

# Russia's Policy on Strengthening the Navy and the Defense Industry\*

Yoshiaki Sakaguchi\*\*

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## Abstract

The Russian government has begun rebuilding the Russian Navy as a part of the military reforms since October 2008. The Russian leadership has set out a clear policy on strengthening the Navy. Furthermore, the “State Weapons Program for 2011-2020,” unveiled at the end of 2010, presents that 23.4% of the total budget will be allocated to the procurement and development of vessels. This program and the budgetary measures for its realization have contributed to the gradual progress in the construction of new naval vessels since 2011. Nevertheless, the problems confronting the Russian defense industry remain unresolved, putting into question the ability of the defense industry to meet the high procurement targets identified in the State Weapons Program.

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## Introduction

A large-scale military reform has been under way in Russia since October 2008, with the focus of reform now shifting to modernization of obsolete armament following the near-completion of organizational and structural reform. The replacement and modernization of armament have been undertaken on the basis of the “State Weapons Program for 2011-2020” (hereinafter referred to as the “current State Weapons Program”), formulated in late 2010. The reform to equip the armed forces with a high degree of mobility and professionalism as well as the latest equipment is gradually beginning to take shape. Under these circumstances, the Navy is emerging out of the battered state that ensued after the collapse of the Soviet Union. The building of new naval vessels that had been stagnant for some time and their introduction into the Navy can be seen again. The Russian leadership's policy clearly calls for the strengthening of the Navy. On May 7, 2012, upon taking office as president of the Russian Federation for the third term, Vladimir Putin issued a presidential decree, dated the same day, regarding the “Realization of the Plans for the Development of the Armed Forces and the Modernization of the Defense Industry.” The presidential decree declared Putin's intention to build up the Navy, focusing on the areas of the Arctic Sea and the Far East, and underscored the importance of the strengthening of the Russian defense industry as the foundation for that.<sup>1</sup> The current State Weapons Program calls for the introduction of a total of about 100 naval vessels of various types by 2020 for the buildup of the Navy, with the aforementioned presidential decree strongly confirming this policy.

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\*\* Director, Policy Studies Department.

<sup>1</sup> Based on the website of the Russian Presidential Executive Office, <http://news.kremlin.ru/acts/15242> (accessed on October 4, 2013).

In recent years, the security concern in Japan has been directed toward the buildup of China's naval power and increased Chinese maritime activities. However, it appears that Japan needs to turn its eyes again to developments of the Russian Navy. For example, some U.S. Navy officials have indicated that the Russian Navy is gradually showing signs of a comeback.<sup>2</sup> The purpose of this paper is to survey whether the policy to build up the Russian Navy will be put into practice. First, this paper looks at Russia's maritime strategy that serves as the backdrop of the policy to build up the Navy and the role of the Navy in Russia's security. Next, it sheds light on the development plan for naval vessels under the current State Weapons Program and its progress. And finally, it examines the current status of the equipment aboard naval vessels, evaluation of vessels to be developed from a military point of view, and the current status and problems of Russia's defense industry, including the shipbuilding sector, which is the base of the procurement of naval vessels.

### **Russia's Maritime Strategy and the Navy**

As premises for putting the future of the Russian Navy in perspective, it is necessary to consider Russia's maritime strategy and what role the Navy is expected to play under the strategy. As principal documents presenting its maritime strategy, Russia formulated the "Basic Policy of the Russian Federation in the Field of Naval Activities for 2010"<sup>3</sup> on March 4, 2000, and the "Maritime Doctrine of the Russian Federation for the Period Up to 2020"<sup>4</sup> on July 27, 2001, respectively. Based on these documents, there are three principal roles expected of the Russian Navy. The first role is to deter aggression or threats of aggression in sea theaters against Russia and its allies, and repel aggression if it actually occurs. The second is to defend Russia's maritime borders. The third is to protect its territorial waters, exclusive economic zone, continental shelf as well as Russia's economic activities and its interests in the World Ocean.

Furthermore, in December 2010, Russia formulated the "Strategy of Development of Maritime Activities of the Russian Federation for the Period Up to 2030"<sup>5</sup> (hereinafter referred to as the "Maritime Activities Development Strategy"). The Maritime Activities Development Strategy, in keeping with the content of the aforementioned two documents, mentions military challenges for the development of maritime activities and the future vision of the Russian Navy. Among the military challenges cited are the realization of Russia's sovereignty and sovereign rights in the World Ocean, securing the safety of economic and other activities on the ocean, and safeguarding Russia's military security at sea. The document presents the recognition of the current situation that the level of Russia's military strength is still insufficient to solve these challenges. The future vision of the Navy, meanwhile, presents the schemes to drive forward the reform and buildup of

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<sup>2</sup> Captain Thomas R. Fedyszyn (U.S. Navy [Retired]), "Renaissance of the Russian Navy?" *PROCEEDINGS*, March 2012, pp. 30-35; Lieutenant Commander Tom Spahn (U.S. Navy Reserve), "The Russian Submarine Fleet Reborn," *PROCEEDINGS*, June 2013, pp. 36-41.

<sup>3</sup> For a summary of this document, see the following: Mikhail Barabanov, *Sovremennoe Sostoyanie i Perspektivy Razvitiya Rossiiskogo Flota* [The Current Situation and the Perspectives of Development of the Russian Fleet], Tsentr Oboronnoy Informatsii, 2006, pp. 6-7.

<sup>4</sup> Based on the website of the Security Council of the Russian Federation: <http://www.scrf.gov.ru/documents/34.html> (accessed on June 18, 2010).

<sup>5</sup> For the full text of this document, see the following statute book: *Sobranie Zakonodatelstva Rossiiskoi Federatsii* [Statute Book of Laws and Ordinances of the Russian Federation], No. 51, St. 6954, December 2010, pp. 15919-15939.

naval power over the long term, strengthen the operational capability and presence of the Navy in all waters where Russia undertakes maritime activities, and ultimately strengthen the integrated operational capabilities by promoting mutual cooperation with other military branches and forces and form a strike force led by aircraft carriers belonging to the Northern Fleet and the Pacific Fleet.

Of interest is the question of what prompted President Putin to make particular mention of the Arctic region and the Far East in relation to the Navy buildup in the presidential decree cited above. As for the Arctic region, the "Fundamentals of the State Policy of the Russian Federation in the Arctic for the Period up to 2020," the basic document of the Arctic policy released in September 2008, positioned the Arctic as Russia's most important strategic resource base and pointed to the possibility of the heightened tension over resources in the region developing into a military conflict. The "National Security Strategy of the Russian Federation through to 2020," released in May 2009, also noted that amid the intensification of tensions over resources, a military conflict may occur in resources-rich regions, including the Arctic region.<sup>6</sup> We can say that it has been implicitly indicated that it is important for the Russian Armed Forces, including the Navy, to prepare for such a conflict. China's buildup of naval power and increased maritime activities appear to be one of the key factors for the Russian leadership's emphasis on the buildup of the Russian Navy in the Far East.<sup>7</sup>

Deterrents against aggression or threats of aggression in sea theaters include not only conventional forces but also strategic nuclear deterrent, and maritime nuclear forces are recognized as an important element comprising Russia's strategic nuclear forces. The current Military Doctrine of the Russian Federation, formulated in February 2010, also sets forth the policy of emphasis on nuclear forces in national defense.<sup>8</sup> The current State Weapons Program places a high priority on the buildup and modernization of strategic nuclear forces, including nuclear-powered ballistic missile submarines (SSBN).<sup>9</sup>

### **The Development Plan for Vessels under the Current State Weapons Program and its Progress**

The current State Weapons Program calls for a plan to introduce a variety of some 100 naval vessels into the Navy by 2020, and the breakdown of its key procurement projects is shown in Table 1.

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<sup>6</sup> The National Institute for Defense Studies, ed., *East Asian Strategic Review 2011*, March 2011, p. 64.

<sup>7</sup> For this view, see Yoshiaki Sakaguchi, "Russia's Military Reform and Changes in the Russian Military in the Russian Far East," Shinji Hyodo and Carolina Vendil Pallin, eds., *Neighbourhood Watch: Japanese and Swedish perspectives on Russian security*, The Swedish Defence Research Agency (FOI), October 2012, pp. 45-55.

<sup>8</sup> The text of the current Military Doctrine was obtained from the website of the Security Council of the Russian Federation, <http://www.scrf.gov.ru/documents/18/33.html> (accessed on June 18, 2010).

<sup>9</sup> *Krasnaya zvezda*, February 25, 2011, [http://www.redstar.ru/2011/02/25\\_02/1\\_01.html](http://www.redstar.ru/2011/02/25_02/1_01.html) (accessed on October 18, 2013).

**Table I Overview of Naval Vessel Development Plan (Types and Numbers of Vessels)**

<b>Submarines</b>	
Borei-class SSBNs (Project 955/955A)	8
Yasen-class multipurpose nuclear submarines (Project 885/885M)	6-10
Lada-class submarines (Project 677)	5
Upgraded Kilo-class submarines (Project 636.6)	10
<b>Surface Vessels</b>	
Missile cruiser (Project 1164)	1
Frigates (Projects 22350, 11356M and 11661K, and also include frigates under development)	15
Corvettes (Projects 20380 and 20385, and also include corvettes under development)	35
Mistral-class amphibious assault ships (purchase from France and licensed production)*	4
<b>Revamping and Retrofitting of Existing Vessels</b>	
Delta IV-class strategic nuclear submarine (Project 667BDRM)	1
Nuclear submarines (Project 949A)	2
Aircraft carrier Admiral Kuznetsov (Project 11435)	1
Nuclear-powered missile cruisers (Project 11442)	2

\* Project to construct and introduce Mistral-class amphibious assault ships, a joint project with France, has been put off by reason of the confrontation between EU and Russia over the Ukraine crisis.

(Sources) Igor Korotchenko, ed., *Vooruzhonnye Sily Rossiiskoi Federatsii: Modernizatsiya i Perspektivy Razvitiya* [Armed Forces of the Russian Federation: Modernization and the Perspectives of development], Natsionalnaya Oborona, 2012, pp. 259-264; Fredrik Westerlund, "The Defence Industry," Carolina Vendil Pallin, ed., *Russian Military Capability in a Ten-Year Perspective – 2011*, FOI-R--3474--SE, Swedish Defence Research Agency (FOI), 2012, pp. 69-70; [http://function.mil.ru/news\\_page/person/more.htm?id=11807877@egNews&\\_print=true](http://function.mil.ru/news_page/person/more.htm?id=11807877@egNews&_print=true) (accessed on October 25, 2013).

Of these projects, the project being put into practice with top priority is the development of SSBNs and submarine-launched ballistic missiles (SLBMs), maritime nuclear forces that comprise Russia's strategic nuclear forces. Construction of eight Borei-class SSBNs (Project 955/955A) to be procured is making steady progress. The first Borei-class SSBN Yuri Dolgoruky was commissioned with the Northern Fleet in January 2013, and the second vessel Alexander Nevsky was commissioned with the Pacific Fleet in 2014. The third vessel currently on trial voyage, Vladimir Monomakh, is to be commissioned by the end of 2014.<sup>10</sup> In addition, construction of the fourth vessel, Grand duke Vladimir (the upgraded 955A type began with the fourth SSBN), commenced in July 2012, while construction of the fifth and sixth Borei-class SSBNs have started in 2013.<sup>11</sup>

Delta IV-class SSBNs (Project 667BDRM), which were put into service between 1985 and 1991, are still positioned as the important pillars of Russia's maritime nuclear forces until the deployment of Borei-class SSBNs makes progress. The revamping and retrofitting of Delta IV-class SSBNs are also under way. The Russian Navy has six commissioned Delta IV-class SSBNs. The revamping of five of them, Verkhoturys, Ekaterinburg, Tula, Bryansk and Kareliya, had been finished even before the current State Weapons Program was formulated. The revamping of the

<sup>10</sup> *Voennyi parad*, No. 1, 2013, pp. 5-7; *Rossiiskaya Gazeta*, November 8, 2013 <http://www.rg.ru/printable/2013/11/08/nevskiy-anons.html> (accessed on December 9, 2013); *RIA Novosti*, July 27, 2014, [http://ria.ru/defense\\_safety/20140727/1017672292.html](http://ria.ru/defense_safety/20140727/1017672292.html) (accessed on August 8, 2014).

<sup>11</sup> *Voennyi parad*, No. 1, 2013, pp. 5-7.

sixth vessel, Novomoskovsk, listed in the current State Weapons Program, was completed in January 2012. Through the revamping, ballistic missiles carried by these Delta IV-class SSBNs are being retrofitted from R29RM to the upgraded R29RMU Sineva.<sup>12</sup>

Next, an important conventional submarine project is the construction of Yasen-class multipurpose nuclear-powered submarines (Project 885/885M). Up to 10 of these vessels are expected to be procured. The first Yasen-class nuclear submarine, Severodvinsk, was commissioned in 2013, while the second vessel, Kazan, is scheduled to be put into service in or after 2015, and construction of the third submarine started in July 2013.<sup>13</sup> Regarding conventional submarines, the procurement of Lada-class vessels (Project 677) and upgraded Kilo-class submarines (Project 636.6) is under way.<sup>14</sup> With respect to Lada-class submarines, the first vessel, Sankt Peterburg, is scheduled to be commissioned by the end of 2014, and the construction of up to the third vessel is in progress, for completion by 2016. As for upgraded Kilo-class submarines, the first vessel, Novorossiysk took water in 2013. Currently, the construction of up to the third vessel is under way, while construction of the fourth vessel started in 2013.

The building of surface vessels has also begun to make progress in tandem with the formulation of the current State Weapons Program.<sup>15</sup> For main frigates, the plan is to procure six vessels of the Project 22350 and Project 11356M types, respectively. Concerning Project 22350 frigates to be deployed to the Northern Fleet and the Pacific Fleet, the first vessel started trial voyage in 2013, the second and third vessels are currently under construction, and the construction of the fourth vessel commenced in 2013. As for Project 11356M frigates to be deployed to the Black Sea Fleet, the first vessel began trial voyage in 2013 and is set to be put into service in 2014, and the following three frigates up to the fourth vessel are currently under construction.

For main corvettes, 12 Project 20380 vessels and 16 Project 20385 vessels are to be procured. Corvettes are being built at two shipyards: The Severnaya Verf Shipyard in St. Petersburg; and the Amurskii Shipyard in Komsomolsk-on-Amur in the Russian Far East. The Severnaya Verf Shipyard finished construction of four Project 20380 corvettes, with the fourth corvette commissioned in 2013. Two Project 20385 vessels are now under construction at the shipyard. At the Amurskii Shipyard, meanwhile, two Project 20380 corvettes are under construction.

The project to construct and introduce Mistral-class amphibious assault ships, a joint project with France, has been influenced by the confrontation between the European Union (EU) and Russia over Ukraine problems since autumn 2013. Russia planned to introduce the first vessel and to deploy it to the Pacific Fleet in October 2014. But in October, France decided to postpone the delivery of the first vessel on the grounds that it was not appropriate to transfer this vessel under the existing circumstances.

In light of the construction or revamping and retrofitting of these submarines and surface vessels, the activities of Russia's shipbuilding industry appears to be reviving from 2011 onward

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<sup>12</sup> Barabanov, *Sovremennoe Sostoyanie i Perspektivy Razvitiya Rossiiskogo Flota*, pp. 14-15; Korotchenko, ed., *Vooruzhonne Sily Rossiiskoi Federatsii*, p. 263.

<sup>13</sup> Korotchenko, ed., *Ibid.*, pp. 263-264; *Voennyi parad*, No. 3, 2013, p. 6; Dmitry Boltenkov, "Russian Naval Shipbuilding in 2012," *Moscow Defense Brief*, No. 3, 2013, p. 12.

<sup>14</sup> Boltenkov, "Russian Naval Shipbuilding in 2012," pp. 12-13.

<sup>15</sup> *Ibid.*, pp. 13-14; and information obtained from the website of the Defense Ministry, [http://function.mil.ru/news\\_page/person/more.htm?id=11807877@egNews&\\_print=true](http://function.mil.ru/news_page/person/more.htm?id=11807877@egNews&_print=true) (accessed on October 25, 2013).

following the formulation of the current State Weapons Program and budget plans for its realization. A better understanding of this is provided by comparing with the equipment development situation under the “State Weapons Program for 2006-2015” (hereinafter referred to as the “previous State Weapons Program”), the State Weapons Program preceding the current State Weapons Program. The previous State Weapons Program was hardly executed as planned and was replaced by the current State Weapons Program in the course of quinquennial reviews. The examination of the execution of the previous State Weapons Program for the Navy equipment gives the following picture. While the commissioning of seven Project 955 Borei-class SSBNs was planned, not a single vessel was actually put into service. The launching of one vessel was in preparation, but the production of the ballistic missile Bulava to be placed on the vessels was behind schedule. Next, under the previous State Weapons Program, six multipurpose submarines were to be supplied, but none of them was actually provided. Furthermore, the previous State Weapons Program called for the supply of a total of 24 surface vessels, but the plan’s achievement rate was less than 10%. According to the remarks of a senior Defense Ministry official in charge of equipment, the poor achievement of the weapons program reflected the systematic problems of inefficiency of major defense contractors.<sup>16</sup>

The poor implementation status of the previous State Weapons Program may have turned for the better since 2011. Some analysts have noted that as of May 2013, a combined total of 48 submarines and surface vessels were under construction.<sup>17</sup> President Putin, who visited the Sevmash Shipyard where Borei-class SSBNs and Yasen-class nuclear-powered submarines are under construction in July 2012, explained equipment procurement plans for the Navy under the current State Weapons Program. Putin stated that 4,440 billion rubles, or 23.4% of 19 trillion rubles earmarked for all of the equipment procurement plans under the current State Weapons Program by 2020, will be spent on the buildup of the Russian Navy. Putin thus presented the prospect that the ratio of newly built vessels to the Navy’s entire fleet will be improved to 30% by 2016 and further to 70% by 2020.<sup>18</sup> The Ministry of Finance, which considers the planned expenditures under the current State Weapons Program as excessive, is calling for budget cutbacks. Nonetheless, Deputy Defense Minister Yury Borisov in charge of state defense orders, at a meeting with top executives of the Russian defense industry in April 2013, assured that there would be no budget reductions for the current State Weapons Program.<sup>19</sup>

There is no doubt that the Russian leadership’s efforts to secure sufficient funding for the current State Weapons Program are having a positive impact on equipment procurement of the Navy. Take the example of the construction of Borei-class SSBNs, the project to which Russia gives top priority in terms of the development of maritime strategic nuclear forces. In the case of the first Borei-class SSBN Yury Dolgoruky, it took as long as 12 years from its start of construction to delivery. The fact that sufficient defense budgets were not secured under the administration of President Boris Yeltsin from 1996, when construction of the vessel started, to 1999 is deemed to have delayed the construction work. By contrast, the period between the start of construction and delivery was shortened to six years for the second Borei-class vessel, Alexander Nevsky, for which

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<sup>16</sup> *Nezavisimoe voennoe obozrenie*, March 11-17, 2011.

<sup>17</sup> Boltenev, “Russian Naval Shipbuilding in 2012,” p. 15.

<sup>18</sup> *Krasnaya zvezda*, August 1, 2012; <http://news.kremlin.ru/transcripts/16086/print> (accessed on August 3, 2012).

<sup>19</sup> *Voennyi parad*, No. 3, 2013, pp. 4-6.

construction started in 2004. The period was further shortened to five years for the third vessel, Vladimir Monomakh, for which construction began in 2006.<sup>20</sup>

**Table II Defense Spending and State Defense Orders in 2010-2013**

	(In billion rubles)			
	2010	2011	2012	2013
Defense spending	1277	1521	1661	2102
State defense orders (Ratio to defense spending)	487 (38.1%)	574 (37.7%)	726 (43.7%)	1165 (55.4%)
Equipment purchases and modernization cost (Ratio to state defense orders)	380 (78.0%)	460 (80.0%)	596 (82.1%)	980 (84.1%)
New equipment purchases (Ratio to state defense orders)	316.5 (65.0%)	374 (65.0%)	487 (67.0%)	816 (70.0%)
Equipment modernization cost (Ratio to state defense orders)	63.5 (13.0%)	86 (15.0%)	109 (15.0%)	164 (14.1%)
Research & development expenses (Ratio to state defense orders)	107 (22.0%)	114 (20.0%)	130 (18.0%)	185 (15.9%)

(Sources) Igor Korotchenko, ed., *Vooruzhonnye Sily Rossiiskoi Federatsii: Modernizatsiya i Perspektivy Razvitiya* [Armed Forces of the Russian Federation: Modernization and the Perspectives of development], Natsionalnaya Oborona, 2012, p. 279.

As shown in Table 2, budgets for state defense orders for the first three years (2011-2013) of the current State Weapons Program were steadily expanded, with the ratio to total defense spending also rising. In particular, the ratio of state defense orders to total defense spending in 2013 stood at 55.4%, indicating that the cost of the development and modernization of the armed forces exceeded its cost of maintenance for the first time ever. Furthermore, the breakdown of state defense orders also shows the steadily rising ratios of new equipment purchases.<sup>21</sup> It can be pointed out that these trends in state defense orders are having positive impacts on the construction and procurement of equipment for the Navy as well.

As a result of the formulation of the current State Weapons Program and budgetary measures for it, the construction of new naval vessels started to move forward gradually and the buildup of the Navy embraced by the Russian leadership is being put in practice. However, several factors have to be taken into account in order to ascertain whether this trend will be sustained going forward, leading to the buildup of the Russian Navy. Firstly, while the construction of naval vessels is beginning to proceed, there remain problems in terms of production of missiles to be loaded on the vessels. In particular, problems have been identified with regard to the production of the SLBM Bulava (R30). Secondly, some questions have been raised as to whether naval vessels now being developed really meet the requirements of the Navy and are conducive to the enhancement of the Navy's capabilities. In particular, some experts are voicing doubts about Mistral-class amphibious assault ships being introduced from France. Thirdly, various problems with Russia's defense industry remain unresolved, leaving open the question of whether the defense industry

<sup>20</sup> Based on data from Barabanov, *Sovremennoe Sostoyanie i Perspektivy Razvitiya Rossiiskogo Flota*, pp. 17-19 and Appendix No. 4.

<sup>21</sup> Korotchenko, ed., *Vooruzhonnye Sily Rossiiskoi Federatsii: Modernizatsiya i Perspektivy Razvitiya*, pp. 274-279.

can adequately respond to the high procurement goals presented by the current State Weapons Program. This is the reason why President Putin has emphasized that the strengthening of the defense industry is indispensable for the buildup of the Russian Navy. These problems are discussed below.

### **Problems to be Considered from the Standpoint of the Buildup of the Russian Navy**

#### *Problems with production of missiles to be mounted onto naval vessels*

With regard to Borei-class SSBNs (Project 955/955A)—one of the top priority projects under the current State Weapons Program, problems with the SLBN Bulava to be mounted onto these vessels still remain unresolved although the construction of SSBNs is under way.<sup>22</sup> On September 6, 2013, the test-firing of the Bulava from the second Borei-class SSBN Alexander Nevsky failed. This was the eighth failure out of a total of 20 test-firings of the Bulava. Following the latest failure, Defense Minister Sergei Shoigu took steps to suspend the navigation of the Alexander Nevsky and the third vessel, Vladimir Monomakh, currently on trial voyage. The suspension gave rise to speculation in some quarters that the commissioning of both vessels may fall behind schedule.

Under the current State Weapons Program, a total of 128 to 148 SLBM Bulava missiles (16 missiles for each Borei-class SSBN Project 955 vessel are to be deployed, along with 20 missiles for each Borei-class upgraded Project 955A vessels) are to be procured by 2020. Some experts predict, however, that it is fairly difficult to achieve the target.<sup>23</sup> Some observers point out that the Bulava test-firings that fail repeatedly with high probability reflect serious problems confronting Russia's defense industry.<sup>24</sup> At the initial stage of the development of the Project 955, the ballistic missile R39UTTXB Bark was to be mounted on Borei-class SSBNs. But production work for the missile was suspended following three test-firing failures in 1998. The Moscow Institute of Thermal Technology (MIT) in charge of missile development and production started the development of the Bulava in lieu of the Bark, but fundamental problems with the company caused delays in the development work. MIT produces the land-based intercontinental ballistic missile (ICBM) Topol-M, but lacks experience in the development and production of SLBMs. Consequently, its initial attempt to push ahead with both the Bulava and Topol-M projects integrally resulted in confusion. Furthermore, due to a lack of funding from the outset of the Bulava project, the first test-firing, initially scheduled to take place in 2003, was delayed until September 2005. These developments show that the development and production processes of the Bulava have involved many twists and turns.<sup>25</sup>

Other than the problematic Bulava, the current State Weapons Program requires production of a considerable quantity of missiles as equipment to be mounted onto naval vessels. More specifically, plans call for the production and procurement of 40 Sineva SLBMs, the vessel-borne missile system Kalibr for Yasen-class nuclear-powered submarines, Project 22350 frigates and Project 20380 corvettes (including the antiship cruise missile 3M54 and the long-range cruise

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<sup>22</sup> Roger McDermott, "Bulava: Russia's Most Spectacular Defense Industry Failure," *The Jamestown Foundation Eurasia Daily Monitor*, Vol. 10, Issue 188, October 22, 2013.

<sup>23</sup> Susanne Oxenstierna and Fredrik Westerlund, "Arms Procurement and the Russian Defense Industry: Challenges Up to 2020," *The Journal of Slavic Military Studies*, Vol. 26, January-March 2013, No. 1, p. 20.

<sup>24</sup> McDermott, "Bulava: Russia's Most Spectacular Defense Industry Failure."

<sup>25</sup> Barabanov, *Sovremennoe Sostoyanie i Perspektivy Razvitiya Rossiiskogo Flota*, pp. 16-18.

missile 3M14; the production targets are unknown) and others. Russian defense contractors are asked to produce various types of missiles at a fairly fast pace in order to achieve the targets under the current State Weapons Program.<sup>26</sup>

*Evaluation of naval vessels to be developed from a military perspective*

As discussed earlier, the construction of naval vessels is beginning to move ahead in accordance with the current State Weapons Program. At the same time, however, some questions are being raised as to whether the construction will lead to a qualitative improvement, i.e., the actual enhancement of the capabilities of the Russian Navy. These questions are particularly pronounced regarding the introduction of Mistral-class amphibious assault ships.

Currently, Russia is following the policy of efficiently acquiring military technologies on which the country is lagging behind through technological transfers from foreign countries instead of independent development. One of the important projects for Russia under this approach is the introduction of Mistral-class amphibious assault ships from France<sup>27</sup> In relation to this project, in November 2010, Russia's United Shipbuilding Corporation and France's Direction des Constructions Navales Services (DCNS) agreed to establish a consortium in the area of the construction of naval vessels as well as commercial ships<sup>28</sup>, representing some moves to catch up in Russia's shipbuilding sector, particularly in the field of surface vessel construction. For example, then-Deputy Prime Minister in charge of the defense industry, Sergei Ivanov (currently the Chief of Staff of the Presidential Administration), one of the project's promoters, stated that the introduction of Mistral-class amphibious assault ships from France is a measure to improve Russia's significant lag behind Western industrial nations in the field of surface vessel construction.<sup>29</sup> More specifically, Deputy Prime Minister Ivanov, in explaining the necessity of the project, pointed to the harsh reality that Russia's defense industry can cover only about 35% of the necessary parts on its own.

While some positive comments are observed from the standpoint of strengthening Russia's shipbuilding sector, some analysts also say that it is hard to positively evaluate the introduction of French Mistral-class amphibious assault ships from a military perspective.<sup>30</sup> These negative accounts can be summarized in the following six points. First, some call into question the places where the Mistral-class amphibious assault ships are to be deployed. Defense Ministry officials have said the Mistral-class amphibious assault ships are being introduced to reinforce the military units in the Northern Territories (in Russia, they are called the South Kuril Islands). Nonetheless, this may be empty talk, the reason being that the Pacific Fleet lacks weapons to defend the Mistral-class amphibious assault ships if they are attacked while landing troops on the Northern Territories.

Second, the capabilities and functions of the Mistral-class amphibious assault ships do not correspond to the national security needs of Russia. A Mistral-class amphibious assault ship is

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<sup>26</sup> Oxenstierna and Westerlund, "Arms Procurement and the Russian Defense Industry," p. 20; Korotchenko, ed., *Vooruzhonnnye Sily Rossiiskoi Federatsii: Modernizatsiya i Perspektivy Razvitiya*, p. 262.

<sup>27</sup> "European Parliament Criticizes France for Selling Mistral Ship to Russia," *Itar-tass*, September 9, 2010.

<sup>28</sup> *Ibid.*

<sup>29</sup> Aleksandr Chuikov, *Reformy Rossiiskoi Armii: ot Petra do Serdiukova* [Reform of the Russian Military: From Peter to Serdiukov], Eksmo, 2012, pp. 253-254.

<sup>30</sup> These negative views are summarized well in Chuikov, *Reformy Rossiiskoi Armii*, pp. 259-265.

capable of landing some 500 troops on a far-off location at sea and carries up to 16 helicopters for that purpose. However, does the Russian military have any locations where such operations are assumed? Striking power and antiship combat capabilities are needed to cope with tasks, such as the defense of the country against attacks from the sea, securing of stable maritime strategic nuclear forces, defense of the navigation of vessels in times of peace, and protection of Russian national interests in times of peace. The Russia military already has domestically-produced landing ships to land tactical marine troops on nearby locations at sea.

The third point has to do with what can be seen as a weakness of Mistral-class amphibious assault ships, or the fact that their self-defense capabilities are extremely limited. Consequently, Mistral-class amphibious assault ships find it difficult to execute operations without support from the fleet's other forces.

The fourth point concerns the nature of landing operations. For the landing of marine forces, it is essential to secure air and naval supremacy around landing areas. None of the Russian Navy's fleets currently have these capabilities around far-off isolated locations. In other words, the Russian Navy is lacking the crucial numbers of naval vessels or carrier-borne air units needed to execute operations in far-off places. Therefore, there exist constraints that Mistral-class amphibious assault ships can be used only when protection is provided by other countries and when the fleets of other countries can secure air and naval supremacy around the operation areas.

Fifth, another problem that can be pointed out is that foreign-made weapons may not be compatible with Russia's command system. It is deemed very complicated to adapt Mistral-class amphibious assault ships to Russia's command system.

Sixth, Russian military experts believe that Mistral-class amphibious assault ships have been constructed on the basis of Western concepts of the operation of marine forces and the execution of landing operations. These concepts assume the forward deployment to the most important areas in the ocean and mostly the landing of troops and equipment in coastal areas where enemy troops have already been swept out. In this case, deep-draft Mistral-class amphibious assault ships themselves have to remain at locations far away from coastal areas. Mistral-class amphibious assault ships cannot land troops and equipment on their own, and can only move troops and equipment ashore with the support of two to four landing ships. Depending on the scale of operations, they require the support of three to four landing ships, and may still require the support of other landing vessels in order to move equipment of front-line strike forces to secure front-line bases for the transfer of more troops and equipment.

Aside from these interesting negative views from a military perspective, it has also been pointed out that Russia already has the project in place to build necessary landing vessels. More specifically, the Project 775/775M and Project 11711 for large-size landing vessels have already been launched at the Yantar Shipyard in Kaliningrad. As these vessels are capable of transporting and landing battalion-size marine forces and their equipment, the question is being raised as to whether Russia needs large-size landing ships other than these vessels already under development. Furthermore, since Russia does not have overseas bases or overseas military bases where it needs to transfer troops or equipment on a large scale, some observers question whether Russia really needs projects other than domestically-produced landing vessels.<sup>31</sup>

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<sup>31</sup> *Nezavisimoe voennoe obozrenie*, November 20-26, 2009.

In addition, there is an interesting indication that there are some senior officials in Russia's defense industry who have a negative view of the introduction of Mistral-class amphibious assault ships. Those officials are said to include Sergei Chemezov, general director of Rostech, a state corporation that produces a variety of weapons and other related high-technology products. They are negative toward the French vessels because they believe that massive funds needed for the introduction of Mistral-class amphibious assault ships should be better invested in the development and buildup of Russia's domestic shipbuilding sector.<sup>32</sup>

*Problems with the defense industry and challenges to strengthening the industry*

President Putin has set forth the modernization and strengthening of Russia's defense industry, the very foundation of the modernization of defense capabilities, as one of the key challenges in terms of national defense. The Russian leadership believes that the Russian defense industry lacks the ability to sufficiently produce the latest equipment necessary for the modernization of the Russian armed forces. In particular, the production capacity of high-tech equipment where Russia is said to be grossly lagging is about 20 years behind countries with advanced military forces, according to some experts. The next section summarizes problems and challenges for the Russian defense industry as a whole, and then discusses problems and challenges for the shipbuilding sector.

*(1) The old mold of the defense industry and reasons why reform is not progressing*

President Putin has taken a harsh view of the Russian defense industry. Putin describes that over the past three decades the industry fell behind considerably in research and development as well as production, and is simply producing old-fashioned equipment in a routine manner. Regarding tasks that the defense industry should address, Putin cited (1) an increase in the supply of advanced next-generation equipment; (2) development of scientific and technological capabilities with an eye to the future; (3) development of and proficiency in technologies necessary to produce competitive equipment; and (4) upgrading of the technological bases of industries specializing in production of advanced equipment.<sup>33</sup> In order to deal with these tasks, 4 trillion rubles, out of a total budget of defense spending of some 23 trillion rubles planned under the current State Weapons Program, has been earmarked for the modernization of the defense industry.

However, it may not be easy to achieve these tasks. Despite economic reforms carried out during the 1990s and the 2000s, the bulk of the defense industry remains under state control, unable to shake off the heavily dubious legacy of the Soviet era. The military buildup of the Soviet Union had peaked out in the mid-1980s, and slumped to the lowest level from 1996 to 1998. The ratio of defense spending to gross domestic product (GDP) had fallen from 15-17% to just 3%. During this period, production output of the defense industry plunged by about 80%, and employment in the defense industry as a whole plummeted by about two-thirds. The performance decline of workers in the defense industry presented a serious problem, and the ratio of workers who are age 30 or under to total employment declined to around 20%, making the serious shortage of experienced engineers a major problem. The average age of employees also

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<sup>32</sup> Chuikov, *Reformy Rossiiskoi Armii*, pp. 254-255.

<sup>33</sup> Based on the website of the Russian government, <http://premier.gov.ru/events/news/18185> (accessed on March 10, 2012).

rose to over 50.<sup>34</sup>

Why has the reform of the Russian defense industry failed to move ahead? It can be argued that the ratio of state-owned companies still remains high in the defense industry. Also, these companies hardly have any incentives to push ahead with reforms that conform to the market economy, due to the special circumstances facing these companies in which the government is their principal client. Indeed, these companies remain inefficient and still do not conform to the market economy. Decrepit production equipment is another serious problem. Most defense companies have failed to update their technological bases since the first half of the 1980s. There are press reports that 74% of the defense industry's existing equipment was decrepit as of the end of 2009.<sup>35</sup>

Rostechology General Director Chemezov stated in May 2012 that although there are over 600 firms and some 940,000 people work in the Rostechology group, the group's production output accounts for merely around one-fourth of the entire defense industry's production output.<sup>36</sup> In order to consider the issue of overcoming this low production efficiency, President Putin in August 2012 convened a meeting of the Security Council.<sup>37</sup> The meeting considered various measures that should be taken for the innovative development of the defense industry, including the establishment of public-private partnership for equipment production. In the aforementioned presidential decree that made mention of the policy to strengthen the Russian Navy, President Putin already pointed out that in order to produce high-quality equipment, it is necessary to build a system of economic activities for the defense industry that would make it possible to utilize advanced technologies of foreign countries by promoting technology cooperation with advanced global corporations.

Behind this acknowledgment appears to be the Russian leadership's intent to stimulate research and development activities of the Russian defense industry by providing it with access to advanced foreign technologies and boost the defense industry's capabilities over the long term. The reason for the intention to introduce Mistral-class amphibious assault ships is that it offers access to France's latest shipbuilding technology which Russia's shipbuilding sector lacks. The Russian leadership believes that such access is essential for the development of the Russian shipbuilding sector going forward.<sup>38</sup> Needless to say, as was discussed earlier, some caution against the promotion of such international cooperation. It can be assumed that the introduction of Mistral-class amphibious assault ships is positioned as a short-term or medium-term initiative to bridge the technological gap in the field in which Russia lags behind relative to Western countries in the eyes of the Russian leadership. This is because the current Military Doctrine, in relation to such international cooperation, notes that securing Russia's independence in terms of technology for the production of a broad range of equipment is also an important challenge.<sup>39</sup>

It can also be noted that the poor production efficiency of the defense industry can be traced

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<sup>34</sup> Oxenstierna and Westerlund, "Arms Procurement and the Russian Defense Industry," pp. 15-16.

<sup>35</sup> *Nezavisimoe voennoe obozrenie*, December 18-24, 2009.

<sup>36</sup> *Rossiiskaya Gazeta*, May 18, 2012, <http://www.rg.ru/printable/2012/05/18/putin-site.html> (accessed on May 20, 2012).

<sup>37</sup> Based on the website of the Security Council of the Russian Federation, <http://www.scrf.gov.ru/news/735.html> (accessed on September 10, 2012).

<sup>38</sup> Oxenstierna and Westerlund, "Arms Procurement and the Russian Defense Industry," p. 19.

<sup>39</sup> Guy Anderson, "Briefing: Russia's Military Doctrine and the Challenges for the Defence Industry," *Jane's Defence Industry*, February 12, 2010.

to the management culture that has long taken root among defense contractors. One of the cases where this problem has come to the fore is the confrontation between the government and defense companies over prices of products supplied by defense contractors. In July 2011, then-President Dmitry Medvedev stated that if the Russian military is discontent with equipment provided by Russian defense contractors, Russia may increase purchases of weapons from other countries. He made these remarks against the backdrop of the dissatisfaction that while equipment produced by Russia's defense industry is not necessarily of high quality, their prices are high and ways to determine those prices lack transparency.<sup>40</sup> According to the Defense Ministry, of the 2011 state defense orders amounting to 581.5 billion rubles, contracts for orders worth 108.0 billion rubles, or about 18.5% of the total, had not been concluded as of July 2011. This was because of sudden price hikes for products imposed by major defense contractors. Such major defense contractors include MIT, which produces the Topol-M and Bulava missiles mentioned earlier. MIT was severely criticized for lifting the price of the Topol-M missile by several billion rubles abruptly.<sup>41</sup> The fulfillment of the current State Weapons Program requires the achievement of the capability enhancement of the defense industry as well as reform of its management culture. The aforementioned case has indicated that unless reform of the defense industry moves ahead, there may be negative impacts on the fulfillment of the current State Weapons Program.

## *(2) Poor research and development capabilities*

The Russian leadership shares the recognition that the enhancement of research and development capabilities will lead to the defense industry's enhanced capabilities in the long run. Despite this awareness, however, one of problems with the current State Weapons Program is the low ratio of research and development expenses, which account for only around 10% of the spending of the entire program. Looking at the budgets of the current State Weapons Program for the first three years of 2011-2013, as shown in Table 2 earlier, while the ratio of research and development expenses stood at 20.0% in 2011, the ratio declined to 15.9% in 2013. By contrast, the ratio of equipment purchases and modernization costs increased from 80.0% in 2011 to 84.1% in 2013. Some argue that the trends of these ratios of the State Weapons Program budgets are indicative of the Defense Ministry's intent to prioritize the upgrading of existing weapons even at the expense of the development of new weapons systems.<sup>42</sup> In order to achieve the weapons procurement targets of the current State Weapons Program, the Russian defense industry needs to considerably increase its production output. It is evident that defense contractors must undertake fairly large-scale technological innovations and equipment replacements to that end. At present, however, the specific amounts of budgets to be spent on the reform of these companies remain unclear. Furthermore, there are serious problems related to human resources, such as the shortage of highly capable employees in the defense industry, high labor costs to retain such capable employees, and competition arising between the space and nuclear industries over the acquisition of highly

<sup>40</sup> Reuben F. Johnson, "Medvedev tells MoD to Refuse to Buy 'Junk,'" *Janes Defense Weekly*, July 20, 2011, p. 14.

<sup>41</sup> Johnson, "Medvedev tells MoD to Refuse to Buy 'Junk'"; *Rossiiskaya Gazeta*, July 8, 2011, <http://www.rg.ru/printable/2011/07/08/serdukov.html> (accessed on July 25, 2011).

<sup>42</sup> Mikhail Barabanov, Konstantin Makienko, Ruslan Pukhov, *Voennaya reforma: na puti k novomu obliku Rossiiskoi armii* [Military Reform: On the Way for the New Look of the Russian Armed Forces], Valdai Discussion Club, July 2012, pp. 32-34.

capable manpower.<sup>43</sup>

*(3) Why the Sevmash Shipyard is showing successful results*

The most successful among Russian shipbuilders is the Sevmash Shipyard located in Severodvinsk near the far north border with Finland. Currently, the Sevmash Shipyard is the only shipyard in Russia that is capable of building nuclear naval vessels (submarines and surface vessels). The shipyard has a history of having constructed 129 nuclear-powered submarines, 37 conventional submarines and 45 surface vessels since 1939. Between 1998 and 2003, the shipyard slipped into a dire financial situation amid steep declines in order receipts. However, it refrained from large discharges of employees and strove to retain highly capable core employees. These efforts can be cited as reasons why the shipyard today maintains the capabilities to construct naval vessels regarded as important for the buildup of the Russian Navy, including Borei-class SSBNs and Yasen-class nuclear-powered submarines. Presently, the Sevmash Shipyard employs 27,000 workers, and the receipts of orders for construction of Borei-class SSBNs and Yasen-class nuclear submarines helped boost the ratio of domestic military-related orders to the shipyard's list of contracts to up to 70%.<sup>44</sup>

One of key factors behind the ability of the Sevmash Shipyard to win numerous orders is that the shipyard is adeptly adapting itself to the restructuring of equipment procurement prices being promoted by the Defense Ministry. In the military reform carried out under former Defense Minister Anatoly Serdyukov, a new approach was explored for contracts with defense companies. More specifically, the new approach gave weight to contracts with companies that give priority to effective continuous production of the latest equipment in terms of prices. Initially, shipbuilders were unable to respond to this change in the Defense Ministry's procurement policy. By mid-2011, however, the Defense Ministry and the defense industry reached agreement to adopt a new calculation method for contract prices of a series of navy equipment. Project 955/955A Borei-class SSBNs were positioned as the test case of the new price calculation method. The Sevmash Shipyard made the price calculations based on the new method in September-October 2011 for submission to the Defense Ministry. Following this endeavor, in November, the Sevmash Shipyard won contracts to construct four Project 955A Borei-class SSBNs starting with the fourth vessel and five Yasen-class nuclear-powered submarines beginning with the vessel. The point of the new pricing system is to encourage defense contractors to continuously reduce production costs and improve their management of resources. Since defense contractors earn profits through savings of costs and resources to be achieved by continuous production of the latest equipment, it is believed that this will help make production more economically efficient.<sup>45</sup>

*(4) Formulation of the state program for the future development of the shipbuilding industry*

On November 8, 2012, the Russian government approved the state plan for the "Shipbuilding

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<sup>43</sup> Ibid.

<sup>44</sup> Vladimir Karnazov, "Carrier Killers for the Russian Navy: The Strategic Environment," RES Security Watch, August 1, 2012, <http://www.res.ethz.ch/news/sw/details.cfm?fecvnodeid=123329&v35=123329&fecvid=35&lng=en&id=150713> (accessed on August 1, 2012).

<sup>45</sup> Ibid.

Industry Development, 2013-2030.”<sup>46</sup> The state program seeks to realize the state policy for enhancing the technological development levels of the Russian shipbuilding industry and increasing its competitiveness on domestic and global ship markets, and provides for the development of the shipbuilding industry through 2030. The program also lists the steady implementation of state defense orders and the State Weapons Program as well as the reinforcement of human resources at shipbuilding-related companies among the top priority objectives.

The state program will be implemented in stages, and calls, among others, for the development of 1,180 forms of technology and the upgrading of 72% of production stocks at scientific research institutions and design organizations by 2016; an increase in production output of shipbuilding companies by 40% over 2011 by 2020; and ultimately an expansion of the value of production by Russia's shipbuilding industry by 3.2 times over 2011 and an increase of labor productivity by 4.5 times over 2011 by 2030.

The budget of the entire program is given as 605 billion rubles, of which some 337.9 billion rubles come from the federal budget. The state program comprises various subprograms, whose categories and budgets are shown in Table 3. The implementation of the state program is expected to ultimately improve Russia's technological weakness in the shipbuilding sector, spur the upgrading of the production base of shipbuilding-related companies and solve numerous problems for the achievement of the State Weapons Program.

**Table III Overview of Subprograms of the State Program  
for the Shipbuilding Industry Development**

<b>Category</b>	<b>Budget</b> (In thousand rubles)
Development of naval architecture	122,999,000
Development of maritime and river engineering	90,270,000
Expansion of the shipbuilding industry's production capacity and development of its physical and technological bases	27,500,000
State support	43,400,500
Guarantees for realization of the state program	5,575,000
Individual federal plans for the development of civilian maritime engineering (2009-2016)	48,199,085

(Source) Based on the website of the Russian government, <http://government.ru/docs/3349> (accessed on October 9, 2013).

## Conclusion

In the Maritime Strategy, Russia sets forth a broad range of roles of the Navy, including the realization of Russia's sovereignty and sovereign rights in the World Ocean, securing the safety of economic and other activities on the ocean, and safeguarding of Russia's military security at sea, and also envisions the establishment of the Ocean Navy in the future. Some experts point out that the crucially important capabilities of the new-shape vessels of the Russian Navy include (1) activities in cooperation with forces of other military branches as well as forces of allies;

<sup>46</sup> Based on the website of the Russian government, <http://government.ru/docs/3349> (accessed on October 9, 2013).

(2) intensive use of precision-guided weapons; (3) use of the latest information technologies and systems; and (4) high levels of secrecy, capabilities of defense against the means of air attacks and endurance in combat.<sup>47</sup>

Prior to the formulation of the current State Weapons Program, harsh views were expressed regarding the prospects of the Navy. According to a military expert, comparison between the pace of the dismantling of existing naval vessels and the construction of new naval vessels found the Russian Navy in an irreparably collapsed state, such that less than 50 naval vessels may be remaining a decade later and Russia may not be able to maintain even small-scale fleets, such as the Baltic Fleet and the Black Sea Fleet.<sup>48</sup> The first step toward overcoming such a severe situation and realizing the future vision of the Navy as shown above is the moves to develop and enhance the naval power in line with the current State Weapons Program. While the development of naval vessels under the program is gradually beginning to move ahead, many problems stand in the way of promoting the current State Weapons Program, including delays in the development and production of missiles to be mounted on naval vessels, varying domestic views about military technology cooperation with foreign countries regarding naval vessels, and a number of problems found with the defense industry that serves as the foundation for the implementation of the current State Weapons Program.

It is necessary to note the following points regarding developments of the Russian Navy. Firstly, the Russian Navy is showing signs of a comeback. As discussed earlier, naval vessels are being constructed at a pace faster than previously, with the commissioning of some new vessels already under way. Secondly, Russia is increasingly becoming dependent on the Navy for nuclear deterrent, and this will not change as long as the Navy has strategic nuclear-powered submarines carrying missiles, the impregnable means of counterattack. However, there exist some concerns, such as problems over the Bulava missile to be placed on Project 955/955A Borei-class strategic nuclear submarines. Thirdly, as one military expert points out, Russia's project to build combatant vessels does not prioritize the rivalry with the navies of other countries, except for Yasen-class submarines, and they are not built to carry out attacking operations beyond its own territorial waters. Though it is possible, depending on what equipment is available, for the Russian Navy to act independently or in mutual cooperation with other fleets, it is deemed difficult to challenge the fleets of other countries. Some experts point out that most of the new naval vessels being constructed by Russia are becoming smaller in terms of their displacement relative to their earlier versions in the same class, and that they are being constructed for multiple purposes, not for the purpose of addressing and solving specific problems.<sup>49</sup> On the other hand, however, others point out that these views about Russia's vessel construction projects are transient and Russia has not given up on construction of destroyers, or even aircraft carriers.<sup>50</sup> It has already been pointed out that the strategic documents covered in this paper contain visions such as long-term prospects. For example, at the Navy equipment salon MVMS2011 held in St. Petersburg in June 2011, Roman Trotsenko, President of the United Shipbuilding Corporation, discussed the prospect of Russia launching a new project to construct a nuclear-powered aircraft carrier in 2016, commencing

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<sup>47</sup> *Voennyi parad*, No. 3, 2011, p. 11.

<sup>48</sup> *Nezavisimoe voennoe obozrenie*, July 3-9, 2009.

<sup>49</sup> *Nezavisimoe voennoe obozrenie*, February 15-21, 2013.

<sup>50</sup> *Ibid.*

construction work in 2018 and commissioning the aircraft carrier for the Navy by 2023.<sup>51</sup> The developments of the Russian Navy as well as of the Russian defense industry that underpins the procurement of naval equipment need to be closely followed.

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<sup>51</sup> *Nezavisimoe voennoe obozrenie*, September 30–October 6, 2011.