

# From mandatory icebreaker guiding to a permission regime: changes to the new Russian legislation of the Northern Sea Route

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**Abstract** This article focuses on two issues. The first concerns definitions of the Northern Sea Route (NSR) in old and new Russian legislation, and the second relates to Russian rules on icebreaker guiding. Based on a comprehensive comparative analysis of relevant Russian legal provisions enacted in 2013 and previous laws in this area, we offer the following conclusions. (1) Our legal analysis indicates that Russia's view of the NSR as a historical national transportation route has not changed. However, the new law redefines the scope and coverage of the NSR, which now comprises the internal waters, territorial sea, adjacent zone, and the exclusive economic zone of the Russian Federation. In fact, the new law resolves previous ambiguity regarding extension of the NSR boundary to the high seas. (2) Based on an analysis of the new rules on icebreaker guiding, the article concludes that NSR is transitioning from a mandatory icebreaker guiding regime into a permit regime. This is particularly evident in its provision of a concrete, practical, and predictable clause on permissible or impermissible conditions relating to independent navigation. According to the new rules, it is possible for foreign ships to undertake independent navigation in the NSR. The Russian NSR policy, therefore, appears to have changed significantly, and has future potential for opening the NSR up to the international community.

**Keywords** Northern Sea Route, law, exclusive economic zone, mandatory icebreaker guiding, pilotage, permit regime

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## 1 Introduction

With the accelerating decline of Arctic Ocean ice, navigation through Arctic waterways is becoming a reality. Shipping along the Northeast Passage, north of the Eurasian continent, appears to be enjoying a more immediate use. However,

Russia's laws and regulations pertaining to the Northern Sea Route (Hereinafter referred to as "NSR") are outdated, because they were based on the situation of the early 1990s. On 28 January 2013, the "New Federal Law on Amendments to Specific Legislative Acts of the Russian Federation Related to Governmental Regulation of Merchant Shipping in the Water Area of the Northern Sea Route"<sup>[1]</sup>, (hereinafter referred to as the "2013 Law on Amendments"), came into effect. In light of this updated law, significant amendments

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and supplements have been made to the following acts and laws: The Merchant Marine Code (hereinafter referred to as the “1999 Merchant Code”), The Russian Federation Law on Natural Monopolies (hereinafter referred to as the “1995 Monopoly Law”), and The Federal Act on the Internal Maritime Waters, Territorial Sea and Contiguous Zone of the Russian Federation (hereinafter referred to as the “1998 Internal Waters Act”). With the passing of the 2013 Law on Amendments, the Northern Sea Route Administration (hereinafter referred to as the “NSRA”) of the Ministry of Transport of the Russian Federation re-enacted the Rules of Navigation on the Water Area of the NSR<sup>[2]</sup> (hereinafter referred to as the “2013 Rules”), which supersede the Regulations for Navigation on the Seaways of the Northern Sea Route<sup>[3]</sup> enacted in 1991 (hereinafter referred to as the “1991 Regulations”). The 2013 Rules have attracted considerable attention both at home and abroad, the focus of which has been on whether there have been changes in Russia’s NSR policy pertaining to navigation of foreign ships. These changes specifically relate to: (1) the definition of the NSR in the new legislation; and (2) NSR’s mandatory icebreaker guiding. Here, we address these two areas through a comparison of laws and regulations enacted in 2013, namely, the 2013 Law on Amendments and the 2013 Rules, and previous legislation enacted in the late 1980s and early 1990s, namely, the 1991 Regulations and the 1998 Internal Waters Act.

## 2 Changes in the definition of the NSR

In 1987, Gorbachev delivered his famous Murmansk speech, initiating the opening up of the NSR to the international community. After the collapse of the Soviet Union, Yeltsin

pursued a consistent Russian policy by promoting the development of the NSR. In 1991, the Regulations for Navigation on the Seaways of the Northern Sea Route were enacted, which symbolized the era of the opening up of the NSR<sup>[4]</sup>. In 1996, the following technical rules were enacted: Guide to Navigating through NSR, Regulations on NSR Icebreaker and Pilot Guiding of Vessels, and Requirements for the Design, Equipment and Supplies of Vessels Navigating the NSR. Foreign vessels navigating through the NSR water area were mainly controlled by the four above-mentioned legal instruments until the 2013 Law on Amendments came into effect. Few changes were made to the legal instruments, with the exception of continuously increasing fees for icebreaker guiding. Of the four legal instruments, the 1991 Regulations provide a definition of the NSR and address the issue of NSR icebreaker guiding. While some provisions in the other three instruments may refer to the definition of the NSR and icebreaker guiding, these are mainly based on the 1991 Regulations<sup>[5]</sup>. With the enactment of the 2013 Law on Amendments, the 1991 Regulations were revised, with legal provisions being incorporated within the 1999 Merchant Marine Code, giving rise to a new version of this Code (hereinafter referred to as the “amended 1999 Merchant Code”). Regarding implementation, NSRA drafted the new 2013 Rules on navigation in accordance with the amended 1999 Merchant Code. It should be noted that subsequent to the 2013 amendments, the 1995 Monopoly Law serves as the predominant law regarding icebreaker guiding fees. However, as this paper is not concerned with an analysis of fee changes, the comparative study presented here will not extend to the 1995 Monopoly Law. Table 1 depicts provisions in the old and new laws and regulations relating to the definition of the NSR.

**Table 1** Definition of the NSR in the old and new Russian legal instruments

Old legislation	New legislation
1991 Regulations	The Amended 1999 Merchant Code under the 2013 Law on Amendments
1.2: The Northern Sea Route is defined as the “national transportation route of the USSR, which is situated within the inland waters, territorial sea (territorial waters), or exclusive economic zone adjoining the USSR northern coast, and includes seaways suitable for guiding ships in ice. the [ <i>sic</i> ] extreme points of which [ <i>sic</i> ] in the west are the western entrances to the Novaya Zemlya straits [ <i>sic</i> ] and the meridian running from Mys Zhelaniya northward. and [ <i>sic</i> ] in the east, in the Bering Strait, by the parallel 66°N and the meridian 168°58’37’W.”	Clause 5.1 Navigation in the water area of the Northern Sea Route: 1 “The water area of the Northern Sea Route shall be considered as the water area adjacent to the Northern coast of the Russian Federation, comprising the internal sea waters, the territorial sea, the adjacent zone, and the exclusive economic zone of the Russian Federation and confined in the East with the Line of Maritime Demarcation with the United States of America and Cape Dezhnev parallel in Bering Strait, with the meridian of Cape Mys Zhelania to the Novaya Zemlya Archipelago in the West, with the eastern coastline of the Novaya Zemlya Archipelago and the western borders of Matochkin Strait, Kara Strait and Yugorski Shar.”
1998 Internal Waters Act	The Amended 1998 Internal Waters Act under the 2013 Law on Amendments
Article 14 describes the Northern Sea Route as: “... the historical national unified transport line of communication of the Russian Federation in the Arctic, including the Vilkitsky, Shokalshy, Dmitry Laptev and Sannikova straits...”	Clause 14. Navigation on the water area of the Northern Sea Route notes: “...the historically emerged national transportation route of the Russian Federation.”

The definition of the NSR does not originate in either the new or the original 1998 Internal Waters Acts<sup>[6]</sup>, which mainly focus on the internal waters, territorial sea, and adjacent zone. However, the NSR's definition in the 1998 Internal Waters Act matches that provided in the 1991 Regulations and the new 1999 Merchant Code, thus maintaining consistency in the Russian Federation's legal instruments. It is worth noting that in the original 1998 Internal Waters Act, the legal status of the Vilkitskyt, Shokalsky, Dmitry Laptev, and Sannikova Straits as internal waters is defined in a manner that entails citing instances, indicated by the wording "and includes." However, reference to the above four straits has been removed in the amended 1998 Internal Waters Act. Given that the original Act referred to the legal status of the straits in a manner involving their citation rather than the specific listing of all internal waters straits, their removal in the new Act will not hinder future Russian claims regarding the legal status of these four straits as internal waters. However, further discussion of this issue is beyond the scope of this article, for which a comparison of the 1991 Regulations and the new 1999 Merchant Code is sufficient for investigating any changes in the definition of the NSR. Ambiguity and confusion will arise if the 1998 Internal Waters Act is considered in this analysis.

Regarding the wording used in the 1991 Regulations and in the new 1999 Merchant Code, there has not been any change in the definition of NSR as "a historically emerged national transportation route." The difference between the two instruments lies in the descriptions of their scope. Table 2 indicates that the 1999 Merchant Code provides a more distinct description of scope. The following points apply with regard to the eastern, western, and northern NSR boundaries.

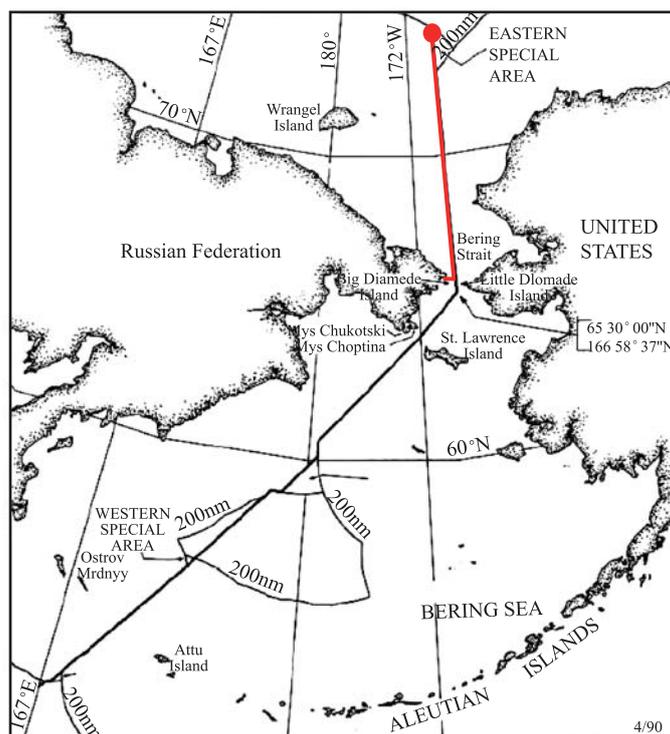
(1) In the 1991 Regulations, the extreme eastern point of the NSR is the intersection of 66°N and the meridian 168°58'37"W in the Bering Strait. However, the new 1999 Merchant Code describes this as a constituted fold line "... confined in the East with the Line of Maritime Demarcation with the United States of America and Cape Dezhnev parallel [66°44'5"N and 169°39'7"W] in Bering Strait." The northern end of the fold line is the extreme upper end of the Line of Maritime Demarcation with the United States of America

(US). The agreement that was made between the US and the Union of Soviet Socialist Republics on the maritime boundary does not clearly state that this northern end is the boundary of an exclusive economic zone. Instead, it considers this as a northern extension as far as international law allows<sup>[7]</sup>, which is understandable since the US has not yet ratified United Nations Convention on the Law of the Sea (hereinafter referred to as "UNCLOS"), and does not accept the concept of an exclusive economic zone. However, a map<sup>[8]</sup> (Figure 1) included in this agreement indicates that the northern end of the Line is located on the boundary of the exclusive economic zone. This map is also cited in the report submitted by the US government to Congress concerning this maritime demarcation. While the northern end does not play an important role in the demarcation in the east, it does play a key role in the interpretation of the definition of the western and northern NSR boundaries.

(2) The 1991 Regulations define the western boundary of the NSR as "the western entrances to the Novaya Zemlya straits" and "the meridian running from Mys Zhelaniya northward." While there is no ambiguity regarding "the western entrances," there is some confusion as to how far "the meridian running from Mys Zhelaniya northward" extends to the north. Although the amended 1999 Merchant Code defines "the western entrances" as "the western borders of Matochkin Strait, Kara Strait and Yugorski Shar," it still does not clarify how far the above-mentioned meridian extends to the north. Combining the analysis presented in point (1) with the hypothesis that the western boundary can extend beyond the exclusive economic zone and reach the North Pole leads to the following question. Why does the eastern boundary stop at the northern end of the Line of Maritime Demarcation within the exclusive economic zone? There is no distinct scope for the waters of the NSR if the eastern boundary does not extend to the North Pole as the western boundary does. Thus, it can be safely deduced that the northern end is situated at the intersection of the meridian running from Mys Zhelaniya northward and the northern boundary of the exclusive economic zone composed of the Franz Josef Land Islands.

**Table 2** Differences in descriptions of the scope of the NSR in the old and new Russian legal instruments

	Eastern boundary	Western boundary	Northern boundary
1991 Regulations	"..., and in the east, in the Bering Strait, by the parallel 66°N and the meridian 168°58'37"W."	"...the extreme points of which in the west are the western entrances to the Novaya Zemlya straits and the meridian running from Mys Zhelaniya northward."	NSR "is situated within the inland waters, territorial sea (territorial waters), or exclusive economic zone adjoining the USSR northern coast, and includes seaways suitable for guiding ships in ice."
New 1999 Merchant Code	"...confined in the East with the Line of Maritime Demarcation with the United States of America and Cape Dezhnev parallel in Bering Strait."	"...with the meridian of Cape Mys Zhelaniya to the Novaya Zemlya Archipelago in the east. With the eastern coastline of the Novaya Zemlya Archipelago and the western borders of Matochkin Strait, Kara Strait and Yugorski Shar."	"... the water area adjacent to the Northern coast of the Russian Federation, comprising the internal sea waters, the territorial sea, the adjacent zone and the exclusive economic zone of the Russian Federation."



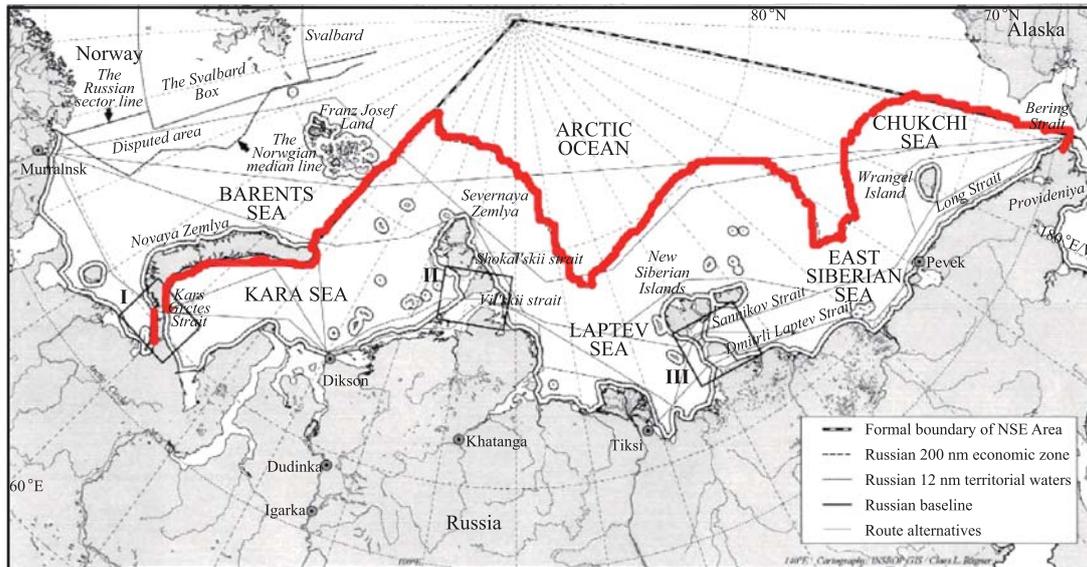
**Figure 1** The Line of Maritime Demarcation between the United States of America and the Russian Federation. The red dot is the northern end of the Line in the east.

(3) The 1991 Regulations declare that the northern boundary “is situated within the inland waters, territorial sea (territorial waters), or exclusive economic zone adjoining the USSR northern coast, and includes seaways suitable for guiding ships in ice.” This confirms that the northern boundary of the NSR is also the northern boundary of the exclusive economic zone. The addition of the phrase “and includes ...” (the Russian counterpart being “включающая”), has resulted in ambiguity. “And includes ...” used literally serves as a descriptive modifier of the NSR, implying that “seaways suitable for guiding ships in ice” are a component of the NSR, thus falling within the exclusive economic zone. Alternatively, “and includes” can be interpreted as a supplementary description that allows for the possibility of the NSR extending beyond the exclusive economic zone. Some Russian scholars claim that the NSR extends up to the high seas<sup>[5]</sup> (Figure 2).

The amended 1999 Merchant Code defines the NSR as: “...the water area adjacent to the Northern coast of the Russian Federation, comprising the internal sea waters, the territorial sea, the adjacent zone and the exclusive economic zone of the Russian Federation.” The counterpart of “comprising” in original Russian version is “охватывающее”. Both “comprising” and “охватывающее” can be interpreted either as “and includes” or “is constituted by” in Chinese. “and includes” can be interpreted as the modifier in Chinese, and provides a way of citing all instances to further explain the scope of “the water area.” However, “and includes” can also be interpreted as what has been discussed in the

above paragraph. It appears, therefore, that the ambiguity still remains. This paper provides an interpretation that is based on citations of all instances rather than those of some instances used just for emphasis. This is because the amended 1999 Merchant Code comprehensively cites the internal sea waters, the territorial sea, the adjacent zone and the exclusive economic zone, covering all waters of different legal status from inshore to offshore, with the exception of the high seas, as defined in UNCLOS. This would have been cited as an instance in the amended 1999 Merchant Code if it were considered to be a component of the water area of the NSR. Combining this analysis of the definition of the NSR in the new Merchant Code with the above discussion on the northern end of the boundary both in the east and west (points 1 and 2) leads to the following conclusion. Logically, the northern boundary should not extend beyond the exclusive economic zone since the limits in the east and west have been defined. Thus, “comprising” in the amended 1999 Merchant Code definition of NSR should be interpreted as “is constituted by”. In line with the above analysis, the northern boundary of the NSR defined in the new Merchant Code coincides with the northern boundary of the exclusive economic zone.

A comparison of the 1991 Regulations and the amended 1999 Merchant Code reveals another change in the wording of the NSR definition, namely, in the use of “The Northern Sea Route” in the 1991 Regulations, its counterpart being “The water area of the Northern Sea Route” in the amended 1999 Merchant Code. The question that consequently arises is whether “the water area” implies an extension of scope. There



**Figure 2** The boundary of NSR Area and Russian baseline. The NSR and Russian coastal straight baseline demarcation<sup>[8]</sup>. The red line is the boundary of the NSR water area defined in the amended 1999 Merchant Code (which coincides with the northern boundary of the exclusive economic zone). The dark dashed line (the North Pole intersection of the northern and eastern boundaries) is the northern boundary of the water area of the NSR claimed by some Russian scholars.

are three points to consider here. First, with annual, seasonal and regional variations in the extent of sea-ice, the NSR is not a fixed sea route, but is instead a navigational water area. Second, in a restricted sense, a sea route is a narrow water area, thus sharing the same meaning as the water area of a sea route. Third, in a broader sense, sea routes are lines, while water areas are planes constituted by numerous lines. The boundary of a plane is defined by the outermost line, which implies that the northern boundary of the water area of the NSR should be defined by the northernmost sea route. Does this then mean that the northernmost sea route of the NSR passes through the North Pole on the high seas as some Russian scholars claim? Or does it mean that the northernmost sea route is the outermost sea route among all the coastal routes, which passes by some islands in the north instead of any coastal straits? Or, as a third possibility, does this mean that the water area of the NSR extends from the coastal area to the boundary of the exclusive economic zone, retreating from the North Pole as defined in the amended 1999 Merchant Code? The ambiguity here lies in the definition of “line.” Thus, we can conclude that the definitional change from “Northern Sea Route” to “the water area of the Northern Sea Route” does not cause any ambiguity.

To sum up, there have been few changes in the definition of the legal status of the NSR between the 1991 Regulations and the amended 1999 Merchant Code. However, there is an evident and significant change in the definition of the scope of the NSR, with the amended 1999 Merchant Code clearly defining the northern boundary of NSR in a way that coincides with the northern boundary of the exclusive economic zone.

### 3 Changes from mandatory icebreaker guiding to a permission granting regime

As far as implementation is concerned, Article 2 of the 2013 Rules states that: “in the water area of the Northern Sea Route the authorization-based order of the navigation of ships is in force.” This statement implies the adoption of a permission granting regime. However, a further investigation into related provisions will provide a more accurate interpretation of Article 2. Table 3 provides a description of icebreaker and pilot guiding, which are present in the 1991 Regulations, but not in the 2013 Rules.

Provisions regarding icebreaker and pilot guiding in the 2013 Rules are now made up of two components. The first consists of the Rules of the icebreaker assistance of ships in the water area of the Northern Sea Route, and the second of the Rules of the pilot ice assistance of ships in the water area of the Northern Sea Route. Provisions on mandatory guiding have been removed from the 2013 Rules, which now incorporate provisions regarding the differentiated fee rate for the icebreaker and pilot guiding service that takes into account the capacity and ice class of a ship, the distance of the escorting service, and the period of navigation (indicated in Articles 24 and 32 of the 2013 Rules).

Significant changes between the 1991 Regulations and the 2013 Rules lie in the regulation concerning mandatory icebreaker guiding. There is, however, a possibility that mandatory icebreaker guiding may not be performed in other regions apart from the four straits mentioned in Article 7.4 and under the conditions mentioned in points 1), 2) and 3)

of the 1991 Regulations presented in Table 2. However, the 1991 Regulations do not provide any concrete and applicable standard for the conditions described in the above points. Furthermore, the 1991 Regulations declare that: “the Marine Operations Headquarters shall be entitled to substitute one type of guiding for another.” As a result, mandatory icebreaker guiding is performed throughout the water area of the NSR rather than being confined only to the four straits. In fact, both mandatory icebreaker guiding and the high guiding fees are subject to constant criticism from the international community. No exception was made during the fifth Arctic expedition of the Chinese icebreaker, Xuelong (or Snow Dragon), which was provided with Russian nuclear-powered icebreaker assistance on the NSR (Figure 3). However, an examination of the 2013 Rules shows that the provisions regarding mandatory icebreaker guiding have been removed, and the criteria for permitting or prohibiting independent navigation through the NSR are listed in relation to the ice strengthening category of the ship, navigation areas, season, and ice conditions (Table 4). This means that there is a possibility of independent navigation without icebreaker guidance on the NSR. Item 6 of Article 10 of the 2013 Rules points out that NSRA should provide information as indicated in Annex 2 of the Rules concerning sections of the water area of the NSR, the period of navigation, and ice conditions when a ship is granted permission to navigate the NSR with icebreaker assistance. However, it can be inferred that although the wording “mandatory” guiding does not appear in the 2013 Rules, a trace of this is still evident if we look

more closely at the NSR navigation application procedure, and the information that is presented to NSRA when applying for navigation. There is no option for vessel masters to decide whether or not guiding assistance is necessary for their vessel navigation on the NSR. The NSRA has decisive authority concerning the necessity of a guiding service. However, as regulated by the 2013 Rules, the necessity of a guiding service should be evaluated according to the criteria clearly indicated in the 2013 Rules, which to a considerable degree rule out the possibility of arbitrariness when NSRA considers the necessity of a guiding service.

There is a possibility that the 2013 Rules will impose stricter criteria for independent navigation during the actual process of their implementation. Ships belonging to lower ice strengthening categories will encounter more difficulties in obtaining permission for independent navigation. As indicated in Table 4, independent navigation of these ships is more likely to be prohibited in different regions. Thus, ice conditions will play a key role in determining the possibility of independent navigation. Information about ice conditions will be provided by the Russian Federal Service for Hydrometeorology and Environmental Monitoring (ROSHYDROMET), and there is a possibility that light ice conditions can be mistakenly reported as medium or heavy conditions. It is also not clearly known whether ROSHYDROMET will be the only agency that will provide overt information on ice conditions in the water area of the NSR, and it is likely that ROSHYDROMET, as the only information provider, will play a decisive role in deciding the ice conditions. With the exception of very rare

**Table 3** NSR legislation concerning icebreaker and pilot guiding in the new and old Russian legal instruments

	Icebreaker guiding	Russian pilot guiding
1991 Regulations	<p>7.4 “Mandatory icebreaker guiding of vessels with ice pilot on board each vessel is established in the Proliv Vil’kitskogo, Proliv Shokal’skogo, Proliv Dmitriya Lapteva. and [sic] Proliv Sannikova due to unfavourable navigational situation and ice conditions and for the purpose of ensuring safe navigation.</p> <p>In other regions the Marine Operations Headquarters shall, in consideration of ensuring safe navigation and for the purpose of providing the most favourable navigating conditions, prescribe one of the following types of guiding: (1) Guiding from shore along recommended routes up to a certain geographic point; (2) Airplane, or helicopter guiding; (3) Conventional pilotage; (4) Icebreaker guiding; (5) Icebreaker guiding combined with conventional pilotage of vessels.</p> <p>The Marine Operations Headquarters shall be entitled to substitute one type of guiding for another.”</p>	<p>The second paragraph of Article 4 (Requirements to vessels and their commanding personnel) states: “In case [sic] where these persons have no such experience, or when Master requests so, [sic] the Administration (Marine Operations Headquarters) may assign a State Pilot to the vessel to assist in guiding her through the Northern Sea Route.”</p>
2013 Rules	<p>These rules do not contain a parallel description concerning “mandatory guiding” to that in the 1991 Regulations.</p>	<p>There is no parallel description concerning conditional “pilot guiding” to that in the 1991 Regulations.</p>



**Figure 3** Arctic Ocean Route of the R/V *XUE LONG* icebreaker (or Snow Dragon), during its fifth Chinese Arctic Research Expedition. The green line indicates the outbound route on the Northeast Passage; the red line indicates the inbound route on the Central Passage; and the red dashed line denotes the boundary of the exclusive economic zone.

“heavy” ice conditions, ships like R/V *XUE LONG* icebreaker belonging to the Arc6 category will be granted independent navigation. Ships belonging to this category and above (the Chinese icebreaker currently being built is of PC3 quality, equivalent to Arc7) will be granted independent navigation under any ice conditions from July to November, even in light ice conditions in winter. Moreover, the waiting time for the granting of permission has also been shortened from at least 4 months prescribed in the 1991 Regulations to 25 working days in the 2013 Rules. With publicity provided through the internet, the approval procedure will also be more transparent.

#### 4 Discussion and conclusions

To sum up, in the new legislation, there is no change in the legal status of the NSR as a historically emerged national transportation route, which will serve as a precondition for Russia’s possible future claim of sovereignty over the NSR, defined as internal waters. However, there has been a change in the definition of the scope of the NSR, ending the longstanding dispute over the NSR’s extension to the high

seas by correlating the water area of the NSR with Russia’s internal waters, territorial sea, adjacent zone, and exclusive economic zone. The change from mandatory icebreaker guiding to permission granting regime, together with concrete practical and predictable criteria that are clearly stated in the new legislation, allows for the possibility of independent navigation of foreign ships through the NSR. There is no denying that Russian regulations on the NSR have been reformed. This is an indicator of Russia’s intention of developing the NSR into an internationally-used sea route, which enhances Putin’s resolution to develop the NSR into a competitive alternative route to the Suez Canal. However, it should be noted that the new legislation cannot resolve all international disputes. According to both the old and new legislation, foreign ships still have to apply for permission to NSRA prior to engaging in commercial shipping through the NSR. Article 234 of UNCLOS states that: “Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone.” However, it also declares that “such laws and regulations

**Table 4** Criteria for independent navigation along the NSR during the summer (July–November)<sup>[2]</sup>

Ice Strengthening Category of Ship	Kara Sea		Laptev Sea		East-Siberian Sea		Chukchee Sea
	South-western Part	North-eastern Part	Western Part	Eastern Part	South-western Part	North-eastern Part	
	HML	HML	HML	HML	HML	HML	
No	—	—	—	—	—	—	—
Ice1	—+	—+	—+	—+	—+	—+	—+
Ice2	—+	—+	—+	—+	—+	—+	—+
Ice3	—+	—+	—+	—+	—+	—+	—+
...	...	...	...	...	...	...	...
Arc5	+++	+++	-++	-++	-++	-++	-++
Arc6	+++	+++	+++	+++	+++	+++	+++
...	...	...	...	...	...	...	...

Notes: <sup>1</sup> H: heavy ice conditions in compliance with official information of the Roshydromet; M: medium ice conditions in compliance with official information of the Roshydromet; L: light ice conditions in compliance with official information of the Roshydromet; +: independent navigation of ship is permitted; -: independent navigation of ship is prohibited. <sup>2</sup> The criteria for independent navigation during the summer for ships in the regular ice strengthening category are listed in the above table. Criteria for independent navigation during the winter are not listed in the table because much higher standards relating to ice strengthening categories are needed.

shall have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence.” Although freedom of navigation should be applicable at exclusive economic zones under UNCLOS, coastal states adopt the “internal waters” navigation administration system at the Arctic Ocean. It is understandable that coastal states do so in the name of “prevention, reduction and control of marine pollution from vessels” as well as “protection and preservation of the marine environment”, while they still contravene international laws by ignoring “due regard to navigation” and “the best available scientific evidence” described in UNCLOS.

Arctic Ocean ice is declining more quickly than predicted, and this is also occurring in the central area of the Arctic Ocean. With current technical advancements, a more convenient and faster Central Passage is also navigable. Situated in the high seas beyond the boundary of the exclusive economic zone, the Central Passage does not pass through what Russia and Canada have claimed as their historic waters for navigation. The prospective use of the Central Passage poses a challenge for Russia, which has ambitions of developing the economy of the country’s northern areas. However, since it is more cost-saving for ships to navigate ice-free areas or areas with low-density ice, the NSR will still be a better alternative during the summer when ice conditions are light. Therefore, attracting investments to develop the NSR into an internal sea route is still a good option for Russia. Recent legislative modifications are indicators of Russia’s resolution to seize the opportunity to develop the NSR into an international sea route, and of Russia’s intention to accommodate international expectations and standardization. There are reasons to believe that Russia will adopt a more enlightened and open-minded attitude regarding NSR-related policy.

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**Postscript** This paper, with its analysis of the provisions in the 2013 Rules, was written and submitted to *Advances in Polar Science* in April 2013 prior to the 2013 navigation season when the 2013 Rules came into effect. Although it still remained unclear at the time as to how NSRA would implement administration of the NSR in light of the 2013 Rules, some of the findings presented in this paper regarding changes in Russia’s NSR legislation are justified if we closely examine NSRA’s performance during the 2013 navigation season. First, NSRA has confirmed that the northern boundary of the water area of the NSR, as redefined within the amended 1999 Merchant Code, does not extend beyond the scope of Russia’s Exclusive Economic Zone. Second, during the 2013 navigation season, there was an actual drop in the icebreaker assistance fee and in the waiting time for navigation approval, which validates our finding that Russian NSR legislation are not as arbitrary and rigid as they previously were. However, given that data regarding independent navigation in the NSR are not yet available, our conclusion regarding the conditional cancellation of icebreaker assistance remains to be confirmed.

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