

Chapter 2

Maintaining the Order in the Arctic Ocean: Cooperation and Confrontation among Coastal Nations

Probably as a result of global warming, recent years have seen major changes in the permanent ice cap that once covered much of the Arctic Ocean and closed the region to surface vessels. These days, a significant portion of the Arctic ice cap that forms in winter melts in the following summer, to the point where it poses no hindrance to navigation. This tendency has been increasing from year to year, such that many observers are predicting that much of the Arctic Ocean's surface could become ice-free in the near future. This would not only open up the ocean to the passage of all kinds of vessels, but also permit the exploitation of natural resources on the seabed and make possible a wider range of military options.

The countries that border the Arctic Ocean have responded to these changing conditions by clarifying and asserting their sovereignty and sovereign rights over relevant parts of the ocean. All the nations that border the Arctic Ocean, with the exception of the United States, are contracting parties to the United Nations Convention on the Law of the Sea (UNCLOS), and in general their assertions of rights with respect to exclusive economic zones (EEZ) recognized by the convention, continental shelf, navigation in ice-covered areas, and military operations are in conformity with the system laid down by the convention. The United States, the sole non-contracting party to the UNCLOS, asserts its rights in line with customary international law, but calls have recently been heard within the United States for the country to ratify the convention, so as to avoid the possible disadvantages that non-membership might entail.

The Arctic Ocean could be said to be a new maritime region for Japan, for which trade with Europe and the United States is very important. Both the Northeast Passage, in which ships follow the Russian Arctic coastline, and the Northwest Passage, which follows Canada's northern coast, could well become important routes for the transport of goods between East Asia and Europe/North America. For countries in East Asia, including Japan, the ability to use such trade routes would shorten distances by 30 to 50 percent by comparison with the traditional routes through the Indian Ocean and the Suez Canal, or across the Pacific and through the Panama Canal. This would not only reduce shipping time and save fuel costs, but also allow shipping companies to avoid the threat of piracy, as well as navigating through the conflicting areas. The same considerations apply to European and North American shippers wishing to transport goods to East Asian destinations, including Japan. For these reasons, it is a matter of

common interest for all nations to avoid destabilizing the Arctic Ocean region and ensure that it remains free from military confrontation.

1. The Arctic Ocean Today

(1) Definition of the Arctic Ocean

Before proceeding to an examination of international problems in relation to the Arctic Ocean, let us first examine the region's main geographical features. The ocean is surrounded by the Eurasian and North American continents, as well as the large island of Greenland. It is bordered by the territories of Russia, Canada, the United States, Norway, and Denmark (Greenland is an autonomous country within the Kingdom of Denmark). The Arctic Ocean covers an area of approximately 9.5 million square kilometers, and its shape is roughly an ellipse, centered on the North Pole. It is connected with the Pacific Ocean via the Bering Strait and with the Atlantic Ocean via sea lanes on both the eastern and western sides of Greenland as well as via the sea off the western coast of Norway. The Arctic Ocean's average depth is 1,300 meters, with a maximum of just under

Figure 2.1. The Arctic Ocean and surrounding national territories

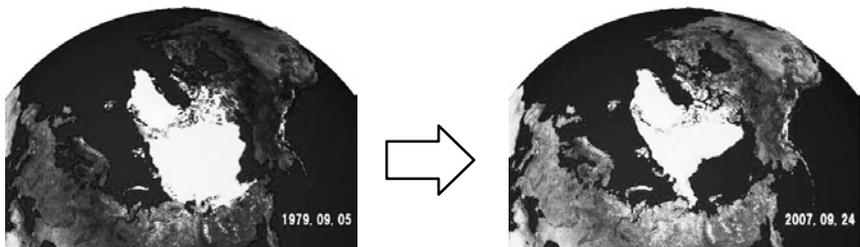


5,500 meters. By way of comparison, the Pacific Ocean covers an area of 180 million square kilometers, while the Atlantic Ocean covers 87 million square kilometers, the Indian Ocean 73 million square kilometers, and the Antarctic Ocean (Southern Ocean) 3.25 million square kilometers. Thus, the Arctic Ocean is the second-smallest of the world's five major oceanic divisions. It is also rather shallow compared with the Pacific and Atlantic, whose average depth is about 4,000 meters. This means that, if the thick ice that covers much of the ocean's surface were to disappear, it would be considerably easier to exploit the resources on the bed of the Arctic Ocean than in the case of the Pacific and Atlantic.

(2) The Shrinking of the Arctic Ice

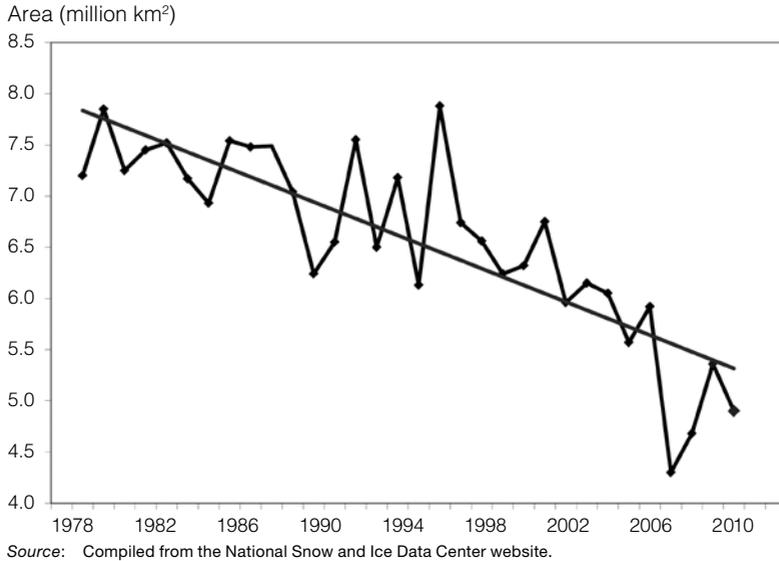
In recent years, it has been possible to measure the extent of the ice around the North Pole using remote sensing satellites that pass over the Pole. Data is available from the 1980s to the present. The extent of the Arctic ice in September of each year in the early eighties was approximately 7.5 million square kilometers, and as the total area of the ocean is around 9.5 million kilometers, this means that nearly 80 percent of its total surface area was covered by ice. By 2004, however, the ice had shrunk to about 6 million square kilometers. In the following year, this had further diminished to roughly 5.3 million square kilometers, and in September 2007 the ice pack was measured at only 4.25 million square kilometers. In 2010, it was approximately 4.80 million square kilometers, the third-smallest area on record. Thus, we see that the Arctic ice has shrunk by around 40 percent from its extent in 1980 and thereabouts. Another significant element is that the area of thick multiyear ice is shrinking rapidly. In place of multiyear ice, the area covered by seasonal ice, which melts with each coming summer, is on the increase. As this

Figure 2.2. Changes in the extent of the Arctic ice pack



Source: Compiled from the Japan Aerospace Exploration Agency (JAXA) website.

Figure 2.3. Year-by-year changes in the extent of the Arctic ice pack in September



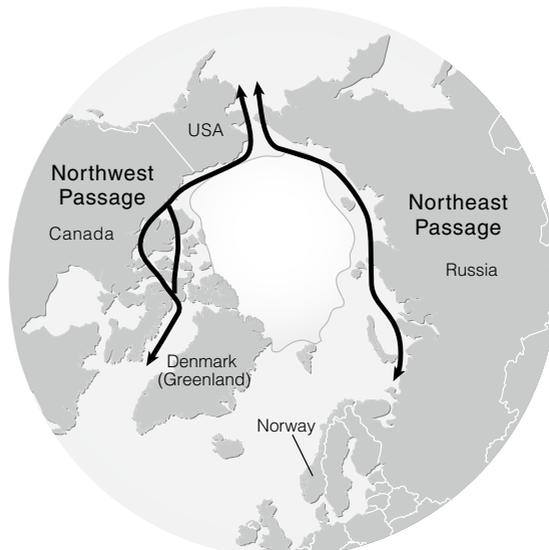
relatively thin ice cover is easily brushed aside by icebreakers, the practical exploitation of the Arctic Ocean is becoming increasingly possible. The arrival of summer sees the disappearance of sea ice in the area of the Arctic Ocean to the north of the Canadian mainland, which is dotted with numerous islands known as the Canadian Archipelago, making it possible for ships to traverse the Northwest Passage between the Atlantic and the Pacific. The warmer weather also causes a considerable reduction in sea ice off the coast of Siberia, enabling ships to use the Northeast Passage, which follows the coast of Russia.

(3) Opening up the Northwest and Northeast Passages: New Maritime Trade Routes

The route historically called the Northeast Passage, and now generally referred to as the Northern Sea Route, joins Europe with East Asia via Russia's northern coastline. In the route most commonly used by ships traveling from Japan to Europe, a vessel first steams south from Japan through the East China and South China seas, rounds the Malay Peninsula at Singapore, and then passes through the Strait of Malacca, before crossing the Indian Ocean. The ship then passes along

the northern coastline of Somalia before entering the Red Sea, negotiates the Suez Canal, steams west through the Mediterranean Sea, passes through the Strait of Gibraltar, turns northward, and finally arrives at one of the ports of Western Europe. This is known in Japan as the “European Route.” In contrast to this, a ship following the Northeast Passage would first proceed in a northeasterly direction, pass through the Bering Strait, follow the Russian coastline westward, and turn south along the Norwegian coast before arriving at the same Western European ports. In the case of a ship traveling from Tokyo to Europort in Rotterdam, the Netherlands, the distance covered would be 40 percent less than for the European Route used hitherto. Compared with the other route from Japan to Europe—via the Cape of Good Hope—the Northeast Passage would roughly halve the distance. Another significant merit of the Northeast Passage compared with the conventional route to Europe is that it allows ships to avoid maritime regions that are a prey to piracy or where there are territorial disputes. The South China Sea, for instance, is the stage for a number of ongoing territorial disputes between China and other nations in the region regarding exclusive economic zones and the exploitation of seabed resources on the continental shelf. Instances of piracy increased in the

Figure 2.4. The Arctic Ocean Routes



Source: Compiled from the UNEP/GRID-Arendal website.

Strait of Malacca only a few years ago, and it is well-known that piracy off the coast of Somalia constitutes a serious threat to safe international shipping.

The Northwest Passage is a route that links the Eastern Seaboard of the United States with East Asia. From a port on the East Coast, a ship proceeds north and then westward through the island-studded maritime area off Canada's northern coast. At present, the normal

route from Japan to the East Coast of the United States consists of crossing the Pacific, passing through the Panama Canal, through the Caribbean and into the Atlantic, where the ship turns northward to arrive at a port on the East Coast. Using the Northwest Passage, on the other hand, the ship would proceed in a northeasterly direction from Japan, pass through the Bering Strait, and then turn east along Canada's northern coast before turning south, entering the Atlantic and arriving at its East Coast destination. Comparing the distances involved in traveling from Tokyo to New York, using the Northwest Passage would realize a reduction of around 30 percent. The Northwest Passage would also save time by eliminating the need to pass through the Panama Canal, which takes considerable time: the route would thus realize savings in both time and fuel costs, cutting total shipping costs and enabling shippers to raise their profit margins and enhance their competitiveness.

In fact, a number of nations have been working to open up these routes over the past few years, particularly the Northeast Passage. German shipping companies have achieved considerable success in navigating the Arctic Ocean utilizing icebreakers to open up routes for their vessels.

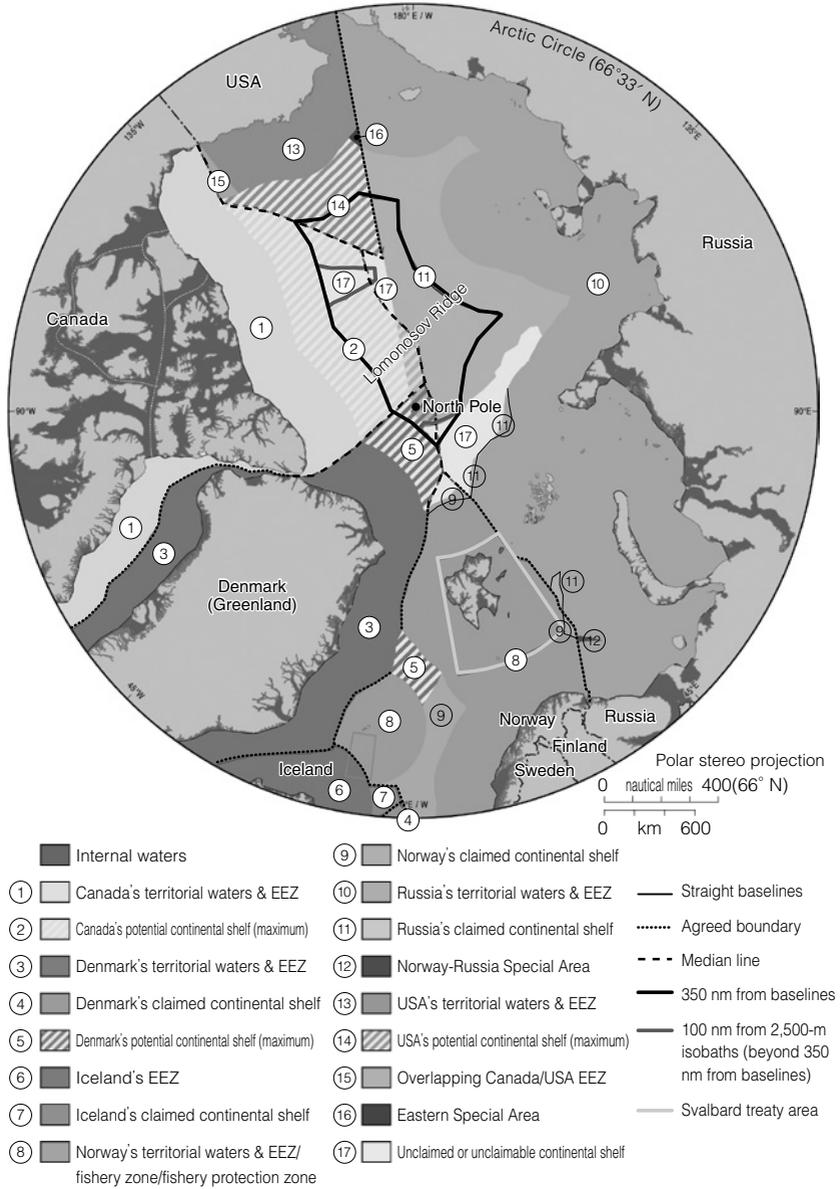


A freighter operated by Beluga Shipping of Germany passes through the Arctic Ocean
(Photo by Beluga Shipping GmbH)

(4) The Development of Natural Resources in the Arctic Ocean

The existence of natural resources such as oil, natural gas, and manganese nodules has been confirmed under the Arctic seabed. It is said that the Arctic Ocean could cover as much as 25 percent of the world's total oil reserves and 30 percent of its natural gas reserves. These natural resources cannot be exploited at present, as the sea above them is closed to the passage of ships by the Arctic multiyear ice pack,

Figure 2.5. Territorial claims with respect to exclusive economic zones (EEZ) and continental shelf areas



Source: Compiled from the International Boundaries Research Unit website.

and thus plans for the development of the resources have been shelved. However, if the ice-free area of the Arctic Ocean expands, exploitation of seabed resources will become possible, just as in other parts of the world. Considering the tightness of the global energy supply situation, we may see a rush to open up the Arctic to resources development.

(5) Possibilities for the Military Utilization of the Arctic Ocean

Just as conditions in the Arctic Ocean have made the exploitation of natural resources effectively impossible, so naval vessels were effectively barred from operating extensively in the region. Thick multiyear ice makes it impossible for surface ships to pass or submarines to surface. Normal warships cannot operate in the Arctic when it is largely covered in ice during the winter, while even warships specially designed to withstand a certain amount of ice pressure can still only operate in regions where the drift ice has not formed a solid pack. When the only vessels able to traverse the frozen-over Arctic Ocean were large powerful icebreakers, military operations in the ocean using surface ships was effectively impossible. In Japan's case, for example, the only government-owned vessels capable of breaking heavy ice are the Japan Coast Guard's icebreakers *Soya* and *Teshio*, and the *Shirase*, which is an icebreaker owned by the Maritime Self-Defense Force and operated for the Ministry of Education, Culture, Sports, Science and Technology in its Antarctic observation program.

The situation would be completely different, however, if the ice were to disappear. Both the United States and Russia abut on the Arctic Ocean, and thus, if either country were to operate military surface vessels and submarines in the Arctic, this would constitute the deployment of military force very close to the other country's mainland. In other words, while up to now, neither Russia nor the United States has had to worry too much about military encroachments by the other party in the Arctic, the opening up of the Arctic Ocean would threaten to destabilize the security situation in the "backyard" of the two nations.

2. The Law of the Sea with Respect to the Arctic Ocean

As the Arctic region consists mostly of ocean, it comes under the purview of international law, particularly the Law of the Sea. The Law of the Sea is one of the most ancient fields of international law, but formerly, much of it was imprecise because a great deal depended on customary law. To bring about an improvement

in the situation, in the post-World War II period the United Nations held a number of sessions of its first and second conferences on the Law of the Sea, and these sessions succeeded in codifying existing laws into four treaties. The most recent fruit of these efforts is the UN Convention on the Law of the Sea (UNCLOS), which was drawn up at the Third United Nations Conference on the Law of the Sea. This became the basis for the current Law of the Sea, which the majority of the world's nations have signed and ratified. Of the countries that border the Arctic Ocean, Russia, Canada, Norway, and Denmark have ratified the UNCLOS, but the United States, objecting to the convention's provisions relating to a regime for the exploitation of the deep seabed, has yet to ratify it since it does not allow any reservations or exceptions. However, apart from the provisions concerning the deep seabed regime, the United States has accepted most of the convention as part of customary international law, and it is not thought that any serious dispute will arise under normal circumstances. Even so, as a special system and organization have been set up under the provisions of the UNCLOS, the failure of the United States to ratify the treaty means that it alone suffers from the disadvantage of being unable to make use of that system and organization, and this could harm US interests. In this section, we look at which of the current laws of the sea could be applied to the Arctic Ocean.

(1) Territorial Waters

Under international law, a nation state may claim as its territorial waters (also called a "territorial sea") an area of the sea extending up to twelve nautical miles (approximately twenty-two kilometers) measured from a baseline consisting of the low-water line of the nation's coast, or the headland of a peninsula, or a straight line drawn through small fringing islands along the coast. A state has complete jurisdiction over such territorial waters, as if they were enclosed by an invisible border fence. Just as in the case of a nation's territory on land, a coastal state may exercise absolute sovereignty over its territorial waters, and that state alone has the right to engage in fishing, seabed resource exploitation, and so on in such waters. Despite this, it is often necessary for vessels of foreign nations to pass through a state's territorial waters for purposes of interchange or trade, and thus provisions exist under international law whereby the state is obliged or expected to accord foreign vessels right of passage subject to certain restrictions—this is known as the right of innocent passage. While foreign vessels thus have the right

to pass through territorial waters without undue delay, they do not have the right to engage in fishing or drilling for natural resources in such waters. Foreign military vessels are accorded the right to pass through the territorial waters of another state without delay, without engaging in any military activity. That is to say, foreign warships may not carry out any measurements or surveying, nor may aircraft take off from or land on such vessels. Submarines are obligated to navigate on the surface and display their national flag. In the event that a coastal state discovers a vessel to be engaged in “non-innocent” passage through its territorial waters, it has the right to demand that the vessel leave its waters immediately. If the vessel nevertheless remains within those waters, the flag state is obligated to recognize that the vessel may be subjected to detrimental treatment.

Waters on the landward side of the baseline from which a state’s territorial waters are calculated are known as “internal waters.” States have the same degree of sovereignty over internal waters as over their land territory, and foreign vessels have no rights here, not even that of innocent passage. In the case of the Arctic Ocean, Canadian territory encompasses a large number of small islands, and the country has defined baselines connecting the outer edges of these islands. Thus, all waters within those baselines are internal waters, and Canada may interdict the passage of foreign vessels through them. This constitutes a potential problem in the future development of shipping routes through the Arctic.

(2) Exclusive Economic Zones (EEZ)

Under the current Law of the Sea, a coastal state may claim certain rights over an area of the sea stretching seaward from the outer edge of its territorial waters. Such an area is known as an exclusive economic zone (EEZ). The number of states claiming such EEZs has increased considerably over the past several decades, and this constitutes a new form of legal regime under the Law of the Sea, involving the expansion of states’ rights over the fishing industry. A state may claim an EEZ up to a maximum of 200 nautical miles (approximately 370 kilometers) outward from the coastal baseline used to calculate its territorial waters. A state may apply its own legal system to the resolution of problems relating to its economic interests within an EEZ. In other words, a state may claim sovereign rights close to national sovereignty over all exploration, development, conservation, and management of natural resources within the area of sea included within its EEZ and on or under the seabed below that area of sea. The state also

possesses the same sovereign rights over all other economic activities within the EEZ, including the generation of energy utilizing seawater, ocean currents or tides, and wind power. In addition, within its EEZ, a state has jurisdiction over the construction of man-made islands, the conduct of scientific research, and all environmental protection and preservation activities. That is to say, the state may carry out any research necessary for the conduct of such economic activities as fishery operations or natural resource exploitation within the EEZ, and may lay down its own regulations prior to conducting development. The state also has the right to permit another state to engage in the said activity. Conversely, no state may engage in economic activities such as fishery operations or natural resource exploitation within the EEZ of another state without the express permission of that state. A state may also refuse to allow the conduct of scientific research within its EEZ. In the event that economic activity becomes possible in the Arctic Ocean as result of the shrinking of the polar ice cap, the countries that border the ocean can be expected to vigorously engage in activities of various kinds within their respective EEZs. The exploitation of natural resources in the Arctic would alter the balance of supply and demand for such resources on a global scale.

At the same time, with regard to uses of the ocean other than for economic purposes, it is expected that these will be permitted by all the countries concerned even within their EEZs. Such uses include the navigation of ships and the passage of aircraft through the airspace above the EEZs, as well as the laying of electric cables and pipelines on the seabed.

(3) Continental Shelves

In certain cases in which specific geographical conditions are met, a state may have rights to the seabed of the continental shelf up to 350 nautical miles (approximately 650 kilometers) from its coastal baselines, beyond the outer edge of its EEZ. This area is also limited to 100 nautical miles (approximately 180 kilometers) from the 2,500-meter depth line. Within this area, the state enjoys sovereign rights over the surveying and exploitation of natural resources on or under the seabed, the construction of structures, and the conduct of scientific research. Unlike EEZs, however, the state does not possess legal rights under international law regarding fishery stocks in the waters above the seabed in question, but many nations have attempted to make use of this system to expand their interests legally under the banner of scientific research. This does not mean,

however, that a state may freely lay down its own definition of the term “continental shelf.” A state must apply for recognition of its claims to the UN Commission on the Limits of the Continental Shelf, which was set up under the United Nations Convention on the Law of the Sea. Only after receiving recognition from the Commission may a state lay down a definition of its continental shelf in its domestic law. Viewed in this light, we see that the planting of the Russian flag on the seabed at the North Pole in 2007 may have had a symbolic significance for the cause of Russian nationalism, but carried no legal implications.

As it is forbidden for a state to unilaterally lay down a definition of its continental shelf territory, a country that is a signatory to the UNCLOS must lodge its submission to extend its territory to the Commission on the Limits of the Continental Shelf, accompanied by scientific data supporting the claim. Among the countries bordering the Arctic Ocean, the signatories to the UNCLOS—Russia, Canada, Norway, and Denmark—have made such submissions. As a non-signatory, the United States has no rights under the convention, and therefore lays itself open to possible one-sided disadvantage. With respect to continental shelf territory, other states enjoy the rights of free ship navigation and aircraft overflight, as well as the laying of cables and pipelines, in the same manner as in the case of EEZs and the high seas.

(4) Navigation in Ice-Covered Areas

The UNCLOS includes a section that specifically deals with ice-covered areas such as exist in the Arctic Ocean. That section, Article 234, allows a coastal state to enact certain specific laws to deal with a hypothetical case in which a foreign vessel passing through an ice-covered area within the state’s EEZ suffers an accident whereby its passage is blocked by ice, and as a result, serious damage is caused to the environment of the coastal state. These laws must apply indiscriminately to vessels of all nations. Generally speaking, ships of all nations have the right to freely navigate the EEZ of another country, but a number of hazards are anticipated in the case of ice-covered areas, and coastal states are therefore allowed to place certain restrictions with the aim of preventing or minimizing accidents. In fact, coastal states are also allowed to enact laws applying to their EEZs, to prevent accidents resulting in pollution that would cause damage to their economic interests, and this special legal regime extends the same principle to ice-covered areas, taking into account their unique features.

However, as stated in Article 234, such regulations must be applied indiscriminately to vessels of all nations, including those of the coastal state in question. Currently, among the countries bordering the Arctic Ocean, Russia has enacted legislation applying to the ice-covered areas within its EEZ. These laws require ships passing through such areas to take on board a pilot and to pay a toll. However, reports indicate that these requirements are waived for Russian vessels, and the legislation has therefore been criticized as being in violation of the UNCLOS requirement of indiscriminate application.

(5) Military Use

A state may exercise its national sovereignty over the area of territorial sea it has designated off its coast, as that area constitutes part of its domain. For this reason, foreign warships have the right of innocent passage through a state's territorial waters, but no rights whatsoever to conduct normal military activities. In the state's EEZ, outside its territorial waters, however, as in the continental shelf area and the high seas, a ship belonging to any state may conduct military activities such as military maneuvers or exercises. Historically speaking, many nations have conducted military exercises and so on in such waters for many years, and in most cases, the states off whose coasts these exercises have taken place have not lodged any particular objection. Such activities can be said to have been recognized by customary international law. Article 88 of the UNCLOS states that "the high seas shall be used for peaceful purposes." However, the phrase "peaceful purposes" as used here does not mean "nonmilitary purposes," but rather acts other than those normally classified as "acts of aggression" under international law. That is to say, nonaggressive military activities are regarded as legitimate under the international Law of the Sea. This interpretation, which applies equally to outer space, is widely accepted among the international community.

The Arctic Ocean, which is still largely closed to human activities by its extensive ice pack, may at some point in the future become a large expanse of open water allowing unhindered navigation. If so, we can forecast that the navies of many nations will be deployed in the Arctic, where they will undoubtedly engage in various activities. Russia has in the past followed a southward expansionist policy, partly driven by its desire to seek warm-water ports (i.e., those not closed by sea ice in the winter). In the near future, as a country bordering the Arctic Ocean, Russia may find itself in the unaccustomed position of being a

seafaring nation.

3. The Claims and Positions of the Nations Bordering the Arctic Ocean, and Recent Developments

No agreement has been reached in disputes among the countries bordering the Arctic Ocean regarding the delimitation of the boundaries of their respective continental shelves, and their claims conflict with regard to the regulation of shipping routes through the Arctic under international law. The Arctic coastal countries are investing an increasing amount of time and effort in conducting geological surveys with the aim of collecting sufficient scientific data to back up their arguments for an extension of their continental shelf areas recognized under international law. At the same time, they are taking steps to expand their military presence in the Arctic region. On the other hand, in early 2010 Russia and Norway reached an agreement in their longstanding dispute over boundary delimitation in the Barents Sea, and this is just one example of ongoing efforts among the Arctic border countries to resolve such legal disputes through negotiations. In this section, we first examine the nature and significance of the legal dispute between Russia and Norway over boundary delimitation, as this is likely to exert a strong influence on various other disputes in the Arctic Ocean. We will then examine the arguments put forward by the various countries for the extension of the recognized boundaries of their continental shelves, their arguments regarding the status under international law of shipping routes through the Arctic Ocean, and recent military activity by these countries in the Arctic region.

(1) Marine Delimitation Issues

A number of legal disputes have existed or are still pending with regard to the delimitation of the national boundaries of littoral states surrounding the Arctic Ocean. These include the Barents Sea boundary issue between Russia and Norway, the boundary issue in the Beaufort Sea between Canada and the United States, the dispute between Canada and Denmark (via Greenland) over Hans Island (a small island in Baffin Bay), and boundary disputes between the United States (Alaska) and Russia regarding the Bering Sea. Of these, the dispute between Russia and Norway involved the most extensive area of ocean, but that dispute was resolved in early 2010 in what was regarded as a major step forward for the entire region.

In April 2010 Russia and Norway reached an agreement on their forty-year-

long dispute over boundary delimitation in the Barents Sea, which had been a source of considerable friction between the two countries. In September 2010 they signed the “Treaty on Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean,” under which an area of approximately 173,000 square kilometers straddling the Barents Sea and the Arctic Ocean has been divided up roughly equally between the two sides. In Article 2 of the treaty, the two sides agree to respect the maritime boundary line mutually agreed upon, and to refrain from attempting to exercise any form of sovereign rights in maritime areas beyond that boundary line. Additionally, in Article 5 of the treaty, the two sides agree on a definition of the methods of exploitation of the natural resources existing on both sides of the boundary line in the continental shelf areas of the two countries, and agree to treat these resources as a single unit and to conclude agreements allocating the resources between the two sides. The treaty includes an annex stipulating in detail the ways in which the exploitation of the natural resources on both sides of the boundary line is to be conducted. This annex is intended to form the basis for the resolution of the dispute between Russia and Norway over the exploitation of natural resources existing in a maritime area that straddles the continental shelf areas of the two countries, divided by the agreed-on boundary line.

Russia’s agreement to the boundary delimitation in the Barents Sea has opened the way for other Arctic Ocean littoral states to employ negotiation based on existing international law to resolve a wide variety of outstanding disputes, and the conclusion of the Russia-Norway treaty is sure to have a major influence on other disputes in relation to the Arctic Ocean. As a result of the agreement, Russia may be able to gain Norway’s support for its claims regarding to the outer limits of the area defined by international law as its continental shelf. This is crucially important for Russia, which is seeking to extend its claims of sovereignty over a larger area of continental shelf in the Arctic Ocean than is currently recognized. The Russian gas monopoly Gazprom has signed an agreement with the Norwegian company Statoil Hydro (Statoil ASA) on collaboration in the development of the Shtokman gas field on the Russian side of the Barents Sea. Such collaborative resource development projects between the two countries may well gather momentum in the near future. Meanwhile, as a result of the signing of the treaty between Russia and Norway, the Norwegian side is eyeing possibilities—not only for the development of natural resources straddling the continental shelf areas of

the two countries—but also for collaboration in the development of oil and gas fields in the Russian Arctic oblasts (provinces) of Murmansk and Arkhangelsk. Following the signing of the treaty, in a joint news conference with Russian President Dmitry Medvedev, Norwegian Prime Minister Jens Stoltenberg stated that twenty Norwegian companies were already operating in Murmansk Oblast, and that Norway planned to open a consulate general in the city of Arkhangelsk to promote collaboration between the two sides in Arkhangelsk Oblast.

(2) Issues Pertaining to the Extension of Continental Shelves

According to the UNCLOS, a country may extend its exercise of sovereign rights, or control, over the natural resources of the seabed on its continental shelf, up to 350 nautical miles (approximately 650 kilometers) from the baseline of its territorial waters, upon presentation to and acceptance of scientific evidence by the UN Commission on the Limits of the Continental Shelf. All the nations bordering the Arctic Ocean have been competing with one another to expand their legally defined continental shelves, and on the basis of a scientific survey conducted in 2000, Russia submitted a claim that the Lomonosov and Mendeleev ridges in the central Arctic Ocean were connected with the Siberian continental shelf. It further claimed that, as these two ridges stretch as far as (and well beyond) the North Pole, Russia was entitled to extend its exercise of sovereignty over an additional 1.2 million square kilometers of seabed. In 2001 Russia made a submission to the UN Commission on the Limits of the Continental Shelf in which it presented scientific evidence of its claims, but this was rejected by the commission on the grounds of insufficient evidence: Russia was required to supply more detailed evidence. The country carried out two more surveys in 2007, and in August of that year two Russian submersibles descended to the seabed at the North Pole and planted the Russian flag in symbolic support of the country's claims. On the basis of scientific data gleaned by this survey, in 2009 Russia made a second submission of its claims to the continental limits commission, officially requesting the extension, by 2013, of its legal rights to the continental shelf seabed as far as the North Pole.

Canada and Denmark, claiming that the Lomonosov and Mendeleev ridges are connected with their own respective continental shelves, have called into doubt the scientific data presented by Russia. Both countries are preparing to make similar submissions to the UN Commission on the Limits of the Continental

Shelf, requesting the extension of their continental shelves as far as the North Pole, by 2013 for Canada and 2014 for Denmark. Norway also claims rights over a legal continental shelf stretching from its archipelago of Svalbard as far as the North Pole, and submitted this claim to the continental shelf commission in 2006. The US Department of State has issued a statement with regard to Russia's efforts to extend its continental shelf, in which it asserts, in relation to Russia's planting of its national flag on the seafloor at the North Pole, that Russia's claims of sovereignty over an extension of the continental shelf as far as the Pole have no legal basis whatsoever. For its part, the United States asserts its sovereignty over an area of 3 million square kilometers stretching for 600 nautical miles from the coast of Alaska to the North Pole.

Among the various disputes over territorial claims to Arctic continental shelf areas, the conflict between Russia and Canada has become particularly heated lately. This is because both governments have clearly set out policies that place emphasis on the Arctic region, and are therefore clashing over the delimitation of legal continental shelf territory close to the North Pole. In September 2008 Russia released a document entitled "Basics of Arctic Policy of the Russian Federation through 2020" (hereinafter, Arctic Policy through 2020). This document positions the Arctic region as Russia's main strategic resource base, and calls for the use of the region to assist the country's economic development. It states that the use of routes through the Arctic Ocean for the transport of goods would be in the national interests of Russia. As strategic priorities of the Arctic Policy, the document calls for further progress, in the delimitation of maritime areas in accordance with international law and through the conclusion of treaties with the other Arctic coastal nations, collaboration between Arctic coastal nations to realize the efficient development of natural resources, and promotion of the efficient use of shipping and airline routes through the Arctic together with the provision of the required infrastructure. According to Arctic Policy through 2020, by the end of 2010 Russia was to have completed the conduct of geological surveys to gather evidence in support of its territorial claims. In another key document—National Security Strategy of the Russian Federation through to 2020—released in May 2009, the Russian authorities point out the possible danger of military conflict as a result of heightened tensions due to disputes over natural resources. This document specifically cites the danger of such conflicts in the Arctic region, notably the resource-rich continental shelf area of the Barents Sea. In March 2010 President

Medvedev gave a speech at the Security Council of Russia, in which he stressed that Russia must protect its claims to mineral resources in the Arctic. He also stated that certain nations were attempting to limit Russia's access to mineral resources in the Arctic, but that such actions were completely unacceptable from a legal standpoint, and that this was an attempt to deprive Russia of what is—from both a geographical and historical viewpoint—its rightful share of such resources.

The Conservative Party administration of Canadian Prime Minister Stephen Harper espouses a “Canada First” strategy, and in relation to the Arctic Ocean, the administration has pursued a policy of emphasizing Canada's sovereignty. In July 2009 Canada's Minister of Foreign Affairs, Indian and Northern Affairs Minister, and Minister of State for Science and Technology jointly announced a new Arctic strategy entitled “Canada's Northern Strategy: Our North, Our Heritage, Our Future.” This document places top priority on the Arctic within Canadian government policy, and in particular reveals a determination to secure the economic interests of citizens living within the Arctic Circle. In response to President Medvedev's speech to the Security Council, Canada's Ministry of Foreign Affairs issued a statement in which it stressed that Canada's territory in the Arctic, as well as its claims to various islands and maritime areas in the region, are deeply rooted in history and have strong foundations based on historical legitimacy. At a meeting of Foreign Ministers of five coastal states held in Quebec at the end of March 2010, one of the items on the agenda was the need to realize an orderly settlement of the coastal states' overlapping territorial claims. To this end, the participants discussed scientific and technical cooperation in the delimitation of continental shelf areas. In September 2010, Russian Foreign Minister Sergey Lavrov met with Canadian Foreign Minister Lawrence Cannon in Moscow, where they held talks focused mainly on Arctic policy. However, these talks are believed to have achieved no progress, consisting simply in the repetition of the two countries' existing views on continental shelf delimitation in the Arctic Ocean and other outstanding issues.

(3) Issues Relating to Shipping Routes in the Arctic

The possibility of shipping routes through the Arctic Ocean is surely a development to be welcomed by the Arctic coastal states, in view of the probable economic benefits. Canada is the country offshore of which ships would principally pass in the case of the Northwest Passage, and Russia occupies the corresponding

position in relation to the Northeast Passage. While both countries recognize the potential economic benefits of opening up the Arctic to shipping, they also regard the prospect of foreign ships passing close to their northern shores as a potential security risk. From reasons of national security, therefore, these countries may consider it necessary to restrict the passage of foreign vessels through the Arctic Ocean as much as possible.

The United States and Canada hold conflicting positions regarding the status of the Northwest Passage under international law. Canada exercises sovereignty in the Arctic Ocean over the Canadian Arctic Archipelago, consisting of numerous large and small islands separated by a complex system of straits. The Canadian side maintains that these straits are classified as internal waters, and thus foreign-owned vessels would have no right of innocent passage. Consequently, the Canadian government has clearly stated its position that foreign vessels intending to enter Canada's Arctic maritime waters must give the Canadian Coast Guard twenty-four hours advance notice of their intention. In response, the United States maintains that these straits are international waters that should be open to passage by ships of all nations without interference from the Canadian authorities. The Northwest Passage is important to both nations—for Canada from the viewpoint of the security of its Far North region, including the Arctic Archipelago, and for the United States from the viewpoint of providing a shorter route for its vessels from its Atlantic ports to destinations in the Pacific. Despite the emergence of such differences of opinion, both Canada and the United States are concerned to prevent the dispute from souring relations between the two countries. There is also no agreement between Canada and Denmark (Greenland) regarding the status of the Northwest Passage under international law.

Meanwhile, the opening up of the Northeast Passage would be a welcome prospect for Russia from the economic viewpoint, but would also create a new strategic front for the country's military to deal with: the Russian authorities would be forced to solve difficult strategic problems relating to a threat from the north that has never before existed. Traveling from west to east, the Northeast Passage involves passing along the coast of Russia through the Barents Sea, the Kara Sea, the Laptev Sea, the East Siberian Sea, and the Chukchi Sea. It is the shortest route connecting Europe with East Asia, and if it became usable throughout the year, it would make possible a dramatic increase in the volume of trade between these two major markets. The opening up of the Northeast Passage

would also have the benefit of promoting the economic vitalization of Siberia and Russia's far northern territories in general. Currently, the regions centered on the estuaries of Siberia's three great northward-flowing rivers—the Ob, Yenisei, and Lena—are reachable only by land in winter, and the practical difficulties of such transport mean that they are effectively isolated. The Northeast Passage, however, would constitute a single transportation network linking these areas. This would ensure an uninterrupted supply of goods to Siberia and the Russian Far North, and also make possible the cost-effective exploitation of natural resources in these areas. From the economic standpoint, the opening up of the Northeast Passage to all ships would surely be to Russia's benefit.

The strategic importance to Russia of the Northeast Passage has surfaced recently from the standpoint of military planning. The Russian military now regards the downsizing of the country's military infrastructure in the Arctic—which took place following the collapse of the Soviet Union—as a mistaken policy, and they have recently been stressing the need for a greater military presence in the region. Underlying this attitude is thought to be a strong belief on the part of the Russian military that the United States will seek to ensure military supremacy in the Arctic. Up to now, Russia has divided the military threats it faces into three strategic fronts—the West (Europe), the South (the Caucasus and Central Asia), and the East (East Asia). To these, they will now have to add the North. The Russian Navy's Northern Fleet is headquartered in Severomorsk, near the city of Murmansk, which faces the Barents Sea. In 2008, construction of a crude oil export terminal was completed at Varandey in the Komi Republic to serve as a base for shipping crude oil produced at the Timan-Pechora oilfield on the Barents Sea coast in the Komi Republic.

The existence of such economically and militarily important facilities on Russia's Arctic Ocean coast is one more cause for worry on the part of the Russian government regarding the country's northern coast. The Northeast Passage would also be of great strategic importance for the Russian Navy. A crucial issue for the Russian Navy is how to secure high mobility for its forces, such as the ability to rapidly transfer surface warships and nuclear submarines from the European theater of operations to the East Asian theater, and vice versa. The ability to utilize the Northeast Passage to link the two operational theaters by the shortest route would be crucial in such an endeavor. Considering the strategic importance of the Northeast Passage, the opening up of the passage and its transformation into an

international shipping route is likely to be an unacceptable development for the Russian military, particularly the navy.

(4) Increasing Military Activity by the Coastal Nations

The nations bordering the Arctic Ocean are increasingly engaged in military activities in the Arctic Ocean, with the aim of protecting their interests in the region. Such activity has been particularly noticeable in the case of Russia, Canada, and the United States, but Denmark and Norway have also begun to undertake military operations.

Since July 2008, Russia has been making regular aerial patrols over the Arctic Ocean using Tu-95 strategic bombers, following paths that come close to the airspace of Norway, the United Kingdom, the United States, and Canada. Russia is currently pursuing a program of construction of the next generation of *Borey*-class ballistic missile nuclear submarines (SSBN), with the building of eight submarines planned. Some of these will be deployed with the Northern Fleet, and it is clear that Russia intends to use these vessels in the Arctic Ocean. In response to the policies set forth in the Arctic Policy through 2020, in March 2009 Russia revealed its plans to create a special military unit called the Arctic Force to protect the country's interests in the region. Then, in September of the same year, Russia set up an Arctic border guards unit, which will be responsible for the security of the Arctic Ocean and the Arctic shipping routes. In April 2010 the Russian military conducted exercises involving dropping troops by parachute at the North Pole. Finally, in August 2010 two Tu-95 strategic bombers carried out a reconnaissance flight over the Beaufort Sea. This flight came close to Canadian airspace, and in response the Canadian Air Force scrambled two CF-18 fighters. This coincided with the conduct of a joint exercise, "Operation Nanook 10," by Canadian, US, and Danish forces within Canadian territory, and the Russian flight may have been intended as a containing action in response to this exercise.

The administration of Canadian Prime Minister Stephen Harper has displayed a policy of strengthening the country's military presence in the Arctic. Firstly, Canada is planning to introduce four armed icebreakers to reinforce the coast guard system for its Arctic Ocean coastal area. It has created a 900-strong military unit to engage in reconnaissance and surveillance along the northern margins of its territory, and plans to expand this unit to 4,000-5,000 troops by 2012. The construction of two military bases within Canadian territory in the Arctic is also

being planned. One of these bases will be on Resolute Bay in Nunavut, and will consist of a Canadian Arctic military training center. A unit of 100 troops will be permanently stationed at Resolute Bay so as to be constantly prepared for military action in the Arctic. The other base will be at Nanisivik on Baffin Island, close to the Northwest Passage, where plans call for the construction of a port at which naval vessels can anchor. Canada has begun putting efforts into conducting exercises to ensure that its military forces and coast guard units can operate effectively in the Arctic region. As part of this, in 2008 Canada carried out "Operation Nanook," the largest military exercise in the country's history. As stated earlier, in August 2010, Canadian, US, and Danish troops conducted a joint exercise called "Operation Nanook 10." In the summer of 2010, Canadian Defence Minister Peter Mackay revealed that the country was planning to purchase F-35 multirole fighter aircraft from the United States to strengthen its military capabilities in the Arctic.

Under the administration of President George W. Bush, the United States followed a policy of aggressively pushing forward with the exploitation of natural resources in the Arctic, and as a result of this, the country's stance on signing the UNCLOS, which had been negative up to that point, effected a turnaround. Moreover, from around 2001 the US authorities engaged in vigorous debate regarding the impact on naval strategy in the Arctic of the possible opening up of the Arctic Ocean due to the melting of the ice cap. Underlying these debates were plans to develop US naval power in the Arctic if this possibility were to be realized. Against this background, in January 2009 the Bush administration issued a National Security Presidential Directive on regional policy in the Arctic. The directive defined the Arctic as an area of vital national interest for the United States, and listed a number of military issues that the United States would be required to address in the region. These included missile defense and early warning systems, the development of naval and air force systems enabling strategic ocean transportation, strategic deterrence, naval presence, the safeguarding of free navigation, and the prevention of terrorist acts. The Obama administration has maintained this policy emphasis on the Arctic, and in November 2009 the US Navy released its "Arctic Roadmap," which defines the kind of vessels that should be available to the US Navy and United States Coast Guard from 2010 to 2014 and what exercises should be conducted. The Arctic Ocean is an important waterway for the US Navy, as it allows submarines to pass between

the Atlantic and the Pacific. Since 2007 the United States has been regularly carrying out joint exercises with the armed forces of the United Kingdom under the name “Ice Exercise,” to test the operational readiness of its nuclear submarines. With the exception of *Virginia*-class submarines, the US Navy’s nuclear submarines are said to possess exceptionally good capability for operation in the Arctic Ocean. The United States also has plans to expand the role of the US Coast Guard in the Arctic region, and in March 2008 the Coast Guard commenced warning and surveillance flights using helicopters and C-130 transport planes. Both of the Coast Guard’s two icebreakers were approaching decommissioning, but the decision has been taken to renovate and refit the *Polar Star* at a cost of 300 million dollars. The Coast Guard is also requesting the purchase of new icebreakers. The United States has been energetically pursuing military cooperation with other coastal states in the Arctic Ocean region. As stated above, in August 2010 the United States participated in joint military maneuvers with Canada and Denmark, and joint exercises involving the use of advanced air-to-surface missiles were recently conducted with the military forces of Norway.

Russian military activities in the Arctic are a source of concern for Norway. In August 2009 the Norwegian military transferred its operations center from Jåttå in the city of Stavanger in southern Norway to Reitar, located outside of Bodø in the north. In July 2009 the parliament of Denmark approved a plan to create an Arctic Military Command between 2010 and 2014. This command will have responsibility over Greenland and the Faroe Islands. Among specific initiatives included in this plan are the creation of a Joint-Service Arctic Command and an Arctic Response Force equipped with fighter aircraft, as well as the expansion of a military base at Thule in Greenland.

4. Prospects for Order in the Arctic Ocean

(1) Searching for a New Order

We have conducted an overview of the various issues relating to the Arctic Ocean—which appears to be changing from a region largely closed to human activities to one open to navigation, the exploitation of natural resources, and military operations—from the perspectives of the claims and actions of the countries involved, as well as that of international law. In the following section, we examine the stances adopted by the Arctic coastal nations in their search for a

new order in the region.

Regarding the future order in the Arctic Ocean, numerous talks have been held between the countries whose territories border on the ocean—Russia, Canada, the United States, Norway, and Denmark—as well as at forums centered on these countries, such as the Arctic Council. The membership of this council includes the five Arctic coastal countries in addition to their neighbors Iceland, Sweden, and Finland and a number of organizations representing indigenous communities within member states, which have Permanent Participant status. In addition, six non-Arctic states have Permanent Observer status: France, Germany, the Netherlands, Poland, Spain, and the United Kingdom. The purpose of the council is to promote consensus and collaboration among the states bordering the Arctic Ocean. Despite this system, there have been no signs of a move toward the creation of a legal order in the Arctic comparable to that which has been seen in the Antarctic since the signing of the Antarctic Treaty in 1959. In the case of the Earth's southernmost continent, the Treaty has achieved a moratorium on territorial claims, the complete demilitarization of the Antarctic, and the creation of a regulatory framework for the exercise of sovereign rights. This is because the geographic features of the two poles are completely different. Whereas the Antarctic is a land mass covered by a thick sheet of ice formed from snow compacted over millions of years, the Arctic ice cap consists of frozen seawater, and the Law of the Sea naturally applies to the Arctic Ocean as much as to any other ocean. For the Arctic coastal nations, the Law of the Sea allows them to pursue territorial claims, whereas the creation of regulatory systems such as are in force in Antarctica would place restrictions on their pursuit of national interests, and the Arctic nations thus see no advantage in the creation of such systems.

In fact, four countries and one international body—China, Italy, South Korea, Japan and the EU—all of whom have a strong interest in Arctic issues, have applied for full observer status at the Arctic Council, but approval of their applications is currently on hold. This situation perhaps reflects the desire of the Arctic countries to avoid interference from other nations or organizations. In view of these circumstances, efforts to establish a legal order in the Arctic Ocean on the basis of the existing Law of the Sea are expected to proceed mainly through direct talks between the Arctic coastal countries. This process is likely to see the recognition of EEZs in the Arctic Ocean belonging to all the coastal nations, as well as the recognition of their sovereign rights over certain continental

shelf areas and preferential rights to the exploitation, development and use of such territories. At the same time, the nations involved are expected to cooperate in securing safe navigation for vessels in the Arctic Ocean, and collaboration may also occur with other countries possessing advanced technologies with respect to the exploitation of natural resources in and under the ocean. Japan, which has a strong interest in securing safe and economical sea lanes for the transport of goods to the major consumer markets of Europe and the United States, as well as in securing access to the natural resources of the Arctic Ocean, will no doubt be very eager to collaborate with other nations in establishing safe shipping routes and in the exploration and development of natural resources. Meanwhile, countries that have not yet joined the UNCLOS are able to exercise their legal rights under customary international law relating to the seas, but the status of those countries carries the disadvantage of making it difficult for them to apply to committees concerned with the delimitation of continental shelf areas established under the legal system of the UNCLOS. There is a possibility that Arctic coastal countries taking advantage of systems established by the United Nations will engage in direct, separate negotiations with the United States over maritime boundary issues.

(2) Impact on Japan

Japan is not one of the Arctic Ocean coastal states, and thus does not directly possess any legal rights with respect to that maritime region under international law. However, as a country with few natural resources that relies heavily on trade, Japan naturally has a strong interest in the future of the Arctic Ocean.

(a) Trade Routes

The Arctic Ocean promises to yield tremendous benefits to Japan in the form of attractive sea lanes for its commercial vessels. The opening up of the Northeast Passage connecting East Asia with Europe, and the Northwest Passage connecting it with the Atlantic coast of North America, would allow the speedy and safe transport of Japanese goods to those markets, effecting enormous savings in both time and fuel while avoiding the risks involved in passing through pirate-infested waters. As a country dependent on trade, Japan would benefit directly from the ability to use the Arctic Ocean as a safe and reliable shipping route. For this prospect to materialize, it is vital to avoid a deterioration in relations among the

Arctic coastal nations, particularly between Russia and the United States. Furthermore, to make practical the passage of ships through the Arctic Ocean (which is currently being carried out only on a trial basis) it will be necessary to conduct a wide variety of surveys, construct ports and other facilities along the sea-lanes, set up search & rescue systems, and take other steps to ensure the safety of ship crews during the Arctic winter. Japan could play a major role in these efforts, such as by the construction of the icebreakers that will be needed to cut a passage through sea ice. Needless to say, the maintenance of good overall relations between Japan and Russia, the United States, and Canada would indirectly help to realize the practical utilization of the Arctic Ocean.

(b) Natural Resources

As Japan does not possess any territory that borders on the Arctic Ocean, it has no legal claim or title giving it direct access to the natural resources of the Arctic, such as through the use of EEZs or legally recognized territory on a continental shelf. Of course, there is a certain area in the center of the Arctic Ocean that is not covered by claims made by the coastal nations, and it is possible that the right of access to that area of Japan and all other nations, as a part of the high seas, would be recognized under the international Law of the Sea. However, this central area is not particularly large, and its economic appeal is thought to be fairly limited. Likely to be rather more important for Japan will be efforts to secure an economic advantage through close collaboration with the Arctic coastal nations. In fact, the Japan Agency for Marine-Earth Science and Technology (JAMSTEC), an independent administrative institution, is already engaged in surveys to confirm a variety of salient features of the Arctic Ocean. These include scientific surveys conducted in collaboration with Russia and Canada. Other Asian nations, notably South Korea and China, have shown similar interest in the Arctic. Japan should take part in the exploration for and development of natural resources under existing international cooperation frameworks, so as to secure economic benefits in the future.

(c) Military Activities

As part of the Arctic Ocean is not encompassed by the territorial waters of the coastal states, if large expanses of the ocean were to become free from ice, access to these areas would naturally become possible for Japan and many other nations.

However, it is unclear whether or not a situation might arise in the future whereby Japan would dispatch one or more of its warships to the Arctic Ocean. One could envisage Japan sending vessels into the Arctic in the event that the area became a prey to pirates, as in the present case of the Somali coast, but if the acts of piracy took place within the territorial waters of one or more of the coastal states, the responsibility for securing safe navigation would naturally lie with the coastal states themselves. It is difficult to imagine that countries such as Russia, the United States, and Canada would not be able to adequately enforce security within their own territorial waters.

In any event, from whichever angle one views the issue, if the Arctic Ocean really becomes an ocean usable for human purposes, it will be essential for its safe and profitable use that the coastal states maintain good relations with one another. Japan wishes both to enjoy the benefits of the Arctic Ocean as a trade route and to exploit its natural resources. Thus, it is vital for Japan to collect accurate and up-to-date information on all issues involving the region, and to continue making positive contributions in all fields so as to maintain good relations with all the Arctic coastal states. Such efforts will be to the benefit of Japan's national interests in the future. Specifically, as a country heavily dependent on trade and therefore with a strong interest in the future development of the Arctic Ocean, and as a country that boasts a fund of advanced marine technology that would be invaluable in the exploration for natural resources and their exploitation, Japan should continue its efforts to achieve observer status at the Arctic Council. In addition to continuing to demonstrate its desire to help realize order in the Arctic in this way, Japan should collaborate enthusiastically in scientific surveys and resource development projects carried out by the Arctic coastal states to strengthen its presence in the region. It should also utilize its advanced shipbuilding know-how to build and operate the icebreakers that will be needed to realize the safe and reliable use of the Arctic Ocean as a shipping route.

