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DEPARTMENT OF THE NAVY NAVAL POSTGRADUATE SCHOOL MONTEREY, CALIFORNIA 93943

11 DEC 2015

MEMORANDUM FOR RECORD

SUBJECT: EXECUTIVE SUMMARY: High North Wargame

1. **Purpose:** The purpose of the High North seminar wargame was to identify likely Russian courses of action and the use of hybrid warfare at the diplomatic/strategic level necessary for Russia to establish dominance of the Arctic. The wargame illuminated potential Russian actions that could be used without crossing the NATO Article 5 thresholds. Additionally, potential NATO responses and exploitable weaknesses within the NATO coalition, combined with current capability gaps were identified that could become a hindrance to the development of a comprehensive and effective response to Russian courses of action. This wargame was sponsored by the SOCOM J3-International.

2. **Background:** Human activities have increased in the Arctic due to the melting of sea ice and as such there is a heightened interest in the region. Record low extents of Arctic sea ice over the past decade have focused scientific and policy attention on links to global climate change and projected ice-free seasons in the Arctic within decades. The five Arctic coastal states—the United States, Canada, Russia, Norway, and Denmark (of which Greenland is a territory)—are in the process of preparing Arctic territorial claims for submission to the Commission on the Limits of the Continental Shelf. Changes to the Arctic brought about by warming temperatures will likely allow more exploration for oil, gas, and minerals. Large commercial fisheries exist in the Arctic. Although there is significant international cooperation on Arctic issues, the Arctic is increasingly being viewed by concerned countries as a potential emerging security issue. This security issue stems from the geographic importance and potential capability of military use within the High North such as permanent basing options, power projection, large force exercises and the extension of global reach.

3. Findings:

A. Russian Actions & Observations

- I. Russia will use benevolent Arctic proposals and initiatives to distract attention away from tactical and operational measures designed to strengthen their position in the Arctic.
- II. Russia will attempt to exploit any opportunity available to exert its influence in the Arctic.
- III. Russian Information Operations will be maximized in order to highlight Russian capabilities and expose flaws of other concerned countries both singularly and collectively as an alliance (i.e. NATO).

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- IV. Russia will continue to exert their power over neighboring Scandinavian countries in order to exploit vulnerabilities within the alliance and create additional room for maneuver.

B. NATO Actions & Observations

- I. Canadian claim to the Northwest Passage is a national sensitivity, and a dispute with other NATO partners (U.S. in this game) which can be leveraged by Russia to drive a wedge between Canada and other NATO partners.
- II. NATO Arctic States will not immediately look to NATO to resolve its Arctic disputes but would rather handle most of them bilaterally with Russia/other states.
- III. NATO states will avoid strong responses to Article 5 triggers and look to diffuse and de-escalate any of these events.
- IV. NATO/Arctic states will passively accept Russian and Chinese dominance of the Arctic citing that it is economically unsustainable.

C. General Actions & Observations

- I. All Arctic players agreed that there should be an international information sharing database to track and regulate the details of ships transiting the Arctic.
- II. The Arctic Council will be preferred over NATO as the primary forum to handle Arctic disputes. Over reliance on NATO can potential weaken NATO deterrent options in other regions.
- III. China clearly has a commercial interest in the Arctic such as using the Northern Sea Route (NSR) and investing in commerce and ports.
- IV. USSOCOM can benefit from fostering a relationship with the Arctic Council. Current Arctic Council Chair is U.S. and will be until 2017. This involvement may afford the United States and USSOCOM the potential to be on the forefront of identifying emerging requirements and provide an opportunity to develop future courses of action.

4. Future Research Questions:

- A. What is the economic threshold for Arctic development to become unprofitable?
- B. Can SOF be employed to make Arctic development more expensive for Russia and force an overexertion of Russian resources elsewhere (within the region or globally)?
- C. Is there a legitimate requirement for SOF personnel, equipment, and capabilities that are able to quickly deploy to and operate in an Arctic environment?
- D. Will Russia's permanent military presence in the Arctic afford a comparative advantage?

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OA4608 Wargaming Applications
10 December 2015

Subject: Final Report of High North Wargame

From: Team High North, OA4604 Wargaming Course, Naval Postgraduate School

Appendix:

- A. Scenario Charts
- B. Data Collection Management Plan
- C. Facilitator Guide
- D. Scenario Game Map

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1. Purpose. The purpose of this seminar wargame was to illuminate likely Russian courses of action throughout their use of hybrid warfare in establishing dominance of the Arctic without crossing the NATO Article 5 thresholds. A partner objective was to identifying feasible NATO responses, exploitable weaknesses within the NATO coalition, and current capability gaps that would prevent a comprehensive and effective response to Russian courses of action. This wargame was sponsored by the SOCOM J3-International. This memorandum provides the analysis background, framework, findings, and key takeaways that resulted from the developed wargame.

2. Background. The diminishment of Arctic sea ice has led to increased human activities in the Arctic, and has heightened interest in, and concerns about, the region's future. Record low extents of Arctic sea ice over the past decade have focused scientific and policy attention on links to global climate change and projected ice-free seasons in the Arctic within decades. The five Arctic coastal states—the United States, Canada, Russia, Norway, and Denmark (of which Greenland is a territory)—are in the process of preparing Arctic territorial claims for submission to the Commission on the Limits of the Continental Shelf. Changes to the Arctic brought about by warming temperatures will likely allow more exploration for oil, gas, and minerals. Large commercial fisheries exist in the Arctic. Although there is significant international cooperation on Arctic issues, the Arctic is increasingly being viewed by some observers as a potential emerging security issue. Some of the Arctic coastal states, particularly Russia, have announced an intention or taken actions to enhance their military presences in the High North (See Appendix A).

The wargame was conducted as a seminar with role players representing the key states with Arctic interests. A scenario was established based on current Arctic realities in 2015 and advanced in five year increments through 2025 based on projected build-up. Five scenario “injects” were used by moderators to facilitate discussion of actions and counter-actions of the wargame players. (See Appendix A).

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3. Analysis Methods. The analysis team recorded all feedback and interaction from players during and after the wargame. The data collection and management plan included all the sub-issues and key information requirements to answer the sponsor's objective (See Appendix B). Data collectors conducted private interviews with players as required in order to understand the reasoning behind their actions when not explicitly stated. Upon conclusion of the wargame, a Quick Look Report and Back Brief was conducted by the analysis team with the players to confirm their actions and lines of thought. Following the Quick Look Report, the High North Wargaming Team conducted a deeper and more detailed analysis of all data collected during the game (See Appendix C for facilitator's guide).

4. Analysis Findings.

A. Russian Actions & Observations

1. Russia will use benevolent Arctic proposals and initiatives to distract attention away from tactical and operational measures designed to strengthen their position in the Arctic

During game play Russia proposed an agreement to make the Arctic a "Nuclear Free Zone" knowing that the U.S. submarines are far more superior than Russian submarines. The purpose of this proposal was to distract Russia's adversaries and provide space for other efforts. An unexpected result was a display of Russian leadership on Arctic conflicts, marked by environmental concerns and de-escalation. Decelerations such as this have the potential of gaining the support of NGOs and the populations of concerned states.

Russia also proposed to take lead on further developing Search and Rescue (SAR) infrastructure. This would require cooperation amongst coastal states and the development of SAR specific boundaries based on capabilities instead of sovereign claims. Russia saw this as an opportunity to justify expanding its operations and way to reinforce its current claims. Russia strengthened this proposal by co-opting China.

The USSOCOM J3I can play a role in averting such a situation by participating in SAR planning, assessments and exercises in the Arctic. This will deny Russia the opportunity to exploit a gap under the guise of protecting human life.

2. Russia will attempt to exploit any opportunity available to exert its influence in the Arctic

The ethnic Russian population of Svalbard quickly became a focus of all players. Coastal states proposed that a team of international observers should be placed on the island to prevent any flare ups. Russia demanded to be a part of the observation team. Russia believed that the ability to position an official on the island would help facilitate future subversive actions.

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3. **Russia will rely heavily on Information Operations**

Throughout the wargame Russia used every opportunity to push IO themes stressing US and Coastal State impotence and lack of leadership. Russia was also able to divert US and partner force assets from the Arctic area.

In response to an injected Islamic terrorist attack against ethnic Russians in the Baltics, Russia announced concern for all ethnic Russians. This was sufficient enough to cause NATO states to focus on resolving the Baltic situation and prevent a replay of the Ukraine. Russia players confirmed that their intentions were to exploit the inject to draw attention away from the arctic.

In response to an inject regarding a Chinese oil tanker sinking and causing a massive oil spill, Russia accused the US of ultimately targeting the ship and being a cause of the sinking. China demands that institutions be developed to handle such incidents. This led to an agreement between Russia and China to begin building SAR infrastructure, citing the lack of US and partner nations involvement and the need to execute the measure despite any other assistance.

B. NATO Actions & Observations

1. Canadian claim to the Northwest Passage is a national sensitivity, and a dispute with other NATO partners (U.S. in this game) and can be leveraged by Russia in the attempt to drive a wedge between Canada and other NATO partners.

Canada reaffirmed its claim to the Northwest Passage. This immediately caused friction between coastal NATO partners. Russia attempted to exploit this by acknowledging Canada's claim as valid.

2. NATO Arctic States will not immediately look to NATO to resolve its Arctic disputes, but would rather handle most of them bilaterally with Russia or other states in order to expeditiously resolve conflicts.

During the Russian nuclear submarine in Canadian waters inject, a distress call was initiated after losing power, and was caused by unexplained detonations. The US and Canada quickly sought to de-escalate the situation and prevent the incident from being labeled as an Article V violation. Russia attributed the incident to faulty navigation.

3. NATO/Arctic states may rely on a belief that Russian and Chinese development in the Arctic is economically unsustainable.

Throughout the game Russia continued to expand its bases and operations. Canada and the US eventually stated that they will allow Russia to "bankrupt itself on the Arctic."

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If this theory is valid there may be an opportunity to accelerate Russia's expenditures in the Arctic. By conducting surveys and exercises with SOF personnel in the region, false signals can be sent to Russia, stimulating Russia to exert more control and exhaust its self economically.

C. General Actions & Observations

1. All Arctic players agreed that there should be an international information sharing database to track and regulate the details and locations of ships transiting the Arctic.
2. By fostering a relationship with the Article Council USSOCOM can be better prepared to counter Russia's actions in the Arctic.
3. China is likely to have a significant influence in the Arctic.
-Although the wargame did not indicate Chinese military interest in the Arctic, they signaled commercial interests such as using the Northern Sea Route (NSR) and investing in commerce and ports. These activities may have a side effect on environmental issues that may be able to fix resources in the Arctic region.

5. Research Areas for Further Analysis.

- What is the economic threshold for Arctic development to be profitable?
- Can SOF be employed to make Arctic development more expensive for Russia?
- Is there a legitimate requirement for SOF forces, equipment, and capabilities that are able to quickly deploy to and operate in an Arctic environment?
- Will Russia's permanent military presence in the Arctic allow them to gain a comparative advantage through experience?

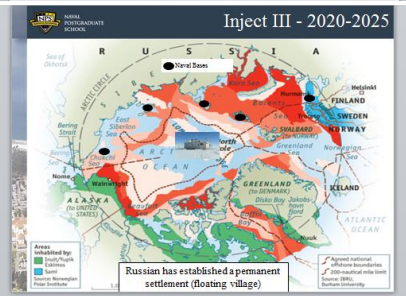
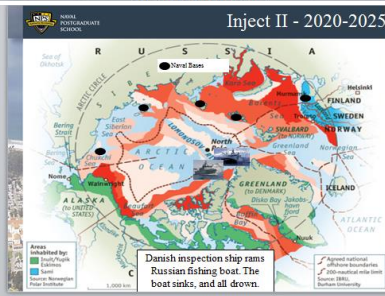
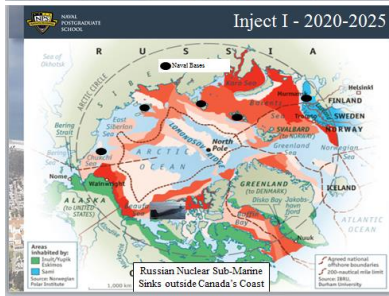
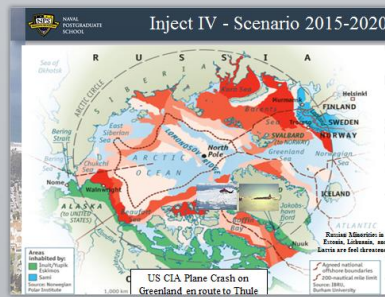
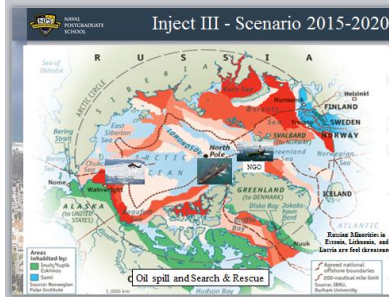
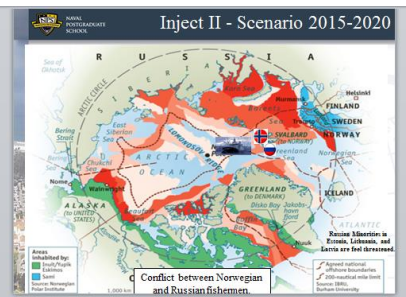
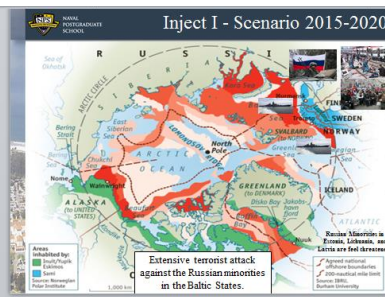
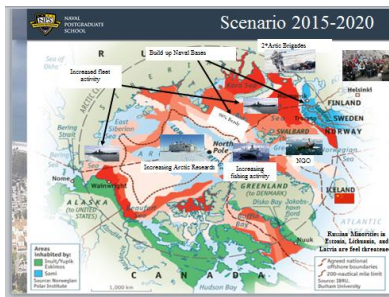
6. Conclusion

The 11-week study, development and execution of the High North Wargame yielded significant data points that have long term predictive value. Efforts should be made to ensure deficiencies such as SAR are clearly delineated in order to deny Russia the opportunity to exploit them in the future. An inherent over reliance on Article V triggers in the Arctic can potentially weaken NATO's credibility in other theaters. Additionally, coastal NATO states will decidedly choose to use the Arctic Council as a forum to handle Arctic concerns while USSOCOM must remain and invest in becoming a viable member in the discussions led by the Arctic Council in order to counter future Russian efforts.

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APPENDIX A: SCENARIO BREAKOUT



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APPENDIX B: EXAMPLE DATA COLLECTION MANAGEMENT PLAN

Data Collection and Management Plan – Countering Russian Aggression in the High North							
Sponsor's Objective: Address Russian courses of action in executing hybrid warfare doctrine within the Arctic while simultaneously identifying NATO responses and exploitable weaknesses/capability gaps							
Issue No	Issue	EIA No	Essential Benefit/Analysis	MON/No	Measure of Effort	Event/Event Object	MMT Support
1	Russia attempts to secure economic objectives and resources	1.1	D-1-M-E: Which instruments will Russia use to achieve OBI?	1.1.1	Obtain Russian DIME instruments used to secure objectives	1) Russia establishes a SAR focused base w/ice of Omoroso Ridge, and conducts SAR exercises, some of these exercises are fronts for further research and exploration	Map placement, Game piece, BPT prime Russian IO efforts
		1.2	Will NGOs play a role? Will Russia manipulate them?	1.2.1	What methods can be used to co-opt them	Russia contributes a significant amount of funding to Foundation for Arctic Inuit Peoples (FAIP) Russian researchers are deployed to Greenland to identify ways to create economic stability for the natives, Greenland welcomes the NGO	
		1.3	What endstate does Russia expect from this?	1.3.1	Will this feasibly increase Russian GDP or increase Russia's ability to future negotiating position		Within the military portion of the DIME, what current capabilities do USSOCOM and NATO SOP partners have to contribute?
			Will Russia try to fracture NATO, cause infighting or disagreement, distract NATO resources? If so how?	1.3.2	What external events can be accelerated to detract from NATO's ability to respond? Will Russia try to redirect a NATO focus on the Baltic states?		What are the current friendly/capability gaps to each Russian theater COA? DIME or SOCOM specific?
2	What are the exploitable weaknesses within NATO?	2.1	What existing disputes within NATO and Partners for Peace (PfP) prevent a cohesive NATO response to Russia?	2) US (Canada dispute over NW passage, 2) Greenland/Denmark economic agreement (Greenland has some autonomy on this)	Existing disputes or new potential disputes (ethnic Russians in Poland? Baltics? Georgia?)	1) Russia conducts geo surveys in the Russian/NOR disputed area massive ex through the NOR/Russia disputed area, claiming freedom of navigation and SAR. 2) Russia conducts a Mass Russian IO campaign in Poland and Georgia targeting ethnic Russians.	
			Where can Russia take actions to distract NATO resources away from the Arctic?			Russia establishes semi-government SAR bases in XXX, XXX, XXX, providing extras capabilities to all vessels in the area.	
			Are there capability Gaps that NATO needs to sure up to prevent Russia from being the answer? i.e. SAR				
3	What offensive or preemptive/preventive measures could be employed against Russian/Chinese interests in the Arctic?	3.1	What does SOP have/need to contribute to this?				
		3.2	How could SOP forces and influence be employed in the gray zone?				
4	Russia attempts to secure Strategic objectives? First strike and second strike?	1.1	D-1-M-E: Which instruments will Russia use to achieve OBI?			During a mid sized exercise Russian A2 and CSM equipment is identified in XXX, Russia claims that the equipment is being tested and no live munitions were present.	
		1.2	Will NGOs play a role? Will Russia manipulate them?				
		1.3	What endstate does Russia expect from this?				
			Will Russia try to fracture NATO, cause infighting or disagreement, distract NATO resources? If so how?				
5	Chinese Economic interests, rare earth elements, minerals, north eastern passage		Will Chinese pursuit of these OBI affect NATO?		How can China invest in Greenland, Iceland	China begins building a clean energy plant in Greenland as PFI, of an economic agreement to provide mining capabilities	China projects that 10% of their trade will go through the NW passage worth approx. 700B per year in 2020
			Can Russia leverage Chinese interests against NATO?				

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APPENDIX C: SAMPLE FACILITATION GUIDE FOR ARCTIC WARGAME SCENARIO

1. 2015-2020 Fishing & Exploration

- a. Encroachment of Denmark, Norway
- b. Thresholds of response
- c. Vessel association and personnel
- d. Proximity of Norway/Denmark landmass that would require a calculated response of some sort
- e. How do the actions of each, Norway/Denmark impact each other – who would take the lead
- f. Is there an associated tripwire
- g. As fishing, exploration expands – pushes further along the US/Canadian border – same general questions
 - i. Thresholds of response
 - ii. Vessel association and personnel
 - iii. Proximity of US/Canada landmass that would require a calculated response of some sort

*2015-2020 INJECT II: CONFLICT BETWEEN NORWAY AND RUSSIAN FISHING VESSELS

2. *2015-2020 INJECT I: Attack in Baltics – unknown/Media/Green Men/NGO

- a. Along border of Russia
- b. Cause – unknown – either terrorist related or uprising of Russians within area to stir chaos and turmoil (distraction) for other global efforts
- c. Impact of NATO – force allocation, prioritization against Arctic efforts
- d. Denmark, US, Canada - involvement
- e. China exploration efforts increase in the Arctic

3. *2015-2020 INJECT III: Oil Spill/Media/Propaganda/Info Ops

- a. A Norwegian fishing vessel (based from Svalbard) collides with an oil platform at location XXX
- b. Causes Oil Spill in region
- c. Russia immediately takes the lead in rescue/clean-up efforts – seen across the globe as helpful
- d. Simultaneously, inspections ramp up at the Northwest Passage blockade – subversion/diversion
- e. Dynamics for all the players involved
- f. Creates challenges/havoc across the spectrum

4. (2020-2025) Fleet Expansion/Inspection/Blockade Scenario

- a. Russian vessels begin to mass at Wrangle Islands
- b. Fishing and Exploration continues at new levels – in multiple regions
- c. Simultaneous media coverage broadcasts that Russia's claims in the region are becoming substantiated – lends Russia to taking more aggressive actions
- d. Chinese vessels begin flowing in
- e. Talks of Russia imposing a check point in the NW passage area to ensure vessel compliance with all economic laws, regulations
 - i. Russia seeks help from NATO to assist in joint boat inspection
 - ii. If NATO complies, they condone – if they do not, Russia goes at it alone.
- f. Responses
 - i. NATO
 - ii. US
 - iii. Canada
 - iv. Others

*2020-2025 INJECT I: Russian Nuclear Submarine Sinks off the coast of Canada

5. (2025-2035) Lomonosov Ridge usable, Russian claims ownership– continued build-up/Media/Info Ops

- a. Mining continues - Greenland
- b. Russia to buy into mining within Canada
- c. Building along the Lomonosov Ridge – access now ensures over 50% of the Arctic, under Russian influence/control

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d. Tripwires associated?

APPENDIX D: EXAMPLE 5' X 6' MAP GRAPHIC USED FOR SEMINAR WARGAME

