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How Russia Is Bolstering Missile Defense in its Far East

Russia is moving S-400 SAM systems and Su-35S fighter aircraft to its Far East.

By Guy Plopsky
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Ongoing Russian deployments of air and missile defenses in the Baltic region and Crimea have received extensive attention from Western analysts and officials. In January 2016, for example, the head of U.S. Air Forces in Europe and Africa, General Frank Gorenc, called the build-up of Russian surface-to-air (SAM) systems in Kaliningrad a "very serious" concern for NATO. Yet the bolstering of Russia's air and missile defenses isn't limited to Eastern Europe alone. The Kremlin has been actively deploying sophisticated new SAM systems to other parts of the country over the past year as well, most notably to the Russian Far East.

In mid-2015, a Russian Navy SAM regiment stationed in the Kamchatka Peninsula was equipped with formidable long-range S-400 *Triumf* SAM systems for the purpose of defending key Pacific Fleet facilities in Petropavlovsk-Kamchatsky, Yelizovo, and Vilyuchinsk (the latter includes the Pacific Fleet's ballistic missile submarine base). The regiment, comprised of three S-400 battalions, more than doubled the number of S-400 systems deployed in Russia's Eastern Military District; previously, the *Triumf* was operated only by the district's 589th SAM Regiment stationed near the port city of Nakhodka in Russia's Primorsky Krai (two of this regiment's battalions received the S-400 in 2012). In November 2015, two additional battalions, belonging to the Aerospace Forces' 1533rd SAM Regiment stationed near the city of Vladivostok, were equipped with S-400 systems as well. Commenting on the latter, the Pacific Fleet's press service stated that the deployment of the new SAMs is intended to "more effectively solve the tasks of covering the skies over the Pacific Fleet's HQ."

While the buildup of Russian air and missile defenses in the Baltic region and Crimea is aimed specifically at the United States and her NATO allies, the deployment of sophisticated SAM systems in the Russian Far East is intended to address perceived threats from several different parties. First and foremost, it too is aimed at the United States, given that the U.S. military's global reach will not necessarily confine a hypothetical armed confrontation between the U.S. and Russia to the battlefields of Europe. Russian officials have expressed particular concern regarding U.S. advancements in hypersonic weapon systems, which they perceive as possessing great counterforce potential. From a Russian perspective, positioning sophisticated S-400 SAM systems to cover the Pacific Fleet's HQ in Vladivostok and the aforementioned ballistic missile submarine base in Vilyuchinsk against these (and other) weapon systems is therefore both a logical and essential step.

The deployment of S-400 systems is also designed to address Russia's concerns regarding North Korean ballistic missile tests. In August 2009, then-Chief of the General Staff Gen. Nikolay Makarov notified journalists that an S-400 battalion had been deployed near Nakhodka "in order to guarantee protection from failed launches of [DPRK] missiles and ensure that the fragments of these missiles never fall on Russian territory." Since then, Moscow has been keeping a close eye on Pyongyang's missile tests. In late April 2016, for example, a Russian Ministry of Defense source told *Interfax-AVN* that Russia's missile early-warning system had "certainly noted" the test launch of a North Korean KN-11 submarine launched ballistic missile (SLBM). A subsequent test involving the failed launch of a land-based Musudan intermediate-range ballistic missile (IRBM) on May 31 even drew condemnation from Moscow, with Russian Deputy

Foreign Minister Igor Morgulov calling it a "violation of the existing resolutions of the [United Nations] Security Council."

It is important to note that this condemnation stemmed not only from concerns about fragments from North Korean missiles falling within Russia's borders, but also from fears that Pyongyang's provocative tests would encourage further U.S. military deployments to the region. A recent agreement between the United States and South Korea to deploy the U.S. Army's Terminal High Altitude Area Defense (THAAD) system to the Korean Peninsula confirmed these fears and prompted the Russian foreign ministry to decry it as a move that will "undermine stability in the region." While the THAAD system in itself does not threaten Russia's strategic retaliatory capacity, Russian concerns with the long-term implications of its deployment has prompted a number of Russian experts to call for the strengthening of Russia's own missile defense capabilities in the form of a joint Russia-China missile defense system that would cover the entirety of the Shanghai Cooperation Organization (SCO).

Less than two months earlier, in late May 2016, the two countries conducted their first joint computer-enabled missile defense exercise known as "Aerospace Defense Security 2016" at the Central Research Institute of the Russian Aerospace Defense Forces. Reflecting on the exercise, deputy director of the Common Wealth of Independent States (CIS) Institute Vladimir Evseev noted that "[t]his was the first step in a plan to create a joint missile defense system," adding that the next step "could be to gather real-world experience on the interception of ballistic targets, for example, at the Ashuluk range [in the Astrakhan Region]."

Yet the prospects of a joint Russia-China – yet alone SCO – ballistic missile defense (BMD) system are extremely bleak. For starters, there are technical and financial limitations to the establishment of such a system. The S-300-series and S-400 SAM systems fielded by the Russian military, as well as the S-300-series and HQ-9 systems operated by the Chinese military, are not capable of intercepting intercontinental ballistic missile (ICBM) warheads. Russia's new S-500 *Triumfator-M* system promises to offer greater capability against ballistic missiles over its predecessors; however, it too is unsuitable for defending against an ICBM strike. Consequently, for a joint Russia-China BMD system to have the desired effect on the United States (which does not operate medium or intermediate-range ballistic missiles), substantial investments into strategic BMD capabilities would have to be made. It must be noted that both Moscow and Beijing are developing such capabilities; however, the cost of deploying large numbers of strategic-capable interceptors and associated systems could prove prohibitively expensive, particularly for Russia.

A more financially viable and less technically demanding option would therefore be to settle for a joint air and missile defense capability against cruise missiles and emerging hypersonic weapon systems (which the aforementioned SAM systems are capable of engaging). However, this capability is unlikely to materialize either. As deputy director of the Institute for Political and Military Analysis Alexander Khramchikhin points out, "[f]or 20 years now, prominent Sinologists [in Russia] have been talking about how good and beneficial it would be to cooperate with the PRC in the field of defense. But these arguments have nothing in common with political reality." Indeed, no formal military alliance exists between Moscow and Beijing. "This," Franz-Stefan Gady explains in *The Diplomat*, "handicaps deeper military cooperation between the two

countries and makes exercises that practice complex integrated military operations difficult if not impossible to conduct."

Despite the unlikelihood of a joint missile defense system with China, Russia's own air and missile defense capabilities in the Far East can certainly be expected to grow, albeit slowly. In March 2015, final tests of the new exoatmospheric 40N6 missile, which is reported to have a maximum operational range of 400 km and a maximum operational altitude of 180 km, were said to be completed. It remains unclear whether deliveries of the new missile to the armed forces had already taken place; nevertheless, once fully-operational, the 40N6 will greatly enhance the capabilities of the S-400 system, particularly against hypersonic weapon systems.

It is not unreasonable to assume that the aforementioned S-500 system, which will reportedly utilize both a modified variant of the 40N6 and more capable missiles, will also be deployed to the Eastern Military District in the future. This, however, is unlikely to happen any time soon given that only a fraction of the 38 *Triumfator-M* battalions ordered under the "State Armaments Program 2020" are expected to be completed by the end of the decade; the bulk, if not all, of these initial systems will be stationed around Moscow and the Central Industrial Region.

Russia also plans to equip its new Project 23560 *Leader*-class destroyers with a naval variant of the S-500 system. According to the vice president of Russia's United Shipbuilding Corporation, Igor Ponomarev, a preliminary design of the *Leader*-class destroyers is currently under consideration at the Russian Ministry of Defense. Once complete, the warships, designed by the Severnoye Design Bureau, will displace up to 17,500 tons and will probably be nuclear powered. A total of 12 *Leader*-class ships are planned to be built (six for the Northern Fleet and six for the Pacific Fleet), with the first ship expected to be completed no sooner than 2023-2025. As with numerous other ambitious Russian defense projects, however, delays in testing and production can be expected.

It is important to add that in addition to long-range SAMs, Russia has been stationing large numbers of short-range air defense systems in the Eastern Military District as well. Most notable, perhaps, is the deployment of new short-range Tor-M2U SAM systems to the South Kuril Islands. According to the District's press service, air defense units of the Russian Ground Forces equipped with the Tor-M2U systems were put on combat duty there in late September 2015. This marked the end of a six month long familiarization process during which Russian troops became accustomed to operating the new systems. The deployment of the Tor-M2U, which can engage aerial targets at ranges of up to 12 km and altitudes of up to 6 km, is part of a larger Russian military buildup on the South Kuril Islands that is clearly designed to signal Tokyo (with whom Moscow has yet to settle a long-standing territorial dispute), that Russia does not intend to concede its sovereignty over the islands in the foreseeable future.

Also noteworthy is the Kremlin's deployment of new fighter aircraft to the Eastern Military District, namely the 4++ generation Su-35S *Flanker-E* multirole fighter. In late December 2015, Su-35S fighters of the 23rd Fighter Aviation Regiment based out of Dzemgi Airbase in Khabarovsk Krai were put on combat duty over Russian airspace for the very first time. The 23rd regiment received its first Su-35S fighters in 2014 and currently operates 24 such aircraft, four of which were deployed to Syria in early 2016. A further 11 Su-35s are operated by the

22nd Fighter Aviation Regiment based out of Tsentralnaya Uglovaya Airbase near Vladivostok. The relatively large unrefueled combat radius of the Su-35S makes the fighter particularly suitable for operations over the Sea of Japan and for defending the vast airspace of the Russian Far East, many parts of which lack SAM coverage.

Unsurprisingly, the deployment of new aircraft, SAMs, and other systems to the Eastern Military District has been accompanied by large-scale military exercises. July 2016 witnessed two major exercises involving air defense forces. The first, aimed at increasing the combat readiness of ground force air defense units, took place in mid-July and involved some 3,000 troops and 500 pieces of military equipment. This was followed by a second, even larger exercise at the end of the month in which the district's "air defense forces repelled massed air attacks by simulated enemies over 10 times." According to the district's press service, some 8,000 troops and 1,000 pieces of military hardware participated in this exercise, including Su-35s, Su-30s, S-300s, and S-400s, as well as Pantsir-S1 short-range SAM systems. More such exercises, intended not only to enhance the combat effectiveness of Russian air defense forces, but also to serve as a show of strength, can be expected to follow as Moscow's economic interests in the region grow and as Russia's strive to become a Pacific power continues.