



Energy Security: Operational Highlights

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Contens

3 Editorial

DR. ARŪNAS MOLIS

4 New Scenarios for the Arctic: Hot Developments in the High North

FLORINDA GIACOMELLI

Global attention to the Arctic has grown in the last years: Arctic countries (and non-Arctic countries) have developed new security policies, military operations in the Arctic region are intensifying, and possibilities of potential crises are discussed in the media. Is there any role for NATO in all of these developments?

10 Fast-track Exports of US Shale Gas for NATO?

CHRIS WAGNER

US legislation has been introduced that would expedite LNG exports to NATO Member States. What are its prospects and what else can NATO do to enhance its members' energy security?

15 Harmonization of NATO's Education and Training Policy - any Role for Partners?

KIRIL ŠAMARIN,
CAPT. REMIGIJUS ŽILINSKAS

While looking for possibilities to engage with NATO partners on the strategic level, ACT's Joint Force Trainer has positioned itself as NATO's authority for military education and training. What is the potential impact on Partners' input into the Alliance's education and training system?

Editorial

Created on July 10 and accredited on October 12, 2012, the NATO Energy Security Centre of Excellence (ENSEC COE) currently operates as a widely recognized international military organization with the aim of providing qualified and appropriate expert advice on questions related to operational energy security. In other words, Lithuania (as a framing nation) together with Estonia, France, Italy, Latvia and Turkey are doing everything possible to transform scientific research, the organization of training activities, and the contribution to exercise planning and essential documentation in the area of operational energy - engaging in activities that will produce tangible results. It seems that their efforts are well perceived in the Alliance - new countries are considering joining the Centre, NATO bodies are keen to request its support, and Partner countries are identifying new opportunities for cooperation with NATO through the newly established COE.



Given that NATO ENSEC COE finds its origins as a national Energy Security Center under the Ministry of Foreign Affairs of Lithuania, some of its practical deliverables will also be built on previous work and traditions. One of the fields in which joint international efforts will be adding fuel to an existing initiative is the “Energy Security: Operational Highlights” journal. Stemming from the national monthly journal (which in 2011-2012 covered more than 45 relevant topics in 20 volumes) this bimonthly journal is expected to become a NATO ENSEC COE trademark, involving founders and partners of the Centre in a deeper discussion of operational energy related issues. “Energy Security: Operational Highlights” will be accessible to interested parties through electronic and hard copies.

The first volume of “Energy Security: Operational Highlights” reflects on some important hopes cherished by everyone involved in the preparation of this first volume. First, we sincerely expect that this publication will become part of an agreed approach to provide added value in an uncovered area, in addition to all other activities pursued by NATO ENSEC COE. Second, we hope to make it no less representative, catchy and disabusing as its predecessor “Energy Security Highlights” was. And third, despite its sole focus on operational energy issues, we share a feeling that this new journal will constantly evolve by continuing to address new technological solutions and management decisions at all levels and thus ensuring that there will not be a shortage of material for deeper analytical insights.

In this volume my colleagues at the NATO ENSEC COE concentrate on three important issues: developments in the High North, the possibility of preferential conditions in the US for the export of LNG to NATO member states and the role of Partners in improving NATO's education and training system. ■

Dear reader,

We hope that with your support, we will be able to develop a suitable “business model” for collaboration in the area of operational energy security, and that “Energy Security: Operational Highlights” will contribute to the agenda as much as possible. While for now - enjoy reading our new journal!

Regards,

A handwritten signature in black ink, appearing to read 'A. Molis', with a stylized flourish at the end.

DR. ARUNAS MOLIS
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New Scenarios for the Arctic: Hot Developments in the High North

FLORINDA GIACOMELLI

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Arctic countries have always watched their northern borders closely, particularly the development of policies and economic activities in the High North. The conference "Arctic Frontiers" has given a new international dimension to this debate.

From the 20th to the 25th of January, the city of Tromsø hosted the 7th session of this international congress. The title of this year's program was: "Geopolitics & Marine Production in a Changing Arctic"; two themes that together with the energy resources in the region have progressively gained more and more attention during recent years.

Particular attention in the conference was paid to the evolution of security and military dynamics in the Arctic region. Which are these dynamics? Why has the Arctic become so "hot"? And what could NATO's role in the region be?

Why the Arctic, and why now?

In July 2008, the US Geological Survey published the "Circum-Arctic Resource Appraisal", a study stating that undiscovered Arctic hydrocarbons resources are estimated to equal 22% of the world's discovered resources: 13% of oil and 30% of gas. This important discovery has little significance without the possibility to exploit the fields located under the ice cap. However, global warming is increasing the possibility to exploit these hydrocarbons like never before. An EU Commissioner recognized as much at this year's Arctic Frontiers conference: "Last summer the sea ice extent was at its lowest since satellite observations started. And according to [a study of] the World Meteorological Organization, the size of Arctic sea ice that melted in 2012 was three times the size of the EU".¹

The combination of these two facts (huge amounts of hydrocarbons and the melting ice cap) has brought many new challenges and rich opportunities in the region, not only for the five littoral Arctic states (the so-called Arctic-five: USA, Canada, Russia, Denmark (Greenland) and Norway) but also for other state and non-state actors interested in the region. Human activity above the Arctic Circle has increased and the results of the two aforementioned studies have rekindled international attention to the Arctic question on the international stage. Since 2008 we have seen increasing media coverage on the region and a growing public interest on the topic. Most influential newspapers and journals have written about the developments in the region during recent months: The Guardian, The Financial Times and The Economist, to mention a few. The High North also has NATO's attention. In order to provide the basic knowledge on this topic within the NATO context, the organization created a LibGuide in its Multimedia Library entitled "Arctic security" and the NATO Review of February 2009 was entitled "The Arctic: Too Hot to Ignore?". In general, discussion related to the topic can be grouped into four parts: 1) Energy resources; 2) new maritime channels; 3) international legal framework and; 4) NATO and military developments. The same logic will be applied to this short analysis on the "Arctic issue".

¹ Maria Damanaki, Commissioner for Maritime Affairs and Fisheries at the European Commission, at "Arctic Frontiers" 2013

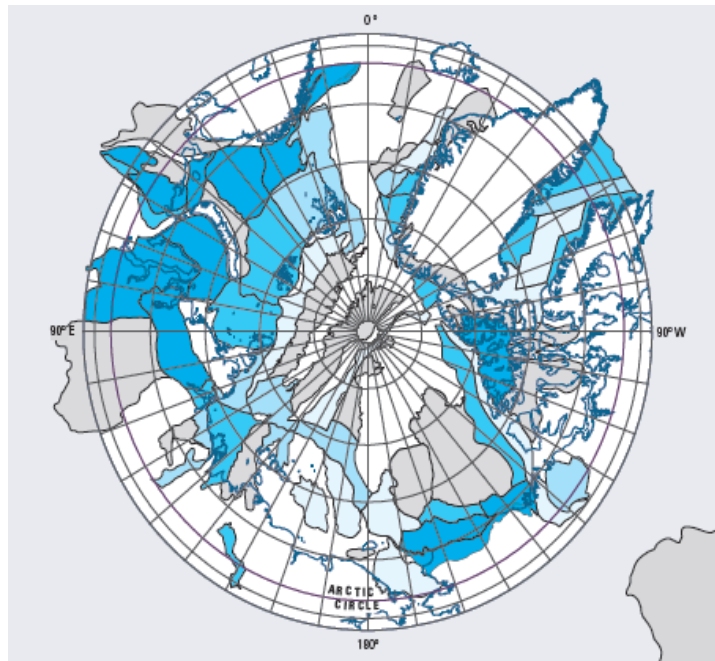
EVENTS ON THE ARCTIC

- "Arctic summit. A new Vista for Trade, Energy and the Environment" organized by The Economist, March 12th, Oslo
- "9th Annual Polar Technology Conference", 2nd-4th April, Annapolis, Maryland
- Meeting for the 75th anniversary of the American Polar Society, titled: "The Polar Regions in the 21st Century: Globalization, Climate Change and Geopolitics", 15th to 18th April, Woods Hole, Massachusetts
- Multidisciplinary conference "Understanding the North", 25th-26th April, Umea, Sweden

Energy resources

The map in Picture 1 shows the probabilities of finding oil and/or gas fields in the Arctic region. The mineral wealth of the region is enormous, with large deposits on the Euro-Asian side of the Arctic. This is the key to understanding the renewed attention towards the region whose richness in hydrocarbons could transform itself into the new economic frontier of the 21st century. Much research has been conducted in this field aiming to measure storage volume and the results do not differ significantly. The fields off the Russian shore are the most resource-rich in the Arctic, followed by Canada, Norway, US and Greenland. In total, Arctic hydrocarbons are estimated to be approximately 90 billion barrels of oil, 1670 trillion cubic meters of gas. The possibility of exploiting this energetic Eldorado is the general belief that is

pushing the largest mining companies to invest in expensive research in the Arctic, which also presents these countries with a big policy dilemma. First, there is the awareness that the possession of energy resources confers great economic potential and can be a “soft power” tool at the international level. Second, the technologies needed to exploit these resources are very expensive and require a high level of expertise and are not equally available in all countries but could be easily obtained via international agreements or strengthened collaboration between drilling companies in the Arctic.



Picture 1: Probability of the presence of at least one undiscovered oil and/or gas field. Source: USGS “Circum-Arctic Resource Appraisal”, 2008

Maritime channels

The Arctic Ocean has two main sea routes that are open to shipping for about five months per year with the help of icebreakers: the Northern Sea Route and the Northwest Passage (see map below). Because of global warming, the ice-cap will most probably continue to



Picture 2: Arctic map and ice melting. Source: The Economist www.economist.com

shrink and the Arctic maritime channels might become the major conduit for international shipping. A recent study by the University of California stated that it would be possible to sail directly over the North Pole by 2050, just with the use of ice-strengthened ships. This means that a medium-sized bulk carrier will be able to travel from northern Norway to China cutting about the 40% of fuel consumption and reducing navigation time by one-third in contrast to travel through the Suez Canal.

The perspective of an ice-free and navigable Arctic raises the issue of the ownership of shipping channels. In 2009, the Canadian House of Commons renamed the Northwest Passage the “Canadian Northwest Passage”, claiming it to be an internal shipping channel. During the same year, the Russian Federation proclaimed that the Northern Sea Route is a national transportation link, subject to national taxation. The taxation of these new shipping ways could create other risks in the region. The problem originates with ambiguity in international law, which should be clarified as to whether a country can unilaterally claim ownership of an important international maritime route. Will existing and potential Arctic shipping routes be considered international or will they be subject to national taxation regimes? These are issues that should be considered as the already tense situation in the Arctic continues to develop.



For more information about the Arctic Council and its activities visit the official website:

<http://www.arctic-council.org/index.php/en/>

International legal framework

The territories beyond the Arctic Circle have proven their strategic relevance since WWII and particularly throughout the Cold war. During the forty years of East-West confrontation, it was the shortest route through which the two superpowers USA and USSR might have faced. The most advanced military technologies such as nuclear submarines, long range bombers and missiles were settled on or beneath the thick permanent ice. After the collapse of the Soviet Union and thanks to the disarmament pacts, the Arctic region lost part of its security relevance. This lasted until the beginning of the 21st century. Now high hydrocarbon resource potential and the possibility of new shipping channels underpin the increasingly political and military dimensions of the region. These contentions in the Arctic present a double problem: is the existing international law on the topic adequate to solve them? And which are the international organizations are capable to solve them?

During the last decade, a number of countries (Iceland, Norway, Russia and soon Canada) submitted a request of recognition of a 200-mile exclusive economic zone (EEZ) based on continental shelf studies. These claims are founded on and regulated by a legal framework provided mainly by the UN Convention on the Law of the Sea (UNCLOS). The document has not been ratified by all of the Arctic-five (the US have not signed the Convention), leaving space for new territorial claims. Another document, the Illulissat Declaration, was signed on May 28, 2008 by all the Arctic littoral countries with the aim of preventing future conflicts in the area by expressing the consensus that all Arctic states “remain committed to this legal framework [the UNCLOS] and to the orderly settlement of any possible overlapping claims”. This political declaration can be considered only as a partial success. Even though the attempt to strengthen cooperation and mutual trust is clearly stated, the document delegates the solutions of eventual disputes to other international organizations such as the UN and the Arctic Council.

The Arctic Council is the main international organization for the Arctic: a “high level inter-governmental forum to provide means for promoting cooperation, coordination and interaction among the Arctic States”.²

² Arctic Council website

It works with the consensus of the eight member states: the five littoral ones plus Sweden, Iceland and Finland, the other participants to the Council's activities are six other countries and many international actors that enjoy observer status.

The activities of the Council are mainly devoted to environmental protection, biodiversity preservation and the well-being of the Arctic peoples, which are planned through declarations adopted at bi-annual ministerial meetings. Despite lacking a regulatory mandate, the Arctic Council has achieved significant results in many fields like environmental protection and cooperation on aeronautical and maritime search and rescue missions. It is not a forum for the resolution of security issues, and actually there is no specific organization currently overseeing security issues in the Arctic.

Thus, in the near future when the rich Arctic resources will be easily accessible through new shipping routes, enabling fast trade, the inefficiency of international law and the lack of a well-defined institutional framework could lead to arbitrary decisions and military aggression.

MILITARY EXERCISES IN THE ARCTIC IN 2012

■ From March 12-21: Cold Response 2012

The annual Exercise Cold Response is a high intensity operation in winter conditions within NATO with a UN mandate. Norway led the exercise last year, which saw the participation of more than 16,000 soldiers coming from 14 different nations, including Canada, France, the Netherlands, Great Britain, Sweden and the United States. During Cold Response¹², participants trained to deploy and use "military reaction forces in an area of crisis where they had to handle everything from high intensity warfare to terror threats and mass demonstrations" balancing the use of diplomatic and military forces.

■ From May 11-16: POMOR 2012

POMOR is an annual international exercise operation that brings together Norwegian and Russian naval forces to practice search and rescue operations. Last year the Russian destroyer Admiral Chabanenko and the Norwegian frigate Fridtjof Nansen participated with air support from a Russian Ka-27PS helicopter and the Norwegian patrol airplane Orion. In total the exercise consisted of over twenty combat training activities including firing drills.

■ From August 1-September 17: Operation Nanook 2012

Operation Nanook is the main annual northern operation conducted by Canadian forces. It challenges the national and international participant' to operate in the difficult Arctic environment. During the operation, Canada deployed air, land and sea forces together with international participants such as the US National Ice Centre, Royal Danish Navy Greenland Command, HDMS Triton and the United States Coast Guard Juniper. The main goal of the operation was to improve "the effectiveness of the Government of Canada's response to public safety and security incidents in the Arctic".

■ From August 22-25: Northern Eagle 2012

"Northern Eagle" is the only naval exercise that sees USA, Russia and Norway working together. The aim of last year's exercise was to practice counter-terrorism cooperation through search and rescue naval operations in the Arctic Ocean.

NATO and the military developments in the Arctic

As illustrated above, the changes in the Arctic reality bring with them a military component that should be taken into account.

During the “Seminar on Security Prospects in the High North” hosted by the Icelandic Government in January 2009, former Secretary General Jaap de Hoop Scheffer stated that “the changes caused by the progressive melting of the ice cap are of concern to many countries beyond those of the Arctic Council and NATO. Indeed, the whole of the international community stands to be affected by many of the changes that are already taking place. In this situation, NATO needs to identify where the Alliance, with its unique competencies, can add value”.

NATO could be a suitable international forum where member states and Partners would discuss military developments in the region. However, in order to understand whether and how the Alliance could play a role in the Arctic, there should be at least a common ground policy regarding the subject that is currently lacking. Instead, military activity in the area is increasing with each Arctic state developing its own specific strategy for the region, all of which focus on improving equipment and operational techniques for facing extreme cold weather conditions. Most of these operational techniques are tested during international training exercises, also within the NATO framework. Above is a list of the main training camps that took place last year in the High North and their participants.

Possible scenarios in the Arctic and the role of NATO

During the Northern European Chiefs of Defense meeting last October, Admiral James G. Stavridis, Commander of US European Command and NATO Supreme Allied Commander, Europe (SACEUR) said that the melting of the Arctic ice cap opens new opportunities, as well as risks and challenges, which will require increasing cooperation among the nations of the region. He added: “We need to ensure this open space becomes a zone for cooperation, not a zone of confrontation”. With this statement Admiral Stavridis succinctly presented the two opposite scenarios that we could foresee in the Arctic, where, unfortunately, a peaceful evolution is not the only possible trajectory of events. The increasing military activity in the region demonstrates that the Arctic nations will be ready for “hotter” scenarios should political cooperation appear unsuccessful.

There are many sources of instability in the region: the race to the Arctic resources and huge national interests, such as unsolved sovereignty disputes, national security, maritime channel ownership and fishery rights. All that should be added to the general tension between the USA and Russian Federation regarding NATO’s expansion eastward. “NATO remains uncertain about its role in the Arctic and Russia will continue to look on the alliance with suspicion”, concluded a recent study of the University of Calgary “Climate change & International security: The Arctic as a Bellwether”³ and recent Russian declarations seem to confirm this opinion. Russia remains the nation with the highest expertise in Arctic technologies and strategic capabilities; it has clearly stated its interest in the region and developed what might be considered an aggressive policy in the area. “The Arctic is ours, and we should demonstrate our presence”⁴ declared the Deputy Chairman of the Russian Duma, Artur Chilingarov in 2007, during the mission the Russian flag was planted on the ocean’s

■ Last year, the NATO international exercise COLD RESPONSE coincided with the reelection of Vladimir Putin to the Russian Presidency. That was seen by top Russian officials as a provocation considering that the exercise came shortly after the announcement of the Russia’s new injection to modernize its military capabilities and the Northern Fleet. The Arctic issue is one of Putin’s main security and foreign policy priorities.

³ University of Calgary, “Climate change & International security: The Arctic as a Bellwether”, May 2012, available at: <http://www.c2es.org/publications/climate-change-international-arctic-security>

⁴ Reported by Max Delany in “Gas and Glory Fuel Race for the North Pole”, The St. Petersburg Times, July 31, 2007, available at: <http://www.sptimes.ru/CC609E2F-D35F-41C5-8128-39386ADE0B5B/FinalDownload/DownloadId-C099E0B3A283E5731FF66D5DA6C785FC/CC609E2F-D35F-41C5-8128-39386ADE0B5B/archive/pdf/1293.pdf>

floor at the Lomonosov Ridge (beneath the North Pole). The slow process of recognition of the 200-mile EEZ, a possible decrement of hydrocarbon supplies or the sudden rise in prices (many factors could impact that, including a crisis in one of the producing countries, the worsening of the financial crisis, etc.) could push any of the Arctic states to arbitrarily take possession of those resources.

This pessimistic scenario is foreseen by some newspapers who speculate on the possibility of a future conflict in the Arctic, some deeming it the “new Cold War”. However, they are too alarmist and run the danger of exacerbating existing tensions. A conflict in the Arctic is hardly and for sure not a desirable perspective for any of the actors involved. “Each of the Arctic nations has provided logical reasons for building new military forces, and has also strongly stated its desire to cooperate” continues the study of Calgary’s University. Even if the military activity in the Arctic has increased, most likely a cooperative institutionalist approach to the issue would prevail. Given the ongoing international economic crisis, the plans of the rim Arctic states for defense build-ups are secondary to welfare reforms and plans for reducing unemployment. Moreover, steps in favor of the peaceful resolution of the disputes have already been taken. A prime example of this was the agreement between Norway and Russia regarding maritime borders signed in 2010.

Nevertheless, the cooperative scenario in the Arctic is also possible. As stated by Katarzyna Zysk, Senior Fellow for International Security Policy at the Norwegian Institute for Defence Studies, “International cooperation, primarily regional, may not only be desirable, but, indeed, it may be the sole option in meeting challenges emerging in the vast and evolving Arctic security environment”⁵. In order to avoid potential disputes, a well-structured international environment could be beneficial for both state and non-state actors to discuss and plan cooperative policies for the region. The Arctic legal framework should be improved and the forward steps for the internationalization of the region should be conducted with care.

Another tool for cooperation might be the NATO Alliance itself. In its Strategic Concept 2010 NATO identified “New Emerging Security Challenges”⁶: climate change, terrorism, energy security, cyber-attacks, nuclear and missile proliferation. Even though the dynamic in the Arctic does not appear in this list, all of these topics could be related to the issue and in this context NATO could play a crucial role by promoting collaboration within the Arctic Council and strengthening its partnership with the Russian Federation and other actors interested in the area. The main task for building a peaceful future in the Arctic region is to avoid military posturing and a confrontation between NATO and Russia. In this regard, the inclusion of more states and international organizations into the debate could be very productive.

At its next 2013 Ministerial Meeting the Arctic Council will consider the application of many countries and organizations for the role of observers, including the People’s Republic of China, Japan, the Republic of Korea, the Republic of Singapore, the Republic of India, the European Union and Greenpeace. The relevance of including more actors in the Arctic dynamic as a tool for cooperation was already stressed by Admiral Giampaolo Di Paola, Chairman of the NATO Military Committee in 2009. He also suggested that NATO could be vehicle for the inclusion: “On one side it is right for NATO to reflect what is its role in this global problem. But on the other side if we focus too much on NATO then we inevitably run the risk to make a NATO-Russia issue and therefore a sort of a military threat, security threat. So let’s bring in, let’s enlarge the issue, because if you bring in not only Russia, but if you bring in China, if you bring in Japan, if you bring in Korea, if you bring in India, you really realize immediately that it is not a military NATO-Russia confrontation in the North as it has been in other areas”⁷. ■

■ Søren Gade the ex-Minister of Defence of Denmark was interviewed in 2009 by Paul King for the NATO Review “The Arctic: Too Hot to Ignore?”. About the relevance of Arctic resources he stated: “Due to the fact that there might be a lot of oil in this area, it is very high on the agenda in all nations, because actually you can be pretty rich if there is a lot of oil and it belongs to you, and you want to explore it. Maybe, not today when the oil barrel is \$40, but at \$140 it could make a difference.”

⁵ Katarzyna Zysk, “The evolving Arctic security environment: an assessment”, in “Russia in the Arctic”, Strategic Studies Institute, Stephen J. Blank Editor, July 2011

⁶ NATO Briefing, “Tackling New Security Challenges”, 2012

⁷ Admiral Di Paola interviewed by Paul King, “The Arctic: Too Hot to Ignore?”, NATO Review, February 2009

Fast-track Exports of US Shale Gas for NATO?

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As a result of technological advances in drilling techniques, the United States is experiencing an infusion of natural gas from shale formations, which has moved energy forecasts out of the red and into the black. This "Shale Gale" has shifted the focus from an import to an export strategy. Legislation has been introduced in the 113th United States Congress that would expedite review of applications to export LNG to NATO Member States. This article looks at the logic of exports, obstacles to the bill's passage and makes recommendations about measures NATO can take to better address its members' energy security.

Lugar Devotes Final Bill to NATO Energy Security

In Washington, it has been said that lame-duck sessions of Congress¹ offer very little in terms of the quantity or quality of work that is accomplished. This is due to the desire to adjourn as quickly as possible so that Members of Congress can return to their districts for the holiday season. However, it is also said that lame-duck Congresswomen and men (those that have lost their reelection bids) can be the source of unexpected and innovative proposals. Freed from the need to toe the party line, these Members have sometimes chosen to actively push for legislation that has either eluded them or has a personal significance. In the case of Senator Richard Lugar (R-IN), who served as either the Chairman or Ranking Member of the Senate Foreign Relations Committee between 1985 and 2012, it was both.

On December 12, 2012, just three weeks before the 112th Congress adjourned, Senator Lugar introduced his final piece of legislation, S.3671, which would have granted NATO Member States free trade partner status, thereby eliminating the arduous Department of Energy review process required by Section 3 of the Natural Gas Act for exports to countries that do not have free trade agreements (FTAs) in force with the United States. For Senator Lugar, the policy made sense on three levels.

The Logic of US LNG Exports

First, exports would meet a growing demand in NATO Member countries - for example, Turkey's demand for natural gas is expected to exceed 60 billion cubic meters (bcm) within ten years from 48 bcm consumed in 2012. In turn, this would produce a windfall for American companies that would like to secure contracts to export liquefied natural gas (LNG) to countries that lack an FTA with the US. Furthermore, LNG import capacity is increasing across the European continent - a need that will be met if not by the United States then by major LNG exporters in the Middle East. Second, expedited LNG exports to NATO members would further isolate Iran given that Iran currently supplies 20 percent of Turkish gas imports - an amount that cannot otherwise be met by other alternatives. Third, the recent spike in natural gas production in the US due to the development of hydraulic fracturing and horizontal drilling techniques presents an opportunity to alleviate the dependency of NATO allies (in particular, the Baltic States, Central and Southeastern Europe and Turkey) on Russian supplies. This is part of a wider US strategy to help Europe diversify its imports, which began with the completion of the Baku-Tblisi-Ceyhan pipeline and continued with the South Caucasus Gas Pipeline and the Nabucco Intergovernmental Agreement.

¹ Lame-duck sessions of Congress are those that continue past the November elections and can run as late as January 3, in accordance with the 20th Amendment to the U.S. Constitution.

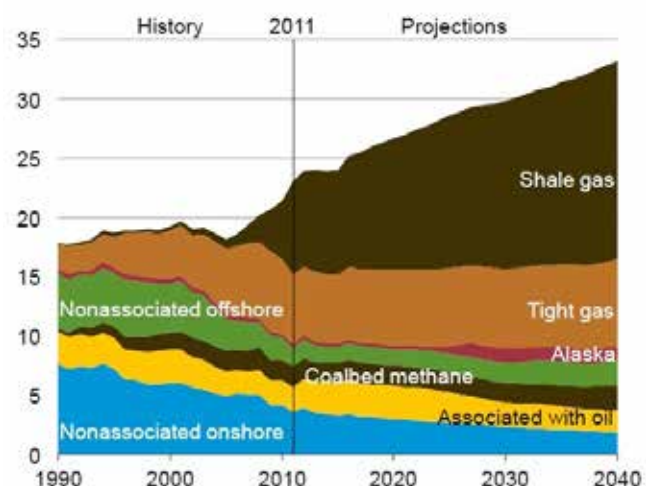


Picture 1: Shale gas and oil plays, lower 48 States
Source: www.eia.gov

The US "Shale Gale", as it now commonly called, has already had a significant impact on global gas markets. Just a decade ago, the US was poised to become a major LNG importer in order to meet rising demand. Between 2002 and 2003, US imports of LNG more than doubled, reaching a peak of 770 bcf in 2007. As companies began extracting gas from shale formations in large amounts during the middle of the last decade it began to erase the need for LNG imports - a trend that will undoubtedly continue. Last year the US imported LNG at a level (174 bcf) not seen since 1999. In its forthcoming 2013 Annual Energy Outlook, the US Energy Information Agency (EIA) projects that shale gas production will reach 16.7 tcf (467.6 bcm), or 48 percent of total production, by 2040, up from 1 tcf actual production in 2006. Furthermore, the EIA projects LNG exports beginning in 2016 (.6 bcf per day) and rising to 4.5 bcf per day in 2027 - double what the agency envisioned one year ago in its 2012 Annual Energy Outlook. Should FERC approve all of the pending 20 applications for LNG exports to non-FTA countries, companies like Cheniere Energy and Freeport LNG, both of which have signed tentative export contracts, could hypothetically add up to 28.3 bcf per day to today's 32.2 bcf per day global LNG market (2011) - an increase of 88 percent.

As a result, America found itself with LNG imports that it had no need for. For the most part, those LNG supplies have been redirected to Europe and have been putting significant pressure on existing and pending Russian gas export contracts to Europe. In addition, while the long-time indexation of gas prices to oil stocks is unlikely to fully disappear, the presence of US shale gas, even if limited to the domestic market, is producing a buyer's market in Europe for gas. European countries now find themselves with additional leverage and some are

Picture 2: US dry natural gas production
Source: US EIA Annual Energy Outlook 2013



using it to renegotiate long-term supply contracts with Gazprom to better reflect current market prices. For example, Bulgaria successfully renegotiated a 10-year contract at a 20 percent discount last November. Nevertheless, due to the uneven European market from the lack of pricing and trade integration, much of Eastern Europe remains vulnerable.

Lugar Encourages NATO to Reassess its Approach to Energy Security

The LNG bill is included in the recommendations of a Senate Foreign Relations Committee Republican Staff Report entitled “Energy and Security: From the Caspian to Europe” that was released on December 12, 2012 outlining America’s strategic interests in Europe’s energy security. Recommendations also include maintaining the position of U.S. Special Envoy for Eurasian Energy Security and promoting the Nabucco West Pipeline (transit via Bulgaria, Romania, Hungary and Austria) over the Trans-Adriatic Pipeline option that would deliver more gas directly to Western European markets, producing what the report refers to as a “gas glut”.

The report also includes Senator Lugar’s keynote address to the German Marshall Fund in which he argues that NATO needs to continually reassess its approach in order to remain relevant and continue to succeed as an alliance. He identifies energy scarcity and manipulation as the most likely source of armed conflict in Europe and its neighborhood in the near future. In this way, energy-rich countries would have a new and unconventional weapon that, in Lugar’s words, “can devastate a nation’s economy and yield hundreds or even thousands of casualties”.

Lugar even suggests that Article 5 could be used to defend against such energy attacks, but he does not go so far as to call for a military response. Instead, he argues that NATO should prepare for and respond to attempts to use energy as a weapon against NATO Member States by developing new training and readiness exercises. One such proposal comes from Mark Grossman, former U.S. Under Secretary of State for Policy, who suggests reinventing the REFORGER exercises of the Cold War to focus on how NATO would supply an affected Member State with the energy resources needed to withstand what amounts to an energy blockade.

New LNG Bills Face a Number of Obstacles

Unsurprisingly, the 112th Congress did not act on S.3671 during its final three weeks, which also brought about the end of Senator Lugar’s congressional career. However, a number of Members of Congress in both chambers have continued to support the spirit of the legislation in the 113th Congress. Senator John Barrasso (R-WY) has reintroduced Lugar’s bill with a number of additions as S.192, the Expedited LNG for America’s Allies Act of 2013.

The US Senate Energy and Natural Resources Committee devoted its first full committee hearing to natural gas in February with witnesses from academia and the business, public and environmental sectors. Highlights from the hearing:

- **Chairman Ron Wyden (D-OR):** “Just a few years ago investors were still betting on building new natural gas import terminals. They now face in communities across the country billions of dollars worth of stranded investment. It is hard to see the logic behind replacing that kind of speculation on gas imports with similar speculation on gas exports.”
- **Ranking Member Lisa Murkowski (R-AK):** “Gas is a global commodity. And other countries, including Canada, are already moving forward. So I don’t think dragging our feet is an option here. If we want to export our LNG, we should also not forget the positive impacts that exports would have on our trade imbalance and the geopolitical benefits of exporting to our allies.”

- While stressing the need to satisfy America's needs first, DOW Chemical Company CEO Andrew Liveris acknowledged: "We should export LNG and I think definitely we should look at the public interest with respect to our NATO allies. That's something we should have on the table."
- Dr. Kenneth Medlock, Senior Director of the Center for Energy Studies: "[Russia, Iran and Venezuela are] most affected by the emergence of shale in North America...Gazprom [is] in a very precarious position because no longer do they have a captive customer, now they actually have to think actively about price and negotiate on pricing terms which basically changes their negotiating tactics not only at the bargaining table for natural gas but also around other geopolitical interests vis-à-vis Belarus, vis-à-vis Georgia."
- American Petroleum Institute President Jack Gerard: "LNG exports...will create thousands of U.S. jobs, generate billions of additional revenue, improve our trade deficit and spur major investments in infrastructure, all while improving our energy security."

First, Japan was added to the list of countries for which the Federal Energy Regulatory Commission (FERC) should expedite its review. This is not at all surprising given the two countries' strong relationship, increasing demand in Japan due to the shutdown of the Fukushima Nuclear Power Plant, and the fact that the Asian LNG market is by far the most expensive market on the planet - prices are expected to exceed \$16 mBtu whereas gas prices in Europe currently fetch \$12 mBtu and \$2.50 mBtu in the US. Second, a provision to enhance the national security aspects of the bill by allowing the Secretaries of State and Defense to add additional countries to the expedited non-FTA list was also inserted.

Nevertheless, there are a number of obstacles that could prevent expedited exports to NATO Member States. First, the decision to export LNG on a mass scale has not been taken by the Obama Administration. There are currently 20 long-term export applications to non-FTA countries pending review that have been delayed until later this year. The main impetus was to allow a study on exports to be completed by National Economic Research Associates (NERA), the results of which were published late last year indicating that the economic benefits of exporting LNG outweighed any negative domestic consequences. The study has its critics in the environmental and manufacturing sectors; however, the Secretary of Energy will make any final decision on pending applications. This is important because, after four years on the job, Energy Secretary Chu recently announced his departure. President Obama has nominated Ernest Moniz, a strong supporter of shale gas, to replace him. Moniz previously worked at the Massachusetts Institute of Technology (MIT) as Director of the MIT Energy Initiative, one of MIT's most prominent research programs, which received \$133 million combined from industry in Fiscal Year 2012.

Second, the LNG legislation has bipartisan support on Capitol Hill, but this does not necessarily translate into a guarantee for action in an increasing dysfunctional political environment. Third, Kristine Berzins of the American Clean Skies Foundation indicates that the proposed fast-track LNG legislation would be difficult to implement in Europe because it would undermine EU efforts to establish and maintain a common internal market for gas. Berzins notes that the bill would complicate U.K. gas exports to Sweden, a non-NATO country. Furthermore, the EU Commissioner for Energy's office has indicated that the EU would not accept LNG from the US if it is only exported to NATO Member States. Finally, exploration for shale gas potential in Europe is ramping up. Lithuania, Ukraine, Poland and the Romania a few of these that have recently approved permits for exploration to determine their unconventional gas reserves. However, shale gas extraction is not expected to contribute significantly to domestic gas production in the short-term and being a national prerogative, Europe's full shale potential will not be realized any time soon.

The politics of possible - the way ahead

These are interesting and provocative ideas to reflect upon. Above were described two attributes of war: the potential loss of 1,000 lives and a blockade. Of course, neither the lives lost nor the blockade would be carried out by traditional military means, and NATO has said that it does not want to militarize the energy security issue given the efforts of the European Union to address the issue from an economic and political perspective and the overlap in their membership. However, in its 2010 Strategic Concept NATO recognizes that the modern security environment presents a “broad and evolving set of challenges” and that NATO reaffirms its commitment under Article 5 to “deter and defend against any threat of aggression, and against any emerging security challenges where they threaten the fundamental security of individual Allies or the Alliance as a whole”.

History has shown energy to be an essential resource in the developing and developed world. A state’s economic vitality depends on sufficient and affordable access to energy resources. As warfare evolves so do its weapons - we can expect to see a blurring of lines once drawn to separate the military, political and economic spheres. A recent study commissioned by the NATO Cooperative Cyber Defense Centre of Excellence classified the Stuxnet computer virus as an ‘act of force’ but that experts could not agree on whether it constituted an ‘armed attack’ affirms the evolution of modern warfare and the need for NATO to come to terms with this evolution lest it lose its relevance in the world. Its embrace of the cooperative security concept by focusing on out-of-theater developments should be commended, yet it must not lose sight of the new and evolving threats that its members face back home. NATO has always used its exercises to establish, enhance and display its capabilities to address defense and security challenges, in addition to deterring foreign aggression.

Furthermore, in the case of US efforts to enhance the Alliance’s energy security, NATO would be remiss if it didn’t do more to encourage any proposed NATO elements of a future US energy policy. For starters, NATO could run interference with EU Energy Commissioner Oettinger’s office regarding its opposition to S.192. NATO could also hold a briefing on Capitol Hill to discuss the benefits, disadvantages and roadblocks to S.192 and to answer any questions that congressional staffers may have. If the recent Senate Energy and Natural Resources hearing is any indication, even those urging the federal government to temper exports recognize their potential national security benefit, especially with regard to NATO. Such a briefing could also be helpful in convincing those Senators and Representatives who are still on the fence. However, should the Alliance find it impossible to speak with one voice in support of the legislation, NATO should ensure that its members are well informed about the ongoing debate across the Atlantic in order that they might have an opportunity to do their own outreach to Congress and/or the EU should they see fit. ■

■ **Implementing an exercise to assist Member States in case of an energy supply disruption makes good sense and is consistent with Article 5 and until the EU achieves its internal market for energy, its desire to defer politically-motivated supply disruptions to the EU.**

Harmonization of NATO's Education and Training Policy - any Role for Partners?

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The end of 2012 marked a major milestone for the NATO Training and Education landscape. Since then Allied Command Transformation (ACT) has assumed all responsibility for the management of Alliance exercises and collective training. Seeking to consolidate Allied efforts and offer a holistic approach to both collective and individual education and training (E&T), a single body within ACT - Joint Force Trainer (JFT) - was tasked with planning and executing all relevant activities. The Training Synchronization Conference in Riga (January 2013) and Military Cooperation Coordination workshop in Sarajevo (March 2013) were organized, the electronic Individual Training and Education Programme (E-ITEP) was introduced (February 2013), and many other initiatives will be realized this year. But one may still wonder if new institutional arrangements will enable the best possible involvement of partner countries and achieve balance in an incoherent training landscape. Considering partners' heavy involvement in some areas of E&T and paying considerably less attention to the others, it won't be easy.

Cooperative security - part of NATO's education and training strategy

Faced with an increasingly complex modern security environment and tight budgetary constraints, NATO is constantly under pressure to maintain and improve existing capabilities, increase effectiveness and cut costs. In the context of E&T, a sound strategy is to encourage and attract Partner nations which are able to fill the capability gaps and produce added value with their contributions. Closer cooperation with Partners is expected to result in greater sharing and harmonization of Allied and Partner capabilities. The combination of ACT-led training landscape harmonization and active Cooperative Security efforts is expected to enable Allied and Partner nations to access previously unaffordable capabilities, direct coordinated efforts to priority tasks and avoid any redundancies associated with the unnecessary duplication of these efforts.

In theory, frameworks for such cooperation may include NATO Schools, Centers of Excellence (COEs) and Partnership for Peace Training and Education Centers (PfP PTECs). Considering this recent consolidation of E&T coordination responsibilities into the hands of ACT, a more robust involvement in identifying vital gaps and directing Partner efforts is expected in the near future. Arguing for a more active approach to training landscape harmonization and having awarded with new institutional powers, ACT may try substantially rebalance the current approach of Partner nations contributing to NATO's activities under the PTEC framework. In other words, in order for Partner centers to stay relevant, a shift towards higher diversification of efforts may become a necessity. Potential vectors of engagement may include some of the key emerging challenges acknowledged in the latest NATO's Strategic Concept (2010) and the latest summit declarations (Bucharest 2008; Lisbon 2010; Chicago 2012). These include: climate change, nuclear and missile proliferation, energy and cyber security.

PTECs - good but not perfect

Being primary operational and strategic-level NATO education institutions, the NATO College in Rome and the NATO School in Oberammergau strive to ensure the highest possible levels of quality and coherence. Employing staff from inside and outside of the Alliance and offering courses to members of various Partnership frameworks, they remain shaped primarily by NATO/ACT. On the other hand, Centres of Excellence leave more space for flexibility by allowing Partner nations to join COE activities as “contributing members” (CMs). Unfortunately, current practice shows that Partners aren’t too enthusiastic about joining this framework: only two instances of such engagement have happened so far (Finnish and Austrian representatives joined the Operations in Confined and Shallows Waters COE in Germany and Cooperative Cyber Defense COE in Estonia). This reluctance appears to be related to obvious constraints of the CP status: while contributing funds and personnel, CMs are not granted voting rights on the centres’ boards.

These constraints were effectively eliminated by the PTEC framework. A PTEC is a national training facility in a NATO Allied or Partner country, recognized by NATO in accordance with the terms of the NATO Concept for PfP Training Centers. By national decision, a PTEC conducts PfP-related education and training activities that have been made available to all Allies and Partners and may include workshops, courses, seminars or training of a more operational character, such as military exercises. With 13 out of 24 PTECs established by Partner nations, this framework both remains adaptable to national needs and is a primary channel of Partners’ contribution to what NATO does. All PTECs can be grouped into a few general categories based on the types of offered military expertise.

The primary framework for direct Partner contributions to a joint E&T structure through PTECs increases flexibility and simultaneously supports PfP objectives, such as enhancing Ally-Partner interoperability; however, it also presents a challenge. Out of total of 13 PTECs hosted by Partner nations eight are devoted to peace support (PSO) and crisis management (CM) and not a single center addresses emerging challenges (the closest being NCGMO which is aimed at “non-traditional” gender issues). One can hardly call this a balanced approach. PTECs should enable Partners to make contributions in the fields of their expertise, enhancing NATO’s educational capabilities in the areas where assistance is much needed.

Table nr. 1.
PTECs established by Partners
*- NCGMO is a part of SWEDINT
Source: compiled by authors, full list of PTECs can be found on-<https://www.natoschool.nato.int/PTC.asp>

Peace support operations	Crisis management	Geographically specific training	Crisis response operations	Security policy	Language training
Peace Support Operations Training Center (Bosnia and Herzegovina)	Finish Defense Forces International Center (Finland)	Cairo Centre for Training and Conflict Resolution in Africa (Egypt)	Austrian Armed Forces International Center (Austria)	Geneva Center for Security Policy (Switzerland)	Jordan Language Institute (Jordan)
Swiss Armed Forces International Command Training Centre (Switzerland)					
Swedish Armed Forces International Center + Nordic Center for Gender in Military Operations* (Sweden)	Crisis Management and Multinational Operations College (Romania)	Georgia Sachkhere Mountain Training Center (Georgia)			
Continuous Training Center (Moldova)					
Peace Operations Training Center (Jordan)					

However, in reality these opportunities are to some extent offset by potential pitfalls, including a lack of coherence in needs and expectations and different perceptions of risks and threats. These problems are clearly acknowledged by NATO which refers to Cooperative Security as a “double edged sword”¹ of opportunities and major limitations.

Duplication of efforts is clearly an issue as well given that each of the eight PSO/CM and three language training centers (two of them are established by Allies) vigorously defend their relevance and unique expertise. Such obvious imbalances in the institutional E&T structure might have severe consequences for operational capabilities of the Alliance in the future since it risks underdevelopment in important spheres of competence. Thus, a dichotomy of excessive Partner involvement in some areas and complete neglect in others has developed, proving that reality often stands in stark contrast to overly optimistic theorizing. In this regard, joint efforts must be directed to developing “deficit” capabilities (anti-terrorism, nuclear/missile proliferation, climate change, and cyber and energy security,) while avoiding duplication and overcrowding.

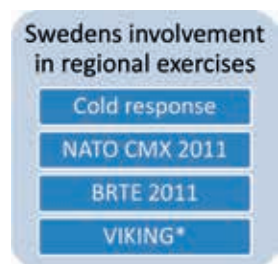
NATO and Sweden: opportunity for deeper engagement

One of the countries interested in engaging deeper with NATO if a proper format is proposed is Sweden. During the two last decades Swedish security policy has experienced a major transformation: non-alignment and political flexibility remain the officially declared Swedish strategic priorities, but the contemporary NATO security agenda has gained political and public support. As a result, Swedish engagement in NATO activities is not limited to cooperative training and education, but also involves NATO military operations such as ISAF (Afghanistan) and more recently OUP (Libya). In this context, actively pushing for increased Swedish engagement with NATO should be seen as a good way to win over an indispensable ally who possesses a set of unique traits and capabilities.

A timeline of the Swedish “strategic shift”: (1) Abandonment of neutrality in armed interstate conflicts and self-definition as a non-aligned country (in the 1990s); (2) further reevaluation of Swedish defense policy after the Russian-Georgian war in 2008 combined with previous Russian activities in the Arctic region and cyber-attacks on Estonia; (3) Ongoing work on Sweden’s security strategy for the period 2015-2018: adjustments of current policy with more focus on development of defense capabilities, as well as increased cooperation with NATO are possible.

Sweden joined NATO’s Partnership for Peace program as early as 1994 and has since been actively involved in various forms of joint training efforts, including the establishment of two PTECs: the Swedish Armed Forces International Center and the Nordic Center for Gender in Military Operations. (first is one of the oldest centers offering its expertise to both Allies and Partners). The Centre for Gender in Military Operations serves as an example of a one of a kind institution addressing an obvious shortcoming of NATO’s training capability structure: no political or military operational goals can be achieved in a complex post-crisis environment without addressing the gender factor among the civilian populations. Besides that, being a major communications hub linking Russia and Baltics with the rest of Europe and the United States, Sweden is one of the potential priority targets of not only physical attacks but also cyber disruptions or attempts at exploitation. Therefore, there can be no surprise regarding Swedish participation in NATO members’ (Estonia and others) cyber defense exercises. The last joint cyber defense exercise named “Locked Shields 2012” was conducted in March 2012. By demonstrating a dynamic approach to capability building and recogniz-

These problems are clearly acknowledged by NATO which refers to Cooperative Security as a “double edged sword” of opportunities and major limitations.



* hosted by Sweden Source: compiled by authors

The last joint cyber defense exercise named “Locked Shields 2012” was conducted in March 2012.

¹ http://www.nato.int/cps/en/natolive/topics_77718.htm

ing the relevance of emerging challenges and the utmost importance of addressing obvious gaps of the NATO's E&T structure, Sweden truly proves its value to NATO.

Addressing a high-level security conference in Sälen during his visit to Sweden, Secretary General Anders Fogh Rasmussen praised Sweden's close and effective partnership with NATO: "We share the same commitment to the values of freedom, democracy, human rights and the rule of law. And we share the same dedication to build a safer and more secure world".

According to this FOI report on potential conflict in the region, Swedish and Finnish sea and air space, and possibly land territory as well, would be of considerable importance to the outcome.

There are reasons why the Baltic States have a great interest in attracting Sweden ever closer to NATO. First of all is Stockholm's particular interest in the security issues of the Baltic region (energy security, potential conflicts), which is not limited to only military education and training, but rather encompasses a strategic outlook. In 2012 the Swedish Defense Research Agency (FOI) prepared a strategic study on security and defense issues of the Baltic region entitled *"The Security and Defensibility of the Baltic States"*, which presented a comprehensive analysis of the security and the defensibility of Lithuania, Latvia and Estonia. These countries are viewed as a "security complex" because of interlinking challenges and an interdependence of their security policies.

And second, Sweden is keen to lead partners' efforts which bring them closer to what NATO does. As an example, core event within SACT's Strategic Engagement Campaign, namely, Strategic Military Partner Conference (SMPC) 2013 will take place in Stockholm, 25 - 27 June, 2013. Its target audience will consist of CHODs of NATO, Partnership for Peace (PfP), Mediterranean Dialogue (MD), Istanbul Cooperation Initiative (ICI) and Partners across the Globe (PatG), sharing their perspectives on strategic issues of common interest. There is little doubt, that facilitating common understanding and exchange of ideas among NATO members and partners, Sweden claims to feed the ACT transformational development process with fresh ideas and innovative solutions. Thus, one thing is clear - Sweden's focus on the most urgent NATO's challenges (such, as contingency of the Baltic States) and engagement into activities with NATO structures and partner countries are the tendencies, which should be positively accepted and taken into account.

Framework for Partners' involvement - way forward

As a result of the shift of education management responsibilities from HQ (Supreme Headquarters Allied Powers Europe (SHAPE) of Allied Command Operations (ACO)) to Allied Command Transformation's Joint Force Trainer (JFT), ACT strives to play an active role in coordination of the efforts of the NATO Schools, HQs, COEs and PfP PTECs. In this regard the newly empowered JFT had outlined some ambitious tasks, including the identification of capability gaps and potential strengths, directing joint efforts and implementing common training standards. In order to ensure resource sharing between E&T institutions, greater attention should be paid to encouraging more active Partner participation in the Centres of Excellence, which specialize on a wider array of relevant tasks, thereby providing an established framework for channeling joint efforts to deficit capabilities. These developments are especially relevant in the context of Cooperative Security (CS), the Alliance's newest task.

Partners' engagement in the COE format is considerably less costly than PTECs and allows great effectiveness - there are no institution establishment costs and Partner efforts are instantly directed towards common goals in a prudent and balanced manner. Nevertheless, due to the aforementioned reasons, NATO Partner countries are not very keen on joining COEs. One of the possibilities for overcoming this problem would be to strengthen NATO HQ's direct involvement in COEs activities, governance and sponsoring in order to raise

"Partners are absolutely critical, we can't do without them, all the jobs that they work with improve interoperability beyond comparison" - Chief of Staff of ACT Vice-Admiral Tony Johnstone-Burt, at the Institute of International Relations and Political Science, Vilnius University, 11 April, 2013.

the profile of COEs within NATO. More generally, cooperative security goals would be best served within both the COE and PTEC frameworks by concentrating ACT's efforts on encouraging contributions from countries which actively demonstrate willingness to align themselves with NATO strategic objectives and offer unique competences which are coherent with NATO's perceptions of relevant challenges.

Noting Partners' (and Sweden's in particular) interest in emerging challenges, NATO must pursue this opportunity to unite and extend these efforts with achievements. The platform for such synergy may be provided by establishing close cooperation through COEs operating in the Baltic States. With regard to operational energy security (a goal shared by Partners and NATO member states, but one that still requires a structural definition and approach), favorable conditions for cooperation between the newly established NATO Energy Security Centre of Excellence (ENSEC COE) in Vilnius and both governmental and non-governmental Swedish institutions have arisen. Provided there is mutual interest in cooperation within the COE framework, NATO ENSEC COE intends to follow the example set by Operations in Confined and Shallows Waters COE in Germany and Cooperative Cyber Defense COE in Estonia by accommodating a Swedish representative as a Contributing Member. Inter-institutional cooperation involving joint research, expertise sharing and event organization is another good option. In any case, pooling and sharing of intellectual and financial resources will enable a deeper analysis of contemporary security challenges and will substantially improve the quality of future training and education programs. Therefore, by directing joint efforts towards novel challenges, we will substantially support ACT's mission to harmonize the training landscape, directly contributing to NATO's key strategic objectives. ■

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