



MINISTRY OF TRANSPORT  
OF THE RUSSIAN FEDERATION

# Planning of Voyage and Navigating on the Northern Sea Route (NSR)

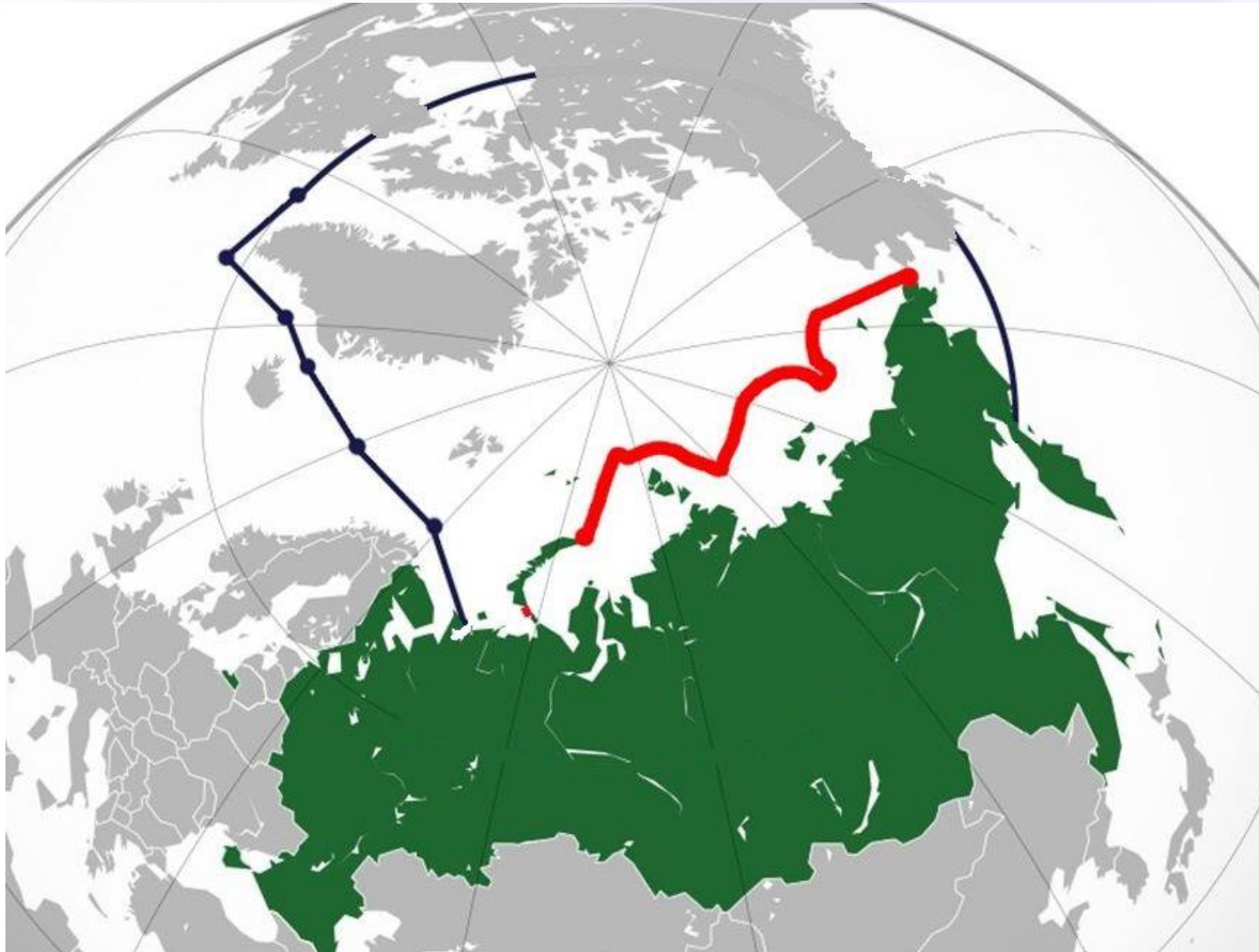
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Counsellor, Mission of the Russian Federation to the IMO

Fourth Annual Meeting of the Arctic Shipping Best Practice Information Forum

**24-25 November 2020**



## NSR Geographical Area and NSR Regime



### NSR:

- water area within the limits of the territorial sea and EEZ of the Russian Federation
- within the boundaries of the Arctic Waters as defined in the Polar Code
- part of the Russian Arctic waters with most severe ice and weather conditions

### NSR Regime is based on:

- UNCLOS (Article 234)
- The Polar Code and STCW
- Non-discriminatory Rules of navigation



## Northern Sea Route Administration – [www.nsra.ru](http://www.nsra.ru)



- Receiving of applications for admission to NSR
- Consideration of applications, issuance of permissions / refusals
- Monitoring of hydro meteorological situation on NSR
- Information services related to safety and pollution prevention requirements on NSR
- Information on hydro meteorological situation on NSR
- Information on service suppliers on icebreaking, ice pilotage
- Contact point for reporting on NSR



# Rules for Navigation in the water area of the NSR

УТВЕРЖДЕНЫ  
постановлением Правительства  
Российской Федерации  
от 18 сентября 2020 г. № 1487

## П Р А В И Л А плавания в акватории Северного морского пути

### I. Общие положения

1. Настоящие Правила применяются в целях обеспечения безопасности мореплавания, а также в целях предотвращения, сокращения и сохранения под контролем загрязнения морской среды с судов и содержат:

- а) порядок организации плавания судов в акватории Северного морского пути;
- б) положение о навигационно-гидрографическом обеспечении плавания судов в акватории Северного морского пути;
- в) иные касающиеся организации плавания судов в акватории Северного морского пути положения.

### II. Порядок организации плавания судов в акватории Северного морского пути

2. Организация плавания судов в акватории Северного морского пути осуществляется Государственной корпорацией по атомной энергии "Росатом" (далее - Госкорпорация "Росатом") в соответствии с пунктом 3 статьи 5<sup>1</sup> Кодекса торгового мореплавания Российской Федерации в порядке, предусмотренном настоящим разделом.

В целях организации плавания судов решением Госкорпорации "Росатом" создается штаб морских операций (далее - штаб), который обеспечивает ледокольную проводку судов и проводку судов по маршрутам плавания судов в акватории Северного морского пути, а также разрабатывает маршруты плавания судов и осуществляет расстановку судов ледокольного флота в акватории Северного морского

## 1. General

## 2. Provisions for organization of navigation in the water area of NSR

- Admission requirements
- Supporting documentation
- Procedure for consideration of applications
- Reporting requirements

## 3. Provisions on navigational and hydrographic support of navigation

- Components of navigational and hydrographic support
- Distribution of authorities

## 4. Other provisions

- Icebreaking procedure and requirements
- Radio communication
- Additional safety and environment protection requirements

Attachment 1 – Information to be submitted with application

Attachment 2 – Admission criteria (ice class)



# Information and Documents Required for NSR Voyage

## Information:

- ship general (name, IMO number, flag, etc.)
- ship specific (parameters, ice class, daily fuel consumption, particulars of aft and stern design, contact information)
- shipowner (contact details)
- number of crew and passengers
- cargo (type, amount, class if dangerous)
- voyage (port of departure/destination, description of voyage)

## Documents (scanned pdf):

- classification certificate
- insurance certificate (ICLL 1966 and Bunkers 2001)
- **international Polar Ship Certificate**
- ownership certificate
- contract for icebreaking assistance services (as per the admission criteria)

**POLAR SHIP CERTIFICATE**

This Certificate shall be supplemented by a Record of Equipment for the  
Polar Ship Certificate

(Official seal) \_\_\_\_\_ (State) \_\_\_\_\_

Issued under the provisions of the  
International Convention for the Safety of Life at Sea, 1974, as amended  
under the authority of the Government of

(name of the State)

by \_\_\_\_\_  
(person or organization authorized)

**Particulars of ship<sup>22</sup>**

Name of ship.....  
Distinctive number or letters.....  
Port of registry.....  
Gross tonnage.....  
IMO Number<sup>23</sup>.....

<sup>22</sup> Alternatively, the particulars of the ship may be placed horizontally in boxes.  
<sup>23</sup> In accordance with IMO ship identification number scheme adopted by the Organization by resolution A.1117(30).



# Application Procedure



SITE MAP

FEDERAL STATE BUDGETARY INSTITUTION  
THE NORTHERN SEA ROUTE ADMINISTRATION



FEDERAL AGENCY FOR  
MARITIME AND RIVER  
TRANSPORT



MINISTRY OF TRANSPORT OF  
RUSSIAN FEDERATION



Urgent information | Non compliant vessels

Search...

- HOME
- OFFICIAL INFORMATION
- CURRENT INFORMATION
- CONSIDERATION OF APPLICATIONS
  - Application (the form )
  - Send the application online
  - List of applications
  - Permissions
  - Refusals
- THE ICEBREAKER ASSISTANCE AND ICE PILOTAGE
- NAVIGATIONAL AND WEATHER INFORMATION

Application for Admission and Enclosure to Application to navigate in the Northern Sea Route Area

Application for admission to navigate in the Northern Sea Route Area

[Download link](#)  
48.5 Kb

**Application to be submitted 120 – 15 calendar days in advance of the voyage**

Permission / refusal is issued within 10 working days

Permission contains:

particulars of the ship, description of area of navigation, conditions of navigation in particular NSR areas - icebreaking assistance or independent navigation, term of validity

## Statistics for 2020 (1 Jan- 25 Nov):

1005 applications processed

988 permissions granted

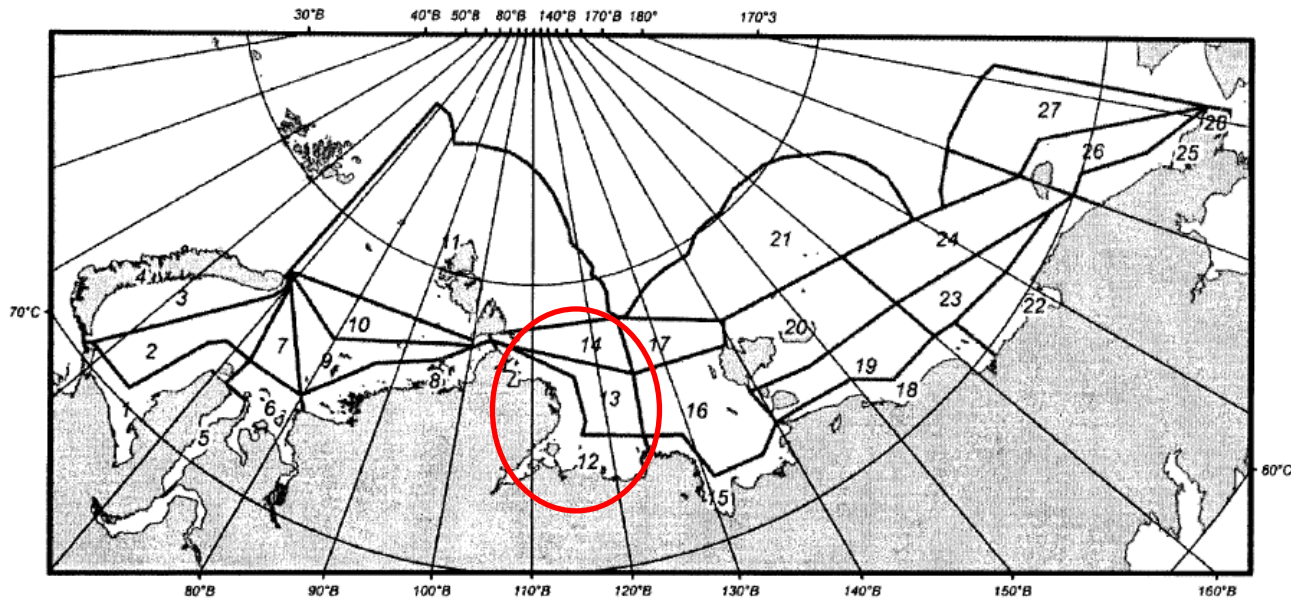
17 refusals (1.7%)

**Main reason for refusals: missing documents.**

11 cases out of 17 – Polar Ship Certificate was not enclosed



# Admission Criteria



## ADMISSION CRITERIA

- ice class (RMRS ice classes)
- season (July - November)
- voyage area (28 NSR areas)
- ice conditions (**H**eavy, **M**edium, **L**ight, **O**pen water)

Ice class/all year	12, 13, 14			
Arc 4 (IACS PC7)	<b>H</b>	<b>M</b>	<b>L</b>	<b>O</b>
	-	-	+	+

ADMISSION CRITERIA DEFINES WHETHER SHIP CAN NAVIGATE INDEPENDENTLY (+) OR WITH ICEBREAKING ASSISTANCE (-)



## Additional Safety and Pollution Prevention Requirements

### Safety:

- Fuel, supplies, fresh water on board enough for the duration of maximum possible time of navigation
- Ballast tanks bordering outer shell above the load line should be heated (*November - June*)
- While navigating in ice concentration over 3/10 master or chief mate should be on the bridge
- Searchlight on the bow or bridge wing (*when operating in darkness or low visibility*)
- One set of warm clothes for each person on board + 3 spare sets
- Immersion suits for maximum possible number of persons on board + suits for watch and engine personnel

### Pollution prevention:

- Discharge of oily waters is prohibited (*introduced before the Polar Code*)
- Oil residue tanks should be of adequate capacity to ship's engine and the duration of voyage

ADDITIONAL SAFETY AND POLLUTION PREVENTION REQUIREMENTS ARE IN LINE WITH OR VERY SIMILAR TO THE POLAR CODE





# Reporting

## Reporting before entering NSR:

- information related to ships heading and schedule (48 hours notice)

## Reporting during navigation on NSR:

- Entry notice (*information related to ships heading and schedule* )
- Daily notice at 12-00 Moscow time  
(*ship stores, damages, incidents, malfunctions, weather and ice around*)
- Leaving notice (*information related to ships heading and schedule*)

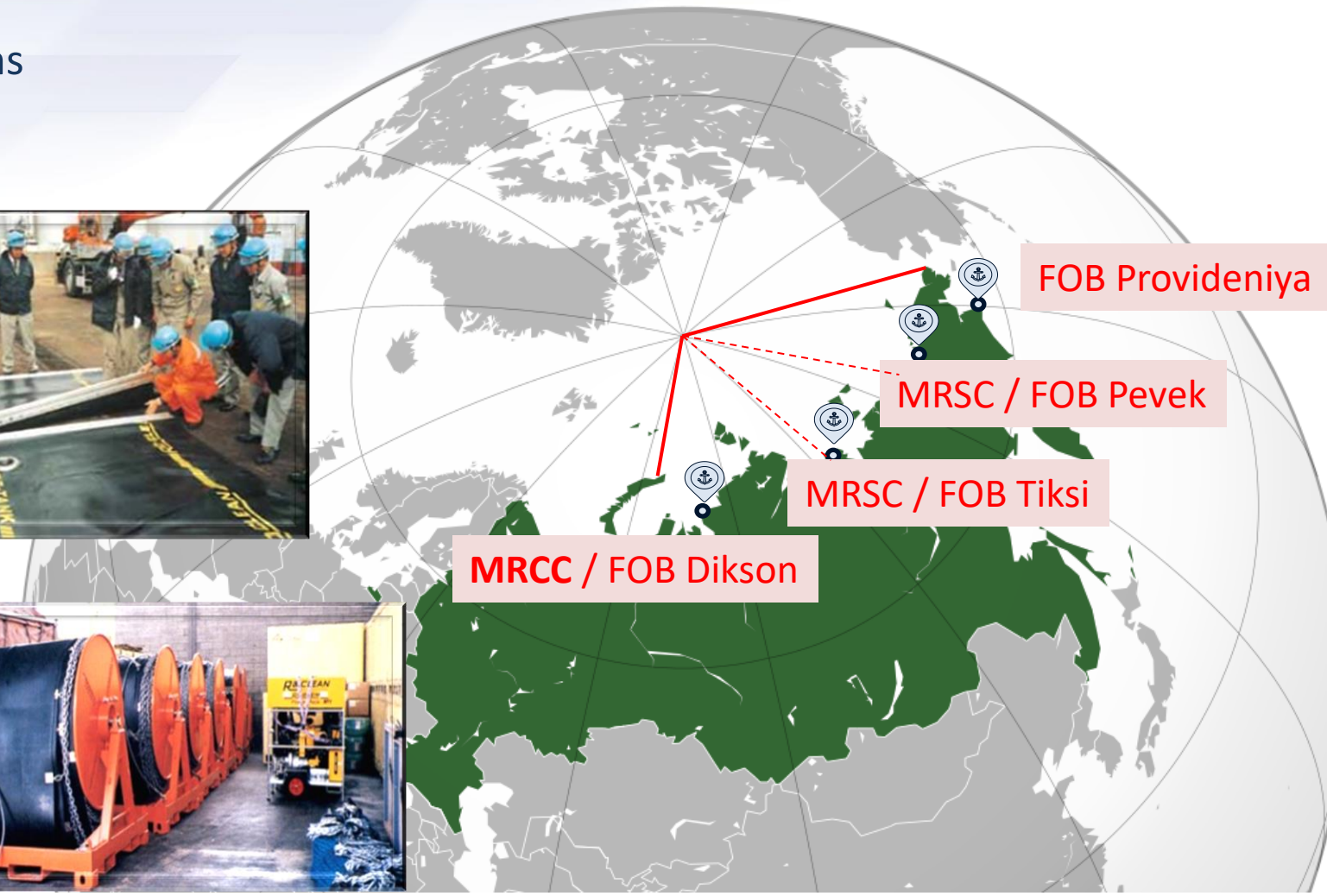


REGULAR REPORTING AIMS AT ENSURING THAT ASSISTANCE IF NEEDED WOULD BE PROVIDED AS EARLY AS POSSIBLE



# Search and Rescue and Pollution Prevention Services

Maritime Rescue Regions and Sub-regions  
Forward Operational Bases





## Search and Rescue – Fleet and Services



Emergency preparedness

Search and Rescue

Oil spill response

Fire-fighting

Underwater works

Diving operations

Medical assistance

Emergency towing

Ship salvage

Dredging





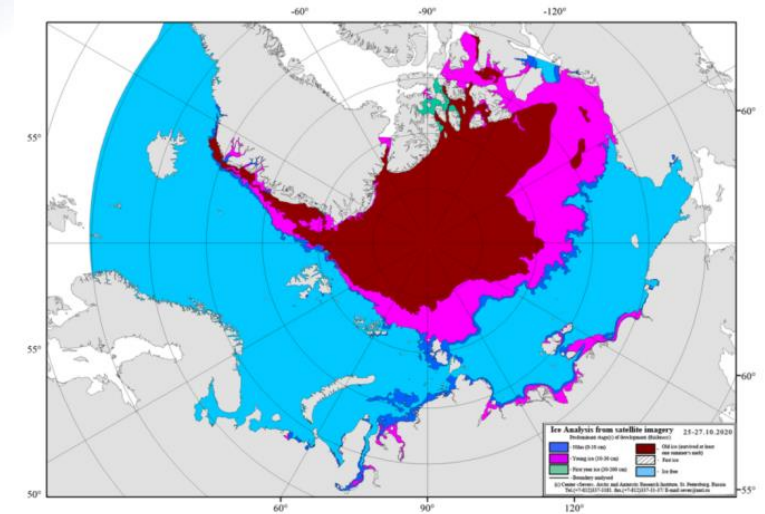
# Information Services and Support

## Hydrometeorological data at 06 MGT October 29, 2020 and hydrometeorological forecast for October 30 – November 01, 2020 on the coast of the Kara Sea

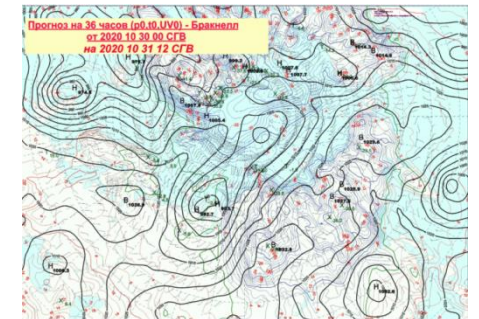
Station	visibility, km	Wind			Temperature		ice		special phenomena
		dir, gr.	velocity m/s	air degrees	water degrees	Fast ice thickness cm	Drift ice		
AMDERMA	10	170	6-12	-2.1	+2.0	-	Open water	slight snow	
UST-CARA	4	130	4	-3.1	-	-	-	slight storm snow	
MARSALE	1	130	13-19	-5.8	-1.7	-	The sludge ice*	slight storm snow	
IM. M.V. POPOVA	1	150	15-21	-7.6	-	-	nilas	heavy blizzard	
SEYAHA	10	140	11-18	-11.0	-	-	-	blizzard	
NOVYJ PORT	10	150	8-11	-12.3	0.0	11	-	low drifting snow	
TAZOVSKIJ	51	130	2	-20.8	-	-	-	-	
NYDA	20	160	6	-15.1	-	-	-	-	
ANTIPAJUTA	20	130	2	-21.7	-	-	-	-	
SOPOCHNAYA KARGA	20	90	3	-24.5	0.0	-	nilas	-	
KARAUL	51	110	5	-16.3	-	-	-	-	
DIKSON	20	170	8-14	-15.6	-0.7	-	nilas	low drifting snow	
IZVESTIJ TSIK	20	180	15-19	-6.5	-1.4	-	The sludge ice*	-	
MYS STERLEGOVA	20	160	6	-17.1	-1.3	-	The sludge ice*	-	
GMO IM.E.K. FEDOROVA	4	210	10-13	-8.1	-	-	-	slight storm snow	

At the beginning of the period, there is the influence of the gradient zone between the depression over the Barents Sea with the cyclone (central pressure 985-999-995 hPa) over the central parts of the sea along with the cyclone (central pressure 986-1000 hPa) over the arch. Franz Josef Land, and the anticyclone (central pressure 1033-1040 hPa) over the western parts of Yakutia. By the end of the day on October 30, the cyclone is shifted from the central parts of the Barents Sea to the southwestern part of the Kara Sea; over the western part of the sea there is the influence of the southern, south-eastern periphery of the cyclone, over the southern part of the

Daily weather information  
Weekly weather bulletins  
Ice charts



Synoptic and ice forecasts  
Long-term forecasts





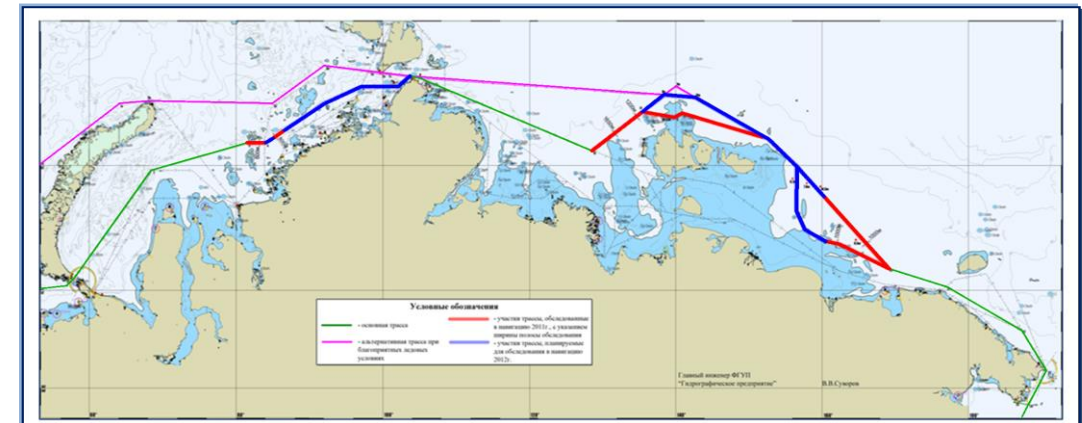
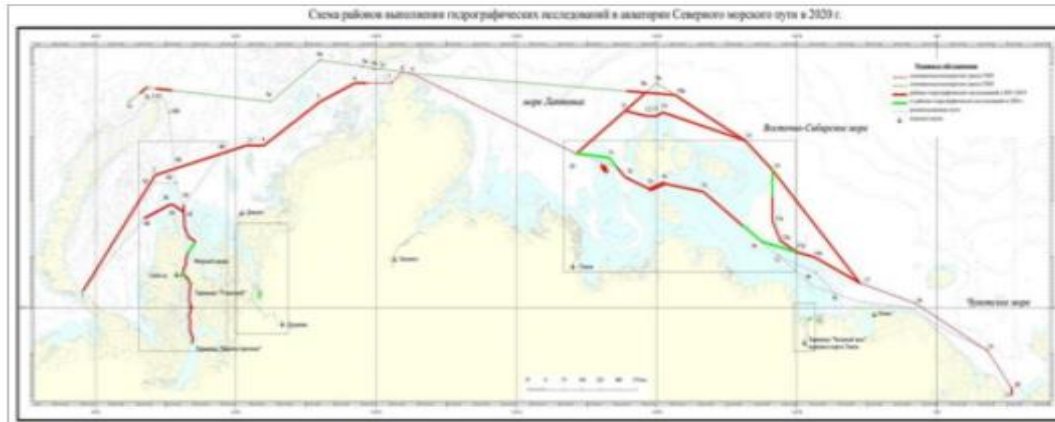
# Routing and Sounding

## Sounding of shipping routes on NSR:

2011-2018 – 281000 km (*121000 km of main/alternative routes of NSR - 2 km width*)

2019 – 45000 km

2020 – 45500 km



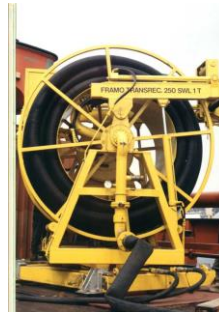
**SOUNDING PLANS FOR 2021-2024 – UP TO 270 000 KM**



## Icebreaking Assistance – Icebreakers in operation



## Oil spill response personnel and equipment on board





## Icebreaking Assistance – Diesel-electric Icebreaker commissioned in Nov 2020



### “VIKTOR CHERNOMYRDIN”

Parameters	
Length overall	142.4 m
Breadth	29 m
Draught	9.7 m
Max ice capacity	2 m / 2 knots
Shaft power	25 MWt
Speed open water	17.9 knots
Crew	38
Class (RMRS)	KM(*) Icebreaker8
Endurance	60 days



## Icebreaking Assistance – Nuclear Icebreakers in operation

**50 Let Pobedy**



**Taimyr**



**Yamal**



**Vaigach**







## Icebreaking Assistance – Nuclear Icebreaker commissioned in Oct 2020



### “АРКТИКА”

Parameters	
Length overall	173.3 m
Breadth	34 m
Draught	8.5m /10.5 m
Max ice capacity	2.9 m / 2 knots
Shaft Power	60 MWt (3x20)
Speed open water	22 knots
Crew	53
Class (RMRS)	KM(*) Icebreaker9
Term of service	40 years



## Icebreaking Assistance – Nuclear Icebreakers under construction



Name	Keel laid	Readiness	Commissioning
<b>Arktika</b>	<b>Nov 2013</b>	<b>100%</b>	<b>Oct 2020</b>
<b>Sibir</b>	Mar 2015	75%	Dec 2021
<b>Ural</b>	Jul 2016	57%	Dec 2022
<b>Yakitiya</b>	May 2020	5%	Dec 2024
<b>Chukotka</b>	End 2020	0%	Dec 2026



## Icebreaking Assistance – Nuclear Icebreakers under construction



Parameters	
Length overall	209 m
Breadth	47.7 m
Draught	11.5 m
Max ice capacity	4.3 m / 2knots
Ice capacity	2 m / 12-13 knots
Shaft Power	120 MWt (4x30)
Class (RMRS)	KM(*) Icebreaker9

First icebreaker contracted in Oct 2020,  
to be commissioned in 2027  
(three icebreakers planned)



## Conclusions - general

The compliance with the Polar Code remains essential when planning voyage on the NSR.

The NSR regime complements the Polar Code and aims at safer voyages and better protection of marine environment.

Transparent and non-discriminatory procedure for admission, application, icebreaking assistance based on technical characteristics of ships and seasonal ice conditions.

Availability of SAR, pollution prevention, pilotage and icebreaking services, information support (weather, ice, communication), routing and charts.

Navigation and voyage planning heavily depend on ice conditions and will continue to depend in forthcoming decades.

The Government's efforts will be concentrated on raising capabilities to allow better and more reliable communication, navigation, SAR, icebreaking, mapping and other services to make the voyage on the NSR more safe and environmentally friendly.



## Conclusions – Web Portal

Information for voyage planning on NSR is available in the Web Portal’s section “Arctic State Information”:

- NSR rules;
- admission and application procedure;
- icebreaking and ice pilotage assistance;
- navigational and weather forecasts;
- ice charts;
- SAR and oil spill response services;
- NSRA contact information

The screenshot shows the top navigation bar of the Arctic State Information web portal. The navigation bar includes links for Home, PAME, Document Library, and Projects. On the right side of the navigation bar, there is a search box with the text "Search ..." and a magnifying glass icon. Below the navigation bar, there is a list of countries: Kingdom of Denmark, Iceland, Finland, Norway, Sweden, and Russian Federation. The Russian Federation link is highlighted in a darker blue color. Below the list, there is a section titled "The Northern Sea Route Administration" with a sub-heading "The website of the Northern Sea Route Administration contains important information for ship operators, including:". Below this sub-heading, there is a list of links: Rules of navigation in the water area of Northern Sea Route, The Russian Federal Law of Shipping in the Water Area of the Northern Sea Route, Application for Admission and Enclosure to navigate in the Northern Sea Route Area, Information about icebreaker assistance and ice pilotage, Navigational and weather information, Search and rescue, Prevention of pollution by oil, and, and Contact information.

INFORMATION AT THE WEB PORTAL WILL BE UPDATED AS NECESSARY



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**Thank you  
for your attention!**