NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

RUSSIAN NAVAL MODERNIZATION AND STRATEGY

by

Jonathan Evitts

March 2019

Thesis Advisor: Daniel J. Moran
Second Reader: Christopher C. Bone

Approved for public release. Distribution is unlimited.

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE			*Form Approved OMB No. 0704-0188*

1. AGENCY USE ONLY *(Leave blank)*	**2. REPORT DATE** March 2019	**3. REPORT TYPE AND DATES COVERED** Master's thesis

4. TITLE AND SUBTITLE RUSSIAN NAVAL MODERNIZATION AND STRATEGY	**5. FUNDING NUMBERS**
6. AUTHOR(S) Jonathan Evitts	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000	**8. PERFORMING ORGANIZATION REPORT NUMBER**
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A	**10. SPONSORING / MONITORING AGENCY REPORT NUMBER**

11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.

12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release. Distribution is unlimited.	**12b. DISTRIBUTION CODE** A

13. ABSTRACT (maximum 200 words)

Russia's maritime development focuses on support of land forces and protection of its coastal territory. Its naval strategy has not changed greatly from the Soviet era. The fleet is greatly reduced in size and will likely continue to decrease as older ships decommission. The fleet's newest ships and submarines field significant offensive capability on relatively small platforms. Russia's poor economic situation and corruption throughout the Ministry of Defense and shipbuilding industry will hinder the construction and maintenance of ships. A reduced military budget will further inhibit maritime development. The Northern and Pacific Fleets continue to be home to Russia's strategic forces. The Black Sea Fleet is receiving the greatest improvements as Russia seeks to increase its presence in the Mediterranean Sea and the Middle East. Moscow considers NATO its primary adversary and will likely focus its reduced budget on improving its land and air forces instead of continuing large-scale naval development. This thesis uses analysis of Russian policy documents and Moscow's corresponding actions, fleet composition of the Russian Federation Navy, and the economic status of Russia to provide insight into Russian naval strategy and outlook.

14. SUBJECT TERMS Russia, maritime, foreign policy, modernization, strategy, navy, naval, NATO, security, Russian, Moscow, Putin, Russian Federation, fleet	**15. NUMBER OF PAGES** 105
	16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	**18. SECURITY CLASSIFICATION OF THIS PAGE**	**19. SECURITY CLASSIFICATION OF ABSTRACT**	**20. LIMITATION OF ABSTRACT**
Unclassified	Unclassified	Unclassified	UU

NSN 7540-01-280-5500 Standard Form 298 (Rev. 2-89) Prescribed by ANSI Std. 239-18

THIS PAGE INTENTIONALLY LEFT BLANK

Approved for public release. Distribution is unlimited.

RUSSIAN NAVAL MODERNIZATION AND STRATEGY

Jonathan Evitts
Lieutenant, United States Navy
BA, American Military University, 2013

Submitted in partial fulfillment of the
requirements for the degree of

**MASTER OF ARTS IN SECURITY STUDIES
(EUROPE AND EURASIA)**

from the

**NAVAL POSTGRADUATE SCHOOL
March 2019**

Approved by: Daniel J. Moran
Advisor

Christopher C. Bone
Second Reader

Afshon P. Ostovar
Associate Chair for Research
Department of National Security Affairs

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

Russia’s maritime development focuses on support of land forces and protection of its coastal territory. Its naval strategy has not changed greatly from the Soviet era. The fleet is greatly reduced in size and will likely continue to decrease as older ships decommission. The fleet’s newest ships and submarines field significant offensive capability on relatively small platforms. Russia’s poor economic situation and corruption throughout the Ministry of Defense and shipbuilding industry will hinder the construction and maintenance of ships. A reduced military budget will further inhibit maritime development. The Northern and Pacific Fleets continue to be home to Russia’s strategic forces. The Black Sea Fleet is receiving the greatest improvements as Russia seeks to increase its presence in the Mediterranean Sea and the Middle East. Moscow considers NATO its primary adversary and will likely focus its reduced budget on improving its land and air forces instead of continuing large-scale naval development. This thesis uses analysis of Russian policy documents and Moscow's corresponding actions, fleet composition of the Russian Federation Navy, and the economic status of Russia to provide insight into Russian naval strategy and outlook.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

LIST OF FIGURES

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF TABLES

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF ACRONYMS AND ABBREVIATIONS

A2/AD	Anti-Access Area Denial
AAW	Anti-Air Warfare
ABM	Anti-Ballistic Missile
ARPA	Advanced Research Projects Agency
ASCM	Anti-Ship Cruise Missile
ASROC	Anti-Submarine Rocket
BF	Baltic Fleet
BP	British Petroleum
CF	Caspian Flotilla
CIF	Cost, Insurance, and Freight
CIS	Commonwealth of Independent States
CRS	Congressional Research Service
CSTO	Collective Security Treaty Organization
D2013	Concept of the Foreign Policy of the Russian Federation in 2013
D2016	Concept of the Foreign Policy of the Russian Federation in 2016
DARPA	Defense Advanced Research Projects Agency
EIA	Energy Information Administration
EU	European Union
GDP	Gross Domestic Product
GPS	Global Positioning System
IMF	International Monetary Fund
INCSEA	Incidents at Sea Agreement
IS	Islamic State
LACM	Land-Attack Cruise Missile
MarD2015	Maritime Doctrine of the Russian Federation
MENA	Middle East and North Africa
MilD2014	Military Doctrine of the Russian Federation
NATO	North Atlantic Treaty Organization
NF	Northern Fleet
NO2017	State Policy of the Russian Federation in the Field of Naval

NSS2015	Russian National Security Strategy Operations until 2030
OECD	Organization for Economic Cooperation and Development
ONI	Office of Naval Intelligence
PF	Pacific Fleet
PLAN	People’s Liberation Army Navy
RFN	Russian Federation Navy
SAR	Search and Rescue
SIPRI	Stockholm International Peace Research Institute
SLBM	Submarine-Launched Ballistic Missile
SLCM	Submarine-Launched Cruise Missile
UNSC	United Nations Security Council
U.S.	United States
USNS	United States Naval Ship
USS	United States Ship
USSR	Union of Soviet Socialist Republics
VLS	Vertical Launching System
WTO	World Trade Organization

ACKNOWLEDGMENTS

I would like to extend a special thanks to those who have supported me throughout this project: my wife, Katy, who managed to keep the house running while I was neck deep in reading and writing, and my children, who would routinely express incredulity at the amount of words I was working with on the screen. Finally, I am grateful to those who either kept me sane or on track over the past eighteen months. You probably know who you are.

THIS PAGE INTENTIONALLY LEFT BLANK

I. INTRODUCTION

Western states and Russia are often antagonistic toward each other. Russia, at the eastern edge of Europe, frequently has adopted a posture of defensive expansionism in that it seeks to create a buffer-zone between itself and perceived aggressor states. During the Soviet period, the buffer zone was the Soviet Republics surrounding Russia's borders; following the collapse of the Soviet Union, it remains, primarily, the former Soviet Republics. Moscow sees the West as both a model to follow on a path to modernity and the aggressor against Russian power. Russia oscillates between those concepts, and its policies regarding the West are inconsistent, particularly since the collapse of the Soviet Union. At the beginning of Russia's modern history,[1] at its weakest point, Russia attempted to become democratic, which might have led to modernization of its society and economy. That, however, did not happen. Instead, Russia reverted to a quasi-democracy becoming far more assertive and outspoken against Western unilateral actions as Russia's economy strengthened under Putin.

Russia's navy has not, since the end of the Soviet Union, been a significant factor in global politics or on the world's oceans. Russia's naval fleet sat in disrepair for decades. Keels laid for construction sat unfinished due to lack of funds or initiative to finish the ships. Surface ships and submarines sat pier-side with limited funding and crews to sail them for strategic or training purposes. That is slowly changing. Moscow instituted new maritime policy, began and completed not only new construction, but new ship designs with updated technology, improved its ballistic missile submarine capability and added new aircraft to the naval aviation fleet. Why has Moscow decided to upgrade the fleet after years of disrepair and neglect, and what is the intent for its resurgent navy?

The historical use of Russia's navy, including during the Soviet period, is not overwhelmingly positive. Despite its lengthy history dating back to Peter the Great late in the 17th century, the Russian navy had little impact on Russian foreign policy. Indeed, it has arguably lost more battles than it has won. The Black Sea Fleet was defeated during

[1] Russia's modern history is defined here as the establishment of the Russian Federation in 1991.

the Crimean War by the British and Ottoman Empires; the Baltic Sea Fleet was sunk at the Battle of Tsushima during the Russo-Japanese War, while the remains of the Pacific Fleet remained in port both at Port Arthur and Vladivostok; and, perhaps more importantly, Russia's efforts at a naval buildup to combat the United States' capabilities partially contributed to the economic collapse of the Soviet Union.

Navies are costly to develop, build, and maintain. The fleet buildup accomplished little before the Soviet Union's collapse and then lay mostly dormant for more than a decade following the collapse. The vessels resulting from a massive naval buildup through the late 1970s and 1980s stayed pier-side, rusting in their berths. New production was extremely limited through the 1990s and non-existent during some years. As Russia's economy improved through the 2000s, its defensive expenditure increased, resulting in a resurgence in naval modernization and development culminating in new classes of warships and submarines. Despite periods of Russian naval buildup, its value has never been consistent to Russian leadership. Russia is a continental power, and its navy has contributed little, especially compared to its army, to its strength through history.

To understand the logic behind Russian naval modernization, we need to understand Russia's maritime strategy. Evaluating the modernization trend (i.e., what Russia is producing and where it is focusing its modernization efforts), will show whether modernization is developing in accordance with Russia's stated policies. Does a modern navy contribute to Russia's security through either defensive posture or strategic deterrence beyond what it currently operates? This thesis is intended to evaluate Russian naval modernization and its overarching maritime strategy and how it will contribute to Russian foreign policy.

A. LITERATURE REVIEW

There are two different schools of thought regarding Russian foreign policy. The first is based on realism: Russia is operating according to its own security needs in an anarchic international environment. It discounts the needs and concerns of other states while it attempts to meet those needs, as the Athenians told the Melians, "the strong do

what they can, and the weak suffer what they must."[2] The second school of thought is based around constructivism, which holds that Russia is searching for its national identity. As it does, it oscillates between being pro- and anti-Western.[3] Both concepts can be used to explain portions of Russian policy, and because of that, an answer lies in a combination of theories rather than resting solely with one.[4]

Authors discussing the realist paradigm and its applicability in post-Cold War Russia tend to see Russian-Western interaction as something resembling a new Cold War.[5] They evaluate Russia's actions as deliberately antagonistic toward the West and consider Russian perceptions of Western actions as interfering in Russia's national interests. Indeed, Russia's opinion of NATO expansion into Eastern Europe, an area Russia considers as directly in its historical sphere of influence, is a particularly egregious offense.[6] Including Russia in NATO enlargement discussions may go some way toward alleviating its negative perception of expansion.[7] Arguably, Russian actions in Moldova, Georgia, and Ukraine were done deliberately to force policy change resulting in frozen conflicts that limited pro-Western policies, such as joining NATO or the EU. Those actions added a realpolitik perspective by putting Russian military and political power on display and allowing Moscow to reinforce its perception of itself as a superpower.

---

[2] Robert Strassler, ed., *The Landmark Thucydides*, trans. Richard Crawley (New York: Touchstone, 1996), 352.

[3] Alexander Sergunin, Explaining Russian Foreign Policy Behavior: Theory and Practice (Stuttgart: Ibidem Press, 2016), 16.

[4] Magda Leichtova, Misunderstanding Russia: Russian Foreign Policy and the West (Surrey: Ashgate, 2014), 4.

[5] Anne Clunan, *The Social Construction of Russia's Resurgence* (Baltimore: Johns Hopkins University Press, 2009); Edward Lucas, *The New Cold War: Putin's Russia and the Threat to the West* (New York: Palgrave Macmillan, 2008); Alexei Pushkov, "Russia and America: The Honeymoon's Over," *Foreign Policy*, no. 93 (Winter 1993): 76–90.

[6] Clunan, *The Social Construction of Russia's Resurgence*; Benjamin Kemp, "The Illusion of Democracy in Post-Communist Russia: How Internal and External Relationships Have Evolved After the Fall of the Soviet Union," (Master's thesis, Ball State University, 201); Sergunin, *Explaining Russian Foreign Policy Behavior*; Angela Stent, *The Limits of Partnership: U.S.-Russian Relations in the Twenty-First Century* (Princeton, NJ: Princeton University Press, 2014).

[7] Jeffrey Mankoff, *Russian Foreign Policy: The Return of Great Power Politics* (Lanham, MD: Royman & Littlefield Publishers, 2009), 208.

Realism struggles to explain the way Russia ceded its power following the collapse of the Soviet Union and its actions through the 1990s. Moscow did not act weaker as it became economically and militarily weaker through the 1990s, nor did war break out in a way that would allow Russia to fight for what Moscow perceived as its territories. Instead, the Republics were enabled to break away peacefully.[8]

Constructivism offers a different view of Russia's policies over the past 28 years. Instead of a constant sense of antagonism between Russia and the West, it focuses heavily on Russia's development and perception of national identity.[9] While searching for its identity, Moscow operates at various stages of involvement in world affairs. It oscillates between anti- and pro-Western, which influence Russian foreign policy. The Russian identity, in part, revolves around its history as Russia before the Soviet Union, during the Soviet Union, and today. Because of Russia's historical status as a Great Power, especially during the Soviet Union, many Russians still see the country as a Great Power, including those running the country, and possession of nuclear weapons adds credibility to that claim.[10] Putin, in his own words, expresses this during his 2005 speech to the Federal Assembly, "we should acknowledge that the collapse of the Soviet Union was a major geopolitical disaster of the century … above all else Russia was, is and will, of course, be a major European power."[11] As long as the Russian leadership's perception remains that Russia is a major power, Russia's national identity will absorb that mentality and will reflect it in policy decisions.

Magda Leichtova analyzes Russian policy documents in her book, *Misunderstanding Russia*. She compares policy documents at Russia's weakest point of development in the early 1990s, to those released during its resurgence in the early 2000s, and shortly after Medvedev took power in 2008. Her analysis discusses the change in these

---

[8] Clunan, The Social Construction of Russia's Resurgence, 4–5.

[9] Clunan, The Social Construction of Russia's Resurgence; Leichtova, Misunderstanding Russia; Sergunin.

[10] Clunan, The Social Construction of Russia's Resurgence, Stent, Explaining Russian Foreign Policy Behavior; Lucas, The New Cold War; Mankoff, Russian Foreign Policy.

[11] Vladimir Putin, *Annual Address to the Federal Assembly of the Russian Federation* (April 25, 2005), http://en.kremlin.ru/events/president/transcripts/22931.

policies moving from an early trend toward Western values, modernization and democratization in 1993; more concern over Western unilateral actions and its impotence in the United Nations Security Council (UNSC) in 2000; and finally a more assertive Russia against Western unilateral action in Kosovo and Iraq.[12] The primacy of the West as a factor of Russian foreign policy is present in her discussion of the "Others" when compared against Russia as the "Self" of its national identity. Such a development leads to Russian policy decisions based on Western actions whether those actions impact Russia, or Russian interests, or not. Conversely, Western states do not factor Russia as their primary concern in foreign policy decisions. This results in a dichotomy in foreign policy in which Russia desires to be acknowledged by Western powers as an equal, or at least a factor, but Western powers are more interested in things that are not related to Russia.

Russian naval strategy (Soviet era and modern Russia) historically relies on strategic deterrence and layered defense.[13] Its strategic defense force remains about fielding nuclear-capable ballistic missile submarines able to threaten the homeland of aggressor countries. The layered defense is provided by increasing defensive circles from the coast to hundreds of miles out to sea.[14] These defensive zones are intended to limit inland power projection from aggressor forces. Those principles remain largely unchanged in the latest maritime strategy document, which outlines Russia's primary maritime policies as deterrence of ocean-based aggression; "strategic stability and international law and order in the world's oceans;" and developing and defending its interests in ocean-based socio-economic development.[15] The Office of Naval Intelligence (ONI) expects a greater emphasis on peripheral defense, especially in the Arctic as Russia looks to extend its

[12] Leichtova, Misunderstanding Russia.

[13] Sergei Gorshkov, *The Sea Power of the State* (Annapolis, MD: Naval Institute Press, 1979); Robert Herrick, *Soviet Naval Theory and Policy: Gorshkov's Inheritance* (Newport, RI: Naval War College Press, 1988), 264; Office of Naval Intelligence, *The Russian Navy: A Historic Transition* (Washington, DC: Office of Naval Intelligence, December 2015); Ola Tunander, *Cold Water Politics: The Maritime Strategy and Geopolitics of the Northern Front* (Oslo: International Peace Research Institute, 1989).

[14] Herrick, Soviet Naval Theory and Policy, 264.

[15] Vladimir Putin, Fundamentals of the State Policy of the Russian Federation in the Field of Naval Operations for the Period Until 2030, trans. Anna Davis (Newport, RI: Naval War College, July 20, 2017).

continental shelf rights.[16] The increase of modernized forces to the Black Sea Fleet (BSF) instead of the Northern Fleet (NF) calls this line of thought into question.

Naval strategy, in general, can be linked directly to foreign policy. Navies provide several capabilities that other armed forces cannot match. First, a navy has the ability to be anywhere in the world due to the global commons the oceans provide. Second, naval presence or even its existence can cause other States to adjust policy. Finally, naval diplomacy may come in the form of visitations and port visits that would not be possible with other forces. As Geoffrey Till asserted, "it is certainly quite hard to conceive of an equivalent 'courtesy visit' by a division of main battle tanks."[17] Naval diplomacy goes beyond that of military power, yet demonstrates military power at the same time that it is used for peaceful purposes through its display for others to see.[18] In *Seapower*, Geoffrey Till brings together maritime thinkers such as Mahan, Corbett, Gorshkov, and others, into a comprehensive volume on the wide variety of the uses of naval power, going far beyond merely military capability. It expands upon the earlier works and historical purposes of seapower to include modern ships and weapons systems.

The collapse of the Russia economy contributed to the fall of the Soviet Union. It was not until Putin's first term in office that the economy started the long road to recovery. From 2000–2008, amidst a steep boom in energy costs, Russia's economy increased in response to the increased price of oil. However, Russia failed to diversify its economy. The global recession in 2008 affected Russia, but it quickly recovered and maintained growth during the following years. That growth was not at pre-2008 levels due to a reduction of net exports, investment, and private consumption.[19] Russia's economy depends highly on energy export, and the lack of diversification makes for a fragile economy. The combination of oil price reductions and economic sanctions following the annexation of

---

[16] Office of Naval Intelligence, *The Russian Navy: A Historic Transition* (Washington, DC: Office of Naval Intelligence, December 2015), 5.

[17] Geoffrey Till, *Seapower: A Guide for the Twenty-First Century*, Third ed. (New York: Routledge, 2013), 224.

[18] Gorshkov, The Sea Power of the State; Strassler, The Landmark Thucydides; Till, Seapower.

[19] Andreea-Emanuela Dragoi, "Russian Foreign Policy: Interests, Vectors, and Economic Impact," *Global Economic Observer* 3, no. 2 (2015): 68–77.

Crimea led to economic instability.[20] The effect of Western sanctions on Russia may have given rise to a strengthening of ties with China to fill the gaps left by a lack of imports from Europe.[21] The problems in the economy directly affect military spending, reducing Russia's ability to modernize the navy.

Russian naval development has already encountered issues in its process, both in the building and the refitting phases. The planned refit budget for Russia's lone aircraft carrier, Admiral Kuznetsov, was recently cut in half.[22] Part of this may result from a semi-planned decrease in military spending due to reduced oil prices and sanctions against the country following the annexation of Crimea and the invasion of eastern Ukraine.[23] However, lack of money is not the only reason for Russia's inability to meet its development projection, as some of the engines intended for use in Russian ships are manufactured in Germany and Ukraine; both of which halted shipments to Russia. In January 2018, the Russian company, NPO-Saturn, started production in engines for the Grigorovich-frigates, which may get those projects moving toward completion.[24]

B. HYPOTHESIS

Russia's foreign policy does not require a significant maritime presence. Its maritime development is focusing on support of land-forces with precision strike capability and defense in depth intended to deter an aggressive seaborne approach to Russia. It also focuses a security layer for its economic interests in the Arctic, Mediterranean, and potentially the Middle East as well as developing closer pragmatic ties with partner States in the Middle East and North Africa (MENA).

---

[20] Dragoi, "Russian Foreign Policy," 70.

[21] Dragoi, "Russian Foreign Policy," 74.

[22] Kyle Mizokami, "Russia's Dilapidated Aircraft Carrier to Get a Downer of an Upgrade," Popular Mechanics, October 12, 2017, https://www.popularmechanics.com/military/navy-ships/news/a28609/russia-admiral-kuznetsov-downgraded/.

[23] Ivana Kottasová, "Russian Military Spending Drops for First Time in 20 Years," CNNMoney, May 2, 2018, http://money.cnn.com/2018/05/02/news/russia-defense-spending-plunge/index.html.

[24] "Russia Starts Serial Production of Marine Gas Turbine Engines," *Naval Today,* January 16, 2018, https://navaltoday.com/2018/01/16/russia-starts-serial-production-of-marine-gas-turbine-engines/.

Moscow's foreign policy should hinge on its relations with its land neighbors in the near-abroad space; however, this is not always the case because many of its decisions are based on or influenced by Western perceptions and actions.[25] Russia is a massive country, sharing borders with its primary competitor, the North Atlantic Treaty Organization (NATO); several Collective Security Treaty Organization (CSTO) partners; and China, with whom it shares a land-border greater than 4,200km in length. The rest of its border areas are water but primarily face the Arctic Ocean, and it remains relatively unlikely those waters will become a militarily contested area in the near future. Its actions do not routinely utilize a naval component. Instead, Moscow uses a combination of land forces and soft power to exert its will in what it perceives as its sphere of influence, examples include its actions in Georgia, 2008 and Ukraine, 2014.

The exception to this may turn out to be the Black Sea, a historically contested area, primarily with Turkey due to its control of the Turkish Straits and therefore access between the Mediterranean and the Black Seas. The naval buildup in the Black Sea indicates Russian interest in that body of water as it has moved additional surface and subsurface combatants into the Black Sea Fleet over the past few years, making it one of the three fleets to get new surface units and the only fleet to get the new Grigorovich-frigates.[26]

A significant naval presence in the Black Sea also allows Russia to project a sense of security to the region customarily allotted a hegemonic power. Moscow sees itself as a global power, it also considers Russia to be the regional hegemon in the former Soviet area and even beyond. The Black Sea is the gateway to the waters of the Mediterranean Sea for Russia. Building up its naval presence in the region allows it to project power and a sense of security to partners, and potential partners, in the eastern Mediterranean and even the Middle East as Russia expands its sphere of influence beyond traditional Soviet borders.

Building a powerful navy is a massive expense for a government; however, it can also stimulate growth in multiple several domestic sectors: skilled and unskilled labor,

[25] Leichtova, Misunderstanding Russia.

[26] The Baltic and Caspian Fleets received missile patrol boats, but only the Black Sea Fleet received Grigorovich-class frigates.

technology development, and resource extraction and processing. Defense spending in technology development can lead to eventual commercial successes and use. For instance, the Advanced Research Project Agency (ARPA), started under Eisenhower in 1958, developed the precursor technology for the Internet and GPS, both used globally for a variety of personal, commercial, and military reasons.[27] Military modernization can lead to economic stimulation and growth in multiple sectors; it may also be a political tool for the Kremlin to reward its oligarchic inner circle and consolidate wealth and power in a tight-knit group of Putin's favored persons.

One of Moscow's primary purposes for having a robust and modern navy is to show the world Russia is a superpower and belongs in discussion with the United States and China as one of the poles in a multipolar world. As a peer competitor with a credible blue-water navy, Russia would have more power in both the regional and global political marketplaces. The United States currently has the world's most powerful navy, and China is developing its navy with new aircraft carriers, blue-water capable surface combatants, coastal patrol craft, and submarines for a variety of mission sets. A recent study rates Russia's naval power as higher than China's as of 2010, making it the second most powerful global navy behind the United States, though China is quickly eroding the gap in naval power.[28]

A blue-water naval warship, capable of successfully operating in the open ocean, is one of the most expensive military units that can be built. It incorporates many different technologies and must be self-sufficient in its ability to maneuver, conduct warfare on multiple levels, and keep its crew alive for extended periods. The current economic situation in Russia is improving, but it is slowly growing and not expected to increase in the coming years significantly. Russia's reliance on its energy exports to maintain its economy is highly influenced by the rise and fall of commodity pricing. Between oil pricing, though increasing, and multiple rounds of sanctions, Russia's economy is not

[27] ARPA is now the Defense Advanced Research Project Agency (DARPA).

[28] Brian Crisher and Mark Souva, "Power at Sea: A Naval Power Dataset, 1865–2011," *International Interactions* 40, no. 4 (May 16, 2014): 602–29.

likely to be able to support the development, production, and sustainment of a large, modern naval force.

However, for the same reasons developing a modern navy is a difficult task, it may also assist Russia to expand and modernize its technological capabilities. Using government funds to develop naval technology that can be repurposed for civilian commercial purposes is a valid way to provide economic benefits across industries as it was during German naval development in the early 20th century.[29]

C. RESEARCH DESIGN

In order to evaluate Russian naval strategy, this paper will account for several factors. First, Russian foreign and maritime policies dictate where Moscow will spend money to support its national interests. Focusing on the Northern and Pacific Fleets could support Arctic exploration and development while a modern Black Sea Fleet can be used as a regional security provider in the Black and Mediterranean Seas. Second, the fleet design must be taken into account. The Northern and Pacific Fleets, for instance, are intended for deterrence and defense of the Russian homeland while the Black Sea Fleet is becoming a tool for regional power projection. Third, the current state of the Russian economy and its ability to support naval modernization. Navies are expensive and the Russian shipbuilding industry, and the Ministry of Defense as a whole is exceedingly corrupt forcing naval expense higher than it may otherwise be.[30] Sanctions and falling oil prices have caused Russia to reduce its military spending for the past several years and is expected to reduce it again for 2019.

Powerful navies have a significant effect on global power projection. The ability to control sea lines of communication to both protect a country's maritime shipping interests and prey on its competitors lends credence to its power. However, navies are expensive to build and maintain and only the most powerful countries tend to focus significant resources

[29] Holger Herwig, *"Luxury" Fleet: The Imperial German Navy 1888–1918* (London: George Allen & Unwin, n.d.), 58.

[30] Polina Beliakova and Sam Perlo-Freeman, "Corruption in the Russian Defense Sector" (World Peace Foundation, May 11, 2018), https://sites.tufts.edu/wpf/files/2018/05/Russian-Defense-Corruption-Report-Beliakova-Perlo-Freeman-20180502-final.pdf.

on them. The navy becomes increasingly necessary for countries with a greater coastal area and is especially useful for island countries such as England, or due to its distance from European and Asian powers, the United States. Use of a powerful navy varies on how the owner wants to project that power. For example, the United States uses its military capability as a way to ensure conflict occurs outside the country and its naval deployments reflect an intent to fight adversaries far from the homeland while Russia's navy is focused heavily on coastal defense with the intent to inflict unacceptable losses on any power that attempts a maritime assault.

Ship construction type must also be taken into account because different kinds of ships perform various functions; therefore, ship type affects policy in different ways. Crisher and Souva argue this concept when comparing navies as opposed to just utilizing capital ships to determine naval power as in an earlier study by Modelski and Thompson in 1988.[31] An attack submarine does not serve the same function as a ballistic missile submarine; similarly, a guided missile patrol boat, such as the Kalibr-capable Sviyazhsk would not be an effective anti-submarine platform in the Atlantic Ocean, yet it functions well in the Caspian Sea as a strike platform, whereas the Kalibr-capable Gorshkov frigate can be used in nearly any body of water due to its much larger size for a variety of roles. Discounting what Russia is building and where it bases its ships could lead to a misunderstanding of what it is doing with its fleet in those areas.

Russia's economy encountered hard times following the fall of the Soviet Union. Because of this, a navy becomes more challenging to build, maintain, and modernize. Russia's status as a land power also impacts its willingness to spend on the navy. The USSR had a more significant stake in power projection across the ocean due to the Cold War, but a massive downturn of the economy led to its breakup in 1991. Putin's election in 2000 and the resurgence of the energy market before 2008 significantly improved Russia's economy. The economic ups and downs in the past twenty-seven years will be considered next to military spending and to what degree the information is available naval expenditure. This thesis will consider ship construction timelines to evaluate where

[31] Crisher and Souva, "Power at Sea."

spending and concern may have lapsed based on the economic status of Russia through the years.

Other factors will impact how Russia utilizes its navy that are not covered in this thesis. First, this thesis does not cover amphibious operations. Russia conducted operations in Black Sea coastal states and any confrontation with NATO would likely include amphibious operations meaning Russia's amphibious fleet could become an essential part of future military operations. Additionally, Russia tried to buy two Mistral-class amphibious ships from France and following the collapse of that deal, is attempting to develop indigenous amphibious carriers.

Second, information warfare is a large part of the Russian playbook. Propping up popular support in Russia and fracturing those it sees as adversaries is consistent in Russian doctrine since before the Russo-Georgian War in 2008. Using information warfare to affect support for institutions in Western states would have a bearing in future conflicts. Use of conventional strike capabilities and information warfare could quickly erode public support for conflict, in Western countries, while simultaneously bolstering Russian support for the same conflict.

Neither of these areas is covered, as it is the intent of this thesis is to focus on the combatant capabilities of the Russian navy and how they affect naval and national strategies.

Data regarding the size and construction of the Russian fleet comes from four sources: Russianships.info, TheWorldWars.net, Deepstorm.ru, and FAS.org. The information was compiled into a large spreadsheet and used to generate the statistics used throughout Chapter III. When differences between sources were encountered, news sources were consulted to find the reason for the discrepancy and apply it in the spreadsheet to achieve the most accurate representation of the fleet through the years.

Similar to the fleet information, data for Chapter IV was gathered from a variety of sources, including: British Petroleum, SIPRI, the U.S. Energy Information Administration, and the World Bank Group. The information was compiled into a spreadsheet to generate

the statistics used throughout the chapter. Any other statistics used are cited directly when they are used.

D. OVERVIEW

The purpose of this paper is three-fold: it will evaluate Russia's foreign policy in relation to its maritime strategy, review Russia's naval power and growth, and consider the economic feasibility of continued naval development. Chapter II will discuss Russia's current foreign policy and naval strategy. Chapter III will provide a deep-dive of the Russian Navy, including focusing on its age, modernization efforts, and composition of the four primary fleets and the Caspian Flotilla. Chapter IV will focus on Russia's economy and its dependence on energy exports as its greatest source of revenue. The intent is to evaluate whether maritime development is proceeding per stated policy and if naval development is feasible for the Russian economy.

THIS PAGE INTENTIONALLY LEFT BLANK

II. RUSSIAN NAVAL POLICY

The Russian fleet, similar to the Russian military as a whole, is intended first of all to support the defense of Russia.[32] The fleet's defensive design does not prevent the development of offensive weapons or taking aggressive action; instead, those are perceived as strategic actions intended to increase Russian security.[33] This chapter will focus on evaluating Russia's policy documents and how they relate to naval strategy from the national level through its security strategy, and military and naval doctrines. These documents will help us understand what Russia's stated policies are and can be used to evaluate whether Russia's naval development and platforms will help achieve those goals.

A. THE RUSSIAN FEDERATION FOREIGN POLICY APPROACH IN 2016

Senior Research Fellow at the University of West Bohemia, Magda Leichtova, provided analysis of the Russian Federation's foreign policy documents through Putin's first term in office. She identified two major changes to its policy between the initial release of the Foreign Policy Concept of the Russian Federation in 1993 and its trend toward a more vocal, assertive, and independent voice in 2008. The first change was the perception that the U.S. was unilaterally exerting its will in international relations by avoiding the use of the UNSC.[34] Russia objected to military action in Kosovo (1999) and Iraq (2003) although it did support the initial surge to Afghanistan and even stood in solidarity with the U.S. against terrorism and the 9/11 attacks in the United States. Second, as the energy market surged through Putin's first term, Russia's economy, highly dependent on energy exports surged with it.[35] The resurgence of the Russian economy gave the Kremlin more legitimacy to enforce its will, especially in the near-abroad where it supported separatist

[32] Scott Boston and Dara Massicot, "*The Russian Way of Warfare: A Primer*" (Santa Monica: RAND Corporation, 2017), https://www.rand.org/pubs/perspectives/PE231.html.

[33] Boston and Massicot, *The Russian Way of Warfare*, 3.

[34] Leichtova, Misunderstanding Russia, 46.

[35] Leichtova, Misunderstanding Russia, 42.

groups in multiple former Soviet republics. Russia's foreign policy hardened against the West in a desire to see U.S. power limited and the recreation of a multipolar world.

The latest Foreign Policy Concept of the Russian Federation in 2016 (D2016) shows that Russia seeks to assert itself as a pole in a new multipolar system.[36] D2016 expresses Russian intent to exert its will in global politics. Russia seeks to "consolidate the Russian Federation's position as a centre [sic] of influence in today's world."[37] D2016 states the idea that world power is shifting to the Asia-Pacific region and Russia can be central in eliminating conflict and providing strategic stability in the changing political landscape.[38] Development of a modern navy gives Russia more capability to provide military support to conflict areas. The past several years proved this capability in Syria by assisting the Assad regime against rebel forces and terrorist elements. Naval forces conducted strikes from both aircraft and long-range precision weapons from surface and submarine platforms located in the Mediterranean and Caspian Seas showing the world that Russia can project military power from the sea.

Russia's interests in the world's oceans go beyond military power projection, although that remains a necessary component of Russian naval operations. Moscow seeks to exploit the natural resources the oceans have to offer.[39] The Black Sea, Caspian Sea, and the Arctic are potential areas for cooperative development.[40] Russia's largest oil and gas company, Rosneft is developing the Vladivostok shipyard, SSK Zvezda, to provide support to larger military vessels as well as building equipment designed for exploration and

[36] Vladimir Putin, *Foreign Policy Concept of the Russian Federation*, December 1, 2016, http://www.mid.ru/en/foreign_policy/official_documents/-/asset_publisher/CptICkB6BZ29/content/id/2542248, 3.

[37] Putin, Foreign Policy Concept of the Russian Federation, 1.

[38] Putin, Foreign Policy Concept of the Russian Federation, 2–3.

[39] Vladimir Putin, *Maritime Doctrine of the Russian Federation*, trans. Anna Davis (Naval War College, 2015).

[40] Putin, Maritime Doctrine of the Russian Federation, 14, 18–19, 21–22.

exploitation of offshore oil and gas deposits.[41] However, sanctions limit Russia's ability to develop partnerships in certain areas, specifically concerning deep-water drilling.[42]

Military diplomacy also features in recent Russian naval actions, mostly in the Mediterranean Sea. It routinely conducts port visits to Cyprus, continues its build-up of the naval base in Tartus, developed an industrial partnership with Egypt in Port Said, and hosted the leader of the Libyan National Army aboard Kuznetsov during its last deployment to the region in 2017. Russia also expressed interest in expanding the role of the Black Sea Fleet into the Middle East, a role historically assigned to the Pacific Fleet. These actions show Russian intent to build partnerships in the region; it is also investing economically in a variety of energy-related enterprises.

B. NATIONAL SECURITY STRATEGY

Russia's National Security Strategy (NSS2015) outlines Russian national security, its interests, what it perceives as threats, and how it intends to deal with threats to its interests and security. Governments publicly release strategy documents to a relatively wide audience with the intent of signaling foreign and domestic audiences what the government's interests are and how it intends to respond in a particular situation.[43] NSS2015 provides the definitions for national security, national interests, threats to national security, safeguarding national security, strategic national priorities, and the system for safeguarding national security, presumably to maintain its claimed open and predictable approach to foreign policy.[44]

Despite Russian aggression in multiple countries, against both state and non-state actors, NSS2015 takes a defensive approach with a realist lens to its security strategy.[45] The 2014 action in Ukraine was not a defensive act, although Russia claims NATO's

---

[41] "Will Rosneft Boost Russian Naval Construction," *Russian Defense Policy*, accessed November 2, 2018, https://russiandefpolicy.blog/category/naval-modernization/.

[42] Donald Trump, "Directive 4 Under Executive Order 13662," Pub. L. No. EO 13662 (2017).

[43] Katri Pynnöniemi, "Russia's National Security Strategy: Analysis of Conceptual Evolution," *The Journal of Slavic Military Studies* 31, no. 2 (2018): 242, https://doi.org/10.1080/13518046.2018.1451091.

[44] Putin, Foreign Policy Concept of the Russian Federation, 6.

[45] Pynnöniemi, "Russia's National Security Strategy: Analysis of Conceptual Evolution," 242.

expansion and the color revolutions prompted it to take steps to secure its borders.[46] The Kremlin's concerns over NATO's expansion and its actions in Crimea and Ukraine may be a way of signaling its intent to maintain its hold on Crimea and telling NATO to cease eastern expansion. NSS2015's definition of threats to national security, and how it intends to safeguard the against them, is indicative that Russia will use any means at its disposal to achieve its ends, up to and including the use of military force.[47]

NSS2015 reinforces Russia's role as a Great Power by stating its intent to "resolve international problems by resolving military conflict, ensuring strategic stability, and the supremacy of international law in interstate relations."[48] Russian actions in Syria against anti-government forces and the Islamic State (IS) support this statement. NSS2015 may also be indicating Moscow's attempt to hold the U.S. responsible for the overthrow of sovereign regimes in Libya and Iraq and the subsequent rise of IS.[49] Moscow's perception of the growing multipolar world is accompanied by global and regional instability causing a reduction in Russian national security.[50] Despite signaling a minimal chance of large-scale war in D2016, NSS2015 expects the use of force to grow due to increasing militarization in its sphere of influence, primarily by NATO and the U.S. against the norms of international law.[51] Russian development of long-range conventional naval strike capability creates a greater buffer between conventional and nuclear force to ensure Russian security in case military action is utilized.[52]

Russian strategic and national interests are primarily defensive. The strategic interests comprise the following, "[Russia's] defense, strengthen national accord, political and social stability, development of democratic institutions, raise living standards, preserve

---

[46] "Russia's Accusations—Setting the Record Straight" (NATO, July 2014), https://www.nato.int/nato_static/assets/pdf/pdf_2014_07/20140716_140716-Factsheet_Russia_en.pdf.

[47] Putin, Russian National Security Strategy, 2–3.

[48] Putin, Russian National Security Strategy, 3.

[49] Putin, Russian National Security Strategy, 4–5.

[50] Putin, Russian National Security Strategy, 4.

[51] Putin, Russian National Security Strategy, 4.

[52] Boston and Massicot, *The Russian Way of Warfare*, 6.

and develop Russian culture, increase competitiveness of the economy, and consolidate status as a leading world power."[53] The current trajectory of naval development follows a trend of defensive priorities with offensive capabilities.[54]

States bordering the Arctic zone will see increased economic opportunities as the Arctic sea ice melts. Prime Minister Medvedev recently stated Russia's intent "to develop the Northern Sea Route, provide navigation in the Arctic, and create developmental support zones necessary for the industrialization of the region."[55] The potentially vast, untapped energy resources contained underneath the Arctic and Northern Sea Route play well to Russia's economic interests as well as its need to develop the navy to play a greater role in northern waters. Russia intends to develop its Arctic military infrastructure to support economic interests and national security.[56]

C. MILITARY DOCTRINE

The Russian Military Doctrine (MilD2014) is the intended implementation of NSS2015. Russia's military is designed to protect the national and strategic interests of the State. MilD2014 is written to reflect an intent to use force to defend national interests after other non-violent means have been exhausted.[57] Global competition remains at the forefront of this document, as it does with the other policy documents. A continued focus on a difference in values, economic and political instability and complicated international relations are to blame as the world changes from a Western-centric model to a multipolar system featuring more prominent Eurasian and Asia-Pacific regions. MilD2014 continues to view large-scale war as unlikely even though military risks and threats to Russia's sphere of influence and Russia itself are increasing.[58]

---

[53] Putin, Russian National Security Strategy, 6.

[54] Boston and Massicot, The Russian Way of Warfare, 4.

[55] Dmitry Medvedev, "Russia to Continue Developing the Northern Sea Route," The Arctic, August 31, 2018, http://arctic.ru/infrastructure/20180831/789023.html.

[56] Putin, Russian National Security Strategy, 15.

[57] Vladimir Putin, *Military Doctrine of the Russian Federation* (Moscow: The Kremlin, December 26, 2014).

[58] Putin, Military Doctrine of the Russian Federation, 2–4.

One of the major focus points of MilD2014 is that of its consideration of NATO and U.S. actions as the major external military risk. It focuses on NATO and U.S. actions such as NATO expansion, regime change, military buildup in the region, and strategic missile defense systems as threatening to Russian security, among other statements that can be considered 'aimed' at the West.[59] Despite its actions in Moldova, Georgia, and Ukraine, Putin has been very critical over Western intervention in Libya, Iraq, and Syria. Moscow may fear the West will turn toward Russia and look to install a friendlier, Western-leaning regime in place of the current one leading to statements in the external and internal risk sections of MilD2014 related to regime change in sovereign States other than Russia but also regime change in Moscow.[60]

According to Article 32 of MilD2014, the Armed Forces of the Russian Federation have a significant number of tasks assigned to them. Many are general to any armed forces such as protection of sovereignty and territory. Some are capabilities held by multiple bodies within the armed forces, like nuclear deterrence. However, some are very specific to navies and naval capabilities. There are few tasks applied directly to the Russian Federation Navy (RFN), although that is to be expected considering the vast land-borders of the Russian Federation. The assigned tasks are the protection of territory and sovereignty, strategic deterrence, combatting piracy and safety of navigation, security of economic activity on the high seas, and the protection of Russian interests in the Arctic.[61]

D. RUSSIA'S MARITIME POLICY

The Maritime Doctrine and Naval Operations policies outline Moscow's intent for its actions in the world's oceans from the civil and military perspectives.

[59] Putin, Military Doctrine of the Russian Federation, 2–3.

[60] Defense Intelligence Agency, *Russia Military Power: Building a Military to Support Great Power Aspirations* (Washington, DC: Defense Intelligence Agency, 2017), 15–17.

[61] Putin, Military Doctrine of the Russian Federation, 6–7.

1. Maritime Doctrine of the Russian Federation

The Maritime Doctrine of the Russian Federation (MarD2015) highlights Moscow's intent for the development of its maritime capabilities in multiple aspects, including the use of the RFN. The National Maritime Policy is defined as:

> The state and society as the goals, principles, directions, objectives and the methods of achieving national interests of the Russian Federation in the coastal, internal, territorial waters, and the exclusive economic zone, on the continental shelf of the Russian Federation and in the blue-water, as well as the implementation of maritime activities.[62]

The definition includes aspects of the military in the maritime domain as well as that of civilian action, including science and economic use of the maritime environment. While MarD2015 does include the mobilization of civilian maritime activity to support the military if necessary, this thesis is only looking at the RFN's combatant capability rather than the emergency introduction of a civilian fleet for military activity.

According to MarD2015, Russia states its intent to follow universal standards and international law while safeguarding its national interests in the ocean.[63] It prefers diplomatic and political solutions to conflict resolution rather than moving toward military action. However, this diverges from Russia's actions on the high seas. Repeated unsafe flybys of NATO vessels in the Black Sea have shown a general disrespect for international norms at sea and the INCSEA agreement sign in 1972, which states in Article 4:[64]

> Commanders of aircraft of the Parties shall use the greatest caution and prudence in approaching aircraft and ships of the other Party operating on and over the high seas, in particular, ships engaged in launching or landing aircraft, and in the interest of mutual safety shall not permit: simulated attacks by the simulated use of weapons against aircraft and ships, or performance of various aerobatics over ships, or dropping various objects

[62] Putin, Maritime Doctrine of the Russian Federation, 5.

[63] Putin, Maritime Doctrine of the Russian Federation, 7.

[64] USS *Donald Cook*, April 2014; USS *Ross*, May 2015; USS *Donald Cook*, April 2016; USS *Porter*, February 2017; HMS *Duncan*, May 2018.

> near them in such a manner as to be hazardous to ships or to constitute a hazard to navigation.[65]

Moscow routinely interprets NATO actions as provocative, but Russia engages in actions that can be considered dangerous and even warlike creating an increased risk of miscalculation by military forces.

Russia intends to maintain enough naval power to support its national interests and protect its national security from seaborne threats.[66] The RFN expects to quickly respond to changing geopolitical needs as well as maintaining a presence in areas of national interest such as the Arctic.[67] These are understandable objectives, but they are not backed by actions taken to expand the fleets necessary to cover these areas. Recent budget cuts to defense spending and failure to launch new construction on time call into question the sustainability of its modernization program.

Russia intends to develop coastal areas for economic reasons including supporting small- to medium-sized businesses in the coastal areas of the Russian Federation, specifically calling out Crimea and the Arctic as primary points of development.[68] An expanded military presence in the Black Sea gives Russia more ability to defend its borders as well as supporting its economic interests in the Black Sea and beyond. The larger presence supported the building of a bridge over the Kerch Strait providing Russia with direct land-based access to Crimea. Similar to land-based former Soviet areas, Russia likely considers the Black Sea a part of its near-abroad and therefore of vital geostrategic importance. The Black Sea is Russia's sole warm-water port in the Atlantic region. It may also contain vast energy reserves which would benefit the state that controls those energy

---

[65] J. P. Weinel and Vladimir Alekseyev, *Incidents at Sea Agreement* (Bureau of International Security and Nonproliferation, May 25, 1972), http://www.state.gov/t/isn/4791.htm.

[66] Putisn, Maritime Doctrine of the Russian Federation, 8.

[67] Putin, Maritime Doctrine of the Russian Federation, 8.

[68] Putin, Maritime Doctrine of the Russian Federation, 8–9.

reserves.[69] It also provides the link to Russian interests in the Mediterranean Sea and the Middle East.

The Maritime Policy identifies several key areas as regional priorities for the Russian Federation. Russia considers the Atlantic, Arctic, Pacific, Caspian, Indian, and Antarctic to be regional priorities.[70] MarD2015identifies the Baltic, Mediterranean, Black, and Azov Seas as part of the Atlantic region.

Russia's highest security priority in the Atlantic region is NATO. Relations between NATO and Russia are continuing to deteriorate. The Kremlin decries NATO's global actions to be unacceptable and against international norms and law.[71] Moscow intends to maintain a permanent naval presence in the Mediterranean to ensure stability and show Russian goodwill as well as expanding the ability to move between the Black and Mediterranean Seas.[72] The expanded Black Sea Fleet could be intended to show potential partners there is an alternative to Western "interventionist" style partnerships and the security they provide. Syria recently allowed Russia to extend the lease on its port in Tartus and expand its naval facilities there.[73] The rest of the Atlantic region priorities revolve around the expansion of commercial facilities for transportation and scientific research.[74]

The Arctic is Russia's second regional priority. Russia is focused heavily on the importance of the Northern Sea Route as well as the natural resources contained in the EEZ and on the continental shelf.[75] Moscow has been pursuing an expansion of territorial rights

---

[69] Lindsay DoDgson, "In the Depths: Drilling for Oil in the Black Sea," *Offshore Technology*, February 3, 2016, https://www.offshore-technology.com/features/featurein-the-depths-drilling-for-oil-in-the-black-sea-4788063/.

[70] Putin, Maritime Doctrine of the Russian Federation, 19.

[71] Putin, Maritime Doctrine of the Russian Federation, 19.

[72] Putin, Maritime Doctrine of the Russian Federation, 22.

[73] Vladimir Putin, О ратификации Соглашения между Российской Федерацией и Сирийской Арабской Республикой о расширении территории пункта материально-технического обеспечения Военно-Морского флгта Российской Федерации в районе порта тТартус и заходах военных кораблей Российской Федерации в террнториальное море, внутренние воды и порты Сирийской Арабской Республики, trans. Jonathan Evitts (Moscow: The Kremlin, December 29, 2017).

[74] Putin, Maritime Doctrine of the Russian Federation, 19–22.

[75] Putin, Maritime Doctrine of the Russian Federation, 22.

in the Arctic Ocean related to the Russian continental shelf since 2001.[76] The Northern Fleet is home to the primary strategic deterrence fleet as well as being the home of its sole aircraft carrier, Kuznetsov. Expansion of the Northern Fleet is limited, consisting of only two nuclear submarines, launched in 2012 and 2013 and the recent addition of a frigate in 2018.[77] Other areas for improvement in the Arctic include expanding the ice breaker fleet, geological exploration, and expansion of energy sourcing, tourism, and scientific research.[78]

Similar to the other major regions, the Pacific region is focused heavily on the development of commercial, industrial, tourist, and military aspects of eastern Russia.[79] The primary difference between the Atlantic and Pacific areas is in the relative population to China. The eastern edge of Russia is sparsely populated. Improving relations with China may help offset the difference in economic and demographic growth in the Far East.[80] The greater portion focuses on improvement in the military and economic arenas of the Far East, primarily as it relates to energy extraction and development of infrastructure to support the same. The Pacific Fleet is the other half of the strategic deterrence fleet and is intended to provide bastion defense of Russia's eastern coastline.

The Caspian Region is the final region that borders the Russian Federation. As an inland sea, the Caspian is also subject to the interests of the other Caspian States (Kazakhstan, Turkmenistan, Azerbaijan, and Iran). Most of the Caspian States are connected by either the CSTO or the CIS, with the main exception being Iran. The Caspian Sea is part of Russia's "southern underbelly," indicating the importance Russia places on

---

[76] Ministry of Natural Resources and Environment of the Russian Federation, "Partial Revised Submission of the Russian Federation to the Commission on the Limits of the Continental Shelf in Respect of the Continental Shelf of the Russian Federation in the Arctic Ocean: Executive Summary" (Moscow: Ministry of Natural Resources and Environment of the Russian Federation, April 2015), http://www.un.org/depts/los/clcs_new/submissions_files/rus01_rev15/2015_08_03_Exec_Summary_English.pdf.

[77] "Russian Navy: List of Active Russian Navy Ships 2019," last updated January 31, 2019, http://russianships.info/eng/today/.

[78] Putin, Maritime Doctrine of the Russian Federation, 22–25.

[79] Putin, Maritime Doctrine of the Russian Federation, 25–27.

[80] Putin, Maritime Doctrine of the Russian Federation, 25.

its significance to Russian national security.[81] It is also home to the Caspian Flotilla which contains three Kalibr-equipped Sviyazhsk-class guided-missile patrol boats. These patrol boats have already proven their value by conducting cruise missile strikes against targets in Syria.[82] The Caspian Sea is a rich resource area that several countries are attempting to exploit, similar to the situation in the Persian Gulf.[83] Increased Russian energy exploration of the Caspian may be used to improve Russia's energy exports, but it may come at the cost of confrontation with other States interests in the area creating competition for natural resources.[84] Unlike the other bodies of water containing Russian interest, the players involved in any Caspian Sea disputes are unlikely to change due to its inland nature and inaccessibility by other parties.

The Indian Ocean and Antarctic regions are the lowest priorities of the Maritime Doctrine, falling in as the last areas discussed. Likely, this is due to their proximity to Russia and the fact that neither body of water directly borders Russia, lowering concern for those areas. The primary focus in the Indian Ocean is the development of friendly relations with India.[85] The rest of the Indian Ocean segment contains the same discussion of energy infrastructure and marine research found in other regions. The Antarctic contains slightly more in the way of research rather than the development of infrastructure (although infrastructure is included), uses language typical of cooperation rather than contestation, but acknowledges the "massive resource potential" of the region.[86] Despite a Cold War-era treaty, the U.S., China, and Russia have all been developing global positioning systems in Antarctica through the use of ground stations which may be used for military purposes, calling into question the validity of the treaty which aims to keep military forces off the

[81] Tracey German, *Russia and the Caspian Sea: Projecting Power or Competing for Influence*, (Carlisle Barracks, PA: Strategic Studies Institute and U.S. Army War College Press), 30.

[82] "Russia 'Hits IS in Syria from Caspian,'" BBC, October 7, 2015, sec. Middle East, https://www.bbc.com/news/world-middle-east-34465425.

[83] German, Russia and the Caspian Sea, 9–16.

[84] German, Russia and the Caspian Sea, 31.

[85] Putin, Maritime Doctrine of the Russian Federation, 28.

[86] Putin, Maritime Doctrine of the Russian Federation, 29.

continent.[87] A continued effort by U.S. and China in Antarctica may increase Russia's desire to develop Antarctic infrastructure to keep up with its global rivals.

Russia looks to increase its shipbuilding capability by increasing domestic production and technological innovation.[88] If the Russian shipbuilding industry is able to meet its stated intent, it would greatly benefit both civilian and military aspects of the maritime policy. However, the current state of Russian maritime construction capabilities makes this endeavor unlikely; this policy intended to increase the budget for shipbuilding activities more than it is aimed at increasing current production rates.[89]

2. The Russian Federation Naval Operations Policy through 2030

The document, Fundamentals of the State Policy of the Russian Federation in the Field of Naval Operations for the Period Until 2030 (NO2017) "reflects the RFN's improved capabilities, its evolving strategic and operational role, and its future ambitions."[90] NO2017 is an aspirational document, one which is unlikely to reach all of its intended goals, though some of its goals are certainly achievable.[91] Russia considers its navy a force capable of defending its national interests in the maritime domain and the RFN remains a major factor in Russia's strategic deterrence posture.[92] Moscow states it is second to the United States in terms of naval power and intends to retain that position.[93] As of 2010, this appears to be true although the decline of Russian maritime power since 1990 is obvious and the rise of the Chinese navy calls into question Russia's ability to

---

[87] Anne-Marie Brady, "Cold War's Polar Rivals," *The Australian*, September 6, 2018, https://www.theaustralian.com.au/news/inquirer/china-russia-push-gps-rival-into-antarctica/news-story/1faeb3222806f61110c016ff00390357.

[88] Putin, Maritime Doctrine of the Russian Federation, 30.

[89] Dmitry Gorenburg, "Russia's New and Unrealistic Naval Doctrine," *War on the Rocks* (blog), July 26, 2017, https://warontherocks.com/2017/07/russias-new-and-unrealistic-naval-doctrine/.

[90] Michael Petersen, "Introduction to the English Translation of the Fundamentals of the State Policy of the Russian Federation in the Field of Naval Operations for the Period until 2030" (Newport, RI: Naval War College, 2017).

[91] Gorenburg, "Russia's New and Unrealistic Naval Doctrine."

[92] Vladimir Putin, Fundamentals of the State Policy of the Russian Federation in the Field of Naval Operations for the Period Until 2030, trans. Anna Davis (Newport, RI: Naval War College, July 20, 2017), 3.

[93] Putin, Naval Operations, 13.

maintain its place as the second most powerful navy.[94] Russia's ability to project power globally is questionable, however, its ability to project power regionally has been proven through multiple combat operations and operational deployments in a variety of near-abroad waters, including the Mediterranean Sea. Limited operations to the Caribbean Sea and South America have shown the RFN's ability to "show the flag" but do not prove a power projection capability.

Russian perception of immediate threats to the national security of the State are few: a decline in interstate relations leading to military force, deployment of strategic sea-based non-nuclear weapon systems and ballistic missile defense systems, and the use of military force that violate international norms and threaten Russian national interests.[95] None of these specifically call out the Western States, though previous sections of NO2017 name the United States and its allies as an increasing risk to Russia through its attempts "to dominate the World Ocean, including the Arctic, and to achieve overwhelming superiority of their naval forces."[96] Superior naval force is already applicable when comparing the U.S. to Russian naval forces so at best this is an appeal to the Russian population designed to boost the perception of the RFN and its place in society. The RFN is essentially directed to maintain a near-global presence due to various regional conflicts, the potential for escalation of conflicts, and in defense of potential energy reserves that Russia considers part of its resources.[97] A global presence is unattainable with the current state of Russia's fleet.

The Russian navy retains its role in strategic deterrence as it has since the Cold War. It maintains a mobile, difficult to find, second-strike capability in case of large-scale war with its SSBN fleet. These capabilities are used to project the ability to inflict unacceptable losses to the enemy as a retaliatory strike. The RFN seeks to maintain this deterrence capability as its primary objective.[98] The RFN's other objectives include

[94] Crisher and Souva, "Power at Sea."

[95] Putin, Naval Operations, 5.

[96] Putin, Naval Operations, 4.

[97] Putin, Naval Operations, 5–6.

[98] Putin, Naval Operations, 6.

strategic stability, maintaining international law and order, and ensuring the use of maritime resources for Russian development.[99] Development of high-precision weapons allows a combination of nuclear and non-nuclear deterrence against aggressive adversary action.[100] Russia is particularly concerned with the U.S. concept of 'global strike.'[101] To counter that, Russia must be able to employ its maritime forces globally and ensure strategic deterrence remains in place for "an extended period of time without violating the sovereignty of other states."[102]

Part of Russian deterrence concerning recent events includes improving the combat capability of the BSF and expansion of military capability in Crimea.[103] The addition of new submarines and frigates to the BSF displays Russian intent to expand its control in the Black Sea. The BSF also brings additional combat capability to its interests in the eastern Mediterranean including support of combat forces in Syria and proving its combat capability to potential partners throughout the region. A recent exercise in the eastern Mediterranean was likely intended to showcase the growing naval power and extend a non-Western based security blanket to potential partners.[104] The show of force may have also be intended as deterrence against the possible use of chemical weapons by Syrian rebels.[105] Both explanations follow Russia's stated intent in NO2017 regarding deterrence, support of its partners, and regional security.

The RFN must be capable of supporting national security through a variety of means at the diplomatic, informational, military, and economic levels designed to lower

---

[99] Putin, Naval Operations, 6.

[100] Putin, Naval Operations, 12.

[101] The concept of U.S. 'global strike' is the ability of the U.S. to strike anywhere in the world in as little as an hour. Amy Woolf, *Conventional Prompt Global Strike and Long-Range Ballistic Missiles: Background and Issues*, CRS Report No. R41464 (Washington, DC: Congressional Research Service, April 6, 2018), https://fas.org/sgp/crs/nuke/R41464.pdf.

[102] Putin, Naval Operations, 11–12.

[103] Putin, Naval Operations, 12.

[104] "Russia Announces 25-Ship Mediterranean Sea Drill," *Naval Today*, August 30, 2018, https://navaltoday.com/2018/08/30/russia-announces-25-ship-mediterranean-sea-drill/.

[105] "NATO Reports Russian Naval Buildup amid Syria Tensions," *Military Times*, August 29, 2018, https://www.militarytimes.com/flashpoints/2018/08/29/russias-navy-building-up-in-mediterranean-nato-says/.

the potential threat of aggression against the Russian Federation.[106] Development of new partnerships, following its Foreign Policy Concept, could go a long way to support those aspirations. The development of the naval base at Tartus, the industrialization partnership with Egypt, and continued naval sales to southeast Asian nations assist in spreading Russian influence beyond just a regional level. Realism in foreign policy considers influence as a zero-sum game, and an increase in Russian influence represents an equivalent decrease in U.S. influence. The Kremlin likely considers any decrease in U.S. influence an increase to Russian national security. The RFN continues to develop new capabilities supporting national security including the development of new naval platforms and weapons. However, many of these development cycles are years in the making and limited in production. The biggest exception is the near-universally fitted Kalibr missile system in use on submarines, patrol boats, and warships though this concept of "Kalibrization" was developed in the late-1980s.[107]

The RFN is not limited to direct military action and capabilities. It is also intended for use to support public, economic, and regional security as well as the development of technology.[108] It brings high tech capabilities to the fight against terrorism and piracy, supports Russian maritime resource protection, and is used to show a security presence in areas Moscow deems important to demonstrate the military potential of the Navy. Development of naval technologies by the government and military can be readapted for civilian purposes.

The modernization of the Russian navy is intended to balance the forces, maintain the combat potential of strategic nuclear forces, and develop a new conventional naval force.[109] On some levels, this development cycle is already in progress. New nuclear submarines have launched with deterrence and attack capabilities. The RFN also built a variety of multi-role surface platforms. New naval air systems are being developed though

---

[106] Putin, Naval Operations, 6.

[107] Konstantin Bogdanov and Ilya Kramnik, *The Russian Navy in the 21st Century: The Legacy and the New Path* (Arlington, VA: CNA, October 2018), 22.

[108] Putin, Naval Operations, 8–10.

[109] Putin, Naval Operations, 14.

the RFN's carrier is undergoing a major overhaul. The fleets' combat potential has increased with the addition of new vessels; however, many of them were behind schedule or exceedingly expensive leading to delays and cancellations of additional platforms. Moscow's intent to have a balanced fleet capable of global missions in all strategic areas remains an unlikely prospect at the current rate of development and release of new units. Continued or increased sanctions and low energy prices will likely slow down development and production even further.

Russia is a massive landmass with huge sea borders and attempts to secure its entirety are beyond the economic capability of the State. It will have to cut corners in some areas and prioritize what it deems as important. The increased potential of the BSF and lack of significant buildup in the Pacific, Baltic, and Northern Fleets is one indicator showing where the Kremlin's priorities currently lay. In this case, defense of the Black Sea area following the annexation of Crimea and expansion of its influence in the eastern Mediterranean. The Black Sea is the only Atlantic region water space capable of supporting traffic throughout the year and has historical implications for Russia dating back hundreds of years. The Black Sea remains subject to Turkish control of the passage between the Black and Mediterranean Seas.

E. CONCLUSION

D2016 displays an increased assertiveness in the Kremlin's views, especially regarding its place in a multipolar world alongside the United States. The Kremlin sees a fading of the Western democratic hegemony in the world and in its place, that of a coincident rise in East Asian power. Russia maintains a realist perspective, the fading of one power and an inverse rise of another. Interestingly, Russia does not put itself out as the rising power. Instead, it considers itself already a Great Power. Moscow historically decried the eastern expansion of NATO into Russia's historical space, its "near-abroad." D2016 specifically called out the rift NATO and EU are creating by not working together to develop a greater partnership with Russia. However, the Kremlin's stated desires and goals contained in its foreign policy are often at odds with its actions in the global space. It claims to seek a resolution to the Ukrainian conflict, yet continues to maintain a military

presence in eastern Ukraine and refuses to return Crimea following its annexation. It stresses the importance of safe interactions in international space, such as at sea, yet routinely conducts unsafe, low-altitude, high-speed flybys of U.S. military vessels in international waters.

Russia sees the West as a threat to its national security. Repeated call-outs of NATO's eastward expansion and U.S. imperialism are followed by thinly veiled threats about these courses of action leading to potential military action. Moscow sees any potential military action as likely to be small-scale, localized action designed to defeat a small threat to its security rather than a large-scale conventional or nuclear war. Indeed, all of the documents repeatedly state the chance of large-scale war is fairly remote. They expect regional conflicts may spike in the future which may draw other States into the conflict. These are likely referencing not only Russian action in Syria against IS and anti-government forces but also interventionist and regime-changing conflicts started by the U.S.

The maritime space around Russia contains much that is defined as national interest. These interests tend to revolve around energy, which implies energy security is a concern. As an economy reliant on energy exports, Russian control of the energy resources contained in the Arctic, Caspian Sea, and the Black Sea would assist the Russian economy. Interest in the Arctic includes the expansion of Russian control of the continental shelf for resource extraction as well as control of the Northern Sea Route. Little effort has been made to modify or improve combat ships in the Northern Fleet leading to the concept that Russia likely sees little competition in the space directly adjacent Russia. The Caspian Sea may contain a significant amount of natural resources similar to that of the Persian Gulf. The five States bordering the Caspian Sea would all like to control resources in that area creating tension in the region. Military conflict in the Caspian is fairly unlikely as none of the bordering States have a significant navy stationed there, although all have variously sized groups of patrol craft, missile boats, and landing craft. Russia's biggest commitment is to its maritime forces is in the Black Sea. The BSF received more new ships and submarines than the other fleets. It is also one of the two fleets to have recently conducted combat operations by launching cruise missiles into Syria. The Black Sea is also the only

Atlantic region warm-water port making it of vital strategic importance to Russia for military and commercial use. Its inclusion late in the MarD2015 and NO2017 is surprising considering the high potential value it holds, especially if Russian influence in Turkey increases to the point of a relaxation of Montreux restrictions for Russia.

Russia's naval expansion appears to be relatively aggressive and potentially unachievable in the stated timeline without a significant positive turn of the economy. Its annexation of Crimea caused shipbuilding problems beyond what was already normal in Russia including the loss of engine manufacture and materials from Ukraine and Germany. Sanctions combined with a decline in energy prices resulted in another downturn of the economy in 2014. The main positive highlight is the success of Kalibr and its inclusion in new construction and the potential to be fitted onto older platforms. The RFN has a long way to go if it wants to remain the second most powerful global navy, and it will need a large influx of capital to reach its stated goals.

III. DECADES OF DECLINE

This chapter will examine the Russian Federation Navy's (RFN) construction of new combat vessels. It will also review the drawdown of the Russian navy following the collapse of the USSR. Each fleet is reviewed for the ships currently assigned and how the fleets evolved over the past 28 years. It will first review the RFN as a whole and then briefly examine each of the fleets starting with the Northern Fleet, followed by the Pacific, Baltic, Black Sea Fleets, and the Caspian Flotilla. Finally, it will examine future plans for the RFN and analyze its strategic direction based on fleet development and economic implications. The data used encompasses all combat ships that are currently active, or that were active, at any time between 1990 and 2018. Amphibious landing ships and transport as well as special mission surface and subsurface vessels are not included in the data nor counted as combat ships.

Moscow's latest naval strategy document lists strategic deterrence at the top of its priorities. Its other missions include strategic stability on the world's oceans and the protection and development of the economic interests of the Russian Federation. Naval construction, however, tells a different story. The type of assets being developed indicates a greater focus on the third mission, that of protection of Russia's economic interests. It indicates that while Russia aspires to a be global naval presence, it is currently focused on a relatively local naval presence, especially in the Black Sea and the eastern Mediterranean Sea. A deterrence fleet is desired, but it is expensive, and a suitable global surface capability is unlikely; expansion of the SSBN fleet is likely to continue, albeit slowly.

A. THE RUSSIAN FEDERATION NAVY

The RFN was significantly reduced following the collapse of the Soviet Union. In the ten years following the dissolution of the Union, the fleet fell from 272 surface combatants to 149, and from 264 to 96 submarines. Over nearly ten years, the force was reduced by more than 50%. Naval construction nearly halted throughout the same period after reaching a construction peak in the 1980s. However, since the mid-2000s, there has

been an increase in new construction, as well as completion of older projects, including some that had been "under construction" for more than a decade.

Through the 1990s, new construction was nearly halted, and very few projects were completed. Figure 1 shows the drop off of naval construction projects since 1991. The entire military shipbuilding industry nearly came to a halt. In fact, Russia completed only 39 naval construction projects in the first decade of the Federation's existence compared to 198 during the prior decade. Naval construction was a relatively even split between surface and subsurface projects. The vast majority of the completed surface units were small patrol craft, three DDGs, and the single carrier completed before the Soviet Union collapsed. Completed submarines were more varied with attack, multipurpose, and ballistic missile submarines completed; both nuclear- and diesel-powered vessels are represented.

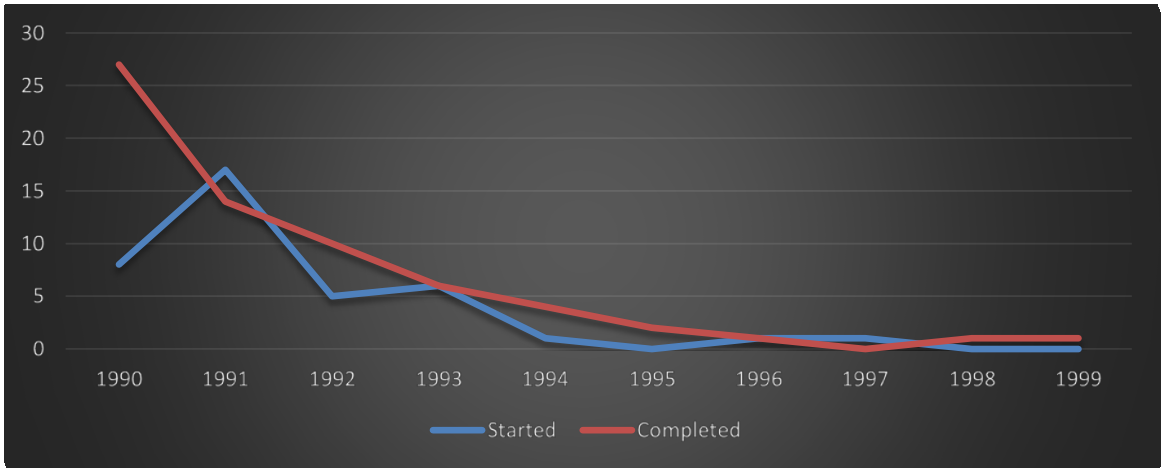

Figure 1. Russian Naval Construction, 1990–1999[110]

The following decade saw a resurgence of construction with new keels laid encompassing a variety of surface and subsurface vessels, shown in Figure 2. However, despite this initial spate of new construction, few of them were completed on time with delays holding most back for years. Two of those in particular, Borei-class submarines

[110] Data compiled from Russianships.info, TheWorldWars.net, Deepstorm.ru, FAS.org.

destined for the Pacific Fleet, are complete and operational while others remain unfinished. The majority of vessels completed during this time were coastal patrol vessels such as the Molniya-1 (Project 12411). Additional completed vessels include Gepard (Project 11661k) frigate, Steregushchy (Project 20380) corvette, and a Shchuka-B (Project 971) attack submarine.

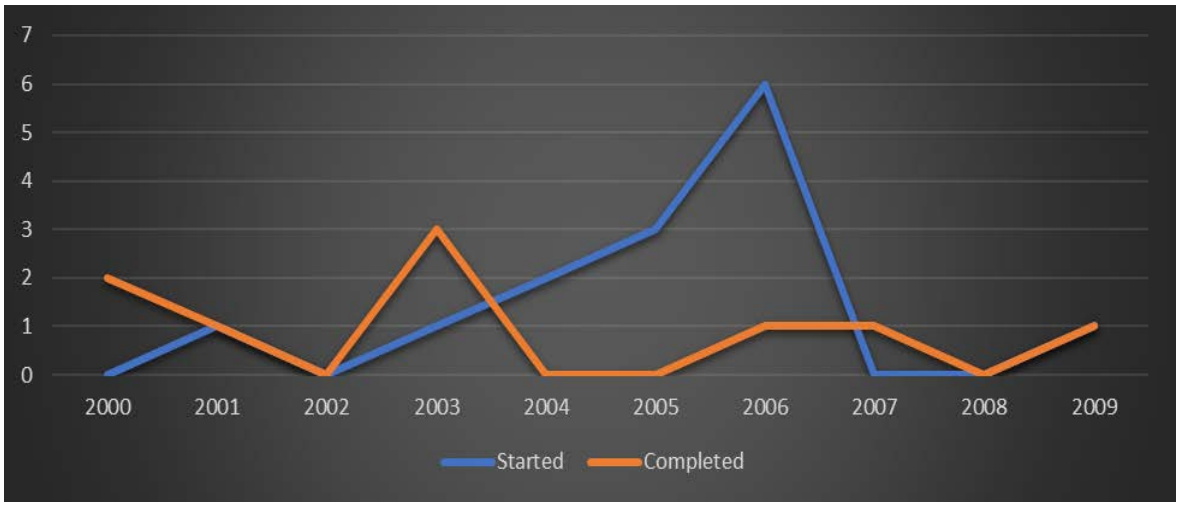

Figure 2. Russian Naval Construction, 2000–2009[111]

Despite an initial start to new construction in the mid-2000s, it was not until 2009 when new construction numbers significantly increased reaching a high point in 2014 and 2015 when six new vessels were started each year. Similarly, 2013 and 2014 were high points for completed projects, featuring five new vessels each of those years. Completed ships and new construction slowed since 2015 although a number of ships are currently being constructed or planned including additional Borei (Project 955) ballistic-missile submarines (SSBN), and Grigorovich (Project 11356) and Gorshkov (Project 22350) frigates. Figure 3 shows a significant increase in construction between 2010 and 2015 and a large drop of new construction after 2015, completion rates remain level.

[111] Data compiled from Russianships.info, TheWorldWars.net, Deepstorm.ru, FAS.org.

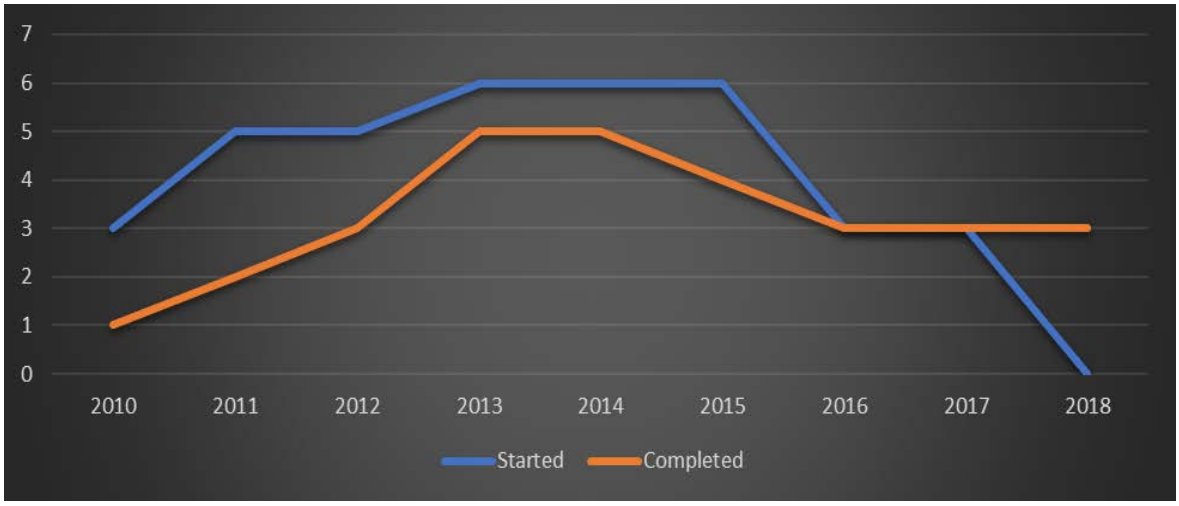

Figure 3. Russian Naval Construction, 2010–2018[112]

The Russian fleet as a whole remains relatively weak when compared against the U.S. naval fleet. The average age of its ships is over 25 years and new construction completion time is over 7 years from start to completion. Despite Russian modernization efforts and its intent to retain the second most combat capable navy globally, India and China are also developing navies and may overtake the combat capability of the Russian navy over the next decade which may leave Russia as the fourth strongest navy unless it can achieve its current aspirations regarding its modernization program.[113] The small size of the Russian fleet does not mean it is not a combat-capable fleet. The increasing number of small ships carrying long-range weapons means Russia currently can project combat power throughout Europe, the Middle East, North Africa, and Central Asia.

B. THE RFN FLEETS

The next five sections are devoted to the individual fleets and their development over the past three decades. Figure 4 contains the size of each fleet through the years as they have commissioned, retired, or transferred ships between each fleet.

[112] Data compiled from Russianships.info, TheWorldWars.net, Deepstorm.ru, FAS.org.

[113] Kyle Mizokami, "These Countries Will Have the Most Powerful Navies on the Planet (in 2030)," *The National Interest* (blog), April 25, 2018, https://nationalinterest.org/blog/the-buzz/these-countries-will-have-the-most-powerful-navies-the-25552.

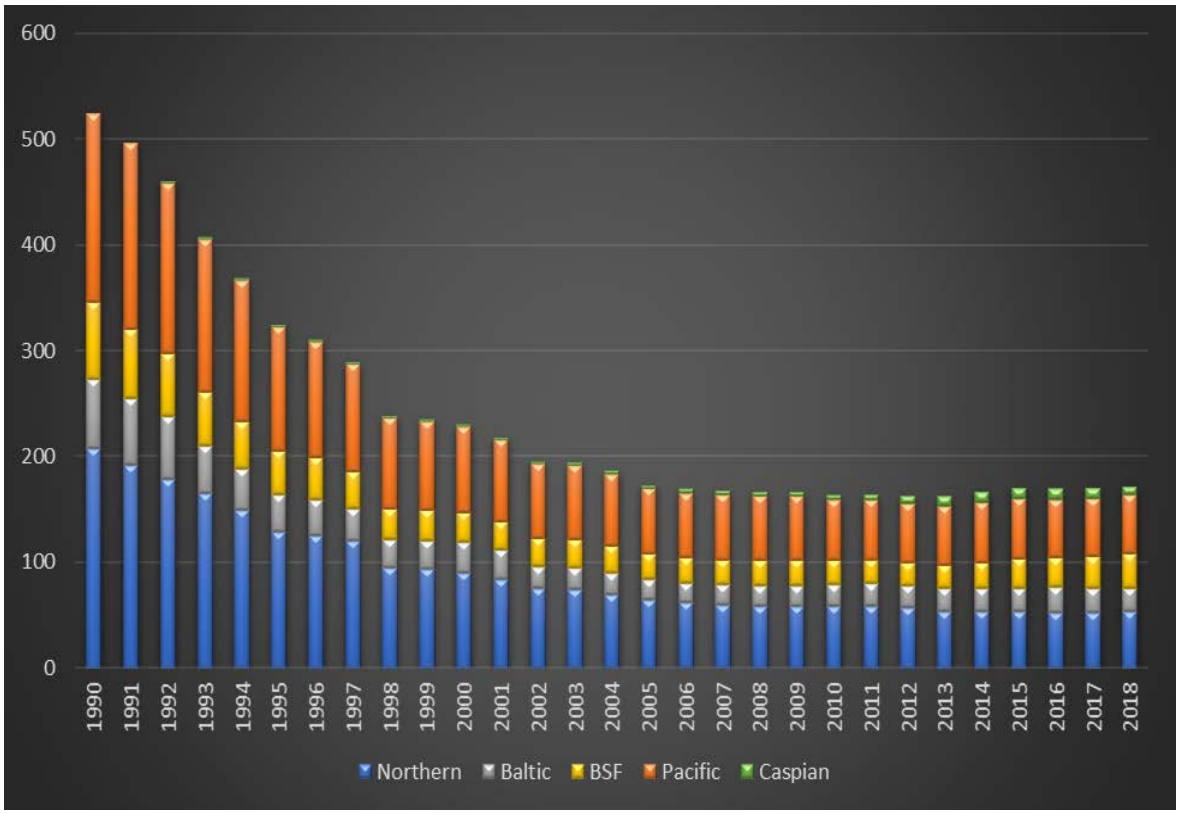

Figure 4. Russian Naval Combatants by Fleet, 1990–2018[114]

1. The Northern Fleet

The Northern Fleet is one of the three fleets to operate primarily in the Russian Atlantic region. It is home to 22 surface combatants ranging from small submarine hunters and coastal patrol vessels to its lone carrier and two of the last nuclear cruisers in the fleet. It also maintains the largest Russian submarine fleet, currently numbering 31. The Northern Fleet is one of the two oldest fleets by the age of the vessels in inventory at nearly 27 years, split between just over 28 years for surface vessels and almost 26 years for its submarines. The fleet received three vessels since 2010 (Gorshkov, Yury Dolgorukiy, Severodvinsk), tied with the Pacific Fleet for the least amount of new construction.

Since 1990, the Northern Fleet reduced more than 72% of its surface inventory and 75% of its submarine inventory. No other fleet has been cut back as far as the Northern

[114] Data compiled from Russianships.info, TheWorldWars.net, Deepstorm.ru, FAS.org.

Fleet. Even during the ongoing modernization timeline, the fleet size continues to decrease. Since 2000, it lost 48% of its surface assets and 34% of its submarines. In the last decade, it received the notable additions of the Yasen SSGN (Project 885), a Borei SSBN, and the Gorshkov FFG. Cost may be a limiting factor as the Yasen submarine comes with a reported price tag of $1.6 billion.[115] The Borei submarines are also more than double the cost of any of the other new vessels Russia has ordered at $713 million each.[116]

Several units in the Northern Fleet are also being modernized and refitted with new systems. The nuclear cruisers, Nakhimov and Petr Velikiy, are reportedly receiving the sea-based version of the S-500 AAW system and are expected to be refit with the Kalibr-weapon system.[117] The lone Russian carrier, Kuznetsov, was originally expected to receive an $866 million overhaul; however it was reduced to about half that in 2017.[118] The recent sinking of Russia's largest drydock in October 2018 reduces Russia's ability to continue that overhaul until the drydock is recovered or another solution found. Alexei Rakhmanov, head of Russia's state-run ship-building enterprise, United Ship-Building Corporation, stated, "We have alternatives actually for all the ships except for Admiral Kuznetsov."[119] Recovery of the drydock will take a significant amount of time and resources if it is possible at all.[120] Otherwise, Russia will have to find another means to service its carrier or go without its overhaul, which will now include needing to repair damage caused during the sinking of the drydock.

---

[115] "Next-Gen Russian Subs 'Better and Cheaper' Than Newest U.S. Subs," Sputnik News, March 20, 2017, https://sputniknews.com/military/201703201051764408-yasen-submarines-virginia-class/.

[116] "SSBN Borei Class Nuclear-Powered Submarines," *Naval Technology* (blog), accessed November 13, 2018, https://www.naval-technology.com/projects/borei-class/.

[117] Daria Ivashkina, "Крейсера ВМФ России Получат С-500, «Калибр» и «Циркон,"" Комсомльская Праваа, January 14, 2018, https://www.kp.ru/online/news/2989588/.

[118] Mizokami, "Russia's Dilapidated Aircraft Carrier To Get a Downer of an Upgrade."

[119] "Russia Finds Alternative to Sunken Floating Dock for Naval Ships," TASS, November 7, 2018, http://tass.com/defense/1029654.

[120] Joseph Trevithick, "Russia Admits It Doesn't have Any Dry Docks that can Fit Its Lone Carrier After Accident," The Drive, November 7, 2018, http://www.thedrive.com/the-war-zone/24760/russia-admits-it-doesnt-have-any-dry-docks-that-can-fit-its-lone-carrier-after-accident.

2. Baltic Fleet

The Baltic Fleet is the second of the three fleets operating in the Atlantic region. It is comprised of 19 surface and two subsurface units. Its surface fleets declined by 52% over the past 28 years with its submarine fleet showing the greatest decline at 92%. The decline of the Baltic Fleet was significant, but the past eight years have increased its size with five new ships, two of which are equipped with Kalibr. In fact, going back to 2006, the Baltic Fleet, while still declining, received the most surface ships of any of the fleets. That makes it is the youngest of the major fleets with ships averaging 22 years old. It operates two Kilo (Project 877) diesel submarines with relatively limited capabilities against modern submarines. The Baltic Sea is a fairly dense maritime environment. It contains a significant portion of Russia's shipbuilding industry and is well defended by coastal weapon systems leaving less need for a powerful fleet in the region.

Homeported in the Kaliningrad oblast, the Baltic Fleet is disconnected from the rest of Russia. Kaliningrad maintains a robust anti-access/area-denial (A2/AD) capability. The increase of naval capability in the Baltic Sea is likely a response to a NATO buildup of forces in the same region. The geostrategic importance of Kaliningrad lay in its ability to project power into NATO countries as well as providing a perimeter defense force in Europe.[121] Not only is Kaliningrad a critical barrier between the Baltic States and the rest of Europe, but the strike capabilities in Kaliningrad extend over almost the entirety of the European continent.[122]

One of the Black Sea Fleet's Kilo (Project 877) submarines, Alrosa was reported in August 2018, to be transferring to the Baltic Fleet.[123] Military analyst, Dmitry Boltenkov, expects them to be used for a number of different missions including submarine trials and training warships for antisubmarine warfare. Considering the other two

[121] Fredrik Westerlund, "Russia's Military Strategy and Force Structure in Kaliningrad," RUFS Briefing (Stockholm: Swedish Defense Research Agency, May 2017).

[122] Westerlund, Russia's Military Strategy and Force Structure in Kaliningrad.

[123] "Pumpjet-Equipped SSK Alrosa Transferred to Russia's Baltic Fleet," Navy Recognition, August 14, 2018, http://www.navyrecognition.com/index.php/news/defence-news/2018/august-2018-navy-naval-defense-news/6420-pumpjet-equipped-ssk-alrosa-transferred-to-russia-s-baltic-fleet.html.

submarines in the Baltic Fleet are also older non-modernized Kilo submarines, Alrosa is not likely to be a substantial increase in capability in the region and is likely a replacement for the Vyborg, which was recently reported to have been turned into a museum exhibit.[124]

3. Black Sea Fleet

The last of the Atlantic region fleets is the Black Sea Fleet (BSF). It declined the least since the end of the Soviet Union and is the only fleet to have increased in size since 2000. In 1990, it had 73 units (49 surface, 24 submarines). It is currently home to seven submarines and 26 surface ships (the previously mentioned Alrosa is likely transferring to the Baltic Fleet, leaving the BSF with six submarines). The average age of its units is just over 22 years. Expansion of the BSF is likely to continue in the coming years. Former Black Sea Fleet commander, Admiral Alexander Vitko stated in 2017 the intent to expand long-range capability in the eastern Mediterranean and even expand BSF responsibility from the Mediterranean Sea to the Persian Gulf including maintaining a three-ship detachment operating through the Red Sea and Persian Gulf area.[125]

Russia considers the Azov and Black Seas as vital water spaces dating back hundreds of years. Sergei Gorshkov wrote of conquests going back to both the third and tenth centuries involving Slavic sailors against the Greek and Byzantine empires designed to ensure free access to the Mediterranean Sea.[126] It is also a direct line into NATO countries through the "soft underbelly of NATO," Romania and Bulgaria.[127] Russia Defense Minister, Sergei Shoigu, stressed his concern over NATO's increased presence in

[124] "SSK 'Vyborg' Turned into a Museum," *Military Experts* (blog), November 8, 2018, https://soldat.pro/en/2018/11/08/depl-vyborg-prevratitsia-v-myzei/.

[125] Alexander Vitko, "Черноморский Флот: Фактор Расширения Боевых Возможностей в Зоне Ответственности," ВОЕННЫЙ ПОРТАЛ, July 5, 2017, http://milportal.ru/chernomorskij-flot-faktor-rasshireniya-boevyh-vozmozhnostej-v-zone-otvetstvennosti/.

[126] Gorshkov, The Seapower of the State, 67.

[127] Byron Chong, *The Role of the Black Sea in Russia's Strategic Calculus*, Center for International Maritime Security, April 2, 2017, http://cimsec.org/role-black-sea-russias-strategic-calculus/31805.

and along the Black Sea, that Russia considered this a threat to national security, and it would strengthen the military district in response to NATO's actions.[128]

The limitation of the Barents Sea as the only unrestricted access to the Atlantic Ocean is readily apparent. Many months of the year leave the area impassable due to ice in the extreme cold weather at those latitudes. The Baltic Sea also has ice concerns for several months a year and passage through the Skagerrak Strait can be blockaded and force Russia's Baltic Fleet to either wait in port or fight its way out to sea in the event of conflict. Securing passage through the Black Sea and the Bosporus and Dardanelle Straights (Turkish Straits) would give Russia near year-round access to the Mediterranean Sea although in a fashion that is still limited by another navy's ability to blockade or otherwise prevent Russian passage through those straits.

Turkey is the crucial point that Russia needs to be able to either work with directly or manipulate. Ankara maintains strict control of the Turkish Straits and therefore transit between the Black and Mediterranean Seas. It can limit the BSF freedom of maneuver between those bodies of water. The Montreux Convention, a document in place since 1936, limits naval activity and buildup in the Black Sea. The Convention constrains naval movement through the Turkish Straits. Ankara maintained the precedent in 2008 when it denied access to the USNS Comfort under the auspices of the Montreux Convention, despite its intended use for humanitarian aid rather than as a combat vessel. Instead, the U.S. 6th Fleet sent several smaller ships, including a destroyer, cutter, and the 6th Fleet flagship, USS Mount Whitney combining for just over 30,000 tons, approximately the limit allowed for non-Black Sea states.[129] By not allowing the U.S. unrestricted access, it upheld a level of impartiality in the matter even considering the USNS Comfort is not a vessel of war. Russia has kept its two newest Kilo submarines in the Mediterranean Sea rather than requiring them to transit the Turkish Straits which would inhibit their ability to leave the Black Sea. The expansion of the BSF mission into the eastern Mediterranean and through

[128] Irina Selezneva, "Шойгу Рассказал, Как Россия Нейтрализует Угрозу НАТО в Черном Море," *Федеральное агентство новостей* No.1, July 26, 2017, https://riafan.ru/884743-shoigu-rasskazal-kak-rossiya-neitralizuet-ugrozu-nato-v-chernom-more.

[129] David Morrison, "Turkey Restricts U.S. Access to the Black Sea," *David Morrison* (blog), October 18, 2008, http://www.david-morrison.org.uk/us/turkey-restricts-us-access.htm.

the Suez Canal will be difficult with the limited number of naval assets and naval access afforded by Turkey.

4. Pacific Fleet

The Pacific Fleet is unique in two ways. The first is that it is the only Russian fleet in the Pacific Ocean; it is split between Vladivostok and Petropavlovsk. The second is that Russia does not have the existential NATO threat on its eastern border. Instead, it is bordered by China and shares sea borders with Japan; Alaska is also a mere 40 miles away across the Bering Strait. The fleet is relatively diverse, likely due to its disconnected nature from the rest of the RFN. It is the oldest fleet in service at more than 28 years average age. Since 1990, it declined by 63% of its surface and 76% of its subsurface assets leaving it with 55 combat capable vessels though some of those, like the rest of the fleet, are out of service for overhaul, modernization, or lack of funds to operate them. It has received only three new additions over the past decade. Notably, two of those are Borei submarines. The third is the corvette, Sovershennyy (Project 20830). It is the only fleet not to be operating ships with Kalibr weapons limiting its overall offensive power potential.

The lack of an adversary in the region allows its naval strategy to evolve differently than in the Atlantic region. While the two Borei submarines are certainly a significant increase to the deterrence capability in the Pacific Ocean, they are likely intended to rebuild some of the defensive capabilities in eastern Russia. The only other SSBN in the Pacific Fleet is a 36-year old Delta III, Ryazan. Instead, Russia is working on developing partnerships in the region by conducting joint military exercises and port visits with some East Asian States.[130] A decreased U.S. presence and an increasingly aggressive China may turn some traditional U.S. allies into Russian allies due to its proximity to the region.[131] The U.S. Pacific Commander, Admiral Harris, stated in 2016, "Russia is politically and

[130] Robert Cobb, "The Pacific Fleet: Russia's Diminutive White Fleet," *The Diplomat*, June 14, 2017, https://thediplomat.com/2017/06/the-pacific-fleet-russias-diminutive-white-fleet/.

[131] Cobb, "The Pacific Fleet."

militarily engaged in the Indo-Asia-Pacific region. Russian activity is assertive, but not confrontational."[132]

5. Caspian Flotilla

The Caspian Flotilla is the only portion of the fleet to not operate directly on the world's oceans. It is confined to the Caspian Sea. However, the addition of Kalibr-equipped patrol boats means it is still capable of power projection far outside the Caspian Sea. It is the youngest and smallest of the fleets, numbering only eight ships an average of 14 years old. In 1990, the Caspian Flotilla did not contain any combat vessels of any type included in this thesis. Caspian Flotilla acquisitions have included a variety of missile boats, including the Buyan-M (Project 21631) that were used to launch missiles from the Caspian into Syria. Notably, two of those missile boats were reassigned to the BSF in 2018.

Russia maintains the greatest naval presence on the Caspian Sea. As a landlocked sea, it is unlikely that other powers beyond the five border states (Russia, Azerbaijan, Turkmenistan, Iran, Kazakhstan) will maintain any naval presence there. However, the Caspian holds major interest for Russia. First, it is potentially home to a large number of energy reserves.[133] Second, it is a direct link to Russia's southern flank. Moscow's defensive approach to its military forces means defense of the Caspian Sea must be maintained as it would for any other waterborne approach. The Flotilla provides that defensive aspect. It is also used to counter narcotics trafficking and terror operations.[134]

C. THE FUTURE OF THE RFN

The RFN's primary strategic nuclear deterrence platforms are entirely contained in the Northern Fleet although a few remain in the Pacific Fleet. During the Cold War, the Soviet Union utilized its surface capability to defend that water space from a potential

---

[132] Harry Harris, Statement of Admiral Harry B. Harris Jr., U.S. Navy Commander, U.S. Pacific Command Before the Senate Armed Services Committee on U.S. Pacific Command Posture (Washington, DC: Senate Armed Services Committee, February 23, 2016), 5–6.

[133] Richard Sokolsky and Tanya Charlick-Paley, *NATO and Caspian Security: A Mission Too Far* (Santa Monica, CA: RAND Corporation, 1999), 70–71.

[134] "Caspian Flotilla—Morskoyo Flota (Naval Force)," Global Security, July 27, 2018, https://www.globalsecurity.org/military/world/russia/mf-caspian.htm.

U.S./NATO first strike which would decimate the Soviet ballistic missile submarine force, leaving the country without a complete strategic response to war. Updates to the surface units in the Northern and Pacific fleets are sparse and relegated to modernization to existing units and each fleet receiving a single new ship. The funding for Kuznetsov was cut in half during this overhaul period.[135] The development of the Borei ballistic missile submarine and its attendant submarine-launched ballistic missile (SLBM) Bulova, Yasen multipurpose nuclear submarine, and the recently commissioned Gorshkov frigate are the sole bright spots in the Northern and Pacific Fleets.

Over the past decade, 17 surface ships were completed while only three ballistic-missile submarines were completed. There are an additional five SSBNs (Borei II, Project 955A) currently under construction. However, the first three took an average of eleven years to build indicating a lengthy delay before more are made available. Those SSBNs are all planned for commissioning by 2025.[136] A previous report quoted Defense Minister Shoigu as stating those submarines would be available by 2021.[137]

The prioritization of naval strategic deterrence should be reflected in fleet development. The U.S. Navy maintains four SSGN submarines (two in Washington, two in Georgia), and fourteen SSBNs (eight in Washington, five in Georgia, one in Virginia going through a multi-year overhaul).[138] The RFN maintains nine SSGNs (four in the Northern Fleet, five in the Pacific Fleet), and eleven SSBNs (eight in the Northern Fleet, three in the Pacific Fleet).[139] Of those twenty Russian vessels, four are considered "in reserve," meaning they are unlikely to be used in the near future. The newest Russian submarines are the Borei-SSBN and Yasen-SSGNs (four total), built between 2012 and 2014. The U.S. built its latest strategic submarines in the late 1990s; it is currently developing the Columbia as a follow-on to the Ohio SSBNs.

---

[135] Mizokami, "Russia's Dilapidated Aircraft Carrier to Get a Downer of an Upgrade."

[136] Franz-Stefan Gady, "Russia Launches Its Most Advanced Ballistic Missile Sub," *The Diplomat*, November 22, 2017, https://thediplomat.com/2017/11/russia-launches-its-most-advanced-ballistic-missile-sub/.

[137] "Russian Navy to Get Seven Advanced Nuclear Submarines by 2021," TASS, May 24, 2017, http://tass.com/defense/947326.

[138] Department of the Navy, *Naval Vessel Register*, July 23, 2018, http://www.nvr.navy.mil/.

[139] "Russian Navy."

Unfortunately, the SSBN and SSGN fleets do not tell the entire story as many of the attack submarines on both sides have at least some capacity to carry submarine-launched cruise missiles (SLCM) giving them a multi-role capability for land-attack, though not as effective nor from the range of the dedicated strategic deterrence assets. The U.S. produces additional attack submarines (Virginia class) annually. Russia had not, until the past few years, produced an attack submarine, diesel or nuclear, until the resurgence of the Kalibr-equipped Kilo of which six were sent to the BSF between 2014 and 2016. The shorter SLCM ranges of the attack submarines require they be much closer to land targets to be effective. Despite the reportedly low noise level of Kilo submarines, the Virginia class has the edge here for its level of noise in the water and its overall endurance compared to the redesigned diesel.

The days of the Kuznetsov being the only carrier in the Russian fleet may be numbered, but not in a short-term way. According to Russian Navy Shipbuilding Chief, Rear Admiral Vladimir Tryapochnikov, design for a new nuclear propulsion system for a next-generation carrier has started and expects to launch the new ship by late 2030.[140] It will be years before that carrier becomes relevant and, in the meantime, Russia must develop its shipbuilding industry to accommodate such a task as it has not completed a carrier since 1990 when it finished Kuznetsov. Arguably, a Russian carrier is unnecessary for a defensively focused navy, even one that has significant offensive capabilities. Russia's trend of naval development may very well fade leaving another carrier design left on the drawing board or sold to another country.

The RFN released thirty-two combatant ships since 2006. Recent additions to the navy include the Buyan-M missile patrol boat, Grigorovich and Gorshkov frigates, Steregushchy corvette, Borei SSBN and Yasen SSGN, and the updated Kilo SSK. Most of these ships include the near-universal Kalibr-missile system, including both surface and subsurface units. Kalibr is limited to eight launchers per platform, instead of 96 (U.S. DDG) and 128 (U.S. CG), although there is a plan for the Russian New Generation

[140] "Russia Working on Nuclear-Powered Aircraft Carrier," TASS, August 24, 2018, http://tass.com/defense/1018538.

Destroyer to have either 32 or 64 launchers installed.[141] It is unlikely this vessel will be fielded until the mid-2020s, if at all, considering the RFN has not fielded anything more substantial than a frigate since the 1990s and will probably not do so in the short-term.[142]

Kalibr is designed to fit a multi-role capability similar to the U.S. Navy's Aegis-based vertical launch system (VLS). It can carry and deliver several types of missiles including land-attack, anti-surface, and anti-submarine. The two most common are the SS-N-27 Sizzler anti-ship cruise missile (ASCM) and the SS-N-30 land-attack cruise missile. There is a third option with the 91R anti-submarine rocket, similar to the U.S. Navy's vertically launched anti-submarine rocket (ASROC). The Sizzler has both supersonic and subsonic variations with ranges from 220km (supersonic) to upwards of 300km (subsonic).[143] The supersonic variation boasts a subsonic initial staged followed by a supersonic terminal stage. The SS-N-30 land-attack cruise missile (LACM) is capable of both conventional and nuclear warheads with reported ranges of greater than 1,500km.[144] The ASROC has a range up to 50km giving a decided advantage over the much shorter ranged conventional torpedoes.[145] Unlike the U.S. Navy's VLS, Kalibr does not have an anti-ballistic missile (ABM) or anti-air warfare (AAW) capability. The Kalibr weapon system and its associated missiles provide the Russian fleet both an accessible path to modernizing other units and a capable weapon system able to meet several of the desired mission areas of the Kremlin.

The development of multiple classes of ships to fill similar roles is one that has continued since the Soviet era. Michael Kofman, senior research scientist at the Center for Naval Analysis, calls this "distributed classality."[146] Instead of taking a single ship design and adding new equipment and slight modifications to it over the years, Russia produces

---

[141] ONI, The Russian Navy, 23.

[142] Gorenburg, "Russia's New and Unrealistic Naval Doctrine."

[143] The Russian Navy, 36.

[144] The Russian Navy, 35.

[145] The Russian Navy, 36.

[146] Michael Kofman, "Shipbuilding Updates from Russia's Naval Salon (MBMC-2017)," *Russia Military Analysis* (blog), July 9, 2017, https://russianmilitaryanalysis.wordpress.com/2017/07/09/russian-shipbuilding-updates-from-russias-naval-salon-%d0%bc%d0%b2%d0%bc%d1%81-2017/.

small batches of similar ships rather than truly developing a new class of ship.[147] One advantage from this constant design phase means Russia can continue to put its Kalibr-system on nearly every class of ship and build around it rather than trying to refit it into existing classes as it is expected to do during the modernization of older platforms such as Kirov and Akula. Conversely, the U.S. Navy continues to use Arleigh Burke destroyers as its primary multipurpose ships, first commissioned in 1988. It has gone through incremental changes over the past 30 years and is expected to continue through 2024, resulting in at least 72 ships based on the original design, the class has only had three design changes based on the original hull with a fourth on the way.[148]

D. CONCLUSION

The RFN is a long way from achieving its ambitious plans. The continued production and integration of Kalibr onto small platforms gives Russia an asymmetric advantage in coastal defense. The RFN can utilize small missile ships to overwhelm enemy air defense systems. Russia is more limited when it comes to producing larger ships and releasing them on schedule with working equipment. The recently commissioned Gorshkov, for instance, is expected to be the new global flagship, but it may be having issues with its Poliment-Redut air defense system.[149] Missile tests of the SLBM, Bulava, had problems potentially related to quality control and human factors.[150] It is reported to have been accepted into service in 2018, but numerous delays with that weapon and the shipbuilding industry as a whole do not bode well for future projects.[151] Even smaller ships are taking years to produce.

---

[147] Kofman, "Shipbuilding Updates."

[148] Department of Defense, *Contracts for September 28, 2017* (Washington, DC: Department of Defense, September 28, 2017), https://DoD.defense.gov/News/Contracts/Contract-View/Article/1328736//.

[149] Pavel Felgenhauer, "Russian Navy Preparing to Take on U.S.," Real Clear Defense, August 3, 2018, https://www.realcleardefense.com/articles/2018/08/03/russian_navy_preparing_to_take_on_us_113683.html.

[150] Nikolai Litovkin, "What's Wrong with Russia's New Bulava Missile?," *Russia Beyond* (blog), October 3, 2016, https://www.rbth.com/defence/2016/10/03/whats-wrong-with-russias-new-bulava-missile_635311.

[151] "Key Facts about Russia's Bulava Sea-Launched ICBM," TASS, June 30, 2017, http://tass.com/defense/1011538.

The RFN is an aging fleet but trying to recover to meet Moscow's requirements. Despite calls for a globally capable navy, it is more likely to be a regionally focused navy designed for defense of the Russian homeland and other localized interests. The limited number of Borei submarines gives Russia a defensive barrier but not one likely to be used for extensive offensive patrolling. It is more of a 'fleet in being,' and by its presence, it represents a threat rather than being used in a manner that makes it a threat.[152] The smaller number of available ships and their age limits Russia's ability to maintain constant patrols outside near-abroad waters. Older ships require more maintenance which requires more downtime and money for repair. The newer ships are limited in quantity and concentrated primarily in the Black Sea. In order to not stress the navy beyond its capability, Russia will have to limit its expectations. It will continue to produce new ships, although it will likely be slower than intended. The overall plan is too ambitious to execute, and Russia will have to make decisions as to what is important and focus on those things in its region rather than trying to develop a global capability.

[152] "Fleet in Being," Global Security, May 7, 2011, https://www.globalsecurity.org/military/ops/fleet-in-being.htm.

IV. AN ECONOMICALLY UNFEASIBLE NAVY

A Russian navy capable of sustained global operations is unlikely to be reached any time soon. A powerful navy is a costly endeavor. Not only do ships take exorbitant amounts of money and time to design, procure, and build, but the maintenance costs associated with them keep the overall continuing naval expenditure high. Increasing the size of the navy and the size of its naval assets would be a necessity to reach its intent of maintaining the second most powerful navy. Overseas basing rights would allow Russia to use its smaller ships in a variety of places, though that too would cost more money. The Russian Federation Navy's (RFN) offensive capabilities are maximized on ships built for coastal defense; it is a defensive navy with offensive capability.

This chapter will view the Russian economic situation and its application to military expenditure. The United States Navy is used as a basis for a percentage of military spending due to a lack of information regarding the breakdown of Russia's military budget. The Chinese and Indian navies are compared because Russia considers China one of the current global poles and India has a similar military budget to Russia, as well as being another potential pole in the current political landscape.

A. THE RUSSIAN ECONOMY

The Russian economy is highly reliant on energy exports. Significant shifts in the market result in a similar change in the Russian economy. Figure 5 shows a significant correlation between oil and gas pricing and the Russian GDP. Notably, since 2012, the association still exists, but the amount of dependency appears to decrease. Russian foreign policy continuously states an intent to move beyond energy as a primary economic model by modernizing and diversifying the economy, but there is very little to show the government has started to move in that direction. Russia also continues to move away from free-market capitalism and focuses on the firm national control of the energy sector to drive the economy forward.

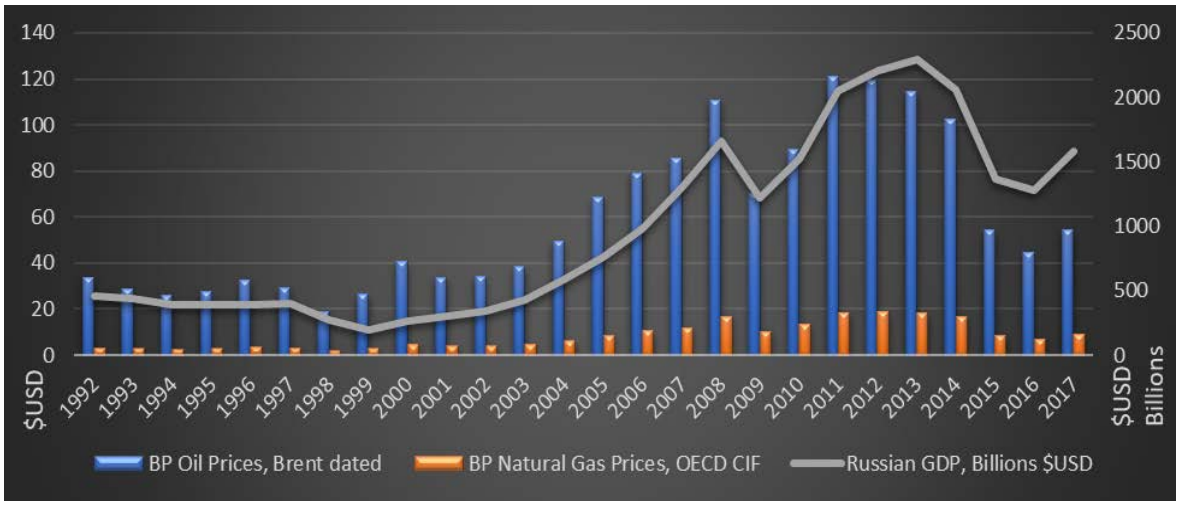

Figure 5. Oil and Natural Gas Pricing Compared to Russia's GDP[153]

The federal budget of the Russian Federation is highly reliant on the sale of energy exports. Those exports make up made up about 39% of the budget, down from 51% in 2014 according to President Vladimir Putin.[154] That drop may very well be a factor of the decrease in energy pricing over the same period rather than a decrease in the reliance on energy exports for budget revenue. Despite Russia's insistence on trying to move away from energy as an economic driver, the rise of global energy requirements is more likely to keep them exporting to meet demand. The EIA expects China and India to lead global energy growth to meet growing domestic economic needs.[155] Russia likely wants to be a major player in meeting those growing energy demands. As one of the world's largest energy-exporters, Russia is already well positioned to take advantage of the increasing energy demand in Asia at the expense of weaning the economy off energy as an economic driver.

The Asian market is only part of Russian interest in persistent energy sales. Europe imports a large portion of Russian energy, making up 70% of Russian exports as opposed

[153] "Statistical Review of World Energy" (British Petroleum), accessed November 19, 2018, https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/downloads.html.

[154] "Доходы в Бюджет Будут Расти При Снижении Зависимости От Нефти — Путин," ИА REGNUM, October 24, 2017, https://regnum.ru/news/2337654.html.

[155] U.S. Energy Information Administration, "International Energy Outlook 2018" (Washington, DC: U.S. Energy Information Administration, July 24, 2018), https://www.eia.gov/outlooks/ieo/executive_summary.php.

only 18% to China.[156] The European market is looking to diversify its energy imports away from Russia and is looking toward the Middle East and North Africa (MENA) region to satisfy some of their energy requirements. A side effect of this is a decrease in potential Russian energy exports. In a pragmatic approach to this potential loss of sales, Russia is investing and developing partnerships in MENA countries. In a sense, this diversifies the Russian economy away from its energy exports by allowing it to profit from other countries' energy exports. It also continues to force Europe to be reliant on a Russian supply of energy reserves, even if it is as a partner to another nation. The Russian investment strategy may work in the long term, but for now the economy is continuing to fall, and Russian military spending will decrease along with it.

B. MILITARY SPENDING

Russia's military expenditure reached a peak in 2013, at almost $100 billion. Since then, it has declined dramatically in the wake of falling oil prices and sanctions. As of 2017, its GDP had fallen to $1.469 trillion with a military budget of only $61.69 billion. A drop in military spending with the decline of GDP is to be expected. Figure 6 illustrates how Russian military spending follows along with its GDP. President Putin stated in early 2018 that Russia would cut military spending through 2018 and 2019, citing a desire to avoid an arms race.[157] Despite these reductions, Russia is the 11th largest global economy and, in 2017, was the 4th largest spender on the military.[158] A continuing decline of Russian military spending will contribute to its inability to finish ship construction and maintenance in expected timelines. Russia's expectation to remain the second most powerful navy behind the United States is in jeopardy if military spending remains low and its economy continues its decline in the wake of sanctions and declining oil prices.

[156] U.S. Energy Information Administration, "Russia Exports Most of Its Crude Oil Production, Mainly to Europe" (Washington, DC: U.S. Energy Information Administration, November 14, 2017), https://www.eia.gov/todayinenergy/detail.php?id=33732.

[157] "Russia to Cut Military Expenditure in 2018, 2019," Defense Aerospace, March 20, 2018, http://www.defense-aerospace.com/cgi-bin/client/modele.pl?shop=dae&modele=release&prod=191695&cat=3.

[158] Data compiled from World Bank, SIPRI.

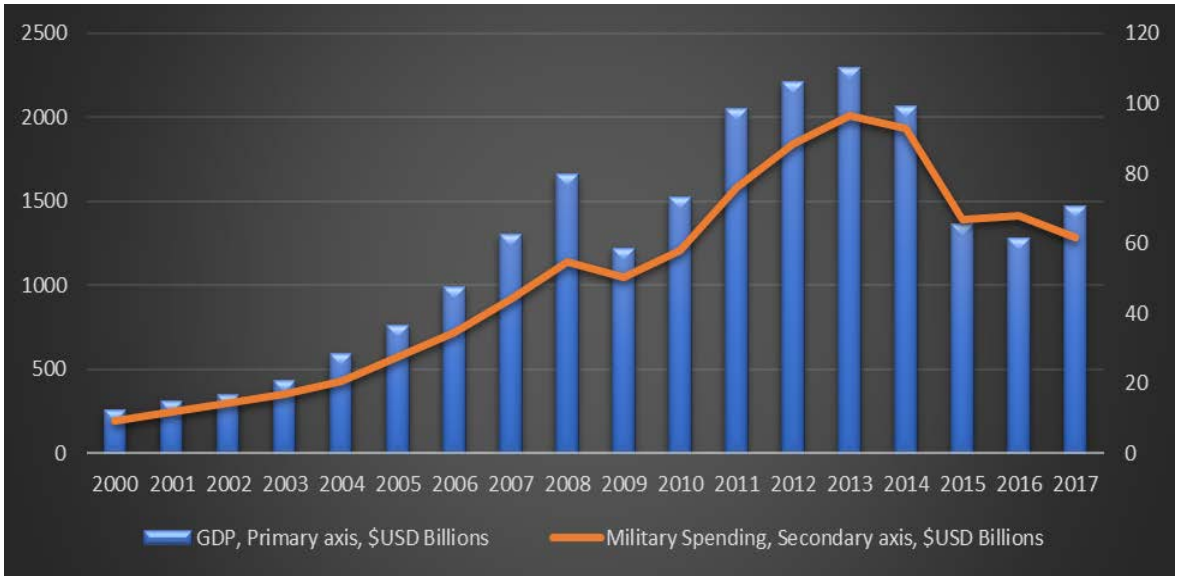

Figure 6. Russian GDP and Military Expenditure, 2000–2017[159]

Putin may be looking to save face by stating his intent to reduce military expenditure and avoid an arms race with the U.S. military spending as a percentage of GDP continued to increase throughout the economic downturn until 2017, when it dove from a high of 5.3% after five years of continuing increases to 4.3% in 2017 with expected decreases in 2018 and 2019. The combination of a smaller budget with a lower percentage used for military purposes is likely to put Russia's military spending well below $60 billion in the coming years. It will be nearly impossible for Moscow to reach its intended goals for its naval force with such a limited budget. If Russia intends to remain a pole in its multipolar world, it needs to be able to spend on its military capability in comparable ways to the other poles, namely, the United States and China.

Comparatively, the other poles spent 3.1% (U.S.), 2.5% (India), and 1.9% (China). The percentage spent indicates the priority level of the military but may also indicate the overall expenditure meets the defense needs of the State regardless of the amount of the budget it took. Figure 7 indicates Russia is the only State to have significantly increased

[159] "SIPRI Military Expenditure Database," Stockholm International Peace Research Institute, 2018, https://www.sipri.org/databases/milex.

the amount of its budget it spends on the military, though that number has fallen off since 2016.

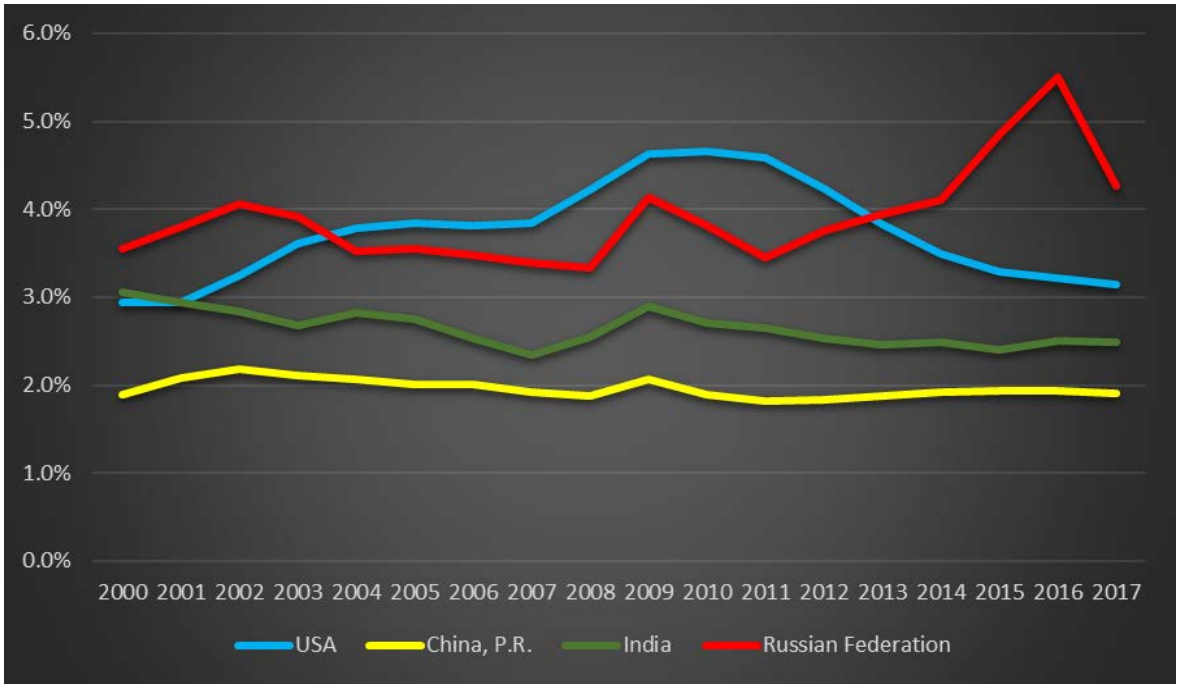

Figure 7. Military Spending as a Percentage of GDP[160]

While the budgets of the other poles may not be completely aligned, they can at least provide insight into how military expenditure is used and prioritized. The U.S. military budget is the largest of the four, with a $609 billion budget for 2017; China is second with $228 billion; Russia fourth at $66 billion; and India fifth with $63 billion.[161] Russia is willing to spend on its military, but the budget is too small to be compared against that of the United States and China whose economies are far larger than those of Russia and India. As a result, the military budgets of Russia and India are similar but less than a third of China and barely 10% of the United States.

[160] "SIPRI Military Expenditure Database."

[161] "SIPRI Military Expenditure Database."

The Chinese navy, People's Liberation Army Navy (PLAN), with its much more substantial budget, is continuing to develop and build modern platforms at a rate far greater than that of Russia. Since 2012, China launched 13 Luyang III (Type 052D) destroyers, and since 2014 an additional 28 Jingdao (Type 056) corvettes.[162] China splits the PLAN between three locations, though the fleets can support each due to the size of China's coastline – it is much smaller than Russia's and is continuous along the eastern and southern borders of China. The PLAN also conducts operations outside its home waters with continuous anti-piracy operations near the Horn of Africa and conducting port visits at various countries globally. China's Belt and Road Initiative is paying dividends as it is developing commercial shipping ports around the Indian Ocean that can be used to support its deployed warships.[163] Finally, China has moved beyond the single carrier, Liaoning, that they purchased from Russia. China built an additional carrier, Shandong, based on the design; a third carrier is currently being built.[164] Russia has yet to produce a second carrier to compliment Kuznetsov and despite the intent to develop a nuclear aircraft carrier, it is unlikely to realize that concept any time soon. Despite Russia's claim to remaining the second most powerful navy behind the United States, China's navy already passed Russia in gross tonnage and number of ships. The one limitation with the PLAN is long-range conventional strike capability in the way that Kalibr and Tomahawk provide for Russia and the United States.

Unlike the Chinese and U.S. navies, the Indian navy likely has a similar budget to Russia. The overall military expenditure of the countries is similar, in the mid-$60 billion range for 2017. The stated missions of both navies are similar, protection of economic interests, deterrence, and protection of the homeland.[165] Both Russia and India also have adversaries lined up on their land-borders. India shares the long western border with

---

[162] Nick Childs and Tom Waldwyn, "China's Naval Shipbuilding: Delivering on Its Ambition in a Big Way," *IISS* (blog), May 1, 2018, /blogs/military-balance/2018/05/china-naval-shipbuilding.

[163] Keith Johnson and Dan De Luce, "One Belt, One Road, One Happy Chinese Navy," *Foreign Policy*, April 17, 2018, https://foreignpolicy.com/2018/04/17/one-belt-one-road-one-happy-chinese-navy/.

[164] David Axe, "China's Second Aircraft Carrier Sails Closer to Joining the Fleet," *War Is Boring* (blog), November 1, 2018, https://warisboring.com/chinas-second-aircraft-carrier-gets-closer-to-joining-the-fleet/.

[165] Indian Navy, "Role of the Navy," New Dehli: Indian Navy, December 19, 2018, https://www.indiannavy.nic.in/content/role-navy.

Pakistan and the northern border with China. It is also readily accessible from the sea as all its ports are warm-water. India has more reason to maintain a viable maritime force than does Russia. Similar to the RFN, the Indian navy has a single aircraft carrier. It also has older platforms that were built in the 1980 and 1990s (22 total), many of which are based on Russian design or made in Russia for India. However, India also is replacing the older destroyers, frigates, and corvettes with new models, some indigenous and some produced in partnership with Russia. Over the last ten years, India launched not only its carrier but also three new destroyers and nine new frigates. Russia launched 19 ships during the same time, though none are classified as a destroyer and only the recently launched Gorshkov coming near the size of the Kolkata-class destroyers. The overall Indian naval force is significantly smaller than the RFN. The smaller size potentially allows India to develop new platforms and maintain a higher maintenance standard than its Russian counterpart. The Indian navy is continuing to develop precision strike capability and has successfully tested its indigenously produced BrahMos missile for use on its destroyers and frigates.[166]

Russia's military spending as a whole is readily available, but how it is divided between the services is not. Instead, the U.S. military budget breakdown will be used to associate how Russian military spending may be used. In 2018, the U.S. military allocated $158 billion to the Army, $173 billion to the Navy, and $170 billion to the Air Force.[167] Nearly 35% of the money allocated directly to the services went to the Navy. That amount is almost three times what Russia is using on its entire military. If a similar breakdown is used, we can expect Russia to use approximately $20 billion for the RFN in 2018 and beyond if funding remains similar to 2017. The U.S. Navy, in 2018, allocated approximately $18 billion on shipbuilding and modernization, nearly the same amount Russia is likely to spend on its entire navy including new construction, modernization,

[166] Rajat Pandit, "Navy Successfully Tests Land-Attack BrahMos Supersonic," *The Times of India,* April 21, 2017, https://timesofindia.indiatimes.com/india/navy-successfully-tests-land-attack-brahmos-supersonic-missile/articleshow/58301144.cms.

[167] Department of Defense, *Defense Budget Overview* (Washington, DC: United States Department of Defense, February 2018), https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2019/FY2019_Budget_Request_Overview_Book.pdf.

maintenance, training, and operations.[168] The RFN will have to prioritize where its money is spent, and it will certainly not be able to attain its goals as written in its naval policy.

As the most significant global navy, the U.S. Navy adds perspective to Russian aspirations of a globally capable force and the ability to achieve that goal. In this case, a global navy is defined here as one that is capable of sustained global operations. The ability to support those operations includes overseas basing, partnership programs, and the ability to effectively replenish at sea. Currently, Russia maintains two naval bases outside its near-abroad. One each in Syria and Vietnam, although Russia is having trade talks with Eritrea that may lead to the development of a logistics center in the Red Sea.[169] Such a move could support Moscow's intent to maintain a three-ship patrol in that region. The U.S. maintains ten naval bases worldwide and maintains numerous partnerships allowing for port visits and resupply in other locations. The U.S. maintains the largest number of supply ships to support its strike groups and routinely practices and utilizes replenishment-at-sea during real-world operations. Russia has a more limited supply fleet and does not conduct underway replenishment for refueling purposes, effectively limiting how it can operate when transiting vast distances. Increasing the number of overseas logistics locations or developing a more effective supply fleet would continue to burden the already limited budget of the RFN.

C. USING THE NAVY TO SUPPORT ECONOMIC INTERESTS

Much of this chapter focused on the global aspirations of the Russian Federation. The RFN though is much more designed to pursue a defensive stance through offensive capabilities. However, one point to remember is the intent to use the navy to further Russian socio-economic interests and the use of natural resources for that purpose. Development of

---

[168] Department of Defense, "Procurement Programs (P-1): Department of Defense Budget Amendment to the Fiscal Year 2018 President's Budget Request for BASE, Emergency, Overseas Contingency Operations" (Washington, DC: U.S. Department of Defense, November 2017), https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2018/November2017Amended/fy2018_p1a.pdf.

[169] "Russia in Talks with Eritrea to Set Up 'Logistics Center' on Red Sea Coast," Radio Free Europe/ Radio Liberty, September 1, 2018, https://www.rferl.org/a/russia-talks-eritrea-set-up-logistics-center-red-sea-coast-lavrov/29464939.html.

the Northern and Black Sea Fleets supports Russian economic interest by providing a military presence in international waters, supported by two points. First, as the Arctic ice melts, the Northern Sea Route along the Russian coast open up which will, in turn, open up the conversation for developing both a military presence and a search-and-rescue (SAR) presence to patrol the region. Second, as Russia invests more into MENA energy suppliers, it will desire stability in the area. Historically, the United States provided a regional security presence in MENA, but in recent years has drawn back its deployments to that region. While increased naval presence supports economic interests, it also contributes to supporting maritime law in the world's oceans, another target of Russia's naval doctrine.

There are five countries laying claim to water in the Arctic Sea (Canada, Denmark, Norway, Russia, and the United States), each of them bordering some portion of Arctic waters as shown in Figure 8. Russia has the largest coastline and potentially one of the most lucrative due to the Northern Sea Route. Famously, Russia is also the only nation to plant a submerged flag at the North Pole.[170] The Arctic is expected to contain vast oil reserves, making it lucrative for companies that can develop an affordable extraction method. Until that happens though, Russia intends to make money via the Northern Sea Route by charging ships for passage and providing escorts to ensure the safety of those ships. Increasing the capabilities of the Northern Fleet would support Russian intent in developing both the Northern Sea Route as a legitimate and cost-effective shipping route, as well as providing defense of claimed Arctic waters as it looks to exploit the resources contained therein. Russia has contracted for two military icebreakers beyond its standard icebreaker fleet. These icebreakers, Ivan Papanin-class (Project 23550), would be multipurpose ships capable of defending territorial waters, SAR, and icebreaking duties either with the fleet or deployed independently. [171]

[170] C. J. Chivers, "Russians Plant Flag on the Arctic Seabed," *The New York Times*, August 3, 2007, https://www.nytimes.com/2007/08/03/world/europe/03arctic.html.

[171] "Ivan Papanin (Project 23550) Class Arctic Patrol Vessels," *Naval Technology*, accessed December 17, 2018, https://www.naval-technology.com/projects/ivan-papanin-project-23550-class-arctic-patrol-vessels/.

Figure 8. Arctic Territorial Claims.[172]

On the southern flank of Russia lies the Black Sea and additional Russian economic interests. While there are likely to be substantial energy resources in the Black Sea, Russia is looking farther south, to the Mediterranean and the Middle East. Russian companies have partnered with different countries in the MENA region, particularly concerning energy reserves and export. Between Russia and the Middle East and North Africa regions, they control more than half of the world's oil and gas reserves.[173] Over the past several years, Russia expanded its influence in the eastern Mediterranean Sea and the Middle East to secure a greater stake in energy resources produced in that area. European and Asian energy requirements are expected to rise in the coming years. Europe already decided to move away from relying heavily on importing resources from Russia and the Middle East is the

[172] Adapted from IBRU, Durham University, Ministry of Foreign Affairs of Denmark (2018).

[173] Nicu Popescu and Stanislav Secrieru, eds., "Russia's Return to the Middle East," *Chaillot Paper* 146 (July 2018), 30.

primary supplier to southeast Asia.[174] Investing in MENA allows Russia to reap the benefits of the region's energy export business. It circumvents Europe's attempt to move away from Russian energy and allows Russia to make inroads into the Asian market. Russia is already looking toward supplying more of its gas to China through a new pipeline, Power of Siberia, and it recently surpassed Saudi Arabia as the biggest oil exporter to China.[175] It is in Russia's interest, as it invests in the MENA region, to maintain a level of stability that ensures energy exports to Asia and Europe continue. The Black Sea Fleet provides a pragmatic security blanket without any of the stipulations the United States tends to add to its partnerships.

The Baltic Sea also contains a large amount of Russia's economic interests. In 2016, 50% of Russian container trade went through its Baltic ports.[176] That appears to be a reason to upgrade the Baltic Fleet, but the fleet itself continues to decline; it is already substantially smaller than the other three primary fleets. Geography likely plays a role in this situation. The positioning of St. Petersburg makes it a difficult target to approach by sea. Kaliningrad provides a defensive bastion that can utilize shore-based systems that are far less expensive than ships. Additionally, the Skagerrak Strait provides a chokepoint that limits the offensive options of an invasion force. Limited maneuver space in and around the Baltic Sea give Russia a significant geographic advantage that allows Russia to deprioritize the Baltic Fleet more than the other fleets.

D. SETTING PRIORITIES

Russia's weak economy, massive coastline, and land-proximity to its primary adversary, NATO, make a globally capable navy a distant priority when compared against the defense of its land-forces and coastal territory. The naval doctrine is too broad to be supported by the current economy and expected spending capacity of the Russian military.

---

[174] Rauf Mammadov, "Russia in the Middle East: Energy Forever," The Jamestown Foundation, March 8, 2018, https://jamestown.org/program/russia-middle-east-energy-forever/.

[175] Daniel Workman, "Top 15 Crude Oil Suppliers to China," World's Top Exports, April 1, 2018, http://www.worldstopexports.com/top-15-crude-oil-suppliers-to-china/.

[176] "Russia and the Baltics: Transport Trials Ready to be Overcome," ITE Transport & Logistics, October 18, 2017, http://www.transport-exhibitions.com/Market-Insights/Russia/Russia-the-Baltics-transport-logistics.

Just because the RFN intends to build ballistic missile submarines, ocean-going frigates, and destroyers, refit the older cruisers and attack submarines, and develop a new carrier, does not mean Russia has the actual shipbuilding capacity or available funds to do so. Instead, the RFN will likely continue to focus on developing the Black Sea Fleet to support its priorities in the eastern Mediterranean and the Middle East. As long as the Arctic ice continues to melt it will seek to monetize the Northern Sea Route and look to find ways to exploit the natural resources in the Arctic. It will use the Northern Fleet, and possibly the Pacific Fleet, as defensive units in the Arctic.

Compared to the United States and China, Russia's naval future looks bleak. It has neither the funding nor shipbuilding capacity of those States. However, India, with a similar military budget, is a much closer comparison. Russia has built more ships over the last decade and utilized precision strike weapons in combat rather than only in testing. Russia also uses the Kalibr weapon system across numerous platforms, ultimately reducing the associated development cost whereas India equipped two platforms with BrahMos. Russia continues to build smaller platforms showing a greater intent to focus on waters nearer to the Russia coastline. According to the Indian Navy website, it is more focused on localized operations designed to protect Indian territory, but India is also building larger platforms capable of operations farther from the Indian shores and is even looking at adding additional aircraft carriers. The current size of the Indian navy allows it to focus on building new platforms in the short-term due to lower maintenance overhead; as it gets larger, it will have to allocate more resources to maintenance by increasing the budget or decreasing new construction. Russia is continuing to reduce its military budget but intends to maintain high levels of new construction and a navy that is far bigger than India which incurs higher maintenance costs.

Continuing to focus on an offensively defensive fleet allows Russia to protect its fleet with overlapping coverages. It has a long-range conventional weapon at its disposal. The RFN can project power throughout Europe and Asia from its home waters and presents a deterrence capability to prevent encroachment into those waters by adversary navies. Focusing on quickly constructed smaller ships with universal weapon systems will keep costs relatively low, but it will also keep the Russian navy limited to coastal patrol with

limited capability for out-of-area operations. It is effectively a "Mosquito Fleet," intended to defeat any forces approaching from the sea with an overwhelming number of small ships.[177] The loss of smaller units in conflict is much less damaging as they are cheaper and can be replaced much faster than larger ships, notwithstanding Russia's lack of producing a ship greater than 500 feet since the 1990s. The RFN proved its ability to support land operations in Syria and can strike deep into NATO territory should a conflict arise between NATO and Russia. It does not have the necessary funds to achieve its intended naval capacity regarding new construction and refitting older platforms with modern systems, and the RFN may very well go back into decline if military spending continues to drop.

[177] Till, *Seapower*, 205.

THIS PAGE INTENTIONALLY LEFT BLANK

V. CONCLUSION

It is no secret that Russia and the Western nations are often at odds. Russia has wavered between being a part of Europe and remaining its own separate entity. Since the fall of the Soviet Union, the rift at times seemed to almost close as Russia reached for democratic solutions to its problems. However, corruption in the government and a systemic belief in Russia's status as a Great Power factored in heavily and the two sides moved farther apart as the 2000s drew near. Conflicts in Kosovo and Iraq, heavily favored by the United States and condemned by Russia drove a deeper wedge into the rift. Moscow saw the United States as a country making unilateral decisions to use force in other countries without United Nations consent. Russia condemned these actions and set about developing foreign policies intended to reinforce its position as a Great Power. Moscow wanted to move away from the unipolar system the United States had enjoyed since the fall of the Soviet Union and take its position at the top of a multipolar world alongside the United States and China.

Foreign policy and naval strategy, for those that maintain naval capability, are inextricably linked. Even a small navy can be used for foreign policy purposes. The value of a navy goes beyond its ability to wage war. The value includes a naval ships capability to not only threaten an opposing power, but a ship can be used to build partnerships, reassure allies, and conduct foreign policy in diplomatic fashion. Port visits, humanitarian assistance, and exercises produce diplomatic effects beyond that of simple diplomacy; they are complimentary. The United States uses its ships routinely for these purposes, and China recently started doing the same with visits in a number of countries worldwide as it expands its diplomatic presence beyond southeast Asia. Russia's use of its fleet diplomatically has expanded to include foreign port visits, military support to Syria, and its presence and capability present a latent threat to European nations.

The Russian navy is not a significant factor in Russian history. Its value and use ebbed and flowed throughout Russian history, including the Soviet period. Following the collapse of the Soviet Union, the navy fell into a more than a decade of neglect and disrepair. In the mid-2000s, Putin began a military modernization program that saw a

resurgence in naval repair, maintenance and construction. It was around the same time that Russia saw fit to begin deploying its lone carrier, Admiral Kuznetsov, to conduct exercises away from its homeport in northern Russia leading to several operational deployments in the eastern Mediterranean Sea and even conducting air operations in support of land forces in Syria. During the same period, Russian shipyards began work on its next-generation SSBNs, the Borei-class submarine, as well as its recently launched flagship frigate, the Admiral Gorshkov. Other classes of ships were soon to follow, including the Grigorovich frigate and Graney SSGN. Included in many of these ships, small and large, was the near-universally fitted Kalibr weapon system which gave Russia a capability similar to the United States with a launcher capable of supporting multiple warfare areas.

Despite the success of Kalibr, a number of problems continued to plague Russia's modernization effort. Corruption in the Ministry of Defense and shipbuilding industry cost the government in terms of cost and time. Delays continued to mount as they did through the rest of modern Russia's history. Ships were taking an average of nearly seven years to complete, compared to barely three during the last three decades of the Soviet Union. Additionally, Russia continued to design and build ships that were nearly identical but only built a few hulls of each design rather than developing and perfecting one design and making small incremental changes as needed, arguably a far cheaper solution and one the United States has used for decades with its Arleigh Burke-class destroyers.

Navies are far from an inexpensive endeavor. Initial cost for design and construction is extremely high and maintenance and operational costs continue to add to the bottom line. Russia's GDP is far lower than that of its Great Power competitors and it must make more efficient use of its budget if it is to achieve its stated intent. The Kremlin's foreign and maritime policies indicate its intent to be a factor in global naval operations, yet its budget contradicts this ambition. The United States is the only consistently globally operating naval force and the United States' naval budget is alone more than double the budget of the entire Russian armed forces. Without a significant influx of money, the Russian navy is doomed to fall well below its goals. Instead, it will likely look toward maintaining a force capable of defending the Russian homeland and supporting operational land-forces.

The RFN's capability in waters close to home has potential to be an effective deterrent to any adversary forces that make a waterborne approach. During Soviet times, its naval doctrine included layered defense with larger ships supported by coastal ships which in turn are supported by coastal batteries, each of which is intended to support land-forces by preventing flanking maneuvers by an opposing navy. The layered defense presented a bastion protecting the Soviet Union's most valuable naval assets, its ballistic missile submarines. Russia's current modernization trajectory indicates a similar strategy. Yet there is a stark difference between the RFN and the Soviet navy, that of larger naval units. Russia has not constructed anything larger than a frigate since the late 1990s. Instead, it has opted to construct frigate-sized ships and smaller. The bastion defense has grown closer to the shore but certainly no less potent at homeland defense. Indeed, its homeland defense capability may have grown with the extensive use of Kalibr across multiple classes of ships ranging from coastal patrol vessels to frigates to submarines. Russia's fleet design has the ability to attack an opposing force from multiple angles at significant ranges making adversary fleet defense a difficult prospect. Additionally, the inclusion of LACM across nearly every new platform presents a potential threat to adversary countries at extreme ranges. The Black Sea Fleet alone can strike nearly anywhere in Europe without leaving the Black Sea. That strike capability must be considered in Western policy decisions when dealing with Russia.

Another indicator of how Russia intends to use its navy is where the RFN homeports its ships. All of the fleets declined significantly since the Soviet Union fell; however, only the Baltic and Black Sea Fleets have increased in size since 2010. While the Baltic Fleet has increased its unit total, the ships and submarines it gained are older platforms with significant limitations, cast off submarines from the BSF as the BSF gained new and updated Kilo submarines. The Black Sea Fleet is the only fleet to have increased its size since 2000. The Northern and Pacific Fleets received new submarines but only received a single surface asset each, at the same time continuing to decommission its older ships leading to continually decreasing fleet sizes. The repeated out-of-area (Mediterranean) deployments for Northern Fleet assets, increasing size of the BSF,

statements by Russian officials, and economic investment indicate a significant interest in the eastern Mediterranean Sea and a growing interest in the Middle East.

Russia continues to use energy exports as the prime mover for its GDP. Falling energy prices hit Russia hard causing significant reduction of GDP in 2008 and 2016. Continued Western sanctions add to the Russia's economic woes. Russian policy statements include a desire to diversify its economy away from energy, yet it continues to invest heavily in the industry. European markets have historically been the prime importer of Russian energy, but Europe is making a concerted effort to diversify its imports away from Russian energy. In response, it appears Russia has found a way to avoid Europe's diversification by investing in energy projects in northern Africa and the Middle East. Moscow's investment in the MENA region may be dangerous due to the frailty of some of those countries. The RFN's expansion of the BSF may be a way for Russia to seek security for its investment by providing a military presence to protect against internal or external threats in countries in which Russia has invested.

For several decades the United States has been the security provider in the Middle East. Recent U.S. naval deployments have not always included, or limited, operations in Middle Eastern waters. Russia indicated its intent to provide a naval force in the Middle East, supplied by the BSF. Moscow may be attempting to capitalize on U.S. lack of involvement by showing itself as a capable security provider, one which does not include attempts to change the fundamental structure of the governments in power. Russia's pragmatic approach to partnerships in the region may be preferable to the autocratic governments throughout the Middle East, rather than dealing with the United States and its interventionist policies that accompany its support. Russia offers support regardless of government type and even human rights abuses. Russia builds MENA partnerships through investment and arms sales, though it remains behind the U.S. in total global arms sales. However, Middle Eastern governments also know the state of Russia's economy and may very well be using Russia as a path to moderating U.S. interventionist policies and work out a more favorable deal for themselves. Russia's economy is limited and therefore its foreign assistance capability is equally limited.

Elements of power include more than just the navy. Among the DIME paradigm (diplomatic, informational, military, economic) numerous methods are used to project strength and power. The navy fits into multiple areas of DIME, but it is certainly not the only element of power in foreign policy. Naval strategy supports foreign policy and the use of the navy works alongside the other elements of power. This thesis does not account for even a small fraction of those other elements, and indeed, nor does it account for the entirety of naval power. It focused on naval combatants at the expense of other naval elements, in particular those of an amphibious nature. Amphibious warfare is outside the scope of this thesis, but it is by no means something that should be discounted. Indeed, a separate study of Russia's amphibious capability should be conducted and added to create a greater understanding of Russian naval power. The ability to land ships on foreign shores for purpose of invasion and support of land-forces is an important aspect of naval capability.

The second factor this thesis does not account for is information warfare. Russia's use of information warfare to drive a wedge into foreign governments, disrupt the population, and move forward its own policies is evident throughout Western nations. Russia has not built large, ocean-going ships. Perhaps part of the reasoning is simply that Russia does not possess the economic capital or capacity to produce such ships. Perhaps Russia simply believes that if it can use information warfare in such a way that paralyzes Western decision-making. If Russian propaganda can create enough of a foothold that it can prevent the U.S. Navy from fully utilizing its combat potential against Russia, it has no need of the larger ships it utilized during the Cold War for that purpose. Small fractures in the NATO alliance can be widened and a failure to respond to an Article V call by a member would give Russia what it needed to reach beyond its ambitions in Moldova, Georgia, and Ukraine. The Baltics are along Russia's border and Moscow has already used the excuse of a Russian population seeking to return to Russia with the Crimea annexation. If it could fracture NATO, similar tactics could be used to return the Baltic states to Russian control. Russia does not need large combat ships to counter the U.S. threat if the U.S. is no longer considered a threat. The current coastal defense fleet is more than sufficient for Russian purpose if the threat to its shores remains low.

Russia's naval strategy is largely based on the Soviet strategy of layered defense. The main difference is the lack of large ships designed to operate farther out to sea. That brings the first layer slightly closer to Russian territorial waters, but it does not take away from the capability the current fleet embodies. Russia still maintains an SSBN fleet capable of threatening land targets across the world, though it is more limited in number than it was during Soviet times. The cruisers and destroyers are fewer in number, but the frigates and patrol boats with Kalibr's long-range surface-to-surface capability still present a threat to any naval forces encroaching in Russian waters. Additionally, those same small ships carry a long-range LACM conventional capability that can be amplified with nuclear warheads. The RFN fleet can support land-forces and has done so already in Syria; proving its naval power projection capability. As long as Russia keeps its naval expectations in check it will likely maintain a fairly robust, though relatively small fleet when compared against the United States and China. However, trying to enter an arms race with China or the United States is unachievable without a drastic increase in Russian economic power. The RFN will likely begin to fall behind China in the coming years and will remain substantially behind the United States in terms of naval power for the foreseeable future.

APPENDIX. RUSSIAN FEDERATION NAVY FLEETS[178]

Table 1. Northern Fleet

Type	Name	Commissioned
CV	Kuznetsov*	1990
CGN	Nakhimov*	1988
CGN	Pyotr Velikiy	1998
CG	Ustinov	1986
DDGS	Kulakov	1981
DDGS	Severmorsk	1987
DDGS	Levchenko	1988
DDGS	Kharlamov*	1989
DDGS	Chabanenko*	1999
FFG	Gorshkov	2018
DDG	Ushakov	1993
FSG	Aysberg	1979
FSG	Rassvet	1988
PG	AK-388	1980
PG	AK-543	1987
FSS	Brest	1988
FSS	Yunga	1989
FSS	Nar'yan-Mar	1990
FSS	Onega	1990
FSS	Monchegorsk	1993
FSS	Snezhnogorsk	1994
SSBN	Dmitriy Donskoy	1981
SSBN	Yury Dolgorukiy	2012
SSBN	Verkhoturye	1984
SSBN	Ekaterinburg	1985
SSBN	Tula	1987
SSBN	Bryansk*	1988
SSBN	Kareliya	1989
SSBN	Novomoskovsk	1990
SSGN	Voronezh	1989
SSGN	Smolensk	1990
SSGN	Orel	1992
SSGN	Severodvinsk	2013
SSN	Pantera	1990

[178] Tables in this appendix are adapted from Russianships.info, TheWorldWars.net, Deepstorm.ru, FAS.org.

SSN	Volk	1991
SSN	Leopard*	1992
SSN	Tigr	1993
SSN	Vepr*	1995
SSN	Gepard	2001
SSN	Karp*	1984
SSN	Kostroma	1987

* Vessel in layup or awaiting decommissioning.

Table 2. Pacific Fleet

Type	Name	Commissioned
CGN	Lazarev*	1984
CG	Varyag	1989
DDGS	Shaposhnikov*	1985
DDGS	Tributs	1986
DDGS	Vinogradiv	1988
DDGS	Panteleev	1991
DDG	Burnyy*	1988
DDG	Bystryy	1989
FFC	Gromkyy	2018
FFC	Sovereshennyy	2017
FSG	Smerch	1984
FSG	Iney	1987
FSG	Moroz	1989
FSG	Razliv	1991
FSS	Kholmsk	1985
FSS	MPK-221	1987
FSS	Koreets	1989
FSS	Sovetskaya Gavan	1990
FSS	MPK-107	1990
FSS	Metel	1990
FSS	MPK-82	1991
FSS	Ust-Ilimsk	1991
PGM	R-79	1984
PGM	R-261	1988
PGM	R-297	1990
PGM	R-298	1990
PGM	R-11	1991
PGM	R-14	1991
PGM	R-18	1992
PGM	R-19	1992
PGM	R-20	1993
PGM	R-24	1994
PGM	R-29	2003
SSBN	Ryazan	1982
SSBN	Alexandr Nevskiy	2013
SSBN	Vladimir Monomakh	2014
SSGN	Irkutsk*	1988
SSGN	Chelyabinsk*	1990
SSGN	Tver	1992

SSGN	Omsk	1993
SSGN	Tomsk	1996
SSN	Kashalot*	1988
SSN	Bratsk*	1989
SSN	Magadan	1990
SSN	Kuzbass	1992
SSN	Samara	1995
SS	Chita	1981
SS	Svyatoy Nikolay Chudotverets	1988
SS	Nulat*	1988
SS	Ust-Kamchatsk	1990
SS	Ust-Bolsheretsk	1990
SS	Komsomolsk-on-Amur	1991
SS	Krasnokamensk	1992
SS	Mogocha	1994

* Vessel in layup or awaiting decommissioning.

Table 3. Baltic Fleet

Type	Name	Commissioned
DDG	Nastoychivyy	1992
FFC	Steregushchy	2007
FFC	Soobrazitelnyy	2011
FFC	Boykiy	2013
FFC	Stoykiy	2014
FFG	Neustrashimy	1990
FFG	Yaroslav Mudry	2009
FSS	MPK-192	1986
FSS	Kazanets	1987
FSS	Zelenodolsk	1987
FSS	Aleksin	1989
FSS	Kabardino-Balkaria	1989
FSS	Kalmykiya	1990
FSG	Mytischi	2018
FSG	Zyb	1989
FSG	Geyzer	1989
FSG	Passat	1990
FSG	Liven	1991
FSG	Zeleny Dol	2015
FSG	Serpukhov	2015
PGM	Kuznetsk	1985
PGM	R-257	1986
PGM	Zarechny	1989
PGM	Dimitrovograd	1991
PGM	Morshansk	1992
PGM	Chuvashiya	2000
SS	Vyborg	1983
SS	Dmitrov	1986

* Vessel in layup or awaiting decommissioning.

Table 4. Black Sea Fleet

Type	Name	Commissioned
CG	Moskva	1982
DDGS	Kerch*	1974
FFG	Smetlivy	1969
FFG	Ladny	1980
FFG	Pytlivy	1981
FFG	Grigorovich	2016
FFG	Essen	2016
FFG	Makarov	2017
FSS	Alexandrovets	1982
FSS	Muromets	1982
FSS	Suzdalets	1983
FSS	Kasimov	1986
FSS	Eysk	1989
FSS	Povorino	1989
FSG	Bora	1989
FSG	Samum	2000
FSG	Vyshniy Volochek	2018
FSG	Oreghovo-Zuevo	2018
FSG	Mirazh	1986
FSG	Shtil	1978
FC	Grad Sviyazhsk	2013
FC	Velikiy Ustyug	2014
PGM	R-60	1987
PGM	R-71	1985
PGM	R-109	1990
PGM	Naberezhnye Chelny	1989
PGM	Ivanovets	1989
SS	Alrosa*	1990
SS	Novorossiysk	2014
SS	Rostov-on-Don	2014
SS	Stary Oskol	2015
SS	Krasnodar	2015
SS	Velikiy Novgorod	2016
SS	Kolpino	2016

* Vessel in layup or awaiting decommissioning.

Table 5. Caspian Flotilla

Type	Name	Commissioned
FFG	Tatarstan	2003
FFG	Dagestan	2012
FC	Uglich	2013
FS	Astrakhan	2006
FS	Volgodonsk	2011
FS	Makhachkala	2012
FS	MK-160	1988
PGM	Stupinets	1985

* Vessel in layup or awaiting decommissioning.

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF REFERENCES

Aguilera, R. *NavBase: The Naval Database*. Last updated January 5, 2019. http://www.theworldwars.net/navbase/.

Axe, David. "China's Second Aircraft Carrier Sails Closer to Joining the Fleet." *War Is Boring* (blog), November 1, 2018. https://warisboring.com/chinas-second-aircraft-carrier-gets-closer-to-joining-the-fleet/.

Beliakova, Polina, and Sam Perlo-Freeman. *Corruption in the Russian Defense Sector*. World Peace Foundation, May 11, 2018. https://sites.tufts.edu/wpf/files/2018/05/Russian-Defense-Corruption-Report-Beliakova-Perlo-Freeman-20180502-final.pdf.

Bogdanov, Konstantin, and Ilya Kramnik. *The Russian Navy in the 21st Century: The Legacy and the New Path.* Arlington, VA: CNA, October 2018.

Boston, Scott, and Dara Massicot. *The Russian Way of Warfare: A Primer.* Santa Monica, CA: RAND Corporation, 2017.

Brady, Anne-Marie. "Cold War's Polar Rivals." The Australian. September 6, 2018. https://www.theaustralian.com.au/news/inquirer/china-russia-push-gps-rival-into-antarctica/news-story/1faeb3222806f61110c016ff00390357.

Cable, James. *Gunboat Diplomacy: 1919–1991*. 3rd ed. New York: St. Martin's Press, 1994.

———. *The Political Influence of Naval Force in History*. London: Macmillan Press, 1998.

"Caspian Flotilla—Morskoyo Flota (Naval Force)." Global Security, July 27, 2018. https://www.globalsecurity.org/military/world/russia/mf-caspian.htm.

Childs, Nick, and Tom Waldwyn. "China's Naval Shipbuilding: Delivering on Its Ambition in a Big Way." IISS, May 1, 2018. /blogs/military-balance/2018/05/china-naval-shipbuilding.

Chivers, C. J. "Russians Plant Flag on the Arctic Seabed." *The New York Times*, August 3, 2007. https://www.nytimes.com/2007/08/03/world/europe/03arctic.html.

Chong, Byron. *The Role of the Black Sea in Russia's Strategic Calculus*. Center for International Maritime Security, April 2, 2017. http://cimsec.org/role-black-sea-russias-strategic-calculus/31805.

Clunan, Anne. *The Social Construction of Russia's Resurgence*. Baltimore, MD: Johns Hopkins University Press, 2009.

Cobb, Robert. “The Pacific Fleet: Russia’s Diminutive White Fleet?” *The Diplomat.* June 14, 2017. https://thediplomat.com/2017/06/the-pacific-fleet-russias-diminutive-white-fleet/.

Crisher, Brian, and Mark Souva. “Power at Sea: A Naval Power Dataset, 1865–2011.” *International Interactions* 40, no. 4 (May 16, 2014): 602–29.

Deepstorm.ru. *Encyclopedia of Russian Submarine Fleet*. Last updated February 18, 2019. http://deepstorm.ru/.

Defense Intelligence Agency. *Russia Military Power: Building a Military to Support Great Power Aspirations*. Washington, DC: United States Defense Intelligence Agency, 2017.

Department of Defense. *Contracts for September 28, 2017*. Washington, DC: Department of Defense, September 28, 2017. https://dod.defense.gov/News/Contracts/Contract-View/Article/1328736//.

———. *Defense Budget Overview*. Washington, DC: United States Department of Defense, February 2018. https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2019/FY2019_Budget_Request_Overview_Book.pdf.

———. “Procurement Programs (P-1): Department of Defense Budget Amendment to the Fiscal Year 2018 President’s Budget Request for BASE, Emergency, Overseas Contingency Operations.” Washington, DC: United States Department of Defense, November 2017. https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2018/November2017Amended/fy2018_p1a.pdf.

Department of the Navy. *A Cooperative Strategy for 21st Century Seapower*. Washington, DC: United States Navy, March 2015. https://www.navy.mil/local/maritime/150227-CS21R-Final.pdf.

———. *Naval Vessel Register*. July 23, 2018. http://www.nvr.navy.mil/.

Dodgson, Lindsay. “In the Depths: Drilling for Oil in the Black Sea.” *Offshore Technology* (blog), February 3, 2016. https://www.offshore-technology.com/features/featurein-the-depths-drilling-for-oil-in-the-black-sea-4788063/.

Dragoi, Andreea-Emanuela. “Russian Foreign Policy: Interests, Vectors, and Economic Impact.” *Global Economic Observer* 3, no. 2 (December 2015): 68–77. https://doaj.org/article/65ff9a9766094be09634dfcc9c828170.

Felgenhauer, Pavel. “Russian Navy Preparing to Take on U.S.” *Real Clear Defense*, August 3, 2018. https://www.realcleardefense.com/articles/2018/08/03/russian_navy_preparing_to_take_on_us_113683.html.

“Fleet in Being.” Global Security, May 7, 2011. https://www.globalsecurity.org/military/ops/fleet-in-being.htm.

Gady, Franz-Stefan. “Russia Launches Its Most Advanced Ballistic Missile Sub.” *The Diplomat.* November 22, 2017. https://thediplomat.com/2017/11/russia-launches-its-most-advanced-ballistic-missile-sub/.

German, Tracey. *Russia and the Caspian Sea: Projecting Power or Competing for Influence.* Carlisle Barracks, PA: Strategic Studies Institute and U.S. Army War College Press, August 2014.

Gorenburg, Dmitry. “Russia’s New and Unrealistic Naval Doctrine.” *War on the Rocks*, July 26, 2017. https://warontherocks.com/2017/07/russias-new-and-unrealistic-naval-doctrine/.

Gorshkov, Sergei. *The Sea Power of the State*. Annapolis, MD: Naval Institute Press, 1979.

Harris, Harry. *Statement of Admiral Harry B. Harris Jr., U.S. Navy Commander, U.S. Pacific Command Before the Senate Armed Services Committee on U.S. Pacific Command Posture*. Washington, DC: Senate Armed Services Committee. February 23, 2016.

Herrick, Robert. *Soviet Naval Theory and Policy: Gorshkov’s Inheritance*. Newport, RI: Naval War College Press, 1988.

Herwig, Holger. *“Luxury” Fleet: The Imperial German Navy 1888–1918*. London: Allen & Unwin, 1980.

Indian Navy. “Role of the Navy.” New Delhi: Indian Navy, December 19, 2018. https://www.indiannavy.nic.in/content/role-navy.

“Ivan Papanin (Project 23550) Class Arctic Patrol Vessels.” *Naval Technology* (blog), Accessed December 17, 2018. https://www.naval-technology.com/projects/ivan-papanin-project-23550-class-arctic-patrol-vessels/.

Ivashkina, Daria. “Крейсера ВМФ России Получат С-500, «Калибр» и «Циркон.” Комсомльская Праваа, January 14, 2018. https://www.kp.ru/online/news/2989588/.

Johnson, Keith, and Dan De Luce. “One Belt, One Road, One Happy Chinese Navy.” *Foreign Policy* (blog), April 17, 2018. https://foreignpolicy.com/2018/04/17/one-belt-one-road-one-happy-chinese-navy/.

Kemp, Benjamin. “The Illusion of Democracy in Post-Communist Russia: How Internal and External Relationships Have Evolved After the Fall of the Soviet Union.” Master’s thesis, Ball State University, 2012. http://cardinalscholar.bsu.edu/handle/123456789/196007.

“Key Facts About Russia’s Bulava Sea-launched ICBM.” TASS. June 30, 2017. http://tass.com/defense/1011538.

Kofman, Michael. “Shipbuilding Updates from Russia’s Naval Salon (MBMC-2017).” *Russia Military Analysis* (blog), July 9, 2017. https://russianmilitaryanalysis.wordpress.com/2017/07/09/russian-shipbuilding-updates-from-russias-naval-salon-%d0%bc%d0%b2%d0%bc%d1%81-2017/.

Kottasová, Ivana. “Russian Military Spending Drops for First Time in 20 Years.” CNNMoney. May 2, 2018. http://money.cnn.com/2018/05/02/news/russia-defense-spending-plunge/index.html.

Leichtova, Magda. *Misunderstanding Russia: Russian Foreign Policy and the West*. Surrey: Ashgate, 2014.

Litovkin, Nikolai. “What’s Wrong with Russia’s New Bulava Missile?” *Russia Beyond* (blog), October 3, 2016. https://www.rbth.com/defence/2016/10/03/whats-wrong-with-russias-new-bulava-missile_635311.

Lucas, Edward. *The New Cold War: Putin’s Russia and the Threat to the West*. New York: Palgrave Macmillan, 2008.

Mammadov, Rauf. “Russia in the Middle East: Energy Forever” The Jamestown Foundation. March 8, 2018. https://jamestown.org/program/russia-middle-east-energy-forever/.

Mankoff, Jeffrey. *Russian Foreign Policy: The Return of Great Power Politics*. Lanham, MD: Royman & Littlefield Publishers, 2009.

McFaul, Michael. *From Cold War to Hot Peace*. New York: Houghton Mifflin Harcourt, 2018.

Mearsheimer, John. *The Tragedy of Great Power Politics*. Updated Edition. New York: W. W. Norton & Company, Inc, 2014.

Medvedev, Dmitry. “Russia to Continue Developing the Northern Sea Route.” The Arctic. August 31, 2018. http://arctic.ru/infrastructure/20180831/789023.html.

Ministry of Natural Resources and Environment of the Russian Federation. “Partial Revised Submission of the Russian Federation to the Commission on the Limits of the Continental Shelf in Respect of the Continental Shelf of the Russian Federation in the Arctic Ocean: Executive Summary.” Moscow: Ministry of Natural Resources and Environment of the Russian Federation, April 2015. http://www.un.org/depts/los/clcs_new/submissions_files/rus01_rev15/2015_08_03_Exec_Summary_English.pdf.

Mizokami, Kyle. “Russia’s Dilapidated Aircraft Carrier To Get a Downer of an Upgrade.” *Popular Mechanics.* October 12, 2017. https://www.popularmechanics.com/military/navy-ships/news/a28609/russia-admiral-kuznetsov-downgraded/.

———. “These Countries Will Have the Most Powerful Navies on the Planet (in 2030).” *The National Interest* (blog), April 25, 2018. https://nationalinterest.org/blog/the-buzz/these-countries-will-have-the-most-powerful-navies-the-25552.

Morrison, David. “Turkey Restricts U.S. Access to the Black Sea.” Blog. *David Morrison* (blog), October 18, 2008. http://www.david-morrison.org.uk/us/turkey-restricts-us-access.htm.

“NATO Reports Russian Naval Buildup amid Syria Tensions.” *Military Times.* August 29, 2018. https://www.militarytimes.com/flashpoints/2018/08/29/russias-navy-building-up-in-mediterranean-nato-says/.

“Next-Gen Russian Subs ‘Better and Cheaper’ Than Newest U.S. Subs.” Sputnik News. March 20, 2017. https://sputniknews.com/military/201703201051764408-yasen-submarines-virginia-class/.

Office of Naval Intelligence. *The Russian Navy: A Historic Transition*. Washington, DC: Office of Naval Intelligence, December 2015.

Pandit, Rajat. “Navy Successfully Tests Land-Attack BrahMos Supersonic Missile.” *The Times of India.* April 21, 2017. https://timesofindia.indiatimes.com/india/navy-successfully-tests-land-attack-brahmos-supersonic-missile/articleshow/58301144.cms.

Petersen, Michael. “Introduction to the English Translation of the Fundamentals of the State Policy of the Russian Federation in the Field of Naval Operations for the Period until 2030.” Newport, RI: Naval War College, 2017.

Pike, John. *Russia / Soviet Nuclear Forces Guide*. Federation of American Scientists. Accessed November 21, 2018. https://fas.org/nuke/guide/russia/.

Popescu, Nicu, and Stanislav Secrieru, eds. “Russia’s Return to the Middle East.” *Chaillot Paper* 146 (July 2018).

"Pumpjet-Equipped SSK Alrosa Transferred to Russia's Baltic Fleet." Navy Recognition. August 14, 2018. http://www.navyrecognition.com/index.php/news/defence-news/2018/august-2018-navy-naval-defense-news/6420-pumpjet-equipped-ssk-alrosa-transferred-to-russia-s-baltic-fleet.html.

Pushkov, Alexei. "Russia and America: The Honeymoon's Over." *Foreign Policy*, no. 93 (Winter 1993): 76–90.

Putin, Vladimir. *Annual Address to the Federal Assembly of the Russian Federation*. Moscow. April 25, 2005. http://en.kremlin.ru/events/president/transcripts/22931.

———. "Доходы в Бюджет Будут Расти При Снижении Зависимости От Нефти." ИА REGNUM. October 24, 2017. https://regnum.ru/news/2337654.html.

———. *Foreign Policy Concept of the Russian Federation*. Moscow: The Kremlin, December 1, 2016. http://www.mid.ru/en/foreign_policy/official_documents/-/asset_publisher/CptICkB6BZ29/content/id/2542248.

———. *Fundamentals of the State Policy of the Russian Federation in the Field of Naval Operations for the Period Until 2030*. Translated by Anna Davis. Newport, RI: Naval War College, July 20, 2017.

———. *Maritime Doctrine of the Russian Federation*. Translated by Anna Davis. Newport, RI: Naval War College, 2015.

———. *Military Doctrine of the Russian Federation*. Moscow: The Kremlin, December 26, 2014.

———. *Russian National Security Strategy*. Moscow: The Kremlin, December 31, 2015.

———. *О Ратификации Соглашения Между Российской Федерацией и Сирийской Арабской Республикой о Расширении Территории Пункта Материально-Технического Обеспечения Военно-Морского Флгта Российской Федерации в Районе Порта ТТартус и Заходах Военных Кораблей Российской Федерации в Терррнториальное Море, Внутренние Воды и Порты Сирийской Арабской Республики*. Translated by Jonathan Evitts. Moscow: The Kremlin, December 29, 2017.

Pynnöniemi, Katri. "Russia's National Security Strategy: Analysis of Conceptual Evolution." *The Journal of Slavic Military Studies* 31, no. 2 (2018): 240–56. https://doi.org/10.1080/13518046.2018.1451091.

"Russia and the Baltics: Transport Trials Ready to Be Overcome" ITE Transport & Logistics. October 18, 2017. http://www.transport-exhibitions.com/Market-Insights/Russia/Russia-the-Baltics-transport-logistics.

"Russia Announces 25-Ship Mediterranean Sea Drill." Naval Today. August 30, 2018. https://navaltoday.com/2018/08/30/russia-announces-25-ship-mediterranean-sea-drill/.

"Russia Exports Most of Its Crude Oil Production, Mainly to Europe." U.S. Energy Information Administration. November 14, 2017. https://www.eia.gov/todayinenergy/detail.php?id=33732.

"Russia Finds Alternative to Sunken Floating Dock for Naval Ships." TASS. November 7, 2018. http://tass.com/defense/1029654.

"Russia Hits IS in Syria from Caspian." BBC. October 7, 2015. https://www.bbc.com/news/world-middle-east-34465425.

"Russia in Talks with Eritrea to Set Up 'Logistics Center' on Red Sea Coast." Radio Free Europe/ Radio Liberty. September 1, 2018. https://www.rferl.org/a/russia-talks-eritrea-set-up-logistics-center-red-sea-coast-lavrov/29464939.html.

"Russia Starts Serial Production of Marine Gas Turbine Engines." Naval Today. January 16, 2018. https://navaltoday.com/2018/01/16/russia-starts-serial-production-of-marine-gas-turbine-engines/.

"Russia to Cut Military Expenditure in 2018, 2019." Defense Aerospace. March 20, 2018. http://www.defense-aerospace.com/cgi-bin/client/modele.pl?shop=dae&modele=release&prod=191695&cat=3.

"Russia Working on Nuclear-powered Aircraft Carrier." TASS. August 24, 2018. http://tass.com/defense/1018538.

"Russian Navy: List of Active Russian Navy Ships 2019." RussianShips.info. Last updated January 31, 2019. http://russianships.info/eng/today/.

"Russian Navy to get Seven Advanced Nuclear Submarines by 2021." TASS. May 24, 2017. http://tass.com/defense/947326.

RussianShips.info. Last updated January 31, 2019. http://russianships.info/eng/.

"Russia's Accusations—Setting the Record Straight." NATO. July 2014. https://www.nato.int/nato_static/assets/pdf/pdf_2014_07/20140716_140716-Factsheet_Russia_en.pdf.

Selezneva, Irina. "Шойгу Рассказал, Как Россия Нейтрализует Угрозу НАТО в Черном Море." *Федеральное агентство новостей* no.1, July 26, 2017. https://riafan.ru/884743-shoigu-rasskazal-kak-rossiya-neitralizuet-ugrozu-nato-v-chernom-more.

Sergunin, Alexander. *Explaining Russian Foreign Policy Behavior: Theory and Practice*. Stuttgart: ibidem Press, 2016.

"SIPRI Military Expenditure Database." Stockholm International Peace Research Institute, 2018. https://www.sipri.org/databases/milex.

Sokolsky, Richard, and Tanya Charlick-Paley. *NATO and Caspian Security: A Mission Too Far*. Santa Monica, CA: RAND Corporation, 1999.

"SSBN Borei Class Nuclear-Powered Submarines." *Naval Technology* (blog), Accessed November 13, 2018. https://www.naval-technology.com/projects/borei-class/.

"SSK 'Vyborg' Turned into a Museum." *Military Experts* (blog), November 8, 2018. https://soldat.pro/en/2018/11/08/depl-vyborg-prevratitsia-v-myzei/.

"Statistical Review of World Energy." British Petroleum. Accessed November 19, 2018. https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/downloads.html.

Stent, Angela. *The Limits of Partnership: U.S.-Russian Relations in the Twenty-First Century*. Princeton, NJ: Princeton University Press, 2014.

Strassler, Robert, ed. *The Landmark Thucydides*. Translated by Richard Crawley. New York: Touchstone, 1996.

Till, Geoffrey. *Seapower: A Guide for the Twenty-First Century*. 3rd ed. New York: Routledge, 2013.

Trenin, Dmitri. *Should We Fear Russia?*. Cambridge: Polity Press, 2016.

Trevithick, Joseph. "Russia Admits It Doesn't Have Any Dry Docks that can Fit Its Lone Carrier After Accident." *The Drive* (blog), November 7, 2018. http://www.thedrive.com/the-war-zone/24760/russia-admits-it-doesnt-have-any-dry-docks-that-can-fit-its-lone-carrier-after-accident.

Trump, Donald. Directive 4 Under Executive Order 13662, Pub. L. No. EO 13662 (2017).

Tunander, Ola. *Cold Water Politics: The Maritime Strategy and Geopolitics of the Northern Front*. Oslo: International Peace Research Institute, 1989.

U.S. Energy Information Administration. "International Energy Outlook 2018." July 24, 2018. https://www.eia.gov/outlooks/ieo/executive_summary.php.

Vitko, Alexander. “Черноморский Флот: Фактор Расширения Боевых Возможностей в Зоне Ответственности.” ВОЕННЫЙ ПОРТАЛ. July 5, 2017. http://milportal.ru/chernomorskij-flot-faktor-rasshireniya-boevyh-vozmozhnostej-v-zone-otvetstvennosti/.

Weinel, J. P., and Vladimir Alekseyev. *Incidents at Sea Agreement*. Bureau of International Security and Nonproliferation, May 25, 1972. http://www.state.gov/t/isn/4791.htm.

Westerlund, Fredrik. “Russia’s Military Strategy and Force Structure in Kaliningrad.” RUFS Briefing. Stockholm: Swedish Defense Research Agency, May 2017.

“Will Rosneft Boost Russian Naval Construction.” *Russian Defense Policy* (blog), Accessed November 2, 2018. https://russiandefpolicy.blog/category/naval-modernization/.

Woolf, Amy. *Conventional Prompt Global Strike and Long-Range Ballistic Missiles: Background and Issues*. CRS Report No. R41464. Washington, DC: Congressional Research Service, April 6, 2018. https://fas.org/sgp/crs/nuke/R41464.pdf.

Workman, Daniel. “Top 15 Crude Oil Suppliers to China.” World’s Top Exports. April 1, 2018. http://www.worldstopexports.com/top-15-crude-oil-suppliers-to-china/.

THIS PAGE INTENTIONALLY LEFT BLANK

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
   Ft. Belvoir, Virginia

2. Dudley Knox Library
   Naval Postgraduate School
   Monterey, California