NORTH ATLANTIC COUNCIL

Topic A: THE WARSAW SUMMIT – EMERGING THREATS

In July of 2016, the heads of state and heads of government of NATO member countries met for the 27th formal meeting of its kind, this time held in Warsaw, Poland. The symbolism of hosting the critical meeting of NATO's leadership in a city that once gave its name to the pact directly opposing the Alliance in the frigid days of the Cold War should not be ignored. The meeting of minds was meant to ensure that NATO leadership could come to an accord on how best to proceed with responding to continued and emerging threats to the Alliance as the 2010s near their end. With ongoing NATO missions around Europe's periphery and emerging threats seemingly nearer at hand, the Warsaw Summit's Final Communiqué – adopted by the NAC during the Summit itself – sought to cover many of the pressing issues facing member countries and establish courses of action for the Alliance in light of a changing security environment.

Since the beginning of the new millennium, several emerging threats to NATO members' security have emerged. Two discussed at the Warsaw Summit of particular urgency were cyber security and ballistic missile defence. Regarding cyber security, the Alliance is faced with threats from both state and non-state actors, often with the added difficulty of discerning from where, or from whom, the attacks are originating. During the Summit, member states reaffirmed that cyberspace, as with land, sea, and air, is a "domain of operations in which NATO must defend itself."[1] Questions remain concerning the question of proportional response, what actions can and should be taken

[1] "Paragraph 70, NATO Warsaw Summit Communique," last modified August 3, 2016, http://www.nato.int/cps/en/natohq/official_texts_133169.htm.

in response to cyber-attacks and what measure of response is appropriate (e.g. should cyber-attacks only be responded to with counter cyber-strikes? Or can conventional military strikes be proportional in the case of extreme infrastructure damage?).
The discussion at the Summit culminated in the creation and signing of a "Cyber Defence Pledge" which, among other more nebulous commitments such as developing the "fullest range of capabilities" to defend infrastructure, also included commitments to allocate adequate resources, improve cooperation and knowledge sharing, as well as integrating cyber defence into operations.[2]

Regarding Ballistic Missile Defence, NATO is currently faced with fears from European partners of the proliferation of ballistic missile capabilities around the globe, and their use against deployed NATO forces or NATO member countries civilian populations. The Summit was updated that the NATO Ballistic Missile Defence (BMD) had reached Initial Operational Capability, marking the beginning of NATO's capability to defend European populations from ballistic missile strikes. However, in the face of rising tensions with Russia, there are fears that increased focus on BMD could exacerbate relations between nuclear powers. This is after many years of tentative cooperation and discussion between NATO and Russia in the form of exercises under the *NATO-Russia Council Theatre Ballistic Missile Defence Cooperation*[1], which held meetings between NATO and Russian officials as recently as 2012.[3] There remains much to be done before the end-goal of complete coverage and security is achieved, and much more to be considered, such as what effects NATO BMD will have on the global balance of power and arms race.

Considering these threats, NATO must continue to adapt and evolve in an ever changing world. With continuing tensions with Russia, ongoing involvement in the Mediterranean, Middle East, and Central Asia, there is much to be addressed before the next summit in 2017 in Brussels, Belgium.

Questions for Discussion:

1) What exactly constitutes a cyber-attack, and at what point may collective defence be invoked? What role does the international humanitarian legal concept of proportionality have to play in cyber warfare? Can a cyber-attack be responded to with traditional military means?

2) How might member countries leverage new technology to capitalize on the momentum of the past few years for NATO BMD? What are next steps to be adopted on BMD at the next NATO summit? How will NATO deal with Russia's response? Should there be efforts to renew relations with Russia in the *NATO-Russia Council Theatre Ballistic Missile Defence Cooperation?*

[2] "Cyber Defence Pledge," Last modified July 8, 2016, http://www.nato.int/cps/en/natohq/official_texts_133177.htm.
[3] "NATO and Russia hold theatre missile defence exercise," Last modified April 2, 2012, http://www.nato.int/cps/en/natolive/news_85685.htm.

3) Broadly, and looking ahead to the next summit, what other emerging threats might NATO be facing that were not addressed satisfactorily in the previous summit? What might be some possible courses of action for member countries?

Further Reading:

NATO Warsaw Summit Communiqué:
http://www.nato.int/cps/en/natohq/official_texts_133169.htm

NATO Ballistic Missile Defence: http://www.nato.int/cps/en/natolive/topics_49635.htm

NATO Cyber Defence: http://www.nato.int/cps/en/natohq/topics_78170.htm

Wedgewood, Ruth G. "Proportionality, Cyberwar, and the Law of War." *International Law Studies* Vol. 76: 219-232. (https://www.usnwc.edu/getattachment/529250c6-9acc-4fca-824a-b77dda2e89d7/Proportionality,-Cyberwar,-and-the-Law-of-War.aspx)

Upadhyay, Dinoj K. "Geopolitical Implications of Missile Defense System in Europe." *Indian Council of World Affairs: Viewpoint*, 22 June, 2016: 1-8. (http://www.icwa.in/pdfs/VP/2014/GeopoliticalImplicationsVP220616.pdf).

Online Resource: The Principle of Proportionality in Cyber War:
http://cyberwarlaw.eu/the-principle-of-proportionality-in-cyber-war/

Topic B: THE FINAL FRONTIER: NATO AND OUTER SPACE WEAPONIZATION

Outer space is, in the popular vernacular, the "final frontier" in warfare, especially where NATO is concerned. Whereas the Alliance's members and their armed forces have become more reliant on a cadre of progressively more sophisticated space technologies, NATO has remained nominally ambivalent to the prospective development of a collective space security strategy.[4] At present, the Alliance neither owns nor directly operates any satellites. Instead, the Alliance's space-based capabilities are solely dependent on six members – Canada, France, Germany, Italy, the United Kingdom, and the United States – and private companies. As such, the Alliance has never considered the space environment as part of its *modus operandi*. Yet as space-based technologies become more imbedded into the everyday activities of the Alliance's populations and militaries, so too must NATO consider how to protect the "ultimate high ground". With the recent issuance of the Warsaw Summit Communique, the Alliance – for the first time since its founding – is now required to consider how to

[4] Nina-Louisa Remuss, "NATO and Space: Why is Space Relevant for NATO?," *ESPI Perspectives* 40.1 (2010): 2.

adapt to the "chang[ing] and evolving security environment" that is outer space using "all of the tools at [its] disposal".[5]

Perhaps the greatest challenge that the Alliance must consider when developing a space security strategy is the likelihood of the space environment becoming a contested domain. Today, the high earth orbits have experienced an influx of both state and non-state space actors into an already crowded and finite space environment.[6] Moreover, space has remained as it was during the Cold War – a domain of global political, technological, and military competition. As the space environment becomes contested by an exclusive group of space-faring actors, the likelihood of satellites being targeted by potential aggressors seems probable. As Nina-Louisa Remuss of the European Space Policy Institute notes, the "increasing reliance on space applications [by space-faring states] for everyday activities, as well as for providing both internal and external security, inherently raises the likelihood of attack by an adversary".[7] Consequently, the modern space environment has become blurred between the emerging aspects of military, civil-science, and commercial space.

This blurring has also lead to the further conceptual distinction between the "militarization" and "weaponization" of outer space. While the former reflects the reality that space has always existed as a domain of military use, the latter describes a specific practice which can be understood as anything from the destruction of satellites on-orbit using anti-satellite weapons (ASATs), to the placement of weaponized satellites on-orbit.[8] Considering these classifications, both civilian and military satellites exhibit three similar vulnerabilities that would constitute space weaponization: signal jamming, IP spoofing, and on-orbit kinetic strikes from ASATs. Moreover, at present there exists no legal prohibition on conventional space weapons or an article of international legislation that prohibits the use of these stratagems in the high earth orbits.

Since the beginning of the new millennium, several prospective adversaries of NATO have developed and tested offensive technologies that have the potential to eliminate satellites. A number of global powers – including China and the Russian Federation – are in the process of developing and deploying up-to-date ASATs over the next decade.[9] Noting the successful testing of the Chinese Anti-Satellite Test of January 2007, commentators have predicted that other less-powerful states may attempt to develop ASATs to more successfully cripple the largely satellite-dependent militaries

[5] North Atlantic Treaty Organization (NATO), "Warsaw Summit Communique: Issue by the Heads of State and Government participating in the meeting of the North Atlantic Council in Warsaw 8-9 July 2016," *Press Release (2016) 100*, July 2016.
[6] Michael E. O'Hanlon, *Neither Star Wars Nor Sanctuary: Constraining The Military Uses of Space* (Washington, D.C.: Brookings Institution Press, 2004), 35; Nayef R. F. Al-Rodhan, *Meta-Geopolitics of Outer Space: An Analysis of Space Power, Security and Governance* (Oxford, U.K.: Palgrave-Macmillian, 2012), 27.
[7] Nina-Louisa Remuss, op. cit., 4.
[8] Wilson W. S. Wong and James Fergusson, *Military Space Power: A Guide To The Issues* (Santa Barbara, CA: ABC-CLIO, LLC, 2010), 4.
[9] Matthew Mowthorpe, *The Militarization and Weaponization of Space* (Lanham, MD: Lexington Books, 2004), 134; John J. Klein, *Space Warfare: Strategy, Principles, and Policy* (New York, NY: Routledge, 2006), 42.

that make up the Alliance.[10] Correspondingly, less-powerful states have adapted toward the use of telecommunication and cyber jamming technology to better disrupt both civilian and military satellites. For example, Iraq made use of GPS jammers during the second Gulf War to interrupt Coalition satellites, and Iran has continuously utilized SATCOM jammers against commercial satellites. Over the last decade, non-state actors have also begun to target satellites through a series of jamming and piracy events – the most noticeable of these being the Sri Lanka's Tamil tigers (LTTE) hijacking of the INTELSAT-12 in geosynchronous orbit.

Considering these threats, NATO must be prepared to protect the civilian, military, and industry satellites of its member states within the high earth orbits. A failure to do so could result in catastrophic damage not just to the technology-dependent populations of the Western Atlantic, but to the future of human exploration beyond the stars. At the same time, any NATO space security policy must remain committed to the guiding principles of international space law cited below:

1. NATO will remain committed to the use of outer space for peaceful purposes.
2. NATO must have assured access to outer space.
3. NATO must remain committed to the development of space power.

Questions for Discussion:

1) Should NATO develop an independent military space capability or is the current method of relying on national capabilities sufficient?

2) Is the use of a kinetic-energy space weapon or telecommunication/cyber jammer against an Alliance member's satellites considered worthy of invocation of Article 5? Does an Article 5 declaration over the destruction of a member's satellite only apply to specific classifications of satellite (civilian, military, and industry) or should all classifications be regarded with the same severity?

3) Can NATO counteract the development of offensive space-based technologies whilst retaining a commitment to the "peaceful uses of outer space" and other articles of international space law?

Further Reading:

Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (aka. "The Outer Space Treaty")
http://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/introouterspacetreaty.html

Convention on International Liability for Damage Caused by Space Objects
http://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/introliability-convention.html

[10] John J. Klein, op. cit., 42; Wilson W. S. Wong and James Fergusson, op. cit., 12.

COPUOS Database for Articles of National Space Law
http://www.unoosa.org/oosa/en/ourwork/spacelaw/nationalspacelaw.html

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Topic C: THE BALTIC TRIPWIRE

The fundamental purpose of NATO is to deter aggression by providing a collective security guarantee to all members. This guarantee is especially salient to NATO's newer members in Eastern Europe, who exist on the border of a resurgent Russia with obvious geopolitical interests beyond its own territory. Russia has taken a particular interest in recent years towards former member-states of the Soviet Union, which until 1991 included several current NATO members. The recent conflict in Ukraine in particular has prompted NATO to refocus its attention towards member-states in that region and providing them with credible guarantees of security and protection.

In the last few years, there has been a notable increase in military spending in the alliance, especially in states such as Estonia, Latvia, Lithuania, and Poland.[11] In addition, NATO has sought to reassure these member states of its commitment to their security though the Readiness Action Plan (RAP). This plan involves deployment of brigades from large western members – Canada, the United States, Germany, and the United Kingdom. However, this deployment is far too small to effect any significant resistance in the event of invasion. Instead, the purpose of this arrangement is to act as a geopolitical 'tripwire' of sorts.[12] The logic of this effort is that belligerent powers could convince themselves that a strong enough move against the Baltic states would prevent the rest of the alliance from being able or willing to actively support them, while engaging soldiers from, for example, the United States would leave the alliance with no choice but to respond with overwhelming force. A similar theory to this was behind the protection of West Berlin during the Cold War. However, as the soldiers are confined to their bases rather than being dispersed throughout their host countries, there does exist the possibility that Russia could simply avoid the multinational forces and therefore not trigger the tripwire, potentially resulting in a critical delay in NATO's response.

Additional measures taken by the alliance to guarantee the integrity of its eastern border include the tripling of the size of the NATO response force and increased air and naval presence in the Baltics. Additional funding has also been allocated to the Pentagon's European Reassurance Initiative, initially a one-year project focused on building US capacity in Eastern Europe through increased investment across five categories: presence, training and exercises, infrastructure, prepositioned equipment, and building

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[11] Katz, Benjamin D. "Baltics States Have Doubled Arms Spending Since Putin's Advance." Bloomberg.com. October 19, 2016. https://www.bloomberg.com/news/articles/2016-10-19/baltics-states-have-doubled-arms-spending-since-putin-s-advance

[12] "Trip-wire deterrence." The Economist. July 02, 2016. http://www.economist.com/news/europe/21701515-ageing-alliance-hopes-russia-will-get-message-it-serious-trip-wire-deterrence

partner capacity.[13] However, there are still concerns that this is not enough. Studies of Russian and NATO capabilities in the region have concluded that without an increase of over sevenfold in manpower, Russia would be able to take the capitals of Estonia and Latvia within five days.[14] Russia is also significantly ramping up its presence in Kaliningrad, further developing a threat to NATO's flank. This continuous escalation is having a negative impact on geopolitical stability, and the alliance needs to decide its realistic level of commitment is to its eastern frontier, and demonstrate that commitment.

Questions for Discussion

1) Is the current NATO deterrent in the Baltic States effective and sufficient?

2) In the event of invasion that avoids military bases, would NATO soldiers be actively sent out to engage?

3) What else can NATO do to reassure its easternmost member states of its commitment to their security?

Further Reading

If Russia Started a War in the Baltics, NATO Would Lose — Quickly
http://foreignpolicy.com/2016/02/03/if-russia-started-a-war-in-the-baltics-nato-would-lose-quickly/

Securing the Nordic-Baltic Region
http://www.nato.int/docu/Review/2016/Also-in-2016/security-baltic-defense-nato/EN/index.htm

Soviet Occupation of the Baltic States
https://en.wikipedia.org/wiki/Occupation_of_the_Baltic_states

The European Reassurance Initiative
https://www.csis.org/analysis/european-reassurance-initiative-0

Tripwire Deterrence
http://www.economist.com/news/europe/21701515-ageing-alliance-hopes-russia-will-get-message-it-serious-trip-wire-deterrence

[13] Cancian, Mark F., and Lisa S. Samp. "The European Reassurance Initiative." Center for Strategic and International Studies. February 9, 2016. https://www.csis.org/analysis/european-reassurance-initiative-0
[14] De Luce, Dan. "If Russia Started a War in the Baltics, NATO Would Lose - Quickly." Foreign Policy. February 3, 2016. http://foreignpolicy.com/2016/02/03/if-russia-started-a-war-in-the-baltics-nato-would-lose-quickly/