

Chapter 4

The Arctic Ocean and Japan's Defense

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Introduction

One impact of global warming in recent years has manifested itself in the form of abnormal changes occurring to the permanent ice in the Arctic Ocean, *i.e.* melting in the summertime, as a result of which vessels with no icebreaking capability can now navigate there. This has opened up a prospect associated with the Arctic Ocean, including using it as international sea lanes that connect Europe and Asia by the shortest distance and developing marine as well as seabed resources. The Arctic Circle countries (eight countries: Russia, the US, Canada, Norway, Denmark (including Greenland and the Faroe Islands), Finland, Iceland and Sweden) and other interested countries (countries that have an intention of actually using the Arctic Ocean in some fashion) are faced with a strong need to work non-competitively on advancing such economic benefits in accordance with internationally open, fair rules.

In the meantime, any security implications that can stem from the Arctic Ocean's drastic transformation also call for increasing attention. Already, some Arctic Circle countries, such as the US, Russia and Canada, have developed a heightened sensitivity to security issues involving the Arctic Ocean and, furthermore, China and other countries with a marked tendency to expand into maritime areas have begun bickering about security concerning the Arctic Ocean.

Having witnessed such a state of affairs, Japan, both in the public and private sectors, has, albeit belatedly, started turning to the Arctic Ocean but their perspective is for the most part focused on marine transportation and resource development, leaving the level of interest in security and defense still low. The main emphasis of this article is to analyze the impact of the Arctic Ocean's transformation on Japan's security and defense and provide recommendations as to what actions Japan should take in the future.

1. Impact of the Arctic Ocean's transformation on security and defense

Given the relatively slow pace of change in the Arctic Ocean's natural environment and the comparatively rapid increase among Arctic Circle countries and others in their interest in security

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and defense matters, it would be best to study these phenomena from short-, medium- and long-term perspectives in an attempt to analyze the impact of the Arctic Ocean's transformation on security and defense.

Over the short term, new sea lanes of international significance will continue to emerge. Arctic Circle countries and others have already undertaken detailed studies and begun maritime transport for commercial purposes (albeit only at a trial level), and economic use of the Arctic Ocean area is garnering growing international attention.

Over the medium term, competition for Arctic Ocean resources is likely to intensify among Arctic Circle countries and others, with the future course of resource development possibly prompting new entrants from Europe and Asia to join in the development fray. The opening of new sea lanes connecting the Atlantic and Pacific oceans by the shortest distance will have repercussions beyond the economic realm, even triggering serious changes in the strategic maneuver deployment capability of countries with an interest in global security and defense issues. Reduced credibility of the US's extended nuclear deterrence and the emergence of security issues on the periphery of the Arctic Ocean, including the sea territory surrounding Japan, are related concerns. Accordingly, new international rules concerning the Arctic Ocean, including rules governing security matters, need to be established.

Over the long term, changes in the Arctic Ocean itself and in the global environment could have increasingly adverse effects, and an international framework to address these issues is thus required.

(1) Emergence of new sea lanes of international significance

The outlook that sea lanes of international significance are newly emerging has already drawn acute attention from not only the Arctic Circle countries but also other stakeholder nations in Europe and Asia, including Japan. Backed by considerable expectations that these countries have for the use of the Northeast Passage (Russian coasts) in the Arctic Ocean, the navigation record has already been building up in recent years, albeit not exactly on a full scale yet. What is particularly remarkable is the level of enthusiasm that China and Korea, as well as some new emerging maritime nations like India, have shown, which contributes, as a natural consequence, to the growing tendency of this issue being associated with resource development and security and

defense matters.

Currently, however, the use of the Arctic Ocean as sea lanes is not available throughout the whole year but is limited to the summertime. Moreover, a range of restrictions have been imposed on navigation in the form of Arctic Circle countries applying domestic laws and charging transit fees (Russia for the Northeast Passage), or declaring some area as internal waters (Canada for the Northwest Passage (Canadian coasts)), which has generated uncertainty over the prospect of constant use of it. Adding to those circumstances is the fact that the Arctic Ocean was traditionally recognized broadly as a "sea closed in by permanent ice" and was hardly ever given any thought, save for academic purposes, as a potential area for use as a sea lane or as a field of any military operation and there is accordingly no international treaty or accord on the use of or rules for the Arctic Ocean in the first place, a situation that explains a pile of issues lying ahead of us, which cannot be readily solved, for the purpose of using it as a sea lane that is economically viable in a real sense or for use for military purposes.

Given, in any event, the present lack of general international rules, like in the form of the United Nations Convention of the Law of the Sea, the Arctic Council, an organization that is mainly composed of Arctic Circle countries (in addition to the fixed membership that consists solely of the eight Arctic Circle countries, indigenous peoples in the Arctic Circle have been granted a special status to participate as Permanent Participants, while only six non-Arctic countries (France, Germany, the UK, Holland, Poland and Spain) participate, together with NGOs and other organizations, as observers with a limited right to speak), is claiming oligopolistic authority over matters associated with the Arctic Ocean, and it remains challenging for Japan and others to have any part (currently, Japan, China, Korea, Italy, the EU, Singapore, India and Turkey are applying for observer status, but it appears difficult to have consent formed; thus, they participate only in certain meetings as ad-hoc observers). Furthermore, the Arctic Council imposes strict restrictions on ships using an Arctic route, including an obligation to build a ship that satisfies special specifications for transiting the Arctic Ocean.

(2) Spats with a military aspect taking place in the Arctic Ocean

A look at spats with a military aspect that have taken place in the Arctic Ocean shows that one factor behind them is territorial delimitation issues among the Arctic Circle countries, which is now recognized as a real sovereignty issue even in cases that previously did not lead to a specific

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political standoff. What will presumably become even more serious down the road is their impact on actions towards strategic nuclear deterrence between the US and Russia, which may later be compounded with China's attempt to become further involved with the issue.

Among the Arctic Circle countries, Russia in particular has been developing a growing military interest, as manifested in the creation of Arctic forces and new military bases, with the intention of integrating its Arctic border defense functions so as to safeguard the use of the Northern Sea Route and ensure its national interest in the Arctic Circle; it has restarted its surveillance and patrol flights in the Arctic Circle, which it stopped after the end of the Cold War, and has also established new Arctic brigades and embarked on strengthening its icebreaker fleet. Anticipating a possibility of the US honing its Ballistic Missile Defense (BMD) capabilities by, for instance, expanding its Aegis destroyer deployment to reach the Arctic Circle in the future as part of its enhanced nuclear deterrence effort, Russia is acting preemptively by forcibly expressing its opposition, just as it has done with respect to the US's pursuit of enhanced BMD capabilities in Europe (EPAA or European Phased Adaptive Approach).

Canada is similarly showing a high level of military interest, though its nature is different from that of Russia, and is working on equipping itself with aircraft and Unmanned Aerial Vehicle (UAV) forces adapted to its patrol, interception, transportation and rescue missions in the Arctic Circle. It is also in the process of upgrading its patrol ships with an icebreaking capability as well as enhancing the capabilities of its army deployed in the Arctic region.

While the level of military interests in the Arctic Ocean that the US currently appears to have is not as substantial as those of Russia and Canada, it is indeed growing, though belatedly, particularly in its army as can be seen in its move to develop a roadmap slated to be completed next year and attention is growing as to what that will contain.

Among European countries, Norway shows the highest level of interest through its effort to improve the capabilities of its forces as a whole, with the possibility of operations in the Arctic Ocean in mind, and to enhance its ties with Russia. Sweden, with awareness of potential actions in the Arctic Circle, is working to expand its military means particularly for its navy and air forces, including Gripen fighter and reconnaissance aircraft and submarines. Denmark has, in its turn, established the new Arctic Command in Greenland and begun deploying F-16 fighter jets.

(3) Fiercer competition for resources in the Arctic Ocean

The Arctic Ocean is believed to be home to 30% of the world's undiscovered natural gas and 13% of its oil, most of which are concentrated in the areas of shallow waters within Russia's territory; as, however, Russia has difficulties in developing them with its currently limited technological expertise, it is exploring cooperation with Norway, etc. A large number of issues that remain to be solved in planning, taxation and other areas are stalling the progress of its development plan, however.

The Arctic Circle countries are claiming a considerable extent of sovereign authority over resources in the Arctic Ocean and are increasingly strongly motivated to set their sights on development. Russia, in particular, is even eyeing the possibilities of developing a land transport network in Siberia and building an intercontinental tunnel between Russia and Alaska, which reflects its intention to connect the sovereignty claim with resources development on the continental shelf in the Arctic Ocean.

Emerging nations like China, Korea and India are now taking aim at resources in the Arctic Ocean. Most notably, China has started to make a blatant attempt to approach member countries of the Arctic Council in recent years, major examples being Prime Minister Wen's visit to Sweden and Iceland and President Hu's visit to Denmark in 2012. China is paying more and more attention to Iceland in particular, making moves such as establishing an embassy in Reykjavik, Iceland, which have invoked a backlash from other Arctic Circle countries and other stakeholder nations as they suspect that China might have a mind to position the harbor of the city as the hub port that China could have exclusive use over for Arctic transportation purposes and might be working on its development in that direction. As part of such a strategy, China had its icebreaker Xue Long ("Snow Dragon") circumnavigate the Arctic Ocean during the ice-melting season in the summer of the same year and had it make a call at the Reykjavik Port, among others.

In contrast, Japan is still lacking any comprehensive, national-level Arctic strategy, with both the public and private sectors even to this date being left without the means to open up a prospect in its endeavor to develop resources in the Arctic Ocean.

In any case, the Arctic Circle countries and other stakeholder countries are required to work among themselves to establish some type of international rules for resource development in the

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Arctic Ocean that could curb negative impacts on the Earth's environment.

(4) Changes in strategic maneuver deployment capabilities

While there are a wide range of military implications that can materialize if the Northern Sea Route becomes available for use, improved strategic maneuver deployment capabilities linking Europe with Asia will be particularly marked among them. A calculation of the number of navigation days from Rotterdam, Holland to Busan, performed from a perspective of the marine transportation industry, shows that a voyage via the Arctic Ocean is estimated to lead to an approximately 30% reduction in distance (roughly 40% for Tomakomai and 34% for Yokohama) compared to using the Suez Canal. While this number represents a significant difference in terms of the number of days at sea, which can be expected to bring economic benefits to the marine transportation industry, it even more strikingly suggests the prospect of overwhelming advantages from a military strategy viewpoint.

This would lead to a groundbreaking transformation of the global strategic environment. First of all, it would increase the areas of interest for NATO, which would then develop a tendency to have its constant presence felt in the Arctic Ocean. If one looks at the US alone, it could mark a noticeable improvement of its strategic maritime maneuvering performance capabilities interconnecting the Atlantic Ocean with the Pacific Ocean and become capable of performing power projection tasks based in the Arctic Ocean. These changes should give rise to changes in the nature of its regional forces in charge of the Arctic region as well. What would likely happen is that the Arctic region, where there was previously no force assigned specifically, would be split, with the Northern Command taking charge of the Canadian side and the European Command taking charge of the Russian side, whereby the Pacific Command would provide force to the Northern Command, which does not have real force. Assuming that this should be the case, it would have a considerable impact on the military balance in the Asian and Pacific regions, increasing Japan's contributions as a result.

In any case, the Arctic Circle countries and other stakeholder nations will be faced with the need to develop military maritime strategies that extend to the Arctic Ocean, an area that previously has been given no thought or has for the most part been left out of the picture in the spheres of geopolitical or military strategies.

(5) Reduced credibility of the US's extended nuclear deterrence capability

Another major military implication that the Arctic Ocean's transformation has is the possibility that the level of credibility of the US's extended nuclear deterrence capability might be diminished. First of all, that would no doubt result in the longer period of operation and the greater patrol range of Russia's strategic nuclear submarines. On the other hand, that would also coincide with the extension of the period of operation and the patrol range of the US's strategic nuclear submarines and attack nuclear submarines, of which operations may in turn provoke Russia to even further extend the period of operation and the patrol range of its own attack nuclear submarines. While the US outperforms Russia overall in nuclear submarine capabilities, it is Russia that is geographically advantaged, including in terms of antisubmarine force deployment, a fact that will likely work in Russia's favor at least for mission purposes.

In addition, one must also put into perspective China's move to deploy strategic nuclear submarines for patrols (*Jin* class or post-*Jin* class strategic nuclear submarines) or attack nuclear submarines (*Song* class or post-*Song* class nuclear submarines) in the not-so-distant future. It is a well-known fact that the US and the then Soviet Union used to engage in unnerving spats as a common practice in relation to their patrol activities using strategic nuclear submarines and activities of constantly following them with attack nuclear submarines, which peaked during the Cold War. Even at present, relations between the US and Russia probably remain essentially unchanged in this regard. If, further still, China eventually succeeds in developing ballistic missiles to equip its strategic nuclear submarines with, and in upgrading them to a battle-ready grade, it would be no wonder to see Chinese strategic nuclear submarines, depending on their actual range, engage in patrol activities in the Arctic Ocean on an everyday basis.

In any event, the Arctic Ocean's transformation could cause the US's nuclear deterrence capability to deteriorate, depending on how the second strike capability situation between the US and Russia may shift going forward. Given this and other circumstances, the US will in all likelihood work on enhancing the development of its BMD network, with space-, air-, land- and sea-based deployments, a prospect that Japan cannot dismiss as somebody else's problem; Japan, which relies 100% on the US's extended nuclear deterrence capability, has to take to heart the looming necessity to pay great attention to a series of military issues that might emerge in connection with strategic nuclear submarine deployments in the Arctic Ocean and to provide the

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US with as much assistance as possible in this regard.

(6) Emergence of a wide range of security issues in surrounding waters

It is also an important point to make that a wide range of security issues may emerge in the waters adjacent to the Arctic Ocean as a result of the Arctic Ocean's transformation even if they do not have a direct connection with it. The growing use of the Arctic Ocean for navigation purposes will naturally cause traffic to converge in shipping routes in the surrounding waters adjoined to the Arctic Ocean as well. In the vicinity of Japan, traffic would converge in the Sea of Japan as well as the three straits that serve as gateways to it (Soya, Tsugaru and Tsushima). If, in addition to this, the development of crude oil and natural gas in Russia's Eastern Siberia and the establishment of maritime channels to Japan, etc. get underway, there will be a new, significant sea lane for energy transportation that traverses the Sea of Japan, resulting in even further convergence of marine traffic in the Sea of Japan and the three straits. This will at the same time lead to the increased use of the waters not only by Japan but also by China and Korea (North Korea), which will likely augment the possibility of maritime safety and general security problems being generated in the congested Sea of Japan and the three straits.

Heavier marine traffic in the Arctic Ocean and other northern seas may also pose new issues for the region, including those associated with search and rescue, humanitarian aid and disaster relief, and the Arctic Circle countries and neighboring countries will be faced with new international responsibility for addressing them. Japan should recognize that by appropriately making contributions in these areas in a visible fashion, it could secure for itself a card to play in pushing forward to its advantage any international talks on the use of the Arctic Ocean held in the coming years. At any rate, what will likely come to surface as specific issues in the future includes development and acquisition of ships, aircraft and other defense equipment, with possible operations in the Arctic Ocean and other northern seas in mind as well, to provide for any emergency or contingency in and around the region.

(7) Need to establish new international rules associated with the Arctic Ocean

As things currently stand, no international rules have been established yet in the areas of security and defense in the Arctic Ocean, let alone in navigation and resource development. While we have the present United Nations Convention on the Law of the Sea (UNCLOS), a series of

international agreements on international navigation as well as the Antarctic Treaty, which is based on an international agreement on the peaceful use of Antarctica, it is safe to say that there is effectively no equivalent for the Arctic. As has been discussed, the Arctic Council is indeed up and running but it is, at least for now, by nature an oligopolistic consultative body that concerns itself with the use of the Arctic Ocean and other related matters, whose primary purpose rests with maintaining vested rights of the Arctic Circle countries; from an international standpoint, therefore, it is simply difficult for the time being to expect it to function as an impartial organization open to all nations.

In that sense, what is needed is an internationally open, fair debate, one with the idea of establishing a new Arctic Treaty and revising the UNCLOS on the agenda, but there is currently no momentum for the formation of international consensus in that direction. If there is little hope that the Arctic Council as it currently stands might contribute to such a move, Japan will need to secure a leading position and advance, in its favor, discussions intended to establish international rules, which it should in order to secure a stable position from a perspective of international politics, economy and industry, international marine transportation as well as security and defense; a realistic choice for Japan to make for that purpose is to work hand in hand with its ally, the US. In the foreseeable future, the option for Japan will be maintaining close talks with the US, an influential member state of the Arctic Council, and mutually coordinating their respective stakes in security and defense, while carrying forward discussions at the Arctic Council through the US. The US has a sore spot, however: it has not ratified the UNCLOS. The growing move in the US in the direction of ratifying the Convention, triggered in connection with the "freedom of navigation" issue in the South China Sea, is a welcome development for Japan as well. Presumably, therefore, what will be the best choice for Japan is to encourage the US, from that perspective, to ratify the Convention and then vigorously support the US, being an influential member of the Arctic Council, both directly and indirectly.

(8) Concerns about accelerating negative impacts of environmental changes

It is no longer possible to ignore impacts that the Arctic Ocean's transformation has on the environment in relation to security and defense as well. Concerns about environmental deterioration due to congestion of the Northern Sea Route and intensifying competition over resource development there must be shared, and some steps - ones that are sustainable and effective

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- must be taken on an international scale. With the use of the Arctic Ocean, no matter what form it may take, likely further boosting global warming, it will inevitably cause negative impacts on the ecosystem. This will drive up hopes for the development of new rules to protect against environmental deterioration. For instance, this would involve a requirement to set navigation qualifications by allowing only ships and aircraft conforming to Arctic specifications and to oblige operators to acquire ice-covered sea operation license, etc. In this respect, extending the scope to include military ships and planes as well as official ships and planes would also be considered. Further, it may become necessary to bring into view the possibility of imposing limits on the use of ship fuels.

Since it will be necessary to develop an international system of search and rescue, humanitarian aid and disaster relief in preparation against marine salvage, a certain set of obligations will have to be imposed on stakeholder countries as a whole, not just limited to the Arctic Circle countries.

2. Actions that Japan should take

Now, then, what actions should Japan take in the face of changes in the international state of affairs as a result of the Arctic Ocean's transformation, from a perspective of security and defense?

In the short term, Japan would perhaps be best served by policies aimed at actively pursuing the use of Arctic sea lanes, all the while carefully monitoring international developments. In the medium term, it will be of vital importance that Japan as one of the world's leading maritime nations participate in the creation of international rules. From this perspective, Japan's foreign policy with respect to the Arctic Ocean will need to be reconsidered and reinforced.

In conducting a security and defense policy review over the medium to long term, Japan needs first of all to "re-examine its defense structure", i.e., bolster its autonomous defense capabilities, as a maritime nation. Secondly, reviewing the Japan-US security system, i.e., "deepening the Japan-US alliance", will be essential. Thirdly, pursuing security cooperation with relevant friendly countries, i.e., "expanding maritime security coalition", will be required.

(1) Promoting the use of the Arctic Ocean and a diplomatic policy in line with national interests

From a perspective of Japan's security and defense, it is advisable to utilize the Arctic Ocean to

the fullest extent. To that end, what Japan, as a nation whose survival and prosperity depend entirely on oceans, should do first is promoting the use of sea lanes across the Arctic Ocean in line with our national interest, all the while assessing any international trends. Bustling maritime traffic that uses the Arctic Ocean will imply a potential opportunity for Japan to create once again a domestic hub port for maritime traffic serving the Northeast Asian region, which it has lost. Depending on the negotiation with Russia, Japan might be able to obtain special treatment with respect to the Northeast Passage transit fee that Russia is contemplating charging. Depending on the circumstances involving the Northwest Passage, Japan could strike a negotiation with Canada as well. In the meantime, it is imperative to build commercial vessels with Arctic specifications and train sailors with education suitable to Northern Sea navigation. For that purpose, the manpower of those who have been onboard a Maritime SDF icebreaker and have experience in Antarctic exploration assistance, as well as icebreaker building technologies, could be used. The pros and cons of building icebreaker carriers, tankers, etc. need to be examined carefully, however. From a more downright security and defense standpoint, Japan will be required to provide assistance to the US Navy in connection with the Maritime Situational Awareness (MSA) initiative, their ongoing global action to fight against international terrorism and piracy, in the Arctic Ocean as well.

In any event, Japan, though not concerned with the Arctic Ocean as an Arctic State but as a maritime nation that depends on oceans for its survival and prosperity, must participate at an early stage in any international undertaking for developing rules for the Arctic Ocean in an effort to achieve, by appropriate means of diplomacy, outcomes commensurate with Japan's national interests. While it currently appears unlikely that the Arctic Council would play a central role in the development of any fair international rules – considering that, for now, it remains not easy to penetrate how its significance may turn out in the future – it is critical for Japan to continue making its presence constantly felt by first obtaining observer status to take part in it so as to show that Japan is highly interested in the matter. If, then, a momentum for talks on the establishment of new international law associated with the Arctic Ocean is generated within the Arctic Council, by the Arctic Council in its developed form, or in any other fashion, Japan will need to actively take part as a maritime nation. Until then, a wise course of action for Japan to take is, as has been discussed, to increasingly participate in any initiative for the development of rules in line with our national interests through our ally that is an Arctic Council member country: the US.

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In terms of a foreign policy, Japan should, as described above, work on diplomacy so that it should be able to exert a proactive function in the development of any international rules associated with the use of the Arctic Ocean; as, accordingly, the use of the Arctic Ocean as sea lanes grows, it is advisable that Japan should act proactively in any effort directed to develop an international rescue and humanitarian aid framework as well. While Japan needs to actively take part in the Arctic Council to that end, it should recognize that it remains, for the time being, quite challenging to expect too much from the Arctic Council, considering its nature; in that sense, it is critical for Japan to ensure that it should forge a path of cooperation founded on interests and values commonly shared with its ally that is an Arctic Council member country, *i.e.*, the US, and with friendly maritime nations in Europe and Asia, as emphasized repeatedly.

(2) Defense system reviews (reinforcing self-sufficiency in defense)

As a basic policy under the current Abe administration, work is underway to review the Japan-US Defense Cooperation Guidelines, in which process how Japan and the US should cooperate in a series of new issues associated with the Arctic Ocean should be discussed as one of the urgent issues. At the same time, it is strongly hoped that outcomes of such discussion should be carried into the work of reviewing the National Defense Program Guidelines and the Mid-Term Defense Program scheduled to proceed until the end of this year, as articulated as another policy of the current Abe administration. In the meantime, reviews of the Guidelines will necessitate reviewing associated domestic laws as well in order to ensure effectiveness of the new guidelines, including establishing a new Security of Sea lines of Communication Act and revising the Act on Measures to Ensure the Peace and Security of Japan in Perilous Situations in Areas Surrounding Japan and the Act on Ship Inspection Operations in Situations in Areas Surrounding Japan. Needless to say, enhanced cooperation in areas of inter-agency information sharing and operations will also become necessary.

As the foremost example of a specific idea for a reinforced self-sufficient defense system, above all, developing a surveillance satellite, UAVs and C4ISR (Command Control Communication Computer Intelligence Surveillance Reconnaissance) etc with the aim of reinforcing strategic information capabilities with the Arctic region covered is required. As its area of maritime operations expands, strategic and theater antisubmarine capabilities will need to be expanded and enhanced, which requires strengthening military ships and planes as well as the effective use of

UUVs (unmanned underwater vehicles). Furthermore, ballistic missile defense capabilities will also need to be expanded and enhanced, which implies the need to strengthen Aegis ships, among other steps. When one thinks about ship and plane operations in the Arctic Ocean, meanwhile, what also looms is the need to set in place an icebreaker rescue ship and rescue plane operable in ice-bound sea settings, develop ships and planes with Arctic or northern sea specifications and have oceanic and meteorological information collection and analysis capabilities so as to ensure rescue functions with an icebreaking capability.

It will also, as has already been mentioned, be necessary not only to enhance the defense structure for the Sea of Japan and the three straits but also to strengthen operational capabilities in the waters surrounding Hokkaido, the northern seas and the Arctic Ocean, for which a variety of steps will be required, including enhancing the information collection structure of the Self-Defense Forces in those areas, developing C4ISR and improving and strengthening ships and planes suitable to operations in the north in terms of equipment, logistics and operations.

(3) Reviews of the US-Japan security system (deepening U.S.-Japan alliance)

In 2009, the US Navy hammered out a policy of developing a roadmap to address the Arctic Ocean issue and is planning to draw up a corresponding plan by 2013. This plan will incorporate strategies, policies, missions and plans and include operations, training and exercises, weapons, platforms, sensors, C4ISR and other military force development, strategic communication and deployment, and environmental assessments and their predictions. The missions envisioned in the corresponding plan include, among other things, maritime security, search and rescue, humanitarian aid, disaster relief, assistance to other authorities, strategic maneuvers, strategic deterrence and BMD.

While the current Japan-US security system contains no consideration of the Arctic Ocean issue, building a close relation with the US, a member country of the Arctic Council, will have great significance for Japan's use of the Arctic Ocean in the security and defense areas as well. This has also another implication: the ability of Japan to provide multifaceted assistance to the US in their effort to enhance their security architecture for the Arctic Ocean, including nuclear deterrence capabilities, will, if realized, greatly contribute to raising the level of bilateralism in the Japan-US security arrangements. For the purpose, further, of preventing China-Russia ties from further growing, an idea of enhanced tripartite – Japan, the US and Russia - security and defense

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cooperation focused on nuclear deterrence will also appear more real, and become far more significant, than before.

The sheer act of reviewing the Japan-US Defense Cooperation Guidelines will likely exert a significant deterrence effect; what will be of particularly vital significance among the matters covered is fostering greater defense cooperation in connection with security in the Arctic Ocean in areas such as strategic information sharing, C4ISR, BMD, antisubmarine warfare, search and rescue, humanitarian aid and disaster relief. It should make a very meaningful step to further deepen the Japan-US alliance through enhanced relations in these areas.

(4) Security cooperation with friendly nations (expanding maritime security coalition)

It is critical for Japan to work on establishing, in a way commensurate with its national interests, a maritime security coalition with friendly maritime nations in Europe and Asia. This requires following a path of cooperation in security and defense matters associated with the Arctic Ocean issue as well.

Cooperative relations with relevant friendly countries must be maintained so as to ensure safety in these vast sea lanes through broad and seamless maritime security cooperation, whereby Japan can benefit its maritime traffic security, even in seas far remote from the member countries of the maritime security coalition and quite distant from Japan, by promising proactive assistance to the extent possible in search and rescue and other areas to those countries in the Arctic Ocean.

Conclusion

With regard to the Arctic Ocean, Japan is not itself one of the Arctic Circle countries and has not obtained even observer status in the Arctic Council. Although Japan has substantial potential advantages from the use of the Northern Sea Route, it is, given the current state of affairs, not exactly placed in a favorable situation from a perspective of international politics, examples being the oligopolistic nature of Arctic Council member countries, blatantly hegemonic diplomacy exercised by countries like China and Japan's late start in action; against this backdrop, development of international rules is called for in areas such as environmental protection as the use of the NSR as a shipping route picks up, together with resource development and the level of interest in the region.

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Under these circumstances, what is required of Japan now is, as has been emphasized in this article, participating in any effort to develop international rules that are in line with its national interests, which it should do on the basis of cooperation with the US, while it is also faced with the need to adhere firmly to its defense and the Japan-US security system. It is quite welcome that with the start of the current Abe administration, reviews of the Japan-US Defense Cooperation Guidelines, the National Defense Program Guidelines, and the Mid-Term Defense Program are now actually carried forward as clear policy actions. Therefore, it is hoped that reviews of these policy papers should be advanced vigorously with the Arctic Ocean issue also put in perspective, paying attention that the "Arctic Ocean issue" has significant implications not only in terms of the economy, including marine transportation and resource development, but in the areas of security and defense as well.