: Cambridge University Press, 1983), 205.

I. I. Yasinskii, a prominent writer and lecturer, visited Kronstadt in September and October 1920 to learn what he could about the political climate of Kronstadt by interviewing 400 recent recruits to the navy. His interviews left him disturbed and concerned about the future of the Russian fleet, as many of the new sailors had little or no knowledge about politics, and some were completely illiterate. Yasinskii hoped that the existing cadre of sailors on Kronstadt would tutor the recruits, but had his doubts. There were still plenty of long-standing Bolsheviks among the Kronstadters: 93.9% of the crews of the two largest ships, *Sevastopol* and *Petropavlovsk*, had joined the navy before or during the World War I. There were only 137 new recruits added to those crews between 1918 and 1921, three of which came in 1921 itself. Another, more positive, assessment came from a former sailor named Skoromnyi, who was enthusiastic about the level of discipline he saw on the dreadnought *Sevastopol*, holding that ship up as an example for the rest of the fleet.⁴¹⁹

A lack of loyalty to the Bolshevik or Communist cause, therefore, was not the principal cause of the Kronstadt uprising. It was far more common, instead, to see commissars or other political figures chastised as not being communist *enough*. Complaints, of which there were 211 at the end of 1920, were always about the rigors of War Communism, specifically forced requisitions, or general corruption and abuses by local party officials. Kronstadters hated Raskolnikov in particular as a symbol of the excesses common in high party leadership, who had any number of perquisites while the sailors of peasant origin had livestock taken from them and their families arrested for resisting. As food stocks dwindled, the lifestyles of the political elite only became more aggravating and odious. Making matters worse, Raskolnikov was replaced as part of a power struggle between Trotsky and G. E. Zinoviev, the party boss in Petrograd, with

⁴¹⁹ Ibid., 206–08.

the blunt N. N. Kuzmin, Raskolnikov's deputy. Regardless of his lifestyle, Raskolnikov had done his best to maintain order and discipline while centralizing power; Kuzmin's approach was to decentralize and, under orders from Zinoviev, attack the outgoing regime. The resulting chaos in the upper echelons of the party structure made it easier for unauthorized meetings of the crew to take place without the knowledge of commissars or the naval high command. Exacerbating the food shortages was a decision made on January 22, 1921, to cut all bread rations in Russia's largest cities – including Petrograd and therefore Kronstadt – by one third for ten days. Already on February 15, 1921, the chief of the organizational section of the Political Directorate of the Baltic Fleet was predicting a mass uprising over the question of forced requisitioning, and the Tambov peasant revolt – about that very issue – had already occurred on February 2, giving Tukhachevsky his first experience in crushing a revolt. While Lenin tried to work out a solution to the problem and Trotsky opposed him, largely on the grounds that labor had to act as soldiers did, completely subservient to the state apparatus, the largest urban areas in Russia experienced strikes and general unrest. Only after the general strikes spread to Petrograd did the Kronstadt mutineers act, beginning on February 28, 1921.⁴²⁰

The first stage of the mutiny involved the crews of Soviet Russia's two largest ships, the dreadnoughts *Sevastopol* and *Petropavlovsk*, when they passed a resolution demanding new elections and various civil liberties designed to weaken the control of the Bolsheviks in Russia. To address the problem of food requisition, the Kronstadters wanted to give the maximum freedom possible to peasants to control their own buying and selling decisions. They also wanted

⁴²⁰ Ibid., 212–13; Service, *Lenin*, 422–5; Isaac Deutscher, *The Prophet Armed: Trotsky 1879–1921* (Oxford, UK: Oxford University Press, 1956), 508–09; Richard Pipes, *Russia under the Bolshevik Regime* (New York: Alfred A. Knopf, 1993), 379; Kasatanov, *Tri veka Rossisskogo flota*, 250.

all permanent military detachments disbanded, to be replaced with a militia that could be mobilized or demobilized as needed. This move was not hastily considered or rushed. Planning began on February 26, two days before the event, and followed a fact-finding mission of several Kronstadt sailors who went to Petrograd to observe the conditions there. The Soviet government wasted no time in responding and sent the Chairman of the All-Russian Central Executive Committee of Soviets M. I. Kalinin, along with other high ranking party officials, to discuss the petitions the following day, March 1, 1921, a visit that was extremely well attended: estimates range from 15,000 to 16,000 sailors at Anchor Square, the central meeting place on the island.⁴²¹

Kalinin, recognizing the inherent hostility of the crowd, claimed illness and wanted the meeting moved to a smaller location where his voice would not be affected (and, as a happy coincidence, he would not have to face a crowd of thousands of angry sailors). When his attempt at a change of venue failed, Kalinin tried to address the crowd, but was constantly shouted down by those present. Other party functionaries only made the situation worse. When Kuzmin tried to remind the sailors of Kronstadt's glorious past, one member of the crowd noted that Kuzmin's own past was checkered, and that at one point, Kuzmin had ordered a Roman-style decimation in northern Russia. Kuzmin's response was to say that "you would have shot every fifth and not every tenth," which only served to further inflame the passions of those present. Instead of calming down the situation, the visit of Kalinin and his colleagues only exacerbated it, and every sailor present (minus those Kalinin had brought along) voted to confirm the resolution from the *Petropavlovsk*. The sailors voted to send a small delegation of thirty Kronstadters to Petrograd to explain their positions and to invite a similar delegation from Petrograd. They also agreed to call a Conference of Delegates, composed of two men from every crew, army unit, and all civilian

⁴²¹ Woodward, *The Russians at Sea*, 197; Getzler, *Kronstadt*, 213–15.

institutions, that would set up the parameters for new elections to a Kronstadt Soviet in the near future.⁴²²

Throughout the course of March, the Kronstadt mutineers became more and more radicalized. The day after the meeting at Anchor Square, the Conference of Delegates escalated from the reform of the existing communist system to outright secession for Kronstadt. Kuzmin attempted to warn them against this tactic, but his credibility was completely gone and nobody listened to him. Kuzmin himself was arrested, as were other key party officials who had remained on the island but not shown solidarity with the revolutionary movement. Kuzmin's warning proved prophetic, as the Soviet government immediately ordered the repression of the rebellion. Trotsky arrived in Petrograd on March 5, three days after Kronstadt declared independence, and the assault on Kronstadt began on March 7, under the direct command of Tukhachevsky, who used special elite units of loyal soldiers interspersed within the regular formations to ensure that none of his men defected to the Kronstadters.⁴²³

By March 18, the rebellion was over. Three major factors probably ensured the doom of the Kronstadt Mutiny. First, some of the Kronstadters were under the impression that their message was potent enough to inspire a Russia-wide uprising. This impression is evident from the Kronstadt edition of *Izvestiya*, published on March 8, which attacked the Bolshevik regime and the *Cheka* (the precursor to the modern day KGB), accusing them of betraying the working class revolution that the Bolsheviks had initially propagated in favor of an autocracy familiar to anybody who had suffered under the Tsars. The newspaper directly linked the *Cheka* to the *oprichniki*, Ivan the Terrible's secret police and personal enforcers in the sixteenth century, a

⁴²² Getzler, *Kronstadt*, 215–17. Quote is from 216.

⁴²³ *Ibid.*, 217 and Pipes, *Russia under the Bolshevik Regime*, 382–83.

symbol of the worst elements of the Russian Empire. However, no larger uprising materialized. Most of Soviet Russia was displeased with how heavy-handed Trotsky and Tukhachevsky had been in repressing the rebellion, but it did not provoke an open reaction against the government or its methods.⁴²⁴

Second, Lenin undermined the intended effect of the Kronstadt Rebellion by working to push a significant change to Soviet Russia's economy in the New Economic Plan, or NEP. NEP was more than simply an end to War Communism and forced requisitioning: it envisioned a small-scale return to privatization for small producers. It was, in the truest sense, anti-Communist, as it allowed for private property, and NEP naturally engendered significant debate and rancor among the Bolsheviks in Moscow. Another part of NEP was normalization of relations with the rest of the world, so as to encourage foreign investment in Soviet Russia, and that too was unpopular among some of Lenin's colleagues. The Kronstadt Rebellion, however, encouraged the Communist Party to close ranks against a new threat, and Lenin was able to get NEP passed after it was crushed. Without NEP, which eventually ended the requisitioning program and improved the Soviet economy considerably, the brutal repression of the Kronstadt Mutiny might well have triggered a general uprising against the government.⁴²⁵

Finally, the actual timing of the Kronstadt Mutiny was terrible. Indeed, the timing is probably the best evidence that there was no significant foreign influence or massive anti-Communist conspiracy involved in Kronstadt. Choosing to rebel when the Gulf of Finland was still frozen both negated the Kronstadters' greatest strategic advantage—control of the two dreadnoughts and most of the rest of the Baltic Fleet—and made it possible for Tukhachevsky's

⁴²⁴ Pipes, *Russia under the Bolshevik Regime*, 383–87.

⁴²⁵ Service, *Lenin*, 426–28.

troops to cross to Kronstadt, on the ice, and end the rebellion fairly rapidly. Had those in charge of the mutiny waited just a month or two, for the Gulf of Finland to thaw, they might have held out much longer. A sustained resistance might even have encouraged the kind of foreign support that Lenin alleged that the Kronstadt mutineers already had. In any case, the Kronstadt Rebellion probably could not have occurred at a worse time, in terms of long term survivability.

Somewhat surprisingly, the Kronstadt Rebellion had little effect, in the short term, on the traditionalists' predominance in naval strategy; after all, if previously loyal communists were willing to resist the regime, then high-ranking ex-Imperial officers were trusted even less. It did weaken some of the core tenets of traditionalism—specifically the insistence on independence from the army and equality in terms of funding—because of the administrative changes that occurred as a result of Kronstadt. The person in charge of implementing the new changes was E. S. Pantserzhanskii, who replaced Nemits as the Commander in Chief of the Soviet Navy at the end of 1921. Nemits and Pantserzhanskii stood in stark contrast to one another. Nemits's pre-Bolshevik career had been primarily as a staff officer; Pantserzhanskii, on the other hand, never attended the Naval Academy. He began his career in 1909 as a *yunker flota*, a rank given to some sailors who completed college as a civilian. Somewhat analogous to the institution of ROTC in the American military, these sailors were considered officers but did not actually hold the rank and held no authority until they completed some service at sea and passing the necessary exams. In 1911, Pantserzhanskii completed those requirements and served in World War I as an officer. He completed the torpedo officer's course in 1916 and was the executive officer for a destroyer for the last few months of the war. From those humble beginnings he rose rapidly, becoming Commander of the Caspian Sea Flotilla in October 1920 and replacing Nemits as Commander of

the Black Sea Fleet from December 1920 until he replaced Nemits once again in December 1921 as Chief of Naval Forces.⁴²⁶

Pantserzhansii's short career in the Russian Imperial Fleet made him an attractive candidate for the position, as he was beholden to the Bolshevik regime for his success as a naval officer. However, the position itself underwent considerable changes during his tenure. He was no longer the "Chief of Naval Forces," but the "Naval Assistant to the Commander in Chief [of the Army]." The headquarters for the navy were relocated from Petrograd to Moscow in 1922 and in 1923, the People's Commissariat for Naval Affairs was absorbed into the People's Commissariat for the Army, creating the new People's Commissariat for the Army and Navy. Finally, in 1924, the RKKF officially ceased to exist and was renamed the *Upravlenie Voennomorskikh Sil RKKA* (or UVMS), the Directorate of Naval Forces for the Workers' and Peasants' Red Army.⁴²⁷ The intended effect of all of these changes was to reduce the autonomy of the navy and completely subordinate all major decisions to the army, thus ensuring the navy's loyalty as an organization. Somewhat stubbornly, the traditionalists continued to maintain their power within the navy even as the navy institutionally grew weaker.

One of the key reasons that the Soviet navy continued to exist and did not lose more power than it had was the personal intervention of Trotsky. Lenin, shortly after the repression of the Kronstadt Rebellion, wrote to Trotsky that "Should we not 'close down' the navy *completely* for a year? What is it for? ... Let the navy suffer. The Soviet regime will gain."⁴²⁸ While Trotsky's reply, if he made one, was lost, Lenin either changed his mind or Trotsky convinced

⁴²⁶ Dotsenko, *Slovar biograficheskii morskoi*, 294–95; Kuroyedov, *VMES*, 944.

⁴²⁷ Finding aid for RGAVMF, fond 1 (Naval General Staff), 1–2 and Gunnar Aselius, *The Rise and the Fall of the Soviet Navy in the Baltic, 1921–1941* (London: Frank Cass, 2005), 73.

⁴²⁸ Lenin to Trotsky, March 21, 1921, in Meier, et al., *The Trotsky Papers*, II: 414–5.

him not to do it.⁴²⁹ As a general rule, however, Trotsky often found himself defending the navy against Lenin. Lenin was not entirely anti-navy—in April 1921, he approved an agreement that saw Russia receive technical assistance from the German firm “Blohm und Voss” for the construction of submarines—but he was the one who most consistently urged that Trotsky get rid of pernicious influences within the navy, real or imagined. When Lenin ordered Trotsky to “liquidate” the Naval Department at the end of July 1921, Trotsky’s response, in which he asked for more time, provided some clues as to his motives. First, Trotsky needed the navy to clear up the mines from World War I and defend the Soviet coastline. Second, he argued that the navy had already been reduced enough, from 180,000 to 45,000 personnel. Third, the navy’s responsibility for the upkeep of critical harbor facilities was essential; the proposed solution was to transfer them to another ministry, which Trotsky insisted would not make harbor operation more efficient, but simply transfer the burden to another department without improving anything. Finally, Trotsky had promised Nemits two weeks to make recommendations, and he refused to remove Nemits until he had sufficient time. Trotsky agreed that the People’s Commissariat for Naval Affairs should be dissolved, but any other steps were rash and ill-considered.⁴³⁰ Because of his desire to maintain the navy as much as possible, Trotsky found himself in an uneasy alliance with the traditionalists.

⁴²⁹ Marginalia from Lenin’s note to Trotsky includes a short remark that reads “*Otveta tov. Trotskogo ne naideno,*” or “The reply from Comrade Trotsky has not been found.” Ibid.

⁴³⁰ V. L. Kopp to Lenin, Trotsky, and Chicherin [People’s Commissar for Foreign Affairs], April 7, 1921, *ibid.*, II: 440–3; Lenin to Trotsky, July 30, 1921, *ibid.*, 572–3; Trotsky to Lenin, August 2, 1921, *ibid.*, II: 574–9. John Erickson’s *The Soviet High Command* refers to a possibly apocryphal conversation between Lenin and Trotsky ca. 1924 in which Lenin insists that the entire Baltic Fleet be scuttled, which Trotsky convinced him not to do. Whether or not the conversation took place is unknown, and Lenin’s mental health was almost completely destroyed in 1924. See John Erickson, *The Soviet High Command* (London: Frank Cass, 2001), 176.

One other factor, apart from Trotsky's role as a defender of the fleet, kept the traditionalist viewpoint *en vogue*: their objectives were so unrealistic as to be easily set aside on the basis of economic considerations. Their wishes simply could not become reality in the Soviet economy of the early 1920s. Whether or not their objectives might be desirable was beside the point; Trotsky did not want to dispose with the expertise of the ex-Imperialist naval officers, so he tolerated their ideas as a necessary cost of doing business with them. According to Zherve, who discussed the ideal Baltic Fleet in a series of lectures from 1919 to 1921 at the Soviet Naval War College, the best force composition was eight battleships, four heavy cruisers, sixteen light cruisers, and 32 destroyers, without the presence of submarines or naval aircraft. This recommendation considered the most likely future opponent of the Baltic Fleet to be the Royal Navy. It is somewhat unclear whether Zherve thought the submarines and aircraft went without saying, or whether they simply had no place in his plans. In either case, based on what remained of the Baltic Fleet after the Civil War, Zherve's ideal fleet was completely unattainable. As compared with 1913, the purchasing power of the ruble had fallen by a factor of 13,000. The raw materials needed to rebuild a fleet were equally difficult to get: Soviet Russia's smelting of cast iron was at 3% of 1913 production, steel at 5%, coal extraction at 30%, and oil production at 42%. Maritime transport was only 15% of the 1913 capacity. Even if Russia did have raw materials, they lacked shipyards, as beginning in 1918, all active military shipbuilding orders were cancelled and shipyards converted to peaceful production as part of the demobilization process. Many of Russia's finest shipyards were in territory that no longer belonged to Soviet Russia, such as Finland, Latvia, and Estonia. Some shipyards were damaged or otherwise put out of commission in Petrograd and especially in what is now modern-day Ukraine as a result of

World War I or the Civil War.⁴³¹ Regardless of what the traditionalists said or claimed, Russia could not—and therefore would not—build the type of navy they advocated, which meant the discussion was a purely academic one. The lack of a genuine alternative also helped the traditionalists maintain their grip on the navy’s academic institutions. However, that began to change with Trotsky’s replacement as NKVM with M. V. Frunze.

The transition from Lenin to Stalin and the rise of the modernists

A key part of the benign neglect that the navy enjoyed during the early years of the Soviet Union was Trotsky’s ability to protect the *voenspetsy* and their traditionalist views on the navy. However, once I. V. Stalin and Trotsky began contesting for Lenin’s position after Lenin’s stroke in 1922, that benign neglect started to fade away. Stalin seized power, largely because of his control over the party machinery, and was the major figure in Soviet politics after Lenin’s death in 1924. With Stalin’s influence ascendant, in January 1925, Trotsky resigned as NKVM [People’s Commissar for Military and Naval Affairs], and for the rest of the 1920s, faced exile and expulsion from the Communist Party.⁴³² The new NKVM, M. V. Frunze, was ready to make significant changes to naval policy.

Stalin’s choice to replace Trotsky was M. V. Frunze. Frunze had been allied politically with Stalin, Zinoviev, and Kamenev to the point where Frunze was Trotsky’s deputy as of May 1924, after Trotsky’s deputy, E. M. Sklyanskii, was removed for permitting serious deficiencies and disorganization in the Red Army. Frunze was a Bolshevik from 1904, making him

⁴³¹ Kasatanov, ed., *Tri veka Rossisskogo flota*, 246–7; Tsvetkov, *Sudostroenie v nachale XX veka*, 478–9; Herrick, *Soviet Naval Theory and Policy*, 2. Zherve’s lectures were not published until 1965, so only those who attended the lectures or heard about the lectures from another source would have known about them. See Herrick, *Soviet Naval Theory and Policy*, 17, footnote 1.

⁴³² Pipes, *Russia Under the Old Regime*, 483–86.

acceptable to the party leadership as well. He was also extremely popular in his own right as a Civil War hero, with his status improved even more by the fact that he had no military experience prior to the Civil War. The new People's Commissar immediately began implementing reforms in the operation of the Red Army and the UVMS, the renamed Red Fleet. In an article published after his death, Frunze wrote about the navy's problems as a result of the Civil War:

Especially difficult blows have fallen on the fate of the navy. As a result, we were deprived of the biggest and best part of our materiel, the vast majority of experienced officers and knowledgeable commanders, who were still playing a larger role in the life and work of the fleet than in all other branches of the military [meaning that the lost naval officers were more important to the navy than the lost army officers were to the army], we lost a full complement of bases and, finally, we lost the fundamental core of the ranks of the Red Fleet.

While that statement might imply that Frunze favored the traditionalists, in reality he did not. Frunze was, in William C. Fuller's concept, a "technologist." In other words, Frunze favored a fully modern army and navy with the latest technology. He rejected the old ways of fighting because they had not produced satisfactory results. Trotsky, on the other hand, was a "magician" in Fuller's dichotomy. According to Fuller, "Magicians held that Russian soldiers possessed compensatory qualities that might allow them to fight with inferior equipment yet prevail notwithstanding." Frunze's interest in modern technologies led him to ultimately develop the

“Unified Military Doctrine,” a new concept for fighting wars based on the uniquely proletarian aspects of the Red Army and UVMS.⁴³³

In his article “Unified Military Doctrine and the Red Army,” published in the periodical *Armiya i revolutsiya* in 1921, Frunze established the Unified Military Doctrine as a method to ensure standardization at every level of a country’s military, applicable generally to any situation. Within the article, he identified three countries—Germany, France, and the United Kingdom—who already had a “unified military doctrine” and examined how that doctrine was constructed based on the unique historical, political, social, economic, and geographic considerations each particular country possessed. Even if the officers of a country’s army preferred another system – such as some French officers’ preference for the German system – unless all of the criteria were met, adopting another country’s system would be inefficient at best or disastrous at worst. Therefore, the Red Army could not adopt the Russian Imperial Army’s system of doctrine, even if it had been inherently successful (which it was not), because a different social class was in charge of the Red Army: the proletariat. Because Frunze, as with all proper Marxists, believed that class struggle was inevitable, they could rely upon not only the Red Army but the proletariat of any country which the Red Army chose to invade as an aid to the defeat of the enemy’s forces and to simplify the task of pacifying the countryside.⁴³⁴

⁴³³ David R. Stone, *Hammer & Rifle: The Militarization of the Soviet Union, 1926–1933* (Lawrence, KS: University Press of Kansas, 2000), 15–16; William C. Fuller, Jr., *Strategy and Power in Russia: 1600–1914* (New York: The Free Press, 1992), 303–04. Block quote is from M. V. Frunze, *O molodezhi* [On youth] (Moscow: Molodaya gvardina, 1937), 62, quoted in Tsvetkov, *Sudostroenie v nachale XX vv.*, 483. Second quote is from Fuller, 303–04.

⁴³⁴ M. V. Frunze, “Unified Military Doctrine and the Red Army,” *Armiya i revolutsiya*, no. 1 (July 1921), translated by David R. Stone, <http://www-personal.ksu.edu/~stone/FrunzeDoctrine>, accessed October 12, 2015.

Because any international struggle would be, by definition, a class struggle, the modernists (who were heavily influenced by Frunze) thought that naval warfare could not be decisive on its own in any future conflict. In the views of the modernists (including the future Chief of the Naval Staff, I. N. Ludri, and the future Chief of the UVMS, R. A. Muklevich), the idea of a large, powerful battle fleet was economically impossible and doctrinally unnecessary. The emphasis of the new Soviet fleet was on small, fast vessels that worked as closely with the army as possible. The general strategy of the fleet was to have an “active defense”; that is, the protection of the Soviet coastline was the fleet’s first priority and, in the process of global revolution, extending that protection to the shores of those countries where the proletariat had seized power. “Active defense” also included working closely with the army to prevent the amphibious landings of the enemy, to flank enemy positions on land where appropriate, and to interdict enemy naval activity, in order of priority. Rather than constructing capital ships, the UVMS would be composed of large numbers of smaller ships, in conjunction with ground-based aviation and coastal defense artillery where applicable. Some modernists, such as aviator A. M. Yakimych, tried to strike a middle ground, calling for a small number of battleships to supplement the smaller ships and advocating for small aircraft carriers, although they were not a part of the mainstream modernist movement. The modernist precepts defeated the traditionalist precepts for a number of reasons, but perhaps most important was the cost of a modernist navy was far lower than a traditionalist one. The modernists also acknowledged the Communist Party’s right to control military affairs and embraced the fusion of the navy with the army, which

also made their viewpoint more palatable to Frunze and other top officials in the Soviet government.⁴³⁵

In order to help the plans of the modernists become reality, however, Frunze and the high command of the UVMS had plenty of work to do. In January 1924, an inspector named A. S. Maksimov wrote a highly worrying report about the distribution of the UVMS's manpower. The entire fleet in 1923 had 23,000 personnel, enough to crew two dreadnoughts, ten destroyers, fourteen submarines, and 30 minesweepers/minelayers. Maksimov discovered that only 20% of the entire UVMS was actually at sea and stationed aboard ships. An additional 11% included support personnel or individuals important to the navy but not stationed aboard ships: that category included staff officers, air bases, and the destroyers and submarines assigned to the hydrographical school. The remaining 68% were on shore, either in reserve barracks, coastal defense zones, or various other schools and academies.⁴³⁶ By comparison, the English fleet of the 1923, which was considerably larger, nonetheless had a much larger 72% of naval officers and crew at sea on active duty. In his conclusion, Maksimov attacked the system, writing, "Just as in the far-off past [the days of the Russian Empire], the department is big, but the fleet is small." In other words, either the department was bloated and needed to be reduced, or the fleet needed to expand. Frunze (as Deputy Chairman of the *Revvoensoviet*) and Pantserzhanskii appealed to the STO (the Council of Labor and Defense, chaired by A. I. Rykov, who also served as the Chairman of *Sovnarkom*) for foreign-built minesweepers, which were necessary to clean up the Baltic and Black Seas from mines that dated back to World War I. The total cost was

⁴³⁵ Herrick, *Soviet Naval Theory and Policy*, 23–25; Hudson, "Soviet Naval Doctrine under Lenin and Stalin," 48–55.

⁴³⁶ The report uses those exact numbers, which leaves 1% unaccounted for.

approximately 100,000 rubles. The country that was to provide those minesweepers was Russia's old enemy, Germany, in one of the early stages in a long and fruitful collaboration between the Weimar Republic (and later Nazi Germany) and the Soviet Union (see next section and Chapter 5). The UVMS also got a reinforcement when France's diplomatic recognition of the Soviet Union in 1924 released some vessels that had been interned at Bizerte after Wrangel's defeat in the civil war, including a dreadnought, a pre-World War I battleship, two cruisers, and a number of destroyers and submarines.⁴³⁷

Once Frunze became NKVM in 1925, therefore, he already had a history of working with the navy. He was hands-on with the navy almost from the moment that he had a real opportunity to do so, and he personally commanded the Baltic Fleet during the 1925 maneuvers. There was also a new Chief of the UVMS during those maneuvers: V. I. Zof, who had been the Commissar of the Navy from 1921 to 1924 and became Chief on December 9, 1924. His background was mostly political, as he had joined the Bolsheviks in 1913 and was elected to the Petrograd Soviet in February 1917. During the Civil War, Zof had been a divisional commissar and Chief of Supply for the Third Army of the Eastern Front, which dealt with Siberia and the Urals. Yudenich and the British incursion into the Baltic Sea prompted Zof's transfer to the fleet and the committee for the defense of Petrograd in the spring of 1919. Zof's appointment as Chief of

⁴³⁷ Quote is from A. S. Maksimov, Untitled report to the *Revvoensoviet*, January 21, 1924, RGAVMF, f. 1483, o. 1, d. 6, l. 11. See also Frunze, "On the question of acquiring foreign minesweepers," April 14, 1924, *ibid.*, ll. 19–20; Frunze to the Council of Labor and Defense [STO], May 19, 1924, *ibid.*, l. 23; Report to the Chief of Staff of the RKKF [*sic*], October 30, 1924, *ibid.*, l. 51. For a full list of ships that were interned and restored to the Soviet fleet, see N. Gutan, "Kratkii ocherk deistvii flota pri evakuatsii Kryma v noyabre 1920 goda" [A brief summary of the actions of the fleet during the evacuation of Crimea in November 1920], <http://militera.lib.ru/h/whitefleet/22.html>, accessed October 15, 2015, specifically under the section "Podgotovka evakuatsii." The list which occurs earlier in the document is missing some important ships, specifically the battleship *Georgii Pobedonosets* and the cruiser *Admiral Kornilov*.

the Naval Forces was completely unexpected. However, as a naval officer who wrote on Zof noted, “Decrees are not to be discussed; they are to be fulfilled.” In reality, Pantserzhanskii had been demoted for his traditionalist viewpoint, which he expounded upon in several articles and letters that he sent to Trotsky. While Trotsky had protected Pantserzhanskii while he could, after Trotsky was removed as NKVM, Pantserzhanskii lacked a patron. As Deputy NKVM, Frunze had been rather positive about the head of the UVMS, saying that as a result of Pantserzhanskii’s hard work, “we have made a gigantic leap forward compared to the previous year.” Even if Frunze liked the head of the UVMS, other high-ranking members of the military did not, particularly Tukhachevsky, who disliked Pantserzhanskii for his desire to see the navy placed on an even footing with the army. As a result, Pantserzhanskii was demoted and returned to the Black Sea as Commander in Chief.⁴³⁸ Regardless of why Pantserzhanskii was replaced, it was Zof who led the navy in 1925.

The 1925 maneuvers—at which Frunze commanded the Baltic Fleet and Zof assisted—provided a number of lessons to Frunze and the UVMS. The task of the Baltic Fleet in these exercises was to first lay a minefield around the island of Gogland and the entrances to the Gulf of Finland, then to take two battleships and four destroyers to eliminate “light” enemy forces near their base, concluding with a pitched battle between Russian and enemy battleships near Gogland. The last phase included cooperation between Russian ships and available coastal defense assets. The Baltic Fleet would “win” if they drove off the enemy fleet with unspecified but “serious” losses. The evaluation of the exercises—which ran from September 20 to 23—

⁴³⁸ Dotsenko, *Slovar biograficheskii morskoi*, 157–8; Erickson, *The Soviet High Command*, 178. First quote from V. Alekseyev, “Obzhalovaniyu ne podlezhit” [Not subject to appeal], *Morskoi sbornik*, no. 7 (July 1989), 76; second quote from V. E. Zvyagnitsev, *Tribunal dlya flagmanov* [Tribunal for Flagmen] (Moscow: Terra, 2007), 168.

suggested that while the Baltic Fleet had accomplished many of their tasks, the existing Baltic Fleet was totally inadequate for even command of the Gulf of Finland, and that many of the fleet's officers were unprepared for tactical maneuvering of their vessels. Among other things, the evaluation concluded that the Soviet Union needed more battleships in the Baltic Sea (and the Black Sea, after similar exercises were conducted there in August 1925); more modern light cruisers, destroyers, and torpedo boats; either a larger quantity of land-based aircraft or more vessels capable of carrying them aboard ship, which might or might not include aircraft carriers; general overhaul and modernization for every ship the Soviets already possessed; and increased security for all forms of maritime communication, both in the figurative sense of improved logistical control and in the literal sense of ship-to-ship transmissions. Zof himself called for the modernization of all of the guns that belonged to the fleet, an increased role for naval aviation, and more joint exercises with the army, but also highlighted other areas for improvement, including: "torpedo and artillery accuracy, the means of communication [referring to radios and telephones], the organization of anti-submarine observation, [and] maneuvering as a squadron." The conclusions that the UVMS came to were varied, but revolved around a single theme: the modernization and expansion of the fleet.⁴³⁹

However, those conclusions were the UVMS's alone. The exercises were also carefully reviewed not only by the UVMS and its staff, but the Red Army's staff, the Naval Academy (which was still dominated by the *voenspetsy*, even as the active fleet became less and less beholden to the ex-Imperialists), and the *Revvoensoviet* as a whole. As soon as the additional institutions had a chance to examine the results, the conclusions became more varied and, in some cases, contradictory. All of the parties involved agreed upon the necessity to continue close

⁴³⁹ Kasatanov, *Tri veka Rossiskogo flota II*, 285–87. Quote is from 287.

cooperation between the army and navy and to make the best possible use of the navy's existing assets on the surface, underwater, and in the air. Despite those agreements, there remained considerable difference of opinion about how to best achieve those goals, particularly between the General Staff of the UVMS and the modernists at the Naval Academy. The modernists argued that the army should set overall strategy for the Soviet Union, and that the navy should only act in those areas where the army could not or did not wish to. The navy's staff officers, on the other hand, said that the navy was completely capable of determining their own missions and tasks independently, as long as they fit into the general scheme of military planning. The staff officers (many of whom were traditionalists) won some concessions, to the extent that the UVMS was permitted to conduct operations as it saw fit, but was required to prioritize certain missions over others. The fundamental strategic posture of the Soviet navy after the 1925 wargames was defensive. Naval officers would use the Baltic Fleet's relatively small size as an advantage, as they could more easily concentrate than a larger, more disparate opponent's fleet. The fleet would work in conjunction with coastal artillery, aircraft, and minefields to reduce the size or even eliminate the enemy's fleet. Any anti-fleet operations, however, were secondary to those tasks for which the army required the navy's aid: i.e. fire support for amphibious assaults, protecting the army's flanks and intercepting enemy landings.⁴⁴⁰ This strategic posture represented the triumph of Frunze and the modernists over the traditionalists; even Frunze's unexpected death from a heart attack in October 1925, eight months after he became NKVM, did

⁴⁴⁰ Ibid., 287.

nothing to drastically shift the navy's mission or priorities, in large part due to his replacement: K. E. Voroshilov.⁴⁴¹

Voroshilov, Muklevich, and the development of a new shipbuilding program

Frunze's death ended a brief period in which senior military officials were actively engaged in the navy's future and wanted to make significant changes to naval policy. His replacement, K. E. Voroshilov, left many of Frunze's policies in place, as far as the UVMS was concerned. Voroshilov was only as interested in the fleet as Stalin allowed him to be; in the 1920s, Stalin was not the least bit concerned about the UVMS, and thus, neither was Voroshilov. The Chief of the UVMS retained considerable autonomy for naval policy, but that began to change as a new shipbuilding program threatened to siphon resources from the Red Army's budget. The new head of the UVMS, R. A. Muklevich (after 1926), needed to build a rapport with the Chief of Staff of the Red Army, M. N. Tukhachevsky, in order to get things accomplished. Voroshilov himself, however, was rarely a significant impediment to naval expansion, which made sense given his lack of any experience with the navy or naval affairs.

Voroshilov's primary credentials for holding the Soviet military's highest position consisted of his absolute unwavering loyalty to Stalin and his ability to maneuver politically. Trotsky had once told Lenin in 1918 that Voroshilov was capable of commanding a regiment, but nothing larger. Voroshilov did understand how to delegate, however, and for most of his tenure as NKVM (which lasted until 1940, albeit with a title change to People's Commissar for Defense in 1934), he stayed out of the navy's administration. The Chief of the UVMS remained the most significant figure in the day-to-day operation of the fleet, although other individuals

⁴⁴¹ There is some speculation that Frunze's death was not of natural causes. See Stone, *Hammer & Rifle*, 237, footnote 29 for a list of sources on this question.

made significant impacts from time to time. One of these individuals was N. I. Vlasev, an engineer and shipbuilder who was the Chief of the Technical Directorate of the UVMS. Vlasev was one of the principal figures in the efforts to establish the first major Soviet shipbuilding program in 1926.⁴⁴²

Although discussions of expanding the Soviet fleet began as far back as 1921, budgetary cuts prevented any serious progress, and the original, ambitious plan (which included, among other things, six new battleships, four light cruisers, dozens of destroyers, and hundreds of auxiliary ships) was shelved in favor of a new, much more limited plan in 1924. The 1924 plan provided for the repair and/or completion of several pre-Soviet ships, but did not originally authorize any new construction. Some of the ships that were under construction had been worked on fitfully since 1921, including a pair of battleships, a handful of cruisers, and several destroyers, and they required extensive modernization to make them suitable for use in the 1920s. Three of the four *Izmail*-class battlecruisers, none of which were completed, were sold to Germany in 1922; the fourth, *Izmail* itself, was cannibalized for parts after multiple attempts to rebuild it failed. As the traditionalists began to lose sway and the modernists took power within the UVMS, the emphasis gradually shifted away from the larger vessels to smaller ones. In light of the modernists' new strategic priorities, four experimental vessels were added to the 1924 plan: a new type of motorized torpedo boat, capable of long range ocean-going travel, called *glisser*, from the French verb that means "to glide," (sometimes abbreviated as MTB in English,

⁴⁴² Tucker, *Stalin as Revolutionary*, 477; Stone, *Hammer & Rifle*, 21; Dotsenko, *Slovar biograficheskii morskoi*, 83.

for “motor torpedo boat”).⁴⁴³ The first real shipbuilding program, however, was submitted and approved in 1926.

Apart from the four MTBs, the 1926 program represented the first serious efforts by the Soviet Union to significantly expand its navy. Discussions for how to establish the 1926 building plan began in 1925, where a variety of commissions had an opportunity to make suggestions, the first of which was chaired by Voroshilov himself. These commissions established the basic tenor of the program, enough so that the *Revvoensoviet* approved the plan on March 16, 1926.

However, final approval had to come from the STO, which was only delivered on September 27, 1926, after another group of changes were provided by the *Revvoensoviet*. One of the causes of the delay was the appointment of a new Chief of the UVMS, R. A. Muklevich in August 1926.

As with the transition from Pantserzhanskii to Zof, the precise cause of Zof’s replacement is unclear. One cause for dissatisfaction with Zof was his attitude during the sensitive negotiations with Germany to form a collaboration with the German navy (see below). However, in Zof’s case, he may have simply chosen to take a new assignment, as he served in a succession of increasingly more prestigious posts within the Soviet merchant marine, culminating as Deputy People’s Commissar for Maritime Transportation in 1931. His replacement, Muklevich, represented a significant change in the navy’s leadership.⁴⁴⁴

Muklevich, unlike Zof, was a former sailor, as he was conscripted to the fleet in 1912. He completed his education as a machinist at Kronstadt, afterwards becoming an *unter-ofitser* (the equivalent of an American non-commissioned officer) in 1915. He immediately became attached

⁴⁴³ Tsvetkov, *Sudostroenie v nachale XX v*, 484–87. For the etymology of *glisser*, see *Collins’ French to English Dictionary*, <http://www.collinsdictionary.com/dictionary/french-english/glisser>, accessed March 20, 2016.

⁴⁴⁴ Memorandum from Vlasev, November 1926 [undated], RGAVMF, f. 1483, o. 1, d. 27, l. 1; Dotsenko, *Slovar biograficheskii morskoi*, 157–58.

to the revolutionary movements of 1917, helping to organize the sailors under his command. As a reward, he was named the head of the machinist's school from which he had graduated after the February Revolution. Muklevich also participated in the October Revolution, served as a commissar during the Civil War, and was named Commissar of the Military Academy after the war in 1922. Shortly after that, he became an assistant to the Chief of the Red Air Force, serving as the Deputy Chief of the Red Air Force from 1925 to 1926. The Central Committee of the CPSU "highly valued the political and organizational capabilities of the former sailor [and] his ability to persistently implement the party line and the administration for military construction." These qualities made him a suitable candidate to replace Zof, and Muklevich held the post longer than any of his predecessors in the Soviet navy, for five years. Although Zof and Vlasev did much of the work in formulating the initial plan, the plan that was eventually approved clearly demonstrates Muklevich's influence as an influential modernist.⁴⁴⁵

Zof had been a traditionalist, to a certain extent. He persistently argued for more autonomy for the navy to make its own decisions, provided they did not affect the conduct of military operations as a whole. Muklevich, on the other hand, was clearly a modernist. In a 1927 article, published in *Morskoi sbornik*, Muklevich wrote:

A fleet is necessary, but what kind of fleet? To everyone it is clear that building battleships and Washington cruisers is not for us.⁴⁴⁶
We are not concerned with worldwide piracy and, besides, such

⁴⁴⁵ N. Badeyev, "Chelovek gosudarstvennogo uma" [A man of genius for government], *Morskoi sbornik*, no. 12 (December 1989), 83–84; Dotsenko, *Slovar biograficheskii morskoi*, 268. Quote is from Badeyev article.

⁴⁴⁶ "Washington cruisers", sometimes called "treaty cruisers," were very large cruisers that were permitted under the Washington Naval Treaty of 1921–22. Unlike battleships, there was no limit on how many "Washington cruisers" a naval power could build. As the Soviet Union was not a party to the Washington Naval Treaty, Muklevich used the term purely for referential purposes. See Ernest Andrade Jr., "The Cruiser Controversy in Naval Limitations Negotiations, 1922–1936," *Military Affairs* 48, no. 3 (July 1984), 113–120 for more about "Washington cruisers."

cruisers cost too much money. It is better to build the Dnieper dam and Turkestan-Siberian railways than two battleships. We will not construct a big fleet; but by the same token, we need a small fleet as we need air.

The economic argument was a particularly important one for Muklevich, as it was for most of the modernists. Therefore, when the 1926 plan was finalized and approved by the STO, under Muklevich's leadership, it comes as no surprise that it contained mostly smaller (and cheaper) ships, which was the modernist recipe for success. The plan also included some changes in naval strategy and offered some suggestions about how the ships were to be used most effectively.⁴⁴⁷

The 1926 plan was to be completed by no later than 1931. Vlasev, who wrote a detailed report about the 1926 plan, noted that such a long timetable was perfectly reasonable, given that all of the other naval powers had made their own plans already. The Washington Naval Treaty of 1922 also limited most of the other naval powers, although Vlasev did not address this fact in his report. The plan was clearly to be reactive, not proactive, which gave the Soviet Union the ability to tailor their own plan against their potential opponents. For the Baltic Sea, Vlasev wrote that "there is an excellent chance of a struggle with the English fleet, with the aid of coastal defense." He considered the alternate possibility that the Baltic countries, possibly with the aid of Finland, might attempt some sort of offensive, but he believed that the existing Baltic Fleet was more than sufficient to defeat them at sea, even if all of them joined together. In the Black Sea, the Soviet Union's level of aggression depended entirely upon whether or not prospective opponents had battleships; if they did, the Black Sea Fleet would remain near the coast, where coastal artillery

⁴⁴⁷ Hudson, "Soviet Naval Doctrine," 47. The quote is from R. A. Muklevich, "Desyatiletie Oktyabrskoi Revoliutsii i morskoi flot" [The tenth anniversary of the October Revolution and the navy], *Morskoi sbornik*, no. 10 (October 1927), 5, which was quoted in Hudson, "Soviet Naval Doctrine," 50.

and aviation could tip the balance; if they did not, the Black Sea Fleet would be free to operate against the enemy in the open sea.⁴⁴⁸ With these general precepts in mind, the 1926 plan was mostly geared toward five classes of ship: monitors, MTBs, submarines, cruisers, and destroyers.

Each ship fulfilled a specific role within the plan. Monitors were ideal for operations near the shore, in rivers, or near other small bodies of water. The updated Soviet version of the monitor would have modern engines and artillery, but the basic principle was the same: a ship with a shallow draft armed with as much heavy firepower as it could carry without sinking. MTBs (again referred to as *glissery* in the memo) were intended to serve a way to either attack enemy forces in port or to attack the enemy fleet in conditions of poor visibility while in open sea. Soviet submarines were another weapon against possible hostile battleships, and were also to play an important role in coastal defense. New cruisers could pursue fleeing enemy vessels, even battleships, due to their superior speed, and were specifically designed to counter the older, obsolete cruisers and large destroyers that still existed in many fleets. Finally, destroyers were necessary to conduct scouting operations, screen the existing core of battleships, and to operate against other destroyers, submarines, and all other auxiliary craft. Every ship, as considered in the plan, had to either help neutralize the enemy's battleships, directly support the army, or both. The actual construction of the vessels was broken up into two "lines" (lit. *linii*; see Table 4.2). Once completed, the navy would be significantly expanded, and according to Vlasev, "In this way, the fleet of the Soviet Union in 1931 takes on all of the characteristics [that] are called for by the political and economic conditions of the Union, and will be flexibly deployed for the task of close communication with the active army."⁴⁴⁹

⁴⁴⁸ Memorandum from Vlasev, November 1926 [undated], RGAVMF, f. 1483, o. 1, d. 27, l. 1.

⁴⁴⁹ Ibid., ll. 2–3. Quote is from page 3.

Table 4.2. The 1926–1931 shipbuilding program.⁴⁵⁰

Type of Ship	First Line	Second Line	Total
Battleship	--	1 ⁴⁵¹	1
Monitor	--	2	2
Destroyer	3	1	4
Submarine	6	6	12
Escort⁴⁵²	12	24	36
MTB	6	54	60

Table 4.3. Comparison of the Soviet Fleet before and after the completion of the 1926 plan.⁴⁵³

Type of ship	As of 1926 (before the plan)	As of 1931
Battleship	3	4
Monitor	--	2
Cruiser	2	4 ⁴⁵⁴
Destroyers	12	18 ⁴⁵⁵
Submarine	14	12
Escort	5	36
MTB	6	60

⁴⁵⁰ Ibid., 1. 2. This table and Table 4.3 include the entire fleet, both Baltic and Black Sea. The memo does not mention which ships were ticketed for which location.

⁴⁵¹ This battleship was not a newly constructed one, but rather the modernization of the *Poltava*, renamed *Frunze*.

⁴⁵² An escort (“storozhevoi korabl”, literally “guard ship”) in the Soviet fleet served much the same role as escorts did in the American or British fleets, in that they protected transports from submarine attack, but were also equipped to fight off enemy aircraft and torpedo boats, concerns that were not necessarily as high priority in the open sea.

Some were as large as 4000 tons displacement, with top speeds of 35 knots. They tended to be more general purpose ships, serving both as traditional escorts and as frigates or corvettes. See Kuroyedov, *VMES*, 792. For a typical US destroyer escort, see “Whitehurst” at the website of the Naval History and Heritage Command,

<http://www.history.navy.mil/research/histories/ship-histories/danfs/w/whitehurst.html>, accessed October 22, 2015.

⁴⁵³ Memorandum from Vlasev, November 1926 [undated], RGAVMF, f. 1483, o. 1, d. 27, l. 3.

⁴⁵⁴ The two additional cruisers were modernizations of two World War I-era ships, rather than entirely new vessels, based upon the absence of any cruisers in the Vlasev memo.

⁴⁵⁵ A footnote in Vlasev’s memo reads “From this number, only eight will be fully combat ready.”

In order for the 1926 plan to be a success, Vlasev cautioned that the newest technologies needed to be included from the beginning. As Table 4.3 shows, he planned on replacing the entire Soviet submarine, escort, and MTB fleets with modern equivalents from the new shipbuilding program. The Soviet Fleet could reuse some of the technology from the old Imperial fleet, and there were promising indications that they could raise some sunken vessels from the bottom of the Black Sea, but that was not enough to ensure that the new Soviet Fleet would be sufficiently modern. Vlasev wanted the newest naval artillery (including anti-aircraft guns), modern naval aircraft, extensive chemical shielding on all ships, the latest communications gear, anti-mine defenses, and new engines. However, the most immediate concern was diesel engines. Vlasev called the Soviet Union “extremely backward” in that area, noting that “in the entire [rest of the] world, this problem is solved.” Therefore, the initial line of construction would have foreign-built engines, either ordered from abroad or constructed in Soviet factories by foreign engineers. Once the initial line was completed (which Vlasev projected to be finished in 1927–1928), the second line was to be built entirely in the Soviet Union, using Soviet materials, engineers, shipbuilders, and technology.⁴⁵⁶ The countries that would, initially, provide those engines (as well as other materials) were the United States, the United Kingdom, and the Weimar Republic.

Each country provided engines for one class of ship. The American contribution was for the new MTBs. Each experimental boat was to be equipped with two Wright-Typhoon “Liberty” engines, along with a third acting as a spare. Once construction began, the Soviets intended to use their own “Bolshevik” engines, originally intended for use in airplanes, after incorporating improvements gained from seeing the “Liberty” engines in action. Six escorts of the first line

⁴⁵⁶ Memorandum from Vlasev, November 1926 [undated], RGAVMF, f. 1483, o. 1, d. 27, l. 4.

were to have British engines, from the firm Beardmore, but these engines were extremely expensive—a total of £480,000 for four 1500 HP engines per ship. Although there were briefly discussions of ordering one or two of the engines and then reverse-engineering them, Muklevich decided to cancel the first six escorts, which had been expressly designed with the British engines in mind, rather than try to significantly alter the designs to incorporate a different design. The most important partner for the Soviet Union was Germany, who was to supply diesel engines for the new submarines, and were also considered as a possible replacement for the Beardmore engines before Muklevich cancelled the line of escorts altogether. The firm selected was MAN, or Maschinenfabrik Augsburg-Nürnberg AG, a diesel company based in Munich.⁴⁵⁷ These new engines represented a significant acquisition for the Soviet Union especially at a time when German-Soviet naval relations were at an ebb.

The origin of the relationship between the German and Soviet naval establishments dated back to the end of World War I. The Treaty of Versailles placed onerous restrictions on the development of the German navy, while the aggressive international character of Bolshevism (coupled with Lenin's refusal to pay the debts of the Russian Imperial regime) made it difficult for them to find a foreign partner to modernize their own fleet. Thus, a technology-sharing partnership made perfect sense: the Soviets wanted access to advanced German technology, while the Germans wanted an opportunity to continue to develop their own technology and give

⁴⁵⁷ "Memo on the working conditions for the construction of experimental torpedo boats at TsAGI [Central Aero-Hydrodynamic Institute]," September 30, 1926, RGAVMF, f. 1483, o. 1, d. 27, l. 19; Untitled memo, September 30, 1926, *ibid.*, l. 25; "Abstract of a report of the Chief of the Technical Directorate of the VMS RKKKA Comrade Vlasev," January 20, 1927, *ibid.*, l. 43; Special conference of the Scientific-Technical Committee of the Navy, March 10, 1927, *ibid.*, l. 48–49; "Protocols of a meeting [of Vlasev] with the Chief of the Navy [Muklevich]," March 22, 1927, *ibid.*, l. 51.

their naval officers practical experience outside the purview of international inspectors. The Soviets made the initial approach to Germany, in the guise of Soviet Ambassador to Germany N. N. Krestinskii. After getting approval from Stalin and People's Commissar for Foreign Affairs G. V. Chicherin, the Soviets sent a delegation to Berlin in March 1926 for a conference between the German and Soviet high command. The Soviet head of the delegation was Deputy Commissar for Military and Naval Affairs and Deputy Chairman of the *Revvoensoviet*, I. S. Unshlikht; his German counterpart was General Hans von Seeckt, head of the *Reichswehr* (the German army). During this conference, Unshlikht and von Seeckt discussed several possible avenues for cooperation. The Soviets wanted German technical assistance in reviewing Soviet ship designs, while the Germans were interested in building submarines to German specifications, with German builders and materials, in the Soviet Union. The Soviets were unwilling to do the latter, as they considered such a program too flagrant and public a violation of the terms of the Treaty of Versailles (which expressly forbade the German construction or possession of submarines). Unshlikht then suggested an exchange program, where German naval officers would visit the Soviet Union and vice versa. Neither party decided on anything concrete at the March conference, but they did agree to a second conference, in Moscow, in June. The Germans sent Rear Admiral Arno Spindler as their representative, while Chief of the UVMS Zof and Unshlikht negotiated for the Soviets.⁴⁵⁸

Immediately prior to the conference, Soviet naval officers visited the clandestine building site where German U-Boats were constructed in the Netherlands, as well as the cruiser *Emden* and the battleship *Elsass* in Kiel, Germany. They even had the opportunity to review the designs

⁴⁵⁸ Tobias R. Philbin III, *The Lure of Neptune: German-Soviet Naval Collaboration and Ambitions, 1919–1941* (Columbia, SC: University of South Carolina Press, 1994), 12–13.

for a German submarine during the visit to the Netherlands. When German officials asked for reciprocal visits to Soviet ships, Zof refused, stating that he was not at all convinced that Germany could help the Soviet Union, and that he was concerned about German construction efforts in Turkey. His overall attitude was arrogant and dismissive, acting as though he was doing Germany a favor by even considering their proposals, which insulted the Germans, who knew that the Soviet navy would benefit far more from any technological exchange than they would. The Soviets did agree to share their naval budget and an organizational chart (at least, those elements which were not confidential), but that was the only substantive concession they were willing to make. In the spirit of cooperation, Spindler recommended providing some World War I-era submarine designs to the Soviets, sending a small technical delegation to help the Soviets make sense of the designs, and some government assistance in negotiations with German firms for parts. Spindler's recommendations were largely vetoed by anti-Communist elements within the German naval high command, however, with the exception of sharing submarine designs that Germany had already provided to the British and French. The Soviets thought little of those obsolete designs, and turned to domestic designers to plan the first generation of Soviet submarines. There the matter of official Soviet-German cooperation ended until 1930, but that did not prevent the Soviets from working with German firms, including MAN.⁴⁵⁹

The acquisition of the submarine diesel engines from MAN presents an opportunity to see how different the Imperial and Soviet procurement processes were. In the days of the Russian Empire, all it took was the right person with the right contact and the ear of the Emperor. However, the Soviet Union had a much more involved process, relying upon multiple committees and many individuals at every stage. In the case of the diesels from MAN, more than

⁴⁵⁹ Ibid., 14–16.

a dozen people were involved, from as high in the command structure as Muklevich, Unshlikht, and Vlasev to individual engineers and customs officials, not counting officials from naval intelligence, the OGPU [Department of the Chief Political Directorate; the predecessor to the KGB], the Red Army, and the representatives of the German firm. Further adding to the complexity of this specific transaction was the nature of the purchase: constructing submarine diesels was technically a violation of the Treaty of Versailles, but by classifying the diesels as “locomotive engines” and subcontracting the actual construction process to a factory in Switzerland, MAN and the Weimar Republic avoided any consequences. It took the Soviet Union and MAN over a year to negotiate the price alone, and the diesels were not installed in any Soviet submarines until 1934, nine years after the navy began the process of acquiring them in 1925. As a point of comparison, the longest period for the construction of an Imperial submarine in the twentieth century was the *Akula*’s four years and ten months. The underwater minelayer *Krab* took six years, but much of that delay was related to the novelty of the project and the interruption of World War I.⁴⁶⁰

⁴⁶⁰ Orlov [Chief of the UVMS] to Yegorov [Chief of Staff of the Red Army], January 19, 1934, RGAVMF, f. 1483, o. 1, d. 228, l. 3 indicates that the MAN diesels were intended for the *Pravda*-class (sometimes called the *P*-class), which were launched in 1934 and commissioned in 1936. This particular report notes that the Soviets had to purchase a third set of two engines for the third submarine in the class. The ultimate destination of the MAN diesels is confirmed in Polmar and Noot, *Russian and Soviet Submarines*, 252. Regarding the designation of the submarine diesels as diesels for locomotives, see Soviet Trade Representative in Germany [Begge] to Central Administration of GOMZy, “To the question of four diesels for diesel locomotives,” May 21, 1927, RGAVMF, f. 360, o. 2, d. 666, l. 61–62. The same memo also indicates that the engines were to be built in Switzerland. As a side note, the navy went so far as to have naval officers inspect a locomotive engine for the *Lomonosov* in order to learn more about the process of the installing the engines and how to operate and maintain them. See Naval Technical Directorate to the Chief of the Technical Bureau of the Diesel Locomotives Commission of the People’s Commissariat of Ways of Communication, May 10, 1927, *ibid.*, l. 14. For the *Akula* and *Krab*’s construction periods, see Polmar and Noot, *Russian and Soviet Submarines*, 232–33.

Some of the delay in acquiring the engines was internal, as the Naval Technical Directorate (Vlasev's department) and the Chief Administration of GOMZy (the Unified State-owned Machine-building Factories) exchanged design requirements constantly, while some of it involved waiting for MAN to respond to queries from the navy or GOMZy. Occasionally, the Red Army weighed in, adding still another layer of bureaucracy, as MAN would use Red Army contacts to communicate with the fleet. Finally, a trip to Germany and Switzerland, from September 23 to November 19, 1927, changed from a visit to inspect the factories used to build the engines and learn the process of building them, in order to apply those lessons in Soviet factories, to visiting other firms (including Sulzer and Krupp). Originally, the delegation was only to speak to the other firms about other projects unrelated to the MAN diesels, but the delegation returned with glowing reports about Sulzer and Krupp engines and attempt to convince Soviet leadership to renounce the contract with MAN and purchase engines from the other factories instead. The request was rejected, as the Soviet Navy did have a signed contract with MAN, but the fact that the request was made added even more time to the decision making process. While the process of acquiring four 2700 horsepower diesel engines took up a not inconsiderable portion of the fleet's time, Muklevich also had to preside over a considerable extension of the 1926 program as it was folded into the first Five-Year Plan.⁴⁶¹

⁴⁶¹ Handwritten itinerary of trip to Germany and Switzerland, no date, RGAVMF, f. 360, o. 2, d. 666, l. 23; Muklevich to Berzin [Chief of the Fourth Directorate (Intelligence) of the Staff of the RKKA], December 30, 1928, RGAVMF, f. 1483, o. 1, d. 51, l. 143–44. Much of the detailed correspondence between the Naval Technical Directorate and GOMZy is in RGAVMF, f. 360, o. 2, d. 666, for those who want more technical details about the various design questions that helped slow down the process. The *delo* also includes discussions about the electric motors (1100 HP) that accompanied the diesel engines and were also built by MAN.

The Soviet Navy and the first Five Year Plan

Although the original idea was Trotsky's, the driving force behind the rapid industrialization of the Soviet Union throughout the 1920s and 1930s was Stalin. Once the "Left Opposition" (Trotsky, Zinoviev, and Kamenev) had been neutralized by Stalin's (actually Bukharin's) vision of "Socialism in One Country," Stalin could co-opt their most popular idea, both for its own purposes and as a way to undermine the power base of the "Right Opposition," which consisted of Bukharin, Rykov, and M. P. Tomsky (a member of the original Politburo). Bukharin virulently opposed the rapid industrialization and collectivization of Soviet farmland on the grounds that such policies were, in effect, a return to the horrors of war communism. He did considerable damage to his own campaign by reaching out to the already disgraced Zinoviev and Kamenev for advice in how to deal with Stalin. In reality, by carefully avoiding identifying Bukharin's faction until they declared themselves, Stalin was able to effectively portray them as factionalists, much as he had done against the "Left Opposition," and by the spring of 1929, all three were removed from power.⁴⁶² Without the "Right Opposition" to stand against him, Stalin was able to go forward with rapid industrialization by means of the First Five-Year Plan.

The First Five-Year Plan called for a dramatic modernization and expansion of all facets of Soviet industry within five years. Beginning in October 1928 (although not officially approved until after the Right Opposition was dealt with in the spring of 1929), all facets of the Soviet economy fell under the jurisdiction of the Plan, in which specific quotas were assigned to various industries. Achieving quotas resulted in bonuses and other rewards; failing to achieve quotas often meant demotion, punishment, or worse. Stalin expected results, regardless of how

⁴⁶² Tucker, *Stalin as Revolutionary*, 409–20.

they were achieved or at what cost. For the military, the Five-Year Plan was an important way to specifically improve military industry, and Voroshilov (in his capacity as NKVM) was willing to trade short-term military gains and budget growth for a more stable industrial base that would benefit the Red Army in the future. He did, however, push for a faster paced version of the Five-Year Plan than Gosplan (the State Planning Commission) thought reasonable.⁴⁶³ For the navy in particular, the First Five-Year Plan meant an increase to the 1926 plan of shipbuilding, albeit an expansion that was controlled almost entirely by the Red Army.

The first discussion of the expansion of the “Second Line” of the 1926 program occurred in the spring of 1927. Although these initial discussions occurred prior to the approval of the First Five-Year Plan, the discussions ultimately led to the program that was incorporated into the First Five-Year Plan. While Muklevich was on vacation, the Red Army called for a discussion of how best to expand the fleet. There were three proposals put forth: one by the Chief of the First Directorate of the Staff of the Red Army, one by the Chief of the Second Directorate, and one by Tukhachevsky, who still Chief of Staff of the Red Army as well as Deputy NKVM. All three proposals wanted to remove the modernization of the battleship *Frunze* (formerly *Poltava*) from the second line, as well as one of the two monitors. The first proposal wanted to add six submarines, an underwater minelayer, eight escorts, 42 MTBs, and a variety of smaller craft designed for riverine warfare for a total cost of 39 million rubles. The second proposal was much smaller; it also advocated cancelling the construction of the destroyer proposed in the 1926 plan, as well as the battleship and the monitor, and then using those cost savings (approximately 17 million rubles) to add three submarines, an underwater minelayer, and 21 MTBs.

⁴⁶³ Robert C. Tucker, *Stalin in Power* (New York: W. W. Norton & Co., 1990), 94–98; Stone, *Hammer & Rifle*, 117–19.

Tukhachevsky's proposal was the most dramatic: he advocated making all of the cuts that the second proposal did, then using half of those funds to build 42 MTBs, ten riverine MTBs, and two gunboats. The other half was earmarked for coastal defense. Tukhachevsky also wanted further reductions of the navy's budget in subsequent years if the target of 30.5 million rubles for coastal defense could not be met. He advocated reducing the size of the active fleet by two battleships, two destroyers, and one cruiser to save more money that could be transferred to coastal defense, and more cuts were hinted in order to eliminate the deficit in coastal artillery.⁴⁶⁴ If Muklevich hoped to eliminate or reduce the budget cuts suggested in the second and third proposals, he needed Voroshilov's support, but Voroshilov's inspection and poor evaluation of the Baltic and Black Sea Fleets suggested that Voroshilov's help would not be forthcoming.

Over the course of ten days—from May 22 to May 25 in the Black Sea and July 20 to 25 in the Baltic Sea—Voroshilov, as NKVM, conducted an evaluation of the Baltic and Black Sea Fleets. The report that he filed as a result of the evaluation related, in large part, to questions he was familiar with: morale, discipline, the political suitability of personnel, and fortifications. There were some tactical observations about the fleet as well, but given Voroshilov's lack of experience with naval matters, it is possible that somebody else, perhaps Muklevich, provided those remarks. Voroshilov did have some positive things to say about the navy in general, praising the rank-and-file of the fleet as “technically literate, politically healthy, and morally strict” and commending the officers for their rapid comprehension of the overall strategic problems of modern naval warfare, as well as their ability to maneuver in a tactical fashion. He

⁴⁶⁴ McLaughlin, *Russian & Soviet Battleships*, 348; [Vlasev], “On the increasing of the program of the 2nd line,” May 27, 1927, RGAVMF, f. 1483, o.1, d. 27, ll. 52–54. The memo is unsigned, but Vlasev is the likely author, based on proximity to other documents and the overall tone of the document. There are three dates listed on the memo: May 27, June 4, and June 16. However, the latter two appear to be filing dates.

also approved of the general readiness of the fleet to engage in combat, should the need arise. However, the overwhelming tone of his report was negative. He considered the basic tactical formations to be far too simple, in particular the tendency of destroyers to stay close to battleships, to the exclusion of completing scouting missions, and the tendency of submarines to go too far from the squadron, out of the range of covering destroyers. In general, he criticized all commanders for being too slow to make decisions and for poor gunnery practices, resulting in inaccuracy and a low rate of fire. He castigated junior commanders for not showing enough initiative and giving unclear or vague orders. He found that the uniforms of most sailors were in poor condition, some of them displaying large and noticeable tears, and the ships themselves dirty as well. He praised sailors for having “fully satisfactory discipline” during drills or in combat situations, but at the same time scolded them for being lazy or inattentive during normal peacetime operations. Voroshilov also considered the coastal artillery installations on Kronstadt, as well as the overall appearance of the fortifications and harbors, to be completely unacceptable. To rectify these errors, he ordered Muklevich and his subordinates to undertake fourteen tasks, ranging from a detailed analysis of the modernization of battleships to more training for the Baltic and Black Sea Fleets for more complex maneuvers to the encouragement of discipline and cleanliness for the ships’ crew.⁴⁶⁵ The extensive and wide-ranging criticism in Voroshilov’s report meant that Muklevich was unlikely to win any confrontation with the army over the expansion of the fleet, and the actual shipbuilding plan instituted as part of the First Five-Year Plan reflected that.

The resulting plan (see Table 4.4) went through a number of changes before it reached the final state that was approved in February 1929. The published version of the 1926 plan, for

⁴⁶⁵ Voroshilov, untitled report on the navy, July 30, 1927, RGAVMF, f. 1483, o. 1, d. 39, l. 47–49.

example, included fewer torpedo boats and escorts than Vlasev indicated in his memo, including the cancellation of one line of escorts by Muklevich (as noted in the previous section) because the engines were too expensive. After the three proposals were presented by the Army, the *Revvoensoviet* approved a modification of the 1926 plan in August 1927, which restored the extra torpedo boats and added some submarines, but with one fewer cruiser, the *Butakov*, which was cancelled by the *Revvoensoviet* on December 28, 1927. In 1928, *Vesenkha* (the Supreme Soviet of the National Economy, from the initials VSNKh) and *Gosplan* (the State Planning Commission) prepared a program of shipbuilding, intended to be the minimum numbers acceptable for the forthcoming Five-Year Plan.⁴⁶⁶ This new plan was largely the same as the 1927 edition, with the only significant additions being submarine chasers (specialized vessels designed to seek out submarines; literally *Okhotniki za podvodnymi lodkami*, or “hunters for submarines”), the riverine gunboats requested by the Army, and a new class of long range torpedo boats designed especially to handle ocean waves, which were requested by the UVMS. Both the Army and the Navy submitted modifications to the plan (see columns six and seven of Table 4.4), leading to the finished Five-Year Plan, which was approved by the STO in February 1929.

The finished product was a significant departure from the original 1926 plan of shipbuilding. It only provided for the modernization of two battleships: *Marat* (ex-*Petropavlovsk*) and *Oktyabrskaya revolyutsiya* (ex-*Gangut*). The earlier plans had originally planned to keep all four of the *Ganguts* active, but in a cost-saving measure, the remaining two dreadnoughts (*Parizhskaya kommuna*, ex-*Sevastopol*, and *Frunze*, ex-*Poltava*) were placed into

⁴⁶⁶ The specific date of this plan was not provided in the document, but it may be the August 1928 plan, created by *Vesenkha*, as referred to in Stone, *Hammer & Rifle*, 119.

reserve. Even the army had only wanted to put one dreadnought in reserve and modernize the other three. However, the modernization of these two Baltic battleships was extensive, including replacing the coal-fed boilers with oil-firing boilers, strengthening the deck armor, adding a more powerful anti-aircraft battery (at the expense of the 120mm battery), modernizing the fire control system, installing anti-torpedo bulges at the waterline, and finally adding a catapult with the capacity to launch one or two seaplanes for reconnaissance and targeting support. The resulting cost and lengthy timetable for completion undoubtedly caused concern among the economic planners, and so the modernization of the other two dreadnoughts was significantly delayed. The only Black Sea dreadnought to survive World War I and the Russian Civil War, the incomplete *Demokratiya* (ex-*Imperator Nikolai I*), could have been finished and modernized as well, but the parts necessary to do that were on the *Imperatritsa Maria* and *Svobodnaya Rossiya* (ex-*Imperatritsa Ekaterina Velikaya*); the former had already been sunk as the result of an accidental magazine explosion, while the latter was scuttled by its crew to avoid capture by the Germans in 1918. Eventually, *Demokratiya* was dismantled in 1928, after a fruitless attempt to sell the hull abroad. When the government finally did try to raise *Svobodnaya Rossiya* in 1930, they moved too quickly: as a result, there was a massive explosion, which tore a huge hole in the side of the hull, making *Svobodnaya Rossiya* completely useless and impossible to raise. Only a few of the guns were ever recovered. Any attempts to raise *Imperatritsa Maria* were abandoned after the accident.⁴⁶⁷ In all other circumstances, the 1929 Five-Year Plan stuck quite closely to the original

⁴⁶⁷ I. D. Spasskii ed., *Sudostroenie v period pervykh pyatiletok i Velikoi otechestvennoi voiny 1925–1945 gg.* [Shipbuilding in the period of the first Five-Year Plans and the Great Patriotic War, 1925–1945] (St. Petersburg: Sudostroenie, 1996), 143–45; McLaughlin, *Russian & Soviet Battleships*, 331 and 338.

minimums proposed in 1928, with the exception of three additional submarines (which was a smaller amount than either the Army or Navy had requested).

The shipbuilding program of the First Five-Year Plan represents an unquestionable victory for the modernists, as well as the Red Army. The modernists had accomplished what the traditionalist had not, in large part because they had official support from Frunze, regardless of how long he actually held power. Although the Five-Year Plan did provide for a larger navy, in terms of the sheer number of ships, it was a navy suitable for a purely defensive role. The new Soviet navy would be mostly submarines and torpedo boats, vessels which could neutralize or at least weaken a larger fleet if commanded by skilled officers and operated by well-trained crew. However, such a fleet could never take command of the sea for itself, and the farther it got from the shores of the Soviet Union (and the supporting coastal artillery and land-based aircraft), the less effective it would be. This type of fleet—sometimes called a “*moskitnyi*” *flot*, or “mosquito fleet”—was entirely suitable given the economic means and capabilities of the Soviet Union in the late 1920s. Many in the UVMS were grateful that the fleet was getting any type of expansion at all, as there had been no significant domestic construction since the end of the Russian Civil War. In the 1930s, on the other hand, there was an increasing tendency to return to a traditionalist viewpoint, as the lessons of the Spanish Civil War convinced Stalin that a more powerful fleet was necessary in order for the Soviet Union to play a key role in international affairs. By the end of the 1930s, as the Soviet Union approached World War II, there was a new construction program in place that would have delighted Nicholas II.

Table 4.4. The development of the First Five-Year Plan (FYP)⁴⁶⁸

Type of ship	1926 program ⁴⁶⁹	1927 supplement ⁴⁷⁰	Minimums for FYP (ca. 1928)	Navy request	Army request	Actual FYP (Feb. 1929)
Battleships⁴⁷¹	4	4	4	4	3	2
Monitors	1	0	0	0	0	0
Cruisers	2	1	1	1	1	1
Destroyers⁴⁷²	4	3	6	11	3	6
Escorts	18	18	18	18	18	18
Submarines⁴⁷³	12	19	20	33	24	23
Submarine hunters	--	--	5	20	10	5
River gunboats	--	--	3	0	3	3
MTBs	36	60	60	60	60	63 ⁴⁷⁴
Long-range MTBs	--	--	3	12	0	--
Submarine tender	1	1	1	1	1	1

⁴⁶⁸ Untitled chart, December 24, 1928, RGAVMF, f. 360, o. 2, d. 134, l. 3; Spasskii ed., *Sudostroenie v period pervykh pyatiletok*, 26.

⁴⁶⁹ Approved by the STO on November 26, 1926.

⁴⁷⁰ Approved by the *Revvoensoviet* on August 5, 1927. This supplement is the immediate result of the plans proposed by the army and described above.

⁴⁷¹ All battleships and cruisers were modernizations of Imperial-era warships.

⁴⁷² Two destroyers in all categories were modernized Imperial destroyers, while a third was partially completed from the Imperial era and finished in the Soviet era; the rest were newly built.

⁴⁷³ The archival document distinguishes between small and large submarines, but Spasskii does not.

⁴⁷⁴ This number includes the three long-range torpedo boats from the 1928 variant; the table in Spasskii does not make a distinction.

Chapter 5 - The restoration of an independent fleet, 1929–1941

While there many factors that caused the Soviet fleet to look much the same in 1929 as it had in 1919, including economic, political, and diplomatic factors, one of the most important was Stalin's lack of interest in naval affairs. For the most part, the head of the UVMS answered to Voroshilov directly, and Voroshilov would never have undertaken something as ambitious as a major shipbuilding program without Stalin's approval. The head of the UVMS did have the option to appeal to Stalin directly, and sometimes they did. In early 1929, Stalin diverted 85 million rubles from the shipbuilding program to tank production, and Muklevich complained to Stalin. Some of the funds were restored to the navy, but not all of them.⁴⁷⁵ However, such appeals were extremely rare, and there was never a question of a head of the UVMS developing a strong enough relationship with Stalin to counteract Voroshilov's preference for the army. That began to change in the 1930s, as Stalin became more invested in the navy, and especially after the navy's portion of the First Five-Year Plan failed to produce significant results.

One of the challenges involved in completing the shipbuilding program was the necessity for foreign aid to modernize the Soviet shipbuilding industry and the warships themselves. The new Soviet fleet needed foreign assistance to help overcome the backwardness gap, just as foreign assistance had been crucial in the development of the Imperial navy. The Soviet shipbuilding industry had atrophied due to underutilization during the early years of the Soviet regime, while Germany had also inflicted some damage in the waning days of World War I. That damage was multiplied by the Allies and the Whites during the Russian Civil War. Some of the territory lost to the Soviet Union during World War I, particularly the ports of Reval and Riga, were major shipbuilding centers. As a result, in 1929, the Soviet Union only had two major

⁴⁷⁵ Aselius, *Rise and Fall of the Soviet Navy*, 126; Rohwer and Monakov, *Stalin's Ocean-Going Fleet*, 28.

domestic shipbuilding centers: the area around Leningrad (the new name for Petrograd after Lenin's death in 1924) and the area around Nikolayev on the Black Sea. Even these domestic shipyards relied heavily upon foreign assistance; for example, Russud (the Russian Shipbuilding Company, based at Nikolayev) was originally equipped by the British firm Vickers prior to World War I, and they received a fee for every warship completed (£20,000 per ship, apart from dreadnoughts; the fee for dreadnoughts was £75,000).⁴⁷⁶ Even a fairly modest shipbuilding program, such as the one established by the First Five-Year Plan, would need foreign assistance in order to overcome industrial atrophy, as well as the natural technological gap that had occurred due to that neglect. Prior to 1929, that assistance was not forthcoming except in very limited circumstances, such as the German diesel engines for submarines or the Wright-Typhoon motors sold by the United States. However, in 1929 and 1930, a variety of factors gradually saw the re-introduction of significant foreign technological assistance into the Soviet navy.

One of these key factors was the Five-Year Plan itself. Because Stalin wanted significant industrial improvements quickly, the easiest way for Soviet industrial managers to accomplish those improvements was to purchase foreign technology. However, as Kendall Bailes noted in *Technology and Society under Lenin and Stalin*, there was a fundamental tension within the Soviet Union: “the need to borrow and adapt foreign technology as rapidly as possible, and the desire to compete with other countries in native technological creativity.”⁴⁷⁷ This tension was even more pronounced in the defense industry, where the desirability of rapid advancement through foreign technology was counterbalanced by the need to be as self-sufficient as possible

⁴⁷⁶ William D. Walters, Jr., “The Changing Geography of Russian/Soviet Naval Construction, 1890–1989,” *Post-Soviet Geography* 36, no. 3 (1995), 164–66.

⁴⁷⁷ Kendall E. Bailes, *Technology and Society under Lenin and Stalin: Origins of the Soviet Technical Intelligentsia, 1917–1941* (Princeton, NJ: Princeton University Press, 1978), 341.

in the event that war came and deprived the Soviet Union of access to key trading partners (as had occurred in World War I). Therefore, the Soviet navy did not simply wish to acquire new technology, but to reverse-engineer it so that Soviet industry could reproduce it without further foreign assistance. In turn, the desire to reverse-engineer foreign naval technology made trips to foreign countries almost as valuable as buying the actual technology, and plans were as highly prized as new machines. Any transaction requires two parties, of course, but foreign countries grew more willing to sell to the Soviet Union just as the Soviet Union was more interested in buying.

There were a number of reasons that foreign countries decided to provide the Soviet Union with naval technology. Foreign countries were more willing to provide designs or practical assistance to the Soviet Union than they were to sell them technology directly, which had generally been the Soviet objective in the past. The official adoption of “Socialism in One Country” also played a role in increasing the desire of foreign countries to deal with the Soviets. With the threat of international revolution fomented by the Soviets at least temporarily abated, selling to the Soviet Union appeared more attractive and less likely to have immediate repercussions, which was further reinforced by the long-term nature of what the Soviet navy was requesting. Most importantly, the Great Depression crippled four of the world’s largest economies—France, the United Kingdom, Germany, and the United States—while leaving the Soviet economy completely untouched, and indeed, growing steadily due in large part to the program of rapid industrialization. This dramatic shift in the international economy made the Soviet Union a highly desirable partner in any type of economic relationship, and the Soviets were willing to pay hard currency for the privilege of receiving technological assistance. The

first country to approach the Soviet Union with the objective of trading naval technology was the Weimar Republic, who tried to establish a more formal relationship with the UVMS in 1929.

The Orlov commission and relations with the German navy

Although the 1926 attempt at collaboration between the Soviet Union and Germany had failed, both sides continued to try. On Germany's part, the high command of their army constantly tried to broker an agreement, but the navy did their best to defeat any type of cooperation between the German and Soviet navies. The key figure opposing this relationship was Admiral Hans Zenker, the Commander in Chief of the German Navy. The most probable reason that Zenker refused to consider an arrangement was because the German army was the main impetus behind the arrangement, according to Tobias Philbin. In other words, it was institutional rivalries within Germany that undermined the progress of collaboration between the German navy and the UVMS. However, a scandal involving the use of covert funds for personal gain instead of military rearmament brought down Zenker and installed a replacement, Erich Raeder. More importantly, the same scandal ended German Defense Minister Otto Gessler's career, and it was Gessler's replacement—General Wilhelm Groener—who accepted Soviet entreaties to resume discussion of a mutually profitable relationship.⁴⁷⁸

Despite Raeder's unwillingness to concede German naval secrets, Groener ignored Raeder's protests and ordered Oscar von Niedermayer, a representative of the German military residing in Moscow, to reach out to Voroshilov. The goodwill built up between the German army

⁴⁷⁸ Philbin, *The Lure of Neptune*, 16; Robert Gardiner, ed., *Conway's All the World's Fighting Ships, 1922–1946* (London: Conway Maritime Press Ltd, 1980), 218–19. Hereafter *All the World's Fighting Ships III*. Note that Philbin refers to the Admiral as *Karl* Zenker, not Hans; Karl-Adolf Zenker was Hans's son. See Dieter H. Kollmer, "Zenker, Karl-Adolf (1907–1998)" in David T. Zabecki, ed., *Germany at War: 400 Years of Military History* (Santa Barbara, CA: ABC-CLIO, 2014), 1522.

and the Red Army helped convince Voroshilov that a similar situation for the UVMS would be fruitful, and the Germans and Soviets agreed to send delegations to each other's nations to inspect the fleet in early 1930. The Germans were interested in the general capabilities of the Soviet Navy, the intentions of the Soviet naval high command for their fleet (as far as whether or not the fleet was an offensive or primarily defensive weapon), and whether the Soviets were more concerned about Japan or China in the Far East. Germany never even raised the question of the Soviet Union's relationship with its western neighbors (including Poland), which were naturally complex and constantly changing.⁴⁷⁹ A hint at the nature of those relationships with the Soviet Union's neighbors appeared in a Red Army report from late 1928.

In late 1928, an unknown staff officer attached to the IV Chief Directorate (Intelligence) of the Red Army Staff, wrote a report entitled "Military preparedness against the Soviet Union and fundamental questions of strengthening [Soviet] defense." This report clearly identified the most likely opponents of the Soviet Union as the United Kingdom and France, most likely in an alliance with one another. An important part of this alliance would be a declaration of neutrality by Estonia, Latvia, and Lithuania; however, this neutrality would be a benevolent one, allowing French and British armies and navies to use the countries as bases, while enabling the Baltic nations to avoid the damage and casualties of war. As for Germany, its primary concern would be to get out from under the onerous obligations of the Treaty of Versailles; in order to do so, Germany's natural ally would be the United States. According to the author, the United States wanted to challenge British economic hegemony, which made Germany an attractive partner. The only European country that the Soviet Union could potentially rely upon was Turkey, and the Soviets considered that a 50–50 proposition. The Soviet Union's only opportunity to weaken

⁴⁷⁹ Philbin, *The Lure of Neptune*, 16–17.

their potential foes was to act against the British Empire's periphery, specifically by fomenting a revolution in India and winning support in Afghanistan. The author also recommended supporting revolutionary movements in China, with the final goal of using China as a counterweight to the growing power of Japan. Ultimately, the report concluded that the best strategy, in the short term, would be for the Soviet Union to stay out of European affairs altogether and let the two "imperialist" camps destroy each other. In the long term, international revolutionary movements, clandestinely supported by the Soviet Union, would eventually wear down the Anglo-French bloc.⁴⁸⁰

More specifically, the report addressed the size of the Soviet Union's immediate western neighbors. All told, Soviet intelligence estimated that all six of the Soviet Union's neighbors—Finland, Estonia, Latvia, Lithuania, Poland, and Romania—could muster armies of approximately 584,000 men, the bulk of which belonged to Poland (300,000) and Romania (198,000). The report also included estimates about the size of the "bourgeois-fascist military allies" in each country, which might total as many as an additional 1,172,000 potential soldiers to draw upon, most of them in Poland.⁴⁸¹ The combined aviation capabilities of all six countries was 640 aircraft, with Poland and Romania once again leading the way. Regarding enemy fleets, the situation was favorable for the Soviet Union: the four Baltic fleets (Finland, Estonia, Latvia, and Poland) together could only muster one cruiser, sixteen destroyers, eleven gunboats, fourteen submarines, and 27 MTBs. In the Black Sea, Romania had eight destroyers and four gunboats, with an additional cruiser, two destroyers, and one submarine projected to be commissioned by

⁴⁸⁰ Author unknown, "Military preparedness against the Soviet Union and fundamental questions of strengthening [Soviet] defense," October 28, 1928, RGAVMF, f. 1483, o. 1, d. 51, ll. 36–38, 40–42.

⁴⁸¹ Exactly what "bourgeois-fascist military allies" were is not defined in the report. However, they are probably referring to something like a fifth column of anti-Soviet sympathizers who would join the army.

1931. A hostile Turkey could contribute one battleship (a re-classed *Goeben*) after extensive modernization in 1931; in the short term, the Turkish fleet was even smaller than the Romanian fleet, consisting of two cruisers, three destroyers, two gunboats, and two submarines. An examination of Table 4.4 shows that the Soviet Union already had near parity, even without any new construction, in the Baltic, and they possessed the only battleship in the region. Similarly, the remnants of the World War I Black Sea Fleet were more than capable of handling Romania and Turkey, even after projected expansion.⁴⁸² From a naval perspective, the Soviet Union already had regional parity or, in some cases, superiority by the end of 1928. However, as the report demonstrates, some elements within the Soviet military were already looking towards a possible conflict with the United Kingdom, which meant conflict with the Royal Navy. The Soviet Union had little to no chance of competing with the British in a quantitative sense, so any qualitative gains were especially desirable. It was this consideration that prompted the Soviets to look for German assistance in 1929.

The first step to making closer ties with the Germans—or any other foreign power—was the foundation of a standing committee on foreign technical aid, as part of the *Revvoensoviet*, on February 6, 1929. This committee was chaired by A. M. Postnikov, who coordinated mobilization for *Vesenkha*, and included the heads of the Red Army, Air Force, Navy, the Military-Topographical Directorate, and the chairman of the Gun-Arsenal Trust. Muklevich first learned of the committee’s existence on February 14, and ordered his department heads to gather information in preparation for the first meeting of the committee. He gave them one week to complete this task; however, the first meeting was scheduled for February 18, which gave him

⁴⁸² Author unknown, “Military preparedness against the Soviet Union and fundamental questions of strengthening [Soviet] defense,” October 28, 1928, RGAVMF, f. 1483, o. 1, d. 51, ll. 44–46.

little time to actually prepare. Fortunately, the first meeting discussed little of interest to the navy, with the possible exception of the announcement of a helium concession granted to foreigners at Saratov and on the Lower Volga; helium was used in airships, which the Soviet navy continued to use for reconnaissance. It did, however, address cooperation with German firms, specifically the firm Otto Smits. The Red Army had contracted this firm to build 45mm artillery, but the changing nature of warfare had already rendered such weapons obsolete. The committee voted to continue the contract, surprisingly, because it helped the Soviet Union build ties with Germany, familiarized Soviet engineers with German practices, and served as “the first attempt at foreign technical assistance in military industry.” Later meetings did concern the navy directly, including negotiations with Krupp and Rheinmetall, two important German firms.⁴⁸³ The Standing Committee clearly approved of further contact with Germany, as did Voroshilov. With the political environment of Germany’s Defense Ministry more open to closer ties as well, the Soviets and Germans arranged a visit to Berlin by Soviet naval officers in February 1930.

The Soviet delegation was led by Admiral V. M. Orlov, the Commander of the Black Sea Fleet (and future Chief of the UVMS). It also included a future People’s Commissar of the Navy, P. A. Smirnov, who at the time was the commander of a destroyer flotilla. Rounding out the delegation was A. I. Berg, a Commissar and President of the Naval Section of the Military-

⁴⁸³ Quote is from Protocols of meeting no. 1 of the Standing Committee of the RVS SSSR [*Revvoensoviet* of the Soviet Union], February 18, 1929, RGAVMF, f. 1483, o. 1, d. 73, l. 4. The quoted section probably means in *Soviet* military industry; there is no indication of the start date of the contract. See also Yanson [Chairman of the Military-Scientific Committee and secretary for the Standing Committee] to Chief of the Air Force, et al., February 14, 1929, *ibid.*, l. 1; Muklevich to department heads, February 16, 1929, *ibid.*, l. 2; Agenda for February 18, 1929 meeting of the committee, *ibid.*, l. 3; Protocol of meeting no. 1, February 18, 1929, *ibid.*, l. 6; Agenda for March 19, 1929, *ibid.*, l. 11; Agenda for November 9, 1929, *ibid.*, l. 13. For more on Postnikov, see David R. Stone, “Mobilization and the Red Army’s Move into Civil Administration, 1925–31,” *Kritika: Explorations in Russian and Soviet Industry* 4, no. 2, (Spring 2003), 343–67, especially 362.

Scientific Committee; P. Yu. Oras, Berg's assistant; and A. V. Leonov, the Chief of the Artillery Section of the Military-Scientific Committee. All of these individuals were important not only within the Soviet naval establishment, but Oras and Berg, in particular, would be chosen often to go abroad for future negotiations. Their trip included Berlin, Kiel, Wilhelmshaven, Hamburg, Bremen, and Düsseldorf, all centers of German shipbuilding or technologies related to shipbuilding. The Soviet delegation visited several ships, including the heavy cruiser *Ersatz Preussen*, the cruisers *Königsberg* and *Leipzig*, and the destroyer *Jaguar*.⁴⁸⁴ The visit to *Ersatz Preussen*, later known as *Deutschland*, was a particular coup; the Soviets were the first foreigners to see the vessel. It was the lead ship of a new warship class, which the Germans called “pocket battleships,” but in most other navies was simply a heavy cruiser. Resembling the World War I-era battlecruisers, “pocket battleships” represented the theoretical maximum firepower that could be added to a 10,000 ton hull (the maximum size permitted by the Treaty of Versailles); they were lightly armored, but extremely fast, reaching speeds of 28 knots. The only vessels with the firepower to counteract the German pocket battleships and the speed to catch them were the British battlecruisers *Hood*, *Renown*, and *Repulse*.⁴⁸⁵ Although permitting the Soviets to see this new warship was obviously a sign of goodwill by the German naval high command, the Germans did impose several conditions on their guests.

The only city that the Soviet delegation was permitted to visit without a handler—usually Korvetten Kapitän R. von Bonin, who acted as a translator in his official capacity—was

⁴⁸⁴ Although the Germans called *Jaguar* a destroyer, the total displacement was only about 800 tons, so the Soviets usually referred to it as a *torpedonosets*, i.e. torpedo boat.

⁴⁸⁵ Report of Orlov, March 18, 1930, RGAVMF, f. 1483, o. 1, d. 103, l. 1, 3, 4; Philbin, *The Lure of Neptune*, 17; Gardiner, ed., *All the World's Fighting Ships III*, 227. Although the report was signed and compiled by Orlov, exactly how much was written by him is unknown.

Düsseldorf. In every other city, von Bonin accompanied them and controlled their itinerary. Although the Soviets gained considerable information simply by talking to German naval officers and engineers or reviewing official publications, they did not have extensive opportunities to inspect German warships. Orlov's committee was denied the ability to see gunnery practice or any other form of combat training, although they had requested it. They could not see the installation or construction of any of Germany's newest guns, although they could inspect them once installed, either on German ships or coastal artillery stations. Finally, there were no submarines, torpedo boats, mines, or chemical weapons, but as Orlov remarked, "The Germans were banned from [these weapons] according to the Versailles Peace... they [cause] the German fleet to appear weak." It is particularly important to note the last two words: "appear weak." Orlov considered the weakness of the German navy to be purely for public consumption, which was perfectly correct. Indeed, the story of the "Dutch" submarine design workshop is well known to modern historians, even if Germany did not lay down any submarines until 1935.⁴⁸⁶ Regardless of what Germany's actual combat strength might have been, Orlov and his delegation were especially interested to learn what they could from their brief inspections of German warships, and these remarks comprised the bulk of his report.

One of the most consistent places that the Soviet delegation investigated on every ship was the radio room. Communication in general was a top priority, which made perfect sense given the size and composition of the Soviet fleet. The only way that a fleet composed of a large quantity of small ships could function effectively was close coordination and the ability to

⁴⁸⁶ Philbin, *The Lure of Neptune*, 17; Gardiner, ed., *All the World's Fighting Ships III*, 239. Quote is from Report of Orlov, March 18, 1930, RGAVMF, f. 1483, o. 1, d. 103, l. 5.

rapidly transmit information to the other ships in the formation or squadron. When inspecting the cruiser *Königsberg*, for example, the Soviets were particularly interested to learn that the German vessel had five separate radio groups: two multipurpose groups, one of which was short wave and one of which was long wave; a dedicated group for intra-squadron communications; and two specialized sets, one for navigation and one for operations. One officer attached to the delegation took time to sketch the entire radio room, including a tremendous amount of detail about the operation and maintenance of the equipment where he could. Even a torpedo boat, the *Jaguar*, had two separate sets of radio equipment. In the conclusion to the report, observations about the radio technology of Germany occupied two and a half pages. Soviet evaluations of German progress in radio technology were extremely positive, as this excerpt from the conclusion establishes: “Communication and observation in the German fleet is found to be the very best and satisfies all of the needs that can be produced under the modern condition of technology.”⁴⁸⁷

Another aspect of German naval technology that the Soviets targeted was naval artillery and armaments. The observations on each of the four vessels inspected by the Soviets invariably included a section on the armament of the vessel. The *Königsberg* attracted some attention because the Germans had linked the anti-aircraft artillery (or AAA) to the general fire control system used by the vessel, rather than using a separate dedicated fire control system. Even in the days before computerized or radar-based fire control, AAA typically required its own rangefinders, directors, and mechanical computers, simply because firing at aircraft was far more difficult than firing at other ships. Aircraft could move much faster, change direction more easily, and even change altitude, which made an already challenging two-dimensional problem a

⁴⁸⁷ Report of Orlov, March 18, 1930, RGAVMF, f. 1483, o. 1, d. 103, l. 11–13, 27, 29, 71–73. Quote is on p. 73.

three-dimensional problem. Eventually, the *Königsberg* did receive its own dedicated AAA fire control system in 1936.⁴⁸⁸ For the *Ersatz Preussen*, there were other aspects of the warship design that drew the Soviet delegation to comment.

The size of the *Ersatz Preussen*'s main battery was especially noteworthy: as the Soviets observed, the “pocket battleship” had two triple-barreled turrets of 11-inch/45 caliber guns, which gave each turret coverage of approximately 300 degrees (imagining a 360 degree circle drawn around the turret). Each individual barrel could fire up to 500 rounds before needing to be replaced. The Soviet delegation was impressed, calling this ship “undoubtedly a destroyer of Washington cruisers [again, a reference to the type of cruiser, not specifically cruisers owned by the United States]” and “serious support for the operations of light forces and cruisers.” They considered them superior to a French model of approximately 17,000 tons, which was especially impressive given that the French equivalent would have 70% more displacement with which to work. The only weakness that the Soviets could find was reported to them by some German artillerists: the powder and the shells were stored in two separate magazines, one under the other. A configuration of that type made the artillerists' job more difficult, because they had to go to two separate storerooms if they needed shells or powder. On most other German ships, most notably the cruiser *Leipzig*, which the Soviets also visited, shells and powder were in the same magazine.⁴⁸⁹ In another section of the report, the Soviet delegation also had some observations to make about German gunnery and training programs.

⁴⁸⁸ Ibid., l. 17 and 42. For the history of the *Königsberg* and its modernization, see Gordon Williamson, *German Light Cruisers 1939–1945* (Oxford, UK: Osprey Publishing, 2003), 15.

⁴⁸⁹ Report of Orlov, March 18, 1930, RGAVMF, f. 1483, o. 1, d. 103, l. 42 and 51. Quote is from pg. 42.

The observations that the Soviets made about German training methods and equipment were almost invariably positive. After visiting an artillery school, they praised a unique model of gunlayer (a device used to determine the angle of elevation of the barrel), which was quite similar to the Soviet version but much simpler and easier to use. They were equally pleased to learn about German gunnery methods, noting that “the task of the artillery of the German fleet is to hit the target, not to cover it.”⁴⁹⁰ In other words, German sailors received extensive gunnery training that enabled them to hit targets with as few salvos as possible; of course, in practice, the chances of hitting a vessel on the first shot were quite low in the days before radar-guided fire control. In general, German artillery was both durable and easy to use. Germany also established a standard caliber of 105mm for all AAA, which improved both the accuracy and stopping power of anti-aircraft rounds. As a point of contrast, during World War II, the largest heavy AAA used by the Soviets was 100mm, and 75mm was far more common. The overall emphasis for all guns and gunnery was reliability and simplicity, a theme which was very common in all aspects of German naval technology. For example, the Germans used electric welding on ship hulls (as opposed to riveting), using aluminum alloys to provide the maximum amount of durability while economizing on weight. In diesel engines, German engineers prioritized maximum range, minimal maintenance and required crew, and quick starting.⁴⁹¹ The

⁴⁹⁰ Ibid., I. 68. “Covering”, in this context, is also called “framing” or “bracketing” in English. It refers to the practice of firing shots not to hit the target directly, but to establish the range of the target, so that subsequent shots are more likely to hit the target. Covering or framing is obviously not as efficient as precision firing, but it does have the higher likelihood of guaranteeing a hit, at the expense of additional rounds, particularly with less experienced or undertrained crews.

⁴⁹¹ Ibid., I. 53–54, 68–71, 74, and 76–77. For Soviet anti-aircraft capabilities during World War II, see Stephen McLaughlin, “USSR: The Voennno-Morskoi Flot SSSR,” in Vincent P. O’Hara, W. David Dickson, and Richard Worth, eds., *On Seas Contested: The Seven Great Navies of the Second World War* (Annapolis, MD: Naval Institute Press, 2010), eBook edition, 282–83.

last section of the Orlov report, possibly written by Orlov himself, offered concrete recommendations for the Soviet Union to incorporate some of the lessons learned during the visit to Germany.

The report's conclusion emphasized that "the German fleet has extremely strong interest for us." In general, the author supported further study of all German technology and research, but more specifically, wanted to adapt portions of the German training regimen for use in the Soviet Union. He was especially eager to acquire German naval technology, whether by purchasing it directly from Germany, having Germany manufacture parts or even entire warships for the Soviet Union, or establishing a technical aid program to have German engineers provide instruction to Soviet engineers for some of the more challenging problems Germany had already solved. The only way to accomplish these tasks was to expand the Orlov committee into a permanent organ for communication with German naval officers. In the short term, the Soviet Union needed to appoint a naval attaché in Germany, extend a reciprocal invitation to German naval officers to visit Leningrad and Moscow, and attend the German naval maneuvers in 1931. That all three of these proposals would be acceptable to Germany appeared very clear in three conversations between Soviet officials and their German counterparts. The first of these conversations occurred on March 7, 1930, between Orlov and Rear Admiral Friedrich Brutzer, who was the flag officer in charge of the fleet section of the Naval High Command.⁴⁹²

During their conversation, Orlov asked three main questions of Brutzer. First, he asked about the mission of the German fleet. Brutzer considered Germany's two most likely opponents to be the United States and England, and suggested that Germany's best method for countering these threats would be interrupting their maritime communications. The French might also be a

⁴⁹² Ibid., I. 85 and Philbin, *The Lure of Neptune*, 17.

short-term adversary. Most importantly, however, Germany wanted to *avoid* war with the United Kingdom: such a war might be “hopeless,” in Raeder’s view (which was the official opinion of the German navy). In addition to discussing Germany’s most likely opponents, Brutzer also told Orlov that German tactical doctrine placed an emphasis on units acting independently, without significant support; *Ersatz Preussen* was the first ship designed specifically with those capabilities in mind.⁴⁹³ Brutzer continued to address the topic of German tactical preparations in Orlov’s second question: whether or not the German fleet had combat regulations and the overall tactical preparedness of Germany’s fleet.

The question of combat regulations bemused Brutzer. In Soviet parlance, the *Boevoi Ustav*, or Combat Regulation, was less a general explanation of what to do in a given situation than a direct prescription that all naval officers and crew were expected to follow. In other words, the chain of command was very strict and did not offer much in the way of opportunities for officers to show initiative. Brutzer was surprised that such regulations even existed in the Soviet fleet and emphasized that there was nothing of the sort in the German navy. He specifically cited the example of Admiral Scheer at the Battle of Jutland as a reason why such a practice was inefficient and even dangerous: “If Scheer was led at the Battle of Jutland by regulations or regulated requirements, then he would not have had such success; it would have fallen out of the grasp of the German fleet. In naval combat, every commander must have freedom of initiative.”⁴⁹⁴ Orlov then moved on to his third question: whether Brutzer supported further communications between the German and Soviet Fleets.

⁴⁹³ Report of a conversation between Orlov and Brutzer, March 7, 1930, RGAVMF, f. 1483, o. 1, d. 103, l. 114–15.

⁴⁹⁴ *Ibid.*, 115.

In his response to Orlov, Brutzer clearly spelled out precisely what Germany hoped to get out of any kind of permanent relationship with the UVMS. For Brutzer, the most important short term objective was a reciprocal visit to the Soviet Union, which Orlov was prepared to offer. In a larger sense, though, he made it clear that what he wanted was *not* a bilateral technology transfer: “Considering that, by all appearances, in the area of technology, the German fleet stands ahead of the fleet of the Soviet Union, [our] interests are represented not in technology and guns, but combat training preparedness and the organization of the service. It would be, therefore, very good to get to the maneuvers and exercises of the fleet of the Soviet Union.” Germany wanted the opportunity for German officers to get practical experience, whether through observing Soviet exercises or by participating in some fashion directly. One area in which the Germans were particularly interested was naval aviation, specifically, getting German pilots training and experience. A naval air arm was expressly forbidden to Germany in article 198 of the Treaty of Versailles, so any opportunity to develop naval aviation, even in secret and within the borders of a potentially hostile country, was extremely valuable.⁴⁹⁵ Orlov’s delegation, both by means of his report and his conversations with Brutzer, clearly saw that both Germany and the Soviet Union had much to gain from a bilateral relationship, and enthusiastically recommended such a relationship to Voroshilov via his report. Unfortunately, circumstances outside the Soviet Union’s control doomed any sort of formal arrangement.

Brutzer visited the Soviet Union in August 1930 and met with Muklevich, who received the German delegation. The Germans saw several Soviet naval establishments, visited the Black

⁴⁹⁵ Philbin, *The Lure of Neptune*, 19; Article 198 of the Treaty of Versailles, <http://avalon.law.yale.edu/imt/partv.asp>, accessed December 19, 2015. Quote is from Report of a conversation between Orlov and Brutzer, March 7, 1930, RGAVMF, f. 1483, o. 1, d. 103, l. 115

Sea Fleet and Sevastopol, and spoke with Soviet naval officers. Their overall conclusions were not nearly as positive as Orlov's had been toward Germany. Brutzer himself criticized the Soviet educational system, saying that "no improvement was likely from the new officers coming from the naval academies." The German naval officers did not even see value in visiting individual Soviet ships. The head of the German delegation did recommend that Germany provide some limited technical assistance to the Soviets as a way of building goodwill, even if it seemed that Germany would get little out of the relationship in its early stages. Even a limited accommodation, however, was largely neutralized by the rise of the Nazi party in German politics with their anti-Bolshevism, in addition to the reservations of the German naval high command. In a memorandum authored by Brutzer himself on May 2, 1931, the official policy of the German navy was to reject any further overtures from the Soviet Union for fear of losing German connections to the United States and/or the United Kingdom. The only evidence of any direct benefit for the Soviet Union from the Germans was the receipt of German diesel engines for Soviet submarines. This somewhat curious decision had more to do with economics than politics, as German submarine designers had little to do for a navy that was formally prohibited from constructing submarines. Building diesels for the Soviet Union helped them retain their skills and generated income.⁴⁹⁶ Despite the overall failure of German-Soviet negotiations, Orlov himself benefitted from the experience. It raised his public profile and put him in a position to compete for the top spot in the Soviet Navy at a time when the UVMS was undergoing extensive changes, including the first round of purges.

⁴⁹⁶ Philbin, *The Lure of Neptune*, 20–22; Erickson, *The Soviet High Command*, 277. Quote is from Philbin, pg. 20.

The rise of Orlov and the end of the traditionalists

In 1930–31, Muklevich and the rest of the UVMS found themselves in an extremely difficult situation. Germany's refusal forced the Soviet Union to look to other partners for technological exchange, including Italy. Japan was briefly considered. However, in the short term, there were indications that Japan might attack China, which resulted in border skirmishes between the Soviets and Japanese in 1929, which forced Soviet naval officers to rethink the configuration of the First Five-Year Plan. The Soviet naval attaché, I. Kokhanov, suggested that Japan was doing all it could to preserve the maximum freedom of action against China. A Japanese nobleman, Baron Sonoda, attempted to convince Kokhanov in 1928 that the Soviet Union should redeploy its air force in the Far East in the Primore region: that is, near the border with Manchuria. When Kokhanov replied that the Soviets intended to do so, in any case, but could not work in concert with Japan, as there was no formal agreement between the two nations. Kokhanov noted that Japan preferred an alliance with the United Kingdom, and had even helped convince the British to build a naval base in Singapore (according to Sonoda). In his letter to Muklevich, Kokhanov speculated that a naval base in Singapore would be an excellent launching point for an invasion of the Philippines. Most importantly, Kokhanov suggested that there needed to be more attention paid to the defenses in the Far East, especially regular air service between Moscow and Vladivostok.⁴⁹⁷ As time progressed, more and more indications occurred that suggested the possibility of a confrontation in the Far East, and so the original Five Year Plan was significantly altered to account for new strategic realities. Before there could be any

⁴⁹⁷ Ivan Kokhanov [patronymic unknown] to Muklevich, February 14, 1928, RGAVMF, f. 1483, o. 1, d. 74, l. 1.

kind of significant expansion, however, some shortcomings in the original Five Year Plan needed to be addressed.

N. I. Vlasev, the Chief of the Naval-Technological Directorate, was among the most openly critical of the progress the UVMS had undergone since the Five Year Plan began. In a November 1929 report, Vlasev noted that three destroyers, ticketed for the Black Sea, had already been removed from the Five Year Plan. That presented a significant problem, because the destroyers in the Black Sea were already obsolete. Maintenance problems and crew shortages only permitted the Soviets to keep four out of the five existing destroyers in the Black Sea Fleet operating during a given year. Romanian destroyers were already superior in firepower and speed to Soviet models, and that was only going to get worse when the Romanians commissioned two new destroyer “leaders” in 1928–29, which were capable of a speed of 35 knots, compared to a maximum of 28 knots by Soviet destroyers.⁴⁹⁸ Even if the Soviet Union held the overall advantage in the Black Sea, as long as Romanian destroyers were superior to Soviet models, the Romanians enjoyed a possible advantage in scouting, screening, and reconnaissance, the traditional roles for destroyers. Vlasev’s short term solution was to transfer two newer destroyers from the Baltic to the Black Sea, the *Karl Marx* and the *Kalinin*. He noted that these destroyers were initially intended for a transfer to the Far East. Adding them would give the Black Sea Fleet “a powerful fist, although not a large [one].”⁴⁹⁹ Vlasev’s proposal certainly made strategic sense, but his criticism was largely unwelcome in a time where Japan

⁴⁹⁸ Destroyer leaders are, essentially, bigger and stronger destroyers designed to serve as the flagship of a destroyer squadron or to operate independently. The British occasionally call them “flotilla leaders.”

⁴⁹⁹ Vlasev, “In connection with the reduction of shipbuilding,” November 18, 1929, RGAVMF, f. 1483, o. 1, d. 88, l. 1.

and the Far East were considered more dangerous than Romania or Turkey. This report began a chain of events that eventually led to Vlasev's dismissal.

Vlasev had proven to be somewhat cantankerous in the past. Sometimes he worked well with Muklevich: for example, it was Vlasev who provided Muklevich the information needed to prevent the Red Army from buying diesels from Krupp or Zultser as opposed to MAN in 1928. On the other hand, he had little patience for bureaucracy, and openly criticized *Vesenkha* for interfering in the navy's plans in 1927. He wrote: "We do not need the Chiefs of the VSNKh as a guiding and planning organ: *we ourselves should direct the construction of the fleet and plan orders, or else the fleet, in all of its difficulties, cannot be built timely or satisfactorily.* ... We do need the Chiefs of the VSNKh for the moderation of excessive prices... i.e. they are needed as organs of *arbitration and inspection of production.*"⁵⁰⁰ Again, Vlasev's concerns certainly appeared to be reasonable, but he lacked tactfulness, which ultimately cost him his position.

In February 1930, Vlasev traveled to Sevastopol as part of his regular duties, specifically to oversee the repair of the battleship *Parizhskaya Kommuna* (formerly *Sevastopol*) and the cruiser *Profintern* (formerly *Svetlana*). During his brief stay there, he managed to antagonize several high-ranking officials, including the Commander of the Port, who wrote Muklevich to complain: "[he] openly agitates against planning, against financial discipline, and [against] the needed 'sleight of hand' [*lovkost ruk*, in this context, probably meaning a light touch]." Other complaints came in as well, which ultimately led Muklevich to request Voroshilov to fire Vlasev. In Muklevich's letter to Voroshilov, Muklevich gave a few reasons for the change, citing

⁵⁰⁰ Emphasis in original. "Abstract of a report of the chief of the technical directorate of the VMS RKKA, Comrade Vlasev," January 20, 1927, RGAVMF, f. 1483, o. 1, d. 27, l. 41; Vlasev to Muklevich, December 24, 1928, RGAVMF, f. 1483, o. 1, d. 51, l. 145.

Vlasev's lack of discipline, his unwillingness to accept orders from above and to "drive his own line," and finally a degree of anxiety that made him impossible to deal with. (Muklevich, not wasting an opportunity to support the navy, blamed part of these problems on the "brutal reduction" of the navy's budget.) Muklevich's preferred replacement was A. K. Sivkov, the commander of the battleship *Oktyabrskaya Revolutsiya*, who had served in the fleet since 1913 and was a member of the Communist Party since 1920. As a measure of Sivkov's reliability, Muklevich pointed out that he had a "unified command," meaning that Sivkov did not require a Commissar to countersign his orders. Voroshilov agreed, and on March 20, 1930, Vlasev was replaced. Vlasev responded with a scathing letter to Muklevich.⁵⁰¹

Vlasev's letter was somewhat impulsive: it is dated March 20, the same day that he was replaced. His first priority was to defend his own record: he denied shifting blame for his mistakes to his subordinates. If mistakes were made, Vlasev wrote, "a certain percentage of the mistakes flow simply from the imperfection of man from a physiological and psychological side." He asserted that he never "deliberately" shifted blame to someone else; in the original, the word *zavedomo* is in all capital letters, further emphasizing his point. He claimed that some of his difficulties were to his own lack of authority regarding the Naval-Technical Directorate. He could not issue decrees or circulars regarding his department or even punish his subordinates without Muklevich's express permission. Muklevich, the Deputy Chiefs of the UVMS, and the Assistant Chiefs of the UVMS were all "chessmen" (*figury*), while Vlasev and the rest of the

⁵⁰¹ Rosenthal [Commander of the Sevastopol Military Port] to Muklevich, February 16, 1930, RGAVMF, f. 1483, o. 1, d. 88, l. 52; Muklevich to Voroshilov, March 6, 1930, *ibid.*, l. 47; Gushcha [Tukhachevsky's secretary] to Muklevich, March 20, 1930, *ibid.*, l. 46. Interestingly, Muklevich had already sounded out Sivkov before firing Vlasev; Sivkov accepted the appointment on February 25, 1930, almost a full month before Vlasev actually lost his position. Sivkov to Muklevich, February 25, 1930, *ibid.*, l. 54.

UVMS bureaucracy were merely “pawns,” (*peshki*), according to Vlasev. Vlasev, in particular, was “the scapegoat for the seas [here, referring to the navy] and the Center [meaning Moscow].” Vlasev compared his own treatment to that of Orlov, who had made an error in analyzing the 1927 naval maneuvers; Orlov was rebuked, as was appropriate, but he was left to make corrections on his own. He concluded his letter by saying, “I ask *only fairness*.” While this appeal to Muklevich did not prevent Vlasev from losing his job, once Orlov replaced Muklevich, Vlasev was named the Chief of the Chief Directorate of Shipbuilding in 1932, a position he held for the rest of his life.⁵⁰² However, in the short term, replacing Vlasev with Sivkov had a positive effect on the navy, allowing for the discussion of a revision of the Five Year Plan.

Discussions on the expansion of the Five Year Plan began in June of 1930. The initial plan of expansion was worked out by Tukhachevsky and only shared with the navy in October of 1930. The Baltic Sea was the clear beneficiary, gaining three destroyers, three submarines, a dozen torpedo boats, and a number of auxiliary ships, including enough landing craft to transport a full regiment. The Black Sea gained three submarines and some minesweepers. However, the most interesting additions were to the Northern Flotilla and the Far Eastern Flotilla; the former would receive three new submarines (with an emphasis on range), while the latter would gain six new submarines, an escort, and 24 torpedo boats. These were the first steps in upgrading both flotillas to full Fleet status, which would occur in 1932 (for the Northern Fleet) and 1933 (for the Pacific Fleet). Sivkov’s report on this expansion was not very optimistic; if they were to complete all of the ships in the time frame required, they needed more money. He estimated that the UVMS would need a total of 63 million rubles to complete the ships on time; instead, the

⁵⁰² Vlasev to Muklevich, March 20, 1930, RGAVMF, f. 1483, o. 1, d. 88, l. 61; Dotsenko, *Slovar biograficheskii morskoi*, 83. Emphasis in original.

UVMS only had 41 million rubles allocated for the First Five-Year Plan.⁵⁰³ However, there was little Sivkov or Muklevich could do about the fleet's budget; the only option they had was to make do with the funds they had and try to spend them as wisely as possible.

Making the expansion of the fleet more difficult to deal with was the series of purges that took place between October 1930 and early 1931. These purges occurred as a part of Operation *Vesna*, a concerted effort to eliminate the remaining *voenspetsy* in the Soviet military, driven largely by the imminent threat of war that Japanese posed at that period. The targets of the purges were invariably the old traditionalists, those individuals who had supported the idea of a powerful Mahanian battleship fleet. The OGPU, the predecessor to the KGB, conducted the purges with the objective of eliminating an “organization of saboteurs, working in the navy over the course of a number of years, [which] pushed an absolutely unrealistic idea of ‘the big fleet’, which could struggle with the fleets of the opposition in the open sea (in first place the English), at the cost of a few billion rubles. Under the cover of these arguments and plans for a ‘big fleet,’ the concrete questions of coastal defense were neglected.” Many of those who were later purged were denounced by N. I. Ignatev, the Chairman of the Naval-Technological Committee, who was himself arrested under false pretenses and forced to give a confession. Among the most well-known of those purged were B. B. Zherve and M. A. Petrov, but the purges spread far beyond that: approximately 40% of all ship commanders were purged, as well as a sizeable portion of staff officers and professors at the Navy Academy. Three out of four unit commanders and two of their staff officers were replaced, as were five out of eight division commanders, one of the

⁵⁰³ “Theses of the report of the Chief of the Technical Directorate on the method of fulfilling the shipbuilding program,” RGAVMF, f. 360, o. 2, d. 299, l. 1–4. Sivkov did not specifically sign the document, but he is mentioned by title.

two battleship commanders, both first-rank cruiser commanders, 17 out of 20 commanders of light ships (including ten out of twelve destroyer commanders), and five out of nine submarine commanders. None were executed, unlike the purges of 1937–38, but all were at the very least demoted, most lost their positions, and several were sentenced to labor camps for up to ten years. Many of those sentences were commuted and many were rehabilitated by 1933, except for Ignatev, who was only released in 1938. However, none of the active naval officers ever returned to active duty.⁵⁰⁴ Another indirect consequence of the purges was Muklevich himself.

Muklevich was certainly no traditionalist. He believed fervently in the power of submarines, devoting considerable time and energy to making certain that the Soviet navy had the best technology available. When there were problems with the *D*-class submarines (so named because the original ship was the *Dekabrist*), Muklevich himself provided solutions: for example, he altered the designs of the later submarines to include more ballast tanks, rather than one large ballast tank. That way, multiple tanks could be filled or drained at the same time, which would allow the submarine to dive or surface more quickly, as needed. He also fought to keep auxiliary diesel engines on the newest class of submarines, the *P*-class (from the lead ship, *Pravda*, also called “Series IV”), as they allowed the submarines to go even faster after the

⁵⁰⁴ Quote appeared in the May 10, 1990 edition of *Krasnaya Zvezda*, the official newspaper of the Soviet military, and was quoted in Kasatanov, *Tri veka Rossiskogo flota II*, 303. See also *ibid.*, 302–04 and Aselius, *Rise and Fall of the Soviet Navy in the Baltic*, 144–45. For Ignatev, see Dotsenko, *Slovar biograficheskii morskoi*, 162. For the impact of Operation *Vesna* in the Red Army, see Peter Whitewood, *The Red Army and the Great Terror: Stalin’s Purge of the Soviet Military* (Lawrence, KS: University Press of Kansas, 2014), 128–141.

diesels had a chance to warm up.⁵⁰⁵ However, a letter from Muklevich to Tukhachevsky suggested that Muklevich's position might be changing.

That letter, from April 1930, actually predated the purges. Muklevich argued that experiments and testing had proven that a large number of small platforms had some serious disadvantages, given modern technology. His first concern was that the guns and other armaments on a vessel represented a comparatively small proportion of the warship's weight. He estimated that approximately 75% of a warship's weight was devoted to the hull, engines, and armor. As for the remaining 25%, he was not specific, but did note that the part devoted to artillery was "insignificant." Dispersing the artillery of a battleship, for example, to many smaller warships, presented neither a savings of weight or in cost, as a result. A larger quantity of smaller ships also made gunnery more difficult; the artillerists on each individual warship could not easily tell whose ship was hitting which targets. If one warship could score 10 hits under given conditions, Muklevich reasoned, two would get 18 hits, not 20; three would get 24 hits, not 30; four would get 20 hits, not 40; and so forth. The only way to maintain a reasonable level of accuracy would be to reduce the rate of fire, which would mean fewer shells on target at any given moment. Finally, he argued that larger ships had much greater survivability. The greater displacement permitted them to carry heavier armor and to move more vulnerable areas of the ship to more defensible positions. Muklevich's example was living quarters, which could be shifted closer to the center of the ship instead of along the sides, which would allow for more room for watertight compartments along the sides of the ship and make the ship more difficult to

⁵⁰⁵ Polmar and Noot, *Submarines of the Russian and Soviet Navies*, 249–50 and 252; Muklevich, "Specifications for *Revolyutsiner*," undated, RGAVMF, f. 360, o. 2, d. 299, ll. 59–60; Report from Muklevich, April 13, 1931, *ibid.*, l. 76; Specifications for Series IV submarines, no date, *ibid.*, l. 84.

sink. Even though the loss of one larger ship would reduce the combat power of a fleet more than a loss of one smaller ship, the overall durability of larger ships meant that it was much more difficult to take one out of service than to take several smaller ships out of surface.⁵⁰⁶ Whether Muklevich genuinely believed in these principles or was simply trying to defend his budget from being slashed more than it already had been is unclear. However, it is easy to imagine a traditionalist writing the letter, and if the OGPU discovered it (or if Tukhachevsky sent a copy to his superiors), it would certainly have made Muklevich a potential target for the purges. Instead, Muklevich remained in office throughout the purges. One possible reason is that Muklevich himself may have had a role in the purges.

Historians differ to a considerable extent on the degree of Muklevich's involvement in the purges. Naval historian Gunnar Aselius wrote that Muklevich "loyally administer[ed] the extensive purges of 1930–31." Tobias Philbin is more indirect, saying only that Muklevich "played a key role in applying Stalin's social policies and totalitarian methods to naval construction." In contrast, a recent study by Russian scholars, even notes that "Muklevich, with all his powers, tried to mitigate the terrors, which raged around the circle of 'senior specialists'." Russian scholar V. E. Zvyagnitsey, in a 2007 study, called Muklevich a victim of the purges, not an instigator, and pointed out that Ignatev and Orlov had denounced him during the trials. Indeed, archival evidence supports the claim that Muklevich had no significant ill-will towards many of the traditionalists: it was Muklevich who tried to give Petrov a prestigious position in the Soviet Navy. He recommended Petrov for the position of Chief of the Combat Training Directorate of the Navy in 1927, calling Petrov "one of the very best of all of the specialists [a

⁵⁰⁶ Muklevich to Tukhachevsky [then Commander of the Leningrad Military District], April 1930 [no date], RGAVMF, f. 1483, o. 1, d. 88, l. 69–70.

term which referred to Imperial officers serving in the Soviet navy] in the fleet” and “the strongest theoretician.” Muklevich had inquired of the OGPU if Petrov was a problem three months before he made the recommendation to Voroshilov, and at that stage the OGPU had no objections, apart from assigning a specific Commissar to keep an eye on Petrov.⁵⁰⁷ Whatever Muklevich’s actual level of responsibility might have been for the 1930–31 purges, he himself did not keep his position for long after their conclusion.

Indeed, it was Muklevich’s attempt to soften the blow for the traditionalists that probably cost him his position. In June 1931, he was named an Inspector of the UVMS, while V. M. Orlov took over as Chief of the UVMS. Like Muklevich, Orlov was a former political officer, although he did have actual combat experience as a watch officer on the cruiser *Bogatyr* from 1917 to 1918. Beginning in 1923, Orlov held multiple positions as an instructor, culminating with a long stint as Chief of the Black Sea Fleet from 1926 to 1931. Orlov lacked Muklevich’s background as a revolutionary, but Orlov’s trip to Germany raised his profile considerably and impressed many of the officers in the Soviet high command.⁵⁰⁸ Indeed, a hallmark of Orlov’s tenure as

⁵⁰⁷ First three quotes are from Aselius, *Rise and Fall of the Soviet Navy*, 142; Philbin, *The Lure of Neptune*, 20; and Kasatanov, ed., *Tri veka Rossiskogo flota II*, 304. The denouncement of Muklevich appears in Zvyagnitsev, *Tribunal dlya flagmanov*, 196. The fifth chapter of his book is one of the more comprehensive treatments of the early 30s purges available. See also Robert Conquest, *The Great Terror: A Reassessment* (New York: Oxford University Press, 1990), 210 and Badeev, “Chelovek gosudarsvennogo uma,” 82–86, although the latter is biased in favor of Muklevich and borders on hagiography at times. The Conquest work, on the other hand, never talks about the 1930–31 naval purges, but speaks highly about Muklevich’s character, praising in particular his work with Tukhachevsky. Last quote is from Muklevich to Voroshilov, July 28, 1927, RGAVMF, f. 1483, o. 1, d. 39, l. 67. Petrov’s appointment is first mentioned in Muklevich to the Chief of the Special Section of the OGPU, April 7, 1927, *ibid.*, l. 69. The assignment of a Commissar appears in Muklevich to the Chief of the Political Directorate of the Red Army, August 10, 1927, *ibid.*, l. 72.

⁵⁰⁸ Dotsenko, *Slovar biograficheskii morskoi*, 288.

Chief of the UVMS would be his ability to work well with foreign governments, leading to an influx of foreign technology just in time for the Second Five-Year Plan.

Orlov as Chief of the UVMS and the Second Five-Year Plan

Orlov inherited a difficult situation from Muklevich. A significant portion of the navy's intellectual leadership was disgraced, demoted, or in labor camps. To address that problem, Orlov began rehabilitating as many of those officers purged as he could; by 1933, most of them were free, although all of them were required to recant their traditionalist views. The other, more pressing problem that Orlov had to deal with was the overall failure of the First Five-Year Plan for the navy. Most of the industries involved in the plan had failed to meet their targets (many of which were ridiculous in the first place), but experienced noteworthy growth all the same. Over the course of the plan, for example, over 2 billion rubles were invested either directly in military industry or in civilian industries related to military production. For the Red Army, the production of machine guns increased nine-fold, while artillery production increased twelve to thirteen times. For the navy, however, there was no such dramatic increase in production. In order for a serious expansion of the Soviet Navy to take place, the Soviets needed larger and more modern shipyards, which was not a part of the First Five-Year Plan.⁵⁰⁹ As a result, the direct results of Soviet naval construction from 1928 to 1932 were unimpressive. As Table 5.1 demonstrates, the Soviets failed to meet even 50% of the plan targets for any new ships except motor torpedo boats, for which they achieved approximately 56% of their goal. The Second Five-Year Plan (1933–1937), therefore, needed to include not only new ships, but the completion of ships from

⁵⁰⁹ Aselius, *The Rise and Fall of the Soviet Navy*, 144–45; Stone, *Hammer & Rifle*, 211; Milan L. Hauner, “Stalin’s Big Fleet Program,” *Naval War College Review* 58, no. 2 (Spring 2004), 99.

the First Five-Year Plan. The preliminary discussions for the Second Five-Year Plan began in September 1931, shortly after Orlov took office.

The STO drafted a resolution in September 1931 that served as the basis for the Second Five-Year Plan. This incredibly ambitious plan included, as a beginning, 151 brand new submarines, with particular attention paid to the Far Eastern Flotilla, which would receive 54 of the new submarines. The resolution also projected six new cruisers, 144 MTBs, and 45 destroyers. This resolution only included newly constructed ships, to be laid down between 1932 and 1935. The total cost of 482 new ships would be 1.78 billion rubles, a significant investment, that only got larger as more and more ships were added to the Second Five-Year Plan.⁵¹⁰ A more detailed variant of the plan, including input from Orlov and the UVMS, was produced in October, using the original resolution as a starting point.

⁵¹⁰ Resolution of the STO, September 1931 [no date], RGAVMF, f. 360, o. 2, d. 299, l. 225–26 and 234.

Table 5.1. Ships completed during the time frame of the First Five-Year Plan⁵¹¹

Class of warship	Authorized February 1929	Including 1930 supplement⁵¹²	Commissioned between 1929 and 1932
Newly laid ships			
Submarines	23	36	7
Destroyers	3	9	0
Escorts	18	18	8 ⁵¹³
Gunboats	0	1	0
Minesweepers	0	10	0
MTBs	63	99	56
Sub hunters	5	5	0
River gunboats	3	3	0
Modernized or ships under construction prior to 1928			
Battleships	2	2	1
Cruisers	1	2	1
Destroyers	3	3	1
Minelayers	0	1	0
Submarine tenders	1	1	0

The October 1931 plan included not only production targets, but a thorough review of naval strategy as it was to be applied in all four major theaters: the Baltic Sea, the Black Sea, the Northern Flotilla, and the Far Eastern Flotilla. The new plan set four primary objectives for the

⁵¹¹ Spasskii, *Sudostroenie v period pervykh pyatiletok*, 26.

⁵¹² These were ships authorized in 1930 (see above section). This represents a new total target for the plan, not an addition to the plan. Thus, the total number of submarines which should have been expected by 1932 would have been 36, not 59.

⁵¹³ Includes one escort, *Skval*, which was actually commissioned in March of 1933.

Soviet Navy, in descending order of importance: coastal defense (particularly the interception of amphibious operations from the enemy); protecting the flank of the Red Army and other joint operations; attacking the naval communications of the enemy; and bombarding the shores of the enemy, a category which included engaging the enemy fleet far afield from Soviet coasts. The basis of the new program was going to be submarines. The new shipbuilding plan went into further detail for each of the four main sub-units of the Soviet Navy, including areas of specific geographical responsibility, and arguing for specific increases in specific areas. However, most of those suggestions were discarded or ignored in the short term. The *Revvoensoviet's* resolution of November 1931, for example, reduced the number of new cruisers from the navy's ideal of seven to only two. On the whole, there were fewer ships (although the submarine total was only decreased by one and the MTB total only decreased by twelve), which represented a significant cost savings of approximately 500 million rubles.⁵¹⁴ While construction began on vessels according to these preliminary programs, the STO did not formally approve the Second Five-Year Plan until July 1933; in the meantime, Orlov focused his attention on trying to import new technologies and develop the existing technological understanding of Soviet officers and engineers to further improve the combat capabilities of the Soviet fleet.

Orlov said, shortly after attaining his new position in 1931, “the mastery of technology in the new year of training remains one of the central tasks of the personnel of the Naval Forces.” While he was in Germany with the delegation in March 1930, he also ordered his subordinates to inquire about German educational practices. One of Orlov's agents, Berg, asked about training

⁵¹⁴ “Tentative plan for shipbuilding,” undated [around October 31, 1931, based on dates within the document], RGAVMF, f. 360, o. 2, d. 299, l. 239–45; Resolution of *Revvoensoviet*, September 1931, *ibid.*, l. 264; Resolution of *Revvoensoviet*, November 1931, *ibid.*, l. 264–65; Report on official cost of plan from October 31, 1931, *ibid.*, l. 289.

for radio operators and officers; the German counterpart, Captain Mertens, told Berg that radio operators took a six-week course, and that officers could only take the same course after two years of active service. Since the overall course of training for officers was 4 ½ years at the German naval academy, that meant that to receive radio training, German officers needed to be attached to the German navy for 6 ½ years. However, the issue of education became particularly pressing for Orlov as Chief of the UVMS. As one author, an officer named Kokorev, opined in the pages of *Morskoi sbornik*, “The successes of the construction of socialism in all areas of the popular economy increases the threat of an invasion from the imperialists for the Soviet Union.” Kokorev indicated that a detailed inspection of all aspects of the Soviet naval educational system was necessary to ensure that the Soviets could keep up with the West, and he was particularly interested in the increased usage of audiovisual materials such as photographs and films to help familiarize Soviet cadets with the basic problems of modern ships. He also considered it important to have Soviet students travel on excursions to shipyards, factories, and other areas where naval equipment was manufactured and assembled (although given the intensification of oversight by the OGPU during this period, such trips were unlikely at best). He offered some concrete recommendations as well, including regular inspections and evaluations of faculty, more articles about education in *Morskoi sbornik*, and working technical training into the summer cruises of young men attending the Soviet naval academy.⁵¹⁵ An important part of making certain that Soviet officers understood modern technology was to address the relative

⁵¹⁵ Quotes are from Kokorev [first name unknown], “Bolsheviki flota dolzhny v sovershentve ovladet boevoi tekhniki” [The Bolsheviks of the fleet must master combat technology to perfection], *Morskoi sbornik*, no. 2 (February 1932), 99 and 97 respectively. See also *ibid.*, 98, 100–01, and Conversation between Berg and Captain Mertens, March 7, 1930, RGAVMF, f. 1483, o. 1, d. 103, l. 119–20.

technological backwardness of the Soviet navy, and to that end, Orlov devoted a considerable portion of his efforts to acquiring foreign technology and adapting it for Soviet purposes.

Throughout 1932, as the *Revvoensoviet* and UVMS worked to develop the navy's contribution to the Second Five-Year Plan, Orlov pursued foreign technology from Germany, Italy, and the United Kingdom. Chronologically, the first country approached was the United Kingdom. A sub-sub-committee of the Committee for Imperial Defence reviewed the possibility of exporting British technology to the Soviet Union on two separate occasions: their first meeting was May 31, 1932 and the second was June 3, 1932. Colonel L. V. Bond wrote the report that represented the formal opinion of the Sub-Committee of Technical Aid Contracts with the USSR. In general, the British position was quite positive. As long as export licenses did not reveal any military secrets or had the possibility to be used against the British Empire in the immediate future, there was no serious objection to granting export licenses. In fact, export licenses had a number of positive aspects. They kept British factories working at maximum capacity, even if the government wasn't willing to place orders; they encouraged a level of dependency on British goods (specifically for ammunition, spare parts, and repairs) that might discourage offensive action against the British Empire; and finally, export licenses helped create jobs and provided other domestic economic benefits, which would help keep the political opposition from gaining ground in parliamentary elections.⁵¹⁶ However, there were some specific concerns with the Soviet proposal for technical aid.

⁵¹⁶ Report of Colonel L. V. Bond, undated [probably June or July 1932], TNA, CAB 48/6, Committee of Imperial Defence, Sub-Committee on Industrial Intelligence in Foreign Countries, Sub-Committee on Technical Aid Contracts with the USSR, 1-3.

The new Technical Aid Contract had some important differences, from the British point of view, from a simple export license. The Soviets were not requesting finished goods, but production licenses. That is, the Soviets wanted the right to build British-designed equipment in the Soviet Union. The British Admiralty, however, would only allow the sale of goods to foreign countries if the goods were produced in British factories. To make matters worse (from the British perspective), the Soviets also wanted British personnel to educate Soviet engineers, as well as technical advice. Worst of all, the Soviets insisted upon the right of the Soviet Union's representatives to inspect British factories. The British government was concerned that the Soviets might use such an opportunity to sneak Communists into the country, either to agitate British labor policies or to even organize a coup d'état, as Colonel L. V. Bond mentioned in page 5 of his report on the Soviet request. Even the fact that the Soviet Union would have to, at least initially, buy tools and equipment from the United Kingdom did not mitigate these security concerns. The Technical Aid Contract would also harm the British economy indirectly by effectively subsidizing a potential competitor. Therefore, the sub-sub-committee recommended the rejection of the contract, and further suggested that MI5 (British counter-intelligence) carefully vet any British citizen who wished to travel to the Soviet Union for commercial purposes and train them against revealing anything the British might consider secret.⁵¹⁷ With the British option closed to him, at least for the moment, Orlov turned to Italy.

One of the most serious deficiencies in the Soviet navy was AAA. The Soviets had hoped to order AAA fire control systems from Vickers-Armstrong. One such unit cost \$750,000, but offered substantial education benefits, including technical aid to assist the Soviets in producing the units themselves. While Voroshilov was in favor of such a policy, as was Orlov, the potential

⁵¹⁷ Ibid., 4–5.

British unwillingness to permit the Vickers-Armstrong system from being sold abroad forced the Soviets to turn to other sources in the likely scenario that the British government prevented the deal from going through. Into this void stepped Italy. The Italians had developed a new model of AAA, but had rejected an earlier model, invented by an Italian Admiral named Minzini, as being obsolete. The Minzini system, which included both the guns and fire control, fit Soviet purposes well, however, and the Soviets were eager to acquire the new guns. Within six months, the Soviets could procure fourteen of the 100mm guns for 1.44 million rubles; given that Vickers wanted the equivalent of 1.5 million rubles for a single fire control set, such an investment represented a considerable bargain. After discussing the technical details with Admiral Minzini, Sivkov (the Chief of the Naval-Technical Directorate) eagerly recommended the adoption of the Italian AAA to Voroshilov, G. K. Ordzhonikidze (People's Commissar for Heavy Industry), and A. P. Rosengolts (People's Commissar for Foreign Trade). These new AAA batteries not only represented a technological upgrade for the Soviet navy; they also helped form a closer relationship between the Soviet Union and Italy. This relationship, in turn, made Italian factories viable competitors with German factories for Soviet orders, as the Italians could usually offer lower prices and were more willing to share technology than the Germans were.⁵¹⁸ As for

⁵¹⁸ Leonov [Chief of the Directorate of Artillery for the UVMS] to Orlov, September 20, 1932, RGAVMF, f. 1483, o. 1, d. 164, l. 1; Orlov to Voroshilov, September 30, 1932, *ibid.*, l. 2; Voroshilov to Molotov (as Chairman of the STO), September 1932 [there is a date, but it was cut off in the original], *ibid.*, l. 3. Voroshilov urged the approval of the offer from Vickers, but whether or not the purchase was made is unknown. It would have been a more acceptable export license, rather than a production license, so it is possible that the British government might have approved it. For the Minzini AAA, see Sivkov to Voroshilov, Ordzhonikidze, and Rosengolts, May 5, 1932, RGAVMF, f. 1483, o. 1, d. 155, l. 3 and Report of Efimov and Dushenov [co-leaders of the Soviet delegation that inspected the units in Italy], undated, *ibid.*, l. 9–12.

Germany, although there was no formal relationship or collaboration between Germany and the Soviet Union, German firms were eager to secure Soviet business.

In order to build closer ties with Germany, Orlov sent Sivkov there in November 1932 to discuss terms with individual firms, as well as to check progress on deals already made with German firms, such as MAN in Augsburg. The objective of this particular trip was to get German aid in building submarines, engines (both for submarines and general marine diesels), and batteries. If possible, the Soviets also wanted aid in building destroyer leaders and cruisers, but thought that they were more likely to get that type of aid from Italy than from Germany. The priority was to get technical aid to build these ships, engines, and other equipment in the Soviet Union. The delegation was to travel to two countries initially—Germany and the Netherlands—but it was eventually extended to a visit to Italy and Spain. Voroshilov also wanted to invite two Germans to the Soviet Union, experts in the theory of submarine construction: Professor Flamm and Doctor Kempf. Sivkov also wanted to extend an invitation to shipbuilders from the four largest Italian shipyards to visit the Soviet Union and discuss terms for cruisers specifically. In addition to Sivkov himself, the Soviet delegation included P. Yu. Oras, who had experience with Germany from his previous trip with Orlov in 1930; a Ship's Engineer named Peregudov, formally representing the NKVM; a representative from the People's Commissariat of Heavy Industry named Nikitin; A. I. Berg, who was in charge of naval artillery (despite his primary competence, which was radio communications); K. I. Dushenov, the Chief of Staff for the Black Sea Fleet; and an expert in torpedoes named Platonov. Some of these would later break off from the main group and travel to Italy as a separate mission. Oras and Berg had specific experience in

Germany that made them especially valuable and were trusted by Orlov.⁵¹⁹ The delegation arrived in Germany on November 9, 1932.

The first firm the Soviets met with in Germany was the Dutch submarine firm NV *Ingenieurskantoor voor Scheepsbouw*, or IvS. This company had already built submarines for Turkey, Finland, Spain, and Japan. Ostensibly a Dutch company, in reality the company had been funded initially by three German shipyards, and later by discretionary secret funds from the German navy itself. IvS offered two designs to the Soviets: the first for a 1200-ton submarine, the second for a 700-ton submarines, and gave some particulars about the designs. Both submarines were capable of a maximum speed of over 20 knots and were very well armed: the larger submarine boasted a 100mm deck gun, a 45mm AAA gun (which could also serve as a secondary deck gun), a 0.5” machine gun, and eight torpedo tubes (six fore, two aft).⁵²⁰ The smaller submarine carried a pair of 76.2mm deck guns and six torpedo tubes (four fore, two aft). Underwater, both submarines could achieve speeds of nine knots for up to an hour, or three knots for 40–50 hours. Their range was up to 4500 nautical miles at ten knots, but if the Soviets were willing to accept some damage to the engine, could theoretically achieve almost twice that range (approximately 8500 nautical miles). However, the Soviets were frustrated by the minimal access that the company would give to the delegation. IvS conducted their negotiations in an air of “mysteriousness” and “categorically refused to go to our Trade Mission for negotiations, and by

⁵¹⁹ Sivkov to Orlov, November 6, 1932, RGAVMF, f. 1483, o. 1, d. 165, l. 1–2; “Decision” [specifically, *reshenie*, author and date unknown; most likely author is Orlov, but could be Sivkov], *ibid.*, l. 4–5; Voroshilov to Sivkov, no date, *ibid.*, l. 6–7; Dushenov, “Report of the naval group on the work in Italy,” undated, *ibid.*, l. 122–23. The budget for the original group included eight people, but there were only seven names given; it is possible that the eighth person was a secretary.

⁵²⁰ The original document refers to the machine gun as 5”, but it is possible that there was a typo or that the decimal point was simply unreadable.

every possible measure, insisted that negotiations were to be conducted at the headquarters of the War Ministry.” Furthermore, to even begin detailed negotiations, IvS demanded \$10,000 up front, and offered a price of \$400,000 for the smaller submarine and \$600,000 for the larger; 25% for each submarine was to be paid at the contract signing, meaning that the Soviets might well have to pay \$260,000 to begin with. The remaining sums were required two weeks after the designs were delivered. Only after protracted discussions were the Germans willing to drop the original demand for \$10,000, at which point they were encouraged to travel to The Hague and Spain to look at some IvS submarines. Even that concession met with extreme hardship, given the difficulty of getting visas to visit either country, and when Oras did finally go to the Netherlands, his relations with the Dutch naval attaché made Oras extremely uncomfortable. In a letter to Orlov, Oras complained that “We received the impression that we were drawing his attention away from extremely important matters. ... Therefore, I request your pressure on the attaché.” While IvS eventually did build submarines for the Soviet Union, the Soviet delegation came away with nothing from the original round of negotiations except irritation. While talking with IvS, however, the delegation also met with battery manufacturers from MAN, AFA (an abbreviation in German for Battery Factory, Inc.), and Siemens Schuckert. Those discussions were far more productive, and Sivkov excitedly reported that AFA batteries were 50% more efficient than the latest Soviet design. Finally, in his report to Voroshilov, Sivkov noted that he and his delegation (or at least a part of it) would need to travel to Italy in order to meet with their representatives, as the Italians would not travel to Germany.⁵²¹

⁵²¹ Peregudov, reports on 1200 ton submarine and 700 ton submarine, November 18, 1932, *ibid.*, l. 14–18; Sivkov to Voroshilov, November 25, 1932, *ibid.*, l. 22; Sivkov to Voroshilov, date unknown [letter was forwarded to Orlov on December 9, 1932], *ibid.*, l. 39–45; Schpiss [Representative of IvS] to Sivkov, December 3, 1932, *ibid.*, l. 46; “Excerpts of material presented by the firm IvS...”, November 22, 1932, *ibid.*, l. 72–74; Oras to Orlov, December

The Italian portion of the 1932 trip was far more productive than the German portion. As a general rule, the Soviets found the Italians much more forthright, friendly, and reasonable regarding prices. Sivkov was the first person to go to Italy; he visited the Whitehead torpedo factory in Fiume. The Soviets had already placed an order for those torpedoes, and his overall impressions of the model they were receiving was positive. However, Sivkov was having difficulty with currency, a very common problem during the Soviet era. The ruble, which was inconvertible, could not be used outside of the Soviet Union. The problem was especially difficult when trying to trade with foreign powers in the 1930s, as the Soviets had limited foreign currency reserves and it was difficult to justify spending those reserves on naval technology. In this particular circumstance, Sivkov warned Orlov that without the necessary currency, they would not receive torpedoes until March 1933. In all other aspects, however, the torpedoes were exemplary, and Sivkov planned to buy more. His original mandate was to buy 25 more, but the factory offered a volume discount if they bought 100. Soviet subs did need some tweaking to fire the Italian torpedoes, but the Soviets had done it before without much issue. The only significant concern (apart from paying for the torpedoes) was that the depth finders and gyroscopes on Italian torpedoes did not work well with the Soviet torpedo launchers, but Sivkov had a possible solution that would require only minimal further alterations of the torpedo tube. If successful, it would eliminate all possible objections or difficulties in using Italian torpedoes in the future.⁵²² Sivkov's experiences were so positive that he decided to send Oras, along with a smaller

20, 1932, *ibid.*, l. 78–80. Quotes are from first letter from Sivkov to Voroshilov and the letter from Orlas to Orlov, respectively.

⁵²² Sivkov to Orlov, December 19, 1932, *ibid.*, l. 88–89, 92.

delegation, to Italy to further discuss other possible foreign technology imports with Italian shipbuilders.

Oras was a good choice to head this delegation to Italy, as he had taken another delegation to Italy in 1931. Sivkov himself had taken a Soviet delegation to Italy in 1930, so there was plenty of precedent and experience to make the trip a smooth one. K. I. Dushenov, who wrote the report on the Italian expedition, confirmed that the Italians had much to gain from Soviet business: “In spite of the fact that the Italian administration, as before, emphatically builds warships according to the program which was proposed earlier, there is nevertheless productive capacity of the factories [which is] far from being used, and recently [the factories] lived through a very grave crisis [perhaps a reference to the Great Depression?].” Italian industry was also becoming more and more specialized to help build this fleet, which added further incentive for Italy to work with the Soviets. As for the Soviet Union’s objectives, they had three: to follow up on earlier orders of torpedoes, the Minzini AAA, and fire control systems; to further establish close ties between the Soviet and Italian navies; and to learn as much as they could about Italian submarines, cruisers, and destroyers, with the possibility of ordering some warships (or perhaps only designs and technical aid). The Soviet delegation was divided into three groups: one group, led by Oras, included mechanics and ship’s engineers; the second group, led by Berg, looked at naval artillery; the third and final group, led by Platonov, specialized in torpedoes. In order to make sure that they had enough people to fill each group, Orlov requested more people from the

Soviet Union, which was approved by the Deputy Chairman of the *Revvoensoviet*.⁵²³ Once those individuals arrived, the proper work of the delegation could begin.

The inspection of the Minzini AAA was even more convincing to the Berg delegation than it had been to Sivkov. Berg and his artillerists were able to test fire the guns from an Italian cruiser, at a firing range, and inspect the Venetian arsenal where they were stored. The Italians were happy to provide details on the weapons, withholding a few key proprietary items (specifically, the mechanisms that the AAA used to automatically compensate for the pitch and roll of the ship on which they would be mounted) until the contract was signed. The guns themselves operated perfectly, and the Italians were incorporating modifications that would guarantee the accuracy of the artillery to be off by no more than 1.5% at 10 kilometers. The only weakness of the weapon was the multiple types of metal used to make the barrel; after about 250 shots, the barrel would become corroded and shells would lose approximately 25 m/s in muzzle velocity. However, the Soviets were so pleased that they urged the purchase of not the original twelve sets of Minzini AAA, but all fourteen. Even if the guns themselves turned out to be useless (which they almost certainly would not), the knowledge gained from testing them and reverse-engineering them would be worth far more than the money expended to acquire them. Platonov and his group of torpedoists were similarly pleased with their experiences, and they recommended the purchase of 80 to 100 21” torpedoes and 50 18” torpedoes. They also sought special aid from the Italians to manufacture Whitehead torpedoes at a factory in Russia, even asking one factory in Naples to help the Soviets design an entirely new factory from the ground

⁵²³ Reizin [Secretary to the Deputy Chairman of the *Revvoensoviet*] to Orlov, December 5, 1932, RGAVMF, f. 1483, o. 1, d. 165, l. 107; K. I. Dushenov, “Report of the naval group on the work in Italy,” undated, *ibid.*, l. 120–23; the quote is from 120–21.

up.⁵²⁴ The most important work, however, was entrusted to Oras and his group of naval architects and engineers: they were to introduce the idea of the Italian manufacture of submarines, destroyers, and cruisers for the Soviet navy.

Oras's group visited three submarine-manufacturing shipyards in Taranto, Spezzi, and Trieste. Most of the actual submarines they inspected offered little of value to the Soviet Union. Some were earmarked for sale to Argentina, others to Brazil. Apart from commenting on the electric welding technique used to manufacture the subs bound for Brazil, the only thing the Soviets could learn from the production of those subs was practical experience in construction and administration. One particular submarine, however, caught Oras's attention: the *Luigi Settembrini*. The group was so enthusiastic about this particular type of submarine that they recommended the purchase of three of them. The specifications were considered excellent, but it was the cost and speed of construction that really appealed to Oras. As part of the contract to purchase the submarines, the Soviets would gain access to the designs for the Italian submarines, as well as technical aid to manufacture them in the Soviet Union. The cost of the submarines was approximately 2950 rubles per ton; every other country that the Soviets had asked to build submarines had quoted a much higher price, ranging from 3200 rubles per ton from French yards to up to 4000 rubles per ton from Japanese yards. As for cruisers and destroyers, the committee recommended purchasing plans and technical aid to build them in the Soviet Union. As with the submarines, the Italian cruisers and destroyers were not necessarily better than their Soviet equivalents, but they were much simpler in design, which made them cheaper and quicker to build. All of these purchases needed to be approved by the STO and *Revvoensoviet*; in the meantime, however, Sivkov's delegation returned to the Soviet Union with about 8 million

⁵²⁴ Dushenov, "Report of the naval group on the work in Italy," *ibid.*, 123–31.

rubles spent on contracted goods, all of which would be delivered by September of 1934. Among the purchases were 130 21” torpedoes, two triple torpedo tubes, several mines and depth charges, twelve of the Minzini AAA units, two fire control systems, fifteen periscopes, fourteen range finders, and 100 search light reflectors.⁵²⁵ The Soviets ended up not purchasing any of the Italian submarine designs, preferring the German models, but the cruisers and destroyers were another matter.

The purchase of the destroyer leader that would eventually be known as *Tashkent* is especially noteworthy because it represents the first time that Stalin himself intervened in naval affairs. In a short letter to Orlov, Sivkov informed his superior that Stalin “was especially insistent on the need for this help [meaning Italian technical assistance] for us in the construction of destroyers, particularly leaders.” Sivkov received that communication on October 16, 1932, the day before he sent the letter to Orlov. Sivkov also personally endorsed the purchase of cruiser designs and enough destroyer designs for an entire class. He thought that Italian engines would be helpful in the future production of the fleet, noting that they could acquire destroyer turbines for about 2 million lira. Regarding the cruisers, the Italians offered four different “packages,” which included varying degrees of direct technical assistance and engine construction at differing costs. The cheapest option included the engines, designs for the cruiser, and some technical assistance, but the Soviets would only receive a design of proven quality. If the Soviets were willing to pay more, the Italians would be free to experiment, and could offer far better results. The Italians also promised to assist with the hull and the engines, instead of just the engines. The

⁵²⁵ Ibid., 133–42; Sivkov to Orlov [undated], RGAVMF, f. 1483, o. 1, d. 165, l. 143, 164–68. 164–68 has the delivery schedule for the newly ordered goods; it is unclear whether it was an attachment to Sivkov’s letter or if it was a separate item. The cost, 7,946,932 rubles, appears on 168.

Italians, further, offered an entirely new design for a 7000-ton cruiser. The speed of this new cruiser could be as high as 40 knots. The Italians suggested several alternatives in this area as well, a total of fifteen possible options. By February of 1933, the final purchase decisions were made based on the trip to Germany and Italy: the Soviets bought three German submarine designs, two which were specially designed for the Soviets, while the other was an existing German design (the *E-1*). As for the Italians, the only initial purchase was for the destroyer leader, but the Soviets appointed Oras naval attaché in Italy; Oras would continue to work to negotiate the details of technical aid for cruisers, in particular.⁵²⁶ Orlov, on the other hand, found himself more concerned with the fulfillment of the remainder of the First Five-Year Plan and the design of the Second Five-Year Plan after 1933.

One of the biggest obstacles in the speedy creation of the shipbuilding portion of the Second Five-Year Plan was the difficulty of conducting business with Soviet shipyards. The negotiation of contracts was a particular sticking point, and with the aim of speeding up the process, the *Revvoensoviet* appointed Tukhachevsky (as Deputy People's Commissar of the Army and Navy) as the head of an interdepartmental conference, which included Orlov and the department heads of the Red Army and Red Air Force. While most of Tukhachevsky's reforms were bureaucratic in nature (including, for instance, the filing of all contracts within 24 hours of signature), his presence at the head of the committee helped ease matters significantly. One direct consequence of the conference was Voroshilov urging Orlov to report all delays in

⁵²⁶ Sivkov to Orlov, October 17, 1932, RGAVMF, f. 1483, o. 1, d. 165, l. 169–72; “Report on the type of cruiser and conditions to receive technical help for cruisers and destroyers in Italy” (author and date unknown), *ibid.*, l. 249–256; Draft Resolution of the STO, February 1933, *ibid.*, l. 257–59; Draft Resolution of the STO, undated, *ibid.*, 260–63. Quote is from Sivkov letter, 169. As far as when specifically Oras was appointed, it is unclear. However, a report filed on August 25, 1933 clearly identifies him as attaché. See RGAVMF, f. 1483, o. 1, d. 204, l. 3.

shipbuilding for ships being completed from the First Five-Year Plan. Shortages of goods played a role, but much of the blame went to factories themselves, who consistently underperformed based on the terms of the original contract. Some delays were insignificant: for example, the All-Union Battery Trust reported delays of about a month to complete the delivery of some submarine batteries. For some factories, especially the torpedo factory “Dvigatel,” the delays were more severe. “Dvigatel” was supposed to have finished 450 torpedoes by April 1933; instead, they had only finished 70.⁵²⁷ For a more complete report on the delays of shipbuilding, Orlov called a conference with all of his department heads.

The conference of April 15, 1933 initiated several inquiries into the progress of several vessels. The six submarines of Series II, for example, were to be completed by July 1, 1933, according to Orlov, but Kondratev, the manager of Soyuzverf—the organizing body in charge of the administration of all shipyards—refused to guarantee their completion by that date. If the manager refused to guarantee delivery by that period in writing, Orlov resolved to use Voroshilov to put pressure on Kondratev. For the Series IV submarines, their delay was caused by the death of a builder named Asafov, who was to design the diesel engines for them. However, many of the construction delays were simply the result of late delivery of materials. In some instances, like the construction of the Series II escorts, there was no more excuse than “the unsatisfactoriness of the work” (*neudovletvoritelnost*). In almost every circumstance, the only solution offered was to ask for more information or for guarantees from Kondratev, and in the

⁵²⁷ Excerpt from Session of the *Revvoensoviet*, January 25, 1933, RGAVMF, f. 1483, o. 1, d. 156, l. 159; Protocols of Tukhachevsky conference, January 26, 1933, *ibid.*, l. 163–4; Voroshilov to Orlov, April 11, 1933, *ibid.*, l. 315; Orlov to Voroshilov, April 20, 1933, *ibid.*, l. 316; Orlov to Voroshilov, also April 20, 1933, *ibid.*, l. 324; Orlov to Voroshilov, April 22, 1933, *ibid.*, l. 329

absence of either of those, to use Voroshilov to put pressure on him.⁵²⁸ One of the most important aspects about this conference is that Orlov specifically mentioned using Voroshilov as a tool to put pressure on other aspects of the Soviet economy. If nothing else, Orlov was active in building a relationship with Voroshilov, which was almost as good as building one with Stalin as far as military affairs were concerned. Better still, the relationship was strong enough that Orlov was not afraid to use that relationship. Even so, the constant delays were frustrating to Orlov and to Voroshilov, but there was about to be even more pressure on the Soviet shipbuilding industry with the introduction of the Second Five-Year Plan's goals for the Soviet navy.

In July and November 1933, the STO published two resolutions that governed the new shipbuilding plan. This new plan envisioned an extensive expansion of the Soviet navy far beyond the concept of the First Five-Year Plan. By 1937, the Soviet navy was to have commissioned 321 submarines, including the 59 laid down in the First Five-Year Plan. The plan was to include eight cruisers (later reduced to four in the November correction), ten destroyer leaders (reduced to eight, including three begun in the previous plan) and 40 destroyers (cut to 22). Just behind submarines in terms of overall quantity were MTBs, of which there were to be a total of 252 commissioned (including the 20 to be finished from the First Five-Year Plan). Apart from the cruisers, this new plan was entirely in keeping with the modernist mindset that had governed the Soviet Navy since the mid-1920s. Calling the new plan “ambitious” would be something of an understatement; with only 260 weeks in the five-year period, the Soviet Union would need to commission more than one submarine per week on average (approximately 1.23 submarines per week) just to fulfill that particular part of the plan. The Second Five-Year Plan did include two new shipyards, the first substantial expansion of shipbuilding capacity in the

⁵²⁸ Protocols of the Conference of the Chief of the Naval Forces of the Red Army, April 15, 1933, *ibid.*, 1. 326–28.

Soviet era, as well extensive modernization of the shipyards in Leningrad and on the Black Sea. There was one new shipyard on the White Sea at Molotovsk and another in the Far East at Komsomolsk; Molotovsk in particular was a massive shipyard, capable of building battleships while at the same time becoming one of the world's largest submarine manufacturers. The White Sea shipyard was facilitated by the completion of a White Sea-Baltic Sea canal in 1933, which permitted the towing of unfinished vessels from Leningrad, although Molotovsk did not become a major shipyard until after World War II. The Soviets used inland submarine shipyards along major rivers to further supplement submarine construction as well. The fact of the matter was, however, that the Soviet Union simply did not have the industrial capacity to build the number of ships ordered in the Second Five-Year Plan.⁵²⁹ If Orlov could have ordered a significant quantity of warships overseas, he might have been able to at least partially fulfill those goals, but instead, the Soviet emphasis continued to be acquiring technology, designs, or warship components, rather than finished warships.

The Soviet Union did receive significant foreign assistance in the construction of cruisers from Italy: the future *Kirov*-class. The preliminary Italian design suggested that the finished vessel would be no more than 6500 tons displacement, capable of 37 knots for approximately 15 hours, three dual turrets of 180mm guns, four to six 100mm AAA, two triple torpedo tubes, and the capability to lay mines. By comparison, the newest Soviet-built cruiser, *Krasnyi Kavkaz* (completed in January 1932), was eight knots slower and less heavily armed (four guns instead of six); the older cruisers in the Soviet navy (*Chervona Ukraina* and *Profintern*) were even worse off, as they were fifteen knots slower and required both coal and oil to operate their

⁵²⁹ Spasskii, *Sudostroenie v period pervykh pyatiletok*, 29; Walters, "The Changing Geography of Russian/Soviet Naval Construction," 169–70; Hauner, "Stalin's Big-Fleet Program," 99–101.

engines, as opposed to the strictly oil-fired turbines that were standard in 1930s. All three of those cruisers were laid down prior to World War I, so the newer cruisers the Italians proposed to design for the Soviets would be a welcome upgrade. At the same time, the Soviets were suspicious of allowing Italians access to Soviet military secrets; the Italians would work within those parameters, but refused to guarantee engine performance if they could not learn the exact capabilities of Soviet technology. The final arrangement was that the Soviets would build the hulls of the new ships (after purchasing designs of Italian ships to glean more insight into the process) and the Italians would build the engines. The engines were what Soviet naval attaché Oras was most interested in acquiring, both for the new ships and as a model for new Soviet engines. Oras recommended dealing strictly with Ansaldo, as they had their own engine construction factory and made their own steel. Orlov endorsed Oras's recommendation to Tukhachevsky, who was encouraged to make the final recommendation to Molotov (as Chairman of the STO) to approve the arrangement. Orlov originally wanted to use the new engines in the battlecruiser *Frunze* (formerly the Russian dreadnought *Poltava*), but Sivkov convinced him to use the engines in an entirely new ship that could make the best use of their abilities or, failing that, to use them in the battleship *Oktyabrskaya Revolutsiya*. Orlov eventually agreed, with the *Frunze*'s redesign ultimately cancelled in 1935 at Orlov's initiative.⁵³⁰ With the basic structure of the deal in place, all that remained was for Italy and the Soviet Union to work out the details with Ansaldo.

⁵³⁰ Tactical dimensions of a light cruiser with the engines of the light cruiser *Montecuccoli*, undated, RGAVMF, f. 1483, o. 1, d. 204, l. 1; Oras to Voroshilov, August 15, 1933, *ibid.*, l. 14–19; Orlov to Tukhachevsky, August 29, 1933, *ibid.*, l. 22; Sivkov to Orlov, November 11, 1933, *ibid.*, l. 35; Gardiner, ed., *All the World's Fighting Ships III*, 327; McLaughlin, *Russian & Soviet Battleships*, 353.

The Soviets employed an unnamed German firm to estimate the cost of the cruiser, including the engines, ensuring that the eventual price paid was reasonable. Ansaldo proposed a total cost of 3,676,000 rubles, which included the engines, as well as designs for a destroyer. The German firm recommended that the Soviets counter with a proposal of 2,480,000 rubles. Oras thought that Ansaldo would probably meet the Soviet Union halfway and accept a total cost of 3,000,000 rubles, but these negotiations took a considerable amount of time. Ultimately, the slow pace of negotiations cost Oras his position, but his replacement managed to finalize negotiations for a total price of 3,435,000 rubles in May 1934; the STO formally approved the design and authorized the beginning of construction in December 1934.⁵³¹

Two cruisers were laid down according to the design, the *Kirov* and the *Voroshilov*, which were to act as the lead ships for the class. The *Kirov* was built in Leningrad, while the *Voroshilov* was built in Nikolayev (on the Black Sea). Both vessels were laid down in October 1935, with *Kirov* completed in 1938 and the *Voroshilov* finished in 1940. Four other cruisers were built on a modified design, but only one (*Maksim Gorkii*) was completed before World War II. The *Kirov* was the fastest cruiser in the world, with a top speed of 36 knots, and the other five ships had top speeds of 34 to 35 knots. They represented the finest surface warships built by the Soviet Union prior to World War II; they were also the largest. All six cruisers represented a perfectly logical extension of the modernist viewpoint. They were versatile (all of them were capable of laying mines, and each carried one or two aircraft), fast, and reliable. The armament was a little light for shore bombardment, with three triple turrets of 180mm guns, but it could

⁵³¹ Oras to Ordzhonikidze, January 16, 1934, *ibid.*, I. 52–53; Oras, notes of talks from February 5, 1934, *ibid.*, I. 54; Ordzhonikidze to KO, March 10, 1934, *ibid.*, I. 60; Ordzhonikidze to KO, May 14, 1934, *ibid.*, I. 68; Gardiner, ed., *All the World's Fighting Ships III*, 327.

still cause serious damage to unfortified positions.⁵³² Although the Soviets did require Italian assistance to build them, the *Kirov*-class was the crowning naval achievement of the Second Five-Year Plan, especially given the amount of work needed to even to begin their construction. The Soviets also received a different kind of foreign assistance from France, which was perhaps less productive, but was instrumental in drawing the two countries closer together.

One of the most revealing aspects of the negotiations between the Soviet Union and France is that the Soviets held most of the leverage. Technologically, France had little to gain from cooperating with the Soviet Union. They certainly were not going to exchange technology for free, and could count on a reasonable sum, but the primary motivation for France's acceptance of the Soviet requests was almost certainly diplomatic, not economic. France was eager to create a system of "collective security", an idea that stretched back to the 1920s, that would bind the Soviet Union to France and countries in Central and Eastern Europe in an effort to create a counterbalance against Germany, which had recently seen Adolf Hitler and the Nazis seize power in January 1933. The Soviets accepted the basis of this proposal, not out of any great fondness for France, but in concern over the decline in relations between Germany and the Soviet Union, given Hitler's rampant anti-Bolshevism. The Soviets had even attempted to create their own notion of "collective security," by formulating an "Eastern Pact" that would have included Germany, Poland, Latvia, Estonia, Finland, and Czechoslovakia, which failed when Germany and Poland refused to sign. Until the Soviets committed one way or the other, France needed to do everything it could to improve relations with the Soviet Union, which accounts for

⁵³² Gardiner, ed., *All the World's Fighting Ships III*, 327–28.

Soviet success in the early stages of the negotiations with France.⁵³³ Therefore, the French had everything to gain by trying to accommodate the Soviets, and readily agreed to their demands to inspect French facilities, knowing full well that trained naval officers would doubtless gain some knowledge for free, even if the French did not necessarily intend to give it to them.

Ultimately, the Soviet Union gained little except for goodwill and the free knowledge they attained during their inspection tours in France. However, the Soviets had made arrangements to gain far more than they actually did from the trip to Paris. Specifically, they had come to terms on a destroyer leader based on the French *Fantastique*, capable of over 40 knots. The price tag was approximately 3,000,000 rubles, but Sivkov, who conducted the negotiations, thought such a price worth it for the quality of the product and the speed of construction (12 to 15 months from the day of signing). French destroyer leaders were especially interesting to the Soviets because they could easily accommodate Soviet artillery, requiring far less extensive changes to the hull than Italian destroyer leaders would. The deal was never finalized, however, partially due to debates over the type of turbine to use, and partially because Soviet priorities had drastically changed.⁵³⁴ Stalin got openly interested in shipbuilding programs in 1935, and that change led to an unexpected return to the priorities of the traditionalists.

⁵³³ Kasatnov, ed., *Tri veka Rossiskogo flota II*, 333; Jelavich, *St. Petersburg and Moscow*, 340–42. Jiri Hochman argues that the Soviets never wanted ties with France at all, only accepting collective security as a last resort, and that the Soviets did everything they could to ensure that when collective security failed, the Soviets could not be blamed. Jiri Hochman, *The Soviet Union and the Failure of Collective Security, 1934–1938* (Ithaca, NY: Cornell University Press, 1984).

⁵³⁴ Sivkov to Voroshilov, January 10, 1934, *ibid.*, l. 105–09; Sivkov to Voroshilov, January 25, 1934, *ibid.*, 115–26; Ordzhonikidze to KO, March 10, 1934, *ibid.*, l. 136. For those interested in the turbine debates, see Muklevich to Voroshilov and Ordzhonikidze, April 23, 1934, *ibid.*, l. 137–39; Notes of undated conversation between Muklevich and Francois, *ibid.*, l. 152–54; Muklevich to Ordzhonikidze and Voroshilov, May 12, 1934, *ibid.*, l. 148–51; Confidential bulletin of TASS, July 2, 1934, *ibid.*, l. 155; Sivkov to Orlov, July 7, 1934, *ibid.*, l. 164; Muklevich to

Stalin and the navy

Stalin became more significantly involved in military affairs with the creation of the *Kommissiya oborony*, or Commission of Defense (henceforth KO), on December 23, 1930. This body replaced the Executive Session of the STO, which had formerly been a key body in making defense decisions. The KO consisted of Molotov, Ordzhonikidze, Voroshilov, V. V. Kuibyshev (the head of Gosplan), Stalin, and after 1932, L. M. Kaganovich, who was Moscow's party boss. The KO, and Stalin himself, gave little attention to naval affairs for the first few years of its existence. Stalin was almost entirely apathetic toward the navy, only intervening directly once in naval affairs (the decision to have the Italians build a destroyer leader).⁵³⁵ However, in 1935, his position began to change. Stalin insisted upon a powerful ocean-going fleet, which included modern battleships, a policy which completely disrupted the progress of the Second Five-Year Plan (in terms of shipbuilding) and instituted an entirely new, and even more massive, shipbuilding program.

What makes Stalin's decision all the stranger is that the events of the previous few years had all conspired to reduce the power and autonomy of the navy. The transformation of the NKVM into the NKO (*Narodnyi Komissariat Oborony*, or People's Commissariat for Defense) in 1934 had the consequence of abolishing the *Revvoensoviet*, which was at least one avenue for the Soviet navy to engage in defense discussions. At a minimum, the head of the UVMS was

STO, undated, *ibid.*, I. 173; Muklevich report, undated, *ibid.*, I. 197. For information on French shipyards, see John Jordan, "France: The Marine Nationale" in *On Seas Contested*, 46. For Muklevich's change in position, see Dotsenko, *Slovar biograficheskii morskoi*, 268.

⁵³⁵ Stone, *Hammer and Rifle*, 158–59; Francis X. Clines, "L. M. Kaganovich, Stalwart of Stalin, dies at 97," *New York Times*, July 27, 1991, <http://www.nytimes.com/1991/07/27/obituaries/l-m-kaganovich-stalwart-of-stalin-dies-at-97.html>, accessed on January 6, 2016.

typically part of the *Revvoensoviet*, beginning with Zof, and occasionally other naval officers were appointed. Muklevich, even after he lost his position as head of the UVMS, continued to hold a position as a member of the *Revvoensoviet*. While Voroshilov remained as head of NKO, and Orlov had a decent enough working relationship with him, it placed the navy in the uncomfortable position of having no direct input into the decision making process. No members of the KO had any ties to the fleet. However, beginning in 1935, the navy started taking concrete steps towards independence from the control of the Red Army. The Soviet navy already had four separate fleets by the beginning of 1935: the Baltic Fleet, the Black Sea Fleet, the Northern Fleet, and the Pacific Fleet. In 1935, fleet staffs were greatly expanded to provide the commanders of each fleet with their own intelligence section, as well as sections for operations, training, and other key departments. In May 1935, the official title of the head of the UVMS was changed to Chief of Naval Forces, sometimes abbreviated as *Namorsi* (for *Nachalnik morskikh sil*). That same month, the navy regained naval aviation, which it had lost to the Red Air Force in 1924. The UVMS itself was renamed the UMS (for *Upravlenie Morskikh Sil*; there is no actual difference in the English translation) in July and gained a department for operations and tactics, which it had lost when the Naval General Staff was abolished in 1926. On September 23, 1935, personal naval ranks were restored (along with personal army ranks), seemingly completing the restoration of the fleet. The clearest sign that a fundamental change in Stalin's way of thinking had occurred was his creation of a special commission at the end of 1935, with members of the STO and Gosplan, to investigate why the first two Five-Year Plans had failed to produce significant naval results. At about the same time, a commission led by Orlov, Ludri, the Inspector of the Navy P. I. Smirnov-Svetlovskii, and Muklevich, examined the shipbuilding industry for its potential to produce a hypothetical "big" fleet. This commission, however,

reported that significant foreign aid would be necessary to build such a fleet.⁵³⁶ Nevertheless, by mid-1936, substantial progress was already being made to produce exactly that kind of fleet in the Soviet Union.

The motivations for Stalin to order the construction of a powerful fleet based around battleships are vague, so much so that it is difficult to date precisely when the decision was made to build the fleet in the first place. The Orlov commission occurred around the same time as the STO commission, but unlike the latter, there was no formal order from Stalin that gave the Orlov commission its orders. At the same time, it is difficult to see why Orlov and Muklevich, modernists of long standing, would commission the study of their own accord, even had they the power to do so (which they did not). Similarly, it is difficult to imagine Orlov or Chief of the Red Army Staff A. I. Yegorov independently deciding to propose a new plan in January 1936, a plan which included 676 total ships, including 24 battleships, over the course of ten years. It is almost impossible to accept that Yegorov would agree to co-present such a plan without direct orders from Stalin or at least Voroshilov (which, in practice, usually meant Stalin anyway) or that he would develop a plan of his own accord that would almost certainly cost millions of rubles that might otherwise go to the Red Army. For many years, historians were convinced that the Spanish Civil War was the primary cause of Stalin's change of heart. The existence of a draft program long before that conflict broke out suggests otherwise; alternate theories include the signing of the Anglo-German Naval Agreement in 1935, the dramatic buildup of the German and

⁵³⁶ Aselius, *Rise and Fall of the Soviet Navy*, 133–34; “Revvoensoviet Respubliki,” *BSE*, <http://oval.ru/enc/60112.html>, accessed January 8, 2016; “Narodnyi Komissariat Oborony,” *VMES*, 521; Hauner, “Stalin’s Big Fleet Program,” 107; Spasskii, *Sudostroenie v period pervykh pyatiletok*, 229. Soviet ranks were assigned solely based on position, which meant that a loss of position meant loss of rank. For a full list of the new naval ranks, see Aselius, *Rise and Fall of the Soviet Navy*, 147–48.

Japanese Navies, the London Naval Treaties of 1930 and 1936 (the latter of which began at the end of 1935), and Japanese pressure on China. Stalin's own megalomania might have played a role as well, although he was hardly less guilty of that obsession prior to 1935–36.⁵³⁷ The most likely scenario is a combination of some or all of these theories. Regardless of Stalin's motives, he was the only individual who had the ability, authority, and desire to make the change to a powerful ocean-going fleet.

This reversion to traditionalism—what Robert Herrick deemed the “Soviet School,” in comparison to the “Old School” (traditionalists) and “Young School” (modernists)—was carried out with shocking rapidity by people who were known to be modernists. After the initial draft in January 1936, there were subsequent revisions, culminating in the July 16, 1936 STO order that established a ten-year plan for shipbuilding, with all of the ships expected to be laid down within seven years. This particular plan was so expansive and unrealistic that it was delusional. The Soviet shipbuilding industry that failed to build even 100 torpedo boats in five years was being tasked with building a far larger fleet in ten years. Among other things, this new plan would give the Soviet Union the largest battleship fleet in the world. What perhaps makes this plan even more ridiculous is that it actually represented a *decrease* from the original drafts. The plan also excluded aircraft carriers, which some elements in the army and navy wanted, but Stalin did not.⁵³⁸ The resulting plan is displayed in Table 5.2.

⁵³⁷ Aselius, *Rise and Fall of the Soviet Navy*, 175; Willard C. Frank, Jr., “Naval Operations in the Spanish Civil War, 1936–1939,” *Naval War College Review* 37 (1984), 49; Kasatnov, ed., *Tri veka Rossiskogo flota II*, 338–39; Hauner, “Stalin’s Big Fleet,” 106–07; Jürgen Rohwer and Mikhail S. Monakov, *Stalin’s Ocean-Going Fleet: Soviet Naval Strategy and Shipbuilding Programmes 1935–1953* (London: Frank Cass Publishers, 2001), 221–23

⁵³⁸ Spasskii, *Sudostroenie v period pervykh pyatiletok*, 236–37; Rohwer and Monakov, *Stalin’s Ocean-Going Fleet*, 63–64.

The most noticeable aspect about the shipbuilding plan—apart from the sheer scope of it—is the distribution of the plan. Approximately 44% of the new ships were earmarked for the Pacific Fleet, another 26% destined for the Baltic Fleet, 18% for the Black Sea Fleet, and 12% for the Northern Fleet. In other words, the Far East got as many ships as the two largest fleets in the Soviet navy. This expansion was even more remarkable when one considers the size of the Pacific Fleet in 1937, shortly after N. G. Kuznetsov became commander of the Pacific Fleet. The bulk of the ships he had to work with were submarines, including 25 586-ton Series IV submarines, 27 160-ton Series VI submarines, and towards the end of 1936, eight 587 ton-Series X submarines and three Series XI underwater minelayers. For surface ships, as Kuznetsov wrote in his memoirs, “Our surface fleet in the Pacific was not big. It acquired cruisers and destroyers some time later. We had to use obsolescent patrol vessels, minelayers, and motor torpedo boats that were not suitable for that big theater.”⁵³⁹ Clearly, Stalin had big plans for the Pacific Fleet. However, in order to make those plans a reality, he needed significant foreign assistance to account for the lack of domestic shipbuilding capacity.

⁵³⁹ Spasskii, *Sudostroenie v period pervykh pyatiletok*, 236–37; Polmar and Noot, *Submarines of the Russian and Soviet Navies*, 253–62; N. G. Kuznetsov, *Memoirs of Wartime Minister of the Navy* (Moscow: Progress Publishers, 1990), 78–79; quote on page 79.

Table 5.2. Ten-year shipbuilding program, approved July 1936⁵⁴⁰

Type of ship ⁵⁴¹	Total units	Pacific Fleet	Baltic Fleet	Black Sea Fleet	Northern Fleet
BB “type A”	8	--	4	4	--
BB “type B”	16	6	4	4	2
CL “new”	5	--	3	--	2
CL <i>Kirov</i>	15	8	3	4	--
DL <i>Leningrad</i>	6	2	2	2	--
DL “new”	11	4	3	2	2
DD <i>Gnevnyi</i>	128	44	40	28	16
SS <i>D/L/P</i>	28	13	6	6	3
SS <i>K</i>	62	35	6	4	17
SS <i>S</i>	89	46	14	9	20
SS <i>Shch</i>	75	34	22	15	4
SS VI Series	50	28	16	6	--
SS XII Series	40	12	14	14	--
Total	533	232	137	98	66

In 1936, the Soviet Union received foreign technology from two countries: the United Kingdom and Japan. It also began the process of receiving more technology from Italy. Japan’s contributions to the Soviet Navy were fairly minimal. The Soviets ordered two floating cranes and several barges from Japan at the end of 1935 and added a floating dock, an icebreaker, an oil tanker, and an additional barge in January 1936. The total cost was 5.31 million yen, or approximately 1.33 million rubles. While all of these items were certainly useful and helped

⁵⁴⁰ Spasskii, *Sudostroenie v period pervykh pyatiletok*, 236.

⁵⁴¹ To conserve space, the standard hull classification used by the US Navy is used to abbreviate ship categories. BB = battleship; CL = light cruiser; DL = destroyer leader; DD = destroyer; SS = submarine. Names in italics refer to the lead ship of a class (for submarines, this was often shortened to a single letter; for example, *Dekyabrist* class becomes the *D*-class).

increase Soviet naval capacity in the Pacific, they represented a fraction of the actual foreign technology imported by the Soviet Union in 1936. With the resumption of the Second Sino-Japanese War in 1937, any further orders from Japan were put on hold, making Japan the least important of the Soviet Union's partners.⁵⁴² More important to the Soviet Union in 1936 and beyond was the United Kingdom, a country which in 1933 had extremely poor relations with the Soviet Union.

The Soviets had already been denied the right to purchase goods from the United Kingdom in 1932. However, the Soviet decision to arrest six employees of Metropolitan-Vickers, a British engineering firm, poisoned relations with the UK. The official charges were sabotage and espionage, but in reality, the Soviet regime hoped to "prove" the existence of a foreign threat to the construction of socialism and shift blame for hardships in the Soviet Union to the British. The Soviet prosecutor, A. Ya. Vyshinskii, gained considerable experience in the show trials of the foreigners, which he would later use to great effect in the Soviet Terror of 1937–38. As for the trial itself, one of the British engineers, William Macdonald, pleaded guilty, recanted, and later reinstated his plea after the pressure of an OGPU interrogation. Another, Leslie Thornton, pleaded guilty based on the recommendation of his court-appointed Soviet attorney. The formal charges were that Thornton, who had actually been born in then-St. Petersburg, had ordered Macdonald to force the Soviet employees at Soviet power stations to commit acts of sabotage.⁵⁴³

⁵⁴² Deputy Chief of Staff of the Army to Orlov, August 29, 1935, RGAVMF, f. 441, o. 5, d. 215, l. 1; Inventory of items of ordered from Japan, September 8, 1935, *ibid.*, l. 2; Orlov to Voroshilov, January 14, 1936, *ibid.*, l. 3; Orlov to Voroshilov, January 14, 1936, *ibid.*, l. 4.

⁵⁴³ Memorandum about Metro-Vickers case, May 2, 1933, TNA, PREM 1/137, Office of the Prime Minister, "Arrest and Trial of Metropolitan-Vickers Employees. Ban on Russian Imports. Representations from Trade Unions

As a result of the trial, Macdonald and Thornton were both given moderate sentences (two and three years, respectively) in prison. One of the engineers was acquitted, and the other three were expelled from the Soviet Union. As for their Soviet collaborators, they received sentences from one and a half to ten years, with only one being outright released. The British response was an economic embargo. The Soviets retaliated with a Soviet boycott of British goods and refused to use British shipping for their goods. (The latter measure was somewhat meaningless because the Soviets rarely used British shipping.) The Soviets had already won their propaganda victory, and had fully intended to commute the sentences of Thornton and Macdonald to expulsion (according to Soviet communications to senior British diplomats), but the imposition of the British embargo forced them to retain both of the engineers in prison until the British lifted the embargo. William Strang, a senior British diplomat in Moscow, claimed that the Soviets had backed themselves into a corner, neither able to release the engineers (which would make them appear weak) or keep them (which would further damage British relations). Strang feared that the Soviets would find a way to release Macdonald, “but [he] will conveniently die in prison, covered with medical certificates.” Thankfully, both men were liberated, the Soviet Union and the United Kingdom ended their respective embargoes, and there the matter rested.⁵⁴⁴ Mutual concerns about German intentions, particularly after Hitler openly renounced the Treaty of Versailles in 1935, pushed the British and Soviets closer together, and

Congress”, 4; Gordon W. Morrell, *Britain Confronts the Stalin Revolution: Anglo-Soviet Relations and the Metro-Vickers Crisis* (Waterloo, Ontario, Canada: Wilfrid Laurier University Press, 1995), 113–14 and 120–21.

⁵⁴⁴ Memorandum about Metro-Vickers case, op. cit., 5–6; Strang to Collier [Head of the Northern Department of the Foreign Office], April 28, 1933, op. cit., 11; Morrell, *Britain Confronts the Stalin Revolution*, 167–69. Quote from Strang letter.

by the end of 1936, the Soviets were seeking to purchase equipment from an affiliate of the same firm that had employed Macdonald, Thornton, and the other detainees.

In an effort to modernize industry through foreign technology, the Soviet Union sought loans or export credit agreements from both Germany and the United Kingdom. The Germans were the first to grant an export credit agreement of 200 million marks in April 1935, following this agreement with a second one, almost exactly one year later, for another 200 million marks. However, there is no evidence that any significant portion of these agreements was spent on naval technology. The British had considered offering a loan to the Soviets in early 1936, but British politicians were deeply divided over the issue. Some preferred export credits, which could be granted without new legislation, and such an agreement could require that the Soviets pay off debt they owed to the British for various items more quickly. Others preferred a loan because it could generate significant income for the British Empire through interest, although such a loan was risky, and there were concerns that the Soviets would default. Ultimately, the second German agreement forced the British to decide, and a credit agreement for £10 million was extended on July 28, 1936. The Soviet navy wasted no time spending its share of the credits, ordering several tugs, floating docks, repair ships, motors, diesel engines, and turbo generators on August 16, 1936. The only overtly naval purchase was armor plate: 55 plates of various sizes, ranging from 50mm to 14 inches.⁵⁴⁵ However, the Soviets wanted more technical help, and appealed to the British government to get it.

⁵⁴⁵ Keith Neilson, *Britain, Soviet Russia, and the Collapse of the Versailles Order, 1919–1939* (Cambridge, UK: Cambridge University Press, 2006), 155–57; Jan F. Triska and Robert M. Slusser, *The Theory, Law, and Policy of Soviet Treaties* (Stanford, CA: Stanford University Press, 1962), 300; Lenivov [Engineer for Import], “Excerpts from the import orders in England, on the account of the credit agreement of 1936,” August 16, 1936, RGAVMF, f.

The items that the Soviet navy most coveted were the turbines and diesel engines manufactured by Vickers-Armstrong. The head of the Soviet trade delegation in London complained to the President of the Board of Trade that the Admiralty was intentionally preventing the sale of equipment to the Soviet Union. Captain Euan Wallace, acting as the official representative of the President of the Board of Trade, informed the Soviets that the British would be pleased to accept orders for turbines, but only if such orders would not significantly delay turbine construction for the Royal Navy. Wallace said that the British might be able to accept a delay of three to four months, but not a delay of a full year. As for diesels, only one factory in the United Kingdom could make those, Vickers-Armstrong, which was instead working on naval artillery for the Royal Navy. Wallace told the Soviets that his office had gone all the way to the Chancellor of the Exchequer and the First Lord of the Admiralty, but that Vickers-Armstrong simply could not complete the order. Wallace admitted in his letter, although presumably he did not share this information with the Soviets, “The final decision was that Vickers-Armstrong were to be asked to refuse to tender for the Russian order. I understand that this decision was to some extent at any rate based on political considerations.” The Soviets had other concerns as well; specifically, they insisted that the British were overcharging the Soviets for turbines. One British firm, Cammell Laird and Company, quoted a price of £780,000 for a turbine to be delivered in 24–32 months, but a Swiss firm could deliver the same turbine, more quickly, for £318,000. The Soviet delegation insisted upon the validity of their £10 million credit, and that “orders must be executed within a normal period at reasonable prices.”⁵⁴⁶ All

441, o. 5, d. 215, l. 7. Exactly how much of the £10 million was allocated to the navy is unknown; the Lenivov document only includes descriptions and quantities of equipment, not cost.

⁵⁴⁶ Letter of Captain Euan Wallace [addressee unknown], December 12, 1936, TNA, BT 11/706, Board of Trade, “Correspondence Regarding the effect of Admiralty orders on the possibility of Russian orders for naval armaments

available evidence suggests that the Soviets ended up not purchasing turbines from the United Kingdom, but only because the British actively obstructed those attempts. Had they acquired the turbines, they could have significantly modernized some of the older ships in the fleet, particularly the dreadnoughts. If the Soviets could not modernize existing battleships, they still needed to build new ones, per Stalin's orders, and focused their efforts on trying to get the British to help them with designing and building new battleships.

In the last three months of 1936, the Soviets changed tactics and began pursuing British aid in other naval ventures, particularly battleships. The Soviets specifically tried to get aid in building 16" naval guns for their new battleships. The British could not help them with that request, because the Treaty of London of 1936 made that illegal, but was willing to design 15" guns for the Soviet Union. The Soviets initially complained that changing their battleship design would delay construction, but would accept the smaller gun if that was the best they could get. The Admiralty approved the requests for the 15" gun, but left the final decision in the hands of Vickers-Armstrong. The Soviets also submitted requests for production licenses from Vickers for 400mm naval guns, capital ships, 37/40mm AAA, and armor plating, as well as rangefinders. On the whole, the British were willing to allow such purchases, only putting specific conditions on the acquisition of larger naval guns. The Soviets tried to use France as an intermediary, hoping that the French would convince the British to design them 16" guns, but the British again

and shipping being accepted by UK firms. Naval technical aid agreement for Russia," document 1, 1; Summary of Soviet Trade Delegation concerns, undated [however, the letter was forwarded on December 2, 1936], *ibid.*, document 2, 1–2. Quotes are from document 1, page 1, and document 2, page 2, respectively. Note that the page numbering system for this box was unusual, with separate document numbers and page numbers, as well as page numbers within the file, which were numbered in reverse. I have adopted the former method to avoid confusion. All documents from this box will be recorded as "document X, page Y."

refused. The Admiralty wanted a written promise from the Soviet Union never to pursue 16” guns before they would allow Vickers to design 15” guns for them. The British consistently tried to get the Soviets to moderate naval artillery size whenever possible, even doing so for cruiser guns—the Soviets wanted 7.1” guns, while the British would only give them 6” guns. The Soviets, unwilling to accept any such conditions, decided to go to other countries for aid.⁵⁴⁷ One of these countries, Italy, was no more help in terms of battleships, but did design and construct a new destroyer leader for the Soviet Union, the only surface warship built abroad for the Soviet Navy in the 1930s.

The new leader was the same leader that Stalin had insisted upon in 1932: *Tashkent*. The *Tashkent*'s construction had been delayed until after the *Kirov*-class began construction, but once those vessels were underway, the Italians were ready to discuss the construction of the destroyer leader. The shipbuilding firm *Cantiere navale fratelli Orlando* of Livorno, simply called “Orlando” by the Soviets, got the contract to build the leader. The Soviets officially ordered the ship from Orlando on May 20, 1935. The *Tashkent* (originally called *Orlando* until the formal name was decided upon) was a formidable leader. With a displacement of 2750 tons or 4351 tons with a full load of fuel and ammunition, the leader as originally designed could reach speeds of 42.5 knots, carried six 130mm guns in three dual turrets, three triple torpedo tubes, an airplane, and 50 mines. Some of the accessories for the ship were German, including gyrocompasses and

⁵⁴⁷ Minutes of conversation between Henderson and Soviet Naval Attaché, December 23, 1936, TNA, op. cit., document 5A, 1–2; Technical Aid Agreements with Soviet Union, December 29, 1936, *ibid.*, document 7A, 1–3; Collier to E. A. Seal [Representative of Military Branch of the Admiralty], December 30, 1936, *ibid.*, document 8, 1–4; Seal to Collier, April 20, 1937, *ibid.*, document 17, 1–2; F. L. Yapp [Representative of Vickers-Armstrong] to Henderson, May 31, 1937, *ibid.*, document 23C, 1; Minutes of conversation between Henderson and Orlov, May 26, 1937, *ibid.*, document 24B, 1–2.

echo-locators. One of the challenges of the construction of *Tashkent* was the problem of torpedo tubes; the Soviets wanted to test a new style of tubes on two existing warships, the destroyer leader *Leningrad* and the cruiser *Chervona Ukraina*, hoping to learn the best locations to install the tubes, the maximum speed the warship could travel and fire torpedoes accurately, the maximum angle of roll during firing, and the maximum angles of firing that the tubes could achieve. Unfortunately, testing of the new prototypes took too long, and extending the deadline would delay the vessel's completion, so the Soviets opted to use the more traditional model of tubes. Improvements over the course of the vessel's construction saw many statistics of the vessel improve. The destroyer leader could carry many more mines, up to a maximum of 76. In exchange for a little more weight, Orlando built engines of 112,000 HP, which could deliver short bursts of 43.533 knots, as proved at trials. The vessel was formally commissioned October 5, 1939.⁵⁴⁸ The construction of the *Tashkent* was the last time before World War II that Italy significantly contributed to the Soviet Navy. Before Tashkent was commissioned, Italy would actually find itself at war with the Soviet Union via proxy.

Even if the Spanish Civil War did not actually cause Stalin to reconsider building a powerful battleship fleet, the lessons of that particular conflict nonetheless confirmed his decision that the fleet built in the 1920s and 1930s was wholly inadequate. He was unable to project power in the way that he would have liked, which he blamed on the composition of the fleet. Beginning October 10, 1936, the Soviet Union began shipping weapons, food, and other

⁵⁴⁸ Specifications for leader type "I", undated, RGAVMF, f. 441, o. 16, d. 298, l. 1–7; Protocols of meeting in Leningrad, February 26 to March 4, 1936, *ibid.*, l. 9–10; "Decision of the Chief of the Naval Forces of the RKKKA... [on] the disposition of the torpedo tubes on the leader 'Orlando'," July 21, 1936, *ibid.*, l. 17; Joint decision of Orlov and Muklevich, September 20, 1936, *ibid.*, l. 18; Chief of the Second Department of the Directorate of Shipbuilding to the Chief of the Directorate of Shipbuilding, April 29, 1937, l. 19–23;

military supplies to the Spanish Republicans, led by General Emilio Mola, in direct response to German-Italian efforts to do the same for General Francisco Franco's Nationalists one month before. The only way that the Soviet Union could effectively transfer sizeable quantities of supply to Mola was by sea, via the Black and Mediterranean Seas. However, Stalin's decision to send Soviet naval officers to Spain preceded the delivery of arms shipments to the Republicans by about two months; N. G. Kuznetsov, the highest-ranking naval officer sent to Spain, wrote in his memoirs that he left Moscow for Paris in the morning of August 23, 1936. He did not mention when he arrived in Spain, but other sources have him conversing with Republican officers by September 3, 1936. Kuznetsov spoke of some delay waiting for an appropriate plane to fly him to Madrid, so he probably arrived near the end of August.⁵⁴⁹ Given that Kuznetsov did not know Spanish and had never been to Spain, his selection as chief liaison to the Republican navy is unusual. However, Kuznetsov had certain qualities that made him extremely desirable as an officer.

Kuznetsov's naval career began because he was looking for a job along the Northern Dvina River near his home, spotted a group of sailors fighting the Civil War, and tagged along. He stayed in the regular Soviet fleet after the Civil War and entered the Naval Academy in 1922, at the age of 18, to become a naval officer. As a cadet, he attended Lenin's funeral, an experience which profoundly transformed him; he joined the Communist Party shortly thereafter. He graduated in 1926 and chose the Black Sea Fleet, where he was assigned to the battery of one of the then-newest ships in the Soviet fleet, the cruiser *Chervona Ukraina*. He participated in the trials of the newly launched vessel and was aboard when Stalin, Voroshilov, Orlov, and Ordzhonikidze appeared for the commissioning ceremony. He entered the Naval College in 1929

⁵⁴⁹ Kuznetsov, *Memoirs*, 53–54; Frank, "Naval Operations in the Spanish Civil War," 31.

for training in operations, where he also studied foreign languages so that he could read the works of foreign naval theorists in the original language. He passed examinations to be an interpreter in both French and German while there, an important reason that he got appointment in Spain. He graduated in 1932 and became executive officer of another cruiser, *Krasnyi Kavkaz*. He got his first foreign experience the following year, when he and the cruiser visited Turkey, Greece, and Italy. In 1934, he received command of his own ship, *Chervona Ukraina*, where he impressed a Turkish diplomat by sailing through the Bosphorus at night to deliver the body of a Turkish ambassador back to Istanbul. Kuznetsov was a standout officer in gunnery, which led him to meet Ordzhonikidze for the second time in 1935. The visit was a huge success, and he impressed the Georgian. Later that same year, *Chervona Ukraina* was rated the best ship in the entire fleet, earning an Order of the Red Star for Kuznetsov. He was appointed naval attaché in Spain shortly after the Spanish Civil War began, having commanded the cruiser for nearly three years.⁵⁵⁰ Kuznetsov, in the fall of 1936, was a dynamic officer with experience in both traveling abroad and with foreign languages. Best of all, he had no ties to the Imperialist navy or the Old Bolsheviks who were party members before the Revolution. He had also impressed one of the top officials in the Soviet regime in Ordzhonikidze. He was bright and politically reliable, an important combination when selecting somebody for an assignment like chief Soviet advisor to Republican Spain.

However well suited Kuznetsov was to the task, his mission was hardly an unqualified success. His official role was to serve as the chief liaison between the Spanish Republicans and Moscow, but he and his fellow Soviet officers eventually became the *de facto* commanders of the Republican fleet, as the delivery of aid to the Republicans became more and more risky to the

⁵⁵⁰ Kuznetsov, *Memoirs*, 18–24, 31–34, 39–41, 44–48, 50–53; Dotsenko, *Slovar biograficheskii morskoi*, 216–17.

Soviet Union. At the same time, the Republicans grew more and more dependent on Soviet aid, meaning that they had little room to object to the arrangement. Effectively, Kuznetsov had to countersign any significant decision taken by the Spanish fleet. As far as the overall failure—or at the very least, only limited success—of his mission, there was plenty of blame for both Kuznetsov and his advisees. The Republicans decided to send a significant portion of their fleet to the northern ports of Spain via the Bay of Biscay in September 1936. Kuznetsov was asked for his advice, and raised no objections to the decision to move north. Unfortunately for the Republican fleet, a Nationalist flotilla, including both of their cruisers, chose that moment to attack the Straits of Gibraltar, which the Republicans had to transit after leaving the main naval base at Cartagena on the Mediterranean. Lightly defended, the Straits were an easy target and the minimal Republican forces there were easily defeated in what was called the Battle of Cape Spartel. With the straits in Nationalist hands, they were able to assure a steady stream of German supplies, as well as American oil. The Nationalist naval base at Palma de Mallorca was logistically supported by Italy, and even though the Republican fleet was larger than the Nationalist fleet, the Nationalists had the freedom to operate independently. The word from Moscow, transmitted through Kuznetsov, was that the Republican fleet was to be purely defensive and mostly used to protect Soviet convoys. While this strategy did ensure a steady stream of supplies to Cartagena and the Republican fleet, it prevented them from acting aggressively. For example, an amphibious invasion of Mallorca was rejected by Kuznetsov as too risky, although after the war, the Nationalist Admiral Cervera acknowledged that his navy would have been easily defeated by the Republicans.⁵⁵¹

⁵⁵¹ Frank, “Naval Operations in the Spanish Civil War,” 30–32.

In his memoirs, Kuznetsov actually offered some solid strategic reasons for the decision to move to the north, but could not completely justify his failures in charge of the Republican fleet. He noted that northern Spain was a Republican stronghold, and that the Republicans intended to support the Basques and the Asturians, who counted on aid from France to survive. The naval minister, Indalecio Prieto, was an elected representative of Bilbao, which gave him political support in the region. Nonetheless, Kuznetsov admitted that the decision to go north was a bad one. He blamed Prieto's desire to pander to his constituency as the main reason the fleet went north. In the end, the Nationalists overran Basque positions anyway without French aid, making the decision to transfer the Republican Fleet completely worthless. Kuznetsov was replaced in November 1937 by Captain N. A. Pitserskii, who used Soviet MTBs to good effect against the Nationalist flagship *Baleares*. The overall paucity of Soviet forces, however, meant that MTBs and obsolete submarines were the only vessels that the Soviets could provide, which made capitalizing on the victory difficult. The Spanish commander outright refused to follow up with an invasion of Mallorca or the straits, which meant even a limited tactical victory had gone for nothing. Overall, the Soviet navy and its advisors had no significant impact on the fortunes of Spain at sea; if there was any impact, it was unfortunately negative. As Willard Frank puts it, "[Kuznetsov and the other Soviet advisors] simply could not come to terms with the proper employment of a powerful surface fleet of cruisers and destroyers, which, when it was not escorting convoys, just remained in port rather than taking action against the weaker enemy."⁵⁵² In other words, the Soviet Union was more interested in trying to protect their own ships (specifically the convoys) than in trying to win the war. By the time much of the Soviet freight had been transferred to Spanish-flag transports later in the war, it was too late to strike a decisive

⁵⁵² Ibid., 40–41; Kuznetsov, *Memoirs*, 59. Quote is from Frank, "Naval Operations in the Spanish Civil War," 39.

blow against the Loyalist fleet. However, Kuznetsov and his successors returned from Spain with other lessons for the Soviet navy.

Kuznetsov's most significant lesson was the importance of aviation to success in modern warfare. Neither the Republicans nor the Nationalists had aircraft carriers, but the tremendous ability of airpower to affect the course of the war left a lasting impression on Kuznetsov. He was also convinced that Soviet crews needed more emergency training in the case of a surprise or unexpected attack, such as the Nationalist victory at Cape Spartel. Reports from officers stationed in Spain after Kuznetsov left confirm Kuznetsov's analysis of the importance of air cover. One report argued that anti-air defense needed to be a priority for Soviet officers in the future, and that at sea, ship commanders needed to know how and when to scatter the fleet to avoid air attack. The report recommended the construction of shelters in all Soviet naval bases, as "The evacuation of the civilian population from the regions of naval bases in war time is fully impossible. In the absence of good shelters, fleet bases under air attack will invariably have a great number of casualties." Those shelters needed to be able to resist bombs of up to 1000 kg. The report also thought that battleships and cruisers, in particular, needed more training in maneuvering both at night and during the day; the fleet, as a whole, needed to be able to move both as a unit and independently, even if the flagship could not communicate signals. Captain-Lieutenant Kuzmin, one of the naval advisors, also noted that Republican ships lacked ammunition, and that some officers were disrespectful and would not accept the commands of Republican civilians because they did not believe the civilians could punish them. He also reinforced the need for aviation, especially for scouting and reconnaissance, writing "The Republican Fleet never precisely knows where the fleet of the rebels is located, what the

composition of the fleet is, or what it is doing.”⁵⁵³ These lessons were taken to heart, but were not the only lesson that Stalin learned.

The most important consequence of the Spanish Civil War was that it convinced Stalin of the necessity of a larger, more traditional fleet, further reinforcing the decision he had already made. The Soviet navy needed to be large and powerful enough to overcome the limitations that geography imposed upon it. The reason the Soviets could only send submarines, MTBs, and other light craft to Spain was because nothing larger was available. The largest ship the Soviets might have sent was the cruiser *Krasnyi Kavkaz*; however, Turkey might not have permitted such a large warship to leave the Black Sea, and even if they had, *Krasnyi Kavkaz* was hardly powerful enough to make a significant difference in the course of the war. Sending battleships from the Baltic Sea, which might have made an impact on the war, could have put them in danger of German attack or even an accident such as Dogger Bank in 1905. Moreover, the Soviets could not risk irritating the British, who spent most of the war trying to establish a non-intervention committee, and would have objected vociferously to sending capital ships to Spain. Since the Soviets were still, in 1936 and 1937, trying to acquire naval technology from the United Kingdom, they could not afford to anger the British to the extent that such options were taken off the table. Therefore, the Soviet Union would need to build a more powerful fleet if they wanted to exercise a greater role in diplomatic circles or even intervene in peripheral conflicts. It needed to be powerful enough that, even if the British objected, the Soviets could ignore such

⁵⁵³ Kuznetsov, *Memoirs*, 75; Captain Third Rank Abramov, Captain Lieutenant Kuzmin, and Engineer Palilov, October 27, 1936 [the day it was forwarded; it may have been authored sooner], “Remarks and conclusions from the experience of the personal observations of combat activities of the fleet of Republican Spain,” RGAVMF, f. 1678, o. 1, d. 43, l. 23, 26–29, 34; Report of Kuzmin, September 25, 1938, *ibid.*, l. 39–41 and 45–47. Quotes from “Remarks and conclusions,” l. 28–29 and Kuzmin report, l. 45–46, respectively.

objections and maintain full freedom of action. In order to achieve these goals, Stalin gave the Red Fleet more autonomy and independence than it had enjoyed since the birth of the Soviet Union; however, that autonomy and independence came at a horrible price.

The Great Terror and the reform of the navy

The Great Terror, also called “the purges” or the *Yezhovshchina* (after N. I. Yezhov, the head of the NKVD [*Narodnyi Komissariat Vnutrennikh Del*, or People’s Commissariat for Internal Affairs, the predecessor of the KGB]), took place between 1936 and 1938. Unlike past Communist Party purges, during the Great Terror, victims were not simply deprived of rank or privileges; they were often executed or sent to labor camps for extended periods of time. Estimates for those arrested or executed range wildly, depending on what historians consider the “Great Terror.” The best estimates, based on Soviet archival research, indicate that 2.5 million individuals were arrested between 1937 and 1938, of whom 681,692, about 27.2%, were executed. Only a tiny fraction of those executed were done so at the direct behest of Stalin or Yezhov; many more were the victims of more general campaigns. These general campaigns, termed *massoperatsii*, or “mass operations,” were often designed to eliminate actual criminals, as well as individuals whose only crime was not fitting into Stalin’s particular view of what proletarian society ought to be. Some were anti-foreigner in nature, ostensibly against “potential traitors” such as those displaced by the Japanese occupation of Manchuria or racial minorities such as Poles, Germans, and Finns.⁵⁵⁴ However, mass operations aside, high-ranking members of

⁵⁵⁴ J. Arch Getty, Gabor T. Rittersporn, Viktor N. Zemskov, “Victims of the Soviet Penal System in the Pre-War Years: A First Approach on the Basis of Archival Evidence,” *American Historical Review* 98, no. 4 (October 1993), 1022; Barry McLoughlin, “Mass Operations of the NKVD, 1937–8: A Survey,” in Barry McLoughlin and Kevin McDermott, eds., *Stalin’s Terror: High Politics and Mass Repression in the Soviet Union* (Houndmills, UK: Palgrave Macmillan Ltd., 2003), 119–23. A more detailed breakdown of the offenses committed those by

the military and civilian oversight organs were certainly targeted, and the execution of those individuals played an important role in the development of the navy in the late 1930s and early 1940s.

Tukhachevsky, one of only five Marshals of the Soviet Union, was the first high-ranking military victim of the Great Terror on June 11, 1937. Tried along with him were several other army officers. They were accused of being “enemies of the people” and having committed treason by openly supporting Germany and German goals. Stalin genuinely feared the presence of a military coup d’état, according to Peter Whitewood, and was encouraged in these beliefs by N. I. Yezhov of the NKVD, who planned to use a systematic purge of the army to expand his own power base. A secondary charge against Tukhachevsky was his opposition to a powerful fleet, according to Mikhail Monakov and Jürgen Rohwer. Tukhachevsky was certainly no friend to the navy, particularly to those individuals who challenged his view of the army’s supremacy over the fleet, and regularly pushed to get parts of the navy’s budget transferred to the army. However, Tukhachevsky was only Deputy NKO at the time of his arrest; Voroshilov could and did overrule him whenever he saw fit, so Tukhachevsky could never have opposed the construction of warships on his own. As for the navy itself, virtually every naval officer mentioned in Chapter 4 and Chapter 5 was killed during the purges. Every Chief of the UVMS, including Orlov, was shot. Most of the fleet commanders, every high-ranking naval officer with experience in World War I or with the Imperial fleet (with the notable exception of the Soviet Naval Chief of Staff, L. M. Galler), many of those officers originally purged in 1930–31 and

imprisoned is available in J. Arch Getty and Oleg V. Naumov, *The Road to Terror: Stalin and the Self-Destruction of the Bolsheviks, 1932–1939* (New Haven, CT: Yale University Press, 1999), 588. On dekulakization, see J. Arch Getty, “Excesses are Not Permitted: Mass Terror and Stalinist Governance in the Late 1930s,” *Russian Review* 61, no. 1 (January 2002), 113–38.

subsequently rehabilitated, and several prominent naval theorists were executed. Over 3000 naval officers were either imprisoned or shot during the Great Terror.⁵⁵⁵ The mass execution of naval officers created plenty of gaps at the top of the naval command, especially with the reforms instituted in 1937–38.

The centerpiece of this reform was the elevation of the Chief of Naval Forces to a People's Commissariat, the *Narodnyi Komissariat VoЕННО-Morskogo Flota* (NKVMF): the People's Commissariat of the Navy. Formally announced December 30, 1937, the NKVMF initially had the ultimate authority over all naval affairs, answering to *Sovnarkom* (of which the NKVMF was a member), the Politburo, and the *Komitet Oborony pri SNK SSSR*, a new Committee of Defense that existed as an entity separate of *Sovnarkom*. This latter organ, founded April 28, 1937, consisted of seven people, plus a secretary, who decided all technological questions or questions common to all aspects of the defense of the Soviet Union, which were presented to them by the NKO and NKVMF. The original members of the Committee of Defense were Molotov (who served as Chairman); Stalin; L. M. Kaganovich, the People's Commissar of Means of Communication; Voroshilov; V. Ya. Chubar, the Deputy Chairman of *Vesenkha*; A. I. Mikoyan, the People's Commissar for the Food Industry (as well as People's Commissar for Trade); and A. A. Zhdanov, a candidate member of the Politburo and a secretary of the Executive Committee of the Communist Party, who specialized in questions of defense. The new Committee supplanted the old KO. Conspicuous by their absence were two specific individuals:

⁵⁵⁵ Conquest, *The Great Terror*, 182–87; Rohwer and Monakov, *Stalin's Ocean-Going Fleet*, 70; Kasatanov, ed., *Tri veka Rossiiskogo flota II*, 358; Aselius, *Rise and Fall of the Soviet Navy*, 205–06. See also Whitewood, *The Red Army and the Great Terror*, especially chapters 5 and 6.

Ordzhonikidze, who had committed suicide, and the NKVMF.⁵⁵⁶ The latter absence is best explained by the fact that the first NKVMF, P. A. Smirnov, was given the position for a specific reason: to “purify” the navy.

P. A. Smirnov was an Army Commissar with some experience in the navy. Between 1926 and 1937, he served in multiple military districts, as well as the Baltic Fleet, as Chief of the Political Directorate for each of those areas. From June of 1937, he was Chief of the Political Directorate of the Red Army, adding the titles of Deputy NKO and NKVMF in October and December of 1937, respectively. He was not a popular man: L. M. Galler, the Chief of the Naval General Staff, called him a “Martian” (*marsianin*), and saying that Smirnov “sometimes asked very strange, ‘unearthly’ [*nezemlye*] questions,” according to the memoirs of Rear Admiral V. A. Belli. Kuznetsov, at this stage the Commander of the Pacific Fleet, liked Smirnov even less, saying that “his arrival [as NKVMF] was a disappointment to all.” Kuznetsov quoted Smirnov as saying that his mission was to “purge the fleet of enemies of the people.” Smirnov cost the Soviet Fleet “many good workers,” in Kuznetsov’s opinion. Smirnov himself was purged in June 1938, ostensibly as part of the same military-fascist plot that claimed the lives of the other victims of the Great Terror. One theory is that Smirnov was executed for opposing the navy’s desire for aircraft carriers; however, it seems more likely that he was simply purged because

⁵⁵⁶ Kasatanov, ed., *Tri veka Rossisskogo flota* II, 356; Nikolai Sergeevich Martynenko, “Deyatelnost Komiteta Oborony pri Sovete Narodnykh Komissariat SSSR, 1937–1941 gg.: Opyt i uroki” [The activity of the Committee of Defense attached to the Council of People’s Commissars of the USSR, 1937–1941: Experience and lessons], author’s abstract of a dissertation, (Moscow: Gumanitarnaya ordenov Lenin i Oktyabrskoi revolutsii, krasnoznamennaya akademiya vooruzhennykh sil, 1993), 18–19, <http://cheloveknauka.com/deyatelnost-komiteta-oborony-pri-sovete-narodnykh-komissarov-sssr-1937-1941-gg-opyt-i-uroki>, accessed on January 10, 2016.

Stalin had installed Smirnov solely to “clean up” the navy.⁵⁵⁷ Regardless of why he was executed, few people in the navy missed him or his methods. His death did lead to a brief power vacuum in the NKVMF, however.

The mechanism that essentially held power in the Soviet Fleet until a new NKVMF was formally appointed was the *Glavnyi Voennyi Sovet VMF*, or Main Military Soviet of the Navy. This organ was established on April 23, 1938 by an order of Molotov, acting in his capacity as Chairman of *Sovnarkom*. It originally consisted of P. A. Smirnov as Chairman; Zhdanov; I. S. Isakov, Deputy NKVMF for Shipbuilding; P. I. Smirnov-Svetlovskii, First Deputy NKVMF; Galler; M. R. Shaposhnikov, a Corps Commander and Chief Political Commissar of the Navy [also a Deputy NKVMF]; Kuznetsov; G. I. Levchenko, Commander of the Baltic Fleet; and I. S. Mushnov, the Chief of the Artillery Directorate. In reality, the voice of the Main Military Soviet of the fleet was Stalin (via Zhdanov), “who preserved for himself the final word on all decisions of the Main Military Soviet of the Navy.” To the extent that the navy had a single executive after P. A. Smirnov’s death, it was Smirnov-Svetlovskii, who never formally attained the title of NKVMF; indeed, P. A. Smirnov continued to “serve” as NKVMF long after his death. By November 1938, both Smirnov (belatedly) and Shaposhnikov were removed from the Main Naval Soviet, with M. P. Frinovskii, Yezhov’s deputy, taking over as NKVMF and S. P. Ignatev taking Shaposhnikov’s position. Five months later, Frinovskii was arrested and shot; Kuznetsov became the new NKVMF and restored some stability to the position: he would hold the position

⁵⁵⁷ S. A. Zonin, *Admiral L. M. Galler: Zhizn i flotovodcheskaya deyatelnost* [Admiral L. M. Galler: Life and activity as commander of a fleet] (Moscow: Voennoe Izdatelstvo, 1991), 293; Kuznetsov, *Memoirs*, 91; Dotsenko, *Slovar biograficheskii morskoi*, 359. First quote is from Zonin; all other quotes are from Kuznetsov.

until 1946.⁵⁵⁸ For over a year, from December 1937 to March 1939, constant instability at the top of the navy ensured that Stalin's voice was predominant, but at the same time made it difficult to actually build any of the ships he had mandated in 1936.

The pressure on the navy to make significant progress in ship construction, which the purges had largely delayed, was immense. Smirnov and Frinovskii made varying degrees of effort to accomplish the tasks set before them. Smirnov first tried shaming and castigating his subordinates in a March 1938 memo. He attacked them for failing to complete all of 1937's scheduled construction; for doing poor quality work; for having to do more work to make up for previously completed work that was of insufficient quality; for being unable to reduce prices; and for poor labor productivity (only 78% of acceptable norms). He darkly added that "the unmasking of the present enemies of the people disrupted the construction of many of the most important objects," and that "the liquidation [of people] as a result of wrecking is nowhere near finished." In other words, he would not accept the purges as an excuse for poor workmanship, suggesting that the purges were going to continue. At the same time, Smirnov also tried to get funding to make genuine improvements to the navy. He got the Committee of Defense to provide funding to improve Soviet naval shells. He sent letters to multiple officials on topics such as alternating current electrical equipment on destroyers, improved searchlights, and the acquisition of a Spanish tanker/passenger transport, the *Cabo San Augustin*. He purchased equipment from

⁵⁵⁸ Molotov, official creation of the Main Military Soviet, April 28, 1938, RGAVMF, f. 1678, o. 1, d. 6, l. 23; Memo of Molotov, November 16, 1938, *ibid.*, l. 25; Second memo of Molotov, November 16, 1938, *ibid.*, l. 26; Kasatanov, ed., *Tri veka Rossisskogo flota II*, 356; General circular signed by Kuznetsov as Deputy NKVMF, March 27, 1939, RGAVMF, f. 1678, o. 1, d. 6, l. 28–29. Quote is from Kasatanov. A letter from Smirnov to Stalin and Molotov includes positions of each of the members of the Main Military Soviet of the Navy; see Smirnov to Stalin and Molotov, March 15, 1938, RGAVMF, f. 1678, o. 1, d. 20, l. 61. For the "transition" from Smirnov to Frinovskii, see Michael Parrish, *The Lesser Terror: Soviet State Security, 1939–1953* (Westport, CT: Praeger Publishers, 1996), 10.

Germany, Czechoslovakia, Switzerland, the United Kingdom, Sweden, France, and the United States, ranging in cost from 210 rubles (spare lamps for American lanterns) to 141,750 rubles (for a new drill press from the United Kingdom). In all, Smirnov spent over 2 million rubles on foreign technology during his brief tenure as NKVMF.⁵⁵⁹ Unlike his direct successor, Frinovskii, Smirnov genuinely tried to improve the fleet, as well as carrying out his more brutal tasks.

Frinovskii's five month occupation of the post of NKVMF was unremarkable, which comes as no surprise given how utterly unqualified he was for the position. Almost all of his government experience had come as a member of the *Cheka* or its successor agencies. In other words, he was a secret policeman. The closest he came to actual military service was in his role as the head of border security. As historian Michael Parrish opines, Frinovskii "quite possibly had not seen a boat in his life." Kuznetsov said that "Whenever Frinovskii had to solve naval questions, he had to rely wholly on his deputies," one of whom was Kuznetsov. Kuznetsov was even called to give a speech, normally Frinovskii's responsibility, to the Eighteenth Party Congress on March 11, 1939. Stalin handed a report from Frinovskii to Kuznetsov before Kuznetsov's speech, which stated that Frinovskii had resigned his position for "incompetence in naval affairs." P. I. Smirnov-Svetlovskii expected to be appointed People's Commissar after Frinovskii. When he opened the meeting to choose Frinovskii's replacement, Zhdanov requested the floor. Once granted, Zhdanov proposed Kuznetsov to take over. Stalin had actually bluntly

⁵⁵⁹ Memo of P. A. Smirnov, March 22, 1938, RGAVMF, f. 1678, o. 1, d. 6, l. 1; Smirnov and M. M. Kaganovich [brother of L. M. Kaganovich and People's Commissar for the Defense Industry] to Molotov, January 17, 1938, RGAVMF, f. 1678, o. 1, d. 20, l. 7; Resolution of Committee for Defense (signed by Molotov), January 1938, *ibid.*, l. 9; Smirnov to Molotov, August 13, 1938, *ibid.*, l. 255–75; Smirnov to Bazilevich [Secretary of Committee of Defense], May 19, 1938, RGAVMF, f. 1678, o. 1, d. 22, l. 18; Smirnov to Molotov, June 2, 1938, *ibid.*, l. 23; Smirnov to Bazilevich, July 16, 1938, *ibid.*, l. 46. The *Cabo San Augustin* is covered in great detail in RGAVMF, f. 1678, o. 1, d. 22, l. 47–59.

asked Kuznetsov if he wanted to work in Moscow. Kuznetsov replied, “I have never worked in the center and have never wished to.” Perhaps it was that honesty, which Stalin would have found exceedingly rare in those days, that earned Kuznetsov the position. Officially, Kuznetsov was only First Deputy NKVMF, until Frinovskii was formally arrested and shot. Unofficially, Kuznetsov had been an important voice throughout the first few months of 1939.⁵⁶⁰ Regardless of whether he wanted the position or not, Kuznetsov was NKVMF, and it was his responsibility to do the best he could for the navy.

Kuznetsov had little time to enjoy his promotion before being sent to his old home base of Vladivostok, where he met with I. F. Tevosyan, the People’s Commissar of the Shipbuilding Industry (*Narodnyi Komissariat Sudostroitelnoi Promyshlennosti*, or NKSP), which had been established in January 1939. Kuznetsov and Tevosyan enjoyed a strong working relationship throughout his career. On this same trip, Kuznetsov had an extended conversation with Zhdanov, whom Kuznetsov also liked. Zhdanov asked Kuznetsov his opinion of Galler, whom Kuznetsov knew well, and Isakov, whom Kuznetsov hardly knew at all; Kuznetsov was again honest, and soon received the official promotion as head of the NKVMF. From late April to December of 1939, Stalin informed him that he had a “honeymoon” period (as Galler called it), where Kuznetsov had all the access to Stalin he needed. Kuznetsov needed that access to get things done, as he noted in his memoirs, because “nobody undertook to solve difficult naval matters without [Stalin.]”⁵⁶¹ During that period, and the two years afterward, Kuznetsov was given an impossible task: to build the powerful fleet Stalin had always longed for.

⁵⁶⁰ Dotsenko, *Slovar biograficheskii morskoi*, 400; Parrish, *The Lesser Terror*, 10; Kuznetsov, *Memoirs*, 92–98.

⁵⁶¹ Kuznetsov, *Memoirs*, 99–103; Spasskii, *Sudostroenie v period pervykh pyatiletok*, 247.

Kuznetsov as NKVMF in the years before World War II

The centerpieces of the new fleet were to be four new battleships. That would give the Soviet fleet a total of seven battleships, including the modernized *Marat*-class. The *Marat*-class needed combustion turbines to keep up with modern battleships and the conversion process took a considerable amount of time. They also received new main guns, AAA, and rangefinders. The first two were complete by 1934, while the last, *Parizhskaya kommuna*, was ready in 1940. However, Stalin recognized that even with modernization, the *Marat*-class had only marginal utility. He therefore demanded battleships worthy of the modern Soviet Union; originally known only as “Type A” battleships, they were eventually named the *Sovetskyi Soyuz*-class. Although design work began in 1935, a number of changes meant that a finished design was not actually ready until February 28, 1938. Originally set for a displacement of 35,000 tons, the finished design was nearly 60,000 tons, mostly due to larger engines, heavier armor, and a unique torpedo protection arrangement of bulkheads, called the Pugliese system. These behemoths carried nine 406mm guns, twelve 152mm guns, twelve 100mm guns, and 32 37mm guns. As designed, they would have a top speed of 29.5 knots, and were ideally destined for the Pacific Fleet. However, these huge battleships did represent something of a problem diplomatically. The Anglo-Soviet Naval Agreement of 1937 formally established certain limitations for the Soviet fleet, but not for the Pacific. Instead of simply declaring the *Sovetskyi Soyuz*-class for the Pacific, the Soviets chose a simpler alternative: lie about the size of their battleships. Galler prepared a document for transmission to the British that drastically understated the size of the vessels (claiming 43,900 metric tons, as opposed to the actual size, 58,420 tons) and the intended power of the turbines (150,000 HP, instead of 210,000). The document also lied about the number of aircraft (two instead of four) and even the number of guns under 75mm (20 would be reported; 28 was the

information available to Galler at the time, but the eventual proposal was for 32 guns). The first two units of the *Sovetskyi Soyuz*-class, *Sovetskyi Soyuz* and *Sovetskaya Ukraina*, were laid down August 8 and November 11, 1938, respectively.⁵⁶² It was these battleships that drove the Soviets to do what they could to secure 304mm (16”) gun designs from the British, which failed, as related above. As the Soviets could not arm the battleships themselves, they turned to another source: the United States.

By the time Kuznetsov took over as NKVMF in April 1939, negotiations with the United States had already proceeded for years. Originally, the Soviet Union wanted armor plate for battleships and heavy cruisers. However, this expanded quickly to requests for American battleship plans (which was denied on the grounds of the amount of work transmitting them would involve). However, President Franklin Delano Roosevelt sought better relations with the Soviet Union as a consequence of the Second Sino-Japanese War, and he was inclined to grant the Soviets the right to purchase a battleship from the United States. The Neutrality Acts forbade the United States from selling a battleship directly to a foreign country, but there was a workaround: sell the parts and designs to the Soviet Union, which the Soviets would assemble in their own country. Morris Wolf, a representative of the Carp Export and Import Corporation, promised the United States “several hundred million dollars” in orders if an arrangement could be reached. A preliminary arrangement was approved by Cordell Hull, the Secretary of State, in March 1937, if the Soviets agreed to eliminate the 16” guns and accepted that no US naval

⁵⁶² Joseph A. Maiolo, “Anglo-Soviet Naval Armaments Diplomacy Before the Second World War,” *English Historical Review* 123, no. 501, (April 2008), 363, 372; Table of information with Galler’s signature, RGAVMF, f. 1678, o. 1, d. 20, l. 302; McLaughlin, *Russian & Soviet Battleships*, 330–347 and 373–394; Gardiner, ed., *All the World’s Fighting Ships III*, 325. The Soviets also lied about cruiser construction in 1939; see Ignatev to Stalin, Molotov, and Litvinov, April 15, 1939, RGAVMF, f. 1678, o. 1, d. 104, l. 34–38.

personnel could be part of the construction process. Before the Soviets could agree or disagree, somebody (later confirmed to be Admiral William D. Leahy, Chief of Naval Operations, and a virulent anti-communist) leaked details of the contract to the press. The backlash was so horrific that Bethlehem Shipbuilding was forced to cancel the contract. When Leahy was questioned about it by a State Department official, he denied that the navy had anything to do with cancelling the contract, blaming Bethlehem. Bethlehem and other firms approached for business throughout 1937, on the other hand, reported that the US navy threatened to cancel contracts or withdraw business if they agreed to work for the Soviets. Leahy later said that the navy might agree to export licenses for 16” guns, ammunition, and maybe even turrets. He even finally admitted that “it was more than possible that some officers of his Department who were strongly opposed to sales of arms to a communistic government might have made indiscreet remarks... [but] such remarks represented nothing more than the personal opinions of the officers who might have made them and that they did not represent the position of the Navy department which coincided with every respect with the position of the department of State.” Even with the President’s direct approval to sell battleships, Leahy still managed to obfuscate Soviet plans to acquire the battleships from the United States. The most he would allow were the export licenses he spoke of, which were granted in October 1937.⁵⁶³ With some luck, the Soviets would actually get the 16” guns they wanted, but they still needed more help with the design.

⁵⁶³ Thomas R. Maddux, “United States-Soviet Naval Relations in the 1930’s: The Soviet Union’s Efforts to Purchase Naval Vessels,” *Naval War College Review* 29 (Fall 1976), 30–31; Embassy of the Soviet Union to the Department of State, November 24, 1936, in Department of State, *The Soviet Union, 1933–1939*, Foreign Relations of the United States series (Washington, DC: Government Publishing Office, 1952), 457–58 [hereafter referred to as *FRUS*]; Memorandum of Joseph C. Green [Chief of the Office of Arms and Munitions Control], December 3, 1936, *FRUS*, 458–59; Cordell Hull to Claude A. Swanson [Secretary of the Navy], March 26, 1937, *FRUS*, 467–69; Memo of Green, April 17, 1937, *FRUS*, 469–70; Memo of Green, May 13, 1937, *FRUS*, 472–73; Memo of Green, September

There again, however, the Soviets were stonewalled by the US Department of the Navy, setting Stalin's plans for a powerful battleship fleet even further back, which was almost certainly the Department of the Navy's goal. An attempt to purchase designs from Gibbs and Cox, a Philadelphia shipyard, was thwarted, after the President's explicit approval, by unnamed individuals within the navy. One of those individuals said, "We shall still be here after Mr. Roosevelt and Mr. Hull and Mr. Swanson and Admiral Leahy have gone. They are temporary and we are permanent. In such matters as this, it is our wishes that are important, not theirs." Both Gibbs and Sperry Gyroscope (who would manufacture the fire control) reported being threatened about losing all future navy business. Even when Gibbs finally decided to sell plans to the Soviet Union (for the sum of \$60,000), Leahy first prevented the sale by seeing if the US Navy wanted it first, then demanded that the State Department review the sale. The State Department was concerned with, as much as possible, limiting the size of the battleships that Gibbs proposed to design, especially since the Soviets had indicated they wanted a battleship of up to 60,000 tons. Hull and the Assistant Secretary of the Navy, Charles Edison, wrote a letter to the President (which FDR answered in the margins) to ascertain, once and for all, what was permissible. First, Hull and Edison asked if the President would approve a sale of the plans to the Soviet Union. They noted that the Soviets might gain some knowledge from the plans, but the Soviets probably could not actually build the battleships without significant American aid, and even with such aid, there was no guarantee of success. The President raised no objection to this point. The second question was whether the United States might build smaller "Treaty"

22, 1937, *FRUS*, 480–82; Memo of Green, September 24, 1937, *FRUS*, 482–83; Secretary of State [here, Green signed for Hull] to Samuel Carp [owner of Carp Import and Export, also Molotov's brother-in-law], October 1, 1937, *FRUS*, 485–86. First quote is from first Green memorandum; second, longer quote is from the last Green memo.

(referring to the 1936 Treaty of London) battleships of 45,000 tons and 16” guns. Here, too, Hull and Edison were in favor. Because the Soviet Union battleships were so old and thus no “menace to the security of this country [the United States],” one or two battleships would hardly change the balance of power. It would improve US-Soviet relations, make a significant amount of money for the United States (about \$200 million), and, in a worst case scenario, the Americans could simply confiscate the ships. Here, too, the President approved. After firmly establishing a limit of 45,000 tons, the President insisted that nothing be sent to Congress (which would almost certainly ensure failure) and suggested the appointment of a liaison from the Navy Department to handle all matters. At this stage, finally, the Navy stopped actively impeding negotiations (although they occasionally weighed in to warn the State Department about secrets), and matters advanced enough that a mission was sent to the United States by the Soviet Union to work out the final details.⁵⁶⁴

The mission was formally arranged on February 8, 1939. The Chairman of the Mission was to be Isakov, along with seven other individuals (mostly engineers). Frinovskii reported to M. M. Litvinov (People’s Commissar for Foreign Affairs) that the entire mission should take five to six months. However, the mission’s work was interrupted when Kuznetsov (now NKVMF) recalled Isakov to serve as First Deputy NKVMF. Isakov’s mission had not been successful; the navy returned to its old tricks by deciding that certain systems were secret and could not be provided. It was not the battleship designs that caused a problem, but destroyer designs. As the

⁵⁶⁴ Memo of Green, January 10, 1938, *FRUS*, 670–71; Memo of Green, February 25, 1938, *FRUS*, 675–77 (first quote is from page 676); Memo of Pierrepont Moffat [Chief of the Division of European Affairs for the State Department], May 18, 1938, *FRUS*, 687–88; Memo of Green, May 24, 1938, *FRUS*, 689–93; Hull and Edison to FDR, June 8, 1938, *FRUS*, 694–99 (second quote is from page 697); Hull to Gibbs, June 17, 1938, *FRUS*, 699–700; Memo of Green, January 3, 1939, *FRUS*, 869–70.

US Navy Department once again continued to stall negotiations as long as possible, eventually the negotiations were ended by the United States. The Molotov-Ribbentrop Pact (more on this below) ended the discussion altogether. The Soviets did keep trying, only finally acknowledging defeat in February 1940.⁵⁶⁵ For over two years of work, the Soviet Union had nothing to show from their extensive negotiations with the United States. Work on the *Sovietskii Soyuz*-class continued, but without 16” gun designs, the battleships could not be completed. That did not mean, however, that Stalin intended to give up on new ship construction. He had one more possible avenue for foreign naval technology available to him: Nazi Germany.

While there were multiple reasons for the Molotov-Ribbentrop Pact, it was most likely the Munich Agreement that convinced Stalin that France and the United Kingdom were not serious about confronting Hitler. As a result, he replaced Litvinov, the old People’s Commissar for Foreign Affairs, with his old friend Molotov, since Litvinov was known to be pro-British and pro-French in his orientation; the fact that he was Jewish also did not appeal to the Nazi regime. This transition occurred on May 3, 1939, months before the pact itself was worked out. Germany reached out to the Soviet Union about border adjustments with Poland; Stalin used that opportunity to reach a far more all-encompassing agreement, which included the division of a sizeable chunk of Eastern Europe and a non-aggression pact. It also resulted in a trade treaty that helped the Soviets acquire naval technology. The naval portion of the discussion occurred in early 1940, after the original pact was signed. Around this time, the Soviet Union finally built 16” guns to its own design, called the MK-1 (short for *Morskaya korablenaya artelleriya*, or

⁵⁶⁵ Frinovskii to Litvinov, February 8, 1939, RGAVMF, f. 1678, o. 1, d. 104, l. 2–3; Memo of Green, May 12, 1939, *FRUS*, 876–78; Green (acting as Secretary of State) to Gibbs, May 20, 1939, *FRUS*, 878–79; Maddux, “United States-Soviet Naval Relations”, 34; Kuznetsov and Tevosyan to Molotov, February 6/7, 1940, RGAVMF, f. 1678, o. 1, d. 162, l. 130–33.

“naval shipboard artillery”). Therefore, the most pressing concern for the Soviet navy was no longer the battleships; it was a new class of heavy cruiser, the *Kronstadt*-class. That particular class of vessels originated from the designs of the type “B” battleship authorized under the 1937 shipbuilding program. The *Kronstadt*-class were described by some as battlecruisers, and that is a fair description: they were to be 35,240 tons, carry nine 12” guns and an array of secondary armaments, a nine-inch armored belt, and four aircraft. Construction began in late 1939, but Stalin wanted to use the unique opportunity for German naval technology to supplement these vessels with German artillery. Why they had to be German guns is unclear; Soviet 12” guns were quite good and used in coastal defense to great effect. He might have wanted to re-arm the older *Marat*-class of dreadnoughts. In any case, Stalin requested a study for using these guns on the battlecruisers, which was delivered to him.⁵⁶⁶

In the initial reply to Stalin, Molotov, and Zhdanov, the analysis was positive, but with some qualifying remarks. Mounting German 380mm guns to the heavy cruisers was certainly possible. The difficult part was German fire control. They would have to either alter the German fire control system or the heavy cruisers themselves, either of which would cause delays. However, the recommendation was to acquire the batteries anyway, as they could be useful on other ships, and German fire control might be more readily adaptable to other, lighter guns. The more detailed report was even more promising. It suggested that the additional weight the larger batteries would add to the ship—around 250 tons—would be almost entirely mitigated by the

⁵⁶⁶ McLaughlin, *Russian & Soviet Battleships*, 378 and 388; Philbin, *The Lure of Neptune*, 42–45; Gardiner, *All the World's Fighting Ships III*, 326; Aleksandr M. Nekrich, *Pariahs, Partners, Predators: German-Soviet Relations, 1922–1941* (New York: Columbia University Press, 1997), 109. Scholars interested in the Molotov-Ribbentrop Pact may find the website “The Molotov-Ribbentrop Pact: The Documents,” http://www.lituanus.org/1989/89_1_03.htm, accessed January 12, 2016, useful.

reduced size of the armored belt at the waterline. The armored belt would need to be slightly altered to account for the different placement of powder magazines, given the need to physically move the turrets to another location. The report considered that the minimum construction delays would be four to six months, depending on how quickly Germany transmitted the battery designs; to prevent serious delays, the authors of the report suggested that they needed designs no later than April 15, 1940. On these points, both the Soviet Navy and the Soviet shipbuilding industry were agreed, and after clearing up some disputes about German fire control, the Soviets decided to order the guns.⁵⁶⁷

In addition to the heavy cruiser turrets, the Soviets pursued other German naval technology. Stalin asked about designs for German 16” guns, but Philbin notes that Stalin was probably fishing for information in this particular conversation about German progress, as the decision to use Soviet guns on the *Sovietskii Soyuz*-class had already been made. He did end up receiving some of the 16” guns, but where he intended to use them is unknown. The “crown jewel,” so to speak, of the Soviet requests was the German cruiser *Lützow*, an unfinished vessel that was launched in July 1939. Stalin and Molotov were insistent about acquiring this vessel as part of any agreement for Soviet war materials. They had originally asked for three cruisers, but accepted *Lützow* as a compromise. The Germans were to deliver what they had to the Soviets within 12 months, adding the remaining parts of the ship (including the armament) within 15 months. In addition to the cruiser, the Soviets were to receive working designs for every ship designed by the German firm Deschimag in Bremen; designs for the *Bismarck*, a German

⁵⁶⁷ Kuznetsov and Tevosyan to Stalin, Molotov, and Zhdanov, no date, RGAVMF, f. 1678, o. 1, d. 162, l. 436–438; “Notes of a report: About the possibility of the installation of German 380 mm dual barreled turrets and fire control devices on heavy cruisers of project 69 [*Kronstadt*-class],” no date, *ibid.*, l. 439–444; “Special opinion of the representatives of NKVMF,” *ibid.*, l. 445; Opinion of Farmakovskii, *ibid.*, l. 446–49, Philbin, *Lure of Neptune*, 46.

battleship; a brand new destroyer design; 31,000 tons of armor plate; a complete range of electrical equipment from watches to electrical generators; general shipbuilding equipment, including cranes; a wide variety of naval artillery, including six 381mm dual barreled turrets; a set of submarine batteries; and communications equipment such as radios, hydrophones, and telephones. Kuznetsov later requested some tugs, some tankers and other auxiliary equipment. One of the last requests made was for German training film, including Russian subtitles, on radio technology. In exchange for all of this technology, Germany wanted raw materials: specifically, 1 million tons of feed grain and legumes; 900,000 tons of petroleum; 500,000 tons of phosphates; 500,000 tons of iron ore; 300,000 tons of scrap iron and pig iron; 100,000 tons of chromium ores; 100,000 tons of cotton; and 2400 kilograms of platinum. A second delivery, roughly 50% of the first, was to be delivered by August 11, 1941. Germany was also permitted a secret base on the Kola Peninsula.⁵⁶⁸ Not all of these deliveries were completed by the time of Germany's invasion of the Soviet Union, either by the Soviet Union or by Germany; nonetheless, the resulting economic agreement of the Molotov-Ribbentrop Pact represents the single biggest technology transfer the Soviet Union ever received prior to World War II. Adding to that total was an unexpected windfall of technology from the annexation of the Baltic States by the Soviet Union.

The forced annexation of Estonia, Latvia, and Lithuania in June 1940 certainly had a naval dimension to it. These territories, formerly owned by the Russian Empire, significantly

⁵⁶⁸ Kuznetsov, Vannikov [People's Commissariat of Armaments], and Nosenko [People's Commissariat of Shipbuilding], "Realization of orders [charged] to the account of the economic agreement with Germany," no date, RGAVMF, f. 1678, o. 1, d. 221, l. 238–265; Kuznetsov to Mikoyan [People's Commissar for Foreign Trade], June 10, 1940, *ibid.*, l. 305–07; Kuznetsov to Mikoyan, October 11, 1940, *ibid.*, l. 609; Philbin, *The Lure of Neptune*, 47. For more on the *Liützow*, see Chapter 6 of Philbin's book; for "Basis Nord," the secret naval base, see Chapter 5.

extended the Soviet Union's Baltic coastline and gave them access to bases in Tallinn and Riga. The timing of this annexation was no coincidence: much of the Western world was preoccupied with the fall of France. Two of the countries annexed—Estonia and Latvia—had small navies of their own, to which the Soviet Navy helped itself. The Soviets added four submarines (two from each navy), a torpedo boat, three escorts, and a number of auxiliary craft. The Soviets also confiscated civilian ships, including three icebreakers (as well as one military icebreaker), a cargo ship, a troop transport, and an oil tanker. None of these ships were particularly modern, nor were they absolutely critical to the Soviet navy's success, but they were free, and added positive value to the German economic agreement. However, the annexation of the Baltic States was not without cost, as the fortifications of those countries and their islands required extensive modernization and expansion for Soviet purposes. The designs alone for new coastal batteries would not be complete until November 1940, and most of the naval artillery factories were busy producing guns for warships.⁵⁶⁹ As a result, whatever short term benefits adding the Baltic States to the Soviet Union provided, they ultimately proved a significant drawback in terms of adding to the vulnerability of the Baltic coastline. At the time, however, they represented a victory, which the Soviets needed after the disastrous performance of the Soviet military in the Winter War.

The Winter War between the Soviet Union and Finland was the first real combat experience for the Red Navy since the Civil War; the Red Fleet had only gained minimal experience in the Spanish Civil War (at least, a few officers and ships did). The Soviet Union's

⁵⁶⁹ Jelavich, *St. Petersburg and Moscow*, 355; Kuznetsov to Stalin, Molotov, and Voroshilov, August 9, 1940, RGAVMF, f. 1678, o. 1, d. 162, l. 779–81; Isakov to Voroshilov, September 12, 1940, RGAVMF, f. 1678, o. 1, d. 165, l. 63.

objective in the war was to add some territory around Leningrad, to provide buffer territory between the USSR's second largest city and Finland. The Red Fleet's contribution to the war was through naval aircraft, submarines, and light surface vessels. It also supported a significant amphibious operation on December 27, 1939, intended to capture the islands of Bierke and Torsaari. This operation would land the equivalent of one division of troops and supply them by sea. However, significant progress on this target was extremely difficult; the largest settlement on the island, Saarenpää, was well defended with 254mm coastal artillery. Attempts to suppress this battery via shore bombardment had largely failed; "the Finnish battery had almost suffered no damage at all from the activity of our [the Russian] fleet." Only the freezing of the Gulf of Finland permitted the capture of the island's settlement, as the Red Army stormed the island with the aid of railway batteries positioned on the other side of the Gulf. Soviet naval attacks on Finnish ships were similarly unproductive. The Red Navy lost 89 aircraft, a cutter, a screw-propelled sloop, an icebreaking tug, three minesweepers, and three escorts. In return for those losses, the Soviets did sink some Finnish shipping, but also some German and Swedish shipping as the result of a blockade declared by the Soviet navy. In the entire war, Soviet submarines sank five transports, for a total of 7766 British tons, and damaged one tanker. Surface vessels fared even worse; apart from shore bombardment or firing upon enemy aircraft, they rarely expended any ammunition. They fired on three ships: a German transport who failed to respond to the challenge of the destroyer *Grozyashchii*, a Finnish cutter, and a Finnish submarine. Only the cutter was sunk. Four other Finnish cutters were captured. Another cutter was detained and sunk.

Twice, Soviet ships actually fired on Soviet airplanes, one by mistake and one because they did not identify themselves, although thankfully neither of them were hit.⁵⁷⁰

The Soviet Union, admittedly, did achieve its goals during the Winter War: it attained the territory on the Karelian Isthmus that it wanted. However, given the relative sizes of the Soviet and Finnish militaries, the war took entirely too long; it began in November 1939 and concluded in March 1940. The Baltic Fleet could hardly act at all after January 1, 1940, as the Gulf of Finland had frozen over; only a few submarine patrols took place after that date, and the last one was January 17, 1940. The Baltic Fleet's experience was not entirely negative: the crews of two submarines, the *Shch-311* and *S-1*, were each decorated by Kuznetsov for heroism and "manliness." The captains of each sub (F. G. Vershinin and A. V. Tripolskii, respectively) were given the Soviet Union's highest decoration, Hero of the Soviet Union, and the submarines themselves were decorated with the Order of the Red Banner. Acts of bravery aside, however, the Red Fleet's performance was not especially noteworthy. It was true, as Kuznetsov noted in a report to Stalin, Voroshilov, and Zhdanov, that "our [Soviet] ships did not receive any kind of damage from artillery, mines, torpedoes, or aerial bombardment." Perversely, that was actually a negative, because it did not allow for any kind of combat testing of the ships involved. The ships did experience extreme winter conditions, including temperatures as low as -30° C, heavy winds, and ice. The ships, as a consequence, took some storm damage, while engines suffered from the lack of proper maintenance in peace time. Fortunately, most vessels still operated at close to 100%. However, there were enough structural problems that Kuznetsov called for a committee to

⁵⁷⁰ Pavel Petrov, *Zimnyaya Voina: Baltika 1939–1940* [The Winter War: The Baltic, 1939–1940] (Helsinki: RME Group Oy, 2008), 22, 26–28, 321–23, 431, Appendices 6, 7, 10, 11, and 13. The appendices, unfortunately, lack page numbers.

study the effects of the war, as well as a thorough inspection of every vessel with any combat experience. He also noted problems with the Italian rangefinders during nocturnal usage; he needed to convince NKSP to use domestic models instead, which worked perfectly fine at night.⁵⁷¹ Beyond changes to materiel, Kuznetsov also learned a number of valuable lessons that he put to use in the Second World War.

Kuznetsov attributed many of the difficulties during the amphibious assault on the Finnish islands to an inadequate amount of joint training between the Red Army and the Red Fleet. He also cited a lack of coordination between the units of a squadron. He was unhappy with the performance of naval aviation and submarines, in particular. In short, as he put it, “Our combat training was conducted in conditions that were easier than in actual war. Our duty was to prepare the fleet for war with a far more experienced and a far more formidable enemy.”

Kuznetsov ordered more rigorous training procedures and exercises throughout the fleet for fall 1940. He and his officers made careful study of the German campaigns against Norway and tried to incorporate those lessons into those fall exercises. He, at least, was convinced that Germany was likely to be the Soviet Union’s opponent in the near future; of course, neither he nor anybody else knew when that attack was likely to occur. Kuznetsov first grew suspicious when the Germans ceased delivery of the parts needed to complete *Lützow*. He also noted German reconnaissance flights in the Gulf of Finland and in Romania. He ordered more readiness exercises as a direct result. When Germany did invade the Soviet Union on June 21–22, 1941,

⁵⁷¹ Petrov, *Zimnyaya Voina*, Appendix 12; Kuznetsov to Molotov, January 21, 1940, RGAVMF, f. 1678, o. 1, d. 162, l. 61–66; Kuznetsov to Stalin and Molotov, January 23–24, 1940, *ibid.*, l. 69–70; Kuznetsov to Stalin, Voroshilov, and Zhdanov, May 5, 1940, RGAVMF, f. 1678, o. 1, d. 165, l. 1–7; quote is from page 1 of the letter.

Kuznetsov had the navy ready and could proudly say that the Red Navy, at least, suffered no casualties.⁵⁷²

At the time of the German attack, the Soviet Navy might have been prepared, but it was certainly not the Soviet Navy that Stalin expected when he initiated the ten year shipbuilding program in 1936–37, or even when he had the idea to build up the fleet in 1935. Of the 432 ships officially scheduled in 1937, only 174, just over 40%, were completed by the end of World War II, which includes some ships who had their construction completed after 1942. None of the *Sovietskii Soyuz*-class battleships or *Kronstadt*-class heavy cruisers were ever completed. Two aircraft carriers, added to the 1937 plan at the last minute, were never even started. Of 22 light cruisers, six were finished; of 19 leaders, six were finished (which includes *Tashkent*); of 127 destroyers, 46 were finished; of 232 submarines of various sizes, 116 were finished, exactly half of those ordered. On July 10, 1941, all active construction was halted. With those numbers, it is difficult to call the Third Five-Year Plan and the ten year plan of shipbuilding anything but a failure, as far as the navy is concerned.⁵⁷³ At the same time, that does not mean that the Soviet Navy was not significantly upgraded as a result of those plans; the fleet was certainly larger and better equipped, compared to the navy that fought the Russian Civil War. It might have been even better, had Stalin not decided to personally change the composition of the navy to fulfill his unrealistic vision of the future.

⁵⁷² Kuznetsov, *Memoirs*, 118–23, 154, 167; Kasatnov, ed. *Tri veka Rossisskogo Flota III* (St. Petersburg, Logos: 1996), 10–11.

⁵⁷³ Spasskii, *Sudostroenie v period pervykh pyatiletok*, 254; Kasatnov, ed. *Tri veka Rossisskogo Flota III*, 13; “Changes to the Five Year Plan as established by resolution of the Committee of Defense on January 9, 1940,” RGAVMF, f. 441, o. 1, d. 2015, l. 3–5.

Table 5.3. Red Fleet as of the Nazi invasion by the Soviet Union, June 21–22, 1941.⁵⁷⁴

Type of ship	Baltic Fleet	Black Sea Fleet	Northern Fleet	Pacific Fleet
Battleship	2	1	--	--
Cruisers	2	5	--	--
Destroyers/leaders	21	17	8	7
Escorts	7	2	7	6
Gun boats	2	4	--	--
Minelayers	4	2	1	5
Minesweepers	30	12	2	18
Armored cutters	4	--	--	--
MTBs	67	78	--	145
Sub hunters	20	24	14	19
Minesweeping cutters	2	--	--	--
Escort cutters	15	--	--	--
Submarines	71	44	15	85

⁵⁷⁴ Kasatnov, ed. *Tri veka Rossisskogo Flota III*, 12; McLaughlin, "USSR: The Voenno-morskoi flot SSSR," 276–77. The latter source provided the numbers for the Pacific Fleet.

Conclusion

During the course of World War II, Stalin sacrificed his naval capacity at the expense of supporting the Red Army; shortly after shutting down much of the Soviet Union's shipbuilding capacity, two shipyards were converted to tank production. Nearly 400,000 sailors actually served in the Red Army during World War II, including almost 17,000 officers.⁵⁷⁵ The sheer rapidity of Hitler's *blitzkrieg* took away all of the Soviet Union's naval bases in the Black Sea and all of the bases in the Baltic Sea except Leningrad, further reducing the effectiveness of the remaining ships. The only vessels which could independently fight were the same smaller vessels—submarines and MTBs—that Stalin had rejected as the basis of his fleet in 1935. All of the battleships in the world would not have prevented Hitler's three army groups from reaching the gates of Leningrad and Moscow or the mountains of the Caucasus in short order, which makes Stalin's plans to build powerful battleships foolish in retrospect.

Yet, at the same time, Stalin was following traditions that went back to the days of the Russian Empire. Stalin wanted a powerful fleet for the same reasons that Alexander III and Nicholas II had: to enhance Russia's (or in Stalin's case, the Soviet Union's) diplomatic position and to increase the standing of their country in the eyes of other European powers. Russia and the Soviet Union wanted battleships because everybody else had battleships, coupled with vague notions of following Mahanian traditions. In reality, the former dreadnoughts that served in both Russia's World War I fleet and the Soviet Union's World War II fleet had been opposed by Mahan, who thought that the all big gun model denied naval officers the advantages and options that a secondary battery offered. Stalin, unlike the Emperors, insisted on micromanaging the fleet when he was wholly incompetent to do so.

⁵⁷⁵ Kasatnov, ed. *Tri veka Rossisskogo Flota III*, 12–13.

The two Russian Emperors had the benefit of relying upon trusted advisers; even if the policy was their own, neither Alexander III nor Nicholas II were well-versed in naval affairs, knew it, and most importantly, acknowledged it. The dominant figure in both of their navies until 1905, Grand Duke Alexei Alexandrovich, had spent his entire life in the navy. Stalin, on the other hand, forced the Soviet naval high command to fit his particular mold. The two Chiefs of the UVMS that occupied the office for most of the 1930s, Muklevich and Orlov, were organizers and administrators, but lacked extensive naval backgrounds. They did have the benefit of skilled subordinates, such as Vlasev and Sivkov, who did have long naval careers, as well as others. However, such subordinates were in short supply after the Great Terror; Stalin's decision to appoint individuals who were willing to carry out his ruthless policies, rather than effective leaders, to the post of NKVMF only made it more difficult to find competent naval officers who were willing to be honest and offer constructive criticism. Had Kuznetsov been selected earlier, more of Stalin's shipbuilding program might have been completed. Then again, perhaps not; Kuznetsov admitted in his memoirs that he should have been more forthright about ending naval construction after Hitler declared war on Poland in September 1939. As he put it, "We could have continued to build a big navy at the same rate only if we were dead certain that the war would not break out soon. Since we could not be certain of this, this costly program, which consumed vast resources, should have been immediately discontinued. We did not submit such a proposal. This was my mistake."⁵⁷⁶

Somewhat ironically, Kuznetsov had less freedom to pursue the policies he thought best, as the head of an independent NKVMF, than Muklevich or Orlov did as the Chiefs of the UVMS, answering to officials in the Red Army as well as then-NKVM Voroshilov. Prior to

⁵⁷⁶ Kuznetsov, *Memoirs*, 127.

1935, Stalin had little to no interest in the navy. The Red Army rarely conflicted with the UVMS because the modernist school was almost tailor-made to be acceptable to Red Army objectives and goals. A huge fleet of battleships was expensive and might siphon away precious resources; a fleet composed mostly of submarines and MTBs was certainly cheaper and less likely to take up production facilities for long periods of time. Working with that framework, however, Muklevich and Orlov had flexibility. They had the ability to improve designs and procure foreign technology in ways that made sense for the Soviet navy. After Stalin took notice of the navy, that freedom completely evaporated. Even debate or dissent within the naval community behind closed doors was no longer tolerated. Orlov decreed on July 15, 1936, that “Consultations between industry and the professors of the Naval Academy are to cease.” This quote is remarkable for two reasons. First, it reminds the reader of the official name of the Naval Academy: *Voенно-Morskaya Akademiya im. Voroshilova*, or the Naval Academy named for Voroshilov. Voroshilov was a cavalry officer with absolutely no naval experience, yet the premier educational institution in the Soviet navy carried his name from 1931 to 1960; today the institution is named for Kuznetsov. Second, some of the professors he was trying to isolate were the very same individuals he helped rehabilitate just three years earlier.⁵⁷⁷ Orlov, like many of his fellow officers, could not defy Stalin, no matter how misguided his policies were. This fear was in sharp contrast to the operation of the Imperial navy.

⁵⁷⁷ Quote is from Kasatnov, *Tri veka Rossisskogo flota II*, 342; for the history of the Russian Naval Academy, see “Voennyi-uchebnyi nauchnyi tsentr VMF ‘Voенно-morskaya akademiya im. N. G. Kuznetsova,’” [The military-instructional scientific center of the Navy, ‘Naval Academy named for N. G. Kuznetsov’] <http://moov-vmf.ru/vuncvmfvma>, and A. I. Sorokin, “Voенно-morskaya akademiya i rol ee ychenykh v razvitii VMF” [The Naval Academy and its role in the scholarly developments of the navy], <http://flot.com/science/vma.htm>, both accessed January 13, 2016.

If the most significant impediment to naval development during the Soviet era was Stalin, instability was the biggest problem during the days of Nicholas II. Alexander III had one person in charge of the fleet from 1881 to 1894; Grand Duke Alexei Alexandrovich. While the Grand Duke continued to serve until the Russo-Japanese War, from 1905 until the Emperor's abdication in 1917, Nicholas had five Naval Ministers. One of those—Grigorovich—was Naval Minister from 1911 to 1917, meaning that there were four Naval Ministers in six years before that period. This instability was entirely due to the inability or unwillingness of Avelan, Birilev, Dikov, and Voevodskii to fulfill Nicholas II's plans. It was also because many of them lacked the tact and/or capability to curry favor with him or, after 1905, the Duma. Grigorovich succeeded where they failed, which accounts for his long tenure. He was an effective politician at a time when that skill was desperately needed.

Grigorovich, along with Makarov and Kuznetsov, is one of the few naval officers of the twentieth century that modern Russians might know. Makarov has an enormous memorial on Kronstadt next to the Naval Cathedral. The Naval Academy and the sole aircraft carrier in the Russian Navy are named after Kuznetsov. Grigorovich only has a new class of frigates named after him, but in reality, the Russian Federation should venerate Grigorovich as much as they do Kuznetsov or Makarov; the fleet that fought the Nazis during World War II was as much Grigorovich's as it was Kuznetsov's.

The fighting core of the Soviet Navy during World War II had significant elements left over from the fighting core of the Russian Imperial Navy during World War I. All three Soviet battleships were former Imperial dreadnoughts, heavily modernized. Three Soviet cruisers were launched during World War I. Several *Novik*-class destroyers served in both wars, as well as a handful of submarines. The cruiser *Avrora*, which signaled the beginning of the Russian

Revolution, symbolically fought in World War II, as some of its guns were used in the defense of Leningrad during the German siege. Of course, this reliance on older technology should not be overstated. The two most common types of ship in the Soviet navy, MTBs and submarines, were almost all built after the Russian Revolution. The *Kirov*-class and *Chapaev*-class cruisers were some of the best in the world. Even if none of the Five-Year Plans were actually completed, in terms of reaching shipbuilding targets, the Soviet navy grew exponentially. The numbers are perhaps most impressive for submarines: between 1931 and 1941, the Soviet Union launched 275 submarines, and at the beginning of World War II, they had the largest submarine fleet in the world.⁵⁷⁸ If Stalin had never imposed his own misguided plans on the Red Navy, it might have been larger still.

⁵⁷⁸ Lawrence Sondhaus, *Navies of Europe: 1815–2002* (Harlow, UK: Pearson Education Limited, 2002), 221.

Appendix: Heads of the Imperial and Soviet Navies to 1946

The following is a chronological list of every head of the Imperial and Soviet Navies. I have eschewed the use of full dates for the sake of brevity. Where available, those dates are included in the text.

Russian Empire

General Admiral Grand Duke Alexei Alexandrovich – 1881 to 1905

Naval Minister F. K. Avelan – 1905

Naval Minister A. A. Birilev – 1905 to 1907

Naval Minister I. M. Dikov – 1907 to 1909

Naval Minister S. A. Voevodskii – 1909 to 1911

Naval Minister I. K. Grigorovich – 1911 to 1917

Minister of War and the Navy A. I. Guchkov – 1917

Minister of War and the Navy A. F. Kerensky – 1917

Soviet Union

Commander of Naval Forces V. M. Altfater – 1918 to 1919

Commander of Naval Forces Y. A. Berens – 1919 to 1920

Commander of Naval Forces A. V. Nemits – 1920 to 1921

Commander of Naval Forces E. S. Pantserzhanskii – 1921 to 1924⁵⁷⁹

Chief of the UVMS V. I. Zof – 1924 to 1926

Chief of the UVMS R. A. Muklevich – 1926 to 1931

Chief of the UVMS V. M. Orlov – 1931 to 1937

⁵⁷⁹ The official title of Pantserzhanskii changed multiple times during his tenure, but he remained at the head of the navy.

Chief of the UVMS M. V. Viktorov -- 1937⁵⁸⁰

People's Commissar of the Navy P. A. Smirnov – 1937 to 1938

Deputy People's Commissar of the Navy P. I. Smirnov-Svetlovskii – 1938 to 1939

People's Commissar of the Navy M. P. Frinovskii – 1939

People's Commissar of the Navy N. G. Kuznetsov – 1939 to 1946

⁵⁸⁰ Viktorov's tenure as Chief of the UVMS was extremely short, after which he was arrested and shot, as with every name above his on this list (that was not already dead of other causes by 1938). For more on his career in the navy, which included turns as Commander of the Baltic, Black Sea, and Pacific Fleets, see Dotsenko, *Slovar biograficheskii morskoi*, 79.

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Fond 701: Papers of I. K. Grigorovich

Fond 703: St. Petersburg Naval Circles

Fond 1233: Papers of Z. P. Rozhestvenskii

Soviet era

Fond 5: Directorate for the Affairs of the of the People's Commissariat for Naval Affairs

Fond 360: Technical Directorate of the UMS RKKA

Fond 441: Directorate of Shipbuilding for the Fleet

Fond 1483: Directorate for Naval Forces of the RKKA (UVMS)

Fond 1678: People's Commissariat for Naval Affairs (NKVMF)

Rossiiskii Gosudarstvennyi Istoricheskii Arkhiv, St. Petersburg, Russia

Fond 966: Papers of V. N. Kokovtsov

Fond 1276: Council of Ministers

⁵⁸¹ A note for future researchers: during my visit to St. Petersburg in 2013–14, much of this collection was reported as lost due to water damage.

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