

From: MGIMO/FLETCHER

To: Russian Ministry of Foreign Affairs / Embassy of the United States, Moscow

Re: CYBER/INFORMATION SECURITY

Date: 23 March 2018

1. Issues

a. Critical Infrastructure:

-To protect the safety and livelihood of respective citizens, prevent intrusion attempts exploiting cyber vulnerabilities in critical infrastructure, and avoid political-diplomatic crises from counterattack of a kinetic nature.

b. Cyber – Nuclear Entanglement:

-To minimize cyber-nuclear entanglement potentially leading to an inadvertent escalation, where nuclear command, control, communication and information (C3I) is likely to be integrated into Information and Communication Technology (ICT).

c. Security vs. Freedom:

-To find viable ways to provide information/cyber security to its citizens without denying rights to access information/communication networks, and prevent contrasting perspectives from harming Russia-U.S. bilateral cooperation in cyber/information security.

2. Critical Infrastructure

a. Analysis:

-On March 15, 2018, U.S. Computer Emergency Readiness Team (CERT) released a report detailing cyber intrusion attempts on U.S. critical infrastructure including energy grids, nuclear infrastructure, civil aviation systems, and water processing plants.

-Similarly, in May 2017, WannaCry ransomware particularly affected key Russian infrastructure including communication, transportation, and law enforcement sectors, and key organizations within the Russian financial sector.

-Technical reliance creates vulnerabilities to cyberattack within critical infrastructure such as electrical grids, hospitals, and financial systems. Confusions in what constitutes a cyberattack and how to respond to it provide leeway to terrorist organizations and non-state actors.

-Previously agreed upon confidence-building mechanisms such as hot-line to share information have been broken down due to lack of trust and incentives, thereby posing greater threat of disproportionate response and escalation of situation.

b. Potential Areas of Conflict:

Retaliatory responses:

-A potential area of conflict is the possibility of an asymmetric response, possibly kinetic, to an observed intrusion or attack on vital infrastructure assets.

-Lack of an international legal structure underpinning cyber behavior between states may mean the only true deterrent is counter attacks, which puts citizens of both countries further at risk.

Insufficient communication:

-without secure and private communication and information sharing mechanisms between the U.S. and Russia and an incentive to use them following attacks, escalation may increase without any mechanism to diffuse tensions.

Lack of reliable attribution mechanisms:

-Because plausible deniability exists in the realm of cyberattack, both countries run the risk of inflaming political and diplomatic tensions, or potentially retaliating in error.

c. Relevant National Interest:

Russia

Protect and ensure the integrity of vital infrastructure assets

U.S.

Protect and ensure the integrity of vital infrastructure assets

3. Cyber – Nuclear Entanglement

a. Analysis:

Recent Development of ICT and its Implications:

-Continued technological advancement in the realm of information and communication technology (ICT) are being introduced to modernize nuclear weapons' Command, Control, Communication, and Information (C3I) systems, leaving them increasingly vulnerable to the impacts of improper use of ICTs directed at these systems in particular and potentially undermining principles of strategic stability.

-The convergence of these factors has dangerous implications for both Russia and the U.S.; Russia believes Article 51 of the UN Charter, governing the right to self-defense, only applies in the event of an armed attack. Despite the legal ambiguity surrounding the nexus between improper use of ICTs and nuclear weapons, the tension is further exacerbated by the explicit connection the U.S. Nuclear Posture Review 2018 makes between a cyberattack and nuclear retaliation.

Mutual perception: grave consequences of cyber-nuclear entanglement/escalation.

-Due to issues of legal ambiguity surrounding the use of force and ICTs, technical limitations in attribution, and destabilizing effects of potential cyberattack on nuclear weapons C3I capabilities, both sides share interest in preserving strategic stability and avoiding the uncontrollable escalation of a conflict that conflates improper ICT use and nuclear weapons.

Differing perceptions:

-Russian nuclear weapon C3I operates autonomously and is unlikely to integrate ICT in near future. It is a medium to long term threat, and not a short-term threat.

-U.S. nuclear weapon C3I will be exposed to a greater threat over the course of ICT integration, and the U.S. government will be required to respond even in a short-term.

b. Potential Areas of Conflict:

Intelligence and Reconnaissance of Nuclear-Related C3I

-Intelligence collection exercised by a nuclear state against other nuclear states presents a potential obstacle to cooperation on the disentanglement of the cyber dimension from the nuclear sphere.

-However, states are unable to identify whether a cyber intelligence operation constitutes benign intelligence collection or reconnaissance for the purpose of a preemptive cyberattack preceding an imminent kinetic military operation. The ambiguity and nature of a cyberattack feeds the logic of a lowered threshold for first-use of nuclear weapons.

-Both parties recognize that lowering the threshold puts all states in dangerous proximity of a nuclear conflict.

Third Actor/False Flag Operations

-Cyberattack can be initiated by any actors. Potential cyberattack attribution errors present the possibility of a nuclear conflict between states as a result of a non-state cyberattack.

c. Relevant National Interest:

Russia

1. Avoiding a nuclear war with the U.S.
2. Ensuring the survivability of nuclear weapons and delivery systems
3. Reinforcing relations with neighboring partners
4. Preventing NATO from further expansion

U.S.

1. Avoiding a nuclear war with Russia
2. Ensuring the survivability of nuclear weapons and delivery systems

4. Security vs. Freedom

a. Analysis:

Development:

U.S. and Russian national interests regarding information technology (IT) compete with individual and corporate rights. The resulting divergent national policies and underdeveloped international legal framework impede U.S.-Russia bilateral cooperation.

-The U.S. and Russia balance privacy and security differently. Russian policies restrict user access to IT that stores data outside of Russian territory, assuming U.S. government access to Russian user data. A robust IT sector offers the U.S. a relative exemption from this concern. Unfortunately, the effects of Russian policy: IT being blocked for Russian users and U.S. IT companies pulling out of the Russian market affects bilateral relations.

In both states, cyber security concerns regarding espionage and illegal data collection, and use of data encryption technologies for the benefit of terrorists and other criminals inform varying public policy solutions: restrictions on anonymity, monitoring the actions of users and the information they exchange, and limiting the availability of technologies.

b. Perception:

- Russia aims to eliminate the potential for U.S.-government influence operations conducted through U.S.-based technology manufacturers and software developers. To combat the perceived threat, the Russian government limits cyber technology users' access to vulnerable areas of the virtual space. Further, Russia considers the independence of U.S. IT companies to restrict access to their technologies a reflection of U.S. government direction.

- The U.S. considers the matter to be an international trade issue between private U.S. actors (IT companies) and the Russian state actor. Further, U.S. information technology trade produces billions of U.S. dollars in tax revenue, offering incentive for expansive trade.

c. Potential Areas of Conflict:

National Law:

Russia

-Russian lawmakers can flexibly enact laws that require private technology companies to provide immediate access to and control over user data. Directly contradictory to U.S. norms, Russia grants the government legal capabilities to easily access user data: it requires all telecommunication operators in Russia to store user-related data for three years within the territory of the Russian Federation and share user data.

U.S.

-Contrary to Russian domestic policy, U.S. laws restrict government interference in private enterprise product design and distribution. Also, domestic commitment to user privacy reflected in the first amendment of the U.S. constitution, Electronic Communication Privacy Act, and Foreign Intelligence Surveillance Act information request requirements prioritize high levels of user data privacy.

International

-The disparity across internal privacy norms generates a differing bilateral policy goals. Russia seeks to maintain access to U.S. information technology products without sacrificing the sovereignty of its domestic user data access. The U.S. government, however, possesses neither legal right nor political will to interfere in private U.S. companies' noncompliance of Russian data disclosure laws.

International Law

-Russia advocates for international laws that require open, international-access to cyber technologies. Further, Russia advocates for caveats that restrict user privacy requirements, as found in the provisions of the Code of Conduct for Information Security that Russia and China put forward in 2011.

The U.S. retains superior access to emerging cyber technologies and is unmotivated and unlikely to compromise its commitment to the democratic ideals of free speech and privacy in the international legal forum.

d. Relevant National Interest:

Russia

- Mitigate the threat of state actors able to manipulate information and communication technologies to influence public opinion and achieve geopolitical objectives.
- Maintain access to information technology

U.S.

- Uphold domestic privacy norms.
- Maintain U.S. tax revenues produced by U.S. private IT companies.

5. Recommendations

Summarized Here – details below

| Issue \ Category | Confidence-Building | Information Sharing | Crisis Management |
|----------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------|
| Critical Infrastructure | Establish a permanent bilateral cyber working commission with legal and expert level dimensions | Ensure closer cooperation between specialized agencies | Revive the existing hotline mechanism and make it permanent |
| Cyber-nuclear Entanglement | Establish Transparency and Accountability Measures | Schedule Recurring High-Level Delegation Engagement on Annual Basis | Establish Coordination and Deconfliction Cell |
| Freedom v. Security | Disconnect the issue of private U.S. IT companies vs. Russian national security | | |

a. Confidence-building Mechanisms

- Critical Infrastructure

Establish a permanent bilateral cyber working commission with legal and expert level dimensions:
Include key public-private stakeholders in discussion, confidence-building and threat reduction measures to ensure cross-sector partnership in the process. In addition, create a legal working group to provide legal framework and advice for both sides on cyber-related strategic matters, including mutually amenable attribution processes and creating a non-binding judicial and arbitration frame.

- Cyber-Nuclear Entanglement

Establish Transparency and Accountability Measures (CBM)

Transparency and accountability measures related to cyber-nuclear entanglement should build on the framework employed by New START. First, both parties would agree to not use offensive cyber capabilities on each other’s nuclear C3I. Second, a system of data exchanges and notifications should be implemented for the launch of satellites. This system will serve to develop trust between

the states regarding the anti-space weapons. Third, limits on satellite launches should be implemented. Therefore, both states will be forced to prioritize the maintenance of spaced-enabled communication and other enabling functions at the expense of developing and testing anti-space weapons.

- Freedom v. Security

The U.S. and Russia should disconnect the issue of private U.S. IT companies vs. Russian national security concerns from other bilateral cyber security confidence-building, information-sharing and crisis management policies. (The gap between the U.S. and Russia's fundamental domestic cyber norms complicates approaches to policy solutions. The challenges: varying levels of state control over private enterprise, opposing privacy laws, and competing human rights priorities in multilateral agreements, present an opportunity to foster deeper understanding and cooperation between the U.S. and Russia.)

b. Information Sharing

- Critical Infrastructure

Ensure closer cooperation between specialized agencies: Russian and U.S. agencies should cooperate on major and urgent cyber-related strategic matters. Use the Department of Homeland Security (DHS – U.S.) and the Federal Security Service (FSB - Russia) as key agencies to exchange information and collaborate on incident as well as crisis prevention measures. Detach this cooperation mechanism from the mainstream political U.S.-Russia relations to ensure higher prospects of success of this policy.

- Cyber-Nuclear Entanglement

Schedule Recurring High-Level Delegation Engagement on Annual Basis

Establish and participate in a regularly-scheduled bilateral forum to share information regarding non-state actors' emerging cyber threats, evaluate implementation and adoption of agreed-upon cyber norms in other institutional arrangements (UNGGE, OSCE), and provide pertinent updates to information requirements outlined by bilateral transparency and accountability measures.

c. Crisis Management

-Critical Infrastructure

Revive the existing hotline mechanism and make it permanent: Use this tool as a major communication source in case of emergency or other necessary cases. Include the possibility of unpublished and confidential use of this mechanism for information exchanges. Upon the request of one state actor, hotline-use should be classified to avoid limitations imposed by public opinion and domestic political influence. This confidence-building measure will help develop and encourage direct cooperation with limited external interference.

- Cyber-Nuclear Entanglement

Establish Coordination and Deconfliction Cell

Reconvene the Cyber Working Group under the auspices of the U.S. Russia Bilateral Presidential Commission. Under this commission parties preliminarily agreed to use nuclear hotlines to share details on cyberattack.

END

ACTION:

TO: THE FOREIGN MINISTRY OF THE RUSSIAN FEDERATION & THE STATE DEPARTMENT OF THE UNITED STATES

FROM: THE JOINT FLETCHER – MGIMO DELEGATION

SUBJECT: RECOMMENDATIONS ON THE NORTH KOREAN NUCLEAR PROBLEM

DATE: 23 March 2018

Executive Summary: Recent developments regarding North Korea’s nuclear weapons program, paired with its advanced ballistic missile delivery system, has placed the international community in an inherently precarious situation. Common interests in resolving this issue present an opportunity for potential cooperation between the Russian Federation and the United States which will lay the groundwork for them to combine their efforts in addressing further future challenges.

This report outlines the historical background of the DPRK nuclear weapons program. Apart from this, it envisages the interests, objectives and aims of both the Russian Federation and the United States within the context of this crisis, summarizes overt points of contention and cooperation between said parties, and provides several recommendations which we feel will initialize a credible resolution that aims to satisfy the mutual aspirations of both the Russian Federation and the United States. Moreover, the proposed resolution assumes the cooperation of the People’s Republic of China (PRC) alongside Japan and the Republic of Korea (ROK) in the course of finding a peaceful settlement to the crisis.

In summation, this report advises that the United States and Russia present a unified front in negotiating a diplomatic solution to the crisis. In the context of the upcoming U.S.-DPRK summit, we propose a framework that commits the United States to conditional, gradual reduction of sanctions in exchange for the DPRK’s commitment to a gradual but continued dismantlement of its nuclear weapons program. Additionally, Six-Party Talks should be held to establish a regional security guarantee that protects the borders and internal governance of both Koreas. Further meetings to clarify the details of these agreements should be held in the Russian Federation to build goodwill not only between the United States and the DPRK, but also between the United States and Russia.

Historical Background: While the tensions in the U.S.-DPRK relationship are rooted in the division of the Korean Peninsula in 1945 and the Korean War of 1950-1953, the current crisis centers on the issue of nuclear weapons. The DPRK has shown an interest in developing a nuclear weapons program since the early 1960s. In 1985, the DPRK joined the Nuclear Nonproliferation Treaty (NPT) under pressure from the Soviet Union. However, it announced its intent to withdraw from the treaty in 1994 after the Soviet Union disintegrated. The DPRK decided that nuclear weapons can provide a security guarantee for itself and also serve as a source of legitimacy against a more prosperous ROK. In 1994, the United States and the DPRK agreed that North Korea would dismantle its plutonium-enrichment program in exchange for U.S. assistance in developing light-water reactors for its nuclear energy program. This Agreed Framework broke down in the early 2000s due to mutual mistrust, and the DPRK expelled IAEA inspectors and announced its formal withdrawal from the NPT on January 10, 2003. During this decade, a series of multilateral meetings between the United States, Russia, DPRK, ROK, Japan, and PRC were held, known as

the Six-Party Talks. However, aside from a Joint Agreement issued in 2005, no lasting resolution was reached. The DPRK embarked on the path towards further developing its weapons program, conducting its first nuclear test in 2006. In response, the UN Security Council has issued a number of resolutions condemning and sanctioning North Korea.

Current Circumstances: On August 28, 2017, the DPRK successfully launched a missile over Japan, signaling that the DPRK's nuclear program had achieved rapid technological advances not previously known such as the ability to reach the continental U.S. via an ICBM. In the months that followed, the DPRK successfully tested a hydrogen bomb and additional missiles. Most recently, it appears that there has been a thaw in relations between the DPRK and the ROK. Following the conclusion of the winter Olympic Games in Pyongchang, which led to an inter-Korean summit between Kim Jong Un and Moon Jae-in. On March 9, 2018, both President Trump and Kim Jong Un ostensibly agreed to meet in May 2018. This was followed by two visits to Pyongyang by U.S. Secretary of State Mike Pompeo in April and May, where logistics of the U.S.-DPRK summit were discussed. While the details of these meetings are not publicly known, President Trump has claimed that a date and location for the meeting have been set.

Assumptions: The following shared assumptions will guide the analysis and recommendations presented in this memorandum:

- The current preoccupation of whether its nuclear weapons program is offensive or defensive distracts from the fact that the United States and Russia both believe in the urgency of denuclearization of the Korean peninsula.
- The DPRK is a rational actor; they want to protect their interests and preserve their regime.
- The current sanctions regime has had a limited effect on the DPRK's behavior regarding its nuclear weapons program.
- We expect that the DPRK will be unwilling to voluntarily eliminate all of its nuclear weapons, as there is no precedent for this occurring in the past. To resolve this, it will take intense international cooperation to achieve complete verifiable and irreversible denuclearization (CVID) of the North Korean peninsula.
- Failure to denuclearize the Korean peninsula has the potential to drive other countries on a nuclear threshold to fully develop their nuclear capabilities, which will destabilize the region.

Discussion:

U.S. Interests and Position

For the U.S. government, the primary interest is the security of its own territory. If and when the DPRK, which calls the United States the "empire of the evils," were to completely develop nuclear weapons and a missile capability that could reach the continental United States, it would become a direct and serious threat against the United States. The secondary interest is the security of American allies, including the ROK and Japan. Through these allies, the United States projects its influence in the Asia-Pacific region, upon which the U.S. economy has grown increasingly dependent.

President Trump has sought to give the impression of a hardline stance on the North Korean issue. The United States has focused on encouraging other countries, including the PRC and Russia, to apply tough economic sanctions against the DPRK in an effort to force it to abandon its nuclear weapons program. At the same time, President Trump has repeatedly threatened Pyongyang with aggressive rhetoric, with statements including “all options are on the table.” The short-term goal is avoiding an escalation of the current crisis and promoting a dialogue with the appropriate stakeholders. However, the United States’ ultimate goal in resolving the crisis is to achieve CVID on the Korean peninsula.

Russian Interests and Position

For the Russian government, the most important priority is the maintenance of peace and stability along its borders. Russia is concerned about the American military presence in East Asia, specifically U.S. military bases in South Korea and Japan, the deployment of the THAAD anti-ballistic missile system in South Korea, and U.S.-led joint military exercises in the region. The Russian government perceives North Korea’s nuclear capability less threatening due to its assumed defensive nature; however, Russia is committed to upholding the global nuclear non-proliferation regime and regards the DPRK an official, though noncompliant, party to the NPT. Russia has consistently supported the idea of a reunified, denuclearized, and neutral Korea.

Russia strongly disagrees with any consideration of a military option and calls for a diplomatic solution. It supports the ultimate U.S. goal of CVID; however, it disagrees on the mechanisms in which that would be achieved. Russia is also opposed to toughening sanctions, viewing them as an ineffective instrument of changing the DPRK’s behavior and only leading to further escalation of the crisis.

Points of Contention

1. **Options** – The United States has stated that all options are on the table, while Russia has advocated for abandoning this rhetoric and pursuing a comprehensive diplomatic solution.
2. **Sanctions** – The United States views sanctions as a viable mechanism of coercing the DPRK into abandoning its nuclear weapons program, while Russia views it as a counterproductive effort that will escalate the situation. Russia believes that conditionally easing sanctions will be more effective.
3. **Diplomatic Approach** – Russia’s position on diplomatic negotiations is inclined towards multilateral talks under the UN framework and Six-Party Talks format. The United States, however, has not clarified its preference on the specific nature of the diplomatic framework in which these future negotiations are to take place.
4. **U.S. Military Presence in the Region** – Russia views THAAD and joint military exercises as counterproductive to de-escalating the crisis on the Korean peninsula. They also believe that THAAD undermines Russia’s secondary nuclear strike capabilities. On the other hand, the U.S. believes these actions are not aimed at Russia but rather designed to maintain security commitments to its allies in the region.
5. **Human Rights** – The United States believes that human rights issues in the DPRK is of deep international concern, while Russia believes this is a domestic matter.

6. **Acknowledging the DPRK as a Sovereign Nation** – Russia recognizes the DPRK as a legitimate sovereign state. They also believe that the United States should extend diplomatic recognition for negotiations concerning the DPRK’s nuclear weapons program to proceed in good faith. The United States maintains that official diplomatic recognition would be conditional and based upon changes in North Korean behavior.

Points of Cooperation

1. **Primacy of Nuclear Issue** – Both sides agree that questions related to human rights, reunification, and economic development are secondary to the issue of nuclear weapons on the Korean Peninsula.
2. **Long-Term Global Stability** – The United States and the Russian Federation share concern that the presence of nuclear weapons on the Korean Peninsula undermines not only regional stability but also long-term global stability.
3. **Non-Proliferation** – As parties to the NPT, the Russian Federation and the United States are concerned that the DPRK’s advancing nuclear weapons program may drive threshold states such as Japan and the ROK to develop their own nuclear weapons capability.
4. **Diplomatic Solution** – Both sides prefer a diplomatic solution to the current crisis, as opposed to military action.
5. **Nuclear Safety and Security** – As there are currently no inspections of North Korea’s nuclear facilities, there is no guarantee that nuclear materials will be handled safely and not be shared with outside parties.
6. **Denuclearization** – The United States and the Russian Federation share the ultimate goal of complete, verifiable and irreversible denuclearization of North Korea’s nuclear weapons program.

Recommendations: The events related to the 2017-2018 North Korean nuclear crisis have fundamentally increased the public’s awareness of this threat to the entire world. The rapid acceleration of both the DPRK nuclear weapons and ballistic missile program indicates that previous attempts at denuclearization have failed, and it is therefore necessary that new ideas and solutions be considered in order to bring about a peaceful resolution to the crisis. What follows are recommendations brought forth for officials representing both the Russian Federation and the United States, with the hope that these solutions will be effective in bringing closure to one of the world’s most dangerous scenarios.

Both parties should resolve the North Korean nuclear issue together. To demonstrate this objective, it is recommended that the Russian Federation and the United States hold bilateral discussions at the ministerial level prior to the summit between President Trump and Kim Jong Un to identify possible mutual approaches in order to present a united front in calling for concrete steps towards North Korean denuclearization. Furthermore, it is advisable that the United States should commit itself to the idea of easing sanctions on the DPRK should the proposed bilateral talks successfully produce a solution beneficial to all the regional parties concerned. Concurrently, it is recommended that the Russian Federation should commit itself to the idea of tightening sanctions on the DPRK in case the latter indicates its unwillingness to contribute effectively to the efforts of the international community within the scope of a peaceful resolution of the Korean issue. Finally, both parties should encourage the PRC’s participation in the above suggested approach.

We propose that the summit between President Trump and Kim Jong Un should establish the overarching framework and commitments from their respective sides. We suggest that both parties work towards the four initial deliverables outlined below:

1. Agreement on continued freeze of all nuclear weapons development;
2. Joint U.S.-DPRK statement committing DPRK to eventual CVID
3. Enunciation of general principle of conditional sanctions relief and provision of economic aid in exchange for gradual and continued dismantlement of the North Korean nuclear weapons program. Progress would be monitored by independent inspectors either from the IAEA, or potentially from the Russian Federation and/or the PRC.
4. A call for Six Party Talks to establish a security guarantee that protects the interests of both Koreas. The end goal of these talks would be a regional treaty committing all parties to the following two principles:
 - a. Alteration of borders on the Korean Peninsula can only be carried out via peaceful means agreed upon by both Koreas.
 - b. Internal governance structures are a domestic matter and all parties agree not to interfere in such matters

It is recommended that subsequent meetings following the bilateral U.S.-DPRK summit be held in the Russian Federation. We feel that due to the longstanding historical relationship between the DPRK and the Russian Federation the location will produce positive atmospherics for the discussions.

These recommendations were composed with the distinct desire and expectation that joint cooperation between the Russian Federation and the United States over this pressing issue will demonstrate to the world that constructive steps in the improvement of bilateral relations between our two nations are possible and will produce mutual benefits in good faith of building a safer and stable world of tomorrow.