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RUSSIA:
ARMS CONTROL, DISARMAMENT AND INTERNATIONAL SECURITY

IMEMO SUPPLEMENT
TO THE RUSSIAN EDITION
OF THE SIPRI YEARBOOK 2018

Foreword by Alexander Dynkin

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The volume provides IMEMO contributions *to the Russian Edition of the 2018 SIPRI Yearbook: Armaments, Disarmament and International Security*. It covers such important issues as overcoming the threat of unlimited arms race, dealing with the development of hypersonic precision-guided weapons and their influence on strategic stability and formulating the prospects for normalising NATO–Russia relations. This year's volume also highlights the problems of the settlement of the crisis around Iran's nuclear programme, provides research on the possibilities to overcome the stand-off on the Korean Peninsula, analyses the prospects for settlement in Syria and in the Middle East and explores the state of the nonproliferation regime in the run-up to the 2020 NPT Review Conference.

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FOREWORD

More than a quarter of a century has passed since the publication of the SIPRI Yearbook's first Russian edition which marked the beginning of the joint project of the Stockholm International Peace Research Institute (SIPRI) and the Russian Academy of Sciences' Primakov National Research Institute of World Economy and International Relations (IMEMO RAS).

The Russian version of the highly-accredited SIPRI Yearbook includes the Special Supplement which presents the analysis by IMEMO's leading scholars of today's key international security and arms control problems.

This year's Special Supplement, as previously, contains chapters on the most pressing global themes. The Supplement covers such important issues as the threat of unlimited arms race, the development of hypersonic precision-guided weapons and their influence on strategic stability and the prospects for normalising Russia–NATO relations.

The Supplement's Part II, Expert Insights, features the analysis of the problems of the settlement of the crisis around Iran's nuclear programme, provides research on the possibilities to overcome the stand-off on the Korean Peninsula, gives an outlook on the prospects for settlement in Syria and in the Middle East in general and investigates a number of nonproliferation issues in the run-up to the NPT Review Conference. The Supplement also traditionally carries an overview of the key documents of the Russian Federation on national security, defence and arms control (for the period from January to December 2018).

Alexey Arbatov and Sergey Oznobishchev have directed the project. Marianna Yevtodyeva has coordinated the work for preparing and publishing the SIPRI Yearbook and the IMEMO Special Supplement. Natalia Bubnova has been the editor of the Supplement's English version.

I would like to thank the authors of the IMEMO Special Supplement: Alexey Arbatov, Konstantin Bogdanov, Stanislav Ivanov, Pavel Karasev, Victor Mizin, Sergey Oznobishchev, Daria Selezneva, Alexander Fedorovsky and Sergey Tselitsky.

On behalf of the Institute and all the Russian participants of the Project, I would like to pay tribute to the late Vadim Vladimirov, our long-time colleague and friend, who for many years has participated in this endeavour and has made a significant contribution to maintaining the SIPRI Yearbook's Russian Edition and the SIPRI Special Supplement at their high professional level.

I express deep gratitude to the Swiss Federal Department of Defence, Civil Protection and Sport for its traditional support of this publication.

Academician Alexander Dynkin
President of the Primakov National Research Institute
of World Economy and International Relations
of the Russian Academy of Sciences
July 2019

ACRONYMS

ABM Treaty	– 1972 Anti-Ballistic Missile Treaty
AI	– artificial intelligence
ALCM	– air-launched cruise missile
BMD	– ballistic missile defence
CFE	– 1990 Treaty on Conventional Armed Forces in Europe
CM	– cruise missile
CTBT	– 1996 Comprehensive Nuclear-Test-Ban Treaty
EFP	– NATO Enhanced Forward Presence
GGE	– UN Group of Governmental Experts
GLCM	– ground-launched cruise missile
IAEA	– International Atomic Energy Agency
ICBM	– intercontinental ballistic missile
ICT	– information and communication technologies
INF Treaty	– 1987 Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles
INSTEX	– EU Instrument in Support of Trade Exchanges
IRBM	– intermediate-range ballistic missile
IRGC	– Islamic Revolutionary Guard Corps
IRM	– intermediate-range missile
IS (ISIL)	– Islamic State (Islamic State of Iraq and the Levant)
JCPOA	– Joint Comprehensive Plan of Action
LAWS	– lethal autonomous weapon systems
MaRV	– manoeuvering re-entry vehicle
MAWS	– missile attack warning system
MIRV	– multiple independently targeted re-entry vehicle
MRBM	– medium-range ballistic missile
MTCR	– Missile Technology Control Regime
NAM	– Non-Aligned Movement
NATO	– North Atlantic Treaty Organisation
New START	– 2010 Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms
NPT	– 1968 Treaty on the Nonproliferation of Nuclear Weapons

NRC	– NATO–Russia Council
NRF	– NATO Response Forces
NSA	– US National Security Agency
OSCE	– Organisation for Security and Cooperation in Europe
PGS	– Prompt Global Strike
PGW	– precision-guided weapons
PKK	– Kurdistan Workers' Party
PYD	– Kurdish Democratic Union Party
R&D	– research and development
SALT I	– 1972 Interim Agreement on Certain Measures with Respect to the Limitation of Strategic Offensive Arms
SALT II	– 1979 Strategic Arms Limitation Treaty
SCADA	– supervisory control and data acquisition system
SLBM	– submarine-launched ballistic missile
SLCM	– sea-launched cruise missile
SSBN	– nuclear-powered ballistic missile submarine
START I	– 1991 Strategic Arms Reduction Treaty
START II	– 1993 Strategic Arms Reduction Treaty
TFP	– NATO Tailored Forward Presence
TLE	– CFE Treaty-Limited Equipment
TPNW	– Treaty on the Prohibition of Nuclear Weapons
UAV	– unmanned aerial vehicle
UN	– United Nations
UNGA	– United Nations General Assembly
UNSC	– United Nations Security Council
VJTF	– NATO Very High Readiness Joint Task Force
WMD(s)	– weapons of mass destruction
WMDFZ	– Weapons of Mass Destruction Free Zone

PART I. ANALYSES, FORECASTS AND DISCUSSIONS

1. FACING AN ARMS RACE WITH NO RULES[1]

Alexey ARBATOV

At the end of the second decade of the 21st century, the world is about to enter a qualitatively new and quite dangerous stage of development. Today, there is an increased risk of the United States and Russia engaging in nuclear arms race that could result in lowering the threshold for the use of nuclear weapons. China, India, Pakistan and many other states can also be dragged into this arms race, which would undermine nuclear nonproliferation norms and regimes.

New approaches to the nuclear problem

Recent decades have seen a gradual ad hoc transformation of the consensus on the nuclear issue reached by the end of the Cold War by the US, Russian and other major powers' elites and the general public. These late Cold War-period ideas can be summarised in the following basic points[2]:

– Nuclear war would have catastrophic consequences for the mankind, one cannot win such a war and it must never be waged;

– Nuclear weapons, nuclear arms race and nuclear proliferation are in themselves a major threat to peace and international security;

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[1] The data in the volume is as of 1 June 2019.

[2] Basic Principles of Relations between the Union of Soviet Socialist Republics and the United States of America, Moscow, 29 May 1972 <https://history.state.gov/historicaldocuments/frus1969–76v14/d233>; Joint US–Soviet Statement, 22 November 1985, *The New York Times* <https://www.nytimes.com/1985/11/22/world/summit-finale-praise-weinberger-text-joint-us-soviet-statement-greater.html>; *Disarmament and Security. 1988–1989. IMEMO Yearbook*, Ed. by Y. M. Primakov, Moscow, Agentstvo Pechati Novosti, 1989 [in Russian]; Newhouse, J., *War and Peace in the Nuclear Age*, New York, Alfred A. Knopf Inc., 1989; Perry, W., *My Journey at the Nuclear Brink*, California, Stanford Security Studies, 2015.

– Irrespective of their existing ideological, political and military differences, states should seek agreement on nuclear arms reductions and nuclear nonproliferation as the main prerequisites for preventing nuclear war; and

– Any limited use of nuclear weapons by the superpowers would almost inevitably escalate to a global nuclear war.

On the eve of the 1960s, these ideas were expressed only by a small number of western liberals.[3] Yet after the 1962 Cuban missile crisis, the United States and the Soviet Union gradually came to agree upon the mentioned rules of thinking and behaviour in the nuclear world, which was supported by the centrist majority of the superpowers' governing elites and the world public. These ideas have served as a foundation for an extensive system of nuclear disarmament and nonproliferation treaties and regimes which also impact respective conventional weapons and military activities.

The current strategic discourse both in the United States and in Russia challenges all those nuclear weapons-related principles, the hard-won fruit born out of states' and strategic elites' painful experience of the Cold War. There are experts who disparage the half-a-century's disarmament talks and disarmament agreements, call out off-hand for rejecting them and propose dubious and obviously unfeasible 'innovative' nuclear arms control schemes instead.[4] Some of them engage in bold speculations on nuclear war, alleging that it would not necessarily have catastrophic consequences for the mankind and that it can be won.[5] Others contend that disarmament agreements cause harm

[3] McNamara, R., *The Essence of Security: Reflections in Office*, New York, Harper and Row, 1968, p. 57.

[4] Karaganov, S., 'How to strengthen deterrence and preserve peace,' *Russia in Global Politics,* Volume 15, № 2, 2017, pp. 8–19 [in Russian]; Kortunov, A., 'The end of the era of bilateralism. How the US withdrawal from the INF Treaty changes the world order', Carnegie Moscow Centre, 23 Oct. 2018 <https://carnegie.ru/commentary/77551> [in Russian].

[5] Sivkov, K., 'Disarmed and very dangerous', *Voenno-Promyshlennyi Kurier*, 22–28 Mar. 2017 <https://vpknews.ru/articles/35718> [in Russian]; Khramchikhin, A., 'Why the end of a unipolar world is dangerous', *Nezavisimoye Voyennoye Obozreniye*, 11 Jan. 2019 <http://nvo.ng.ru/concepts/2019–01–11/1_1029_welt.html> [in Russian].

and do nothing but impede efficient implementation of military and technical programmes.[6] The understanding of strategic stability is thus eroded, and the first nuclear strike is announced to be a legitimate and efficient means for ensuring national defence.

All the above-mentioned ideas used to be marginal and expressed publicly primarily by strategic extremists in Russia and the United States. Yet now these perceptions have entered the mainstream of the two countries' strategic discussions and have found some reflection in their official documents and actual military programmes. Meanwhile, the two super-powers' strategic communities have come to be deeply divided into two unequal parts, while their moderate centres have all but disappeared.

The same is true on a global scale. While the leading nuclear-weapon states' policy makers started to attribute increased importance to the role of nuclear weapons, on the other side of the extreme was the decision of the United Nations General Assembly to adopt the Treaty on the Prohibition of Nuclear Weapons,[7] which was approved on 6 July 2017. Over two thirds of the UN member states had participated in its elaboration and undertook to support it. The Treaty is to enter into force when ratified by 50 states parties, and would prohibit the development, storage, acquisition, transportation and use of nuclear weapons.

Without doubting the good intentions of the proponents of the Treaty, one cannot but acknowledge that it is neither theoretically, nor practically feasible. The problem is not only that the nine nuclear states, which would have to implement the Treaty, demonstrated a rare unanimity in failing to support the UN initiative. The document's main handicap is that, in addition to its numerous technical and economic drawbacks, it considers nuclear disarmament primarily as a technical problem, disregarding the role of the nuclear weapons as an essential element of the existing world's system of military and political relations. Without

[6] Shirokorad, A., 'Will Trump let the nuclear genie out of the bottle', *Nezavisimoye Voyennoye Obozreniye,* 26 Oct. 2018 <http://nvo.ng.ru/realty/2018–10–26/3_1019_tramp.html> [in Russian].

[7] Treaty on the Prohibition of Nuclear Weapons. United Nations General Assembly, 17 Jul. 2017 <https://undocs.org/en/A/CONF.229/2017/8>.

changing this situation and ensuring the states' nuclear weapons-related interests is some alternative way, it would be impossible to do away with nuclear weapons even if the many respective technical problems were resolved. For the last 70 years, nuclear weapons have become an integral element of international politics, military strategy and security. As long as this pattern persists, the nuclear component of the international relations cannot be simply excised like a malignant cancer, as that would result in chaos, wars and the collapse of international rules and institutions.

As this Treaty has no chance to be implemented and has caused a hostile response on behalf of the nuclear powers, it can severely hamper progress towards a number of other, quite feasible, agreements in nuclear sphere, primarily the progress on strengthening the Treaty on the Nonproliferation of Nuclear Weapons (NPT) and other measures. Furthermore, at this stage, the schism between the strategic elites of the leading powers on the one hand, and a major part of the international community on the other, has become an important factor undermining strategic stability and inciting a new arms race cycle.

Arms control crisis

The disintegration of the arms control system has become one of the main elements of the exacerbated military and political tensions between Russia and the West. With Washington and, subsequently, Moscow expressing their intention to withdraw from the INF Treaty in January and February 2019, the Treaty came to be the weakest link in the nuclear arms control system.

For eight years, Russia and the United States did not conduct negotiations on a follow-on strategic nuclear arms treaty, which is the most protracted pause in the fifty years history of these negotiations. Although both parties fulfilled their obligations assumed under the current New START Treaty by February 2018, the Treaty is to expire in 2021, leaving a vacuum in strategic arms control. The US Administration on the whole views negatively the prospects of extending the New

START Treaty till 2026 (the Treaty provisions foresee a possibility to extend the Treaty once, for five years), despite the attempts undertaken by the Congress to promote this option.

Thus, the United States and Russia have found themselves on the brink of a new arms race, which, unlike the arms race of the Cold War period, would also include competition in conventional strategic offensive and defensive weapons and the development of space weapons and cyber warfare means. Furthermore, this new multilateral arms race, in addition to the United States and Russia, would involve China, NATO countries, India, Pakistan, South and North Korea, Japan and other states.

For obvious reasons, the intermediate-range missiles (IRMs) were the main focus in 2018 and 2019. As the Russian President said at his annual News Conference of 20 October 2018,[8] the United States 'are now about to take another step and withdraw from the INF Treaty… What if these missiles show up in Europe? What are we supposed to do then? Of course, we will need to take some steps to ensure our safety. And they should not whine later that we are allegedly trying to gain certain advantages. We are not. We are simply trying to maintain the balance and ensure our security'. 'The same goes for the START-III Treaty, which expires in 2021', Vladimir Putin continued. 'There are no talks on this issue. Is it because no one is interested, or believes it is necessary? Fine, we can live with that. We will ensure our security. We know how to do it. But in general, for humanity, this is very bad, because this takes us to a very dangerous line'.[9]

It is worth noting that Russia did undertake attempts to save the INF Treaty. For this purpose, in January 2019, Russia made an important, though possibly long overdue step, demonstrating to foreign experts the container of the new SSC–X-8 Novator cruise missile, for

[8] Vladimir Putin's Annual News Conference, Moscow, 20 Dec. 2018 <http://www.en.kremlin.ru/events/president/news/59455>.
[9] Ibid.

them to compare it with the previous 9M728 Iskander missile.[10] This new Russian missile has been deemed by Western experts and politicians as violation of the INF Treaty, because of allegedly having a range of over 500 km. The United States and other NATO countries refrained from attending the demonstration, declaring that it was not the missile deployed at the Russian military bases, while those actually deployed did indeed violate the Treaty.

Important, however, is that the official Moscow's attitude towards the INF Treaty, which for over a decade had been nothing but critical, has obviously changed. In the preceding years, the country's top officials kept reiterating that Russia either needed such missiles to defend itself against third countries or, alternatively, against the US ballistic missile defence in Europe and other NATO military bases.[11] That stance effectively created the strategic context in which the United States accused Russia of the non-observance of the Treaty.

Even recently, there have been repeated official statements on behalf of the Russian officials that in 1987, when the Treaty was signed, the United States had intermediate-range sea-launched and ground-launched cruise missiles (SLCMs and ALCMs), while the Soviet Union possessed only ground-launched cruise missile systems (GLCMs), which were consequently banned by the Treaty. Yet it was actually the other way around. Since 1983–1984, the Soviet Armed Forces commissioned S-10 Granat (NATO reporting name SS-N-21 Sampson) sea-launched medium-range nuclear cruise missiles and Kh-55 (NATO: AS-15 Kent) air-launched cruise missiles, while the ground-launched RK-55 Relief (NATO: SSC–X-4 Slingshot) systems had not yet entered into service

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[10] Russian Defence Ministry briefs military attaches, with presentation of the 9M729 missile of Iskander-M complex, Ministry of Defence of the Russian Federation, *Official website*, 23 Jan. 2019 <http://eng.mil.ru/en/news_page/country/more.htm?id=12213705@egNews>.

[11] Speech and the Following Discussion at the Munich Conference on Security Policy, 10 Feb. 2007 <http://en.kremlin.ru/events/president/transcripts/24034>; Litovkin, A. 'Adequate Iskander', *Izvestia*, 21 Feb. 2007 <https://iz.ru/news/321928> [in Russian]; Safranchuk, I., 'Military-diplomatic azimuths mixed up', *Nezavisimaya Gazeta*, 26 Feb. 2007 <http://www.ng.ru/politics/2007–02–26/3_kartblansh.html> [in Russian].

and at the time of the signing of the Treaty were kept at storage facilities (80 missiles).[12] By then, the United States had already deployed 320 such weapons (BGM-109G) in Western Europe, and then subsequently destroyed them under the Treaty.

Furthermore, an opinion was expressed in Russia that the INF Treaty proved to be 'unilateral disarmament' for the Soviet Union, which thus allegedly had been signed for some inexplicable reasons. It should be mentioned in this context that if viewed from a different angle, the Treaty proved in fact to be unilateral disarmament for the United States. The Soviet Union indeed eliminated 1846 missiles of various types, yet not a single one of them was capable of reaching the US territory; hence the Treaty did nothing to directly strengthen the security of the United States itself, only eliminating military threat to its NATO allies and military bases in Europe and Asia. While as for the United States, it destroyed 846 intermediate nuclear missiles, all of which had a short flight time or could follow a depressed trajectory, and could carry out a devastating strike against all of the European territory of the Soviet Union. They were also capable of destroying the hardened underground command and control centres of this country's military and political leadership. Therefore, for Moscow this Treaty in effect became the first agreement envisaging deep strategic arms reductions (by nearly a thousand missiles and warheads) on the part of the United States.

Some say that the current reversal of Russia's position in support of the INF serves propaganda purposes and is dictated by the desire to make the United States responsible for the disruption of the INF Treaty.[13] It is true that many Russian experts and even MPs openly welcome the collapse of the agreement and advocate for freedom of deployment of many types of offensive nuclear weapons of all classes.[14]

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[12] Shirokorad, A., *Blazing Sword of the Russian Navy*, Moscow, Yauza-Eksmo, 2004, p. 308.

[13] MacFarquhar, N., 'Russia Shows Off New Cruise Missile and Says It Abides by Landmark Treaty', *The New York Times,* 23 Jan. 2019 <https://www.nytimes.com/2019/01/23/world/europe/russia-inf-cruise-missile.html>.

[14] Sivkov, K., 'Disarmed and very dangerous'…; Khramchikhin, A., 'Why the end of a unipolar world…'; Shirokorad A., '*Burning Sword…*', p. 308.

Nevertheless, Russia has very good reasons to essentially reconsider its official stance on the Treaty, as in its current geopolitical situation the Treaty is much more important for her security than thirty years ago. In case of an arms race involving intermediate-range ground-based missiles – rather than deploying its missile systems in West Europe – the United States would most likely opt for forward bases in Poland, the Baltic states and Romania, from where they would be able to reach beyond the Urals. It could also venture out to develop modified Pershing II missiles with manoeuvring hypersonic warheads (apparently included in the respective R&D programme, for which $60 million have been allocated). Due to the short flight time and special trajectory of this type of missiles (including hypersonic ones), they will undermine Russia's launch-on-warning concept and make Russia go to the enormous expenses to increase the survivability of its nuclear forces and their information and control infrastructure. A number of top military officials believe that, alternatively, Russia may opt for a pre-emptive nuclear strike concept.[15] If the United States does the same, the threshold for the use of nuclear weapons in Europe would be drastically reduced, as any possible crisis could prompt the parties to try to rush ahead and launch a pre-emptive strike.

It would be no easy matter to respond to a US deployment of its IRMs on the Eurasian continent. Russian deployment of analogous weapons (whether the Kalibr sea-launched missiles and Kinzhal air-based missiles modified for ground launch, or the new intermediate-range hypersonic missiles) would not undermine the security of the United States itself, but of its European and Asian allies. Yet even if Russian IRMs were to be stationed in Kamchatka and Chukotka, they would only be able to reach Alaska and some of the US northwestern states, which in political and military terms are far from equivalent to the centre of Russia's European part, the Urals and Western Siberia.

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[15] 'Colonel General Victor Yesin: "If the US decides to deploy their missiles in Europe, they will leave us no other choice but to forego the doctrine of launch-on-warning and adopt the preventive strike doctrine"', *Yezhenedelnik Zvezda*, 8 Nov. 2018 <https://zvezdaweekly.ru/news/t/2018117102–0iaAI.html> [in Russian].

An asymmetric response at the level of strategic systems' development and deployment would not provide Russia with proportionate advantage to make up for this geostrategic asymmetry. Moreover, it should be acknowledged that the United States is prepared for competing in this category of weapons, even if one takes into account Russia's advanced weapons systems (Sarmat heavy intercontinental ballistic missiles, Avangard hypersonic systems, Poseidon long-range nuclear torpedoes and Burevestnik intercontinental nuclear-propelled cruise missiles unveiled by President Putin in his Address of 1 March 2018).[16] Regardless of the fate of the INF Treaty, Washington intends to deploy low-yield nuclear warheads designated for 'limited strikes' and subsequently, after mid-2020s engage in full upgrade of its strategic triad at a cost of over $1 trillion that would be spent on new weapon systems to replace its current ICBMs, SLBMs and heavy bombers.[17]

Chances to salvage the treaties

Nonetheless, till August 2019, there remains a possibility to preserve the INF Treaty. The demonstration of Russian ground-launched cruise missiles in January 2019 was, beyond doubt, a step in the right direction. In the past, the parties managed to find proper solutions for far more sensitive military and political issues. Russia's official response to the United States' formal notice on its intention to withdraw from the INF Treaty in six months said that Russia also suspended its participation in the Treaty and would engage in the development of a number of intermediate-range missile systems, yet it would not deploy them as long as the United States abstained from placing such weapons in Europe or

[16] Presidential Address to the Federal Assembly, *Official website of the President of Russia*, 1 Mar. 2018 <http://en.kremlin.ru/events/president/news/56957>.
[17] Nuclear Posture Review, Office of the Secretary of Defense, Washington, DC, February 2018 <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL->.

Asia.[18] This is a well-thought and rational stance, despite the fact that it does not eliminate mutual accusations related to the Russian 9M729 missiles (NATO reporting name SSC–X-8) and the US ballistic missile defence (BMD) launchers in Romania and Poland. It appears that the parties could break the deadlock by agreeing on the possibility of on-site inspections, which would allow US representatives, for instance, to make sure that at a respective base, Iskander missile systems (demonstrated in January 2019) are deployed, rather than longer-range missiles.

The generally accepted presumption of innocence does not apply in the field of nuclear arms control. If the party is accused of violating an agreement, with facts and figures presented to support this allegation, the accused party must demonstrate that such accusations are groundless, and has to base its explanations on facts as well. Similarly, verbal assurances on the part of the United States would not suffice; it would have to provide to Russia technical proof that its BMD launchers in Romania and Poland cannot be used to mount Tomahawk cruise missiles, as is the case with its universal Mk-41 launchers on ships. If there is no such proof, the launchers ought to be, in due fashion, technically modified or dismantled. The two countries, at the very least, should agree to make possible regular Russian technical on-site inspections on a short notice to verify the absence of cruise missiles at US BMD sites.

If the parties fail to salvage the Treaty, they should at a minimum adopt politically binding commitments that they will not commence the deployment on the European continent of the missiles prohibited by the Treaty (from which they have so far been officially promising to refrain). As an interim measure applying to the anti-ballistic missile launchers in Romania and Poland and the 9M729 missile system, they could agree to not increase the number of such systems in Europe and to develop appropriate confidence-building and transparency measures.

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[18] Meeting with Sergei Lavrov and Sergei Shoigu, *Official website of the President of the Russian Federation*, 2 Feb. 2019 <http://www.en.kremlin.ru/events/president/news/59763>.

Also noteworthy are the changes that have occurred in Moscow's position regarding the START Treaty. During President Obama's second term (2012–2016), Russia rejected the United States' proposals to extend the Treaty beyond 2021, not to mention the possibility of concluding a follow-on strategic weapons reductions treaty. This was explained by the US deployment of ballistic missile defence and high-precision conventional weapons,[19] as well as by the advancement of NATO military infrastructure towards Russian borders and the economic sanctions imposed by the West. Apparently, all this is no longer considered an obstacle for the extension of the Treaty.

If the United States refuses to extend the New START Treaty (harshly criticised there as 'Obama's concession'), there remains an option of expediently negotiating a follow-on treaty on such weapons, as there is still time left till 2021. One needs only to remember that the New START Treaty was elaborated after but a year of intense talks, as Moscow and Washington demonstrated sufficient political will and pursued their shared national priorities. Yet this is where the main point of contention lies now, rather than in the complex nature of the current world order or the military technologies.

The thresholds to be established by the new agreement are not so important; they can be reduced marginally or symbolically (even by 100 warheads, for example). It is the scope of the agreement that is much more important. It should envisage counting air-launched nuclear cruise missiles and air bombs based on the actual loads of the bombers and include in the overall limits ground-launched intercontinental ballistic missiles and intercontinental hypersonic boost-glide vehicles irrespective of the type of their warheads. This would provide the two sides with at least indirect means of limiting weapons that dangerously reduce the nuclear threshold.

The new agreement should also apply to fractional-orbital ICBMs and long-range autonomous underwater vehicles. In addition to this, the two states might agree on distinguishing between the BMD systems

[19] Presidential Address to the Federal Assembly, *Official website of the President of the Russian Federation*, 12 Dec. 2013 <http://en.kremlin.ru/events/president/news/19825>.

intended for strategic (global) defence against intercontinental ballistic missiles, on the one hand, and, on the other hand, regional ballistic missile defence and air defence systems intended for the interception of short-range, medium-range and intermediate-range missiles. The former should be subjected to less stringent limitations than those envisaged under the 1972 ABM Treaty, while the latter ought to be exempt from all limitations (according to the model set by the 1997 Agreement on the Demarcation Between Anti-Ballistic Missile Defences), in order to ensure protection against theatre offensive systems, and third countries' and terrorists' nuclear missiles.

Along with that, one should initiate negotiations on space weapons, beginning with prohibition of all anti-satellite systems' tests that involve destroying real targets in outer space. The parties should also engage in dialogue on mutual renunciation of cyberattacks against each other's strategic command, control, communication and information systems, first and foremost ballistic missile attack early warning systems. Such an agreement (that could at first be adopted as a politically binding code of conduct, with no verification regime) would clearly serve the interests of Russia, the United States and other powers. Because no power would benefit in case of an unintended exchange of nuclear strikes as a result of cyber-subversion intended to disable ballistic missile attack early warning systems, undermine their normal functioning or generate false alarm signals.

Throughout the four decades of the previous Cold War, the world managed to avoid nuclear disaster, although at times owing to a fortunate set of circumstances (as was the case during the 1962 Cuban missile crisis). However, one can hardly expect such luck in the future, as the world order is changing dynamically, and so are military technologies and generations of political and military elites of the leading states. Yet in the foreseeable future, the fate of the nuclear arms control and preventing nuclear war will still be predominantly determined by the positions of the US and Russian political and military leaderships, – and the same is also true about engaging third nuclear possessor states into the disarmament process.

2. HYPERSONIC PRECISION-GUIDED WEAPONS, STRATEGIC STABILITY AND ARMS CONTROL

Konstantin BOGDANOV

The use of a general term 'hypersonic' in relation to a whole number of emerging weapons systems – which has become widespread in the recent times – blurs distinction between completely different types of weapons. This makes it difficult to define their characteristic features, assess their impact on military-strategic balance and therefore develop possible control regimes with regard to such weapons.

Uncertainties of hypersonic weapons' classification

When taken alone speed as a characteristic (and 'hypersonic' means 'moving at a speed of at least five times the speed of sound or Mach numbers') does not allow to distinguish an individual kind of weapons by associating it with some new, previously unattainable combat features. Thus, practically all ballistic missiles with a range of about 250–300 km or more are formally hypersonic. In 1980, the Soviet Air Force deployed the Kh-15 air-launched aero-ballistic missiles with a maximum speed of Mach 5.

However, if coupled with high accuracy and long-range requirements, the cruise hypersonic speed enables respective weapon systems to indeed acquire some fundamentally new properties, including short flight time and relatively high resilience to interception by existing air defence and missile defence systems. At the same time, they differ significantly in their military-technical parameters and particularities of combat use, which requires separate analysis of their impact on the military-strategic balance.

A precision-guided weapon (PGW) is a weapons system that allows to hit a target in the very first launch at any distance within range, with a probability of at least 0.5.[1]

The term 'long range' does not have a definite interpretation since it is not related to any generally accepted quantitative indicator. For example, in the recent paper by UN experts on arms control in the area of hypersonic weapons, the threshold for defining 'long-range weapons' was set at 1,000 km based on evaluation 'in the broadest sense'.[2] The bottom parameters limiting the range of ballistic and cruise missiles under the INF Treaty are 500 km, while ALCMs according to the agreed terminology of the SALT/START treaties are considered to be long-range weapons starting from 600 km. An official Russian source, the Defence Ministry's Reference Book, published on its website, defines as long-range PGWs those systems that have a range of 400 km or more.[3] While the Missile Technology Control Regime (MTCR) in its definition of 'long-range' applies an export threshold of 300 km, supplemented by useful payload requirements.

Apparently, it would be more correct to consider the definition of 'long range' as a qualitative feature reflecting the ability of PGWs to be employed to the entire depth of the adversary's territory (or its overwhelming portion), as well as to threaten its critically important facilities. In this sense, for example, for Europe the threshold could in some cases go down to 500 km and lower due to the relative compactness of the theatre and the density of vulnerable critical infrastructure. This may lead to a conclusion that the quantitative definition of 'long range' for various military-strategic situations may differ. One of the possible

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[1] *Military Encyclopaedia Dictionary*, Ed. by S.F. Akhromeyev, Voennoye Izdatelstvo, Moscow, 1986, p. 172 [in Russian].

[2] *Hypersonic Weapons. A Challenge and Opportunity for Strategic Arms Control*, United Nations Office for Disarmament Affairs and the United Nations Institute for Disarmament Research, New York, 2019, p. 4.

[3] Precision-Guided Long-Range Weapons. In *Reference Book on Terminology in the Defence Sector*, Ministry of Defence of the Russian Federation <http://dictionary.mil.ru/folder/123102/item/129202/> [in Russian].

consequences of such an approach in the future could be increased trends towards regionalisation in arms control: i.e. the development of clearly defined geographic areas with specific control parameters.

The emergence of long-range hypersonic PGWs has been made possible by the gradual development of a set of fundamentally new technologies that allow controlled flight in the atmosphere at high speeds. This has required a fundamental revolutionary breakthrough in new missile-related materials and on-board guidance equipment.

When considering the impact of emerging hypersonic weapons on the military-strategic balance and especially on strategic stability, it is first of all necessary to subdivide correctly this broad group of weapons systems. The long-range hypersonic PGWs may comprise:

– ballistic missiles with manoeuvering re-entry vehicles (MaRVs);
– hypersonic cruise missiles; and
– boost-glide missile systems.[4]

Ballistic missiles with MaRVs are the most conservative component of the long-range hypersonic PGWs. The development of high-accuracy control equipment allows to create manoeuvering warheads with self-guidance at the terminal part of trajectory – in particular via correlation guidance based on radar and/or optical on-board equipment, as well as satellite signals. In some cases, it is a matter not of a re-entry vehicle manoeuvre, but of a controlled flight of the missile itself with a non-detachable payload. It particular, this is relevant for the Russian ballistic missile systems Iskander-M and Kinzhal.

Hypersonic cruise missiles are being equipped with hypersonic ramjet engines (scramjets). The development of such systems is fraught with a host of significant technological difficulties, such as: meeting the need for new high-temperature materials and heat-resistant coatings, developing methods of targeting and controlling, conducting research on hypersonic flows and ensuring stable engine operations including multi-mode ramjets/scramjets able to run both above and below Mach 5–6.

[4] In Russia, such weapons are commonly referred to as ‘glide missile systems’ (*raketno-planiruyushchiye sistemy*). However, their official definition in military sources is ‘missile systems with aero-ballistic hypersonic re-entry vehicles’ (*aeroballisticheskoye giperzvukovoye boevoye osnashcheniye*, *AGBO*).

It should be noted that the experimental work on hypersonic vehicles with scramjets began quite a long time ago – much earlier, for instance, than the development of boost-glide systems. However, combat-ready weapons of this type have not yet reached initial operational capability.

Boost-glide systems represent hypersonic glide re-entry vehicles delivered to the upper atmosphere or somewhat above it by rocket boosters at a high speed – about 7,000 m per second. At an altitude of over 80 km this provides for a speed of up to Mach 25 and above. After separation from the platform, the re-entry vehicle moves independently in the atmosphere at a high speed, gradually slowing down. This is a fundamentally new type of PGWs with special characteristics both in terms of its movement principle and its flight trajectory. Such characteristics place it into a special type of offensive arms, not previously defined in international agreements and not currently falling under the control regimes in force.[5]

Impact on strategic stability

As yet another criterion for subdividing various types of hypersonic PGWs one ought to recognise the impact that they could have on the nuclear deterrence system and the strategic stability which characterises it. Ballistic missiles with MaRVs in this respect are largely based on the technologies long in existence. In the 1980s, the first generation of such weapons were already undergoing tests (like, for example, MaRVs for R-36M2 missiles in the Soviet Union) or were even commissioned and deployed (like Pershing II missiles in the United States). They do not fundamentally disrupt the existing balance, although, of course, it should be noted that, when nuclear-tipped and possessing sufficient

[5] Boost-glide system is neither a ballistic missile (because most of its trajectory is non-ballistic), nor a cruise missile (because its hypersonic glide vehicle is not self-propelled). Except for the use as boosters of ICBMs (SLBMs) declared as existing under the New START Treaty, the current arms control regimes can have an indirect impact only through accounting for the deployed and non-deployed launchers of ICBMs or SLBMs. But this is possible only in case if a launcher of the boost-glide system is also capable of launching the existing ICBMs or SLBMs.

range, they unambiguously represent means for conducting counterforce or decapitating strikes. The case of Pershing II missiles, deployed in Europe from 1983 on, shows that even forward-based theatre systems with such combat capabilities can have a significant destabilising effect on a global scale.

As for such conventionally-tipped weapons, they could be used to destroy important fixed land-based targets, as well as in anti-ship missions. For example, Chinese medium-range missiles DF-21C, DF-21D and DF-26 have been equipped in this way.

The development of ICBMs with conventional MaRVs was in theory considered in the United States since 1970s.[6] In 2000s, the idea reappeared with the proposition to equip Trident II SLBMs with satellite-guided re-entry vehicles as component of the CTM programme (Conventional Trident Modification, part of the Prompt Global Strike programme). However, it faded away after sober analysis of the highest destabilising effects of such missiles (indistinguishable for an external observer from strategic nuclear missiles[7]) and a few unsuccessful US attempts to exclude the conventional Trident II SLBMs from the limits of New START Treaty.[8] Towards the end of the 2000s, the only advantages of such weapons were considered to be the low cost of their development, the maturity of their principal technologies and the operational readiness of the booster.[9]

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[6] Builder, C., Keephart, D., Laupa, A., *The US ICBM Force: Current Issues and Future Options*, RAND Corporation, Santa Monica, CA, 1975, p. 83.

[7] Woolf, A., *Conventional Prompt Global Strike and Long-Range Ballistic Missiles: Background and Issues,* Congressional Research Service (CRS) Report for Congress R41464, Library of Congress, CRS, Washington, DC, 8 Jan. 2019, p. 19.

[8] Woolf, A., *The New START Treaty: Central Limits and Key Provisions*, Congressional Research Service (CRS) Report for Congress R41219, Library of Congress, CRS, Washington, DC, 27 Sep. 2018, p. 18; Pifer, S., *New START and U.S. National Security,* Written statement prepared for the Senate Armed Services Committee, 27 Jul. 2010 <https://www.brookings.edu/testimonies/new-start-and-u-s-national-security/>.

[9] *US Conventional Prompt Global Strike. Issues for 2008 and Beyond,* National Research Council's Committee on Conventional Prompt Global Strike Capability, The National Academy Press, Washington, DC, 2008, pp. 51–55.

Hypersonic cruise missiles have several advantages in comparison with classical subsonic ones, the main of which are reduced flight time and increased resilience to defence systems. At the same time, however, they do not possess other benefits of the latest generation of subsonic cruise missiles – stealth and low-altitude flight path. The flight of a hypersonic cruise missile equipped with a scramjet takes place at altitudes from 20 to 30 km,[10] which, when observed from the ground, increases the theoretical radio line-of-sight by a factor of 10–20 compared to low-altitude cruise missiles in terrain-following flight. This means virtually trading the visibility (especially in the infrared spectrum for the low-orbit satellite constellation and reconnaissance aircraft) for the short flight-time and the ability to penetrate the existing defence systems.

As first glance at these weapons suggests, their employment at strategic range would certainly be more effective compared to subsonic cruise missiles, at least in terms of organising and coordinating a massive attack and incorporating it into a broader framework of a counterforce strike conducted with an array of weapons. Yet, on their own, they would not be able to fundamentally offset strategic stability, although their effective tracking and interception would require the development and deployment of new expensive surveillance means and air/missile defence systems. It should be noted, however, that the actual range of the prototypes of hypersonic cruise missiles and prospective means about to be deployed does not exceed 1000–1500 km, which is still at least twice less than the range of modern subsonic strategic ALCMs (and does not exceed this parameter for non-nuclear SLCMs). At the same time, hypersonic cruise missiles apparently have the lowest average speed of all prospective types of long-range hypersonic precision-guided weapons.

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[10] Speier, R., Nacouzi, G., Lee, C., Moore, R., *Hypersonic Missile Nonproliferation: Hindering the Spread of a New Class of Weapons*, RAND Corporation, Santa Monica, CA, 2017, p. 12.

By contrast, boost-glide systems, even conventionally-tipped, bring about serious disturbances to strategic stability. There are several reasons for that[11] in addition to their long range – up to global, i.e. the ability to strike a target on the other side of the globe (at 15,000–20,000 km), as well as high speed (Mach 20–25 at the entry into atmosphere, and Mach 12–13 as average speed on the trajectory[12]).

First, the hypersonic glide vehicle has a significantly lower flight profile than the typical ballistic missiles with comparable range. This is due to their launching scheme, in which the re-entry vehicle is detached in the upper atmosphere or right above it. Thus, the Pershing II MRBM (1,770 km range) at the apogee of the trajectory reached the altitude of 300–350 km, the Trident II SLBM with a depressed trajectory over the minimum distances of 2000–3000 km went up to 180–370 km,[13] and a typical ICBM with an energy-optimal trajectory soared to 1500–1600 km. At the same time, the US HTV-2 prototype hypersonic glide vehicle with a theoretical range of up to 17,000 km, when tested at a range of 7,700 km, on boost-phase reached the maximum altitude of about 140–150 km, and the AHW prototype with a theoretical range of up to 8,000 km, when flying at a distance of 3,700 km, did not leave the conditional boundaries of the atmosphere within the Karman line (altitude of up to 100 km).

As a result, a large part of the flight trajectory of the hypersonic glide vehicle takes place outside of the view of the existing missile attack early warning systems. The launch of a rocket booster may be detected by high-orbital reconnaissance satellites capable of spotting the missile plume. However, their sensors cannot obtain accurate trajectory information and track the flight of a detached re-entry vehicle, which has brightness that is by a factor dimmer than the plume, even taking into account that the vehicle heats up when moving at a high

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[11] See, for example: Acton, J., *Silver Bullet? Asking the Right Questions About Conventional Prompt Global Strike*, Carnegie Endowment for International Peace, Washington, DC, 2013, pp. 111–120.

[12] Acton, J., *Silver Bullet?...,* p. 76.

[13] Gronlund, L., Wright, D., 'Depressed Trajectory SLBMs: A Technical Evaluation and Arms Control Possibilities', *Science & Global Security,* vol. 3, № 1, 1992, pp. 100–160.

speed in the atmosphere.[14] While ground-based early-warning radars, technically capable of detecting targets at altitudes from 100 to 150 km (with a concomitant reduction in the detection range), are primarily designed for the timely detection of ballistic missiles' warheads with a flight apogee of about 1000–1500 km and space objects at higher orbits. Therefore, existing early warning systems are not able to timely inform of the approach of a hypersonic glide vehicle, which on a bigger part of its trajectory moves at an altitude range of 40–70 km (i.e. below the radio line-of-sight of high-potential radars). It is thus necessary to use air defence surveillance radars deployed along the borders of the country, which have a much smaller effective range of detection. As a result, the time from the moment of detection to the moment when vehicle hits the target is reduced to 3–7 minutes, depending on the distance between the radar and the target and their relative positions with regard to the vehicle's trajectory.[15]

Secondly, a detached vehicle is able to manoeuvre in flight to the target, adjusting both its altitude and course. In the latter case, there could be significant trajectory variations. Thus, the already mentioned HTV-2 prototype was developed as part of a programme in which the vehicle was to have a cross-range capability of 5,500–6,000 km when flying to a maximum distance of 17,000 km.[16] The hypersonic glide

[14] Erwin, S., 'U.S. would need a mega-constellation to counter China's hypersonic weapons', *Space News,* 8 Aug. 2018 <https://spacenews.com/u-s-would-need-a-mega-constellation-to-counter-chinas-hypersonic-weapons/>.

[15] Acton, J., 'Supplement to Hypersonic Boost-Glide Weapons', pp. 2–4 <http://scienceandglobalsecurity.org/archive/sgs23acton_app.pdf>. Online supplement to: Acton, J., 'Hypersonic Boost-Glide Weapons', *Science & Global Security, v*ol. 23, № 3, 2015, pp. 191–219.

[16] Lewis, G., *Prompt Global Strike Weapons and Missile Defenses: Implications for Reductions in Nuclear Weapons*. Working Paper prepared for the Workshop 'Stability at Low Nuclear Numbers: Alternative Framings', Cornell University, Ithaca, NY, 2015, p. 5 <https://pacs.einaudi.cornell.edu/sites/pacs/files/Lewis.Prompt%20Global%20Strike%20Weapons%20and%20Missile%20Defenses.pdf>; Woolf, A., *Conventional Prompt Global Strike*…, p. 11.

vehicle of the Avangard missile system, according to Russian President Vladimir Putin, is capable of performing a lateral manoeuvre within the limits of 'thousands of kilometres'.[17]

This creates two uncertainties at a time, well described in theoretical studies dedicated to the security problems caused by boost-glide systems. The first is the 'target ambiguity' due to the vehicle's controlled flight. It essentially signifies that in some cases until the last moment it is impossible to define the vehicle's specific target, especially if one deals with a single or limited group strike in an area with a high infrastructure density (including military). This would easily cause confusion when a reckless limited operation could be interpreted as a decapitating strike or a strike on one's nuclear forces' infrastructure, which may lead to a full-scale launch-on-warning strike before the vehicle arrives at its actual target.

The second is 'destination ambiguity,' which amounts to a more wide-scale problem: when with respective parameters of the possible lateral manoeuvre of the hypersonic glide vehicle on the trajectory, in some cases for a long time it would be impossible to determine even the country subjected to attack. This would lead to possible alerts in the neighbouring countries. And in a military-political crisis, a transition to active preventive actions could also become possible, perceived as launch-on-warning by the party which considers itself (while not necessarily being) under attack.

In addition, the concept of boost-glide PGW systems, as well as the idea of developing non-nuclear ICBMs or SLBMs, from the very beginning was aggravated by a third problem – i.e. the 'warhead ambiguity'. In the United States, this weapons type was and continues to be officially regarded as exclusively conventional, but in other countries which develop such systems (Russia and China), this is not so. In any case, there exists no technically correct way to distinguish between nuclear- and conventionally-armed strategic boost-glide PGWs while in flight. Combined with the already analysed above difficulties of the conflict with the use of such PGWs over long distances (particularly,

[17] Presidential Address to the Federal Assembly, *Kremlin.ru*, 1 Mar. 2018 <http://kremlin.ru/events/president/news/56957> [in Russian].

short available time from detection to the moment when the incoming weapon actually hits the target, plus target ambiguity), this further complicates the decision-making by the supposedly attacked side and could prompt it to undertake a full-scale launch-on-warning strike because of a potential (or possibly alleged) threat to its nuclear and/or command and control infrastructure.

US hypersonic programmes

The research and development of US long-range hypersonic PGWs began with three projects, of which two (FALCON and AHW) belonged to boost-glide systems and one (Waverider) – to hypersonic cruise missiles.

In the framework of the programme Force Application and Launch from Continental United States (FALCON), the hypersonic glide vehicle HTV-2 was developed, using the Minotaur IV Lite launch system derived from the retired Peacekeeper (MX) ICBM. The project foresaw the development of a boost-glide system of a global range (up to 17,000 km). Two test launches were carried out (in April 2010 and August 2011) to an estimated distance of about 7,700 km, however both ended with the destruction of the vehicle approximately in the 9th minute of the flight of the planned 30. In the first case, this had to do with the unforeseen vibrations of large amplitude, and in the second – with the flaking of heat shield after three minutes of flight at a speed of about Mach 20. From that moment on, no on-site tests were conducted under FALCON.

The Advanced Hypersonic Weapon (AHW) project, implemented by the US Army, was seen as a technologically less risky alternative to FALCON. The STARS rocket booster, derived from the refurbished Polaris A3 SLBM, with a third upper stage added, was used as its launch system. The vehicle was different from the HTV-2: it was not of a flattened shape, but a conical one, with control surfaces. The maximum range of AHW was to reach about 8,000 km. Two tests were conducted at a planned distance of 3,700 km: in November 2011 and in August 2014. The first test was fully successful, the second one failed:

due to a malfunction of the control system, the rocket was destroyed by a command from the ground in the fourth second of the flight. On-site tests under AHW programme were also discontinued from that time on.

The prototype hypersonic cruise missile with scramjet, developed under the Waverider project, bore the designation X-51 and was an evolutionary derivation from previous prototypes of the hypersonic aircraft with scramjets (X-43 and others). Four X-51 flight tests were carried out from 2010 to 2014, of which only one was entirely successful. The works on the Waverider were subsequently wrapped up in favour of a new promising programme Hypersonic Air-Breathing Weapon Concept (HAWC).

At the moment, there is no evidence of any active developments under FALCON and AHW. A comprehensive assessment of the scientific and technical groundwork undertaken in the early 2010s, combined with the deterioration of the military-political situation, seem to have changed the emphasis in the development of long-range hypersonic PGWs.

From the mid-2010s, decisions were made in the United States to prioritise the development of smaller hypersonic systems: the Tactical Boost Glide (TBG) programme and the Air-Launched Rapid Response Weapon (ARRW), as well as the new programme of Hypersonic Conventional Strike Weapon (HCSW). Under ARRW the prototype of air-launched AGM-183A missile is being created at present. A contract worth $480 million was signed in August 2018 with Lockheed Martin. For HCSW, a contract was signed at the same time and with the same company for $928 million.

HCSW represents a two-stage air-to-surface missile system, featuring a powerful solid-fuel rocket booster and a small glide vehicle. The maximum vehicle speed is up to Mach 20.[18] In August 2018, Aerojet

[18] Trimble, S., 'Lockheed Martin claims both USAF hypersonic programmes', *FlightGlobal,* 7 Aug. 2018 <https://www.flightglobal.com/news/articles/lockheed-martin-claims-both-usaf-hypersonic-programm-450968/>.

Rocketdyne conducted a stage test of a solid-fuel rocket booster for a tactical air-launched missile with a glide vehicle (this would likely be the booster for ARRW or HCSW).[19]

ARRW is referred to as a more risky project on the verge of possible, while HCSW is characterised, by analogy with AHW, as a back-up variant, with less risk attached, and based on more mature technologies. At the same time, it was announced that ARRWs and HCSWs have different ranges, flight profiles, payload weights and provide 'complementary offensive capabilities'.[20]

The TBG programme continues to exist independently. In its framework, Raytheon is to create a weapons system with a range of over 900 km, with flight tests scheduled for 2019.

On 30 October 2017, flight tests of the boost-glide system created by the US Navy for possibly equipping the Ohio-class SSBNs were carried out (works related to this project are often referred to as Conventional Prompt Strike programme). No details were given, but the tests were declared fully successful, and the system was described as 'conventional'.[21] A number of documents related to the development of the US Navy carried references to high-precision conventional medium-range missile systems to equip submarines.

At the same time, a hypersonic cruise missile under the HAWC project is being developed with the task of creating a 'long-range' system with a speed of 'Mach 5 and beyond'.[22] According to available information, in the interests of this or a related project, the

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[19] 'Aerojet Rocketdyne successfully tests rocket booster for hypersonic vehicle', *FlightGlobal,* 7 Aug. 2018 <https://www.flightglobal.com/news/articles/aerojet-rocketdyne-successfully-tests-rocket-booster-450973>.

[20] Osborn, K., Maven, W., 'The Air Force is working on a plan to fast-tracking development of hypersonic weapons', *The Business Insider*,8 May 2018 <https://www.businessinsider.com/air-force-working-on-fast-tracking-development-of-hypersonic-weapons-2018–5>.

[21] 'Navy Conducts Flight Test to Support Conventional Prompt Strike From Ohio-Class SSGNs', *USNI News*, 3 Nov. 2017 <https://news.usni.org/2017/11/03/navy-conducts-flight-test-support-conventional-prompt-strike-ohio-class-boomers>.

[22] Knoedler, A., 'Hypersonic Air-Breathing Weapon Concept (HAWC)', DARPA <https://www.darpa.mil/program/hypersonic-air-breathing-weapon-concept>.

same company Aerojet Rocketdyne is developing a dual-mode (capable of operating both at hypersonic and lower speeds) scramjet engine. Its first successful stage tests took place in October 2018.[23]

In 2018, the US Army announced the beginning of the development of a number of new systems equipped with Trajectory Shaping Vehicles (TSVs), including those with a range of up to 1,900 km. It was especially noted that the systems are non-ballistic, and therefore do not violate the INF Treaty.[24] In effect, this is an attempt to start the development of medium-range ground-launched boost-glide systems.

The programmes of hypersonic PGW medium-range ground-launched missiles are still at an early stage, so it is yet premature to engage in an earnest discussion about their impact on the military-strategic balance.[25] Nevertheless, it should be noted that the possible deployment of such weapons in East Asia or in Europe could create, given today's tensions, a large-scale military-political crisis.

In the current overall lay-out of the US hypersonic weapons programmes, the first thing that catches the eye is an attempt to refrain from creating a small-number group of global-range PGWs based in the United States and their reliance on the use of stages and technologies of the previous generation of ICBMs and SLBMs. At the same time, significant design efforts have been allocated to the development of

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[23] 'Aerojet Rocketdyne Successfully Tests Hypersonic DMRJ Engine', Aerojet Rocketdyne, 8 Oct. 2018 <http://www.rocket.com/article/aerojet-rocketdyne-successfully-tests-hypersonic-dmrj-engine>.

[24] Freedberg, S., Jr., 'Army Insists 1,000-Mile Missiles Won't Breach INF Treaty', *Breaking Defense*, 17 Sep. 2018 <https:/breakingdefense.com/2018/09/army-insists-1000-mile-missiles-wont-breach-inf-treaty/>.

[25] Official sources in Washington informed of the upcoming testing of a conventional ballistic missile with a range of 3,000 to 4,000 km, which was being prepared for November 2019. It was not specified, however, firstly, whether it will be a testing of the complete system or the beginning of bench testing of its individual components, and, secondly, whether it is a boost-glide system or a conventional ballistic missile with MaRVs. Deployment of the missile will begin no earlier than in 2024. See: Panda, A., 'After the INF Treaty: US Plans First Tests of New Short and Intermediate-Range Missiles', *The Diplomat*, 14 Mar. 2019 <https://thediplomat.com/2019/03/after-the-inf-treaty-us-plans-first-tests-of-new-short-and-intermediate-range-missiles/>.

fundamentally new forward-based air-launched long-range hypersonic PGWs based on rocket-boosting of small glide vehicles (air-to-surface boost-glide systems) and on the scramjet technology (hypersonic ALCMs). The emphasis on other types of forward-based weapons, including apparently sea-launched, is also noteworthy.

The possible reasons for such a focus of long-range hypersonic PGW development programmes include: insufficient maturity of global-range boost-glide systems, as well as their highly destabilising nature, significant cost and relatively narrow-niche usability. The current trends may likely lead to the creation of more flexible and multifunctional forward-based hypersonic PGWs with a short flight time and high resilience to existing defence systems.

Russia's hypersonic programmes

The main and most talked about hypersonic weapons programme in Russia remains the Avangard missile system. This is an intercontinental boost-glide system with a hypersonic glide vehicle accelerated by the UR-100N UTTH silo-based ICBM (NATO reporting name SS-19 Mode 4). The deployment of the system, which has been undergoing tests since the beginning of the 2010s, starts from 2019 at the Dombarovsky launching area in the Orenburg Oblast. By 2027, two missile regiments (with 12 missile systems each) are expected to be deployed.[26]

The second important programme is the development of a sea-launched hypersonic cruise missile system Zircon. The missiles, with a 1,000 plus km range and a maximum speed of about Mach 9, will be placed on ships and submarines equipped with universal vertical launching systems which are used to launch the Onyx and Kalibr missile systems.[27]

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[26] 'The Source: The First Avangard Missile Systems Will be Operationally Deployed in 2019', *Interfax*, 29 Oct. 2018 <https://tass.ru/armiya-i-opk/5731436> [in Russian].

[27] Presidential Address to Federal Assembly, *Kremlin.ru*, 20 Feb. 2019 <http://kremlin.ru/events/president/news/59863> [in Russian].

Since late 2017, the Kinzhal aircraft missile system with a range of up to 2,000 km has been 'put on test-combat duty'[28] (which equals reaching the initial operational capability). As far as one can judge, it represents a modified aero-ballistic version of the Iskander-M short-range ballistic missile deployed on a converted heavy fighter MiG-31. In the Russian classification, the system, apparently, should be considered as belonging to air-to-surface MaRV-ed ballistic missiles (in their variant with non-detachable payload).

According to Western sources, Russia is also in the process of designing an air-launched hypersonic cruise missile (the Hypersonic Guided Missile Programme, GZUR). After 2020, a missile with a range of up to 1,500 km and a speed of Mach 6 should be created within this programme's framework.[29]

Thus, at a new technological stage, the situation of the Cold War confrontation is repeated, when the United States, due to its command of the sea and the well-architected system of alliances in Eurasia could rely to a great extent in its deterrence strategy against the Soviet Union on forward-based weapons (at first nuclear, and consequently, from late 1970s, also precision-guided conventional ones). At the same time, the Soviet Union, which lacked the opportunity to respond symmetrically, used to more actively work on intercontinental systems, as well as on means for interdiction in the European theatre (medium- and intermediate-range missiles).

A comparative analysis of the US and Russian hypersonic programmes suggests that the logic of their development is somewhat similar to that historical pattern. Russia is more interested in missile systems that could be launched from deep within its territory, both at an intercontinental distance and to the entire depth of the European theatre in a hypothetical conflict with NATO.

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[28] Presidential Address to Federal Assembly, *Kremlin.ru*, 1 Mar. 2018 <http://www.kremlin.ru/events/president/news/56957> [in Russian].

[29] Butowski, P., 'Russian bombers to be armed with new Kh-50 theatre-level cruise missile', *IHS Jane's Missiles & Rockets*, 21 Dec. 2017.

China's hypersonic programmes

The Chinese research on and development of hypersonic PGWs is mainly connected with the joint hypersonic glide vehicle DF-ZF (previously called WU-14 – all of these are conditional names suggested by Western experts). This is a glide vehicle for a boost-glide system that uses various small-range, medium-range and, possibly in the future, intercontinental missiles as its boosters.

The tests of DF-ZF have been conducted since 2014, and up to this moment have counted nine. Seven of them were held from 2014 till 2016 at a distance from 1250 to 2100 km. One of the 2014 tests was unsuccessful due to a rocket booster failure[30]. During these trial launches (though possibly not in all cases), the liquid-fuel launch vehicle CZ-2C (of the Long March series) was used as a booster.[31] During the two test flights that took place in 2017, however, a solid-fuel missile, designated DF-17,[32] was already used, presumably created on the basis of the DF-21 missile and possessing a range of up to 2500 km.

According to Western experts' estimates, in addition to the DF-17, which is specifically created to fit the DF-ZF, a whole number of short-range, medium-range and intermediate-range missile systems, including the DF-26 with a range of up to 4,000 km, are being developed. There is a possibility that in the future the DF-31 and DF-41 ICBMs would also be equipped with this glide vehicle.

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[30] 'China's Advanced Weapon', Hearing before the US–China Economic and Security Review Commission, Feb. 2017, p. 13 <https://www.uscc.gov/sites/default/files/transcripts/China%27s%20Advanced%20Weapons.pdf>.

[31] Kenhmann, H., 'Et si c'est lui le planeur boost-glide DF-ZF?', *East Pendulum,* 11 Oct. 2017 <http://www.eastpendulum.com/et-si-cest-lui-le-planeur-boost-glide-df-zf> [in French].

[32] Panda, A., 'Introducing the DF-17: China's Newly Tested Ballistic Missile Armed With a Hypersonic Glide Vehicle', *The Diplomat*, 28 Dec. 2017 <https://thediplomat.com/2017/12/introducing-the-df-17-chinas-newly-tested-ballistic-missile-armed-with-a-hypersonic-glide-vehicle/>.

In August 2018, a new-type hypersonic glide vehicle Xing Kong-2 (Starry Sky-2) underwent testing in China. The waverider-shaped vehicle was accelerated by a small ground-launched rocket booster. The flight lasted for about 400 seconds at an altitude of 29 km and a speed in the range of Mach 5.5–6.0.[33]

The Chinese long-range boost-glide PGW programmes quite clearly take from this country's previous generation of precision-guided missile systems with MaRVs (DF-21C/D, DF-26). China already possesses certain conventional medium-range missile capabilities, which could be used both for highly accurate strikes against ground targets and for anti-ship missions. The creation of DF-ZF follows the logic of the evolution of the Chinese Rocket Forces, implying the achievement of a military potential sufficient for regional deterrence.

Experts believe that China is developing such systems as dual-capable.[34]

Approaches to arms control involving hypersonic weapons

Military-technical differences and the features of the combat use of hypersonic weapons determine approaches to their limitation and control.

The fulfilment of the New START Treaty shows that control over traditional, but conventionally armed, ICBMs and SLBMs is efficiently carried out by strictly placing them under the same ceilings with the nuclear missiles, which makes their deployment disadvantageous. However, with the possible non-renewal of the New START Treaty for the period after 2021 and in the absence of a successor agreement, this leverage would be lost.

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[33] Liu, Z., 'China's hypersonic aircraft, Starry Sky-2, could be used to carry nuclear missiles at six times the speed of sound', *South China Morning Post,* 6 Aug. 2018 <https://www.scmp.com/news/china/diplomacy-defence/article/2158524/chinas-hypersonic-aircraft-starry-sky-2-could-be-used>.

[34] Saalman, L., 'Factoring Russia into the U.S.–Chinese Equation on Hypersonic Glide Vehicle', *SIPRI Insights on Peace and Security*, № 2017/1, Jan. 2017, p. 5.

In addition, the disintegration of the INF Treaty regime creates a void in which an arms race of missiles with a range of less than 5,500 km is likely to unleash, including systems with conventional MaRVs. This problem ought to be resolved at the very early stages through political agreements and unilateral initiatives envisioning the non-deployment of respective weapons, as well as possibly by creating regional arms control zones encompassing nuclear and precision-guided long-range weapons (the most obvious candidate would be Europe from the Atlantic to the Urals).

The issue of arms control in the area of hypersonic cruise missiles is connected with the two long-existing problems.

The first has to do with arms control involving nuclear cruise missiles per se. Thus, in the case of nuclear ALCMs, the situation evolved over the years whereas the rules for counting nuclear weapons on heavy bombers significantly changed from one treaty to another. Moreover, in the New START Treaty of 2010, an extremely lenient procedure for this calculation was adopted (one bomber equals one warhead) compared to the rules of the START I Treaty.

There are also difficulties in the arms control over nuclear sea-launched cruise missiles. Since the 1980s, progress in the arms control procedures for nuclear SLCMs did not happen, except for legally non-binding political statements to limit to 880 the number of simultaneously deployed nuclear SLCMs with a range of more than 600 km (such symmetrical statements were made by the Soviet Union and the United States in July 1991 simultaneously with the signing of the START I Treaty). Also unilateral Presidential Nuclear Initiatives of 1991 and 1992 played a role, as well as President Barack Obama's decision to retire nuclear Tomahawk SLCMs.[35] The possible appearance of nuclear hypersonic sea-launched cruise missiles not only does not reduce, but on the contrary increases the relevance of the dialogue on formulating approaches to the limitation of nuclear SLCMs.

[35] It should be noted, however, that this decision has, in fact, been cancelled. The new US political documents on nuclear strategy mention the need for an urgent return of nuclear SLCMs to the Navy. See: Nuclear Posture Review 2018, Office of the Secretary of Defence, Department of Defence, 2018, p. 54 <https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE->.

Next comes the general problem of the long-range conventional PGWs (not only hypersonic), the impact of which on the military-strategic balance continues to grow. At the moment, a situation has formed whereas in certain regions the concentration of such weapons in and by itself may increase military-political tensions. For example, in Europe, Russia and, especially, the NATO members have significant arsenals of precision-guided conventional weapons with a range of 300–400 km or more. If employed in this compact and highly populated region with dense critical infrastructures, such weapons could lead to dire humanitarian consequences even without the use of nuclear armaments.

Obviously, all these difficulties overlap as far as the issue of hypersonic cruise missiles arms control is concerned. At the same time, as already noted above, these missiles, though highly effective, do not have a critical destabilising quality whether they are equipped with nuclear or conventional warheads. Thus, in the niche of hypersonic cruise missiles, a model 'test range' situation is taking shape, learning from which could make it possible to draw general conclusions and cope with a whole spectrum of problems related to nuclear cruise missiles and conventional long-range PGWs arms control. If successful, a positive experience of resolving the problem of hypersonic cruise missiles could consequently be replicated to other long-range PGWs (super- and subsonic).

Arms control in the field of PGWs is most important with regard to boost-glide systems, and there are several reasons for this.

Firstly, these systems are at a more advanced development stage and, from a technical standpoint, are in a shape more ready for deployment. For example, the Russian Avangard system has already been adopted, and its deployment begins in 2019. While the Zircon hypersonic cruise missile, according to several sources, will be ready to be delivered to the Navy no earlier than 2023.[36] The DF-17 medium-range boost-glide system with the DF-ZF vehicle is also at a high stage

[36] 'The source: "The Zirkon missile will enter into service in 2023"', *TASS*, 2 Mar. 2019 <https://tass.ru/armiya-i-opk/6237846> [in Russian].

of readiness, with deployment expected in 2020.[37] In the United States programmes of forward-based boost-glide systems have apparently gained priority over similar global-range systems and the realisation of the first may also outpace the deployment of hypersonic cruise missiles. Thus, the issue of arms control involving boost-glide systems assumes a practical angle.

Secondly, the hypersonic glide vehicles of these systems have the highest maximum and average speeds among all the currently existing hypersonic weapons, which drastically reduces their flight time and, combined with their ability to manoeuvre intensively during the bigger portion of the trajectory, makes it difficult to intercept them.

Thirdly, these systems, among other hypersonic PGWs, have the greatest attainable range, up to a global one. Also worth noting is the low-altitude profile of their trajectory, which, combined with the possibility for these systems to be used at strategic ranges, makes them the most dangerous and destabilising type of today's hypersonic armaments.

Fourthly, the launch of a ground-launched or sea-launched boost-glide system, accelerated by a ballistic missile, is an event detected by satellites of the missile attack early warning system. Given the above ambiguities, this creates a high risk of miscalculations and misinterpretations of the opponent's intentions.

And fifthly and finally, boost-glide systems, unlike other types of long-range hypersonic PGWs, are not defined in any way in currently or previously existing offensive arms treaties. In other words, the related interest from the point of view of arms control is connected, if nothing else, with the need to 'identify' them, by unequivocally and on a generally-accepted basis formulating their differences from ballistic and cruise missiles.

Taking into account the whole procedural complexity of including strategic boost-glide systems into an agreement which could replace the New START Treaty, one could nevertheless stipulate that, at

[37] Panda, A., 'Introducing DF-17…'

the first stage, a number of joint actions by the United States and Russia would help to start developing a relevant arms control regime. These could include:

- a joint agreed statement that would officially acknowledge the emergence of a new type of strategic offensive weapons and stipulate a desire to limit them in order to avoid destabilisation;
- a group of unilateral initiatives to limit the deployment of intercontinental and global-range boost-glide systems; and
- informal mutual commitments not to be the first to deploy boost-glide theatre-range systems (medium-range and intermediate-range) in certain areas – the most obvious candidate here being the European region from the Atlantic to the Urals.

The factor that complicates the implementation of these actions, however, is the position of China, which, while actively developing hypersonic systems, is at the same time traditionally sceptical about multilateral arms control formats. Nevertheless, China is hardly interested in competing with the United States in the spiral of the deployment of such weapons in the Southeast Asian theatre, and this could be an incentive for China to enter into negotiations.

These measures, of course, cannot be considered as fully sufficient. However, in the situation of the collapse of the overall framework of the international arms control system, their adoption and proper execution would help stabilise the situation, strengthen mutual confidence and serve as a basis for the development of legally binding norms in the future.

3. CYBER THEATS TO STRATEGIC STABILITY

Pavel KARASEV

The militarisation of the environment created by the information and communication technologies (ICT environment) is an undeniable fact, and this environment thus has already become a new sphere of confrontation between states. Such a conclusion follows from various states' strategic planning documents and official statements on the development[1] and application of specialised ICT tools designed for military-political purposes. The NATO leadership has recently stated that using cyber capabilities may be a more proportionate response to diverse challenges than conventional weapons, and at the same time can ensure the best cost-efficiency.[2] According to published information,[3] a significant number of states have been developing various ICT tools for military-political use, and there is no doubt that over time their number will expand.

The appeal of ICT tools as a means to accomplish military-political tasks results from a number of special features of the ICT environment – first of all its trans-boundary capabilities and the anonymity of engagement (i.e. the difficulty of attribution). This means that even when an attack is detected, the existing technical means would not enable to quickly and accurately identify its source. For instance, there is still no direct evidence as to who back in 2010 carried out the cyberattacks with the Stuxnet virus on several of the Iran's

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[1] Broad Agency Announcement – Cyberspace Warfare Operations Capabilities, Federal Business Opportunities, US Department of the Air Force, 22 Aug. 2012 <https://www.fbo.gov/utils/view?id=48a4eeb344432c3c87df0594068dc0ce>.

[2] NATO, Press conference by NATO Secretary General Jens Stoltenberg following the meeting of the North Atlantic Council at the level of Defence Ministers, 8 Nov. 2017 <https://www.nato.int/cps/en/natohq/opinions_148417.htm?selectedLocale=en>.

[3] De Vries, J. V., Yadron, D., 'Cataloging the World's Cyberforces', *The Wall Street Journal*, 11 Oct. 2015 <https://www.wsj.com/articles/cataloging-the-worlds-cyberforces-1444610710>.

nuclear programme enterprises, and only according to the information provided in the media[4] it is assumed that the United States and Israel were involved in that incident.

The functionality of ICT tools and the range of their application are extensive: including data search, detection and manipulation (deletion, replacement, modification, copying and transmission); information systems activity tracking and disruption of their operations. Particularly dangerous are assaults on facilities 'containing dangerous forces'[5] and other objects, the attack on which can have detrimental consequences. The use of artificial intelligence (AI) technologies in automation and in development of weapons control systems algorithms is a new factor that could lead to an escalation of military-political tensions. Representative international forums, in particular the UN, currently discuss issues related to the use of lethal autonomous weapon systems (LAWS). These discussions focus on the tendency to 'delegate' to the artificial intelligence part of the operator's functions related to taking decisions on the actual weapons use. Specialists in this field share concerns about the threat of resulting violations of the principles of warfare engrained in the international humanitarian law (in particular, such principles as rationality, proportionality and humanity),[6] and about the difficulty (from a legal standpoint) of attribution of responsibility for actions undertaken by the system with artificial intelligence.

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[4] Nakashima, E., Warrick, J., 'Stuxnet was work of U.S. and Israeli experts, officials say', *The Washington Post*, 2 June 2012 <https://www.washingtonpost.com/world/national-security/stuxnet-was-work-of-us-and-israeli-experts-officials-say/2012/06/01/gJQAlnEy6U_story.html?noredirect=on&utm_term=.683123cecc6e>; Sanger, D., 'Obama Order Sped Up Wave of Cyberattacks Against Iran', *The New York Times*, 1 June 2012 <https://www.nytimes.com/2012/06/01/world/middleeast/obama-ordered-wave-of-cyberattacks-against-iran.html>.

[5] According to Article 56 'Protection of works and installations containing dangerous forces' of the 1977 Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977, such works and installations include dams, dykes and nuclear electric generation stations.

[6] For more information about the principles of International Humanitarian Law in relation to modern armed conflicts and the use of unmanned systems, see: Report of the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions,

Due assessment of the impact that the military-use ICT tools and artificial intelligence technologies could have on strategic stability continues to remain an unresolved task. AI is an intellectual system based on hardware and software ICT complexes which are susceptible to information security threats. Cyber threats to the control and communications systems of strategic forces of states, as well as to missile attack warning systems (MAWS) are a new factor that can undermine strategic stability. At the same time, the last 15 years have demonstrated that, despite the general concern about potential conflicts in the ICT environment and the use of lethal autonomous weapons systems, there exist considerable political contradictions between leading states regarding the goal of eliminating these threats.

ICT vulnerabilities of the military systems and installations

Information networks of military systems and installations have points of vulnerability that can be employed by a potential adversary for destructive purposes. First of all, this relates to the use of ICT tools for attacking military information and control networks and systems involved in ensuring strategic stability, including: command, control, information and communication systems, missile attack early warning systems and the launchers' control and monitoring systems.[7] Such threats increase proportionately with the pace of computerisation and introduction of new ICTs. At the same time, the prevailing secrecy

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Christof Heyns, Document A/HRC/23/47, 9 Apr. 2013 <https://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session23/A-HRC-23–47_en.pdf>.

[7] See: Unal, B., Lewis, P., *Cybersecurity of Nuclear Weapons Systems: Threats, Vulnerabilities and Consequences*, Chatham House, London, 2018 <https://www.chathamhouse.org/publication/cybersecurity-nuclear-weapons-systems-threats-vulnerabilities-and-consequences>; Abaimov, S., Ingram, P., *Hacking UK Trident: A Growing Threat*, British American Security Information Council, London, June 2017 <http://www.basicint.org/publications/stanislav-abaimov-paul-ingram-executive-director/2017/hacking-uk-trident-growing-threat>;

extremely limits the amount of available information on the systems used in this sphere, which makes it difficult to assess the actual aggregate level of related danger.

The overall state of protection – embracing the critical infrastructure and military facilities – includes a number of factors. The first has to do with the degree of use of commercial, publicly available products, and/or imported components, as well as software. The second is related to the connection with the general-use networks such as the Internet. Finally, the human factor is also important – i.e. the level of computer literacy and 'cyber hygiene' of the employees, as well as potential malicious 'insiders' – i.e. informers and agents that might be embedded into respective organisations.

Many sensitive enterprises, as well as certain military facilities, rely on information management systems that make use of ready-made commercially available and mass-produced components (so-called 'off-the-shelf' items). In this case, cyberattacks pose a significantly greater threat, since the vulnerabilities of commercial systems are widely known and better understood. In addition, such hardware and software may contain specialised undocumented functions input by the manufacturer (the so-called 'implants'). Identifying their presence presents an extremely difficult task in ensuring information security.

It is common knowledge that the special services of many countries work with manufacturers of software and hardware to insert into their products implants which can be used for surveillance, manipulation of information and even for carrying out cyberattacks. Implants can also be introduced through supply chain without consent from the manufacturer. For example, in 2014, information was leaked about the activities of the US National Security Agency's (NSA) Office of Tailored Access Operations, which conducts counter-terrorist activities, cyberattacks and espionage. According to the disclosed information, the list of equipment that the Office might be able to access includes servers, workstations, firewalls, routers, mobile phones, phone lines

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Futter, A., *Cyber Threats and Nuclear Weapons New Questions for Command and Control, Security and Strategy*, Royal United Services Institute for Defence and Security Studies, London, July 2016
<https://rusi.org/sites/default/files/cyber_threats_and_nuclear_combined.1.pdf>.

and supervisory control and data acquisition (SCADA) systems.[8] The publication mentioned the disclosed catalogue of hardware and software implants used for these purposes.[9]

In 2017, information became public about the vulnerability of the Intel remote management technology (Intel Management Engine – IME), which perpetrators could potentially use to gain full access to computer hardware resources.[10] This was due to the fact that, at the request of the NSA, Intel had integrated an undocumented feature in its processors, which would allow, in particular, to completely disable IME on individual computers.[11]

A cyberattack against military systems created for specialised tasks is apparently a more complex endeavour. Firstly, these complexes have a closed software and hardware architecture. Secondly, they are usually isolated from public networks. Thirdly, such systems often use outdated element base, with a minimal chance of unauthorised functions or implants being introduced from outside. According to a 2016 US Government Accountability Office's report,[12] the average age of the systems listed by the US Department of Defence, including intercontinental ballistic missile control systems, was 53 years. However, new vulnerabilities may appear during an update and/or repair of obsolete or broken components. As already mentioned above, one cannot

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[8] Spiegel Staff, 'Documents Reveal Top NSA Hacking Unit', *Spiegel Online*, 29 Dec. 2013 <http://www.spiegel.de/international/world/the-nsa-uses-powerful-toolbox-in-effort-to-spy-on-global-networks-a-940969.html>.

[9] Appelbaum, J., Horchert, J., Stöcker, C., 'Catalog Advertises NSA Toolbox', *Spiegel Online*, 29 Dec. 2013 <http://www.spiegel.de/international/world/catalog-reveals-nsa-has-back-doors-for-numerous-devices-a-940994.html>.

[10] Portnoy, E., Eckersley, P., 'Intel's Management Engine is a security hazard, and users need a way to disable it', *Electronic Frontier Foundation*, 8 May 2017 <https://www.eff.org/deeplinks/2017/05/intels-management-engine-security-hazard-and-users-need-way-disable-it>.

[11] Claburn, T., 'Intel ME controller chip has secret kill switch', *The Register*, 29 Aug. 2017 <https://www.theregister.co.uk/2017/08/29/intel_management_engine_can_be_disabled/>.

[12] Federal Agencies Need to Address Aging Legacy Systems, Report to Congressional Requesters, US Government Accountability Office (GAO), May 2016, p. 3 <https://www.gao.gov/assets/680/677436.pdf>.

preclude the existence of insiders among the service personnel who may disclose the mechanisms, principles of operation and architecture of the installed networks and systems and/or implant harmful ICT tools.

Moreover, today isolation from public networks no longer provides a guarantee against cyberattacks. A recent study on this issue[13] has examined the vulnerability of British Vanguard-class nuclear-powered ballistic missile submarines (SSBN) and launch-control systems of Trident II missiles deployed on these vessels. According to available information, control systems on Vanguard-class submarines and certain other warships use a modified version of the Windows XP commercial operating system (OS).[14] Although it has been officially stated that the potential vulnerabilities of this OS are offset by the isolation of the ships and submarines at sea,[15] the authors of the report have also noted that some cyberattack vectors do not require external commands or connection to networks. In particular, an agent or even, occasionally, an ordinary employee might be able to install a malicious programme when conducting maintenance at a naval base.[16] Isolated and restricted-access facilities of the Iranian nuclear programme were infected precisely in this manner using a portable data storage device. It is assumed that this device may have been planted by an employee of the enterprise even as early as during the construction of the facility.[17]

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[13] Abaimov, S., Ingram, P., *Hacking UK Trident: A Growing Threat...*

[14] MacAskill, E., 'HMS Queen Elizabeth could be vulnerable to cyber-attack', *The Guardian*, 27 Jun. 2017 <https://www.theguardian.com/technology/2017/jun/27/hms-queen-elizabeth-royal-navy-vulnerable-cyber-attack>.

[15] Allison, G., 'Despite CND Claims, Trident Doesn't Run on Windows XP', *UK Defence Journal*, 18 Jun. 2018 <https://ukdefencejournal.org.uk/despite-cnd-claims-trident-doesnt-run-on-windows-xp/>.

[16] Abaimov, S., Ingram P., *Hacking UK Trident: A Growing Threat*..., p. 354.

[17] Cherry, S., 'How Stuxnet Is Rewriting the Cyberterrorism Playbook', *IEEE Spectrum*, 13 Oct. 2010 <https://spectrum.ieee.org/podcast/telecom/security/how-stuxnet-is-rewriting-the-cyberterrorism-playbook>.

Satellite systems may also become the target of a cyberattack. In 2017, Symantec's specialists detected a number of cyberattacks, which they called Operation Thrip.[18] Those were directed, in particular, at the systems monitoring telemetry and control satellites, and this could indicate that the aim of the organisers of this attack was not only espionage, but also the disruption of spacecraft operations.

US and Russia's missile attack warning systems consist of ground and space-based echelons. Although a direct cyberattack on these systems, including as in the above-cited examples, is unlikely, historical evidence shows that, as with the Stuxnet virus, an infringement may be prepared at the integrator's or contractor's level. In other words, supply chain is a vulnerable link and requires special attention. A panel of experts at the UN Security Council analysed the wreckage of a North Korean missile launched during tests in 2012.[19] Their report showed that some of the missile's constituent components originated from Great Britain, United States and South Korea. These parts, therefore, could have been vulnerable to cyberattacks.

The tendency among advanced countries to saturate their armed forces with autonomous systems and artificial intelligence elements has significant impact on the future of information security and strategic stability. Autonomous systems can theoretically make better informed decisions due to their ability to process more information than a human operator can handle. However, they cannot guarantee accuracy of their decisions – the available data can be incorrectly interpreted, and the systems themselves may be hacked. One cannot exclude the scenario of a 'hybrid' cyberattack changing or even replacing the data transmitted to the operator, who in this case would incorrectly assess the situation and undertake erroneous actions. The meddling into decision-making

[18] Thrip: Espionage Group Hits Satellite, Telecoms, and Defense Companies, *Symantec*, 19 Jun. 2018 <https://www.symantec.com/blogs/threatintelligence/thrip-hits-satellite-telecoms-defense-targets>.

[19] Report of the Panel of Experts Established Pursuant to Resolution 1874 (2009), Document S/2016/157, United Nations, Security Council, 24 Feb. 2016, p. 62 <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N16/010/98/pdf/N1601098.pdf? OpenElement>.

processes can thus be the result of deliberately targeted cyber incursions (to penetrate the systems) and/or information-type attacks (i.e. intended to influence the data processing centre).

Lethal autonomous systems and artificial intelligence

As of now, no generally accepted definition of lethal autonomous weapons systems (LAWS) has been developed within the framework of international agreements or other legal instruments. The 2013 Report of the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions Christof Heyns provides the following working definition of lethal autonomous robotics: 'Weapon systems that, once activated, can select and engage targets without further human intervention'.[20] It seems that the classification of LAWS should not be based on the specific systems' design (which depends, for instance, on the environment where they operate), but rather on the degree of their autonomy and human participation. The United States has accordingly suggested a classification which includes three types of systems:

1. Autonomous – a weapons system that, once activated, can select and engage targets without further intervention by a human operator;
2. Human-supervised autonomous weapons system – an autonomous weapons system that is designed to provide human operators with the ability to intervene and terminate engagements – including in the event of a weapons system failure – before inflicting unacceptable damage; and
3. Semi-autonomous – a weapons system that, once activated, is intended to only engage individual targets or specific target groups that have been selected by a human operator.[21]

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[20] Report of the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions…

[21] Autonomy in Weapons Systems, Department of Defence Directive 3000.09, Incorporating Change 1, 21 Nov. 2012, US Department of Defence, 8 May 2017, pp. 13–14 <https://fas.org/irp/doddir/dod/d3000_09.pdf>.

Autonomy, or the ability of a system to make algorithm-based decisions, may vary from robotisation and intellectualisation of some functions while maintaining the key role of the operator (for example, the B-2 bomber flight control system, which in normal operation mode ensures in-flight stability; or the Iron Fist active protection system[22]), up to complete autonomy in decision-making and the ability of self-learning.

World's leading states have already come to fully appreciate the expected benefits of the use of AI, and are actively developing this field. Already under Barack Obama's administration, a major report was issued titled 'Preparing for the Future of Artificial Intelligence', which provided a detailed overview of the trends in this area.[23] In particular, the Report noted that in the field of cybersecurity, AI can provide the speed necessary for detecting and responding to constantly evolving cyber threats, and in the field of military applications it can also play an important role by deterring those attacks which may be conducted with non-lethal means.

In 2018, the US Department of Defence adopted the Artificial Intelligence Strategy[24] and created its Joint Artificial Intelligence Centre. The published version of the Strategy identified four tasks for AI in the military field: improving situational awareness and decision-making, increasing the safety of operating equipment, implementing predictive maintenance and ensuring supplies, and streamlining business processes. In particular, situational awareness will be increased with the use of AI for imagery analysis and extraction of useful information from raw data. The document also noted that the present moment is

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[22] IMI Systems, 'Iron Fist Series of Active Protection Systems' <http://www.imisystems.com/wp-content/uploads/2017/01/Catalog-Active-Protection-Systems-_5_-Web.pdf>.

[23] Preparing for the Future of Artificial Intelligence, National Science and Technology Council Committee on Technology, Executive Office of the President, Washington, DC, Oct. 2016 <https://obamawhitehouse.archives.gov/sites/default/files/whitehouse_files/microsites/ostp/NSTC/preparing_for_the_future_of_ai.pdf>.

[24] Summary of the 2018 Department of Defense Artificial Intelligence Strategy: Harnessing AI to Advance Our Security and Prosperity, US Department of Defence, 2018 <https://media.defense.gov/2019/Feb/12/2002088963/-1/-1/1/SUMMARY-OF-DOD-AI-STRATEGY.PDF>.

pivotal, and in order to protect US security and advance the country's competitiveness, it is necessary to seize the initiative and lead the world in the development and implementation of AI.

China also aspires for leadership in the field of AI development, and in order to achieve this goal by 2030, adopted a respective long-term strategy in 2017.[25] One of the features of the Chinese approach is the focus on the joint work of civilian and military specialists. China espouses the principle of mutually coordinated efforts to develop the economy and build national defence. It emphasises the use of both military and civilian scientific and technical achievements, encourages the creation of innovative resources shared in the military and civilian sector and promotes deeper integration of the military and civilian industries.

It is expected that the introduction of AI in weapons systems and control systems will dramatically improve efficiency at all levels of decision-making. Former US Deputy Secretary of Defence Robert Work, speaking at a conference held by the Centre for Strategic and International Studies, said that technologically the Third Offset Strategy focuses on five key areas: 'autonomous learning systems, human-machine collaborative decision-making, assisted human operations, advanced manned-unmanned systems operations, and network-enabled autonomous weapons and high-speed projectiles'.[26] The Third Offset Strategy foresees using the artificial intelligence and automation to provide increased speed, range and level of protection for armed forces and military assets. It is possible that low-vulnerability, high-precision hypersonic weapons, enhanced with some elements of artificial intelligence, would be capable of changing the balance of forces in the system of strategic stability. In addition, according to some researchers, 'technologies of machine learning and autonomy open up the possibility

[25] 国务院关于印发 新一代人工智能发展规划的通知 [Notice about planning for the development of the artificial intelligence of the next generation], China's State Council, 8 July 2017 <http://www.gov.cn/zhengce/content/2017–07/20/content_5211996.htm> [in Chinese].

[26] Ellman, J., Samp, L., Coll, G., *Assessing the Third Offset Strategy,* CSIS: Washington, DC, Mar. 2017, p. 3 <https://csis-prod.s3.amazonaws.com/s3fs-public/publication/170302_Ellman_ThirdOffsetStrategySummary_Web.pdf>.

of using nuclear arms (for example, B61-12 low-yield high-precision nuclear bombs) to accomplish tactical tasks – and vice versa, to fulfil strategic objectives with non-strategic weapons'.[27]

On the one hand, security threats arise due to the insufficient knowledge about the influence that autonomous weapons can have on strategic stability. On the other hand, dangers emerge from the uncertain level of protection of such weapons against cyber threats. For example, the 2018 Report issued by the US Government's Accountability Office[28] pointed out to the existing problems in protecting weapons systems against cyber threats. Critical vulnerabilities were identified in almost all major procurement programmes of US weapons and military equipment that underwent performance testing in the period between 2012 and 2017. Despite the fact that the Report itself did not name the specific weapons systems, according to *The New York Times*, those included submarines, missiles, cargo rockets, radars, fighter jets, refueling tankers, aircraft carriers, destroyers, satellites, helicopters and electronic jammers. In interviews given to the authors of the publication, the agency's officials noted that the acquisition programmes under review comprised two of the three major classes of nuclear-weapons delivery systems: the Columbia-class submarine and the replacement for the aging Minuteman missiles, known as the Ground Based Strategic Deterrent.[29]

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[27] Kozyulin, V., 'Three groups of lethal autonomous systems', Russian International Affairs Council, 1 Nov. 2018 <https://russiancouncil.ru/analytics-and-comments/analytics/tri-gruppy-ugroz-smertonosnykh-avtonomnykh-sistem/> [in Russian].
[28] Weapon Systems Cybersecurity – DOD Just Beginning to Grapple with Scale of Vulnerabilities, Report to Congressional Requesters, US Government Accountability Office, Oct. 2018 <https://www.gao.gov/assets/700/694913.pdf>.
[29] Sanger, D.E., Broad, W.J., 'New U. S. Weapons Systems Are a Hackers' Bonanza, Investigators Find', *The New York Times*, 10 Oct. 2018 <https://www.nytimes.com/2018/10/10/us/politics/hackers-pentagon-weapons-systems.html>.

Debates in the UN

Discussions of the issues related to lethal autonomous systems and international information security have been going on in the UN for quite a number of years. The UN Group of Governmental Experts on Developments in the Field of Information and Telecommunications in the Context of International Security (GGE) gathered five times – in 2004–2005, 2009–2010, 2012–2013, 2014–2015 and 2016–2017.[30] Among its major achievements was the 2015 Report[31] which formulated the rules, principles and norms of responsible behaviour of states in the ICT environment.[32] It is important to note that these rules, principles and norms are not binding and belong to the so-called soft law zone. Moreover, the Group's experts did not provide an answer to the question of how to apply these norms and rules – which was thus consequently delegated to the fifth GGE, with a mandate for 2016–2017 to come up with an answer. Disagreements arose, however, which did not allow the parties to reach common ground. It seems that the main contradiction lies in the fact that for Russia the priority is to prevent conflicts in the ICT environment, which implies the development of norms and rules for the responsible behaviour of states in the ICT environment. While the position of Western countries proceeds from their perception of the existing need to regulate the politico-military use of ICTs – namely, to develop an international legal framework for the use of specialised ICT

[30] For a brief description of GGE history, see e.g.: Boyko, S., 'A group of UN government experts on advances in the field of information and telecommunications in the context of international security: a look from the past to the future', *International Affairs,* 2016, № 8, pp. 54–71.

[31] The Group included representatives of Belarus, Brazil, Ghana, Germany, Egypt, Israel, Spain, Kenya, China, Colombia, Malaysia, Mexico, Pakistan, the Republic of Korea, the Russian Federation, the United Kingdom, the United States of America, France, Estonia and Japan.

[32] Report of the Group of Governmental Experts on Developments in the Field of Information and Telecommunications in the Context of International Security, Document A/70/174, United Nations General Assembly, 22 July 2015 <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N15/228/35/pdf/N1522835.pdf>.

capabilities, including for self-defence.[33] It can thus be stated that, in 2017, the international community split up and in 2018 two competing groups formed, which would continue to discuss the security issues related to ICTs – the Group of Governmental Experts (with the United States as its key driving force) and the Open-Ended Group (led by Russia and China).

Discussions on autonomous weapons began in 2010, in the framework of the UN Human Rights Council, with a debate about the role of unmanned aerial vehicles (UAVs) in modern conflicts.[34] While the discussion regarding LAWS has been going on in the UN since 2014 within the framework of the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons, Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects (Convention on Certain Conventional Weapons, or CCW).[35] Informal expert meetings on issues related to LAWS took place within the framework of the CCW in 2014, 2015 and 2016. At the Fifth CCW Review Conference in 2016, the High Contracting Parties decided to establish a Group of Governmental Experts (GGE) on LAWS with a discussion mandate. The issues put forth for debate included identifying key characteristics of LAWS and determining the applicability of the principles of international humanitarian law, as well as analysing the impact of LAWS on regional and global stability. Discussions were also held to review the risks to LAWS resulting from cyber operations.[36]

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[33] Karasev, P., Militarisation of Cyberspace. In *Security and Arms Control 2017–2018: Overcoming the Imbalance of the International Stability*, IMEMO; Politicheskaya Entsiklopediya, Moscow, 2018, p. 237 [in Russian].

[34] About these discussions see: Anthony, I., Holland, C., The governance of autonomous weapons. In *SIPRI Yearbook 2014: Armaments, Disarmament and International Security*, Oxford University Press, Oxford, 2014, pp. 423–431.

[35] The Convention was opened for signature on 10 April 1981.

[36] Report of the 2016 Informal Meeting of Experts on Lethal Autonomous Weapons Systems (LAWS), Document CCW/CONF.V/2, Fifth Review Conference of the High Contracting Parties to the CCW, 10 June 2016, p. 18. <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G16/117/18/pdf/G1611718.pdf>.

The following conclusions and outcomes of the 2017 GGE Report on LAWS[37] are among the most significant. Firstly, the CCW regime details mechanisms for resolving issues in connection with new technologies in the field of lethal autonomous weapon systems. Secondly, International Humanitarian Law continues to be fully applicable to all weapons systems, including the development and use of LAWS. Finally, states are to be held accountable for the lethal consequences of the use of any weapons systems in armed conflict, in accordance with applicable International Law, in particular International Humanitarian Law.

An important outcome of the GGE meetings in 2018 was reaching consent on the ten Possible Guiding Principles that may form the basis for regulating the issues connected with LAWS. They reconfirmed the above-mentioned principles stipulated in the 2017 Report (non-transfer of human responsibility to autonomous systems and control over the use of force in accordance with International Law), as well as a number of other principles (any potential policy measures taken within the context of the CCW should not hamper progress in or access to peaceful uses of autonomous intelligent technologies). Within this list (paragraph 21), of utmost importance was subparagraph e), according to which, 'When developing or acquiring new weapons systems based on emerging technologies in the area of LAWS, physical security, appropriate non-physical safeguards (including cyber-security against hacking or data spoofing), the risk of acquisition by terrorist groups and the risk of proliferation should be taken into consideration'.[38]

Overall, despite sharing the conviction about the existing imperative to regulate important aspects related to the functioning of lethal autonomous systems, many countries during the discussion

[37] Report of the 2017 Group of Governmental Experts on Lethal Autonomous Weapons Systems (LAWS), Document CCW/GGE.1/2017/CRP.1, United Nations Office in Geneva, 20 Nov. 2017, p. 4 <https://www.unog.ch/80256EDD006B8954/(httpAssets)/B5B99A4D2F8BADF4C12581DF0048E7D0/$file/2017_CCW_GGE.1_2017_CRP.1_Advanced_+corrected.pdf>.

[38] Report of the 2018 Session of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems, Document CCW/GGE, United Nations Office in Geneva, 23 Oct. 2018, p. 4 <https://undocs.org/ru/CCW/GGE.1/2018/3>.

opposed the development and adoption of a legally binding document at this stage, among them – the United States, Russia, Israel, South Korea and Australia. In fact, it could be said that a schism of a sort started to emerge between the states that are trying to prohibit LAWS and those countries that see this as a threat to the development of their military potential. Russia's position on LAWS was laid out in the speech delivered by the Director of the Russian Foreign Ministry's Department for Nonproliferation and Arms Control Vladimir Yermakov. He stated, in particular, that 'there remain uncertainties as to the future prospects of the GGE given the existing circumstances where there are no functioning examples of such systems, the basic characteristics and conceptual terminology regarding LAWS are still undefined and there are considerable divergences in the approaches of the participants of the discussion towards the issue'.[39]

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In the conditions when there is no solid understanding and regulation of the politico-military use of the ICT environment, the introduction of the AI and autonomous combat systems into military use, including into strategic weapons, becomes an extremely dangerous factor that can provoke an uncontrollable escalation of tensions and military conflicts.

At the same time, there exist no full-proof efficient mechanisms to ensure the deterrence of an attack by a likely adversary via the ICT environment. Thus, Joseph S. Nye proposed the concept of cyber deterrence, which has four elements: denial by defence, entanglement,

[39] Statement by the Head of the Delegation of the Russian Federation, Director of the Department for Nonproliferation and Arms Control of the Russian Ministry of Foreign Affairs Vladimir Yermakov at the Meeting of the States Parties to the Inhumane Weapons Convention on Item 7 of the Agenda 'General Exchange of Views', Geneva, Ministry of Foreign Affairs of the Russian Federation, 21 Nov. 2018 <http://www.mid.ru/web/guest/obycnye-vooruzenia/-/asset_publisher/MlJdOT56NKIk/content/id/3415655> [in Russian].

normative taboos and threat of punishment.[40] Today, when there are no normative taboos and entanglement through interdependence, cyber defence built by states at a national level is a relatively more effective deterrent. The threat of punishment is fraught with unpredictable escalation in the absence of any generally accepted threshold limits (such as for the threshold for the use of nuclear weapons or strategic forces). Therefore, one cannot be certain that the proportionality and selectivity of cyber actions can be ensured. In particular, this concerns possible intrusions into systems involved in maintaining strategic stability.

Despite the fact that the global-level discussion of international information security issues and lethal autonomous systems encounters significant political difficulties, governments still face the need to regulate these areas of interaction – especially in the context of the current erosion of the strategic stability relations between Russia and the United States.

In terms of strategic stability, apparently, the most susceptible to cyber threats are the systems used in spacecraft control and communications, especially that of MAWS satellites. Disabling them or simulating false warnings of a missile attack can cause an unintended nuclear war. Such subversive action, fraught with the danger of spontaneous missile exchange, might emanate in a crisis situation from terrorists or provocateur states. To reduce this threat, great powers need to cooperate in the development of rules and procedures of behaviour, information sharing and joint identification of the sources of cyberattacks.[41] At the initial stage, such cooperation may take the shape of a special negotiated code of conduct for Russia and the United States, which would be open for third countries and would be a valuable step towards comprehensive agreements in this area.

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[40] Nye, J. S., Jr., 'Deterrence and Dissuasion in Cyberspace', *International Security*, Vol. 41, № 3, Winter 2016/17, pp. 54–55.

[41] Arbatov, A. 'Threats to Strategic Stability – Imaginary and Real', *POLIS*, 2018, № 3, pp. 7–29 [in Russian].

4. NATO–RUSSIA RELATIONS: ANY SIGNS OF STABILISATION?

Sergey OZNOBISHCHEV and Konstantin BOGDANOV

From its creation, NATO considered deterrence of the Soviet Union/Russia as its key task, embedded in the very idea of the Alliance. The end of the Cold War, however, saw fundamental positive shifts in relations between the Soviet Union and Western countries, active attempts to build a new world order based on 'universal values', the signing of new arms control agreements, including those envisaging a sharp reduction of weapons in Europe[1] and the adoption of a whole system of confidence-building measures in the military sphere. In the new circumstances, the foundations of an ideology-based military confrontation between the West and the Soviet Union began to blur, and the NATO willy-nilly proceeded to significantly reduce the scale and intensity of its military activities oriented towards armed confrontation in the east. However, the Alliance soon launched its strategy of geographical expansion. This seriously undermined the prospect of establishing cooperative relations, and especially durable, stable and long-term partnership with Moscow 'on the basis of common interest, reciprocity and transparency', which was cited in the joint documents of Russia and NATO[2] as the goal for interaction between the two respective parties.

The NATO enlargement policy is currently viewed by the Russian military and political leadership as a national security threat. Speaking at the 8th Moscow Conference on International Security (23–25 April 2019), Army General Valery Gerasimov, First Deputy Minister of Defence and Chief of the General Staff of the Russian Armed Forces, stressed that 'the military-political situation in Europe

[1] Such as, for example, the 1990 Treaty on Conventional Armed Forces in Europe (CFE Treaty), which resulted in the destruction of 56,000 weapons and pieces of military equipment.

[2] See, for example: Founding Act on Mutual Relations, Cooperation and Security between NATO and the Russian Federation, 27 May 1997 <http://www.nato.int/cps/ru/natohq/official_texts_25468.htm>.

is characterised by the US desire to preserve the policy of confrontation with Russia and, with the support of its NATO allies, to speak to her solely from a position of strength. For this end, NATO is expanding, and the combat potential of its allied armed forces is increasing'.[3]

NATO and the deterrence of Russia: in search of the optimum

The 2014 Ukrainian crisis gave a powerful impetus to the revitalisation of the 'military deterrence' policy vis-a-vis Russia. In September of that same year, the NATO Wales Summit authorised a sizable build-up of military efforts.

The participants of the summit decided to create the Very High Readiness Joint Task Force (VJTF), which was to become a 'new Allied joint force that will be able to deploy within a few days to respond to challenges that arise, particularly at the periphery of NATO's territory'.[4] It was also proposed to create NATO Force Integration Units in Eastern Europe and to strengthen the multinational system of air and sea patrols, including expanding early warning and control aircraft flights over Eastern Europe.

The summit adopted a declaration on increasing the Alliance's military expenditures, according to which within 10 years, each NATO member country should bring military spending to at least 2 per cent of its respective GDP. At least 20 per cent of this amount is to be designated for procurement of new weapons and military equipment.[5]

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[3] Speech by the First Deputy Minister of Defence of the Russian Federation, Chief of the General Staff of the Armed Forces of the Russian Federation, Army General Valery Gerasimov at the MCIS-2019 Conference, Russian Ministry of Defence, 23 Apr. 2019 <http://mil.ru/mcis/news/more.htm?id=12227590@cmsArticle> [in Russian].

[4] Wales Summit Declaration, 5 Sep. 2014 <https://www.nato.int/cps/en/natohq/official_texts_112964.htm>.

[5] Defence Expenditure of NATO Countries (2010–2017), Communique PR/CP(2018)16, NATO Public Diplomacy Division, North Atlantic Treaty Organisation, Bruxelles, 2018, pp. 2–3.

The Wales Summit also decided to expand the total number of NATO Response Force (NRF) from 13,000 to 40,000 troops. The above-mentioned Very High Readiness Joint Task Force of 5,000 was included into the NRF. Some experts, believed, however, that the general increase in the strength of the NRF noticeably increased the overall time needed to bring the entire group into full combat readiness.[6]

In 2015, it was decided to establish in Romania – on the basis of the headquarters (HQ) of the former 1st Infantry Division Dacica – the Multinational Division Southeast (deployed in March 2018). The force comprises a Romanian brigade and units from nine other NATO countries (including the United States), altogether up to 4,500 troops.

Since September 2015, eight NATO Force Integration Units have been created in Eastern Europe. Those are HQs set up for rapid deployment of joint structures in case of a crisis, to whose command designated groups and units will be transferred. Such centres have been deployed in Estonia (Tallinn), Latvia (Riga), Lithuania (Vilnius), Hungary (Szekesfehervar), Poland (Bydgoszcz), Slovakia (Bratislava–Vajnory), Bulgaria (Sofia) and Romania (Bucharest).

The main task of these units in peacetime is to establish interaction between the NATO's NRF, external NATO troops deployed in Eastern Europe and the local military structures. The personnel of each such centre counts about 40 staff officers, 20 of whom from the host country and another 20 assigned on a rotation basis from other NATO countries' armed forces.

The Wales Summit's initiatives were further pursued at the NATO Warsaw Summit in July 2016. There, an unprecedented decision was made to form and deploy four multinational Enhanced Forward Presence (EFP) battalion combat teams in the Baltic countries and Poland. The intensified military preparations were explained by allegation that 'Russia's recent activities and policies have reduced stability and security, increased unpredictability and changed the security environment'.[7] On

[6] Ringsmose, J., Rynning, S., *Can NATO's New Very High Readiness Joint Task Force Deter?*, Policy Brief 15/2016, Norwegian Institute of International Affairs, Oslo, 2016, p. 2.

[7] Warsaw Summit Communiqué, 9 Jul. 2016 <https://www.nato.int/cps/ru/natohq/official_texts_133169.htm?selectedLocale=en>.

the southern flank, the programme to strengthen the NATO presence was launched under a different name, Tailored Forward Presence (TFP). In contrast with the EFP, it had greater reliance on local armed forces, very limited military presence of foreign states and an emphasis on the infrastructure preparations.

The idea of creating multinational divisions also gained ground. According to this perception, the forces of various NATO states assemble under a single command. However, these efforts have so far been limited to creating HQs. In February 2017, the decision was made to deploy, on the basis of the Polish 16th Pomeranian Mechanised Division, the HQ of the Multinational Division Northeast (in December 2018, its formation was completed), under the command of which the four NATO battalion combat teams, deployed by August 2017, were transferred.

NATO's general military principles laid the groundwork for a number of joint military organisational and staff measures designed to solve several tasks:

– to increase the size and combat readiness of the joint rapid response forces;

– to create joint command and control infrastructure for joint forces, as well as for national forces to be included, if necessary, into the newly created HQs; and

– to establish in Eastern Europe, and especially in the Baltics, a multinational military presence (including, particularly, the US troops) of symbolic significance in the framework of the 'tripwire forces' principle.[8]

At the NATO Brussels Summit (July 2018), the so-called Four 30s plan was adopted – i.e. the NATO countries' commitment to provide the Alliance, if necessary, with an additional 30 large combat

[8] The method of military deterrence in which a larger state deploys military groups on the territory of its smaller ally. The deployed troops are patently insufficient for effective defence against the attack of a potential adversary, yet they are meant to become a 'live shield' that prevents from aggressive actions against the small state by prospect of imminent entry into the war of its major ally. Historic examples include: Soviet troops in Cuba after the resolution of the Cuban missile crisis and the US troops in West Berlin. See: Walton, R.J., *Cold War and Counterrevolution: The Foreign Policy of John F. Kennedy,* The Viking Press, New York, 1972, p. 141.

ships, 30 mechanised battalions and 30 squadrons of combat aircraft, which within 30 days at the latest should be able to proceed with the implementation of the assigned tasks. It is noteworthy that, although this plan was expected to provoke sharp criticism from Moscow, it did not suggest the immediate and unconditional deployment of the Alliance's forces and means in a peaceful environment, but was meant to 'further enhance the Alliance's rapid response capability'[9] in crisis situations.

On the US military presence

As already mentioned above, in the recent past, after the end of the Cold War, an unprecedented reduction in the US military presence took place in Europe. Thus, by the beginning of the first decade of the 21st century, the level of US forces permanently stationed on the European continent had decreased by 85 per cent – from 400,000 to 64,000 troops.[10] And until now, the return build-up of these forces has not yet occurred.

Of the US forces deployed in Europe, included in the above-cited numbers, half are stationed in Germany. The large units and formations permanently located in Europe comprise: the 2nd Cavalry Regiment in Vilseck (Germany) – the unit was formed according to the table of organisation and equipment of a medium-weight brigade combat team (Stryker brigade), 173rd Airborne Brigade in Vicenza (Italy) and 12th Combat Aviation Brigade in Ansbach (Germany).[11] Also, the Marine Expeditionary Unit is deployed in the European region. The US

[9] Brussels Summit Declaration, 11 July 2018 <https://www.nato.int/cps/en/natohq/official_texts_156624.htm?selectedLocale=en>.
[10] US Military Presence in Europe (1945–2016), Communication and Engagement Directorate, Media Operations Division, Fact Sheet, 26 May 2016 <https://www.eucom.mil/doc/35220/u-s-forces-in-europe>.
[11] Number of Military and DoD Appropriated Fund (APF) Civilian Personnel Permanently Assigned, Defence Manpower Data Centre, 30 Nov. 2018 <https://www.dmdc.osd.mil/appj/dwp/rest/download? fileName=DMDC_Website_Location_Report_1809.xlsx&groupName=milRegionCountry>.

European Command, in addition, includes the 3rd Air Force (its HQ is located at Ramstein Air Base, Germany) consisting of three fighter wings (in Spangdahlem, Germany; Aviano, Italy; and Lakenheath, UK).

Since 2017, the United States has switched to the practice of rotational duty of additional contingents of ground forces in Europe: each respective unit is transferred to the European theatre for nine months, after which it is replaced by another one. At the beginning of 2019, the 1st Armoured Brigade Combat Team of the 1st Cavalry Division was deployed in the region, including: about 3,300 troops, up to 400 tracked vehicles (including 87 tanks and 18 155-mm self-propelled howitzers M109A6 Paladin) and up to 1,400 units of wheeled and automotive vehicles, including cargo trailers. The brigade was deployed in separate parts: the HQ, the combined arms battalion, the reconnaissance battalion, the artillery regiment, the engineering battalion and the brigade support battalion in Poland; two combined arms battalions in Germany; one combined arms battalion (without two companies) – in Romania; and a company of the reconnaissance battalion – in Hungary; while two companies of the battalion deployed in Romania were stationed in Bulgaria.

From the end of February 2019, this force was replaced by a similarly composed (according to the table of organisation and equipment) 1st Armoured Combat Brigade Team of the 1st Infantry Division. Before that, similar brigades from the 1st and 4th Infantry Divisions were already stationed on duty in Europe.

In addition, since 2014, the rotation of another combat aviation brigade (up to 100 attack and multi-purpose helicopters and about 1,700 troops) has been set up in Illesheim (Germany). As of the beginning of 2019, the 4th Combat Aviation Brigade from the 4th Infantry Division has been on duty; it ought to be replaced by the 1st Combat Aviation Brigade from the 1st Infantry Division.

In September 2018, it was announced that by the fall of 2020, permanent garrison locations would be created in Germany for the newly formed 41st Field Artillery Brigade, including: the brigade HQ, two battalions of M270 multiple-launch rocket systems (they are also

tactical ATACMS missile launchers), an air defence battalion (with Stinger missiles mounted on vehicles) and a number of support units – up to 1,500 troops in total.[12]

Since 2015, the US Air Forces and Air National Guard have also been on rotational duty in Eastern Europe. The standard composition of their simultaneously deployed forces and equipment is from two to four expeditionary squadrons of tactical aviation, with 8–12 planes each. Most often, these include A-10 Thunderbolt II close air support aircraft and F-15C/D heavy multi-role fighters. The usual duration for squadron's duty has been from two to six months (the schedules of the duty of various units has partially overlapped). Three air bases have been used as temporary locations: Ämari (former Soviet airfield Suurküla, Estonia), Graf Ignatievo (near Plovdiv, Bulgaria) and Pápa (western Hungary).

The US rotational military presence in Eastern Europe entails noticeable organisational difficulties and increased costs. According to available estimates, the selected rotation scheme of armoured brigade combat teams is 13 per cent more expensive than their permanent maintenance at the European theatre.[13] Such scheme becomes in fact even more expensive if one takes into account that these estimates do not include the costs of creating infrastructure for permanent bases. Meanwhile, even a minor presence on a rotational basis requires expensive preparation of permanent deployment points provided by the host country. And with an increase in the contingent, the construction of new military bases reaches about the same scope as in the case of permanently deployed forces.

Still, such cost comparisons do not include the cost of ecological re-cultivation of lands after the end of each rotation cycle, as well as allocations for increased volumes of consumables and spare parts.

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[12] South, T., 'New in 2019: Army Europe Adds New Units, Boosts Air Defence, Artillery', *The Army Times*, 3 Jan. 2019 <https://www.armytimes.com/news/your-army/2019/01/03/new-in-2019-army-europe-adds-new-units-boosts-air-defence-artillery/>.

[13] Deni, J.R., *Rotational Deployments vs. Forward Stationing: How Can the Army Achieve Assurance and Deterrence Efficiently and Effectively?* US Army War College, Carlisle, PA, 2017, p. 22.

Moreover, in order not to reduce the total number of combat ready units in the armed forces, an additional brigade team is required to ensure uninterrupted rotation and maintain proper combat readiness of units (the so-called A-B-C scheme: one brigade is on duty overseas, a second is preparing to soon change it and a third is recuperating after duty). As a result, the annual costs for maintaining the rotation increase by at least another 500 to 550 million dollars (the cost of the annual maintenance of a brigade group in the United States), not counting the cost of the home-base infrastructure.[14]

If the United States were contemplating a major long-term military build-up in the region, it would have been easier and cheaper to deploy additional permanently-stationed units in Europe. Thus one could conclude that the US military participation in the 'deterrence of Russia' on the European continent at this stage is envisaged as a temporary and reversible undertaking.

On 'balances of power' in Europe

After the collapse of the Soviet Union and the creation of the Russian Federation as a sovereign state, relatively stable 'balances of power' formed within the European security system. The first and most permanent of them rests on constant superiority of the overall number of NATO forces over the Russian Armed Forces. Yet in peacetime, anything different would hardly be feasible in terms of correlation between the armed forces of a single, even a large, power, on the one hand, and the armed forces of 29 states, on the other.

The deployed armed forces of the NATO countries surpass the deployed Russian Armed Forces (excluding the stored weapons and equipment on both sides) in manpower by 3.6 times, in the main battle tanks – by 3.1 times, in other armoured vehicles – by 2.8 times, in the tube and rocket artillery – by almost 5 times, in helicopters of

[14] Ibid, pp. 12, 22–23.

all types – by 7.9 times and in combat aircraft – by 3.9 times.[15] Even while taking account of Russia's powerful nuclear deterrence forces (as a latent leveller of military capabilities), such superiority enjoyed by NATO may be perceived as a real security threat by Russia given the exacerbated tensions, and such perceptions indeed have become prevalent. In such a context, the political and diplomatic means of ensuring national security are relegated to the background.

Yet a second 'balance of power' in a way counter-balances the first one. It consists in the overwhelming superiority of the Russian Armed Forces near the country's western borders, including the territories of the Baltic countries and Poland. At the end of 2017, according to independent experts, the Russian Armed Forces in western Russia exceeded the total potential of the NATO countries deployed in the Baltic States by 2.4 times in manpower of the combat ready units, 5.9 times in main battle tanks, 4.6 times in other armoured vehicles and 10.7 times in self-propelled artillery, plus possessed an overwhelming superiority in rocket artillery and tactical ballistic missiles.[16] (With the inclusion of Poland into the calculation, however, the correlation becomes somewhat more levelled in terms of troops and armoured vehicles.)

In absolute terms, according to available data, the Russian combat-ready units in Russia's Western Military District are estimated at 78,000, and NATO forces in the Baltic States – at less than 32,000, already after the addition of the three EFP battalion combat teams.[17] Thus, even in combination with the forward-based forces in the Baltic states, one single US armoured brigade combat team (dispersed, as mentioned above, across Eastern and Central Europe) contributes no more than 10 per cent to the total contingent. When taking into account

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[15] The calculation is made according to: *The Military Balance 2018*, IISS, London, 2018.

[16] Boston, S., Johnson, M., Beauchamp-Mustafaga, N. and Crane, Y., *Assessing the Conventional Force Imbalance in Europe: Implications for Countering Russian Local Superiority*, RAND Corporation, Santa Monica, CA, 2018, pp. 7–9.

[17] Ibid, p. 7.

the armed forces of Poland and other Eastern European countries, the US military presence has an even smaller military-strategic significance, retaining only psychological and political impact.

A proper comparison of combat aviation in the region is not relevant because of the high mobility of this type of armed forces. It should also account for Russia's robust, technologically advanced and multi-layered air defence, individual components of which have demonstrated their high efficiency during the Syrian operation.

From mutual restraint to new détente?

Despite the extremely unsatisfactory state of relations between Russia and NATO, a certain stabilisation seems to be taking place, though still quite shaky, at a 'near-crisis' level. A whole number of signs in the recent years attest to this.

The decisions of the recent NATO summits, albeit met with an understandable apprehension in the Russian military-political circles, indicate certain restraint on behalf of the Alliance. Should it have desired so, under the pretext of the Ukrainian crisis and Russia's military activity on its western borders, the leadership of the bloc could have launched a broader campaign of military 'deterrence' of Russia. Considering the moods of the political elites in the Baltic states and Poland, much more significant NATO forces could have been deployed on the territory of these countries, and on a permanent basis, too. This, however, did not occur, and if tensions between Russia and NATO do not increase, is unlikely to happen further on.

Since the decision taken in 2016 by the Warsaw Summit of the Alliance to station four battalion combat teams in the Baltic states and Poland, the deployment of new forces near the Russian border does not occur and the number of deployed forces does not increase (although decisions continue to be made to enhance the Alliance's 'combat readiness'). The very scheme of the deployment of these units is based on a rotational, and, as shown above, a very costly and temporary

basis, which is constantly noted in the official NATO statements. Thus, representatives of the Alliance arguably seek to emphasise compliance with the provisions of the NATO–Russia Founding Act.

The final document of the 2018 Brussels Summit stated that the EFP of four battalion combat teams included a total of 4,500 troops, i.e. about one brigade. This could be judged as the desire to reaffirm the adherence to mutual commitment, which Russia had previously proposed during an exchange of views within the NATO–Russia Council. It had to do with the understanding of one important provision of the 1997 NATO–Russia Founding Act, i.e. that security should not be ensured by additionally deploying 'significant combat forces' – on which Moscow had suggested to set a quantitative limit, equal in size to one single brigade.

As of recent, one witnesses a certain change of tone in the ongoing official dialogue. Instead of the all but expected negative response to any NATO acts, the official response of the Russian Foreign Ministry to the decisions of the Brussels Summit introduced new notes: the focus was on the positive elements of the summit's outcomes aimed at preserving cooperation.

In particular, the Ministry's document drew attention to the fact that the Alliance remains committed to 'conventional arms control as the main element of the Euro-Atlantic security' and declares its determination 'to maintain, strengthen and modernise the CACE regime [Conventional Arms Control in Europe – S.O. and K.B.] based on such key principles as reciprocity, transparency and acceptance of the receiving party'. It was also noted that in NATO, 'in view of the difficult situation in the area of European security', they emphasised readiness for further negotiations with the Russian Federation on this issue.[18]

The Russian Foreign Ministry's document mentions the initiative to restore the dialogue on CACE, which was put forward by the former German Foreign Minister Frank-Walter Steinmeier, as well

[18] Treaty on Conventional Armed Forces in Europe and Conventional Arms Control in Europe, Ministry of Foreign Affairs of the Russian Federation, 25 Jan. 2019 <http://www.mid.ru/ru/obycnye-vooruzenia/-/asset_publisher/MlJdOT56NKIk/content/id/1137833> [in Russian].

as the decision to launch an informal 'structured dialogue' on security challenges in the OSCE region. The purpose of the latter, as seen from Moscow, is 'to de-escalate the situation, reduce military confrontation, and restore relations along the military channels'.[19] Such rhetoric represents a new element for the current crisis in relations.

To assess correctly the actual security situation in Europe, it is even more important to know that the specific levels of weapons established at one point under the Agreement on Adaptation of the CFE Treaty[20] for each country have not been reached by either the NATO countries or Russia. The latest official figures provided by the Russian side have indicated that the ceilings of the weapons and equipment (TLE) covered by the Treaty have not been filled by the Russian Federation for armoured vehicles by 37 per cent and for combat aircraft by 56 per cent.[21] The same is true for the NATO member countries of the Agreement. The total ceilings have not been reached by the Alliance states: for armoured vehicles by 54 per cent and for combat aircraft by 66 per cent.[22] This indicates that despite the fierce rhetoric and mutual accusations of exacerbating tensions, the parties have not been inclined to mobilise their entire military capabilities for an armed stand-off and, still less, for a military clash. This means that the prospect of a long-term military confrontation between Russia and NATO is not viewed by politicians and the military as the basic prospective scenario.

NATO's recent support for the US decision to withdraw from the Intermediate-Range Nuclear Forces Treaty (INF Treaty) has drawn acute criticism from Russia. Yet despite the fears of many Russian politicians and experts, representatives of the leadership of the Alliance

[19] Ibid.

[20] Adopted at the OSCE Summit in Istanbul in 1999, the Agreement on Adaptation of the CFE Treaty was not ratified after lengthy negotiations. In 2015, Russia 'totally suspended' its participation in the CFE Treaty, without leaving it formally.

[21] Since December 2011, the Russian side ceased to provide brief summary information regarding its weapons and equipment, while it continued to voluntarily give over this data to the other states parties to the CFE Treaty after December 2007, despite the suspension of its participation in the Treaty.

[22] The calculation has been made according to: Vehicle and Aircraft Holdings within the scope of the Conventional Armed Forces in Europe Treaty 2017, UK Ministry of Defence, published 23 February 2017.

at the highest level have since repeatedly declared that there is no intent to deploy US medium- and intermediate-range missiles in Europe. Objectively, such statements, in spite of everything, are a stabilising element in the current security situation.

Several tracks of the dialogue completely frozen after the outbreak of the Ukrainian crisis are beginning to pick up. Since 2016, meetings of the NATO–Russia Council (NRC) have resumed, although so far there has been no evidence of achievements along these tracks. Yet, the discussion of such a topical issue as the danger caused by combat aviation flying with turned-off transponders in the contact zones has led to a certain decrease of tensions in this area.

After a long interruption, contacts have resumed between military leaderships. Several meetings have taken place between General Gerasimov and high-ranking NATO military representatives. During these encounters, the current security issues have been discussed, including the nature of military doctrines and military exercises (which have noticeably increased in intensity in the recent years), while offering assurances that they are not directed against one another. The dialogue has also touched upon 'raising confidence-building measures and preventing incidents' during NATO's and Russia's military activities in the European region. An exchange of views on international security on the whole, as well as in the specific regions – in Europe and the Middle East – has taken place. The participants of the talks have unambiguously expressed 'mutual interest in maintaining military contacts'.[23]

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[23] 'Chief of the General Staff of the Armed Forces of the Russian Federation held talks with a representative of the NATO Military Committee', *Zvezda,* 7 Sep. 2018 <https://tvzvezda.ru/news/forces/content/201709071735-ew6e.htm> [in Russian]; 'NATO Supreme Allied Commander Europe meets with Russian Chief of General Staff', Supreme Headquarters Allied Powers Europe, 19 Apr. 2018 <https://shape.nato.int/news-archive/2018/nato-supreme-allied-commander-europe-general-scaparrotti-meets-with-russian-chief-of-general-staff-general-gerasimov>; 'Meeting of the top leaderships of NATO and the Russian Federation took place in Azerbaijan', *Zerkalo Nedeli,* 20 Apr. 2018 <https://zn.ua/WORLD/v-azerbaydzhane-sostoyalas-vstrecha-vysshego-rukovodstva-nato-i-rf-281740_.html> [in Russian].

In March 2017, a telephone conversation – the first after the start of the Ukrainian crisis – took place between Valery Gerasimov and the Chairman of the NATO Military Committee Petr Pavel. The main topics of the discussion included problems of 'ensuring security in Europe, the prospects for restoring military cooperation, preventing incidents and the participation of representatives of the Alliance in international events held by the Russian Ministry of Defence'. The two military leaders 'reaffirmed the need for mutual steps aimed at reducing tensions and stabilising the situation in Europe' and also 'agreed to continue such contacts'.[24] The telephone hotline remains one of the important channels of communication between high-ranking military representatives on both sides.[25]

The general military-political course of the Alliance, as noted in its official documents, is based on a 'dual-track approach towards Russia: meaningful dialogue on the basis of a strong deterrence and defence posture'.[26] At the same time, it can be stated that the build-up of the NATO's (including US) military presence in Eastern Europe, as already shown above, is not offensive and does not eliminate Russia's obvious superiority in the ratio of forces deployed on both sides of its western borders. In general, in today's NATO–Russia relations, two aspects are clearly visible: declarative and for real. If public declarations of the parties with regard to each other are still predominantly confrontational in nature, in actual practice it would be hard not to notice a desire to resume a certain level of interaction in order to prevent situations which would present a military danger. It may be assumed that in the conditions of the current crisis of European and international security, some building blocs are being put in place for stabilising the situation, preventing the escalation of tensions and precluding the spill-over of an

[24] Gryazev, A., Suslova, E., 'Your call is very important to us. The General Staff of the Russian Federation and NATO held their first telephone talks in three years', *Gazeta.ru*, 3 Mar. 2017 <https://www.gazeta.ru/politics/2017/03/03_a_10555607.shtml> [in Russian].

[25] Information obtained by one of the authors in an interview with NATO officials conducted during a visit of experts to the Alliance Headquarters in March 2019.

[26] Relations with Russia, *NATO official website*, 4 Feb. 2019 <https://www.nato.int/cps/ru/natohq/topics_50090.htm?selectedLocale=en>.

accidental incident into a real armed conflict. It is also obvious that even a limited form of such interaction would not have been possible without political signals from high echelons of power on both sides. Thus, the ground is being set for the eventual normalisation of relations between NATO and Russia.

Reducing the level of accusatory rhetoric against each other would contribute to achieving this goal. As for the Russian side, it needs to abandon the 'conspirological fatalism' syndrome widespread in a large part of the Russian political and expert community who believe that the West for centuries has allegedly been scheming to destroy Russia. This philosophy is based either on the historical ignorance of the neophytes of political science or on the politicisation of certified specialists.[27] If this indeed were the case, then the West (NATO) could have inflicted great damage on Russia in the years of her unprecedented weakening after the collapse of the Soviet Union, and the Russian nuclear weapons would not have prevented it, as they had not saved the Soviet Union.

Meanwhile, as already mentioned above, the United States, after the end of the Cold War, undertook a reduction by a factor of its military presence in Europe, and most other NATO countries substantially reduced their armed forces. Another fact was also indicative: in the past decade, the accession of the Baltic countries to NATO did not lead to increased military presence of the bloc on their territories, but resulted only in several NATO fighter planes starting to patrol the airspace of these states. Moreover, in the not so distant history of NATO–Russia relations, meaningful structured cooperation used to take place in 17 areas within the framework of the NATO–Russia Council. This common work lasted for quite a few years, as did the joint participation in military operations outside Europe (Afghanistan, Indian Ocean, etc.).

This allows to conclude that the level of NATO's military confrontation policy with regard to Russia directly depends on the nature of political relations with her and that this policy can change in

[27] For example, they never mention (or are not aware of) the historical fact that, throughout its many-centuries history, Russia only once fought with the 'unified West' – during the Crimean War in mid-XIX century, and in other cases it always acted in alliance with certain countries of the West against others.

response to positive signals from Moscow. Thus, the leadership of the key countries of the Alliance has no 'fatal susceptibility' to confrontation with Russia, and therefore a return to cooperation is quite possible.

It is another matter that the preservation of NATO – as, at its core, a fundamentally military Alliance – in the absence of other tasks and functions on or off the continent, which would justify such a powerful military-political entity – contributes to the preservation of tensions in Europe as the raison d'être for the Alliance's existence. The growing tensions between NATO and Russia spur an arms race, which both sides, if judged by their high-level official declarations, have been trying to avoid. Such an arms race, although causing damage to both sides, is yet more destructive for Russia than for the West, due to her more limited economic resources and her essential lack of reliable military-political allies. Therefore, reducing tensions and restoring relations with NATO is objectively to a greater extent in the interests of Russia.

The proposal made by Russian Foreign Minister Sergey Lavrov at the Munich Security Conference in February 2019 is aimed towards this. Acknowledging the tense situation in Europe and the Euro-Atlantic region, where 'new rifts appear and old ones deepen', the Russian minister said that 'in these conditions it is appropriate, even timely, to turn to the idea of building a "Common European Home"'. At the same time, he reminded of the 'concept of Greater Europe from the Atlantic to the Urals – peaceful, without dividing lines and bloc confrontation' put forward by Charles de Gaulle.[28]

Such major 'dividing line' in today's Europe are the exacerbated tensions between Russia and NATO. Overcoming this 'rift' remains a key challenge for the European security. The impetus towards restoration of dialogue would be given by progress in resolving the situation around Ukraine. The revitalisation of the dialogue would be furthered by the agreement of Moscow and Washington to extend the duration of the 2010 New START Treaty, and, still better, the initiation of negotiations on a follow-on treaty. Even more significant would be the restoration of

[28] Speech and answers to the questions of Russian Foreign Minister Sergey Lavrov at the Munich Security Conference, Ministry of Foreign Affairs of the Russian Federation, 16 Feb. 2019 <http://www.mid.ru/ru/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/ content/ id/3520272> [in Russian].

the INF Treaty, or at least a political agreement on the non-deployment of medium- and intermediate-range missiles in Europe. All this would open opportunities for restoring substantive dialogue and cooperation between Russia and NATO, without which it is impossible to ensure an effective revival of European and global security at a new level of relations.

PART II. EXPERT INSIGHTS

5. The crisis of the Nuclear Agreement with Iran

6. Opportunities and risks related to resolving the stand-off on the Korean Peninsula

7. Syrian conflict and instability in the Middle East

8. NPT states parties' positions in the run-up to the 2020 Review Conference

5. THE CRISIS OF THE NUCLEAR AGREEMENT WITH IRAN

Victor MIZIN

The US President Donald Trump's decision to withdraw from the multilateral Joint Comprehensive Plan of Action (JCPOA) on the Iranian nuclear programme has led to a creeping crisis, which may consequently entail the collapse of the Treaty on the Nonproliferation of Nuclear Weapons (NPT) and even trigger a new major war in the Middle East. This problem has become one of the most dangerous threats to today's international security.

Key parameters of the JCPOA

The Joint Comprehensive Action Plan reached with Iran by the P5+1 (Russia, China, France, Germany, Great Britain and the United States) and a representative of the European Union was signed on 14 July 2015 in Vienna and was designed to resolve the problem of the nuclear programme of the Islamic Republic of Iran.

The key points of this very complex Agreement are as follows[1]:

– Most of the Iranian enriched uranium is to be shipped out of the country to Russia. 97 per cent of low-enriched (up to 5 per cent) uranium are subject to downblending. Iran is allowed to enrich uranium hexafluoride (the feedstock for centrifuges) at 3.67 per cent, (far below

[1] Joint Comprehensive Plan of Action, Vienna, 14 Jul. 2015 <https://www.state.gov/e/eb/tfs/spi/iran/jcpoa/>; George Perkovich. Consequences of the Agreement for the Iranian nuclear programme in *Polycentric Nuclear World: Challenges and Opportunities*, Eds. A. Arbatov and V. Dvorkin, Carnegie Moscow Centre, 2017, pp. 140–151; Katzman, K., Kerr, P.K., Iran Nuclear Agreement: Selected Issues for Congress, CRS Congressional Research Service (US), CRS Report (R44142), 6 Aug. 2015.

the 90 per cent considered weapons-grade level). A limit of 300 kg for low-enriched uranium is imposed for a period of 15 years after the signing of the Agreement.

– None of the nuclear facilities in Iran are to be dismantled.

– The uranium enrichment Fordo plant which raised concerns would be converted into a nuclear physics and technology research centre without any uranium enrichment capacity – becoming a centre for the production of stable isotopes (this has been Moscow's compromise proposal).

– The IAEA will have access to all nuclear facilities in the country for a 20-year period, which will allow the organisation to ensure that the Iranian nuclear programme serves exclusively peaceful purposes and to consequently verify Iran's compliance with the Agency's Additional Protocol.

– US, EU and UN Security Council's sanctions will be lifted after the conclusion of the deal. Certain restrictive measures on the part of the P5+1 will remain in effect for some time, and then will be cancelled. As a result of the sanctions relief, Iran has been allowed access to around $56 billion of its frozen assets and the opportunity to conduct business with much of the world.

– 10 years after the Agreement's entry into force, Iran should begin phasing out its IR-1 centrifuges. During this period, Iran would have mothballed thousands of centrifuges, maintaining the capacity of the uranium enrichment plant in Natanz at a level not exceeding 5060 IR-1 centrifuges. Centrifuges in excess of this number and the infrastructure at Natanz which could be used for uranium enrichment should be under IAEA's continuous supervision. R&D of advanced centrifuges is to be limited and will take place in accordance with the proceedings agreed under the JCPOA. For ten years, Iranian uranium enrichment R&D will include only IR-4, IR-5, IR-6 and IR-8 centrifuges.[2] The level of uranium enrichment will decrease to 3.6 per cent.

[2] Israeli Prime Minister Benjamin Netanyahu said about the JCPOA that Iran disables the centrifuges (type IR-1) of 'not the right type', and, on the contrary, according to the Agreement, in 2023, will put into operation 'those critically right-type centrifuges' (IR-6 and IR-8), thus retaining its nuclear potential. The paradox of the logic of the Agreement here is that for Iran, in contrast to the

– Iran disabled its heavy-water reactor at Arak, pouring concrete into the core of the reactor, which might otherwise have yielded plutonium for a bomb. All surpluses of heavy water produced in Iran (over permitted 130 tons), which will exceed the needs of the modified Arak reactor (the redesign, as mentioned above, done to exclude the possibility of production of weapons-grade plutonium) should be sold by Iran on the international market. Tehran has pledged not to develop facilities to reprocess spent nuclear fuel into plutonium and has promised to refrain from related R&D for 15 years.

– Iran has also committed itself to temporarily apply the Additional Protocol to the Safeguards Agreement with the IAEA, i.e. to inform IAEA in advance of the construction of new nuclear facilities, which is key to confirming the exclusively peaceful purposes of its nuclear programme. The ensuing inspections are exceptional in their intrusiveness (only the mandate of the former UN Special Commission in Saddam's Iraq might have been more intrusive).

Overall, Iran would have eliminated 98 per cent of its enriched uranium and two thirds of its uranium centrifuges. It modified its Arak heavy water reactor (a potential source of weapons-grade plutonium), discontinued all uranium enrichment activities at the underground Fordo site and converted two thirds of its enrichment facilities to peaceful use.[3]

The implementation of the JCPOA by Iran was to be followed by the lifting of all existing UN Security Council Resolutions (part of restrictive measures was to remain, but they were introduced through a relevant Annex to the UN Security Council Resolution 2231), a whole number of unilateral US sanctions (mostly financial, but also with extraterritorial reach and affecting the interests of third countries) and all of the sanctions imposed by the EU. However, for five years,

originally available 19 thousand centrifuges, slightly more than five thousand units would not be enough to feed the nuclear power plant, but would be sufficient to create an atomic bomb. According to the JCPOA, within eight-and-a-half years, Iran may start further testing of 30 IR-6 and IR-8 centrifuges.

[3] Fact Sheet: Iran Nuclear Agreement: Implementation, Arms Control Centre, 14 July 2017 <https://armscontrolcenter.org/factsheet-implementation-of-iran-nuclear-deal/>.

under UN Security Council Resolutions, restrictions on the export of all weapons from Iran and on the weapons imports to Iran have been retained for seven agreed categories of the UN Register of Conventional Weapons. For this kind of deliveries, an authorisation procedure has been introduced – with the approval of the UN Security Council. A similar procedure, but for a period of eight years, in accordance with the Agreement, is prescribed in respect to the supply to Iran of missile technologies. During the period of ten years, a special 'supply channel' for nuclear and dual-use items to Iran would be set up for the categories included on the respective lists of the Nuclear Suppliers Group (such supplies, as it was decided, also require a permission from the UN Security Council, which, in turn, will be informed by the recommendation of the Joint JCPOA Commission).

The duration of all the above measures, including the UN Security Council Resolution 2231,[4] is counted from 18 October 2015, when the JCPOA entered into force. However, they can be lifted ahead of time in the event of the IAEA's all-embracing decision on the absence of undeclared nuclear materials and activities in Iran.[5]

The UN Security Council Resolution provides a mechanism for the possible reintroduction of sanctions in case if one of the participants of the Agreement should come to a conclusion that Iran is not fulfilling its obligations or is seriously violating them. However, the resumption of the sanctions regime is possible only through a procedure that requires presenting substantial arguments for consideration in the JCPOA Joint Commission (a body established by the JCPOA to handle questions and disputes concerning implementation of the agreement) – which in such a case would then serve as a kind of a filter – before bringing this issue to the level of the UN Security Council, that retains its crucial role in

[4] UNSCR Resolution 2231, 20 July 2015, S/RES/2231 (2015) https://undocs.org/ru/S/RES/2231(2015); https://www.reuters.com/article/us-iran-nuclear-deal-factbox/factbox-the-atomic-restrictions-imposed-by-the-iran-nuclear-deal-idUSKCN1TR1IT

[5] Hibbs, M., Vigorous Verification in Iran, Carnegie Endowment for International Peace, 28 Jun. 2016 <https://carnegieendowment.org/2016/06/28/vigorous-verification-in-iran-pub-63946>; Perkovich, G., Hibbs M., Acton, J.M., Dalton, T., *Parsing the Iran Deal*, Carnegie Endowment for International Peace, 6 Aug. 2015 <http://carnegieendowment.org/2015/08/06/parsing-iran-deal-pub-60942>.

the other issues of the implementation of the Agreement as well. Iran's actions that are in contravention of the JCPOA and extend beyond the limits allowed for technical reasons, should be thoroughly investigated, and only after that it would be possible to take appropriate measures.

The IAEA should adhere to the principles of the JCPOA, according to which the number of requests for access to Iranian nuclear facilities will be reduced to the minimum necessary for the effective implementation of the organisation's verification prerogatives under the JCPOA.[6] The most important provision of the JCPOA is also that, as stated in its Preamble, Iran has renounced the development and acquisition of nuclear weapons.

Meanwhile, in general, the legal status of the deal is ambiguous and has already been debated among experts. Ratification of the document by its participants was not envisaged – in order for it not to be blocked in the US Congress. Therefore, some experts consider it only as a politically binding document, while others, on the contrary, emphasise that it has the legal force, since it was authorised by a UN Security Council Resolution. This format of the document, which was not approved by legislators, essentially facilitated Donald Trump's decision to pull out of it (this was stated by a number of commentators and Trump himself during his election campaign in 2016).[7]

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[6] Baklitskiy, A., Iran nuclear agreement: a tightrope without a net*, Security Index*, 2015, Vol. 21, № 4 (115), pp. 39–60 [in Russian].

[7] Mulligan, S.P., *Withdrawal from International Agreements: Legal Framework, the Paris Agreement, and the Iran Nuclear Agreement*, CRS Congressional Research Service (USA), CRS Report (R44761), 4 May 2018 <https://fas.org/sgp/crs/row/R44761.pdf>; Gehrke, J., State Department: Iran deal is not 'really binding' and Iran didn't sign it', *National Review*, 25 Nov. 2015; Koh, H.H., 'Triptych's End: A Better Framework to Evaluate 21st Century International Lawmaking', *The Yale Law Journal*, 17 Jan. 2017 <https://www.yalelawjournal.org/forum/triptychs-end>; Goldsmith, J., 'Why Congress is Effectively Powerless to Stop the Iran Deal', *Lawfare*, 20 Jul. 2015 <https://www.lawfareblog.com/why-congress-effectively-powerless-stop-iran-deal-and-why-answer-not-iran-review-act>; Ackerman, B., Golove, D., 'Can the Next President Repudiate Obama's Iran Agreement?', *The Atlantic*, 10 Sep. 2015 <http://www.theatlantic.com/politics/archive/2015/09/can-the-next-president-repudiate-obamas-iran-agreement/404587/>.

A significant role in reaching the Agreement on the JCPOA belonged to Russia, which pledged to uphold its sustainability. Russia's position is that a return to the situation around the Iranian nuclear programme which existed before the adoption of the JCPOA, and especially the restoration of UN Security Council sanctions, is unacceptable',[8] while the collapse of the agreement is fraught with unpredictable consequences for the entire nonproliferation regime.[9]

US withdrawal from the Agreement

After the departure of the Obama Administration, the JCPOA became hostage to the domestic political struggle in the United States. During his election campaign, President Trump repeatedly criticised the Iran Deal as a failure, 'disaster' or 'humiliation' and 'one of the worst deals ever'.[10] In his speech at the UN General Assembly on 19 October

[8] Lavrov suggested what would lead to the collapse of the JCPOA on Iran, *RIA Novosti*, 2 Jul. 2018 <https://ria.ru/world/20180207/1514165927.html>.

[9] One of the most acute controversies in the dialogue of Russian representatives with their partners to the P5+1 was about the control over the implementation of the provisions of Section T of Annex 1 of the Action Plan of the activities that can contribute to the creation of nuclear weapons. Russia believes that the IAEA does not have the mandate to verify the Section T – that is, in general, any programmes in the country – and this reflects the consensus that was reached in the negotiations of the P5+1 with Iran, with the participation of the EU, and was confirmed by the UN Security Council Resolution. In other words, the point is that the Agency's activities should not extend beyond Iran's current nuclear programme – and Iran is clearly not prepared to allow international inspectors to enter any of its military facilities under the pretext that illegal nuclear activities may be carried out there. See: Joint Comprehensive Plan of Action, Vienna, 14 July 2015 <http://www.mid.ru/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/1595858>; Albright, D., Heihonen, O., Verifying Section T of the Iran Nuclear Deal: Iranian Military Site Access Essential to JCPOA Section T Verification, Report of the Institute for Science and International Security, 31 Aug. 2017 <http://isis-online.org/isis-reports/detail/verifying-section-t-of-the-iran-nuclear-deal>.

[10] Walt, S.M., 'The Top Five Foreign-Policy Blunders Trump Hasn't Made Yet', *Foreign Policy*, 4 Aug. 2017 <http://foreignpolicy.com/2017/08/04/the-top-five-foreign-policy-blunders-trump-hasnt-made-yet/>.

2017, he described it as one of the worst and most lopsided agreements the US had ever concluded. President Obama's Nuclear Agreement Review Act of 2015[11] required the president to submit this document to Congress for voting every 90 days. After his inauguration, Trump, however reluctantly, twice certified the deal. Yet on 13 October 2017, the US president said that he would no longer assure the Congress that the nuclear deal with Iran was in American interests.[12] Simultaneously, Trump called on Congress and the European partners to put forward additional conditions for Iran in order to further suspend sanctions, i.e. to essentially reconsider a number of provisions of the JCPOA.

The US President, in particular, considered it necessary to achieve the abolition of the so-called sunset articles of the Agreement, one of which envisaged lifting restrictions on the uranium enrichment programme after 2025.[13] The Republicans in the US Congress, along with Israel and America's allies from among Arab Gulf states, had serious fears that Iran's nuclear programme would then revive or even surpass the level of 2015. Iran itself on many occasions made statements that confirmed this in one way or another.

Trump's refusal, this time around, to once again certify the JCPOA met with an explicitly negative reaction from the European partners of the United States. The head of the EU diplomacy Federica Mogherini said that the US President had no authority to cancel the deal elaborated by the P5+1 and Iran and added that Trump's decision was

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[11] Iran Nuclear Agreement Review Act of 2015. H.R. 1191, Pub. L. 114–17 <https://www.congress.gov/bill/114th-congress/house-bill/1191/text>.

[12] Remarks by President Trump on Iran Strategy, 13 Oct. 2017 <https://www.whitehouse.gov/the-press-office/2017/10/13/remarks-president-trump-iran-strategy>. See also: Gordon, P., Malley, R., 'Destroying the Iran Deal While Claiming to Save It', *The Atlantic*, 21 Jan. 2018 <https://www.theatlantic.com/international/archive/2018/01/trump-iran-deal-jcpoa/551066/>.

[13] Iran Nuclear Agreement Review Act of 2015…; Fixing the Iran Deal. Background and Key Details <https://www.foreign.senate.gov/imo/media/doc/INARA%20Amendment%20Fact%20Sheet.pdf>.

not consistent with the letter and spirit of this Agreement.[14] European countries also expressed their concern regarding the prospect of Washington's new sanctions against Iran.[15]

Thus, the issue of the Iran Nuclear Deal became one of the most serious points of disagreement between the EU and the US Administration. French President Emmanuel Macron, German Chancellor Angela Merkel and the British Prime Minister Theresa May in a joint statement unambiguously called on the US Administration and the US Congress to consider how the consequences of this step could affect the security of the United States and its allies.[16]

The Russian Foreign Ministry expressed sharp criticism of Trump's decision and the subsequent statements of the US president about the need to 'correct the deficiencies' of the Agreement, stressing that 'Iran adheres strictly to its obligations, which is regularly confirmed by the IAEA'.[17] The Russian Foreign Minister said that he regretted President Trump's decision, yet believed that this would not lead to the termination of the Agreement.

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[14] Statement by High Representative/Vice President Federica Mogherini on the latest developments regarding the implementation of the Joint Comprehensive Plan of Action (Iran Nuclear Deal), Brussels, 13 Oct. 2017 <https://eeas.europa.eu/headquarters/headquarters-homepage/33921/statement-high-representativevice-president-federica-mogherini-latest-developments-regarding_en>.

[15] Stares, P.B., 'The Damage of Decertification. Trashing the Iran deal will have ripple effects well beyond Washington', *US News*, 13 Oct. 2017 <https://www.usnews.com/opinion/world-report/articles/2017–10–13/trumps-iran-deal-decertification-costs-the-us-with-allies-and-aggressors>.

[16] The same was stressed in their speeches on 21 October 2017 at the Moscow Nonproliferation Conference, organised by the nongovernmental Centre for Energy and Nonproliferation, the Secretary General of the European Foreign Service Helga Schmid and the former Senior Deputy Secretary of State Wendy Sherman, who directly took an active part in the negotiations on the JCPOA. At the same time, Schmid, like her Russian colleagues, emphasises that Iran's missile programme is not covered by the SFPD, and its discussion should be conducted in a different format. See: The Moscow Nonproliferation Conference 2017 <http://ceness-russia.org/eng/conf2017/materials/1991/>.

[17] Speech and answers to questions of the Minister of Foreign Affairs of the Russian Federation Sergey Lavrov at the Moscow Nonproliferation Conference. Moscow, 20 Oct. 2017 <http://www.mid.ru/ru/press_service/minister_speeches/-/

At first, Tehran's reaction to Washington's withdrawal from the JCPOA was rather balanced and calm. Iran repeatedly reaffirmed its decision not to produce or acquire nuclear weapons.

At the same time, in September 2017, Iran reported successful tests of a new ballistic missile with a range of 2,000 km, and in March 2016, and then in 2018 and 2019, several missiles were launched again. The UN Security Council discussed the 2016 missile launches, yet members of the UN Security Council disagreed in assessing whether these violated the Resolution 2231.[18]

In May 2018, the United States formulated an ultimatum to Iran including 12 conditions for prospective talks with a view of reaching a new agreement with Iran:[19] The latter, as Washington insists, should stop all work on uranium enrichment, never engage in the separation of plutonium, open up all its military – not only nuclear – sites for inspection, renounce the proliferation of ballistic missiles and further development of missiles and withdraw all forces under Iranian command from Syria, as well as discontinue support for terrorist groups operating in the Middle East.[20] After the expected rebuff of these conditions by

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asset_publisher/7OvQR5KJWVmR/content/id/2913751>.

[18] After the discussion of the issue in the UN, the UN Secretary General called on Iran to refrain from launching ballistic missiles – in order not to 'lose the momentum that arose after the signing of the JCPOA'. In this respect, Trump said that the leaders of the Congress were developing amendments to the Agreement which would impose restrictions on the Tehran's missile programme and simultaneously abolish the deadline for restrictions on Iran's nuclear research. This view was supported by many US partners in the Middle East, including Israel and the Gulf countries. See: Corker Statement on Legislative Strategy to Address Flaws in Iran Nuclear Deal, Proposal Removes Sunset, Strengthens Enforcement and Provides Leverage to Administration, US Senate Committee on Foreign Relations, 13 Oct. 2017; Nichols, M., 'UN Security Council meets over Iran ballistic missile launch', *Reuters*, 4 Dec. 2018 <https://www.reuters.com/article/iran-nuclear-un/un-security-council-meets-over-iran-ballistic-missile-launch-idUSL1N1Y91DL>.

[19] <http://www.middleeasteye.net/news/12-points-1658258396>; <https://www.aljazeera.com/news/2018/05/mike-pompeo-speech-12-demands-iran-180521151737787.html>.

[20] In response to the US actions, Tehran has put forward seven conditions to the EU, if the latter intends to retain the JCPOA. See: 'Iranian Supreme Leader Sets 7 Conditions for EU to Keep Nuke

Tehran, President Trump, on 8 May 2018, announced the withdrawal from the JCPOA and the introduction of sanctions against Tehran at the highest level. According to Trump, it became clear to him that the United States could not prevent the creation of a nuclear bomb within the framework of this 'decaying and rotten agreement'. 'If I allowed this deal to stand, there would soon be a nuclear arms race in the Middle East',[21] contended the US President. The American anti-Iranian sanctions would be targeting primarily the energy sector and financial operations. Yet, in addition, the US Treasury Department announced the revocation of previously issued licenses for the export of civilian aircraft to Iran, and this concerned not only the US Boeing Company (which had a contract with Iran for $16.6 billion), but also European Airbus (contract for $20 billion) and ATR ($0.5 billion contract), both of which use for their engines many US-produced components.[22] Trump could thus reinstall the previously adopted sanctions (CISADA – PL 111–195 of 2010, IFCA – PL 112–239 of 2012), as well as the Act on Sanctions against Iran (ISA of 1996, as amended in 2010).

The creeping crisis

The Tehran authorities had long warned that in case of non-compliance by the Parties to the Agreement, Iran might resume the nuclear activities prohibited under the JCPOA and stop admitting IAEA inspectors to its nuclear facilities. In such a case, Iran could potentially build nuclear weapons production capacity at undeclared facilities (where 2,000 centrifuges would be sufficient to produce weapons-grade uranium). Immediately after Trump announced his intention to revise the deal, the military and the orthodox circles in Iran began demanding

Deal Alive', Sputnik News, 23 May 2018 <https://sputniknews.com/middleeast/201805231064729978-iranian-minister-us-demands-response/>.

[21] President Donald Trump Delivers Remarks on Iran Deal, *CNBC*, 8 May 2018 <https://www.youtube.com/watch?v= –QiMvernIL0>.

[22] Komrakov, A., 'Russian aircraft will not replace Iran's Airbus and Boeing', *Nezavisimaya Gazeta*, 14 May 2018 <http://www.ng.ru/economics/2018–05–14/4_7223_tegeran.html> [in Russian].

to suspend the process of disabling the country's centrifuges. And influential conservatives in Iran – clerics, the IRGC members and some others – started, in response to the US decision, to increasingly express dissatisfaction with the JCPOA, supported only by President Rouhani's relatively 'liberal' faction, less influential in Iranian politics.

However, Iran could retain many of the economic benefits of the Agreement, even in the case of the US withdrawal from the deal, given that the other countries participating in the deal would not follow the US lead (and would effectively be conducting activities bypassing sanctions), and Russia and China would continue to politically and economically support Iran.

In particular, the opportunities for Iran's economic growth and the retained volume of its trade transactions with European countries for Iran can be preserved by the newly introduced European payment mechanisms – such as INSTEX and a number of others. According to the European Commission representatives, these mechanisms will continue to function as long as Tehran keeps on implementing the JCPOA. In May 2018, the European Commission announced a set of measures to protect the interests of European economic operators doing business in Iran, including an update to the EU Blocking Regulation.[23] It decided, in particular, to create an instrument to facilitate European companies' legitimate trade with Iran. A special institution (a legal entity) has also been established, through which it will be possible to carry out legal financial transactions with Iran in accordance with international standards.[24]

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[23] The Blocking Statute (Council Regulation – EC – No 2271/96) allows the economic operators of the EU to compensate the damage resulting from the application of extraterritorial US sanctions, nullifies the effect in the EU of any foreign judgment based on these sanctions, and prohibits persons of the EU to comply with extraterritorial US sanctions unless there is clear permission of the Commission to do so. In particular, this legislation affected US sanctions against Cuba and Libya, and also applies to sanctions against Iran.

[24] Iran Deal: EU and partners set up mechanism to protect legitimate business with Iran, Official website of the European Union, 29 Sep. 2018 <https://eeas.europa.eu/delegations/japan_en/51066/Iran%20Deal:%20EU%20and%20partners%20set%20up%20mechanism%20to%20protect%20legitimate%20business%20wi>.

Western banks may suspend financial operations for fear of US sanctions, and the European companies dealing with Iran may be cut off from the US banking and financial systems. The US government has granted a small number of exemptions, mainly for energy companies from a number of its partner countries.[25] However, it is yet unclear whether the Europeans will be able to resist the Trump Administration on this matter. European businesses have a lot to lose, since Washington is the main economic partner of the EU. In 2018, trade between the US and the EU amounted to 700 billion euros. In 2018, the United States was the EU's largest export partner (21 per cent) and the EU's second largest import partner (13 per cent).[26]

On 8 May 2019, a year after President Trump withdrew the United States from the Nuclear Deal with Iran, President Rouhani announced that Iran would no longer adhere to its two JCPOA commitments – i.e. it would no longer comply with the restrictions on the accumulation of low-enriched uranium (300 kg) and excess heavy water (130 tons). Iran could also resume uranium enrichment to levels above 3.67% or try to return to working on the original design of the heavy water reactor for plutonium production in Arak.

As an ultimate measure, about the possibility of which Tehran has already warned, Iran can withdraw from the NPT, following the example of North Korea back in 2003, and begin to develop nuclear weapons. However, unlike the situation in the Far East, in the Middle East there exist not the peaceful states like South Korea and Japan, but a resolute Israel, which in such a situation would not hesitate to launch a massive air strike on the Iranian nuclear industry, disregarding the Tehran's air defences (with its S-300 systems supplied by Russia) and the negative reaction of the Islamic world, Europe, Russia and even of

[25] Thus, on 2 November 2018, the US Secretary of State announced that companies from eight countries (China, India, Italy, Greece, Japan, South Korea, Taiwan and Turkey) were 'allowed' to continue importing Iranian oil.

[26] USA–EU – international trade in goods statistics, March 2019 <https://ec.europa.eu/eurostat/statistics-explained/index.php/USA-EU_-_international_trade_in_goods_statistics>.

the United States. For Tel Aviv, any outcome of the war is preferable to a nuclear Iran, which is perceived in Israel as the 'new repeat of the Holocaust' – a threat to the very existence of the Israeli state.[27]

It is worth mentioning, however, that Trump's Administration is divided on the Iranian issue. Some of its top officials, in particular, the National Security Adviser John Bolton and the Secretary of State Mike Pompeo espouse a very tough position. However, Trump himself is not particularly inclined to go to war and continues to argue that he would eventually prefer a dialogue with the Iranians aimed at bringing them back to the negotiation table – to conclude a 'better' nuclear deal than the one Obama achieved and to force Iran to make concessions as to its regional ambitions and its ballistic missile programme. The US military leaders, meanwhile, are concerned that Washington might be inadvertently slipping into an armed conflict with Iran and are in general sceptical with regard to deploying additional forces in the Persian Gulf (though recently a limited contingent has been additionally relocated there).

It remains a question, however, whether the relatively more moderate political actors in Trump's Administration will be able to make their point, as in the case of North Korea, about the futility of the course of military pressure and ultimately the use of force against Iran, and manage to exert pressure on Trump in the direction of restraint. It may be recalled that the former Defense Secretary James Mattis, the former Secretary of State Rex Tillerson and the former National Security Adviser Herbert McMaster tried to persuade Trump to reconsider exiting from the Agreement. If the 'moderates' (particularly at the Pentagon) do take the upper hand, one cannot exclude the scenario of a number of amendments to the JCPOA implemented in exchange for Washington easing its sanctions.

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[27] <https://latitude.blogs.nytimes.com/2012/04/25/netanyahu-cant-go-wrong-claiming-that-iran-is-planning-another-holocaust>; <https://www.jpost.com/Middle-East/Iran-can-cause-a-new-Holocaust-warns-Islam-expert-in-Austrian-parliament-588650>.

The major question remains how much Trump himself is bluffing. Therefore, attacks on US troops and forces time and again taking place in the Persian Gulf are extremely dangerous as they could trigger a perilous military conflict.

In April 2019, Trump ended waivers that had allowed some countries to continue buying Iranian oil.

Russia would be well-advised to keep on encouraging Iran, Israel and the United States to show restraint, as well as consistently coordinate their actions with the European parties to the Agreement and with China. No effort should be spared to re-establish the JCPOA, even if on a compromise basis, no matter how egregious the Trump Administration's policies might appear.

In the situation of the tightening of the anti-Iranian sanctions, even the likely spike in the world energy prices, Iran's growing dependence on Russia and the increased number of weapons that she delivers to Iran cannot by far compensate for the huge costs to Russia's economic and political interests resulting from her deepening confrontation with the West – now over the Iranian problem as well. Even more so, this applies to the prospect of a big new war in the region. Its consequences would outweigh any possible opportunistic trade benefits, not to mention the threat of a direct armed conflict between Russia and Israel and the United States, which would be much more difficult to avoid than in Syria.

Moreover, the collapse of the JCPOA would, no doubt, be one of the strongest blows to the Treaty on the Nonproliferation of Nuclear Weapons on the eve of its 2020 Review Conference, thus dismantling one of the last major pillars of the global nuclear arms control and nonproliferation regime.

6. OPPORTUNITIES AND RISKS RELATED TO RESOLVING THE STAND-OFF ON THE KOREAN PENINSULA

Alexander FEDOROVSKY

The political situation on the Korean Peninsula that emerged from the first days of 2018 presents a combination of promising opportunities and serious risks associated with the prospects for resolving the North Korean nuclear and missile problem. A remarkable feature of the negotiation process have been the pro-active, energetic diplomatic steps undertaken by the Democratic People's Republic of Korea (DPRK). By compelling its partners, primarily Seoul and Washington, to engage in dialogue, Pyongyang obtained a negotiation format which it could perceive as acceptable.

North Korea's diplomatic offensive

In his New Year's speech on 1 January 2018, North Korea's leader Kim Jong-un called for urgent measures to improve inter-Korean relations in the year to come. In turn, South Korean President Moon Jae-in, who had sharply criticised his predecessors for the excessively tough policy towards North Korea, declared his readiness for constructive dialogue. The agreement quickly reached between the two sides on the participation of North Korean athletes in the Winter Olympics in Pyongyang in February 2018 demonstrated the ability of the Korean states to arrive, if necessary, at mutually acceptable solutions. In total, three meetings of the leaders of both Koreas took place during that year: two in the demilitarised zone and the third – in the North Korean capital during Moon Jae-in's visit to Pyongyang in September 2018.

Talks between North Korea and the United States also began, and then led – quite unexpectedly for many politicians and experts – to the meeting of North Korean leader Kim Jong-un and the US President Donald Trump on 12 June 2018 in Singapore, and consequently to their second summit in Hanoi which took place on 27 and 28 February 2019.

At the same time, Kim Jong-un's regular visits to China (three in 2018 and one in early 2019) provided opportunity for highest level China–North Korean consultations on the development of the situation around the Korean Peninsula. In their turn, Seoul and Washington also maintained dialogue with Beijing on Korean issues through diplomatic channels. Thus, the content and vector of the negotiation process was being formed in the framework of the rectangle Pyongyang–Beijing–Washington–Seoul which was functioning de facto, though not formalised.

The dialogue initiated by the current North Korean leadership has been significantly different in nature from the diplomatic negotiation process (bilateral or multilateral) in which the country periodically participated under the previous Kim Jong-il administration. During those years, the North Korean totalitarian regime used to put forward, as the economic need arose, options for overcoming specific problems relevant for the opposite side. Most often it would propose to show some restraint in the implementation of its nuclear missile programmes and certain softening measures of humanitarian nature (such as arranging for meetings of divided Korean families) in exchange for getting economic assistance (financial support and supplies of food, fuel and medications). All these were accompanied by a discussion of a broad agenda, which allowed Pyongyang to explore to which extent it could fulfil its most important foreign policy objectives: ensure the security of the North Korean regime, win the ability to maintain direct political and economic ties with the United States, receive economic assistance from Japan and the Republic of Korea and engage China and Russia to support North Korea's domestic and foreign policy. In line with its policies of attaining whatever is possible, Pyongyang was content to get the opposing side's economic concessions, while postponing

the resolution of strategic tasks until a later time. North Korea could carry on this foreign policy course because it had as its foundation the prevailing domestic political stability.

However, the internal situation that changed over the past decade prompted the Kim Jong-un's regime to make significant adjustments to his foreign and defence policy. The process of erosion of the administrative economic system began in the country, with this system loosing its capability to provide for even the minimal consumer needs of the population and ensure the functioning of the key sectors of the economy, except for the defence industry. In the conditions when the leadership proved not ready to publicly announce the beginning of economic reforms (as, for example, the ruling elites in China and Vietnam did in their time), the party, civilian and military bureaucracies, as well as the local initiative groups under their protection, effectively began to transfer under their own control the formally state-owned industrial and agricultural enterprises, transport and domestic and foreign trade, as well as the services sector.

The regime has responded to the emerged domestic challenges with repressive economic, managerial, defence and foreign-policy measures. The goal of the Kim Jong-un's administration has been to keep under control, to the extent possible, the command economy's dismantling which has started and to prevent the ensuing threat to the existing system of power. Administrative efforts have focused on maintaining a rigid governance hierarchy. In the economic sphere, decisions and directives (mostly classified) have been issued that have allowed limited freedom to exercise control over part of what is produced, including on private homes' individual parcels of land, as well as at industrial enterprises. But the changes have come short of systemic and transparent market transformations (the word 'reforms' itself is still banned). As a result, quasi-market relations, implying an extensive system of corrupt ties, have become widespread in the country. In these circumstances, social differentiation has intensified. The bureaucracy and a minor part of the population (primarily in the capital) have been able to improve their living standards, but the majority of North Koreans still continue to struggle to survive.

In these circumstances, measures aimed at mobilising the society and maintaining the viability of the defence sector and related industries are seen as essential for preserving the ruling regime. The nuclear and missile project, which grabbed attention internationally, allowed the North Korean leadership to expand propaganda of its alleged scientific, industrial and military successes, including through demonstrating to the leading domestic cadres at the central and local levels the regime's ability to achieve its goals and force foreign states to reckon with the North Korean potential.

In turn, diplomacy, using the possession of nuclear weapons as an argument, is supposed to ensure favourable external conditions for the North Korean regime to enable it to adapt in order to handle market mechanisms: i. e. obtain guarantees from South Korea and leading world powers (primarily the United States) of non-interference into North Korea's internal affairs, receive large-scale economic assistance and get access on most favourable conditions, to foreign financial resources and technologies. Given the uncertainty of the nature and duration of the North Korea's transit towards a market economy, Pyongyang is interested in maintaining the nuclear status quo for as long as possible.

The North Korean tests of nuclear devices and missile launches, which caused serious concerns among neighbouring countries and world powers, led in 2016–2017 to arriving at unique coordination of the policy of the United States, China, Republic of Korea, Japan and Russia with regard to North Korea; as a result, the UN Security Council imposed severe political and economic sanctions against North Korea.

Faced with foreign political pressure and trade restrictions that caused a severe shortage of financial resources and commodities, the Kim Jong-un's administration launched a diplomatic offensive, shifting from the language of ultimatums to demonstration of readiness for constructive negotiations. The Pyongyang's proposal, voiced in early 2018, to start a dialogue with interested parties to normalise the situation around the Korean Peninsula and its call for improving inter-Korean relations allowed Pyongyang to seize the diplomatic initiative and easily derail the incipient cooperation of regional powers which was developing in the framework of the UNSC under the leadership of the United States and China.

Although to obtain security guarantees remains key task of North Korea's foreign policy, the negotiations that began (between Pyongyang and Seoul, and Pyongyang and Washington) extend beyond purely military-political issues. The North Korean leadership introduced a moratorium on missile launches and nuclear tests, made a statement about the elimination of part of its nuclear testing infrastructure and readiness to negotiate the denuclearisation of the Korean Peninsula and expressed a desire to substantially improve relations with the Republic of Korea. At the same time, North Korea insists on commensurate reciprocal measures on behalf of the United States and South Korea, first of all, on the early complete lifting or significant easing of the sanctions imposed by the UN Security Council. At the next stage, the subject of negotiations, from North Korean leadership's perspective, ought to be obtaining guarantees from the United States and other powers that would ensure North Korea's existence, as well as establishing full-fledged political and economic relations.

It was Seoul that responded to Pyongyang's initiatives in a most constructive spirit. Formally continuing a bilateral dialogue on the denuclearisation of North Korea, the Republic of Korea on this matter uses as its reference point the US–North Korean negotiations. At the same time, President Moon Jae-in expressed his desire to build inter-Korean relations not limited to resolving specific issues, but focused on the long-term goal of developing a 'new order on the Korean Peninsula', which 'will lead to a new order in Northeast Asia'.[1] The South Korean leader links the creation of this new order to a comprehensive implementation of several interrelated tasks. These include building trust and cooperation in inter-Korean relations, maintaining the North Korean–US dialogue on nuclear disarmament and ensuring Chinese, Russian and Japanese constructive impact on the negotiation process. In accordance with the South Korean scenario, the step-by-step progress in the respective areas would allow to change the regional agenda in the foreseeable future, abandon the contentious topics, switch over instead

[1] Choi, H.-S., 'Moon says "new order" being formed on Korean Peninsula', *Korea Herald*, 8 Oct. 2018 <http://www.koreaherald.com/common/newsprint.php?ud=20181008000554>.

to the issues of cooperation and create a new economic and political reality on the Korean Peninsula that would provide for a stable system for ensuring regional security and maintaining peace in Northeast Asia (NEA).[2]

The New Economic Map initiative put forward by President Moon Jae-in implies the creation of favourable conditions for the development of sustained relations with North Korea, China and Russia. One of its possible options foresees instituting a railway union in the NEA (with the participation of the United States). A valuable contribution into the development of the economic basis for regional cooperation should become the creation of 'industrial belts' in North Korea, with the involvement of external partners into the project. Of these 'industrial belts', the 'eastern belt' along the coastline of the Sea of Japan (East Sea) provides for cooperation with Russia, the 'western' – along the Yellow Sea coast – for joint work with China, and the horizontal belt (along the demilitarised zone) is supposed to become the centre for environment protection, tourism and educational programmes. Thus, South Korea directly links the resolution of North Korea's nuclear disarmament problem with the need to overcome the negative consequences of Korea's division and thus arrive at a stage when tasks are formulated at a regional level.

The first results of and prospects for US–North Korean dialogue

As a result of the past year's summits, the political climate on the Korean Peninsula has markedly improved. The missile launches, nuclear tests, military preparations and mutual exchanges of threats have given way to a discussion on the prospects for the interaction of North Korea with regional powers on a wide range of issues. However, as far as the measures for the practical development of the peace process are concerned, a stalemate has been evolving. North Korea points out that it has already undertaken a series of constructive steps, the main

[2] Moon Jae-in's Policy on the Korean Peninsula. A Peninsula of Peace and Prosperity. Ministry of Unification, Seoul, 2018.

of which was moratorium on missile launches and nuclear tests. The North Korean leadership insists that commensurate reciprocal actions be taken by the United States and South Korea, primarily on the lifting or significant easing of the sanctions imposed according to the UN Security Council decision, as well as on the cessation of joint US–South Korean manoeuvres in the region. Meanwhile, Washington believes that what Pyongyang has done is not enough and that the latter should take concrete practical steps towards denuclearisation.

A telling outcome of the year-long negotiations was the failure of the second US–North Korean Summit, which took place on 27 and 28 February 2019 in Hanoi. The parties proved unable to agree on the implementation of North Korea's nuclear disarmament in exchange for lifting the economic sanctions. The US president and the North Korean leader refrained from holding a joint press conference to comment on the disappointing results of the discussion on the prospects for North Korea's nuclear disarmament and on the possibility to foster the international cooperation on the Korean Peninsula.

According to the US president, the problem for the United States was Kim Jong-un's assumption that he would be able to get rid of all sanctions in exchange for partial nuclear disarmament ('he wanted to lift the sanctions').[3] North Korea, for its part, denies that it demanded the total lifting of sanctions. According to North Korean Foreign Minister Ri Yong-ho, his country expressed its readiness to be satisfied at this stage with the partial lifting of sanctions in return for its self-imposed limitations in the nuclear and missile field.[4]

The consequences of the summit were ambiguous, exerting both a negative and a positive impact for its participants and regional powers. The failure of the summit derailed hope for a breakthrough in US–North Korean relations, which could guarantee North Korea's nuclear-free status, strengthen the nuclear nonproliferation regime and ensure

[3] Sanger, D.E., 'Trump-Kim Summit's Collapse Exposes the Risks of One-to-One Diplomacy', *The New York Times*, 28 Feb. 2019 <https://nytimes.com/2019/02/28/world/asia/trump-north-korea-nuclear-sanctions.htlm>.

[4] 'China calls for all parties to play an active role in solving Korean peninsula issue', *Xinhuanet*, 1 Mar. 2019 <http://www.xinhuanet.com/english/asiapacific/2019–03/01/c_137861051.htm>.

stable peace and international cooperation in the region. The bet that the two leaders had made on their ability to overcome the long-accumulated problems through confidential personal negotiations proved mistaken. As a result, President Donald Trump was unable to score points in the domestic political confrontation in the United States and on the international arena by achieving a solution of the North Korean problem through intensified diplomatic bargaining. In turn, Kim Jong-un, most likely, hoped that – against the background of the US withdrawal from the Intermediate-Range Nuclear Forces Treaty and from the multilateral Agreement with Iran, as well as the testimony of Michael Cohen, Trump's former lawyer, in the Congress – the US president's desire to strengthen his own positions would prompt him to accept North Korean proposals. Yet the North Korean leader underestimated the need that Trump must have felt – in the conditions of the pressure that he was experiencing – to achieve not a partial, but a 'big deal'.[5]

One positive result of the summit for Donald Trump, however, was that his position, expressed in the formula 'no agreement is better than a bad one', met with understanding not only from his supporters, but from his opponents, as well. Thus, Democrat Adam Schiff, Head of the House Intelligence Committee and one of Trump's most active critics in the US Congress, endorsed the president's decision to wrap up negotiations in order to avoid a 'bad deal'.[6] Nevertheless, the prospect of protracting negotiations while North Korea could continue to retain or even strengthen its nuclear and missile potential undermines the reputation of Trump as a diplomat who closely associated himself with the figure of the North Korean leader.

For Kim Jong-un, conducting, throughout eight months, two meetings with the US president meant achieving a breakthrough of political isolation and getting access to the international negotiation process, which certainly enhanced his authority at home and abroad. Another real accomplishment was the two sides' agreement 'to continue

[5] Sanger, D.E., 'Trump–Kim Summit's Collapse…'

[6] Mohamad, A. M., Spetalnick, M., 'As Trump returns empty-handed from summit with Kim, some in Washington breath sigh of relief', *The Japan Times*, 1 Mar. 2019 <https://www.japantimes.co.jp/news/2019/03/01/asia-pacific/trump-returns-empty-handed-summit-kim-washington-breathe-sigh-relief/>.

productive negotiations to resolve the issues discussed at the Hanoi summit', which allowed at this stage to avoid slipping from dialogue into confrontation.[7] However, the North Korean leader's failure to gain even the softening of the sanctions imposed on North Korea by the UN was little short of a defeat.[8] Meanwhile, the North Korean economy and the bureaucracy managing it, and most of all, the country's rank and life population (especially in the provinces), are in dire need to see an end to the country's trade and financial isolation from the outside world. The situation is complicated by the fact that because of the sanctions, the numerous projects for the resumption and development of inter-Korean cooperation, agreed upon by Moon Jae-in and Kim Jong-un, cannot be implemented. Under these conditions, the exploitation by North Korea's state propaganda of the alleged foreign policy successes of its leader is unlikely to have a lasting positive effect inside the country.

The failure of the Hanoi summit was painful for the Republic of Korea, as well. Moon Jae-in's administration fears that the absence of significant gains at the US–North Korean talks could lead to increased tensions and a new round of confrontation on the Korean Peninsula. Moreover, the domestic opposition, which has been accusing the South Korean authorities of excessively soft policy towards Pyongyang, may use the results of the US–North Korean summit as an argument in favour of a tighter course towards North Korea. Taking this into account, the decision that Washington and Seoul made after the Hanoi summit to limit the scope of their annual joint manoeuvres was meant to at least

[7] 'Negotiations were held on the second day as part of the 2nd summit of the heads of the DPRK and the USA', *Korean Central News Agency*, 1 Mar. 2019 <http://www.kcna.kp/kcna.user.special.getArticlePage.kcmsf> [in Russian].

[8] According to the data provided by the UN coordinator in Pyongyang Tapana Mishra, North Korea needs $120 million in emergency humanitarian assistance to save the lives of 3.8 milion people suffering from lack of food and medication. Based on the data of the German Global Aid to the Starving People, the daily food ration, consisting of cereals, corn and potatoes, has been reduced to 300 grams. Overall, according international organisations' estimates, about 11 million in North Korea out of the 25 million population suffer from lack of food and drinking water and are deprived of normal sanitary conditions and access to health care. See: Sergeyev, M., 'The consumption rate in the DPRK has been reduced to 300 grams', *Nezavisimaya Gazeta*, 11 Mar. 2019, p. 4.

partially alleviate Pyongyang's concerns and demonstrate readiness not to increase tensions in the region. In a telephone conversation after negotiations with Kim Jong-un, Donald Trump asked Moon Jae-in to play, in his turn, a more active role as an intermediary, which became a manifestation of Washington's support for the position of the South Korean president.[9] While President Moon Jae-in found it necessary to emphasise that 'progress in inter-Korean relations will lead to normalisation of North Korea's relations with the United States and Japan'.[10]

Speaking at a press conference in Hanoi, Trump underscored the positive role that China is playing, 'Xi Jinping is a great leader… and he helped us'.[11] This appeared as, simultaneously, a recognition of China's significance in the settlement of the Korean Peninsula issues and an invitation to Beijing to fully exercise its influence on Pyongyang in order to ensure effectiveness of the ongoing talks on North Korea's denuclearisation. As a result, China, without participating directly in the negotiations and against the background of their set-back, strengthened its influence on the process of the Korean settlement. Calling on all negotiating parties to make every effort to achieve positive results, Beijing reminded, as verbalised by the Chinese Foreign Ministry spokesperson, that 'China has always proposed that the Security Council of the United Nations needs to consider modifying sanctions based on the positive development of the situation on the Korean Peninsula'.[12]

The question remains, however, how long Beijing will be able to use in its interests the existing possibilities to pursue its diplomatic course on the Korean issue 'without emerging from behind the curtains'.

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[9] Park, H.-N., 'Moon vows to help US–NK talks reach full settlement', *Korea Herald*, 1 Mar. 2019 <http://www.koreaherald.com/view.php?ud=20190301000094>.
[10] Kim, T.-H., 'Undeterred by summit collapse, Moon vows closer ties with North as domestic affairs go on back burner', *Daily Mail online*, 1 Mar. 2019 <https://www.dailymail.co.uk/wires/ap/article-6759099/SKoreas-Moon-plans-discuss-inter-Korean-projects-US.html>.
[11] Tachikawa, T., 'Lack of progress at Tramp–Kim summit will have mixed impact on China, South Korea and Japan', *The Japan Times*, 1 Mar. 2019 <https://www.japantimes.co.jp/news/2019/03/01/asia-pacific/lack-progress-trump-kim-summit-will-mixed-impact-china-south-korea-japan/>.
[12] 'China calls for all parties to play an active role…'

A whole number of factors may prompt the Chinese leadership to move towards a more open diplomacy. This could be come as a result of the exacerbated socio-economic problems in North Korea under sanctions or the threat of a change in relations between North Korea and the United States from dialogue to confrontation, or should China feel the need to announce its vision of the future of inter-Korean relations and the desired measures to take in this direction to ensure peace and security on the Korean Peninsula.

In turn, for Japan the failure of the Hanoi negotiations means the continued existence of the North Korean nuclear and missile potential, which poses a direct threat to the Japanese security. In addition, Japanese–North Korean relations are aggravated by the unresolved, as far as Tokyo is concerned, problem of Japanese citizens abducted by the North Korean secret services back in the 1970s and 1980s. A number of experts and media sources have expressed concern that, while remaining outside the framework of the diplomatic dialogue with North Korea, Japan deprives itself of a chance to resolve the full spectrum of problems in its relations with North Korea. At the same time, Prime Minister Shinzo Abe prefers to stay in the rear guard of the negotiation process conducted by South Korea and the United States with North Korea. His motivation has apparently been to avoid being dragged into the realm of North Korea's nuclear blackmail policy, though emphasising that the problem of the abducted citizens continues to remain 'vital'[13] for Japan. Meanwhile, many in Japanese political circles feared that a US–North Korean agreement that might be signed would not meet the interests of Japan. Therefore, the statement of Prime Minister Abe on 'full support for the decision of President Trump' that wrapped up negotiations in Hanoi seemed logical.[14]

The Russian Foreign Ministry has welcomed the readiness of the United States and North Korea to 'continue the US–North Korean dialogue' and called on the parties 'to maintain the positive dynamics

[13] Tachikawa, T., 'Lack of progress at Trump–Kim summit…'

[14] Yushida, R., 'For Japan, "no deal" at Kim–Trump summit beats a bad deal with concessions to nuclear Korea', *The Japan Times*, 1 Mar. 2019 <https://www.japantimes.co.jp/news/2019/03/01/national/politics-diplomacy/japan-no-deal-kim-trump-summit-beats-bad-deal-concessions-nuclear-north-korea/>.

in political and diplomatic processes in the sub-region in the spirit of the well-known Russian–Chinese initiatives'. It has also reaffirmed 'Russia's readiness to strengthen multilateral cooperation with all parties involved'.[15]

Kim's first foreign visit after the summit's failure was to Russia, where he conducted talks with President Vladimir Putin on 25 April 2019. The key results of the discussions that took place were that, first, that the two countries agreed to intensify consultations on a wide range of issues, including denuclearisation and maintaining peace and stability on the Korean Peninsula, and, second, that Moscow expressed its readiness to inform Beijing and Washington about the outcomes of the exchange of opinions.[16] In his turn, Trump welcomed Putin's position, and this allows not to rule off the possibility that consultations between states interested in the Korean settlement may intensify.[17]

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Overall, the negotiations that took place in 2018 – early 2019 on the Korean issue brought their participants more disappointment than satisfaction. Whatever positive results the ongoing dialogue has delivered, they are mostly tactical in nature, while the key strategic problems of the Korean Peninsula still remain far from resolution. One of the main reasons for this is a fundamental discrepancy between the negotiating sides as to the dates and priorities of steps to take. Whereas the nuclear project is seen in Pyongyang as designed to become not only an external shield, but not to a smaller, if not bigger, extent, a basic enabling element in the transit of the North Korea's political

[15] Briefing by Russian Foreign Ministry Spokesperson Maria Zakharova, 28 February 2019 <http://www.mid.ru/en/press_service/spokesman/briefings/-/asset_publisher/D2wHaWMCU6Od/content/id/3549162> [in Russian].

[16] According to Vladimir Putin, 'Chairman Kim Jong-un himself asked us to inform the US side about his position'. See: News Conference following Russia–North Korean Talks, 25 April 2019 <http://en.kremlin.ru/events/president/news/60370>.

[17] '"Russia and China are helping us": Trump welcomes on "progress" on North Korea', *South China Morning Post*, 27 Apr. 2019.

and economic system, the Kim Jong-un regime is not in a position to abandon the country's nuclear and missile potential in the near future. At the same time, the lack of clear priorities in Pyongyang regarding economic reforms and opening the country limits the possibilities for constructive interaction. President Trump, in his turn, given the start of the 2020 presidential campaign, cannot afford to delay North Korea's denuclearisation.

The negotiation format itself has also revealed its shortcomings. The appeals for multilateral cooperation, voiced in the region after the Hanoi summit (albeit differently understood by various actors) indicate the need to take into account the interests of all concerned parties, which would make it possible to advance as much as feasible towards the goals of ensuring the nuclear-free status of the Korean Peninsula and security and economic development of all NEA states. However, the contours of the possible coordination of the bilateral and multilateral negotiation formats (or their work in parallel) have not yet been identified, which may delay the respective time terms and negatively impact the quality of the possible agreements on the issues under discussion.

7. SYRIAN CONFLICT AND INSTABILITY IN THE MIDDLE EAST

Stanislav IVANOV

The Syrian conflict, which has become one of the bloodiest and most protracted in the Middle East, remains in the epicentre of the region's instability. The overall military, political and economic situation in the region depends first and foremost on its resolution. In the eight years of the civil war, the Syrian Arab Republic (SAR) has lost about half of its pre-war population, with hundreds of thousands of casualties, seriously wounded, displaced individuals and forced refugees.[1] New waves of migrants and refugees to Europe (according to the UN, their number reached 886 thousand by the end of October 2016)[2] and an upsurge of terrorist Islamist activity throughout the world can be viewed as collateral consequences of this conflict.

No matter what official declarations from a number of capitals have been stating about the defeat of terrorist groups in Syria, in reality sufficient preconditions for overcoming the Syrian crisis have not emerged yet. Certainly, the military defeat of the largest group of Jihadists, the Islamic State (the terrorist group IS, banned in the Russian Federation), and the liberation of the Islamic caliphate's capital Raqqa

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[1] With approximately 20 million people of pre-war population in Syria, around 5.5 million have now found themselves refugees outside Syria, over 6.1 million have sought safe haven within the country itself and from 12 to 13 million people require humanitarian assistance. The number of victims of the conflict is estimated at about 470 thousand (according to another estimate, 570 thousand). See: 'UN: the conflict in Syria has entered one of its bloodiest stages', *TASS*, 11 Feb. 2018 <https://tass.ru/mezhdunarodnaya-panorama/4947549> [in Russian]; 'More than 570 thousand people were killed on the Syrian territory within 8 years of revolution demanding freedom, democracy, justice, and equality', *Syrian Observator*, The Syrian Observatory for Human Rights, 15 March 2019 <http://www.syriahr.com/en/?p=120851>.

[2] Smith, D., 'The Middle East and North Africa: 2016 in perspective', *SIPRI Yearbook 2017*, p. 77.

were important achievements in the global fight against international terrorism, but this did not lead to the end of the civil war in the country and a consequent transition to a reconstruction stage.

Syria's governmental forces have not been able to establish control over a number of important regions in Syria. Some of the northwestern provinces (Idlib, Aleppo) have remained under control of the armed opposition, remnants of Islamist groups and Turkish forces. The northeastern provinces of Syria, including the east bank of the Euphrates River (Al-Hasakah, Raqqa and Deir ez-Zor), are controlled by Kurdish militia and their allies – Syria's Arab militants. Syrian Kurds did not take part in the internal Syrian civil war and fought solely with the Islamic State forces. Organisation-wise**,** Kurdish units are part of the so-called Democratic Alliance, which is supported by the US army aviation and special forces. In the Kurdish enclave, one also finds military instructors and specialists from France, Great Britain and a number of other Western states. Quite large armed groups of the anti-Assad Syrian opposition – Jaysh Magavir al-Thawra and Jaish Usud al-Sharqiya – retain their positions in the south of the country, near the American military base Al-Tanf.[3]

Jordan, Saudi Arabia and other Arab Gulf countries, along with Turkey, continue to support the Syrian armed opposition and the radical Sunni Islamist groups.

Bashar Assad's Government relies on the all-out assistance from the Islamic Republic of Iran. Tehran not only provides financial and material help to Damascus, but also supplies weapons and ammunition. To aid the Syrian army, the Iranian leadership mobilised some 80,000 Shiite militants (Quds Force units of the Islamic Revolutionary Guard Corps – IRGC, Lebanese Hezbollah, Iraqi Hashd al-Shaabi brigades and groups of Afghani, Pakistani, Yemeni and Palestinian mercenaries). Upon Tehran's request, the Iraqi Government allows to transport

[3] 'Syria is still under threat: how to defeat IS, when Americans are in Al-Tanf', *NewInform.ru*, 9 Aug. 2018 <https://newinform.com/130971-siriya-eshe-pod-ugrozoi-kak-pobedit-ig-kogda-amerikancy-nakhodyatsya-v-at-tanfe>.

military cargos from Iran to Syria through the country's territory and does not object to participation of Iraqi Shiite militia in fighting against the Syrian opposition on Assad's side.

The role of Russia in the Syrian conflict is focused mainly on fighting against major terrorist groups, mediation in reaching cease-fire agreements between Damascus and the opposition and creation of de-escalation zones and conditions for the negotiation process in the framework of the so-called Astana format (according to approaches developed at the Astana summits in 2017–2018), as well as to clearing the cities and villages from mines and resolving other humanitarian issues. In February 2016, the Centre for Reconciliation of Opposing Sides and Refugee Migration Monitoring was established at the Russian Aero-Space Forces base Khmeimim in Syria.

On the whole, the efforts of Russia, the United Nations and other mediators in the Geneva, Astana and Sochi talks on the elaboration of the road map for peace in Syria have so far failed to bring about significant results. The conflicting parties, as before, have still continued to avoid direct contacts and have not gone beyond transmitting their proposals through intermediaries. For a long time, one could not reach an agreement on the lists of members of the future Constitutional Committee which is to discuss the draft of the new country's constitution or amendments to the current constitution and to start preparing for the general parliamentary or presidential elections on this basis. Opposing approaches to the resolution of the Syrian conflict taken by Turkey and Iran as mediators in the Astana peace talks have also negatively affected Russia's attempts to help find consensus between Assad and the opposition.

On the withdrawal of the US troops from Syria

In December 2018, US President Donald Trump announced his decision to withdraw the American military contingent from the Syrian Arab Republic. This statement caused a lot of controversial comments in the United States and other interested countries, while many influential

political figures in Washington opposed this decision outright. Israeli leaders voiced concerns about the expected strengthening of the Iranian positions in Syria.

In Russia this decision was viewed with some scepticism, yet overall positively, as the US military had been in the SAR since October 2015 without the consent of the official authorities and fought not only with the IS, but also supported the armed opposition groups during their defensive and offensive operations against the IS fighters. Washington also provided combat and logistic support to the Kurdish militia – which, as already mentioned above, remained neutral in the civil war. Meanwhile, the US Air Force missile and air strikes on the IS capital Raqqa resulted in mass casualties and the destruction of infrastructure, life support systems and many private homes. Today, this city lies in ruins, and the governments of Saudi Arabia and the United Arab Emirates plan to allocate more than one hundred million dollars for the reconstruction of Raqqa and the adjacent areas.[4]

As of late 2018, about two thousand US troops were deployed at 22 temporary dislocation points of US aviation and special forces of the US Armed Forces in Syria.[5] Most of these forces were stationed in the northeast of the country in Aleppo, Al-Hasakah, Raqqa and Deir ez-Zor provinces. The southern Homs province hosts the American military base Al-Tanf, which controls the roads from Syria to Iraq and Jordan. According to some data, in the beginning of 2019, the number of US troops in Syria, despite the announced departure, even slightly increased (up to 3 thousand people). The Pentagon explained this by the need to prepare military bases for evacuation and to ensure the safety of personnel during their possible movements.

Apparently in an effort to reassure its Syrian allies and the opponents of the withdrawal of American troops back at home, as well as in NATO countries and Israel, Washington made new statements that

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[4] 'Saudi Arabia invests $100 million in northern Syria', *Riataza.com*, 17 Aug. 2018 <http://riataza.com/2018/08/17/saudovskaya-araviya-investiruet-100-mln-v-severnyie-rayonyi-sirii/> [in Russian].

[5] Chevtaeva, I., 'The United States has announced the withdrawal of the US Army from Syria', *Vedomosti*, 19 Dec. 2018 <https://www.vedomosti.ru/politics/articles/2018/12/19/789772-tramp> [in Russian].

even under favourable conditions, this process would require reportedly a period of between 60 and 90 days. The Pentagon later clarified that the timeframe for this operation had not been yet established, and that in any case, about 400 US troops would remain in Syria as observers or peacekeepers.[6]

Therefore, as of mid-2019, no drastic changes in the situation in the northeast and south of Syria are to be expected. The United States intends to continue training the 40,000-strong militia of the so-called Democratic Alliance, which has driven IS militants out of the northeastern territories of Syria. As the main condition for the total withdrawal of US troops from Syria, Washington has indicated the security guarantees for the Kurdish militia and armed opposition units in the areas now controlled by the American military. To this end, negotiations and consultations between the American and Turkish representatives have continued, while President Donald Trump has warned Turkish President Recep Erdogan against 'unilateral aggressive actions' in northeastern Syria. Washington is also discussing with Ankara the possibility of creating a 20-mile buffer zone along the entire Turkish-Syrian border and continuing joint Turkish-American patrolling in the area of the Manbij city separating the Turkish troops and Kurdish militia.

Meanwhile, the US administration has suggested to its partner states in the Anti-Terrorist Coalition in the region (Australia, Great Britain, France and Germany) that they should increase the number of their troops in northeastern Syria. Until mid-2019, military instructors and specialists from these countries participated in training Kurdish militias in Syria and Iraq, but their total number counted just a little over a thousand. In July 2019, however, Great Britain and France agreed to increase their military presence in Syria in the same proportion that matches the US forces reductions. Washington has also proposed to its

[6] Kartashov, I., '400 US soldiers and up to 1.5 thousand troops from Europe will remain in Syria, *Rossiyskaya Gazeta*, 22 Feb. 2019 <https://rg.ru/2019/02/22/v-sirii-ostanutsia-400-voennyh-iz-ssha-i-do-15-tysiachi-iz-evropy.html> [in Russian]. According to a source in the US administration, the United States is about to leave 200 troops in the area near its Al-Tanf base, as well as a peacekeeping contingent of 200 in northeastern Syria.

allies the idea of getting Kurdish Peshmerga or armed Syrian opposition (trained by American instructors in Iraqi Kurdistan and recruited from among Syrian refugees) to deploy along the Syrian-Turkish border.

Pentagon emphasises, in so doing, that the withdrawal of the US forces from Syria would be to the adjacent areas of the neighbouring Iraq. Aviation, special forces and US naval and air force units in the Mediterranean and the Persian Gulf would be in constant combat readiness and, if necessary, would be able to support their allies in Syria by missile and air strikes.

Thus, the US military-political strategy in the region does not imply ceding to Assad, Erdogan or the Iranian authorities control over the territory taken from the IS militants by the Democratic Alliance forces with the US support.

Trends in the military-political situation

Since the Syrian central Government and its armed forces in 2012 left the country's northeastern provinces, their population, consisting of Kurds, Arabs, Assyrians, Armenians and other ethnic groups, had to rely on self-organisation and create autonomous local authorities and militia. It was they who heroically defended against Jihadists the strategically important Kobani city and other localities in the northeast of the country, and then ultimately defeated the IS militant groups and liberated the caliphate capital city of Raqqa. To date, Kurdish militia and their Arab allies possess heavy weapons and military equipment stationed in these areas and have gained extensive experience in combat operations. It is unlikely that the SAR government forces, weakened during the civil war, would be capable of conducting large-scale offensive operations on the east bank of the Euphrates River. It would also be very problematic for them to engage Shiites for this purpose under the patronage of Iran. Kurdish militia and the local Arab Sunni tribes are not likely to allow the intrusion into these territories of the Alawite-Shiite troops. For Erdogan it would not be easy to conduct new operations in northeastern Syria either: not only Damascus and Tehran,

but also Washington and its Western allies, are against this. Therefore, the pro-Kurdish region in the northeast of Syria will continue to exist, along with the pro-Turkish enclave in the northwest of the country.

In these circumstances, a good idea would be to reach an agreement between the leaders of the Syrian Kurds and the Assad's Government on collaboration in the zone of the Syrian-Turkish border and in the northeast of the country. But President Assad's inner circle and his advisers in Tehran still do not recognise legitimate rights of the Kurds and other ethnic minorities in Syria and are trying to recreate a unitary Syrian state where the power would stay with the Alawi minority. It is telling that Kurdish delegations were not invited to negotiations in Damascus, Geneva, Astana or Sochi. Damascus and Tehran expect from the Kurdish militia, as well as from the Syrian armed opposition, that they would capitulate, disarm and hand over authority in the localities to the central Government.

The reason for Turkey's involvement into the Syrian conflict was and remains, first and foremost, its desire to solve its 'internal political' Kurdish problem by tough external measures. Justifying its punitive military operations (like the Euphrates Shield and the Olive Branch), which led to the occupation of part of the SAR's northern regions, Ankara cites as its motive the need to combat terrorist groups. In reality, however, Turkish troops have never entered into combat with Jihadists, and they continue to view militants of radical Islamist groups – like Jabhat al-Nusra in the Idlib province – as allies in the fight against Assad. While the Kurdish Democratic Union Party (PYD), which according to some reports is closely affiliated with the Turkish Kurdistan Workers' Party (PKK), is seen in Ankara as Turkey's main enemy in Syria. It was the Kurdish militia from these parties with whom Turkey entered into fierce clashes with the use of heavy weapons and aircraft. By February 2018, as a result of Turkish air strikes and artillery shelling, almost 150

civilians were killed in the north of Syria,[7] and tens of thousands of Kurdish families were forced to flee to the east bank of the Euphrates and neighbouring Iraq.

Against the background of such actions of the Turkish authorities, the Syrian Kurds have been trying hard to retain presence of the armed forces of the United States and other Western countries in the region, lest they should find themselves facing the powerful Turkish army all by themselves.

Fight against Islamist groups

The statements of many politicians about an accomplished victory over the Islamic state in Iraq and Syria raise doubt. Meanwhile, a whole number of analysts believe that the defeat of some of the largest radical Islamist groups such as the IS, Jabhat al-Nusra and the like, cannot guarantee that over time they would not revive, since the underlying causes of terrorism, including, in particular, political, socio-economic and religious-ideological, have not been eliminated. Throughout the world, existing terrorist radical Islamist organisations continue to operate and new ones appear. These include, in particular, the Taliban movement created in the early 1980s (presumably not without assistance from the US and Pakistani intelligence services), the Somalia's al-Shabab, the Nigeria's Boko Haram and dozens of other similar organisations. Many terrorist groups retain their structure and continue to destabilise the situation in the countries of the Middle East. Hamas in the Gaza Strip and Hezbollah in Lebanon and Syria for decades have posed a serious threat to Israel. Al-Qaida global network, with its numerous cells, is also scattered world-wide.

Real life events have demonstrated that military means alone are not sufficient to defeat radical Islamist groups. For this purpose, coordinated political, financial and economic, informational, diplomatic

[7] '150 people have become victims of Turkish air strikes and shelling in Syria, as stated in Afrin', *TASS*, 3 Feb. 2018 <https://tass.ru/mezhdunarodnaya-panorama/4927772> [in Russian].

and other efforts of the international community are needed, as well. Terrorist military-political groups are taking root in countries with weakened statehood and in zones of regional conflicts. In the Middle East, the emergence of new terrorist organisations is also provoked by the external forces' meddling into the internal affairs of the Arab countries (Libya, Yemen, Syria, Iraq and Bahrain), the unresolved Palestinian and Kurdish problems and the confrontation of Israel, Turkey, the Persian Gulf monarchies and the whole of Sunni world, on the one hand, with Shiite Iran, on the other. The so-called 'renaissance of Islam', i.e. continuing high attractiveness and popularity of radical Islamist ideology among the Muslim countries' populations, as well as among Muslims living outside the Middle East region, undoubtedly contributes to the expansion of Islamist terrorist groups. At the same time, many regional and external forces use the territories and resources of extreme Islamist movements, both Sunni and Shiite, and are determined to continue to incite ethnic and religious animosities between various peoples. Thus, the long-standing Shiite–Sunni conflict in recent years has been reanimated and in many aspects artificially stimulated by Iran, Saudi Arabia, Turkey and other countries. And Syria as a result has become an arena of open armed confrontation between Shiites (Alawites) and Sunnis. 'The challenges of winning the peace [in Syria] are staggering in scale and complexity… ISIL is nearly defeated territorially, but experience suggests it can re-emerge', the new UN Special Envoy for Syria Geir O. Pedersen said at the UN Security Council Briefing on 28 February 2019.[8]

The fight against the forces of international terrorism in the region and in the whole world has been additionally hampered by double standards of the participants of this struggle. Thus, Erdogan considers Assad and Kurds in Syria as terrorists and is calling the invasion of Turkish troops in the north of his country an act of state terrorism. Meanwhile, Iran refers to Israel as a terrorist state. Jerusalem and Washington, in turn, classify the Iranian IRGC, the Lebanese

[8] Security Council Briefing on Syria, Special Envoy Geir O. Pedersen, Department for Political and Peacebuilding Affairs, United Nations, 28 Feb. 2019 <https://dppa.un.org/en/security-council-briefing-syria-special-envoy-geir-o-pedersen>.

Hezbollah and Hamas as terrorist organisations. As is well known, about 45 terrorist groups (including Iranian ones) are included on the list of terrorist organisations in the United States, about 25 – in the Russian Federation, while only 11 organisations appear on both lists. Terrorists take advantage of these contradictions between individual countries and create their branches and cells throughout the world. While special forces of various states continue to be guided by their own political agendas and cannot establish proper interaction among themselves, global terrorist networks spreading across the planet overcome borders and other barriers with the use of Internet resources and other modern information technologies.

In general, it should be noted that a way out of today's complex situation in Syria, including in terms of combating terrorist groups, could be found via conducting a peacekeeping operation under the auspices of the UN. If Russia and the United States proposed to carry out such an operation in Syria under the authority of the UN Security Council, other interested countries could also step forward to support this initiative. Moreover, it is becoming increasingly clear today that the military intervention of Iran and Turkey into the Syrian conflict does not contribute to its resolution, but only incentivises the conflicting parties to continue their struggle.

Obstacles to achieving peace in Syria

Two key obstacles to resolving the Syrian conflict and achieving peace in Syria are noteworthy.

Firstly, the continuing antagonism between the opposition majority of the country's population – Sunni Arabs (which constitute about 70 per cent of Syria's citizens) – and Arab-Alawite and Shiite minorities that have retained their power (about 13 per cent). The Kurds (10 per cent) and other ethnic and religious minorities of Syria (7 per cent) have for the bigger part tried to maintain neutrality in the civil war. Turkomans (or Syrian Türkmen) constitute an exception, as they are under heavy influence of Ankara and are affiliated with the Syrian opposition. Assad relies primarily on his Alawite clan, remnants of

the army and security forces and the Baath Party. Having defeated the Islamic State with the assistance of Russia's and other countries' armed forces and having largely side-lined the armed opposition with the help of Iran and Hezbollah, Assad and his Government have felt themselves winners in the civil war and do not intend to share power with the oppositional Sunni Arab majority, Kurds and Turkomans.

The Damascus central authorities, even on words, do not allow for real democratisation and federalisation of the country, the implementation of long-overdue political and socio-economic reforms and free elections. They fear that they would end up in a position similar to that of the Iraqi Baathists, who found themselves persecuted judicially and extra-judicially after the overthrow of Saddam Hussein and the accession to power, through democratic procedures, of the Shiite Arab majority. The Syrian armed opposition, the Kurds and all opponents of the Assad regime have come to be labelled terrorists, their homes and property have often been confiscated and other repressive measures have taken place.

In turn, the representatives of the domestic opposition and the more than seven million inhabitants of refugee camps in neighbouring countries (Turkey, Lebanon, Jordan, Iraq, Egypt and others)[9] continue to insist on removing Assad from power, creating a temporary coalition government and holding equitable general elections with the participation of all Syrians, regardless of where they might temporarily reside. Despite the heterogeneity of the opposition, there is reason to believe that in future Syria, the Sunni Arabs will receive the majority of mandates in parliament and assume key positions in the new state. Hence, the main participants in the intra-Syrian conflict are on different sides of the barricades and continue to display very intransigent attitudes. Perhaps, only on one key issue Assad and the opposition have similar views: their goal is to preserve a unitary Arab state without the autonomy rights for the Kurds or any other ethnic minorities.

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[9] 'UN has suggested its estimate on how many refugees would be able to return to Syria in 2019', *RIA Novosti*, 11 Dec. 2018 <https://ria.ru/20181211/1547807483.html> [in Russian].

Secondly, the key obstacle to a peace settlement is that the internal Syrian conflict continues to be spurred on from the outside – mainly by regional power centres (Iran, Turkey and Saudi Arabia), but also by major interested powers outside the region (United States and European countries). Despite the fact that Russia has managed to engage both Iran and Turkey into the negotiation process on Syria in the capital of Kazakhstan, Astana, there are still fundamental contradictions between these countries regarding how the Syrian state would be organised in the future. To a big extent, it is due to these countries' interference that Syria remains the epicentre of the confrontation of political forces of various directions, as well as of paramilitary groups, and, de facto, the arena of the Shiite-Sunni armed conflict.

For many years, Iranian leaders have not only been arming – with medium- and short-range missiles and other weapons – the Palestinian Hamas in the Gaza Strip and the Lebanese Hezbollah in Syria and Lebanon, but have also been deploying military contingents in close proximity to the Syrian-Israeli border. According to Israeli sources, pro-Iranian militants have been shelling Israel's near-border territory and launching rockets and drones from Syria. In response, the Israeli Air Force has been conducting missile and air strikes on ammunition depots and weapons transports, and other Iran's and Hezbollah's military installations in Syria, as well as on Syrian air defence sites.

On the night of 21 January 2019, Israeli aviation carried out yet another attack on the Syrian territory. The Israeli Defence Ministry stated that those strikes took place in response to the launch of Syrian missiles in the direction of the northern Golan Heights. According to official data, four Syrian soldiers were killed in the Israeli attack. While unofficial sources reported at least 11 dead, of which only two were Syrian nationals. The Israeli side stressed that the targets of the attack were Iranian military installations.

Meanwhile, one cannot say that Iran's broad expansion in the Middle East enjoys unconditional support of the entire population of the country. Thus, at the end of 2017, thousands of protesters in dozens of Iranian cities came out to the streets demanding to discontinue military and other Iranian aid to Syria and to stop spending budget resources on

'Shiite revolutions' abroad.[10] Yet, it remains extremely important for the Iranian leadership to retain Syria as its stronghold in the region, from which it will be possible to support the Hezbollah in Lebanon and to threaten Israel by targeting the Iranian intermediate-range missiles against the Israeli military facilities.

From Iran's foreign policy perspective, Syria is a major regional constituent in the so-called Shiite Arc or Shiite Crescent. Tehran is known to have long been nurturing a scenario of establishing an Iranian naval base on the Syrian coast of the Mediterranean Sea, and there is some evidence that during Assad's visit to Iran in February 2019 a major agreement on Iran's long-term lease of the Syrian naval port Latakia was reached.[11]

The policy of the Turkish authorities on the Syrian track can be viewed as a kind of counterbalance to Iran's actions. Ankara initially supported the uprising of the Syrian opposition, whose members aim to bring to power in Damascus Islamist groups of Sunni Arabs, such as the Muslim Brotherhood. Erdogan also tried, on his own or within the framework of a NATO Allied Forces operation, to establish a so-called no-fly zone in the north of Syria, along the lines of the Libyan scenario, and to attain a regime change in Damascus by force. However, Iran's active support of the Assad Government, and the consequent involvement of the Russian Aero-Space Forces in the fight against international terrorism in the country, greatly impacted those plans. After becoming convinced that it would not be possible to change the government in Damascus on his own, or even with his NATO or regional allies (Saudi Arabia, Qatar and Jordan), the Turkish president, without abandoning his strategic plans, ventured out for a more complicated game.

Thus, Erdogan agreed to assume the role of co-guarantor in the peace negotiations on Syria in the Astana format, which were conducted together with Russia and Iran and brought about an agreement on a

[10] Iranian economic and military assistance to Syria since 2014 is estimated to have reached from 6 to 9 billion dollars per year. See: Sazhin, V., 'Iran in Syria: the price of help', *Mezhdunarodnaya Zhizn'* (online version), 1 Jan. 2018 <https://interaffairs.ru/news/show/19090> [in Russian].

[11] Mukhin, V., 'Iran might create a naval base in Syria', *Nezavisimaya Gazeta*, 9 Apr. 2019 http://www.ng.ru/world/2019–04–09/1_2_7552_iran.html [in Russian].

cease-fire between the Syrian government forces and the armed opposition, the decision on the creation of de-escalation zones, etc. This meant, in essence, promoting the scenario of free elections in Syria, since such elections can potentially bring to power representatives of the pro-Turkish Sunni Arab majority. Along with this, the Turkish authorities in 2016–2018 conducted two ground force operations in northwestern Syria – the Euphrates Shield and the Olive Branch. The Turkish offensives were carried out not against radical Islamist militants, but against the Kurdish militia groups and civilians in the border land. As a result, Turkey occupied a large part of Syrian northwestern provinces (Idlib and northern areas of Aleppo) and is trying to build in these territories a future Syrian state, without Assad. Ankara does not conceal its plans to further enlarge its bridgehead in Syria by expanding it to include a number of northeastern regions of the country, which are as of now still controlled by the Kurdish militia and the US military.

In respect to the planned withdrawal of the US military from Syria announced by President Trump, the situation in the northeast of the country may significantly change. If the decision on the US withdrawal is implemented, the Syrian Kurds would effectively face a dilemma – whether to enter into alliance with Damascus or refrain from so doing. For now, they seem to be more predisposed towards the first option. Syrian Kurds have never demanded their separation from Syria, but have advocated for equal rights with Arabs in a future Syrian state, and this can be the basis for a meaningful dialogue. Despite Damascus disregarding their interests, the Kurds still state their readiness to cooperate with the central authorities – especially given the fact that – as already mentioned above – they have not taken part in the country's civil war and have been fighting only with the IS terrorists. Their leaders would be quite satisfied to get the status of an entity within Syrian federation (similar to the status of the Iraqi Kurdistan), or even the status of an autonomous Kurdish region within Syria. So far, Washington continues to control the situation in northeastern Syria and thus the status of Syrian Kurds remains an open issue. At the same time, the Trump administration has in essence revised the deadlines for withdrawal of US troops from Syria by increasing them. Reports

have also been published that the US military units withdrawn from Syria May be deployed in the neighbouring Iraq in close proximity of the Syrian borders.[12]

Scenarios for the future development

According to expert estimates, the 'no war – no peace situation', with the existing pro-Turkish and Kurdish enclaves in Syria uncontrolled by Damascus, can protract indefinitely, given the difficulties of peaceful settlement and the continuing uncompromising fight between Tehran and Ankara for power, resources and influence in this country. Both Erdogan and Iranian ayatollahs, meanwhile, strive to install their own puppet governments in Damascus. Other states interested in resolving the Syrian crisis (the United States, Russia, France, the United Kingdom, Germany, Israel, Jordan, Iraq, Lebanon and the Gulf monarchies) have also so far been unable to reach consensus on the future of the Syrian state. Most of the Western and Arab states do not recognise the legitimacy of the Assad Government, and some of them have joined the restrictive sanctions imposed by Washington on Damascus.

The US authorities are also reinstituting restrictive sanctions against Iran following the withdrawal of the United States from the Joint Comprehensive Plan of Action (JCPOA). Donald Trump believes that already at the moment when it was signed, the JCPOA ignored the fact that the Iranian leadership supports terrorists and rebels in the Middle East. Earlier, the US Treasury introduced financial sanctions against the Islamic Revolutionary Guard Corps, which Trump called 'terrorist, corrupt personal unit of the Iranian leader'.[13] Moreover, the United States has actually revised its list of major threats in the Middle East, singling out Iran as one of the major threats. Washington has also

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[12] To leave not stay: the reasons for withdrawal of US troops from Syria via Iraq explained as Pentagon's hoax, *Economica Segodnya*, Federal Business Agency, 20 Feb. 2019 <https://rueconomics.ru/378511-uiti-nelzya-ostatsya-prichiny-vyvoda-voisk-ssha-iz-sirii-cherez-irak-obyasnili-ulovkoi-pentagona> [in Russian].

[13] 'Nuclear Deal with Iran: world leaders against Trump', *BBC (Russian Service)*, 14 Oct. 2017 <https://www.bbc.com/russian/features-41623467> [in Russian].

stepped up efforts to strengthen the influence of various anti-Iranian forces, blocs and coalitions in the region (like an Arab mini-NATO) with the participation of the Gulf monarchies, Jordan and Egypt. At the same time, the United States is enhancing Israel's military capabilities and building up NATO Allied Forces in the region.

Washington's policy of a new isolation of Tehran in the world and increased pressure on it does not contribute to the search for compromises between regional and external forces to normalise the situation in Syria. Thus in general, as of yet there are no indications in sight that the Syrian conflict would soon be resolved. It appears that the de facto division of the country into three parts and the achieved 'status quo' for the moment suits all external forces involved in the Syrian crisis, with the exception of Israel, noticeably concerned about the presence of Hezbollah fighters and Iran's IRGC soldiers near its borders.

8. NPT STATES PARTIES' POSITIONS IN THE RUN-UP TO THE 2020 REVIEW CONFERENCE

Daria SELEZNEVA

March 2019 marks the fiftieth anniversary of the entry into force of the Treaty on the Nonproliferation of Nuclear Weapons (NPT). The NPT remains the most important instrument for combating nuclear threat and one of the cornerstones of international security. Preserving and strengthening the Treaty becomes increasingly more pressing, particularly given the termination of the Intermediate-Range Forces (INF) Treaty, uncertainty over the extension of the New Strategic Arms Reduction Treaty (New START) and recent concerns about possible noncompliance with the Comprehensive Nuclear Test Ban Treaty (CTBT).

Every five years, the NPT states parties meet at a Review Conference (RevCon) to assess the implementation of the Treaty. Since 1995, these five-year review cycles also include meetings of the Preparatory Committee. The Committee gets together during the review cycle's second, third and forth years (in Vienna, Geneva and New York, respectively) in order to make preparations for the next review conference.

The goal of each Review Conference is to produce a consensus final document. Voting on the final document takes place on the last day of the Conference. Yet only four Review Conferences (in 1975, 1985, 2000 and 2010)[1] concluded with the adoption of a final document. The 1995 NPT Review and Extension Conference stands out in this respect. It took place 25 years after the entry into force of the NPT in order to decide on its extension, as called for in Article X.2 of the Treaty. The 1995 NPT Review and Extension Conference is considered a success in

[1] Berdennikov, G., 'Prospects for and Challenges of the New Review Cycle of the Treaty on the Nonproliferation of Weapons of Mass Destruction (2016–2020), Centre for Energy and Security Studies <http://ceness-russia.org/data/page/p2072_1.pdf [in Russian]>.

spite of the fact that it failed to adopt a final document.[2] That is because it resulted in four important decisions, including the historic decision on the indefinite extension of the NPT.[3]

As the date of the beginning of the 2020 RevCon draws closer, there are growing doubts about the success of the Conference. Today, the NPT faces bigger threats than ever before: first, NPT states parties have now started to walk out on their obligations under the NPT; second, the Treaty's articles have been receiving multiple interpretations, which creates dangerous discrepancies; and, finally, nonproliferation regimes and norms are being undermined by military conflicts and political tensions.

The NPT, which for decades has been plagued by rifts between groups of states, now begins to experience new divisions within these groups of states. The main issues that reinforce divisions among the parties relate to nuclear disarmament, establishment of a Middle East Weapons of Mass Destruction Free Zone (WMDFZ) and regional nonproliferation challenges.

The crisis of the nonproliferation regime has brought to the forefront the importance of adaptation of the NPT to new international realities. There are different views about how to achieve it, and some experts warn against introducing changes into the structure and the legal framework of the nonproliferation regime.[4]

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[2] Treaty on the Nonproliferation of Nuclear Weapons, United Nations, General Assembly <https://www.un.org/ru/documents/decl_conv/conventions/npt.shtml>.

[3] The three other decisions were on strengthening the review process, on the principles and objectives for nuclear nonproliferation and disarmament and on the Resolution on the Middle East.

[4] Ulyanov, N., Lysenko, M., 'Treaty on the Nonproliferation of Nuclear Weapons – Results, Challenges and the Way Forward,' *Mezhdunarodnaya Zhizn',* № 6, 2018, pp. 6–13 [in Russian].

At the same time, others argue that it requires certain fine-tuning. Among the reasons for current impasse in the NPT they name inertia and decreased efficiency of the NPT review process.[5] Possibilities for strengthening the review process are discussed among NPT states parties in Preparatory Committee sessions and expert meetings.[6]

It is unlikely, however, that proposed changes to the NPT review process would lead to strengthening the Treaty. If anything, they would create but an illusion of reconciliation. The adoption of a consensus final document that would gloss over all the issues that the regime faces today would not make them go away. What would likely ensue is that they would disappear from the political radar, and this would only exacerbate the crisis in the area of nonproliferation.

Nuclear disarmament

Article VI of the NPT envisages that, 'each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control'.[7] Disgruntled by the perceived lack of good-faith disarmament negotiations, the non-nuclear weapon states decided to take it upon themselves to advance the course of nuclear disarmament and came up with a comprehensive and radical solution – in July 2017, at the United Nations General Assembly (UNGA) they adopted the Treaty on the Prohibition of Nuclear Weapons

[5] '"The TPNW Is Not Capable of Eroding the Basis of the NPT": Head of the Russian Delegation on the Results of the 2018 NPT PrepCom in Geneva', *Nuclear Control,* № 6, 2018 <http://pircenter.org/articles/2163–4374045> [in Russian].
[6] Einhorn, R., The NPT Review Process: Time to Try Something New, James Martin Centre for Nonproliferation Studies, 12 Apr. 2016 <https://www.non-proliferation.org/the-npt-review-process-time-to-try-something-new/>.
[7] Treaty on the Nonproliferation of Nuclear Weapons…

(TPNW). The Treaty has not yet entered into force. This is supposed to happen when it receives its fiftieth ratification. As of 12 March 2019, the Treaty has been ratified by 23 states.[8]

The P5 – the United States, Russia, the United Kingdom, France and China – have refused to accede to the TPNW, arguing that 'the text of the Treaty has been prepared in a hasty manner, on a non-consensus basis and without due regard of the fundamental principles of the NPT'.[9] United States and Russia both noted that the Treaty failed to take into account 'strategic realities' and that further advancement of the TPNW would inevitably lead to the weakening of the overall structure of the nonproliferation regime. Paradoxically, this issue has become one of the few areas where the US and Russia's positions meet.[10] At the official level, China shares the spirit of the TPNW and notes that some of the Treaty's provisions are consistent with China's strategic objectives, which theoretically opens opportunities for a political dialogue on nuclear disarmament between China and the TPNW proponents. However, it should be noted that China's official position on these issues amounts to propaganda efforts that aim to expand China's influence and criticise other nuclear weapon states. At the same time, China continues to build up and modernise its nuclear weapons, while maintaining absolute secrecy and refusing to participate in any nuclear arms limitation agreements.

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[8] Signature/Ratification Status of the Treaty on the Prohibition of Nuclear Weapons, International Campaign to Abolish Nuclear Weapons <http://www.icanw.org/status-of-the-treaty-on-the-prohibition-of-nuclear-weapons/>.

[9] Statement by the Delegation of the Russian Federation on Nuclear Disarmament at the Second Session of the Preparatory Committee for the 2020 Review Conference of the Parties to the Treaty on the Nonproliferation of Nuclear Weapons, Geneva, 26 Apr. 2018 <http://www.mid.ru/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/3195373> [in Russian].

[10] Statement by Vadim Smirnov, Deputy Director of the Department for Nonproliferation and Arms Control, Deputy Head of the Delegation of the Russian Federation <http://statements.unmeetings.org/media2/18559499/russia-r-cluster-1-statement-russia-rus.pdf> [in Russian].

The issue of the TPNW has the potential to spark new divisions between states.[11] There is a strong possibility that the non-nuclear weapon states will seek to include reference to the TPNW into the final document of the 2020 RevCon, while the nuclear weapon states will resist it. If this actually happens, the 2020 RevCon will likely fail, possibly for one last time. In 2018, the United States submitted to the 2020 RevCon Preparatory Committee's second session its Working Paper, which set out a new approach to nuclear disarmament called Creating the Conditions for Nuclear Disarmament.[12] The Working Paper made the case for the development of new types of nuclear weapons, which was outlined in the 2018 US Nuclear Posture Review.[13] It argued that the need for new types of nuclear weapons is determined by the renewed 'great power competition' and simultaneous deterioration of international security. Washington contended that quantitative reductions of nuclear weapons, without taking into account international security issues, could not move the disarmament machinery forward.[14]

Instead of focusing 'on numerical reductions and the immediate abolition of nuclear weapons', the Working Paper called for addressing the underlying security concerns that had originally led the nuclear weapon states to produce these weapons. This idea was supported during the Geneva session of the 2018 Preparatory Committee for the

[11] Zhao, T., Wang, R., *China and the Nuclear Weapons Prohibition Treaty*, Carnegie-Tsinghua Centre for Global Policy, 21 Sep. 2017 <https://carnegietsinghua.org/2017/09/21/china-and-nuclear-weapons-prohibition-treaty-pub-73488>.

[12] If by the start of the 2020 RevCon, the TPNW receives 50 ratifications, thus making it enter into force, the existing rift between the P5 and other NPT states parties would likely deepen.

[13] Nuclear Posture Review 2018, Office of the Secretary of Defence, Department of Defence, Feb. 2018, p. 54; Colby, E., 'If You Want Peace Prepare for Nuclear War', *Foreign Affairs*, vol. 6, № 97, 2018, pp. 25–32.

[14] *Creating the Conditions for Nuclear Disarmament (CCND)*, Working Paper submitted by the United States of America, 18 Apr. 2018 <https://undocs.org/NPT/CONF.2020/PC.II/WP.30>.

2020 NPT Review Conference by several delegations, including those of Russia, France and several US allies (Republic of Korea, Poland and others).[15]

States members of the Non-Aligned Movement (NAM), along with Austria, Ireland, New Zealand and Switzerland, expressed their rejection of this approach.[16] Arab States, in turn, noted that attempts to create new preconditions for nuclear disarmament contradict disarmament obligations specified in Article VI of the NPT and consequently reiterated in the final documents adopted at the 1995, 2000 and 2010 Review Conferences.[17]

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[15] Speech by Ms Alice Guitton, Permanent Representative of France to the Conference on Disarmament, Head of the French Delegation, 23 Apr. 2018 <http://statements.unmeetings.org/media2/18559222/france-newl.pdf>; Statement by H. E. Ambassador Kim In-chul, Deputy Permanent Representative, Permanent Mission of the Republic of Korea to the UN Secretariat and International Organisations in Geneva <http://statements.unmeetings.org/media2/18559181/republic-of-korea-2018-npt-prepcom-general-debate_rok.pdf>; Statement by Director General Vladimir Ermakov, Head of the Delegation of the Russian Federation <http://statements.unmeetings.org/media2/18559211/russia-printer_20180424_105255.pdf>; Statement of the Republic of Poland, General Debate – II NPT Preparatory Committee <http://statements.unmeetings.org/media2/18559156/poland-180420-statement-pl.pdf>.

[16] Statement Austria, General Debate, 23 Apr. 2018 <http://statements.unmeetings.org/media2/18559153/austria-new-2018-npt-statement-general-debate-austria-1-.pdf>; Statement by Ambassador Michael Gaffey, Permanent Representative of Ireland to the United Nations and other International Organisations in Geneva General Debate <http://statements.unmeetings.org/media2/18559214/irland-national-statement-by-ireland-to-the-second-preparatory-committee-of-the-npt.pdf>; Statement by H. E. Dell Higgie, Ambassador for Disarmament and Permanent Representative of New Zealand to the Conference on Disarmament, Geneva <http://statements.unmeetings.org/media2/18559138/new-zealand-behalf-new-agenda-coalationprinter_20180423_101036.pdf>; Débat Général Déclaration prononcée par S. E. Sabrina Dallafior, Représentante permanente de la Suisse auprès de la Conférence du Désarmement <http://statements.unmeetings.org/media2/18559386/switzerland-new-new-npt-2nd-prepcom-general-debate-statement-switzerland-3-.pdf>.

[17] Arab Group Statement. Second Preparatory Committee for the 2020 Review Conference of the Parties to the Treaty on the Nonproliferation of Nuclear Weapons (NPT). Special Regional Issues Including the Implementation of the 1995 ME

A year later, the United States introduced a new approach to disarmament called Operationalising the Creating an Environment for Nuclear Disarmament Initiative. The Working Paper which formulated this approach referred to the need for a constructive and meaningful dialogue towards making 'concrete progress in identifying and addressing the factors in the international security environment that inhibit prospects for further progress in disarmament'.[18] The dialogue was meant to be carried out within the framework of a specially created working group which was scheduled to meet for its first session in the summer of 2019.[19]

These US proposals appear but a pretext for refusing to participate in negotiations on reduction and limitation of nuclear armaments and other systems and technologies that have the potential to affect strategic stability.

They ignore the fact that arms race in itself is a major source of international tensions and a threat to international security. In contrast, arms control agreements are conducive to alleviating security concerns of states and reducing tensions between them. If half a century ago, the Soviet Union, the United States and other countries had followed Washington's current approach to disarmament, the arms reduction process would not have yet begun and nuclear weapon states' arsenals would not have gone through the qualitative and quantitative changes of such a large scale, reducing their numbers by a factor and their destructive potential by tens of times.

One can, therefore, see that even after fifty years since the entry into force of the NPT, the issue of moving forward on bilateral and multilateral disarmament remains relevant and has a direct impact on the NPT review process. The adoption of the TPNW and the process of its ratification have a significant effect on the way the issue is being discussed. Regardless of whether the TPNW receives a sufficient

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Resolution, 30 Apr. 2018 <http://statements.unmeetings.org/media2/18559724/arab-group-e-cluster-2-specific-issues-english-translation.pdf>.

[18] Operationalising the Creating an Environment for Nuclear Disarmament (CEND) Initiative, Working Paper submitted by the United States of America <https://undocs.org/NPT/CONF.2020/PC.III/WP.43>.

[19] Ibid.

number of ratifications to enter into force, it is sure to become one of the central topics of the 2020 RevCon and stir up discord among the NPT states parties, or perhaps even cause a serious crisis in the whole nonproliferation regime.[20]

Prospects for the establishment of a Middle East Weapon of Mass Destruction Free Zone

Serious disagreements on the issue of a Middle East Weapons of Mass Destruction Free Zone (WMDFZ) became the main reason why the 2015 RevCon failed to adopt its consensus final document. The section of the final document that dealt with convening the Conference on the establishment of a Middle East WMDFZ was supported by most states parties, but was outright rejected by the delegations of the United Kingdom, the United States and Canada.

The issue of the creation of a Middle East WMDFZ was further discussed during the second session of the Preparatory Committee for the 2020 NPT Review Conference, which took place in Geneva in 2018. The discussion mainly focused on the Working Paper submitted by the United States on this topic.[21] That Working Paper laid out certain preconditions for the establishment of a Middle East WMDFZ. These preconditions include:

– Establishment of channels of direct dialogue between the region's states to help build trust among themselves;

– Implementation of international verification and nonproliferation standards (including adherence to the IAEA Additional Protocol), thus contributing to enhanced transparency;

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[20] Onderco, M., Likely Impact of the Ban Treaty on the NPT Review Process, Institute for International Relations, Prague, 20 Jun. 2018 <https://www.iir.cz/article/likely-impact-of-the-ban-treaty-on-the-npt-review-process>.

[21] *Establishing Regional Conditions Conducive to a Middle East Free of Weapons of Mass Destruction and Delivery Systems*, Working Paper submitted by the United States of America, Preparatory Committee for the 2020 Review Conference of the Parties to the Treaty on the Nonproliferation of Nuclear Weapons, Geneva, 24 April – 4 May 2018 <https://undocs.org/NPT/CONF.2020/PC.II/WP.33>.

– Reduction of nuclear latency;

– Addressing non-compliance issues related to the use of the weapons of mass destruction;

– Promotion of the responsible use of sensitive technologies; and

– Abstention from unconstructive actions and promoting willingness to build technical capacity for implementation of arms control verification and monitoring measures.[22]

In response, the Group of Arab States expressed the view that the US proposal to 'create regional conditions' for disarmament had been deviced in order to shield Israel, which remains the only Middle Eastern state to possess nuclear weapons. The Group argued that such efforts directly contradicted the provisions of the Resolution on the Middle East adopted by the 1995 NPT Review and Extension Conference.[23] According to this viewpoint, the 1995 Resolution was seen as an integral part of the so-called 'package deal'[24] that provided for the indefinite extension of the NPT. The 1995 Resolution was co-sponsored by the United States, the United Kingdom and Russia. The Arab States underlined that the obligations set forth in the Middle East Resolution and later reiterated in the final documents of the Review Conferences were binding on NPT states parties and therefore could not be withdrawn.[25]

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[22] Ibid.

[23] 1995 Resolution on the Middle East, NPT/CONF.1995/32, Office for Disarmament Affairs, United Nations, 1 May 1995 <https://unoda-web.s3-accelerate.amazonaws.com/wp-content/uploads/assets/WMD/Nuclear/1995-NPT/pdf/Resolution_MiddleEast.pdf >; Arab Group Statement …

[24] The main result of the 1995 NPT Review and Extension Conference was the extension of the Treaty for an indefinite period. The extension was secured through a 'package deal', which included three decisions (on the indefinite extension of the NPT, on principles and objectives of disarmament and on strengthening the NPT review process), as well as on the 1995 Resolution on the Middle East.

[25] Arab Group Statement …

Members of the Non-Aligned Movement supported the position of the Group of Arab States.[26] Both groups of states expressed their readiness to make every effort to ensure the establishment of a Middle East WMDFZ as early as possible and to be fully open for negotiations on this topic. They reiterated the call on the United States, Russia and the United Kingdom, as co-sponsors of the 1995 Resolution, to take on the responsibility in advancing the process towards this goal. The United States, however, refused to take responsibility for organising and coordinating the work on the establishment of such a zone.[27]

The NAM and the Arab League, therefore, decided to appeal to the UN Secretary-General to take up a coordinating role in preparation for the Conference and requested him to secure financial resources required for the convening of the Conference, including through a voluntary fund.

Russia stated that the convening of the Conference on a Middle East WMDFZ 'remains a relevant and most feasible task in the context of the implementation of [1995 Resolution]'. Moscow suggested using the principles it had proposed during the first session of the Preparatory Committee for the 2020 NPT Review Conference as a basis for further deliberation on the issue. These principles included consensus approach to solving all significant issues; participation of all countries in the region without exception; and carrying out work to reach agreement on all organisational modalities of the Conference, namely, 'on the drafts of its agenda, rules of procedure, as well as the final document, which would determine the next steps'. Russia also proposed to set up a meeting with the participation of the countries of the Middle East region, the three co-sponsors of the 1995 Resolution, the representatives of the UN Secretary-General and the future Chairman of the 2020 RevCon, which would get together to discuss the establishment of a Middle East WMDFZ.

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[26] Statement by the Delegation of the Republic of Indonesia on Behalf of the Non-Aligned Movement States Parties to the NPT, Cluster 2 Specific Issue: Regional issues, Including with Respect to the Middle East and Implementation of the 1995 Middle East Resolution <http://statements.unmeetings.org/media2/18559664/indonesia-nam-printer_20180430_150923.pdf>.

[27] Establishing Regional Conditions …

The League of Arab States came up with a draft resolution, in which the UN Secretary-General was entrusted with the obligation to convene the Conference on the establishment of a Middle East WMDFZ no later than in 2019 (and subsequently – to hold it on an annual basis). The UN General Assembly voted on the draft, with 158 Member States in favour, 6 against, including Israel, Canada and the United States, and 21 abstentions. Preparations for the Conference on the Middle East WMDFZ thus began, with the first meeting scheduled for 18–22 November 2019.

As of today, the chances of the Conference becoming success look extremely hazy. The United States, like Israel, announced that it would not be participating in the Conference. Chances are that the United Kingdom and Canada would also join the abstainees.

The creation of a Middle East WMDFZ is bound to become one of the key topics at the 2020 Review Conference. The countries of the Middle East region, who agreed during the 1995 NPT Review and Extension Conference to extend the NPT indefinitely in exchange for the establishment of a Middle East WMDFZ, are determined to ensure that the nuclear weapon states uphold their part of the bargain. However, if no practical steps towards convening the Conference to discuss the creation of the zone are taken by 2020, the tenth Review Conference would likely fail to adopt a consensus final document, just like the one before it.

Meanwhile, due to the current political and military situation in the Middle East and around the world, the establishment of a Middle East WMDFZ appears to have fewer chances than it did in 1995. It seems unlikely that the P5 States have an intention to give up their nuclear weapons any time soon. On the contrary, they keep increasing the role of nuclear weapons in their doctrines, while also modernising their arsenals. At the same time, the objective state of their national security is immeasurably stronger than that of Israel, which is the only country in the Middle East that possesses nuclear weapons and is surrounded by hostile neighbours and the chaos of civil and terrorist wars. Convening the Conference on a Middle East WMDFZ without Israel (and, probably, without its main allies) would delegitimise the event's outcomes and turn it into another anti-Israeli propaganda forum.

As for Israel's potential participation in the Conference, it would appear possible only alongside an actual stabilisation of the political and military situation in the Middle East, resolution of all the outstanding issues and the establishment of diplomatic relations between Israel and key regional actors (particularly, with Iran and Saudi Arabia), effective security assurances and measures to limit conventional weapons and armed forces, as well as elimination of the threat posed by terrorist organisations. Yet, the Islamic countries are not prepared to work towards the implementation of any of these steps either with regard to Israel or with regard to each other. In order to make real progress towards a WMDFZ in the Middle East, it is necessary to work out a compromise that would contribute to the elimination of weapons of mass destruction in the region, while not putting Israel's national existence at stake.

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The pressure on the NPT and the nuclear nonproliferation regime is much greater today than ever before, while the odds of a comprehensive final document being adopted at the 2020 RevCon remain very small. Given the current challenging international environment and the crisis in arms control regime, if two consecutive Review Conferences – one of which also marked the Treaty's half-century anniversary – fail to agree on an outcome document, it could carry grave consequences for the NPT and the entire nuclear nonproliferation regime.

The central problem facing the nonproliferation regime and the NPT remain the creation of a Middle East WMDFZ, dealing with differences in approaches to nuclear disarmament and solving regional nonproliferation issues (primarily involving nuclear programmes of Iran and the Democratic People's Republic of Korea – these topics are covered in other chapters of this Supplement to SIPRI). If something is done to address these issues before the start of the 2020 RevCon, this could improve chances for the Conference to become a success.

PART III. DOCUMENTS AND REFERENCE MATERIALS

9. Key documents of the Russian Federation on national security, defence and arms control (January–December 2018)

9. KEY DOCUMENTS OF THE RUSSIAN FEDERATION ON NATIONAL SECURITY, DEFENCE AND ARMS CONTROL (JANUARY–DECEMBER 2018)

Sergey TSELITSKY

Legislative acts

Federal Law № 2-FZ of 5 February 2018 'On ratifying the Agreement between the Russian Federation and the Republic of South Ossetia about the integration of select units of the Armed Forces of the Republic of South Ossetia into the Armed Forces of the Russian Federation'
The Federal Law was passed by the State Duma (SD) on 24 January 2018, approved by the Federation Council (FC) on 31 January 2018 and signed by the President of the Russian Federation (President) on 5 February 2018.

Federal Law № 126-FZ of 4 June 2018 'On ratifying the Agreement between the Government of the Russian Federation and the Government of the Republic of Abkhazia on Cooperation in Military Postal and Courier Service'
The Federal Law was passed by the SD on 24 May 2018, approved by the FC on 30 May 2018 and signed by the President on 4 June 2018.

Federal Law № 129-FZ of 4 June 2018 'On the ratification of the Treaty between the Russian Federation and the Kyrgyz Republic on promoting military-technical Cooperation'
The Federal Law was passed by the SD on 24 May 2018, approved by the FC on 30 May 2018 and signed by the President on 4 June 2018.

Federal Law № 270-FZ of 29 July 2018 'On amending the Law of the Russian Federation "On the State Border of the Russian Federation" and several legal acts of the Russian Federation'
Passed by the SD on 18 July 2018, approved by the FC on 24 July 2018, signed by the President on 29 July 2018.

Normative acts of the executive power

Government Order № 145-r of 3 February 2018 'On signing the Agreement between the Government of the Russian Federation and the Government of the Republic of Lebanon on military cooperation'
According to paragraph 1 of article 11 of the Federal Law 'On international treaties of the Russian Federation', the Order approves the draft Agreement between the Government of the Russian Federation and the Government of the Republic of Lebanon on military cooperation, submitted by the Ministry of Defence, agreed with the Ministry of Foreign Affairs and other interested federal executive bodies and previously worked out with the Lebanese side.

Government Order № 225-r of 13 February 2018 'On signing the Agreement between the Government of the Russian Federation and the Government of the Republic of El Salvador on military cooperation'
According to paragraph 1 of article 11 of the Federal Law 'On international treaties of the Russian Federation', the Order approves the draft Agreement between the Government of the Russian Federation and the Government of the Republic of El Salvador on military cooperation, submitted by the Ministry of Defence, agreed with the Ministry of Foreign Affairs and other interested federal executive bodies, and previously worked out with the Salvadorian side.

Government Order № 400-r of 9 March 2018 'On signing the Agreement on cooperation in the field of geospatial information exchange in the interests of the Armed Forces of the member states of the Commonwealth of Independent States'
According to paragraph 1 of article 11 of the Federal Law 'On international treaties of the Russian Federation', the Order approves the draft Agreement on cooperation in the field of geospatial information exchange in the interests of the Armed Forces of the member states of the Commonwealth of Independent States, submitted by the Ministry of Defence, agreed with the Ministry of Foreign Affairs and other interested federal executive bodies, and previously worked out with the member states of the Commonwealth of Independent States.

Government Order № 431-r of 15 March 2018 'On the conclusion of the Agreement between the Government of the Russian Federation and the Government of Sudan on military cooperation'
According to paragraph 1 of article 11 of the Federal Law 'On international treaties of the Russian Federation', the Order approves the draft Agreement between the Government of the Russian Federation and the Government of the Republic of Sudan on military cooperation, submitted by the Ministry of Defence and agreed with the Ministry of Foreign Affairs and other interested federal executive bodies.

Government Order № 431-r of 15 March 2018 'On the conclusion of the Agreement between the Government of the Russian Federation and the Government of the Kingdom of Cambodia on military cooperation'
According to paragraph 1 of article 11 of the Federal Law 'On international treaties of the Russian Federation', the Order approves the draft Agreement between the Government of the Russian Federation and the Government of the Kingdom of Cambodia on military cooperation, submitted by the Ministry of Defence and agreed with the Ministry of Foreign Affairs and other interested federal executive bodies.

Government Order № 484-r of 23 March 2018 'On the conclusion of the Agreement between the Government of the Russian Federation and the Government of the Lao People's Democratic Republic on creation of the representative office of the Ministry of Defence of the Russian Federation at the Ministry of Defence of the Lao People's Democratic Republic'

Presidential Decree № 174 of 25 April 2018 'On approving the Fundamentals of the State Border Policy of the Russian Federation'
In order to ensure the implementation of the state border policy of the Russian Federation, the Fundamentals of the State Border Policy of the Russian Federation have been approved. The Fundamentals of Border Policy of the Russian Federation, approved on 5 October 1996 by Presidential Decree № pr-1937, have been accordingly recognised as invalid.

Government Order № 1120-r of 5 June 2018 'On the conclusion of the Agreement between the Government of the Russian Federation and the Government of the Republic of Burundi on military cooperation'
According to paragraph 1 of article 11 of the Federal Law 'On international treaties of the Russian Federation', the Order approves the draft Agreement between the Government of the Russian Federation and the Government of the Republic of Burundi on military cooperation, submitted by the Ministry of Defence and agreed with the Ministry of Foreign Affairs and other interested federal executive bodies.

Government Order № 1121-r of 5 June 2018 'On signing the Agreement between the Government of the Russian Federation and the Government of the Republic of Sudan on creation of the representative office of the Ministry of Defence of the Russian Federation at the Ministry of Defence of the Republic of Sudan'

Government Order № 1124-r of 6 June 2018 'On the conclusion of the Agreement between the Government of the Russian Federation and the Government of the Republic of Madagascar on military cooperation'

According to paragraph 1 of article 11 of the Federal Law 'On international treaties of the Russian Federation', the Order approves the draft agreement between the Government of the Russian Federation and the Government of the Republic of Madagascar on military cooperation, submitted by the Ministry of Defence and agreed with the Ministry of Foreign Affairs and other interested federal executive bodies.

Presidential Decree № 364 of 25 June 2017 'On creating the military innovative technopolis Era of the Ministry of Defence of the Russian Federation'

Government Order № 1402-r of 7 July 2018 'On the conclusion of the Agreement between the Government of the Russian Federation and the Government of the Democratic Socialist Republic of Sri Lanka on military cooperation'

According to paragraph 1 of article 11 of the Federal Law 'On international treaties of the Russian Federation', the Order approves the draft agreement between the Government of the Russian Federation and the Government of the Democratic Socialist Republic of Sri Lanka on military cooperation, submitted by the Ministry of Defence, agreed with the Ministry of Foreign Affairs and other interested federal executive bodies and previously worked out with the Sri Lankan side.

Government Order № 1623-r of 4 August 2018 'On signing the Protocol on cooperation in combating terrorism in the Caspian Sea to the Agreement on cooperation in the field of security in the Caspian sea of 18 November 2010'

According to paragraph 1 of article 11 of the Federal Law 'On international treaties of the Russian Federation', the Order approves the project of the Protocol to the Agreement on cooperation in the field of security in the Caspian sea. The project of the Protocol was submitted by the Federal Security Service, agreed with the Ministry of Foreign

Affairs and other interested federal executive bodies and previously worked out with the Azerbaijani, Iranian, Kazakhstani and Turkmen sides.

Government Order № 1624-r of 4 August 2018 'On signing the Agreement on preventing incidents in the Caspian Sea'
According to paragraph 1 of article 11 of the Federal Law 'On international treaties of the Russian Federation', the Order approves the project of the Agreement on preventing incidents in the Caspian Sea, submitted by the Ministry of Defence, agreed with the Ministry of Foreign Affairs and other interested federal executive bodies and previously worked with the Azerbaijani, Iranian, Kazakhstani and Turkmen sides.

Government Order № 1652-r of 8 August 2018 'On signing the Protocol on cooperation and interaction of border agencies to the Agreement on cooperation in the field of security in the Caspian Sea of 18 November 2010'
According to paragraph 1 of article 11 of the Federal Law 'On international treaties of the Russian Federation', the Order approves the project of Protocol on cooperation and interaction of border agencies to the Agreement on cooperation in the field of security in the Caspian Sea. The project of the Protocol was submitted by the Federal Security Service, agreed with the Ministry of Foreign Affairs and other interested federal executive bodies and previously worked out with the Azerbaijani, Iranian, Kazakhstani and Turkmen sides.

Government Order № 1743-r of 23 August 2018 'On the conclusion of the Agreement between the Government of the Russian Federation and the Government of Burkina Faso on military cooperation'
According to paragraph 1 of article 11 of the Federal Law 'On international treaties of the Russian Federation', the Order approves the draft agreement between the Government of the Russian Federation and the Government of Burkina Faso on military cooperation, submitted by the Ministry of Defence, agreed with the Ministry of Foreign Affairs and other interested federal executive bodies and previously worked out with the Burkina Faso side.

Presidential Decree № 501 of 28 August 2018 'On approving the Regulations on military innovative technopolis Era of the Ministry of Defence of the Russian Federation'

Order № 1848-r of the Government of 5 September 2018 'On signing the Agreement between the Government of the Russian Federation and the Government of the Socialist Republic of Vietnam on cooperation in ensuring international information security'
According to paragraph 1 of article 11 of the Federal Law 'On international treaties of the Russian Federation', the Order approves the project of the Agreement between the Government of the Russian Federation and the Government of the Socialist Republic of Vietnam on cooperation in ensuring international information security, submitted by the Ministry of Foreign Affairs, agreed with other interested federal executive bodies and the Security Council apparatus, and previously worked out with the Vietnamese side.

Government Order № 2009-r of 22 September 2018 'On signing the Agreement between the Government of the Russian Federation and the Government of the Republic of Uzbekistan about the use of airspaces of the Russian Federation and the Republic of Uzbekistan by military aircraft of the Russian Federation and the Republic of Uzbekistan'

Government Order № 2070-r of 28 September 2018 'On the conclusion of the Agreement between the Government of the Russian Federation and the Government of the Central African Republic on creation of the representative office of the Ministry of Defence of the Russian Federation at the Ministry of Defence of the Central African Republic'

Presidential Decree № 585 of 13 October 2018 'On the Approval of the Basic Principles of State Policy in the Field of Nuclear and Radiation Safety until 2025 and beyond.'
The Presidential Decree approves the Basic Principles of State Policy in the Field of Nuclear and Radiation Safety until 2025 and beyond.

The Basic Principles of State Policy in the Field of Nuclear and Radiation Safety until 2025, approved by the President on 1 March 2012 by Presidential Decree № pr-539, have been accordingly recognised as invalid.

President's Executive Order № 301-rp of 15 October 2018 'On signing the Protocol between the Russian Federation and the Republic of Belarus on amending the Agreement between the Russian Federation and the Republic of Belarus on military cooperation of 19 December 1997'

President's Executive Order № 317-rp of 29 October 2018 'On signing the Second Protocol on amending the Agreement on the Legal Status of the Collective Security Treaty Organisation signed on 7 October 2002'

Presidential Decree № 685 of 28 November 2018 'On approving the regulations on the order of implementation of the Treaty between the Russian Federation and the Kyrgyz Republic on promoting military-technical cooperation of 20 June 2017'

The Regulations on the implementation of the Treaty between the Russian Federation and the Kyrgyz Republic on promoting military-technical cooperation of 20 June 2017 have been approved in accordance with the Federal Law № 114-FZ of 19 July 1998 'On military-technical cooperation of the Russian Federation with foreign states and in order to implement the 20 June 2017 Treaty between the Russian Federation and the Kyrgyz Republic on promoting military-technical cooperation.

President's Executive Order № 390-rp of 19 December 2018 'On the Military Doctrine of the Union State [of the Russian Federation and the Republic of Belarus]'

The Executive Order approves the draft Military Doctrine of the Union State of Russia and Belarus submitted by the Government of the Russian Federation. The expediency to approve the Military Doctrine of the

Union State by the Decree of the Union State's Supreme State Council of Russia and Belarus has been underscored.

President's Executive Order № 397-rp of 24 December 2018 'About signing the Second Protocol on amendments to the Collective Security Treaty of 15 May 1992'
The Executive Order approves the proposal of the Government of the Russian Federation to sign the Second Protocol on amendments to the Collective Security Treaty signed on 15 May 1992.

President's Executive Order № 398-rp of 24 December 2018 'About signing of the Third Protocol on amendments to the Charter of the Collective Security Treaty Organisation of 7 October 2002'
The Executive Order approves the proposal of the Government of the Russian Federation to sign the Third Protocol on amendments to the Charter of the Collective Security Treaty Organisation signed on 7 October 2002.

President's Executive Order № 401-rp of 25 December 2018 'On signing the Second Protocol on amendments to the Charter of the Collective Security Treaty Organisation of 7 October 2002'
The Executive Order approves the proposal of the Government of the Russian Federation to sign the Second Protocol on amendments to the Charter of the Collective Security Treaty Organisation signed on 7 October 2002.

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