

6 March 2015

# Russia's Defense Industry: Breakthrough or Breakdown?

Russia's defense industry is slowly but surely pulling itself out of its post-Soviet doldrums. Today, Richard Weitz outlines 1) the domestic and foreign policy factors that have contributed to its resurgence, and 2) how the Ukraine crisis and Western sanctions might yet derail the progress that has been made.

By Richard Weitz for ISN

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The actual state of Russia's military-industrial complex remains something of a mystery. On the one hand, Russian defense firms are currently breaking post-Soviet export records and providing all branches of the Russian military with new weapons systems that boast cutting-edge capabilities (at least on paper). On the other, the country's defense industry remains beset by countless production problems, while the armed forces have yet to confirm the effectiveness of its new systems in traditional combat operations. And while the Kremlin insists that it will continue to increase defense spending, it now faces unprecedented financial challenges due to the fall in the value of energy exports, the collapse in the value of the Ruble, and increasingly severe Western sanctions.

## Post-Soviet Collapse and Renewal

The traumatic disintegration of the formerly integrated Soviet military-industrial complex (*voenno-promyshlennyy kompleks, or VPK*), coupled with the sharp and sustained slowdown in government defense spending, left Russia's post-Soviet defense companies with excess human and manufacturing capacities. Whereas the Soviet Union produced hundreds of modern tanks and planes, as well as dozens of new warships every few years, the newly-founded Russian Federation struggled to manufacture a handful of new systems. For example, while production of the next-generation strategic submarine Yury Dolgoruki commenced in 1996, the boat did not enter into service until the end of the following decade. It also took 19 years to complete the Yaroslav Mudry frigate, which finally entered service in June 2009. The Sukhoi design bureau labored for a decade to develop a fifth-generation fighter that has yet to enter into service with the Russian Air Force. Meanwhile, even Soviet-era platforms proved difficult to maintain as so many weapons designers and manufacturers went bankrupt or tried to enter more lucrative civilian markets. Even today, the Russian armed forces show the signs of the decade-long suspension of almost all new military procurements.

However, the surge in Russian energy export revenues in the mid-2000s, and the commitment of

President Vladimir Putin to rebuild Russia's military power, which was reinforced by its mediocre performance in the 2008 war with Georgia, is now showing results. For instance, the Ministry of Defense has improved soldiers' personal gear and organized many more exercises and training opportunities for the ground forces. The Russian Army is also scheduled to receive some 700 armored vehicles (including a [new model T-14 Armata Tank](#)) and 1,550 other vehicles this year under the current 2011-2020 State Armaments Program (SAP). Throughout the SAP, the ground forces are supposed to receive 2,300 main battle tanks, 2,000 self-propelled artillery systems, 30,000 assorted military vehicles, and 10 brigade sets of tactical ballistic missiles. Many of the new fighting vehicles will be based on the Armata chassis introduced later this year.

In terms of strategic delivery systems, the SAP's \$50 billion allocation for 2015 will also fund this year's acquisition of 50 nuclear-armed intercontinental ballistic missiles (ICBMs). It will continue the practice of maintaining and developing a two-tier force of "heavy" large through weight liquid-fuelled ICBMs and "light" lower-payload but more reliable and mobile solid-fuelled ICBMs. This mixture provides the force with more warfighting options and makes it harder for an adversary to neutralize all these systems, which are receiving enhanced capabilities to overcome missile defenses. The SAP will also provide more batteries of the short-range Iskander (SS-26 "Stone") surface-to-surface missile, the S-500 surface-to-air defense system, and continued research into hypersonic delivery systems and other advanced defense technologies.

The SAP 2011-2020 envisaged the delivery of 600 aircraft and 900 helicopters by the end of this decade. [According to Defense Minister Sergei Shoigu](#), 126 new military aircraft and 88 new military helicopters will enter the inventory of the Air Force and Naval Aviation in 2015. In addition, the Russian Air Force plans to upgrade its transport planes, refueling aircraft, unmanned aerial vehicles (UAV), and long-range strategic bombers (eventually replacing its three Soviet-era bombers with a single new plane, designated the PAK-DA) in coming years. It is also set to acquire more Su-35 fighter and Su-34 strike aircraft, and has plans to begin operating its first 5<sup>th</sup>-generation PAK-FA T-50 fighters in a few years. Moscow intends to market the T-50 globally as a cheaper alternative to the US F-35 Joint Strike Fighter. In addition to India, which is co-producing a variant of the plane, the T-50 could prove attractive to Egypt, Iran, Vietnam, and other non-NATO countries that want to have a top-line warplane but cannot afford, or cannot receive Washington's approval, to buy the F-35.

After years of underfunding, the Russian Navy will receive five new submarines this year, more than the U.S. Navy has acquired in recent years. The new submarines include another Project 955 Borey-class strategic (SSBN) submarine (each of these "boomers" is armed with 16 Bulava ballistic missiles) and another Project 855 Yasen-class nuclear-powered attack (SSN) submarine, which has many automated subsystems and other cutting-edge capabilities. The Navy [plans to develop and buy](#) more of these boomer, hunter-killer, and cheaper multi-purpose submarines in coming years. In terms of surface vessels, the Navy will also procure more than a dozen multi-purpose Admiral Gorshkov-class and Admiral Grigorovich-class frigates in the next few years to supplement the aging fleet of Soviet-era cruisers and destroyers.

Although the current priority is on renewing Russia's undersea nuclear deterrent and on defending Russia's coast and Arctic claims, the Admiralty is again discussing the possible acquisition of an aircraft carrier within the next two decades, though Russian shipyards need more modernization before they can produce a carrier as large and complex as those found in the US fleet. That's because Russian military shipbuilding is still struggling to overcome the loss of its shipyards in Ukraine, years of underfunding, and obsolete technology. In shipping and other defense sectors, the government has been encouraging its defense industries to consolidate into large holding corporations in the hopes of making them more efficient. It has also [launched special funds](#) to spur defense innovation.

## **Foreign Engagements**

Russia's foreign partners have also benefited from the recovery of the Russian defense sector. [According to Putin](#), in 2014, Russian defense firms exported more than \$15 billion worth of arms to more than 60 countries, and signed almost \$14 billion worth of new contracts. The Russian defense industry currently has more than \$40 billion worth of foreign contracts on its books. India, China, and countries throughout the Middle East and Latin America account for the majority of these purchases, and will remain the focus of sales efforts for the foreseeable future. In addition, the decreasing value of Russia's energy exports has made Moscow even more determined to increase defense exports. Although the collapse in the value of the Ruble imparts [inflationary pressure](#) on the Russian defense industry, the depreciation also makes its arms exports less costly and therefore more competitive.

To counteract the suspension of cooperation with NATO, Russia has looked at deepening defense ties with fellow [Collective Security Treaty Organization \(CSTO\)](#) member-states. These states can now purchase Russian weapons at a discount—they need only pay the same price as the Russian military, without any export markup. Moscow has also stepped up defense-industrial cooperation with Beijing. Despite fears over copying and intellectual property (IP) theft, the Kremlin now seems prepared to sell some of its most advanced weapons systems to the People's Liberation Army (PLA), including its S-400 air defense system and Su-35 aircraft. It's possible that China's decision in December 2008 to sign a [new defense IP agreement](#) has assuaged Russian concerns. Or it might be the case that Russian dealers think that they could gain more from selling at least some systems to the PLA before Chinese cyber operators succeed in acquiring the blueprints without any compensation.

Russia has also pledged to transition away from the transfer of complete weapons systems to China and India, and instead promote technology transfers, local production, and joint research and development of defense items they would together sell to third parties. As part of its bid to win aircraft contracts in India, Russia is offering to co-produce fighter engines with Indian counterparts, building on earlier fighter and missile joint production agreements. And while relative sales to India are declining as New Delhi purchases more US systems, the Kremlin recently approved the [sale of combat helicopters to Pakistan](#) and seems prepared to resume large-scale defense [sales to Iran](#), perhaps even without a nuclear deal.

### **Lingering Uncertainties and New Challenges**

When the SAP was enacted in 2010, its 20.7 trillion ruble budget (19 billion for the Ministry of Defense) amounted to \$600 billion, though the recent ruble depreciation has reduced this to about \$340 billion (however, making such comparisons is tricky given the higher costs of defense inputs in the United States). And while the war in Ukraine has highlighted the Russian military's hybrid warfare skills, the conflict has also had several adverse effects on Russia's defense industry. For instance, Kiev has now frozen all defense-industrial cooperation with Moscow due to its annexation of the Crimean Peninsula and support for the insurgency in eastern Ukraine. However, despite decades of close collaboration between Russian and Ukrainian defense enterprises, the direct impact of the cutoff will likely be greater on Ukrainian firms. Where Ukraine's defense sector once produced items primarily for overseas markets, it must now make products that are suitable for the country's armed forces and its struggle against the rebels in the east.

Russia's defense sector will suffer less as a result of the breakdown in relations with Ukraine. The Ukraine cut-off might delay Russia's procurement or modernization of some frigates and transport planes, but the process should go smoothly in most cases since Ukraine's defense sales to Russia mostly involved Soviet-era items rather than cutting edge or unique products. Sergei Chemezov, the chief executive of Russia's Rostec defense conglomerate, has [said](#) that Russia was in the process of substituting domestic production for all defense imports by 2017 and would [need to spend](#) about 33 billion rubles (\$1 billion) to accomplish this transition.

The suspension of Western defense sales to Russia is likely to have a greater impact on its military-industrial complex. [EU and US sanctions](#) currently restrict commercial transactions with Russian corporations that have significant defense sales. As part of its post-2008 military reforms, Russia began purchasing high-tech Western military goods and technologies that its defense industry could not produce on its own. In addition to filling gaps in Russia's military power, Moscow [saw](#) these imports as a means, through the transfer of Western technologies and manufacturing practices, of making Russia's defense industry more competitive in the global defense marketplace. [Prominent purchases now on hold](#) include the Russian Navy's planned acquisition of two Mistral-class amphibious warships from France for more than \$1.5 billion and some advanced combat simulation and optics systems from France and Germany. Russia may be able to find [Chinese substitutes](#) for some defense electronics previously imported from the West, but China's defense industry still lags behind Russia and the West in many areas.

Crucially, the decline in world oil prices and Western sanctions has sapped government revenue and complicated spending in other sectors. Although Putin and other Russian leaders have insisted that they would exempt defense from the planned 10% government-wide spending cuts, the issue remains [under discussion](#). The government would like to limit reductions in [social spending](#) to avoid renewing the mass anti-government protests that swept Russia a few years ago. Defenders of the defense budget cite Ukraine, NATO, terrorism, and other threats, as well as the contribution that defense spending makes to sustaining domestic production and employment.

The government will soon announce its 5-year update to the State Armaments Program. Most likely, the updated SAP will attempt to muddle through despite the fiscal challenges by deferring some procurement, lowering salary and benefit increases (which may not hurt recruitment or retention given the deteriorating civilian employment situation), and relaxing some requirements that are difficult to measure in any case (such as raising the proportion of 'modern' military equipment in the Russian inventory to 70% by 2020). These practices are not unusual, and the Pentagon has been applying them with gusto in recent years as it copes with Washington's sequester process. Unlike the United States, which has assumed global security responsibilities, the Russian military can avoid expensive foreign military operations if its political leaders are sufficiently wise to eschew them.

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## **Publisher**

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