# Rim versus Non-Rim States in the Arctic Region: Prospects for a Zero-Sum Game or a Win-Win One?

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Abstract: The present paper aims to develop a critical approach on one of the most urgent energy security challenges: the Arctic region. Until recently, it was considered to be a frozen desert, upon which no one raised any legal demands or interests. The global warming, the technological development and the increased need for energy resources had transformed the frozen High North into a very hot spot, where states like US, Canada, Norway, Denmark or Russia started an energy race that threatens to escalate. The Arctic became a strategic area given its opportunities: besides the energy resources, new commercial routes could become available for a longer period of time. But, due to legal uncertainties, the lack of coherent and direct legal procedures of international law, the Arctic game is an open one, in which any state can intervene and ask for a solution that is suitable for its interests. This aspect complicates even further the already unstable region. Some of the actors see the region as an international area, as a common good, where everyone has the right to explore or exploit, while the rim states see the Arctic in sovereign rights terms. Therefore, the game tends to complicate as non-rim players (the EU, China, Japan, NATO and South Korea) want to intervene in the region and try to influence its development.

**Keywords:** Arctic, game theory, non-rim states, zero sum game, win-win game

#### Introduction

The international system is facing nowadays a new period of transition that can be characterized by instability, uncertainty and even insecurity, that could lead to the establishment of a multipolar system. Economy becomes a key factor of power, and, logically, the threats to its emergence, development and sustainability continue to appear. The number of states involved in the race for establishing the international status-quo has also increased as we enter a multipolar system. Having said that, a state can be threatened by another one (economically speaking) when other state is blocking the first's access to some strategic resources that automatically affect its development. The second state gained a relative advantageous position, which would generate a balance of power that is inimical

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for the other. Traditional energy resources are limited, therefore the entire relationship, be it bilateral or multilateral, transforms itself into a zero sum game, in which there is only one winner, the gain being actually the loss of the other.

The aim of the present paper is to analyse the impact of the new comers upon the security of the Arctic region and upon the international balance of power. These players have the potential to change the strategy of the rim-states towards a more cooperative one within a restricted group. The methodological approach consists of document analysis (direct - official documents, strategy, declarations, international treaties and international law; and indirect analysis - research documents), and conceptual analysis.

As for the theoretical approach, I choose to use the prospects of game theory, which will offer the most glibly interaction results regarding the race for the Arctic. Given the fact that the international system is anarchic (Waltz, 1979), the unit of analysis in this case will be the state. Issues of particular importance will be its interests, how does it perceive other states, how it is perceived by other states, which is its strategy regarding the Arctic region, which are its capabilities, how can its interaction with other players be characterized (attraction, combat, rivalry, mating, trade, communication or even partnership) (Axelrod, 1997).

# The Arctic Region- a disputed area

The Arctic region cannot be naturally delimitated, but we can use the Arctic Circle as a directional point - the latitude 66 degrees 33 minutes north. In geopolitical terms, the Arctic was seen as a linking area between the Eurasian continent and the American one. At the same time, it was a frozen desert, which could not be used for navigation, and which could hardly be explored. Given these reasons, no state claimed sovereign rights over some Arctic territories.

The Industrial Revolution, the technological development and the fact that states' economies are dependent on energy created a race for resources in the Arctic. This race became achievable given the fact that "by 2040 average global temperature rise is 1.3° Celsius above the 1990 average" (Gibbs). Although scientists hoped that the Arctic ice will recover during the winter season, the ice continues to melt. This fact could generate an Arctic free-ice in the summer season in five years time (Williams, 2008). This rising temperature has mainly three major effects over the Arctic region: firstly, it will influence in a negative way the ecosystem; secondly, the Arctic waters will be navigable a significant part of the year, fact that makes it a new strategic point of maritime powers and not only and lastly, scientists now have the possibility to conduct more expeditions that will enable them to know more about what lies beneath the Arctic waters. Until now, scientists discovered that in the Arctic region can be found huge volumes of energy resource. According to US Geological Survey's 2008 analysis, these volumes represent 13% of oil resources (approximately ninety billion barrels) and 30% of world's natural gas resources<sup>1</sup>. Hence the politics or the game in this region could be determined by energy politics.

Five different states try to legally prove that they have sovereign rights over the Arctic Ocean coastline. These countries are: the Russian Federation, Norway, Denmark (through

<sup>&</sup>lt;sup>1</sup> USGS Fact Sheet 2008-3049. Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle. Available at: http://pubs.usgs.gov/fs/2008/3049/fs2008-3049.pdf, accessed on 14 October 2012.

Greenland), Canada and the United States of America. The increasing importance of energy resources coupled with unsolved disputes, given the long lasting decision process from the International Court of Justice, could create a Prisoner's Dilemma framework. Given the nature of the disputes, if the rim states do not want to cooperate, then the Arctic will certainly become a zero sum game, in which there will be only few winners. This fact could increase the insecurity of the Arctic, because the possible benefits are too large. At the same time, even the international law could create a zero sum situation in the Arctic, considering the fact that following the legal status of the Arctic, everyone has the right to exploit the Arctic resources, because it is an international territory as it can be followed in the text of the Resolution: "The exploration of the area and the exploitation of its resources shall be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States, whether landlocked or coastal, and taking into particular consideration the interests and needs of the developing countries<sup>2"</sup>. These provisions could be applied to the areas beyond the 200 miles or in the case of an International Court's decision, in which no rim state gains sovereign rights over some Arctic territories. If the situation is not settled, we can imagine the scenario of the Arctic where it could become Garrett Hardin's pasture (Hardin, 1968), in which the tragedy of commons will be developed because all states will try to exploit the common good and they will do it fast, in order to stop others to take it. There will be a true timely race in which oil losses, huge environmental damages and energy security instabilities will be the costs. States will continue until all oil and gas resources will be exhausted. In this situation no state will be a winner given the consequences. But the international law is still biding; therefore states should take into consideration the environment protection laws. At the same time it remains to be seen how many of those states have the required technology (icebreakers and nuclear powered are necessary for power projection and presence in the region the entire year) (Ebinger and Zambetakis, 2009) in order to be able to exploit energy resources from the Arctic, fact that could create the premises of a win-win game.

The Arctic area represents an interest for many more players than the five fore mentioned. Recently, numerous non-rim states have also manifested their interest for the Arctic region due to imprecise and flexible international law provisions. Additionally, entities like China, Japan, South Korea, NATO, and the EU became interested in the Arctic. If they succeed in entering the present five players' game of the Arctic, the structure of the game will certainly change, because it will have more players, fact that will allow some of them to free ride and a new scenario would be available. At the same time, every state will need to elaborate more strategies and will have to take into account more interests. This perspective of the new comers in an already highly disputed area is not in the interest of any of the coastal states, thus rationally they would try to cooperate between them in order to stop others from entering the game. In this way, the Arctic could become a win-win disputed area, in which all parties have a common interest (to keep others out), even if it is a compromise solution. This would be an optimistic scenario, because the defection costs could be too large to choose such a strategy. This is a plausible perspective, given the fact that China,

<sup>&</sup>lt;sup>2</sup> 1970 UN General Assembly Resolution 2749 (XXV): Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, Beyond the Limits of National Jurisdiction, available at: <a href="http://cil.nus.edu.sg/rp/il/pdf/1970%20UN%20General%20Assembly%20Resolution%202749%20(XXV)-pdf.pdf">http://cil.nus.edu.sg/rp/il/pdf/1970%20UN%20General%20Assembly%20Resolution%202749%20(XXV)-pdf.pdf</a>, accessed on 16 March 2012, pp.1-2.

for example, is adding more pressure on an already unstable situation and states like Russia or US would perceive China's entrance in relative terms and will find cooperation among them more beneficial.

The first move on this Arctic game was made in 2007 by the Russian Federation's expedition in the Arctic waters, when the two Russian submarines planted two Russian titanium flags, symbolically claiming that region (Dittmer et al, 2011). In game theory terms, Russia's move can be interpreted as a defection, taking into account that it acted unilaterally, putting in jeopardize the interests of the others. The Arctic is a private good for Russia. Although the action did not have any legal result, at symbolic level Moscow's demands were clearly established as well as its view and interests over the Arctic.

The group of five is not so large that the defection of one player could not be identified. Given the interests of other states, like Canada, the defection was officially punished by soft security action. The Canadian Foreign Minister, Peter MacKay, (cited in Omestad, 2008) declared: "This isn't the 15th century! [...] You can't go around the world and just plant flags and say, 'We're claiming this territory' ". Given the fact that the international system is still perceived by states as being anarchic, the reaction of both players is predictable and even understandable. Through this declaration, Canada reveals its high interest in the Arctic and also moves the game into a new possible direction - a win-win one, in which all rim states must negotiate, or, at least, must not defect because the costs are great and Canada will punish the defector (Axelrod and Keohane, 1985).

# **Hot Spots**

As afore mentioned, the five rim states are: Denmark, Canada, Norway, USA and Russia. All these actors are coastal states (Denmark through Greenland). It is very important to mention that the Arctic does not represent a situation in which every state is against every state. They have competitive interests, as Axelrod and Keohane (1985) said, but in specific areas where the legal framework allows it and where players know their chances of winning. No single player could have sovereign rights over the entire Arctic, because this would clearly generate a zero sum game, in which all but one loose. In such a situation the chances of a win-win game would be very low, as many would choose to defect and to follow their own interest.

All five rim states claim specific parts of the Arctic region and they can be organized in groups of dispute, thus it is not a situation in which every state is for itself. As the first dispute group, we can identify Russia and Norway. The disputed area in this case is the Barents Sea. It was a 40-year old boundary dispute, which was successfully settled in 2010, when both parties created the prospects of a win-win game through their cooperative strategies (Bennett, 2011). They both chose to compromise in some areas and left others unsolved in order to achieve an equal beneficial result. In the rational game terms they both adopted a mini-max strategy, in which they chose a smaller gain. In this case, we can say that Russia and Norway succeeded in breaking the prospects of prisoner's dilemma and created a mixed game (win-win and zero-sum), in which they cooperated over the boundary, but they still compete over the energy resources (Jensen and Rottem, 2010). Adopting a cooperative approach, Norway influenced the behaviour of Russia that became more cooperative as well. In this way the incentives for defection would be too large. If every state believes that

all other states are cooperating or are willing to cooperate, they will cooperate as well. States do not have and generally do not need a complete relationship based on harmony between them. Therefore, we can identify a win-win situation in some areas, but a zero sum result in others (Axelrod and Keohane, 1985). The result of this kind of strategy is the following: after several years of negotiations, the Russian Federation agreed to cooperate in what regards all military, commercial and fishing ships that are coming from either side. Ships are allowed to cross these waters as long as they respect the environment and do not explore or exploit the natural gas and oil resources (Beary, 2008). On the other hand, this cooperative behaviour could influence the future interaction between the players. They could develop a win-win result by considering energy resources the property of both or by creating a cartel situation. In the best case scenario, Russia and Norway will take into consideration the interest of the other players developing a balanced behaviour and they will respect the environmental law, creating a truly common good. In the worst case scenario, Russia and Norway will find themselves under Hardin's tragedy of the commons, transforming a tool good (that theoretically does not face such outcomes) into exhaustible goods that falls under tragedy of the commons' prospects, triggering an environmental disaster (Hardin, 1968).

The second group of dispute is between Canada and US. Although they are known to be strategic allies especially within NATO, they disagree over Canada's maritime frontier in the Beaufort Sea. They are developing a relationship based on competition over the statute of the Northwest Passage as well. The Arctic is seen by the Canadians as part of their national territory, as it is part of "our Land" (Cit in Klaus Dodds, 2010). In accordance with its grand rhetoric, Canada chose to defend its Arctic territories, because "Canada's Arctic is central to our identity as a northern nation", given the huge reserves of energy resources, cooper and zinc deposits, diamonds and silver (Zellen, 2009). The Canadians consider the passage as part of their national internal waters (as they are subject to the full sovereignty of the coastal state with no associated right of innocent passage through them). In this sense, in 2009 The Canadian House of Commons renamed the Passage the Canadian North West Passage, thus establishing unilaterally its sovereignty over it (Arctic strategy documents - Canada and the Arctic). On the other hand, USA continues to consider it an "international strait" hence no single state has legal rights over it. It must be open for every country, thus it is a public good. In legal terms it would fall directly under the international law provisions, scenario that predictably is not accepted by the Canadians, mainly because of the fact that a different standard, that of transit passage applies. This standard will allow "submarines to operate submerged, even though they are required to proceed on the surface and fly their flags under innocent passage rules. It also allows the passage of aircraft, while innocent passage does not" (Parker and Madjd-Sadjadi, 2010). Under such conditions Canada will not be able to deny the passage of ships through the Northwest Passage. Washington and Ottawa did not come to an agreement regarding the method that will be used to settle this dispute: US is in favour of the median line method, while the authorities from Ottawa sustain that the frontiers do not need adjustments or that the frontiers had already been established in 1825 through the Treaty between Russia and Great Britain. According to this agreement the border between Alaska and the Yukon Territory is at 140 degrees West longitude, therefore they are in no need to re-establish some borders.

Most importantly, the dispute between Canada and US does not fall under UN jurisdiction, thus the solution is a bilateral agreement within which they reach a win-win solution.

Although the US and Canada are considered natural allies, the Arctic region prospects has the potential to possibly develop new scenarios. In this respect, US and Canada would most likely remain allies, given their long history of cooperation and their dispute would solve peacefully, but Canada could consider also Russia as an ally and can try to develop a winwin solution with it, because a more navigable Arctic will be beneficial for both players. This scenario was already implemented given the fact that Canada is negotiating with the Russian Federation "over allowing the latter's powerful fleet of nuclear icebreakers to keep a sea lane open in all seasons" (Underhill, 2007).

Other disputing dyads include: Russia and US over the fact that Russia has not ratified yet the frontier settlement with US in a region very close to Alaska (Omestad, 2008); another dyad of dispute is Denmark and Canada over the legal status of Hans Island, which is located in the Nares Strait between Greenland and Ellsmere Island. Strategically, this piece of land in not quintessential, but it could be a point of cooperation, or a point of dispute that will influence states behaviour over other issues (Young, 2009).

Last, but not least the most popular dispute is over the underwater mountain, Lomonosov Ridge. The disputing parties are: Russia, Denmark and Canada that can raise legal claims each from its own side (Giusti and Penkova, 2008). The mountain is strategically important because beneath it scientists claim that lay enormous hydrocarbon deposits. Given the gains, this dispute has the potential to become a zero sum game, in which the gain of some will be the loss of others. In the case of energy resources, if some states have sovereign rights over them, they are seen as private goods (exclusive and rival) (Miroiu, 2007), thus the emergence of the zero sum game. At the same time, "technology will hold up Arctic resource development," as Geir Utsko (an Arctic executive) declared. Given the prospects, players could change their zero-sum strategies and become more cooperative. From all five rim states only Russia, Canada and US have developed the necessary technology. Russia is by far the most prepared state in this regard, having more than 20 icebreakers. It is followed by Canada with 20 and US with one that is functional (Ebinger and Zambetakis, 2009). In this case, if, for example, Denmark obtains at the International Court sovereign rights over the mountain, it cannot exploit the energy resources because it does not have the technological capabilities. But, it can also block the others from using them given the fact that it has sovereign rights (if Denmark uses them, others cannot use them anymore, because they are private goods). But, in this case it has not the technological capabilities to use them, therefore its strategy will change, rationally speaking and the prospects of the game also. It can choose to sell the exploiting rights to another state, for example Russia. In this case it will be a win-win situation between the two and a zero sum game between them and Canada.

Another possible outcome that will change the zero sum result is through the creation of an international consortium between directly involved states (in this case Canada, Russia and Denmark). In this case they will establish through cooperation which will be the profits, the rights, what they are allowed and what they are not allowed to do. It will be a winwin game, but once again there is the possibility of what Garrett Hardin (1968) described through its example with the pasture, because "freedom in a commons brings ruin to all." Rationally, states will look out for additionally relative gains of power therefore they may choose to defect and to exploit more oil or natural gas faster. The energy resources are not exhaustless; therefore they will be drained soon. In this case in particular neither oil nor

natural gas are public goods, rather than that, they are tool goods, but the behaviour of states, given their desire for relative power gains, will lead towards a tragedy of commons as well. They can cooperate, but they do not trust each other. The win-win solution through the establishment of an international consortium in which states share the profits is not the best outcome, because even a tool good, which theoretically is not a collective good, can trigger a tragedy of commons.

# **Legal Framework**

One important piece of evidence regarding the fact that rim states tend to cooperate rather than to defect is the fact that all five of them are following the same legal provision, with the amendment that US has not yet ratified it. They are using the United Nations Convention on the Law of the Sea (UNCLOS) "to establish Exclusive Economic Zones or to make submissions for sovereign rights to resources on the main basin of the Arctic Ocean" (Heininen, 2011).

Following the articles of UNCLOS "a state can demand exclusive economical rights over a distance that is no larger than 200 miles" (Dodds, 2010). Within an Economic Exclusive Zone, a state has the following sovereign rights: to explore, to exploit, to conserve and to manage all living and non-living resources of the water, sea-bed and subsoil<sup>3</sup>. The exception at this rule can apply only: "if a country can prove that its continental shelf is crossing away from the 200 miles, [then] it can demand similar rights over the larger area" (Article 76/UNCLOS). If a state proves these aspects, it will have sovereign rights for exploiting and exploring non-living resources of sea-bed and subsoil and sedentary species<sup>4</sup>.

Another aspect that increases the level of insecurity of the region is time, because maps are developed in time taking into account the harsh conditions from the High North. Future and the fact that the game can be played indefinitely is extremely important, as game theorists are suggesting (Miroiu, 2007). Firstly, states do not know when this race will end. Secondly, they do not interact only in the Arctic region. The international system is far more complex and interlinked; therefore, rationally they known that a defection here could influence the outcome of other games in other regions. Thirdly, they do not know precisely the oil and gas quantities that lay beneath the Arctic Ocean. They rely in their assessments on perception, rather than knowledge. All these aspects are suggesting a possible increased level of cooperation between the rim states.

But, this opposite situation (the zero sum game emerging and states competing among them) could also happen as the International Court must give an answer in maximum ten years time since a state made its claims. It can give exclusive sovereign rights to one or few rim-states, which is well known by the players, given the fact that they are rational. In this sense they can perceive the Arctic game as a finite game, hence their strategy may change and they could develop conflicting interests and choose to defect if they think that they do not have real chances of winning and a game like Prisoner's Dilemma will be the Arctic framework. This dilemma entails a game in which the common good is not achieved because of the individual rationality. It could be easily solved, but neither of them confesses,

<sup>&</sup>lt;sup>3</sup> Economic Exclusive Zone and Continental Shelf. Available at: <a href="www.dfo-mpo.gc.ca/oceans/canadasoceans-oceansducanada/images/maritime-eng.jpg">www.dfo-mpo.gc.ca/oceans/canadasoceans-oceansducanada/images/maritime-eng.jpg</a>, accessed on 13 March 1012.

<sup>4</sup> Idem

because they cannot speak to each other, therefore they do not trust each other. Therefore they tend to defect (confess), rather than to cooperate (do not confess) (Krusch, 1994).

#### The Arctic New Comers

The possibility of the new comers to enter the Arctic race could change the structure and therefore the outcome of the game. Overall, having more players will make more difficult to detect the defector, the benefits will be divided among many more players than five, the decision process will be laden given the high diversity of interests and the possibility of a tragedy of common will be much higher if the international bodies do not give a concrete answer and, last but not least, alliances could change more often, fact that will jeopardize the regional stability of the Arctic. In this sense, they will develop a win-win game within their own group and a zero sum one between the five and the new comers. One possible scenario is that Canada, Russia, US,

Denmark and Norway will find more incentives to cooperate among them, if other players threaten to enter the Arctic. Another possible scenario is that these states will encourage new comers to intervene in the Arctic in order to promote their interests or to stop other rim-states from endangering their interests there. They might find cooperation with the new comers more beneficial, than within their group.

We can define as being new comers China, Japan, South Korea, the European Union and NATO. The EU and NATO will be considered as one player each. These international organizations have as member states also rim-states like Denmark in the case of the EU; and US, Canada and Norway in the case of NATO. In this situation the structure of the game could change if they found more easily to cooperate to each other than to other states like Russia. They could develop a limited win-win result among themselves and a zero-sum one against Russia for example. At the same time, even though they developed a relationship based on amity, these countries are on positions of competition.

#### **NATO**

The involvement of the North Atlantic Treaty Organization in the Arctic region is for sure at stake, given the fact that four of the five rim-states (US, Canada, Denmark and Norway) are members of NATO, especially if some of them have expressively requested for its intervention. This organization acts as a global player with equal responsibilities in terms of stabilizing military threatening imbalances that could lead to the development of unstable regions. Therefore, it can claim that it has the legitimate right to be involved in the High North and that the allies have certainly the interest to involve it, as Russia is continuing its military development strategy.

NATO involvement is desired by Norway or US, because the allies could feel threatened by Russia's defecting strategy in the Arctic which is seen as a common competitor. In order to stop a zero-sum outcome among all five rim-states, four players develop a win-win game among them and a zero-sum one between Russia and their group. At the same time, such an action might trigger a new arms race under the premises of the security dilemma. Within this framework, Russia would feel threaten by NATO military presence in this region and could respond properly creating a regional insecurity pattern (Holte, 2009). For example,

in March 2012, took place the "Cold Response 2012", a NATO military exercise: 16,000 soldiers from 15 member states were displayed at Norway's Nordic border. It represents the most notable example of interest in the High North from a new comer<sup>5</sup>.

NATO involvement in this region can be interpreted as a positive result coming from the allies that are also rim-state, like: US, Canada, Norway and Denmark. This is a win-win result, as they succeeded in cooperating at international level. But, the most important aspect of this exercise is the fact that the soldiers were displayed at Norway's border with Russia, a state that is well known as perceiving this organization as a threat to its near aboard territory. This exercise represents the fear mentioned above: Russia does not want to be left outside the negotiation process or it does not want to be in a situation of opposing all other states, fact that could happen if Canada, Norway, Denmark and the US choose to cooperate with each other without including Russia in this framework. Faced with such a situation Russia could try to rebalance the level of power, thus it will increase its military presence in the High North (Zysk, 2008). Its biggest fear is represented by the fact that the allied ships from the Arctic could be equipped with Aegis system. This Ballistic Missile Defence System (Aegis BMD) "is a ship-based system provided with long-range radar that enables warships to shoot down enemy ballistic missiles6". The deployment of such a system in the Arctic would automatically affect the regional balance of power. Therefore, Russia responded following its strategy, as the Head of the Russian General Staff, Nikolai Makarov, declared: "we are certainly not planning to fight against the whole of NATO [...] but if there is a threat to the integrity of the Russian Federation, we have the right to use nuclear weapons, and we will?" At the same time, NATO intervention in the region can be interpreted as a response to Russia's defecting manoeuvres, therefore it could be a tit-for-tat game in which the player is cooperating as long as the other does the same. Additionally, it can cause a renewed arm race in the Arctic region.

Therefore, although NATO is a security provider, its involvement in the Arctic region can generate more instability than security, as a new path for an arm race is opening and players fall under the provisions of the security dilemma.

## The European Union

Denmark is a member state of the EU and one of the five rim-states. Additionally, the EU and its associated Arctic states represent five out of eight members of the Arctic Council (Denmark, Finland and Sweden are EU and Arctic Council member states; Norway is a rim-state and belongs to the European Economic Area-EEA and Iceland in a member of the Arctic Council and is planning to apply for early entry to the EU) (Deheza, 2009); therefore it has the legitimate right to ask for a deeper involvement of this organization into the High North. To be able to have an effective voice at the negotiating table over the Arctic region, EU applied for a position of Permanent Observer to the Arctic Council, but the application was turned down by the Arctic Council Ministers in 29 April 2009 (Holte, 2009).

<sup>&</sup>lt;sup>5</sup> "New Cold War: Massive NATO Exercise in Norway Provocation directed Moscow. Russian General sends "Arctic Warning" to US". *Global Research*. Available at: <a href="http://crisisboom.com/2012/03/16/russia-arctic-warning/">http://crisisboom.com/2012/03/16/russia-arctic-warning/</a>, accessed on 21 January 2012.

<sup>&</sup>lt;sup>6</sup> Idem

<sup>7</sup> Idem

In what regards the European soft law provision, the EU's Northern Dimension Action Plan was released in 2000. This document aimed to create a suitable framework for cooperation, as it promoted the continuing dialogue process on cooperation between the European Union and its neighbours, especially Russia. Through this dialogue, the Europeans hoped to create positive interdependence and to increase stability and civic security. The Second Action Plan regards the period 2004-2006 and it focused more on environment, social issues and human resources and social issues (Heininen, 2011).

In 2008, the European Commission launched a formal agenda, within which it was emphasized the inextricably linkage and the major contribution of EU to the Arctic research and security (Dittmer et al, 2011). Also in 2008, the EU's High Representative and the European Commission on "Climate Change and International Security" acknowledged the recent strategic changes of the Arctic region and also the high importance of energy resources and their accessibility. Within this document, the European officials demanded: firstly, the adoption of binding international standards that are necessary in order to regulate the exploitation of Arctic petroleum and gas reserves and secondly, the promotion of freedom of navigation and innocent passage principles8. On 10 March 2010 the EU High Representative for Foreign Affairs and Security Policy, Catherine Ashton, addressed the European Parliament on issues related to the Arctic. In her speech, she confirmed EU's interest for the High North and proposed a greater involvement of the organisation in the region<sup>9</sup>. In terms of financial spending, EU is ready to spend more than 200 million euro in order to tackle the present polar issues, like for example the polar ice melting. This amount of money is available under the 5th and 6th Framework Programs, in which EU is expressing its full commitment to the International Polar Year (Deheza, 2010).

The Arctic region is seen as an opportunity for the European states in terms of energy security especially if oil and natural gas reserves fall under the provisions of the "common heritage of mankind" principle. In 2009 the International Energy Agency (IEA) developed a study, whose result showed that on medium or long term the demand for natural gas in Europe will increase drastically. On short and medium term this demand will be satisfied by the exported volumes from Norway and Algeria, but on long term, the only gas producer that will have the capacity to sustain the European industries will be the Russian Federation, a state that is far from being a flexible and fair partner. The European countries already import from Russia approximately 300 billion cubic meters (bcm) annually and this amount will only grow in time<sup>10</sup>. At the same time, an alternative scenario is available: with the possibility of finding new destinations for its new Arctic energy resources, Russia could decrease its interest in Europe as the balance of power moves towards Asia. Thus, the Norwegian gas will become the main component of European energy supply. But, this situation will push Norway further northwards in order to explore more energy resources, fact that will generate "tensions with Russia in terms of territorial claims over the disputed boundary of the Barents Sea" (Ebinger and Zambetakis, 2009).

<sup>&</sup>lt;sup>8</sup> Climate Change And International Security Paper from the High Representative and the European Commission to the European Council, 14 March 2008, available at: <a href="http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/reports/99387.pdf">http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/reports/99387.pdf</a>, accessed on 14 October 2012.

<sup>&</sup>lt;sup>9</sup> European Parliament Plenary Session, (EU) EP/Arctic: Ashton Confirms EU's Political and Economic Interests in Arctic, *Quotidien Europe* No. 10096, 12 March 2010.

<sup>&</sup>lt;sup>10</sup> "European dependence on Russian gas", 14. 01. 2009, available at: <a href="http://rt.com/Top News/2009-01-14/">http://rt.com/Top News/2009-01-14/</a> European dependence on Russian gas.html, accessed on 17 February 2011.

As any other new comer, the European player's strategy is that of promoting an inclusive geopolitical vision of the region in order to legitimize its entering. Its strategy rely on the fact that the general perception must be that the EU will help creating a more stable situation in the Arctic and that without it or its institutional know-how the High North has the potential to become a threat to the international security level. Additionally, they claim that areas from the North Pole, the Arctic Ocean and the Arctic seabed must be perceived as the "common heritage of mankind" in order to minimize the exclusive role of the five rimstates in the Arctic and to create an open geopolitical vision. This strategy would drastically increase the possibility of a tragedy of commons to emerge, as every one of them wants bigger relative power gains. Additionally, this strategy will most likely be opposed by the officials of the five coastal states. At the same time, being a rational game, all rim-states are aware of this strategy and they find it more advantageous to cooperate among them, than to share their gains among many more players (Dittmer et al, 2011). But one important aspect that can influence the strategies that are developed by all Arctic players is the fact that the EU is far from being a unique voice, as the different interests of its member states often conflict. Some of them may want to involve at a minimum level, other would prefer a deeper level of involvement, and some member states could develop strategic partnerships with some rim-states, therefore the European policy regarding the Arctic region could go ahead towards multiple directions<sup>11</sup>.

# The People's Republic of China

China is by far the most powerful non-rim state that issued its interests for the Arctic region. Although it has not yet a special Arctic strategy, its interests in the High North are very well established. Hu Zhengyue, China's Assistant Minister of Foreign Affairs, declared that: "When determining the delimitation of outer-continental shelves, the Arctic states not only need to handle relationships between themselves properly, but must also consider the relationship between the outer-continental shelf and the international submarine area that is the common human heritage, to ensure a balance of coastal countries' interest and the common interest of the international community" (Cited in Jakobson, 2010). Hence, China is interested in the global impacts of climate change, but it also wants to represent a significant power voice within the international institutions, as its ambition is to become a major power of the 21st century, strategy that is totally realistic if we analyze the present trends in international relations (Lasserre, 2010).

Like the EU, China is promoting a more inclusive approach over the Arctic. For it, the Arctic dynamics have regional or global consequences. Considering that the High North's dynamics are affecting its security, China is entitled to intervene in the region and to be an active player. It already applied for the Permanent Observer Status to the Arctic Council, but its application was turned down in 2009 as in the EU's case (Dittmer et al, 2011). In this sense, the Chinese scholars are currently advising the Chinese government to release an Arctic comprehensive strategy, which establishes its interests and constraints in the Arctic region. Additionally, this strategy is a tool to be used in order to ask again for a Permanent Observer status to the Arctic Council. But, this kind of deep and fast involvement in the

<sup>&</sup>lt;sup>11</sup> Geopolitics in the High North-Multiple Actors-Norwegian Interests. Available at: <a href="http://www.fni.no/doc&pdf/Geonor digital.pdf">http://www.fni.no/doc&pdf/Geonor digital.pdf</a>, accessed on 5 April 2012, p.18.

High North would predictably trigger an insecurity felt by all five rim-states as they enter in a perceived security dilemma. At the same time, China does not want to be excluded from the Arctic game given its high interests in the area, therefore it must develop a balanced strategy that promotes China's interests, but does not major interfere with other states' interests (Deheza, 2010).

Being an economic superpower, China needs energy resources in order to maintain or to develop its current status. In this situation new oil and natural gas reserves that do not belong to a given state until now are of high concern for the Chinese state; thus, it developed an interest in the Arctic region. Unlike the European Union and NATO, this state is a total new comer, as it has no direct link with any rim-state or territory from the High North and, predictably so, it is perceived as being a possible threat to the interests of already present states. China was the topic of discussion among foreign ministers from the Russian Federation, Canada, Norway, the United States, and Denmark at the high level meeting in Chelsea, Quebec, which was held on 29 March, 2010 (Deheza, 2010).

China's interest in the Arctic region is not very recent, as in 1999 and 2003 it carried out Arctic research. Additionally, in 2004 Beijing built an Arctic satellite observation centre at New Olson, Spitsbergen Island, in Norway. The construction of such a centre was allowed by the Norwegian authorities to all the signatory states of the 1920 Spitsbergen Treaty (among which were also Germany, Japan, UK, South Korea and France) (Dittmer et al, 2011). China adopted a more cooperative approach towards Norway, as the Polar Institute of China has signed an agreement with this state regarding the polar research cooperation and also their presence in Svalbard<sup>12</sup>. This behaviour can be perceived as a threat by Russia, which is Norway's main competitor for Arctic resources. It could develop a more belligerent strategy towards Oslo and create a zero-sum game, or according to a predictable scenario, it could give Norway more incentive in order to cooperate only with it, as they already have a past built on cooperation regarding the Arctic. At the same time, Norway is also a NATO ally, and as it was mentioned above, it promoted a deeper involvement of this organization in order to balance Russia's hard power. At the same time China's growing power in the region could trigger a US reaction, if it feels threaten by Beijing's involvement. "Given the historically unstable relationship between China and the United States, this is particularly alarming from a national security perspective". Taking into account this perspective, US could find enough incentives to ratify UNCLOS, as it wants to contain China (Ashfaq, 2011). The most optimistic scenario reveals the cooperation thus the win-win game among all rimstate in order to stop new comers from entering the Arctic, thus developing a stable balance of power in the High North with the risk of developing the tragedy of commons in what regards the energy resources. The most pessimistic voices emphasize the development of the security dilemma in what regards the hard power elements, thus the creation of a zerosum game, as power is perceived only in relative terms.

In terms of technology, the authorities from Beijing are already heavily investing in polar research. The most important aspect in this regard is the fact that China, as a non-rim state, possesses the world's largest non-nuclear powered icebreaker, named the Snow Dragon. Currently it is used only for scientific research.

<sup>&</sup>lt;sup>12</sup> International conference "Global Security Forum 2011 Subject: Final Frozen Frontier: Geopolitical and Geo-Economic Thinking on the Arctic". *Center for Strategic and International Studies (CSIS)*.8 June 2011. Transcript. Available at: <a href="http://csis.org/files/attachments/110608">http://csis.org/files/attachments/110608</a> arctic transcript.pdf, accessed on 7 April 2012, p.4,

China is not the only Asian state that has manifested its interest for the Arctic opportunities. Japan and also South Korea are getting more involved in this region, as Japan is investing in research on how to use gas hydrates as energy source and South Korea is trying to build ice-capable vessels (Deheza, 2010).

# Japan

Japan's interest for the High North is similar with that of China's. It wants to claim its great power status and an involvement in this region will help achieving it, as the Arctic became the new hot spot upon which the entire international community is setting its attention. It must be said that Japan's interest in the High North is not new, as in 1956 its National Institute of Polar Research set up its first Arctic expedition. Following the current trend, in 2008 it launched a new icebreaker. Unlike China or the EU, Tokyo has not yet applied for observer status at the Arctic Council. The main reason does not rely on its lack of interest, but in the internal political and administrative bickering. In what regards its cooperation with other rim-state, in Japan's case, it is Canada, with which in 2002 it conducted important research projects on gas hydrates off the coast of Canada, in the Mackenzie Delta and the Beaufort Sea. 'This research is scientifically relevant because of the potential impact of these gas hydrates melting and accelerating climate change" (Lasserre, 2010).

## **South Korea**

For the authorities from Seoul, the Arctic and South Korea's intentions and interests in this particular region are very clear. This state wants: "to be consulted on regional environmental protection matters and on climate change mitigation; to be consulted on [...] all topics that are high on the Arctic Council's agenda" (Lasserre, 2010). In order to prove its high interest in the High North, starting with 2002, South Korea has run a scientific base in Svalbard. It followed China and EU's model and applied for the Permanent Observatory status to the Arctic Council in May 2008.

As for the business sector, for the past 10 years, two giant private firms, Daewoo and Samsung, have been building ice-strengthened cargo ships. "In 2007 they purchased the leading shipyard in the sector, Aker Finnyards of Finland, which had developed a promising new technology for ice navigation, the double-acting ship" (Lasserre, 2010).

Taking into account all the information mentioned before, a relationship based on cooperation only on the specific matters of the Arctic region, between China, South Korea and Japan is predictable, as it will be in every player's interest to enter the game and to contain rim-states' interests. They will develop a win-win game among them, but they will be perceived by the rim-states as threats of a possible zero-sum game. At the same time, their implication could give the rim states enough incentives to cooperate among them in order to contain the new comers. The premises of the game are changing once China, Japan or EU are entering the Arctic, because: the decision - making process will be hindered, the gains will be relatively lower as there are many more players and the new comers are changing the only common point of view accepted by four of the rim-states (the premises of UNCLOS) as they suppose the "common heritage of mankind" principle.

## **Conclusions**

The Arctic region's dynamics is attracting the attention of the entire world, as it reveals the possibilities of huge strategic, economical and geopolitical gains (new navigation routes, energy resources, minerals etc). The rim-states already dispute some parts of its territory: Canada, US, Russia, Norway and Denmark have developed among them a conflicting relationship as their claims often overlap. This race, coupled with the current gaps in international law, increased the potential of a zero-sum game. At the same time, the international law's impossibility of establishing a predictable behaviour of the rim-states created the possibility of cooperation among them only at intergovernmental level. States can agree to create a consortium over some resources rich regions (generating a win-win outcome, which could emerge into the tragedy of commons). A purely zero-sum game would be if at national level every state plays for itself (it does not cooperate to another state). This situation is also possible if at international level the Commission on the Limits of the Continental Shelf gives sovereign rights to only some of the rim states. But, even in this case, the zero-sum could be broken as the technological level plays an important role in the outcome of the Arctic race, as some of the rim-states, like Denmark or Norway, have not the capabilities to exploit the energy resources from the High North, not even after they legally gain sovereign rights over them.

The Arctic game complicates as new comers try to get involved in it. This aspect has the potential to entirely change the Arctic's race outcome, as the rim states as rational actors face a situation of competition with the new comers. Under this scenario, the Arctic game can have three different outcomes: all rim states cooperate to contain the new comers; some rim states allow the new comers to enter the game and cooperate with them defecting in the view of the other rim states; and thirdly, some of these states act independently or they all (new comers and rim-states) act for themselves. Within the first two scenarios we can have a mix zero sum and win-win game, while under the last the possibility of a conflict is very high, thus a zero-sum outcome is predictable.

No matter the result, the Arctic is at the top of national agendas, because it is usually viewed through the eyes of Mackinder: "....he who controls the Arctic controls the world" (cited in Gibbs, 2011) and it would probably be a 'he' if we take into consideration the fact that "states may be talking cooperation, but they are preparing for Conflict" (Huebert, 2010).

## References

- Ashfaq, Sarah (2010) "Something For Everyone: Why The United States Should Ratify The Law Of The Sea Treaty". *Journal of Transnational Law & Policy*. 19.2 (Spring). available at: <a href="http://www.law.fsu.edu/journals/transnational/vol19\_2/ashfaq.pdf">http://www.law.fsu.edu/journals/transnational/vol19\_2/ashfaq.pdf</a> [accessed on 4 April 2012]
- Axelrod, Robert. The Complexity of Cooperation: Agent-Based Models of Competition and Collaboration. (New Jersey: Princeton University Press, 1997)
- Axelrod, Robert and Keohane, Robert O. (1985) "Achieving Cooperation under Anarchy: Strategies and Institutions". World Politics, Vol. 38, No. 1 (Oct.)
- Bennett, Mia (2011)"Canadian, Russian, and Norwegian diplomats convene to discuss Arctic cooperation". Foreign Policy. (25 May).available at: <a href="http://foreignpolicyblogs.com/2011/05/25/canadian-russian-and-norwegian-diplomats-convene-to-discuss-arctic-cooperation/">http://foreignpolicyblogs.com/2011/05/25/canadian-russian-and-norwegian-diplomats-convene-to-discuss-arctic-cooperation/</a> [accessed on 12 Jan 2012]
- Bukkvoll, Tor. "Prospects for peace and cooperation in the Arctic". The Arctic. Available at: <a href="http://arctic.ru/expert-opinions/prospects-peace-and-cooperation-arctic">http://arctic.ru/expert-opinions/prospects-peace-and-cooperation-arctic</a> [accessed on 25 April 2012]
- Deheza, Elizabeth (2010) "The Dawn of a New Arctic Chessboard". Medford: The Fletcher Univesity. 24th May. Available at: <a href="http://dl.tufts.edu/ProxyServlet/?url=http://repository01.lib.tufts.edu:8080/fedora/get/tufts:UA015.012.077.00013/bdef:TuftsPDF/getPDF&filename=tufts:UA015.012.077.00013.pdf">http://dl.tufts.edu/ProxyServlet/?url=http://repository01.lib.tufts.edu:8080/fedora/get/tufts:UA015.012.077.00013/bdef:TuftsPDF/getPDF&filename=tufts:UA015.012.077.00013.pdf</a> [accessed on 4 March 2012]
- Dittmer, Jason; Moisio, Sami, Ingram, Alan and Dodds, Klaus (2011)"Have you heard the one about the disappearing ice? Recasting Arctic geopolitics", *Political Geography* 1-13. Available at: <a href="http://www.uta.fi/jkk/jmc/studies/courses/reading1%20+%20arctic%20+%20moisio.pdf">http://www.uta.fi/jkk/jmc/studies/courses/reading1%20+%20arctic%20+%20moisio.pdf</a> [accessed on 13 April 2012]
- Dodds, Klaus (2010) "Flag planting and finger pointing: The Law of the Sea, the Arctic and the political geographies of the outer continental shelf". *Political Geography*. 29; 2
- Ebinger, Charles K. and Zambetakis, Evie (2009) "The geopolitics of Arctic melt". *International Affairs* 85: 6.p.1120 available at: <a href="http://www.brookings.edu/~/media/Files/rc/papers/2009/11">http://www.brookings.edu/~/media/Files/rc/papers/2009/11</a> arctic melt ebinger zambetakis.

  pdf [accessed on 12 May 2012]
- Gibbs, Denis Richard MacKinder meets Buzan: A Geopolitical Extension to Security Complex Theory with an emphasis on the Polar Regions. Available at: <a href="http://researchcommons.waikato.ac.nz/bitstream/handle/10289/5966/thesis.pdf?sequence=3">http://researchcommons.waikato.ac.nz/bitstream/handle/10289/5966/thesis.pdf?sequence=3</a> [accessed on 15 Nov 2011]
- Giusti, Serena and Penkova. Tomislava (2008) "Russia: just a normal great power?". Istituto per Gli Studi di Politica Internazionale. 34 (Oct) available at: <a href="http://www.ispionline.it/it/documents/WP\_34\_2008.pdf">http://www.ispionline.it/it/documents/WP\_34\_2008.pdf</a>, [accessed on 10 May 2010]
- Hardin, Garrett (1968) "The Tragedy of the Commons" *Science*, 162:1243-1248 available at: <a href="http://dieoff.org/page95.htm">http://dieoff.org/page95.htm</a> [accessed on 4 Jan 2012]
- Heininen, Lassi. (2011) "Post–Cold War Arctic Geopolitics: Where Are the Peoples and the Environment?" in *Arctic Geopolitics & Autonomy*. Ed. by Michael Bravo and Nicola Triscott

- Holte, Nils Johan Holte (2009) "The Arctic Region Is At A Time Of Geopolitical Transition. Will This Transpire Through Aggressive Competition Or As Peaceful Change?".
   Royal College of Defence Studies. Available at: <a href="http://www.mod.uk/NR/rdonlyres/">http://www.mod.uk/NR/rdonlyres/</a>
   C8EF34E1-F8F8-4F34-8687-80BAF80656E4/0/shp09holte.pdf
   [accessed on 3 May 2012]
- Huebert, Rob (2010), "The Newly Emerging Arctic Security Environment". Canadian Defence and Foreign Affairs Institute, Executive Summary.March. Available at: <a href="http://www.cdfai.org/PDF/The%20Newly%20Emerging%20Arctic%20Security%20Environment.pdf">http://www.cdfai.org/PDF/The%20Newly%20Emerging%20Arctic%20Security%20Environment.pdf</a> [accessed on 20 Jan 2012]
- Jakobson, Linda (2010) "Preparing for an ice-free Arctic (3)". *China dialogue*. 21 April. Available at: <a href="http://www.chinadialogue.net/article/show/single/en/3584-Preparing-for-an-ice-free-Arctic">http://www.chinadialogue.net/article/show/single/en/3584-Preparing-for-an-ice-free-Arctic</a> [accessed on 21 Jan 2012]
- Jensen, Øystein and Rottem, Svein Vigeland (2010)"The politics of security and international law in Norway's Arctic waters". Polar Record 46 (236). Cambridge University Press. available at: <a href="http://www.fni.no/doc&pdf/OYJ-SVR-PR-2010.pdf">http://www.fni.no/doc&pdf/OYJ-SVR-PR-2010.pdf</a> [accessed on 4 January 2012]
- Kirchofer, Charles. (2008) "The Race for the Arctic: the Arctic, the Five Powers, and the Realist and Idealist Incentives for Cooperation". Introduction to International Relations. (Fall I). Available at: <a href="www.english4you.biz/papers/arctic.pdf">www.english4you.biz/papers/arctic.pdf</a> [accessed on la 07 May 2012]
- Barry Krusch (1994, 2010) "The Prisoner's Dilemma". Available at: <a href="http://www.krusch.com/articles/Dilemma.pdf">http://www.krusch.com/articles/Dilemma.pdf</a> [accessed on 12 March 2012]
- Lasserre, Frédéric (2010), "China and the Arctic: Threat or Cooperation Potential for Canada?" Canadian International Council. Available at: <a href="http://www.opencanada.org/wp-content/uploads/2011/05/China-and-the-Arctic-Frederic-Lasserre1.pdf">http://www.opencanada.org/wp-content/uploads/2011/05/China-and-the-Arctic-Frederic-Lasserre1.pdf</a> [accessed on 25 March 2012]
- Miroiu, Adrian (2007), Fundamentele politicii. Vol II: Raţionalitate şi acţiune colectivă. Iaşi: Polirom
- Omestad, Thomas (2008) "Global Warming Triggers an International Race for the Arctic". US News. 9 Oct. available at: <a href="http://www.usnews.com/news/world/articles/2008/10/09/global-warming-triggers-an-international-race-for-the-artic?PageNr = 4">http://www.usnews.com/news/world/articles/2008/10/09/global-warming-triggers-an-international-race-for-the-artic?PageNr = 4</a> [accessed on 11 Jan 2012]
- Parker, Richard D. and Madjd-Sadjadi, Zagros (2010). "Emerging legal concerns in the Arctic: sovereignty, navigation and land claim disputes". Polar Record. 46:4
- Roucek, Joseph S. (1983) "The Geopolitics of the Arctic". *The American Journal of Economics and Sociology*.42, No.4, October
- Sarts, Janis (2009) "The Arctic region shift in geopolitics?" Bimonthly Review 2. 2009.available at: <a href="http://www.tse.fi/Fl/yksikot/erillislaitokset/pei/Documents/bre2009/309%202-2009.pdf">http://www.tse.fi/Fl/yksikot/erillislaitokset/pei/Documents/bre2009/309%202-2009.pdf</a> [accessed on 2 May 2012]
- Waltz, Kenneth (1979) "Theory of International Politics" (Reading, Mass.: Addison-Wesley)
- Williams Nigel (2008) "Arctic battle deepens". *Current Biology*. 18:18, R837-R838 (23 September)
- Young, Oran R. (2009) "Whither the Arctic? Conflict or cooperation in the circumpolar north". *Polar Record.* 45: 1. (2009)

- Zysk, Katarzyna Bozena (2008) "Russian Military Power and the Arctic". EU Russia Center. Available at: <a href="http://www.google.ro/search?q=Russian+Military+Power+">http://www.google.ro/search?q=Russian+Military+Power+</a> and + the + Arctic&ie = utf-8&oe = utf-8&aq = t&rls = org.mozilla:ro:official&client = firefox-a [accessed on 18 February 2012]
- 1970 UN General Assembly Resolution 2749 (XXV): Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, Beyond the Limits of National Jurisdiction, available at: <a href="http://cil.nus.edu.sg/rp/il/pdf/1970%20UN%20">http://cil.nus.edu.sg/rp/il/pdf/1970%20UN%20</a> General%20Assembly%20Resolution%202749%20(XXV)-pdf.pdf [accessed on 16 March 2012]
- RT, "European dependence on Russian gas", 14.01. 2009, available at: <a href="http://rt.com/Top\_News/2009-01-14/European\_dependence\_on\_Russian\_gas.html">http://rt.com/Top\_News/2009-01-14/European\_dependence\_on\_Russian\_gas.html</a>, [accessed on 17 Feb 2011]
- Fisheries and Oceans Canada, Economic exclusive Zone and Continental Shelf. Available at: <a href="www.dfo-mpo.gc.ca/oceans/canadasoceans-oceansducanada/images/maritime-eng.jpg">www.dfo-mpo.gc.ca/oceans/canadasoceans-oceansducanada/images/maritime-eng.jpg</a> [accessed on 13 March 2012]
- Norwegian Institute for Defence Studies, Geopolitics in the High North-Multiple Actors-Norwegian Interests. available at: <a href="http://www.fni.no/doc&pdf/Geonor\_digital.pdf">http://www.fni.no/doc&pdf/Geonor\_digital.pdf</a> [accessed on 5 April 2012]
- Global Research, "New Cold War: Massive NATO Exercise in Norway Provocation directed Moscow. Russian General sends "Arctic Warning" to US". Global Research. Available at: <a href="http://crisisboom.com/2012/03/16/russia-arctic-warning/">http://crisisboom.com/2012/03/16/russia-arctic-warning/</a> [accessed on 21 January 2012]
- International conference "Global Security Forum 2011 Subject: Final Frozen Frontier: Geopolitical and Geo-Economic Thinking on the Arctic". Center for Strategic and International Studies (CSIS).8 June 2011. Transcript. Available at: <a href="http://csis.org/files/attachments/110608">http://csis.org/files/attachments/110608</a> arctic transcript.pdf accessed on 7 April 2012]
- Allied Command Operations. Available at: <a href="http://www.aco.nato.int/">http://www.aco.nato.int/</a> page81904850.aspx [accessed on 14 October 2012]
- Climate Change And International Security Paper from the High Representative and the European Commission to the European Council, 14 March 2008, available at: <a href="http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/reports/99387.pdf">http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/reports/99387.pdf</a> [accessed on 14 Oct 2012]
- USGS Fact Sheet 2008-3049. Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle. Available at: <a href="http://pubs.usgs.gov/fs/2008/3049/fs2008-3049.pdf">http://pubs.usgs.gov/fs/2008/3049/fs2008-3049.pdf</a> [accessed at 14 Oct 2012]