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# Russia, China and Collaborative Actions: An Alliance in the Making

01/19/2019

By Stephen Blank

A virtual flood of studies and articles continues to appear concerning Russo-Chinese relations.[i]

Although the expert consensus remains that no alliance or no formal alliance between Russia and China exists despite their visibly growing intimacy; I would dispute that finding.[ii]

Indeed, Moscow keeps inventing euphemisms to disguise what is going on.

First it was called a comprehensive strategic partnership.[iii]

More recently in November 2018 President Putin called it a ‘privileged strategic partnership.’[iv]

Both these formulations sound like attempts to deceive foreign observers as to the alliance’s real nature.

Thus Putin described comprehensive strategic partnership as follows:

*As we had never reached this level of relations before, our experts have had trouble defining today’s general state of our common affairs. It turns out that to say we have strategic cooperation is not enough anymore. This is why we have started talking about a comprehensive partnership and strategic collaboration. “Comprehensive” means that we work virtually on all major avenues; “strategic” means that we attach enormous inter-governmental importance to this work.[v]*

Similarly Foreign Minister Lavrov has stated that,

*As regards international issues, we feel – and our Chinese friends share this view – that our cooperation and coordination in the international arena are one of the most important stabilizing factors in the world system. We regularly coordinate our approaches to various conflicts, whether it is in the Middle East, North Africa, or the Korean peninsula. We have regular and frank and confidential consultations.[vi]*

It is hard to know how a privileged partnership expands upon a comprehensive one. Moreover, this alliance is not merely a political relationship but one of active military collaboration.

In addition, leading officials in both countries expect this relationship to deepen, including in its military dimensions, during 2019.[vii] Indeed, President Xi Jinping told Russian Defense Minister Sergei Shoigu that not only can both militaries deal with “common security threats” but also they should increase cooperation and unswervingly deepen their strategic coordination.[viii]

And we can already see practical examples of such coordination as both governments jointly conducted a series of experiments in the atmosphere that not only could alter earthly environments but also apparently disturb electrical connections in the territories below these experiments.[ix]

These experiments look suspiciously like preliminary efforts to test both ground-based and space-based capabilities to achieve the effects of an EMP (Electro-Magnetic Pulse) attack on earth against their adversaries.

Indeed, commenting on these tests, the Chinese journal Earth and Planetary Physics observed that the results were satisfactory but also “such international cooperation is very rare for China.”[x]

Similarly, the Vostok-2018 exercises involving large-scale Russian forces and about 3200 Chinese forces in September - 2018 may have originally been intended as an exercise in anticipation of a U.S. attack on North Korea.[xi]

In fact Russian writers, e.g. Vasily Kashin, Senior Research Fellow at the Russian Academy of Sciences Institute of the Far East, claim that the 2001 Russo-Chinese treaty enshrined at the very least strategic military and political coordination between both governments.

Specifically, he observes that,

*Chapter 9 of the treaty stipulated that “in case there emerges a situation which, by [the] opinion of one of the Participants, can create threats to the peace, violate the peace, or affect the interests of the security of the Participant, and also in case when there is a threat of aggression against one of the Participants, the Participants immediately contact each other and start consultations in order to remove the emerging threat.”[xii]*

Kashin further notes that, “While the treaty did not create any obligations for mutual defense, it clearly required both sides to consider some sort of joint action in the case of a threat from a third party.”[xiii]

This means that even before these events in the military sphere, we see a well-developed process of shared learning and exchange of operational and strategic concepts to enhance bilateral relations.[xiv]

This parallels the wider and extensively developed network of bilateral consultations across many ministries of both governments that are then manifested in practice and thereby reflect an alliance, even if it remains an informal one.[xv] These postures and operations go considerably beyond the joint exercises and arms sales that others have written about.[xvi]

The point here, as confirmed by many analysts, is the extensive inter-military dialogues that have gone on for over a decade as part of the larger program of inter-governmental exchanges.[xvii]

Certainly the joint air and missile defenses exercises of 2017 suggests an alliance for in such exercises both sides must put their cards on the table and display their C4ISR.

As Vasily Kashin observes, this exercise took the form of a computer simulation where both sides constructed a joint air/missile defense area using long-range SAM systems like the Chinese HQ-9 and the Russian S-300/400 series.[xviii]

Likewise, both the preceding and ongoing naval exercises before and after 2017 point to deepening collaboration and a vibrant bilateral military dialogue.

## Conclusions

Analysts have long chronicled the political, economic, and ideological manifestations of the evolving Sino-Russian partnership. But the steadfast denials of a military alliance dynamic here are not based on the evidence of arms sales, technology transfer, joint exercises, conventional and nuclear coordination and long-term strategic dialogues.

Inasmuch as the U.S. has singled out China and Russia as its adversaries misreading the true nature of their relations gravely undermines the chances for successful American strategy and policy and not only in Asia.[xix]

It is long since time that analysts and policymakers acknowledged the reality that is evolving right before their eyes and stopped taking refuge in clichés and wishful thinking.

Only on the basis of realism can we move forward to deal with this alliance and the challenge of either defeating or disassembling it in exclusively peaceful ways.

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## Editor's Note

One can debate what kind of alliance these two authoritarian states are forging.

But clearly as the Australian strategist, Ross Babbage has argued, both are working towards the goal of making the world safe of authoritarian states.

It is important to factor in how these two states reinforce one another's actions, plan joint actions, or operate counter to one another as a key element of the strategic shift from the land wars to crisis management with peer competitors.

And the study of how authoritarian states work together — in both support as well as cross purposes — is a neglected study.

We recently reviewed a book about Japan and Nazi Germany which had many insights into the alliance and its dynamics.

<https://defense.info/book-review/2018/12/germanys-last-mission-the-failed-voyage-of-u-234-to-japan/>

There is also interesting information on the Japanese-Nazi alliance contained in a book on Bletchley Park which we have reviewed as well.

<https://defense.info/book-review/2018/11/the-secrets-of-station-x-how-the-bletchley-park-codebreakers-helped-win-the-war/>

[i] To give three of many examples, Marcin Kaczmarek, Mark N. Katz, and Teija Tillikainen, *The Sino-Russian and US-Russian Relationships: Current Developments and Future Trends*, Finnish Institute of International Affairs, Helsinki, 2018 [www.upi.fiia.fi](http://www.upi.fiia.fi); Richard J. Ellings and Robert Sutter, Eds., *Axis of Authoritarians: Implications of China-Russia Cooperation*, Seattle, WA: National Bureau of Research, Asia 2018; Jo Inge Bekkevold and Bobo Lo Eds., *Sino-Russian Relations In the 21<sup>st</sup> Century*, New York: Palgrave Macmillan, 2018,

[ii] *Ibidem*.

[iii] “Interview to the Xinhua News Agency of China,” [www.kremlin.ru](http://www.kremlin.ru), June 23, 2016

[iv] Alla Hurska, “Flawed ‘Strategic Partnership’: Putin’s Optimism On China Faces Harsh Reality,” *Eurasia Daily Monitor*, December 12, 2018, [www.jamestown.org](http://www.jamestown.org)

[v] “Interview to the Xinhua News Agency of China,”

[vi] Ministry of Foreign Affairs of the Russian Federation, “Statement and Answers to Questions From the Media by Russian Foreign Minister S.V. Lavrov at the Press Conference on the Results of Russia’s Chairmanship of the UN Security Council, New York, October 1, 2015,” *BBC Monitoring*.

[vii] “Russia, China To Bolster Ties In 2019: Envoy,” <http://tass.com/politics/1038117> December 27, 2018; “China, Russia Agree To Boost Military Ties, *Xinhua* December 21, 2018, Retrieved from *BBC Monitoring*

[viii] “China: Xi Meets Russia Defence Minister,” *Xinhua*, October 20, 2018, Retrieved from *BBC Monitoring*

[ix] “China, Russia Test Controversial Technology Above Europe-Paper,” *South China Morning Post*, December 17, 2018, [www.scmp.com](http://www.scmp.com)

[x] *Ibid*.

[xi] Brian G. Carlson, “Vostok-2018: Another Sign Of Strengthening Russia-China Ties,” *SWP Comment*, No. 47, November, 2018, [https://www.swp-berlin.org/fileadmin/contents/products/comments/2018C47\\_Carlson.pdf](https://www.swp-berlin.org/fileadmin/contents/products/comments/2018C47_Carlson.pdf),

[xii]Vasily Kashin, *The Current State Of Russian-Chinese Defense Cooperation*, Center For Naval Analyses, 2018, p. 14

[xiii]*Ibid.*

[xiv]*Ibid.*

[xv]Marcin Kaczmarski, *An Asian Alternative? Russia's Chances of Making Asia an alternative to Relations With the West*, Centre for Eastern Studies, Warsaw, [www.osw.waw.pl](http://www.osw.waw.pl), 2008, p.p. 35-36

[xvi]Schwartz, Wishnick, Vostok-2018

[xvii]Kaczmarski, pp. 35-36; Jacob Kipp, "From Strategic Partnership to De facto Military Alliance: Sino-Soviet Mil-Mil Contacts in the Modern Era, 1945-2018, Presented to the NPEC Conference, Washington. DC, 12 July 2018

[xviii]Kashin, p. 20. C4ISR stands for Command, control, communications, computers, intelligence, surveillance, and reconnaissance

[xix]*The National Security Strategy of the United States Of America*, <https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf>, December, 2017

## Has Russia Launched the Hypersonic Age?

01/02/2019

By Richard Weitz

"This is a great New Year's present for the country," President Putin told senior Russian military and political leaders when he oversaw Russia's successful test of its new Yu-71 Avangard Hypersonic Glider from the country's National Defense Control Center at the end of December.

According to the Kremlin, Russia's Strategic Missile Forces successfully launched the weapon from a silo in the Dombrovskiy missile base in the Ural Mountains of southwestern Russia at a target more than 6,000km distant in the Kura range on Russia's Kamchatka Peninsula.

Deputy Prime Minister Yury Borisov claimed that the Avangard reached a speed of Mach 27 (approximately 33,000 kilometers per hour) in the test.

Putin said that the Yu-71 Avangard system can maneuver horizontally and vertically thousands of kilometers and withstand temperatures of up to 2,000 degrees centigrade.

Russia's Federal Space Agency oversaw the research-and-development work of this project, which was performed by the Reutov-based Research and Production Association of Machine-Building enterprise, the Motor and the Special Machine-Building design bureaus, and the Nauka Research and Production Association, which developed the craft's thermoregulation system and composite materials.

There were unsurprisingly many failed tests of the previous Yu-70/102E prototype given the technical complexities and limited defense resources.

However, after what Putin termed "a major, long-lasting and complex effort that required groundbreaking solutions," Moscow has apparently succeeded in developing an operational system.

So far, the Russian government has primarily brandished hypersonic systems for national prestige. Putin and other Russian leaders, echoed by their national media, have characterized the country's first possession of some of these weapons as demonstrating Russian military prowess and even superiority over the West, at least to domestic audiences.

As *The Washington Post* noted, “The fanfare surrounding the [December 2018 Avangard] test — it led the TV news, and state media reported that Putin gave the launch order — underscores how central nuclear saber-rattling has become to the Kremlin’s effort to depict Russia as a global superpower for audiences at home and abroad.”

Over the next decade, however, Russia plans to deploy perhaps two dozen strategic HGVs, beginning with two “Avangard” 15Yu71 nuclear-armed gliders assigned to a regiment of the Strategic Missile Forces in 2019.

The current Russian state armament has made equipping the Russian armed forces with hypersonic technologies—weapons capable of traveling in excess of five times the speed of sound—a priority.

The Russian Air Force has been testing a hypersonic air-to-surface ballistic missile, the Kh-47M2 Kinzhal (Dagger). Its solid-propellant engine can accelerate the missile to reportedly Mach 10 speed.

In March 2018, the Ministry of Defense released a video showing a Mig-31BM supersonic fighter, based in Russia’s Southern Military District, launching a Khinzal at a ground target. The system can supposedly undertake evasive maneuvers to overcome traditional U.S. ground and naval air defense systems.

According to Putin, the Khinzal air-launched ballistic missile (ALBM) can carry a nuclear or conventional warhead for a range of over 2,000km. This figure may include the combat radius of the plane carrying the missile, since Tass reports a source describing how the Kinzhal’s range will reach more than 3,000km when launched from a Tu-22M3 bomber, which can carry several of these missiles, due to the longer-range of the bomber compared to a fighter plane.

Russian sources describe the Kh-47M2 as a variant of the land-based Iskander-M ballistic missile, which has a stated range of only 500km. By this reckoning, the missile might be able to reach intercontinental range with refueling of the carrier or if the plane does not return to its home base.

Although the Mig-31 will be the main carrier of the missile, the Russian defense industry plans to equip Russia’s new fifth-generation Su-57 Stealth fighter with a similar ALBM, though of smaller size to fit inside the plane’s internal weapons bay, as well as hypersonic air-to-air 300km missiles.

Meanwhile, the Russian Navy is equipping its submarines, cruisers, destroyers, frigates, and other warships with the 3C14 universal vertical launch platform, which can potentially fire multiple subsonic, supersonic, or hypersonic anti-ship and land-attack cruise missiles.

Through the BrahMos Aerospace joint venture, formed by Russia’s NPO Mashinostroyeniya rocket design bureau and India’s DRDO, the two countries have been developing supersonic cruise missiles for use by both their armed forces against land and naval targets as well as for possible export to other countries.

The Russian-Indian joint venture has also planned to develop the BrahMos-II, a hypersonic variant of the missile.

The Research and Production Association of Machine-Building has been developing the Zircon 3M-22 (3K-22), a hypersonic anti-ship cruise missile that has a stated range of 400km and a speed of from Mach 4 to Mach 6. It falls in the same technological family as the Russian-Indian supersonic version of the BrahMos, though the exact relationship between the two missiles is unclear.

Following years of development and testing by the Russian Tactical Missiles Corporation JSC, the Zircon will enter serial production in the next few years as a core anti-ship, and potentially land-attack, missile on the Pyotr Veliky and Admiral Nakhimov nuclear missile cruisers as well as the Steregushchy-class Project 20380 corvettes, the Admiral Gorshkov-class Project 22350 frigates, and the Project 885 Yasen-class attack submarines.

At the operational level, these systems would reinforce Russia's anti-access/area denial strategy, since they could more effectively attack U.S. carriers and other warships than existing conventional missiles.

The proliferation of hypersonic technologies to other countries could present additional anti-access/area denial challenges to the U.S. military.

The best means of presently countering these hypersonic missiles is through destroying their launchers before they can be used.

The United States and its allies will need additional means of defense as these weapons proliferate.

The featured photo is taken from the following source:

<https://sputniknews.com/russia/201701211049856785-russia-army-hypersonic-vehicles-technology/>

### Editor's Note:

Of course, the US has been a leader for some time in hypersonic research and will see fruition of this technology sooner rather than later.

The question becomes how this technology becomes integrated into US and allied concepts of operations both for the offensive-defensive enterprise being generated around the new generation of airborne technologies and reset of 360 strike and defense operations.

In the US and allied case, hypersonics can be joined with a significant redesign of the air-sea combat enterprise as well.

## Russia's New Venezuelan Base: The Evolving Strategic Context

12/26/2018

By Stephen Blank

There was a time when the mere mention of a projected Russian (or Soviet) air or naval base in Latin America would have immediately generated a firestorm in Washington. Those times are now long gone.

The announcement that Russia is obtaining a long-term base on the island of La Orchila some 160 miles from Caracas and the home of a Venezuelan airfield and navy base generated some loud diplomatic exchanges with Washington but nothing much after that.

Indeed, the Washington "commentariat" yawned or completely overlooked this story.

**Nevertheless, this is a portentous event.**

The relatively sparse news reporting around this story and the flight of two nuclear-capable TU-160 bombers to La Orchila revealed that Venezuelan dictator Hugo Chavez offered it to Moscow ten years ago and that Moscow, though it did not accept the offer then, retained its interest in the base.

Moscow's efforts to help Venezuela stave off its creditors, by buying equity in Venezuelan energy, and assistance to Caracas to rearrange its finances had as its ultimate payoff the creation of a base for Russian forces, either naval, or as has turned out, an air base.



Although Venezuelan law prohibits permanent foreign bases this will be a “temporary’ base that will allow Moscow to conduct aerial refueling whenever it undertakes a patrol mission in the Americas and the Caribbean if not further afield.

While it is a ‘temporary’ base, it is likely to undergo further extensive development, and in line with Russian planning we can expect air defense units to come along with fuel and munitions depots since a small base will not accommodate Russian needs as Russia moves towards permanent projection of its power in the Americas.

Indeed, Russia openly proclaimed its interest in naval and air bases in Latin America and specifically Venezuela in 2014. And, along with the air base it has apparently gotten the right to make port calls here.

In other words, it has begun to cash that hitherto unredeemed check. In fact, earlier in 2018 Venezuela’s Defense Minister, Vladimir Lopez told his Russian counterpart Sergei Shoigu, that Venezuela aspired to go beyond arms sales to operational level cooperation.

This raises the question of what operations these governments are thinking about, where they might take place, and against whom might they be directed?

Nevertheless U.S. commentary on this base tended to downplay its importance and emphasized the difficulties Moscow would have in outfitting TU-160s for missions against the U.S. given this system’s age, vulnerability to U.S. systems and need for fighter cover that itself would then need aerial refueling.

But such complacency or neglect is unwarranted. Apart from wanting to demonstrate its power and willingness to bail out friends in Latin America Russia’s acquisition of this base and its deployment represent something like the nose of the camel inside the tent.

**In other words, it is a harbinger of developments to come. Moscow has been interested in Latin American bases for at least a decade.**

It is quite likely, then, that over time more forces and weapons will be brought into that base as Moscow’s hold over Venezuela continues along with the latter’s isolation on the Latin American continent due to its nightmarish misrule.

Second, Russian commentators openly stated that this would be the beginning of Moscow’s nuclear retaliation against the U.S. for its intention to leave the INF treaty.

Accordingly, we can expect regular visits by nuclear-capable planes and ships to the neighboring naval base if not permanent deployments since a precedent has been set unlike 1962 and 1969.

This will also signify to many different audiences that Moscow is fully capable of playing in Washington’s “backyard” as it alleges the U.S. is doing to it, e.g. in Ukraine.

There are even reports of Moscow, through low-level contacts, offering Washington a trade, namely we will stay out of your backyard if you get out of Ukraine.

Furthermore, the deployment of the TU-160s and the establishment of a base to host them is only part of a larger multi-domain Russian strategy to display its bona fides as an adversary of the United States to Latin American governments, a posture that plays well in many Latin American countries.

Moscow is not content to deploy military power to Latin America. Apart from these planes and the base, the Eurasian Economic Union, Moscow’s instrument for economic integration of the former USSR, has just signed a trade memorandum with Mercosur, the Latin American economic union.

Moscow is also discussing the sale of nuclear reactors to Argentina, again not just to establish mutually beneficial trade relations in a sector where it has global standing, but also to gain lasting economic and political influence there and throughout the continent.

In other words, this deployment and air base are not a one-off deal but part of a larger, long-term, and well-established continental strategy for Latin America that comprises all the instruments of power available to Moscow.

This base marks the continuation, not an end, of a heightened stage of Russian involvement in Latin America and if we continue to ignore it we do so not only at our own peril but at the peril of our Latin American allies.

Venezuela's crisis has long-since become a continental crisis, even leading some Latin American leaders to suggest unseating the Maduro government there by force. Those might be the threats invoked to justify a Russian base.

But for Moscow Venezuela's crisis, amid the globally spiraling derangement of U.S. policy, represents too good of a pretext to renounce. In this respect Moscow has learned from Rahm Emmanuel, Mayor of Chicago and former White House chief of Staff, that "a crisis is a terrible thing to waste."

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## **Joint Exercise Between the Indian Air Force and the Russian Federation Aerospace Force, December 2018**

12/12/2018

New Delhi.

A service-specific 12-day exercise between the Indian Air Force (IAF) and Russian Federation Aerospace Force (RFSAF) commenced at Air Force Station, Jodhpur, Rajasthan, December 10.

The first phase of the joint exercise called 'Ex- Aviaindra between IAF and RFSAF was conducted in 2014.

Ex Aviaindra-2018 is the second in the series of bilateral joint exercise, which is planned in two phases between India and Russia.

Both IAF and RFSAF pilots flew RFSAF aircraft during the training exercise held in September this year in Lipetsk, Russia.

The exercise focused on anti-terrorist operations in a bi-lateral scenario and enhanced the co-operation and understanding each other's Concept of Operations, said an official statement of the Ministry of Defence.

In addition to flying exercise, a variety of activities are planned, including formal interactions, discussions, exchange of ideas and sports/social interactions between the two Air Forces.

In India, the RFSAF-IAF pilots will fly the IAF aircraft, which are common to both Air Forces, as was done in Lipetsk during the September exercise when IAF pilots flew the host country's aircraft used by both air forces.

First published by our partner [India Strategic](#).

# China and Hypersonic Weapons

01/18/2019

By Richard Weitz

Byline: Beijing

The newly released Missile Defense Review warns that, “Russia and China are developing advanced cruise missiles and hypersonic missile capabilities that can travel at exceptional speeds with unpredictable flight paths that challenge our existing defensive systems.”

China has made significant advancements in a variety of hypersonic capabilities in recent years.

China’s HGV research and development (R&D) efforts initially focused on the Dong Feng “East Wind” (DF-ZF, also known in the West as the WU-14) HGV.

A single or two-stage solid-fueled booster rocket propels the DF-ZF to the upper atmosphere. During its descent phase, the DF-ZF glides toward its target at up to Mach 10 speeds.

More recent Chinese attention has focused on the DF-17, a new ballistic missile specifically designed to be equipped with an HGV.

U.S. intelligence assessments expect the DF-17 should reach initial operating capability around 2020.

The People’s Liberation Army Rocket Force (PLARF) has both short-range ballistic missiles (SRBM) and medium-range ballistic missiles (MRBM) that could serve as HGV boosters.

Before 2017, most Chinese HGV tests involved these shorter-range ballistic missiles, which would be optimal for strikes against Taiwan from the PLA bases on China’s eastern coast.

The DF-11A and DF-15B SRBMs can reach Taiwan, while the DF-21 and DF-26 MRBMs can also hit southern Japan, the Philippines, and the Korean Peninsula.

On August 6, 2018, the China Academy of Aerospace Aerodynamics atypically announced the first flight test of Starry Sky 2, a new hypersonic glider capable of powered flight.

According to Chinese reports, the experimental HGV employs a wedge-shaped fuselage and an advanced thermal protection system to achieve hypersonic speeds by riding the shock waves generated by its own flight—using so-called “waverider” technology—to enhance lift and conduct sharp angle maneuvers.

Chinese sources were surprisingly forthcoming in discussing the achievement, claiming the vehicle reached a speed of Mach 5.5 and an altitude of 29 kilometers while performing large-angle maneuvers before landing within the designated target zone.

PRC analysts assess that the technology is some three-to-five years away from being weaponized.

The Chinese government claims it possesses scramjet technology, though it has not publicly tested it yet.

The waverider technology could also be used to propel hypersonic cruise missiles.

On November 6, 2018, during Airshow China 2018, China Aerospace Science and Industry Corporation unveiled the CM-401, a hypersonic maneuverable ballistic anti-ship missile with the potential to reach Mach 6 speed over an almost 300-kilometer range.

The missile can be launched from shore bases or from a ship-based launch-canister against ships and offshore facilities.

China is also developing an electromagnetic railgun for launching projectiles from warships at hypersonic speed.

A U.S. intelligence report assessed that the weapon could fire a projectile at a target 200km away with a velocity at more than Mach 7.

On September 21, 2018, moreover, Chinese scientists tested three different designs of scaled-down hypersonic aircrafts, codenamed D18-1S, D18-2S and D18-3S.

The three prototypes possessed distinct designs: one with a single vertical tail, another with two, and the third with a single wing above its body.

This variety of designs allowing Chinese scientists to evaluate how aerodynamic features can affect flight performance.

Though they differed in shape and design, all three vehicles could quickly change their speed, abruptly transitioning from hypersonic to subsonic velocities.

The robustness of Beijing's investments in this area suggest that China seeks hypersonic capabilities for strategic, operational, and tactical purposes.

Beijing's strategic goal is to deter the United States or another country from engaging in war with China, especially in defense of a state within Beijing's perceived sphere of influence.

Even the appearance of deterring the United States can enable China to weaken the effectiveness of U.S. extended security guarantees and compel Asian states to align their policies more closely to Beijing's liking.

The threat of hypersonic attack also aims to discourage countries like South Korea from hosting advanced U.S. missile defense systems by threatening to preemptively destroy them.

At the operational level, the PLA's hypersonic defense technologies contribute, along with China's already growing collection of anti-ship ballistic and cruise missiles, to the Chinese military's ability to strike critical targets in Asia.

These targets include U.S. ballistic missile defenses (BMD), command and control centers, military forces, and bases and other defense infrastructure.

In support of its anti-access/aerial-denial (A2/AD) strategy, China's new hypersonic delivery systems could augment the PLA's already large and diverse missile portfolio, which include the DF-21D and DF-26 ballistic missiles, the YJ-12 and YJ-18 supersonic anti-ship cruise missiles, and several types of subsonic cruise missiles.

Due to their speed and maneuverability, hypersonic delivery systems can be more effective at overcoming U.S. air, sea, and land-based defenses than the PLA's existing weapons.

In the near future, Beijing intends to further refine its existing hypersonic cruise missiles and HGVs, as well as research and develop the various other potential military applications of hypersonic technologies.

China is employing a phased approach toward attaining a global precision strike.

The early version of the DF-ZF is believed to be launched from the DF-21 medium-range ballistic missile.

In the future, a HGV may be carried on the DF-26 intermediate-range ballistic missile and eventually a ICBM.

HGVs could eventually be mounted on an intercontinental ballistic missile (ICBM), such as the DF-41, to give China a global strike capability.

Meanwhile, the PRC's intensified pursuit of high-performance supercomputers could remove a potential impediment to the country's hypersonic research.

To expedite the development of hypersonic technologies, the Chinese Academy of Sciences is constructing the world's fastest wind tunnel, capable of reaching speeds of nearly 35 times the speed of sound, to simulate the conditions of hypersonic flight.

The tunnel should become operational around 2020.

In any case, all research of this type enables PRC analysts to better understand U.S., Russian, and other foreign hypersonic capabilities and develop means to counter them.

Until recently, the Chinese media provided little coverage of the country's hypersonic progress.

The higher-profile coverage of these weapons in recent years may aim to communicate to foreign audiences that the PLA is developing powerful deterrent capabilities, while also showing off China's growing power to domestic audiences.

Nonetheless, China's stated hypersonic progress may be exaggerated, particularly the stated success rate of its tests, which is considerably higher than the rates for the U.S. and Russian programs.

The actual effectiveness of China's hypersonic capabilities in battle also is uncertain since the PLA has not fought a major war in decades.

Nevertheless, though the U.S. Navy has been adding sensors, software, and defense systems to counter PLA anti-ship missiles for over a decade, the addition of hypersonic missiles may require the Pentagon to build dedicated missile-defense ships rather than simply continue fortifying general-purpose ships.

## **Globalization the Chinese Way: The Case of Huawei Technologies**

01/17/2019

By Robbin Laird

During an interview last year with Second Line of Defense, Ross Babbage, the well-known Australian strategist with many years of governmental experience as well, focused on the Chinese challenge to the liberal democracies.

*What we're confronting is a new version of a long-standing theme in Chinese strategic thought which emphasizes the importance of shaping the strategic environment in your favor by reaching a long way into the enemy's camp, and putting him off balance, and getting him focused on internal problems and exacerbating those internal problems.*

*The goals are to distract and weaken the enemy and get him to not focus on things other than the main game.*

*The political warfare approach is one of interfering, disturbing, distracting, confusing, disrupting the institutions and the normal operations of democratic states.*

*The head of the Australian Security and Intelligence Agency (ASIO) has stated that the scale and pace of foreign intelligence and espionage activities in Australia is now higher than they were at the peak of the Cold War.*

*Question: What can be done?*

*Babbage: A key aspect of meeting the challenge is to recognize it exists and encourage the public focus on its existence and operations.*

*Regardless of domestic political persuasion, our people do not like to see this kind of authoritarian coercion operating in our society.*

*When they realize what is happening, they're upset, they're angry about what a foreign country could be trying to do, these sort of things, and they want to galvanize action.*

*And many pose the question of "What can we do to actually stop this and fix it?"*

*At present we are not telling the story of foreign political warfare broadly enough within our political and economic sectors.*

*We've got to improve our information operations. We need to throw sunlight on what these guys are doing and do so in a comprehensive and sustained manner.*

**In the case of the activities of Huawei Technologies, there appears to be growing recognition that globalization the Chinese way has a built in benefit to China from its participation – using its civil outreach to support its global security and military operations.**

Examples of the awakening can be seen from a number of events and articles written in the past few months about those events.

In this November 3, 2018 article from [The Australian](#), it is alleged that China has used Huawei to hack global networks.

*Secret intelligence reports given to Australian officials outlined a case in which Chinese espionage services used telecommunications giant Huawei's staff to get access codes to infiltrate a foreign network.*

*The Weekend Australian has confirmed from a national security source that the intelligence highlighted the Chinese company's role in cyber espionage.*

*Huawei has been banned from any involvement in building the new 5G network in Australia - because of security fears but Chinese officials have urged the government to rethink the decision.*

Recent articles in the EUOBSERVER have highlighted as well growing European concerns about Huawei as well.

From an article published on [January 17, 2019](#):

*Germany's government is mulling excluding China's Huawei Technologies from an auction on setting up fifth-generation (5G) mobile networks, reported Handelsblatt. The paper cites unnamed government officials amid broader fears that the firm does not meet the required security standards. The US has accused Huawei of acting on the behalf of the Chinese state, increasing the risk of industrial and cyber espionage.*

From an article published on [January 14, 2019](#):

*Poland has said Nato and the EU should consider sanctions against Chinese telecoms firm Huawei after Poland arrested one of its employees for espionage on Friday. "It would make most sense to have a joint stance, among EU member states and Nato members," Polish interior minister Joachim Brudziński said. Fellow EU security services recently ignored Poland's call to blacklist a Ukrainian activist on grounds she was a Russian spy.*

From a [December 7, 2018](#) article:

*The EU's digital commissioner, Andrus Ansip, said on Friday that "we have to be worried" about Chinese telecommunications companies like Huawei. He was asked about the company after Canadian authorities arrested Huawei's chief financial officer. "They [Huawei] have to cooperate with their intelligence services," said Ansip. He added some Chinese firms are forced to install so-called backdoors in smartphones. "I was always against having those mandatory backdoors," he added.*

In an interview Defense.info did in Helsinki last year with the [European Centre of Excellence for Countering Hybrid Threats](#).

During that visit, the focus of authoritarian states on leveraging the open economies of the liberal democracies and carefully leveraging opportunities was highlighted.

"And we are looking at a broad set of issues, such as the ability of adversaries to buy property next to Western military bases, issues such as legal resilience, maritime security, energy questions and a wide variety of activities which allow adversaries to more effectively compete in hybrid influencing."

### **And right on script, the Chinese private sector is playing its role.**

In this January 12, 2018 article by [Dan Strumpf](#) of the Wall Street Journal, the threat posed by a Chinese company was highlighted by the US Army.

*The U.S. Army said it removed surveillance cameras made by a Chinese state-backed manufacturer from a domestic military base, while a congressional committee plans to hold a hearing this month into whether small businesses face cybersecurity risks from using the equipment.*

*Fort Leonard Wood, an Army base in Missouri's Ozarks, replaced five cameras on the base branded and made by [Hangzhou Hikvision Digital Technology Co.](#), said Col. Christopher Beck, the base's chief of staff. He said officials at the base acted after reading media reports about the company.*

*"We never believed [the cameras] were a security risk. They were always on a closed network," Col. Beck said. The decision to replace the cameras was meant to "remove any negative perception" surrounding them following media reports, he added, without elaborating.*

*A [Wall Street Journal](#) article in November highlighted the prevalence in the U.S. of devices made by Hikvision, the world's largest maker of surveillance cameras, which is 42% owned by the Chinese government. The Journal reported that some security-system vendors in the U.S. refuse to carry Hikvision cameras or place restrictions on their purchase, concerned they could be used by Beijing to spy on Americans.*

The Chinese approach to globalization encompasses the use of its significant global private sector outreach, the nature of liberal economies which are not set up to prioritize the private sector and its relative flexibility to shape an effective security footprint useful for a variety of both commercial and national security tasks.

### **A recent article by [Bill Gertz](#) focuses on the Huawei challenge.**

*Huawei is the world's largest telecommunications company and made reported profits of \$7 billion on \$19 billion in revenue.*

*China expert Gordon Chang said Huawei is the core of China's plans to dominate the 5G telecom market that will provide high-speed telecommunications in the near future.*

*"Huawei has had a free ride for decades," Chang said. "Washington did nothing to stop its theft of U.S. intellectual property, or its other criminal activity, such as its blatant violation of Iran sanctions."*

*Chang urged the Trump administration and Congress to recognize Huawei as a “criminal enterprise” and enforce laws to counter its activities.*

*“The Trump administration should ban the importation into the U.S. of products that have benefitted from the theft of U.S. intellectual property, or which are sold by companies that have stolen our IP. That, of course, hits Huawei from two directions,” he said.*

*Chang said the administration generously lifted sanctions on ZTE last year. “There should be no shows of leniency for Huawei,” he said.*

*Ed Timperlake, a former Pentagon technology official and editor of the defense newsletter Second Line of Defense, said Huawei has a history of violating sanctions, including those imposed by the United Nations against Iraq in the early 2000s.*

*“Huawei in my professional judgement is an ongoing criminal enterprise using denial and deception techniques and a lot of money and influence to infiltrate their high-tech products into American and global communication networks,” Timperlake said.*

*Timperlake urged the next defense secretary to be extremely vigilant toward the threat of Huawei infiltrating technology into Pentagon high-tech systems, including the \$10 billion contract awarded to Amazon for a “Combat Cloud” initiative.*

*Rick Fisher, a China security analyst with the International Assessment and Strategy Center, said the public needs to be aware that Huawei’s claim to be a private company is fiction.*

*“By Chinese law and regulation, all Chinese companies must obey the Chinese Communist Party and host CCP cells which both report to and take direction from the ‘center,’” Fisher said.*

*“Huawei was founded with the aid and encouragement of the People’s Liberation Army and has demonstrated time and again that it serves China’s military and espionage objectives,” he added.*

*The Pentagon is banned under a recent law from using any Huawei products over concerns the equipment is rigged to permit remote electronic spying by China’s Ministry of State Security or PLA Strategic Support Force, that conduct electronic intelligence gathering.*

*Several other nations have banned Huawei products as well.*

**Gertz also provided in his article insights from an FBI brief to private industry about the threat posed by the Chinese approach.**

*The FBI stated in a briefing for corporate security officials last year on the Chinese telecommunications industry that Huawei and a rival telecommunications company, ZTE, are privately held companies but dependent on government for both resources and funding.*

*Huawei was labeled a Chinese “national champion” by the government. The official designation is used for state-owned entities and signifies that the conglomerate, which produces routers, cell phones, and other equipment, is a key element in Beijing’s state-directed economic policies including the acquisition of foreign technology. Huawei is currently focusing on developing high-performance computers and cloud computing.*

*The FBI briefing said Huawei and ZTE engage in economic espionage for Beijing and noted that ZTE in the past was sanctioned for illicit dealings with Iran and North Korea.*

*In the industry presentation, the FBI stated that China’s government uses Huawei and ZTE to advance national objectives. Those objectives include assisting Chinese intelligence and security services in the massive domestic electronic surveillance programs targeting Chinese citizens. The companies also are part of foreign influence operations aimed at reducing foreign resistance to China’s drive for global supremacy.*



*The two telecom companies also are engaged in boosting China's economic growth by competing directly with the United States in leading development for 5G advance telecommunications technology and artificial intelligence, the FBI said.*

*Additionally, Huawei is one of China's leaders in supporting several "megaprojects"—including an effort to control the emerging Internet of Things, the vaguely defined network of millions of internet-linked devices. A second megaproject is developing "smart cities" of wired communities that will facilitate greater Chinese government and Communist Party control.*

*The FBI briefing questioned whether Huawei or ZTE will be successful and noted concerns about industrial inefficiencies, pervasive Communist Party corruption, and weak corporate accounting and oversight.*

*"Foreign suspicion of Chinese companies is growing," the FBI stated.*

### **What can be done?**

Ross Babbage highlighted some key tasks facing the liberal democracies

*I would identify a number of potential components of what one might call an effective counter strategy.*

*First is a denial strategy.*

*Here the objective is to deny, not just the operations and make them ineffective, but also to deny the political benefits that authoritarian states seek to win by conducting their operations.*

*Second is a cost imposition strategy.*

*We need to find ways to correlate their behavior with an imposed cost. We need to make clear that if they are going to behave like this, it will cost them in specific ways.*

*Third is focused on defeating their strategy, or making their strategy counterproductive.*

*We can turn their strategy on its head and make it counter-productive even within their own societies.*

*Their own societies are fair game given the behavior of the of our combined assets Russians and Chinese.*

*Fourth is to make it damaging, and even dangerous, for authoritarian regimes to sustain their political warfare strategy.*

*Authoritarian regimes have their own vulnerabilities and we need to focus on the seams in their systems to make their political warfare strategies very costly and risky.*

*And we need to do this comprehensively as democratic allies.*

*There's no reason why we can't coordinate and cooperate and make the most of our combined resources, as we did in the Cold War..*

*But do we have the right tools and coordination mechanisms for an all-of-alliance strategy to work well?*

*In my view, the Western allies have a great deal of work to do.*

# Russia Building Out Nuclear Capabilities in Its Fleet

01/08/2019

By Stephen Blank

During the Cold War two of Russia's four fleets were nuclear ones, the Northern Fleet based out of Murmansk in the Kola Peninsula in the Arctic, and the Pacific Fleet based out of Vladivostok and Petropavlovsk.

Most analysts have maintained that this disposition has remained the case until now.

But can we be certain of that?

Indeed, already in 2008 then Foreign Minister of Sweden, Carl Bildt, announced that, "According to the information to which we have access, there are already tactical nuclear weapons in the Kaliningrad area. They are located both at and in the vicinity of units belonging to the Russia fleet,"<sup>1</sup>

Since then Russia has also sent nuclear-capable Iskander missiles to be based in Kaliningrad.

So while those are land-based missiles, there is good reason to see these missiles as potentially usable to gain command of the Baltic Sea and deny that to NATO.

But apart from the possibility of elements of the Baltic Fleet being nuclear we should also have concerns that Russia may be nuclearing the Black Fleet and/or the Mediterranean Eskadra parts of which are based at Tartus in Syria.

As this writer and others have observed, since 2014 a sustained buildup of Russian forces in Crimea and the Black Sea have gone far towards creating a layered A2AD (anti-access and area denial) zone in that sea although NATO has begun to react to the threat and exercise forces there.<sup>2</sup>

That layered defense consists of a combined arms (air, land, and sea) integrated air defense system (IADS) and powerful anti-ship missiles deliverable from each of those forces. Moscow has also moved nuclear-capable forces to the Crimea and Black Sea to further display its determination to keep NATO out but also to use the umbrella it has created as the basis for an even more expansive strategy (resembling that used by the Egyptian Army in the Yom Kippur War of 1973) from which it can project power further out and deny those areas to NATO or at least threaten NATO with heavy costs.<sup>3</sup>

And beyond that Russia in 2017 began work on the Syrian bases at Tartus and Khmeimim to make them ready for hosting nuclear-capable warships and planes as well.<sup>4</sup>

These trends clearly bespeak an interest in warfighting operations under conditions of a nuclear and conventional umbrella as suggested throughout this article.

Moscow is evidently building a nuclear –weapons storage facility in Crimea suggesting it will base if not deploy nuclear weapons there.<sup>5</sup>

Among the weapons being deployed are nuclear-capable Kalibr' sea launched cruise missiles (SLCM) that have now also been deployed to the coast of Syria.

It is clear that Moscow intends to raise the specter of nuclear escalation in the Black Sea and the Mediterranean.<sup>6</sup>

Thus today we are at a point where prominent experts, e.g. James Sherr of Chatham House, and former USAREUR Commander Lt. General Fredrick (Ben) Hodges (Ret) all see “the wider Black Sea region as the major area of potential friction with Russia in the next decade.”<sup>7</sup>

We must also keep in mind that Russian ships based in the Caspian Sea also have the range to hit targets in the Middle East with the Kalibr’ as they have done in October 2015 for Putin’s birthday.<sup>8</sup>

Moscow has learned how to deploy nuclear-capable SLCMs with great lethality on cheaper, smaller ships like corvettes.

At that time it became clear that:

“This was not a missile seen as being normally carried by the corvettes, which had [shorter-range] Klub missiles as opposed to the land-attack version,” said Bryan Clark, a naval analyst with the Center for Strategic and Budgetary Assessments in Washington.

The Kalibr, he said, “changes it from being a sea-control ship to one with distributed lethality.

The US has been aspiring to that, but the Russians have shown they already have it.”<sup>9</sup>

As Clark observed then, as well the new Russian capability for distributed lethality poses serious problems for the U.S.

“The Russians are adopting distributed lethality faster than the US,” he noted.

“The arguments made for distributed lethality are to put firepower on a bunch of smaller ships, have them disperse, in turn increase targeting problems for the enemy, and you may be able to generate the same kind of firepower if you concentrate the platforms.

“With the Russians, these 900-ton corvettes are harder to find than a [4,000-ton US] littoral combat ship.

“You can buy them in larger numbers, and they also carry land-attack weapons,” unlike LCS.

“It would seem to give you a much more effective land-attack lethality than what the US Navy is pursuing.”

Clearly the deployment of such capabilities along with UAV’s massive integrated air defense networks, fighters and strike air craft, plus land-based shore and air defense is making the Black Sea a n increasingly inhospitable zone for the U.S. and NATO.

But given Russia’s quest for bases throughout the Levant, Mediterranean, and even Red Sea areas the objective of an anti-access and denial capability being extended out to the Eastern Mediterranean, well beyond the Black Sea, is taking shape.

Moreover, Russia is refining this capability to include Caspian based ships as well.

In October 2018 Moscow fired Kalibr’ SLCMs at targets during Caspian exercises.<sup>10</sup>

Beyond that, at present the specific threats we see in the Black Sea are directed against Ukraine and Romania.

But because Romania is a NATO ally and Ukraine is steadily drawing ever closer to European security organizations who identify its cause with their own, any further fighting in this maritime zone is fraught with danger and is unlikely to be confined to the Black Sea.<sup>11</sup>

Indeed, there is good reason to believe that naval operations in and around the Black Sea will inevitably entail operations a on shore and against land-based forces and defenses in both countries. Russian writers, in assessing the lessons of Syria, have argued that,

It follows from what has been said that in implementing future construction plans for new submarines, and also in the modernization of the majority of the surface fleet, the Russian Navy will, by the end of the next decade, be capable of carrying out massed missile strikes against the surface and land targets of the likely opponent.

Each fleet will have enough ships and submarines armed with Kalibr' and Polymet-Redut (missiles) to have a seriously enhanced combat capability.<sup>12</sup>

For example, in response to talk of NATO exercises, Andrei Kelin, a spokesman for the Ministry of Foreign Affairs labeled such exercises destabilizing and further added that, "This is not NATO's maritime space and it has no relation to the alliance."<sup>13</sup>

More recently, Russian defense establishment has announced that nuclear-capable "Kalibr"(SS-N-27) ship-based missiles will be "permanently based" in the Eastern Mediterranean, thus providing a capable and reliable reach for Moscow's forces in the region.<sup>14</sup>

These deployments began in the fall of 2018.<sup>15</sup>

Such missiles, with a range of up to 300 kilometers, give even older Russian vessels a sufficient offensive as well as defensive counter-punch to strike at naval or even shore-based targets.

Moreover, Russia will also conduct permanent exercises in the Mediterranean to go with its permanent deployment there.<sup>16</sup>

Consequently as a result of the annexation of Crimea it is not just Ukraine that is in the eye of the Russian hurricane but also other littoral countries, e.g. Romania. Russia's seizure of the Crimea and buildup in the Black Sea makes its maritime zone contiguous to that of Russia and that this puts Romania at great risk from both maritime operations and land attacks to the Dniester or beyond.<sup>17</sup>

Indeed, the treaty on Crimea's annexation to the Russian Federation states that, "the demarcation of Black Sea territorial waters is established based on the international treaties made by the Russian federation." According to the Munich-based expert, Vladimir Socor, "This vague wording appears to imply that Russia deems the agreements made with Ukraine on territorial demarcation with other countries are no longer valid, and suggest that Russia might try to negotiate and modify the current demarcation agreements."<sup>18</sup>

And that means Russia could easily incite pressure against Romania and its critical maritime energy facilities that it has already frequently menaced by overflights and the like.<sup>19</sup>

While we have no definitive answers as to whether or not Russia has nuclearized the Black Sea Fleet and/or the Mediterranean Eskadra, it clearly can do so if it so desires and has reserved that option for itself in the future.

Thus Romania now experiences what one writer calls "periodic threats of annihilation for hosting American ballistic missile defense, exercises simulating Romania's invasion, and repeated violations of air (and naval) space."<sup>20</sup>

But Russian pressure is not confined to military threats either by land through Transnistria and Moldova or by sea and air from the Black Sea.

Russia's maritime and other incursions or probes also seem to be directed against Romania's efforts to secure its energy independence and integrate fully with Western energy institutions and companies.

It is quite likely that Moscow, for example wants to prevent Moldova from escaping its dependence on Russian gas transmissions from Ukraine or perhaps from Russian gas in general as President Igor Dodon has now expressed interest in alternative gas routes like the Iasi -Ungehi (Romania)-Chisinau gas pipeline.<sup>21</sup>

But it also clearly wants to retain a capacity to threaten Romania, the most pro-American state in the Balkans.

In other words, the Kerch Strait incident of November 2018 should bring home to us the fact that the threats posed by Russia in the Black Sea do not end with Ukraine and are potentially not confined to the conventional level of war.

These SLCM capabilities also are not the only ones in Moscow's arsenal of naval warfare.

In 2009, Vice-Admiral Oleg Burtsev, the Navy's Deputy Chief of Staff, told RIA Novosti that, "Probably, tactical nuclear weapons will play a key role in the future," and that the navy may fit new, less powerful nuclear warheads to the existing types of cruise missiles. "There is no longer any need to equip missiles with powerful nuclear warheads," Burtsev said. "We can install low-yield warheads (possibly fusion weapons? -Author) on existing cruise missiles."<sup>22</sup>

Given the lack of progress on reducing Moscow's arsenal of tactical nuclear weapons, those systems are also still potentially available to Russian commanders for use in regional contingencies.

In the light of Russian deployments in the Baltic and Black Seas not only U.S. and NATO commanders have to be vigilant and able to devise countermeasures and deployments to the threats ranged against NATO allies by those Russian capabilities.

In the context of the apparent unraveling of arms control agreements like the INF, other cases of Russian violations the danger of heightened nuclear threats to Europe (as Russia has made clear it will launch when and if the U.S. leaves the INF treaty), and new Russian capabilities it can be argued that the temptation to use these SLCMs or tactical nuclear weapons or to rethink using them in warfighting scenarios has grown and will continue to grow.

This represents a renewed nuclear threat to Europe and our allies if not allies elsewhere so that from now on we need to think not only about conventional naval warfare but also about the possibility of nuclear war generated from the sea.

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**Editor's Note: Dr. Blank has highlighted the return of the nuclear dimension and what Paul Bracken has highlighted in terms of the second nuclear age.**

The Putin Administration has certainly focused on creating the impression that it is lowering the nuclear threshold.

They have done so in part in my view because of the relative weakness of their conventional forces directed against Europe and with the significant shift in Western forces towards distributed operations and new approaches to force integration which in my view will make it much harder for the Russians to defeat Western forces.

From this point of view, we are the reactive enemy.

But clearly we have to take the second nuclear age very seriously think through crisis response approaches and capabilities.

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# Russian Aggression against Ukraine and the Black Sea Region States

12/17/2018

By Defense.Info

Recently, the Canadian House of Commons, Standing Committee on National Defense, released its most recent report on Russian aggression against Ukraine and against the Black Sea Region states.

In that report, it was noted that “Ukraine is determined to counter Russian aggression and to continue to fight pro-Russian forces on its territory.

**“As Mr. Gerasimov told the Committee, Ukraine is not just fighting to protect its territory and population against Russia, but also to protect the rest of Europe. He emphasized that “[Ukraine is] on the front line of the whole free world’s battle” with “very bad guys.”**

The full report is provided below, but we would like to highlight some of the testimony presented at the beginning of the report, which follows.

*The Committee was told that Russian aggression against Ukraine has escalated in recent months. Mr. Artur Gerasimov, Chair of the Verkhovna Rada’s (Parliament of Ukraine’s) Subcommittee on Military-Industrial and Military-Technical Cooperation, spoke about Russia’s “huge militarization” of Russian-occupied Crimea, which includes not only an increase in the number of Russian forces serving in the region, but also the construction of additional fortifications, airfields and military installations, as well as the deployment of modern high-tech weapon systems capable of reaching southern Europe from Crimea.*

*According to him, the “full restoration of nuclear weapons facilities” on the Crimean Peninsula is of grave concern to Ukraine.*

*This nuclearization of Crimea includes the re-activation of land-based nuclear weapons facilities, such as the one at Balaklava, and the transfer of nuclear-armed warships and submarines to the naval base at Sevastopol. It also includes the deployment of nuclear-armed combat aircraft at several modernized and refurbished airfields in Crimea.*

*Mr. Gerasimov also expressed concern about the ongoing conflict in the Donbas region (the Donetsk and Luhansk oblasts) of eastern Ukraine and the recent deterioration in the situation on the ground. He noted that at least 70% of the 40,000 pro-Russian forces fighting in the Donbas region are “regular Russians and foreign terrorist fighters from the Russian Federation.”*

*He added that, “on the occupied territory, Russia now has around 500 tanks, around 800 artillery systems, [and] more than 200 multiple rocket launch systems,” which exceeds the number of tanks, artillery systems and multiple rocket launchers than “France and Germany have together.”*

*Most of the weapons and supplies in the Donbas region are of Russian origin, and have been brought into Ukraine through the portions of the Ukraine–Russia border that currently are controlled by pro-Russian forces and are uncontrolled by Ukraine’s government.*

*The Committee was told that Russia regularly moves troops, equipment, ammunition and supplies across those parts of the border, often covertly under the guise of humanitarian convoys. These weapons and supplies are helping to strengthen pro-Russian forces in the region, and are being used against Ukraine’s civilians and military personnel.*

*In their discussions with the Committee, the Ukrainian parliamentarians repeatedly referred to the armed conflict in the Donbas region as an actual “war.” Mr. Yuri Levchenko, Chair of the Verkhovna Rada’s Subcommittee on Assessment of Bills, emphasized that it is “not some sort of frozen conflict,” but rather “a war.”*

*Fighting in the region is continuing, and the number of civilian and military casualties is rising. The Committee was informed that, every month, an average of more than 10 members of the Ukrainian Armed Forces are killed by pro-Russian forces in the region.*

*Altogether, more than 3,000 Ukrainian Armed Forces personnel have been killed since the beginning of the conflict in 2014, and another 300 are missing in action.*

*These statistics do not include civilian losses. According to the United Nations (UN), more than 3,000 civilians have been killed, and more than 9,000 have been injured, in eastern Ukraine since 2014.<sup>9</sup> In addition, many Ukrainians and Crimean Tatars are held under pro-Russian control in prisons in Russia, Crimea and the Donbas region.*

*The Committee heard that the International Committee of the Red Cross and other international humanitarian organizations have been denied access to these prisons, which makes it difficult to verify the exact number of people detained by pro-Russian forces.*

*Mr. Levchenko said that those who are returned under prisoner swaps are usually in “terrible condition,” having been beaten and tortured. He noted that some have missing teeth, while others have broken bones, and many have suffered from sexual violence. In his view, “[i]t shows clearly ... the way that the Russian troops and the Russian occupation administration treat our prisoners.”*

*Pro-Russian forces continue to perpetrate violence and acts of aggression on a regular basis, and the Committee was told that these forces repeatedly violate ceasefire arrangements. Mr. Levchenko pointed out that Ukraine has announced ceasefires on 13 occasions since the beginning of the war in 2014, and all of them have been broken.*

*According to him, the latest ceasefire – which was announced in March 2018 – lasted for only 10 minutes.*

*As well, Mr. Levchenko commented that pro-Russian forces “constantly shell critically important infrastructure” that “provides fresh water” and other “relevant services for the people,” causing a great deal of hardship among the local civilian population.*

*He also noted that pro-Russian forces are using Ukrainian Armed Forces personnel and civilians as “target practice” for their troops. He said that “[i]t’s not just unprovoked shelling, but constant sniper fire on our positions, also unprovoked,” and added that – over the last few months – Ukraine sustained “a marked escalation in sniper deaths.”*

*Land mines are also a problem. The Ukrainian parliamentarians informed the Committee that approximately 7,000 square kilometres of Ukraine have been mined, which is an area that continues to grow. According to the UN, more than 1,600 civilians have been killed or injured by mines since the beginning of the conflict in Ukraine in 2014.*

*Mr. Levchenko believed that Russia is mining large parts of Ukraine “to make it as hard as possible for this territory to go back under Ukrainian control.”*

*The ecological situation in the Ukrainian territories that are occupied by pro-Russian forces is another challenge. The main issue is the flooding of old coal mines, many of which were previously used as nuclear waste storage facilities. Mr. Levchenko explained that, “[w]hen we were in control of our territory, we spent quite a lot of money and resources to pump this water out of the coal mines,” but pro-Russian “occupying forces have simply decided not to use any resources for this,” and have instead chosen to ignore the problem.*

*Approximately 30 coal mines, including the Yuncom coal mine that was used to store radioactive nuclear waste, are currently flooded. He characterized the situation as “a huge problem that can cause huge swaths of our territory in the Donbas region to become uninhabitable,” and pointed out that large towns with hundreds of thousands of people are located near those mines and could be affected. In his view, this situation will only complicate “any return to normalcy”*



*once Ukraine eventually retains control of its territory, and said that this problem could result in a major humanitarian crisis and environmental catastrophe in the coming years.*

*According to Anders Aslund, Senior Fellow with the Atlantic Council's Eurasia Center, the Russian-occupied Donbas region has become a "real hellhole" as a result of the armed conflict. He explained that one half of the region's population of almost 5 million people has fled, and that all business activity is "standing still." In providing an example, Mr. Aslund noted that the Donetsk oblast has an "elementary food industry and shops," but "hardly anything more," and added that all of the banks have been robbed.*

## **Russian Arms Sales to India Continue: New Deal for Grigorivich Class Frigates**

11/28/2018

By Vishal Thapar

Within a span of one month, India and Russia have signed a \$ 500m (Rs 3,564 crore) deal here on November 20 for the construction of two Grigorivich class stealth frigates at Goa Shipyard.

This is part of the umbrella deal for acquiring four Grigorivich class frigates for the Indian Navy under an Inter-Governmental Agreement (IGI) of 2016.

The November 20 deal – signed between Goa Shipyard and Rosoboronexport – is a follow-up of the October 23 contract worth an estimated Rs 8,000 crore for the purchase of the first two of these stealth warships from Russia's Yantar Shipyard. These were originally intended for the Russian Navy, and are lying partially constructed at this Shipyard.

The follow-on deal of November 20 is for the design and transfer of technology for the two to be made at Goa Shipyards. These will be the most complex warships made at Goa Shipyards so far.

Earlier this week, Russia was declared the winner of the VSHORADS competition to boost the air defence capability of the Indian Army. The momentum for this roll came from the \$ 5.4b deal for S-400 Triumf air defence systems during the India-Russia Summit in October.

This is a clear indication that India-Russia defence cooperation has not been deterred by the US sanctions threat under its new legislation CAATSA which seeks to thwart global trade with Russia and Iran.

The deal for the four stealth frigates, which are a follow-on of the Krivak class frigates purchase earlier, also involve the purchase of 16 Zorya gas turbine engines from Ukraine at an estimated cost of Rs 1,000 crore.

The Russian produced frigates are to be delivered in 2022-23, while the Made in India ones are scheduled to be handed over in 2026-27.

These will increase the strength of the Russian designed and supplied stealth frigates in the Indian Navy to 10.

The Indian Navy currently operates six Krivak class frigates under the Talwar and Teg series. The indigenous Shivalik class is also believed to be inspired by the Krivak class.

The Krivak and Grigorivich class of stealth warships have a displacement of over 4,000 tons. The new frigates will also be equipped with Brahmos supersonic cruise missiles.

This article was first published by our partner [India Strategic](#).

# Is Russia Violating the New START Treaty?

11/22/2018

By Stephen Blank

When the U.S. government announced it was withdrawing from the INF treaty due to Russian violations of the treaty that are now universally acknowledged, a flood of critical article immediately ensued.

However, virtually none of those articles mentioned Russian nuclear strategy or policy, reflecting these commentators' ongoing ignorance of both subjects and refusal to take into account Russia's nuclear behavior and the reasons for it.

Without a proper understanding of Russian nuclear policy, not to mention strategy, formulation of an appropriate Western strategy and policies becomes that much more difficult.

But recent trends suggest that Washington's decision was not misconceived and that nuclear weapons continue to hold not just a place of priority in Russian procurements but are also seen as usable weapons.

Nuclear weapons remain the priority in Russian procurement for the new defense plan through 2025 as in the previous plan through 2020.<sup>1</sup>

And this occurs even though doctrinally and, in practice, the Russian government and military proclaim their emphasis on non-nuclear deterrence in current and future military planning.<sup>2</sup>

Additionally, there is evidence that Russia has violated not only the INF and other arms control treaties like the CFE treaty but is also violating the New START treaty that is supposed to expire in 2021. When Russia submitted its statement of its nuclear weapons holding for the New START treaty earlier in 2018 it noted that it had destroyed 116 missiles, yet added 26 MIRVed missiles that carry up to 10 missiles each.

This declaration means that it was adding rather than subtracting missiles.<sup>3</sup>

Similarly Vladimir Mikheev, Advisor to the First Deputy General Director of Concern for Radio-Electronic Technologies (KRET) said that Russia was installing EW systems on X-101 and X-102 cruise missiles carried by the TU-95, Tu-160, and TU-22M3 strategic bombers.

Russia also reported that the X-101 is the newest Russian air-ground cruise missile that is designed to avoid radar visibility. It can be equipped with a nuclear warhead and its range amounts to 4500 KM (2800 Miles).<sup>4</sup>

As former Pentagon official Dr. Mark Schneider has observed, if the Backfire bomber, (NATO designation for the TU 22-M3) which was not declared to be a heavy bomber, carries either the KH-1-1 or Kh-102 that is a violation of the New START Treaty since it converts the TU-22M# (Backfire) into an undeclared heavy bomber.<sup>5</sup>

Beyond these disquieting developments, President Putin has recently announced that although Russia does not have a strategy for preemptive nuclear use, it does have a launch on warning doctrine.<sup>6</sup>

And one can also doubt the assertion that Russia does not have a strategy for preemptive nuclear use as Russian analysts and officials have made it clear that the entire preemption debate has been classified.<sup>7</sup>

Indeed, the assertion that Russia does not have a nuclear preemption strategy directly contradicts the statement of former Chief of the General Staff, Retired General Yuri Baluyevsky, the author of the 2010 defense doctrine, who stated in 2014 that the conditions for preemptive nuclear strikes were contained in the classified nuclear doctrine.<sup>8</sup>

And in 2015, Ilya Krammik, the military correspondent for RIA Novosti wrote that Russia's 2010 defense doctrine, despite the opinion of most Western observers "further lowered" the threshold of "combat use" of nuclear weapons.<sup>9</sup>

Evidently Putin has disregarded the fact that that launch on warning is one of the riskiest and most destabilizing models for using nuclear weapons.<sup>10</sup>

Furthermore Putin has also recently announced that the Avangard hypersonic nuclear missile will be deployed in 2019, although not all Western analysts are convinced that the hypersonic missiles Putin has frequently advertised will actually be ready for deployment.<sup>11</sup>

No less disquieting is the fact that in the recent Vostok-2018 exercises Russian forces and the Ministry of Energy conducted large-scale exercises to restore electric grids and power supply after an attack.

In other words, Russia rehearsed an EMP (Electro-Magnetic Pulse) operation, and its aftermath strongly suggesting that it either expects one or is intending to launch one.<sup>12</sup>

Significantly Moscow sought to conceal the purpose of the grid recovery exercise and divorce it from Vostok-18 by suggesting it was done to prepare for the Siberian winter.<sup>13</sup>

Furthermore, we now know that Moscow has rehearsed nuclear operations, e.g. a nuclear strike against Sweden in 2013.<sup>14</sup>

This occurred in the context of overflights and subsequent nuclear threats against all of the northern European states from the UK to Finland and dovetails with the apparent GPS jamming of Norway and Finland during the recent NATO Trident Juncture exercise.<sup>15</sup>

Finally, Putin has threatened all of Europe that any state that hosts US INF-capable missiles, will be targeted with nuclear weapons as if that is not already the case.<sup>16</sup>

And Col-General Victor Yesin, former CINC of Russia's nuclear weapons has now also threatened that if Washington leaves the INF treaty and deploys missiles in Europe Russia could shift to a preemptive strike doctrine in the expectation of a NATO nuclear strike or conventional attack in tandem with the U.S. missile defense system on its nuclear C4ISR that would destroy its nuclear capability.<sup>17</sup>

Moreover, Russia's Perimetr' defense complex, the so-called "Dead Hand" of the 1980s is not only alive and functioning but has also been modernized and improved.<sup>18</sup>

These remarks are noteworthy because they reflect Russia's belief despite the laws of physics and dozens of official briefings by the US, that the U.S. is planning a first strike on Russian nuclear weapons.

Therefore, Moscow believes it must answer or retaliate if not preempt in kind by launching on warning, i.e. even before being attacked since warning has proven to be notoriously unreliable.

Since NATO has already said that no new U.S. nuclear missiles will be deployed in Europe and U.S. missile defenses cannot take out Russia's nuclear weapons we have before us a threat assessment that inclines more than a little, to hysteria and worst case analysis.

This threat assessment, taken in tandem with Russian procurements, the fact that nuclear weapons are fully integrated with conventional weapons and operations across the spectrum of conflict, the fact that with over 20 programs now being developed for counterforce, countervalue, short, intermediate, and long-range capabilities, can we really believe that Russia is complying with the New START treaty and is renouncing the first-strike use of nuclear weapons?

Moreover, it would appear that the aspects of Russian strategy presented here comprise at least part of Russia's "Theory of victory" in a nuclear contingency.<sup>19</sup>

These facts from Russian threat assessments, procurements, exercises, treaty violations, and deployments of nuclear-capable systems in Crimea, the Western Military District, Kaliningrad, and the Black Sea undermine confidence in Russia either as a reliable partner for arms control or in its professions that it is moving away from nuclear to conventional scenarios.

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