



## **National Report of the Russian Federation**

**The 8<sup>th</sup> Conference of the Arctic Regional Hydrographic Commission  
11-13 September 2018, Longyearbyen, Svalbard**

**Submitted by:  
the Department of Navigation and Oceanography of the Ministry of Defense of the Russian Federation**



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- 8. Oceanographic activities** (general, GEBCO/IBC's activities, tide gauge network, new equipment, problems encountered)
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## 1. Hydrographic Office / Service

General:

planning, management and administration in nautical and hydrographic services for the purpose of aiding navigation in the water areas of the national jurisdiction except the water area of the Northern Sea Route and in the high sea are carried to competence of the Department of Navigation and Oceanography of the Ministry of Defense of the Russian Federation (hereinafter - DNO).

DNO is in charge of the National Hydrographic Service of the Russian Federation.

The main activities of the National Hydrographic Service are the following:

to carry out the hydrographic surveys adequate to the requirements of safe navigation in the water areas of the national jurisdiction and in the high sea;

to prepare and issue nautical charts, sailing directions, lists of lights, tide tables and other nautical publications, satisfying the needs of safe navigation in the water areas of the national jurisdiction and in the high sea;

to promulgate notices to mariners in order that nautical charts and publications are kept up to date;

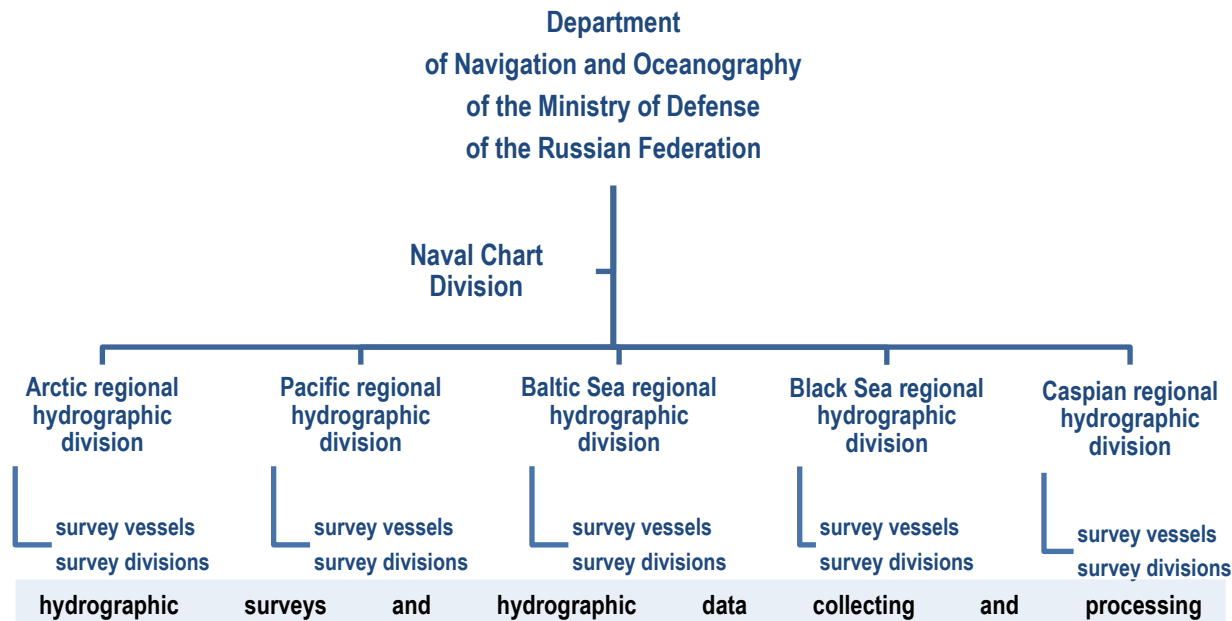
to provide such aids to navigation as the volume of traffic justifies and the degree of risk requires in the water areas of the national jurisdiction and in the high sea and to arrange for information relating to aids to navigation to be made available to all concerned;

to provide the nautical charts, sailing directions and other nautical publications to Russian and foreign mariners.



## 1. Hydrographic Office / Service

General:

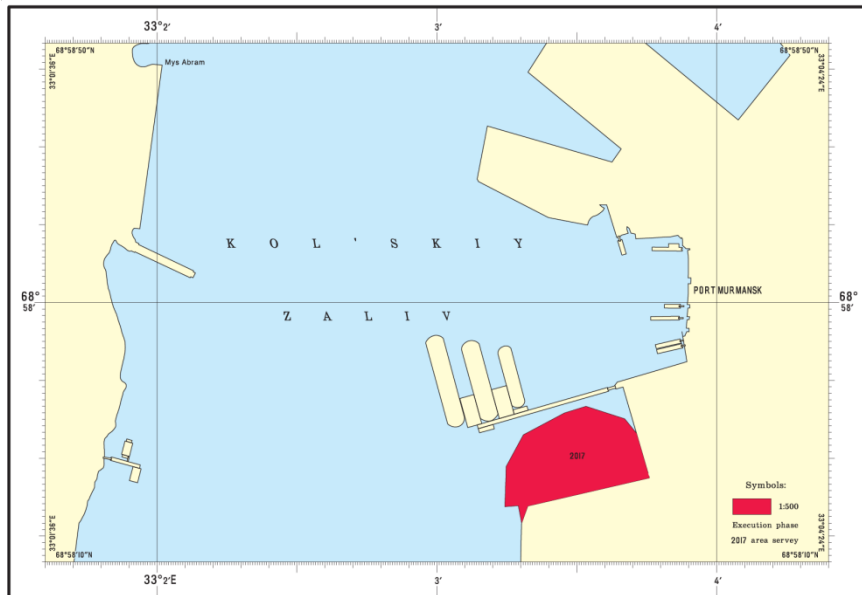


No updates for the IHO Yearbook.



## 2. Surveys

Coverage of new surveys:



№	Area of surveys	Type of surveys	Date	Scale	Volume	
					sq. km	l. km
1	2	3	4	5	6	7
Barents Sea						
1	Kol'skiy Zaliv Water Area of the Submarine Dumping Ground (area of Mys Champushka, area №15)	Area survey Topographic survey	2017	1:500	1.84	0.6- topo- graphic survey

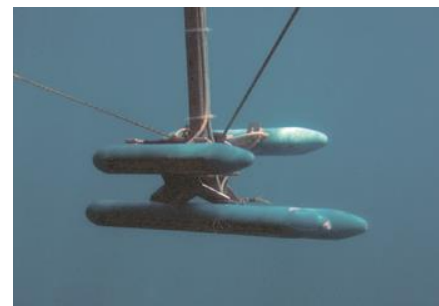


## 2. Surveys

New technologies and / or equipment:

in 2016 - 2017 the modern mobile single- and multi-beam echo-sounders, side-scanning sonars, sub-bottom profilers and hydrographic data processing products were provided to the regional hydrographic divisions.

**Mobile side scan sonar complex «Neman GBOE»:**



**Basic specifications:**

operating frequency, kHz	- 240 – 290
downrange on one board, max, m	- 300
downrange detection of objects, max, m	- 180 – 220
swath width, m	- 300 – 350
resolution, cm	- 4
weight, kg	- 17



## 2. Surveys

New ships:

in 2016 – 2017 the regional hydrographic divisions received modern hydrographic survey echo-sounding launches equipped with the multi-beam echo-sounders and side-scanning sonars.



### Hydrographic survey echo-sounding launch

Basic specifications:

overall length, m	– 36,4
beam, m	– 7,8
draft, m	– 2,0
speed, knots	– 8
crew	– 11



### 3. New charts & updates

ENCs:

№	Cell №	Name of the area	Scale	Year of new edition
1	RU2PGK70	Barents Sea 75°30'N to 79°00'N 37°00'E to 44°30'E	1:700 000	2017
2	RU2PRM80	Barents Sea Zemlya Frantsa-Iosifa Zemlya Aleksandry Island to Nortbruk Island	1:700 000	2017
3	RU2PSN60	Barents Sea Zemlya Frantsa-Iosifa Guker Island to Belaya Zemlya Islands	1:700 000	2017
4	RU2PNOL0	Kara Sea 77°50'N 67°00'E to 81°45'N 74°00'E	1:700 000	2017
5	RU2PNPC0	Kara Sea Northern Part Vize and Ushakov Islands	1:700 000	2017
6	RU2PNQ30	Kara Sea 77°50'N 81°00'E to 81°45'N 88°00'E	1:700 000	2017
7	RU2PNQ00	Kara Sea Severnaya Zemlya Shmidt Island to Voronin Island	1:700 000	2017
8	RU2PNRI0	Kara and Laptev Seas Severnaya Zemlya Komsomolets Island to Malyy Taymyr Island	1:700 000	2017
9	RU2PNSO0	Laptev Sea 77°50'N 108°E to 81°45'N 120°E	1:700 000	2017
10	RU2PMD0	Barents Sea 74°30'N to 79°00'N: 44°30'E to 52°00'E	1:700 000	2017
11	RU2PDN60	Barents Sea Novaya Zemlya Area to North of Admiralteystva Peninsula	1:700 000	2017
12	RU2PDNR0	Barents and Kara Seas Northern Part of Novaya Zemlya	1:700 000	2017
13	RU2OOKI0	Barents Sea Varangerfjorden to Kanin Peninsula	1:700 000	2017

№	Cell №	Name of the area	Scale	Year of new edition
14	RU2OBL60	White Sea	1:700 000	2017
15	RU2OKMD0	Barents Sea Kanin Peninsula to Gusinaya Zemlya Peninsula	1:700 000	2017
16	RU2OKN60	Barents and Kara Seas Timanskiy Coast to Novaya Zemlya and Karskiye Vorota Strait	1:700 000	2017
17	RU2OONR0	Barents and Kara Seas Vaygach Island to Yamal Peninsula	1:700 000	2017
18	RU2P3OL0	Barents and Kara Seas Yamal Peninsula to Novaya Zemlya	1:700 000	2017
19	RU2P3PC0	Kara Sea Area to North from Gydanskiy Peninsula	1:700 000	2017
20	RU2P3Q30	Kara Sea Petra Chichagova Coast to Uyedineniya Island	1:700 000	2017
21	RU2P8Q00	Kara Sea Khariton Laptev Coast to Sergey Kirov Islands	1:700 000	2017
22	RU2P8RI0	Kara and Laptev Seas Russkiy Island to Faddey Islands	1:700 000	2017
23	RU2P8SO0	Laptev Sea Faddey Islands to Olenyokskiy Gulf	1:700 000	2017
24	RU2P0U00	Laptev Sea Approaches to Deltas of Rivers Olenyok and Lena	1:700 000	2017
25	RU2P0UR0	Laptev Sea Buor-Khaya Inlet to Kotel'nyy Island	1:700 000	2017





### 3. New charts & updates

ENCs:

№	Cell №	Name of the area	Scale	Year of new edition
26	RU2P0V00	Laptev and East Siberian Seas Yanskiy Gulf to Kotel'nyy Island	1:700 000	2017
27	RU2P0WF0	East Siberian Sea Merkushina Strelka Peninsula to Bennett Island	1:700 000	2017
28	RU2P0X60	East Siberian Sea Indigirskiy Gulf to De-Long Islands	1:700 000	2017
29	RU2OPXR0	East Siberian Sea Kolyma River Delta to 76°00'N 166°00'E	1:700 000	2017
30	RU2OPY10	East Siberian Sea Chaunskaya Inlet to 76°00'N	1:700 000	2017
31	RU2OQZ90	East Siberian Sea Aachim Peninsula to Vranghel' Island	1:700 000	2017
32	RU2OQ009	Chukchi Sea Eastern Part of Vranghel' Island	1:700 000	2017
33	RU2OQ091	Chukchi Sea Coast of USA 75°00'N to 68°50'N 173°00'W to 168°58'37"W	1:700 000	2017
34	RU2O9091	Chkchi Sea and Bering Sea Chukotskiy Peninsula Senyavin Strait to Netten Point	1:700 000	2017
35	RU2O9Z90	Tihiy Ocean Bering Sea Anadyrskiy Gulf Western Part	1:700 000	2017
36	RU3P3V70	Laptev Sea Yanskiy Gulf Buor-Khaya Point to Yarok Island	1: 180 000	2017
37	RU3PPS30	Laptev Sea Severnaya Zemlya East Coast of Bol'shevik Island	1: 180 000	2017
38	RU3P0ZM0	East Siberian and Chukchi Seas Vranghel' Island Western Part	1: 180 000	2017

№	Cell №	Name of the area	Scale	Year of new edition
39	RU3P00T0	Chukchi Sea Vranghel' Island East Part	1: 180 000	2017
40	RU3OMP70	Kara Sea Obskaya Inle Port Yamburg to Saletayakha River	1: 90 000	2017
41	RU3OMPJ0	Kara Sea Obskaya Inlet Tazovskaya Inlet Povorotnyy Point to Taz River	1: 180 000	2017
42	RU3P1P60	Kara Sea Obskaya Inlet Khaltsyneysalya Point to Yantosyo Light Beacon	1: 90 000	2017
43	RU4P5P90	Kara Sea Obskaya Inlet Approaches to Shtormovoy Point	1: 45 000	2017
44	RU4Q2MM0	Barents Sea Zemlya Frantsa-Iosifa Zemlya Aleksandry Island Zveroboev Bay	1: 22 000	2017
45	RU4Q2ML0	Barents Sea Zemlya Frantsa-Iosifa Zemlya Aleksandry Island Dezhnyov Gulf	1: 22 000	2017
46	RU4OQNN0	Barents Sea SE Part Approaches to Varandeykskaya Inlet	1: 22 000	2017
47	RU4Q2MM0	Barents Sea Zemlya Frantsa-Iosifa Zemlya Aleksandry Island Zveroboev Bay	1: 22 000	2017
48	RU4Q2ML0	Barents Sea Zemlya Frantsa-Iosifa Zemlya Aleksandry Island Dezhnyov Gulf	1: 22 000	2017
49	RU5OSL80	Barents Sea Rybachiy Peninsula Tsypnavolok Bay, Laush Inlet and Bol'shaya Korabel'naya Inlet	1: 12 000	2017
50	RU4P5P70	Kara Sea Obskaya Inlet Takladayakha River to Khuryokhoyakha River	1: 45 000	2018
51	RU4P3P70	Kara Sea Obskaya Inlet 71°21.05'N to Sabuto Light Beacon	1: 45 000	2018



### 3. New charts & updates

ENCs:

No	Cell No	Name of the area	Scale	Year of new edition
52	RU4P1P90	Kara Sea Obskaya Inlet Sabuto River to KHALTSYNEY Light Beacon	1: 45 000	2018
53	RU4P1P70	Kara Sea Obskaya Inlet Ser'yakha River to Belyy Point	1: 45 000	2018
54	RU4OTP90	Kara Sea Obskaya Inlet Tadebyayakha River to Ngabkeyyakha River	1: 45 000	2018
55	RU4OSP80	Kara Sea Obskaya Inlet Belyye Obryvy Stow to Kotel'nyy Point	1: 45 000	2018
56	RU4ORP90	Kara Sea Obskaya Inlet Olvuyakha River to Povorotnyy Point	1: 45 000	2018
57	RU4OQP70	Kara Sea Obskaya Inlet Topsalya Point to Yaviyakha River	1: 45 000	2018
58	RU4OQP90	Kara Sea Obskaya Inlet Area to Southwest of Point Tryokhbugornyy	1: 45 000	2018
59	RU4OPPA0	Kara Sea Obskaya Inlet Kamennyy Point to Kruglyy Point	1: 45 000	2018
60	RU4OOPA0	Kara Sea Obskaya Inlet Kamennaya Bay to Parusnyy Point	1: 45 000	2018
61	RU4OPP70	Kara Sea Obskaya Inlet Lymbad'yakha River to Snegovoy Yar Bluff	1: 22 000	2018
52	RU4P7PA0	Kara Sea Obskaya Inlet Northern Part of Port Sabetta Maritime Channel	1: 22 000	2018
53	RU4P6PA0	Kara Sea Obskaya Inlet Port Sabetta Maritime Channel 72°27'N to 72°18'N	1: 22 000	2018
64	RU4P6P90	Kara Sea Obskaya Inlet Port Sabetta Maritime Channel 72°18'30"N to 72°09'30"N	1: 22 000	2018
65	RU6P3P60	Kara Sea Obskaya Inlet Port Sabetta	1: 4 000	2018





### 3. New charts & updates

ENC distribution method, RNCs, INT charts, national paper charts, other charts, e.g. for pleasure craft:

- ENC are distributed via the official distributor of cartographic products of the National Hydrographic Service;
- the DNO does not distribute Raster navigational charts;
- the INT charts were not published at the moment;
- national paper charts:

there are 901 nautical charts issued by the DNO on the water areas of the Arctic Ocean.

The Scales are shown in the table. The collection is being updated using corrections and re-issues of the charts as new hydrographic data become available.

Notices to Mariners are issued weekly and are available in .pdf on the website of the National Hydrographic Service:

<http://structure.mil.ru/structure/forces/hydrographic/info/notices.htm>

Scale	Paper charts
1:2 500 000	1
1:2 000 000	7
1:750 000-1:700 000	2
1:500 000	45
1:200 000	109
1:100 000	218
1:50 000	236
1: 20 000-1:25 000	178
1:10 000	70
1:5 000	26
1:2 000 - 1:1 000	9
$\Sigma$	901



### 3. New charts & updates

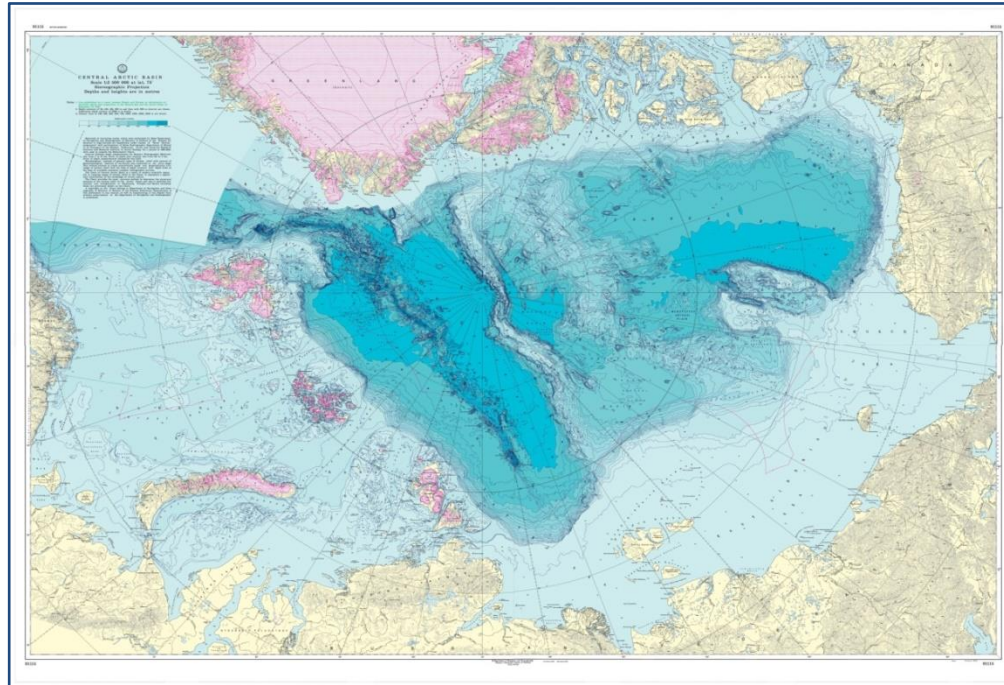
National paper charts:

<b>№</b>	<b>Admiralty №</b>	<b>Name of the area</b>	<b>Scale</b>	<b>Year of new edition</b>
1	91115	Central Arctic Basin	1:2 500 000	2017
2	11163	Barents Sea Novaya Zemlya Ostrov Mezhdusharskiy to Poluostrov Admiralteystva	1:700 000	2017
3	12321	Kara Sea Poluostrov Yavay to Ostrov Dikson	1:200 000	2017
4	12430	East Siberian and Chukchi Seas Ostrov Vrangelya	1:200 000	2017
5	12433	Chukchi Sea Chukotskiy Poluostrov Mys Dzhenretlen to Mys Dezhnyova	1:200 000	2017
6	15341	Kara Sea Obskaya Guba Reka Ser'yakha to Mys Belyy	1:50 000	2017
7	15344	Kara Sea Obskaya Guba Mys Kotel'nyy to Mys Povorotnyy	1:50 000	2017
8	15354	Kara Sea Obskaya Guba Reka Parod'yakha to Mys Khonarasalya	1:50 000	2017
9	17014	Barents Sea Poluostrov Rybachiy Bukhta Tsyphnavolok and Guba Lush and Guba Bol'shaya Korobel'naya	1:10 000	2017
10	18332	Kara Sea Obskaya Guba Approaches to Port Sabetta	1:25 000	2017
11	19240	Barents Sea Zemlya Frantsa-Iosifa Ostrov Zemlya Aleksandry Zaliv Dezhnyova and Bukhta Zverboev	1:25 000	2017



### 3. New charts & updates

National paper charts: Bathymetric Chart «The Central Arctic Basin», Admiralty № 91115 (updated to 2018, June)





### **3. New charts & updates**

Print-on-Demand Chart System:

since 2011 paper national paper charts are being circulated via the Print-On-Demand Chart System.

Currently the base of Print-On-Demand Chart System contains more than 3878 charts.

### **4. New publications & updates**

New publications:

1. Lights and beacons of the Barents Sea, Coast of Russia, Admiralty № 2103, 2017.
2. Lights and beacons of the White Sea, Admiralty № 2105, 2017.

Updated Publications:

issued publications are being updated via the DNO Notices to Mariners.

Means of delivery:

all publications are delivered on a paper basis.





## 5. MSI existing infrastructure for transmission

Existing infrastructure for transmission:

within the World Wide Navigational Warning Service (WWNWS) existing infrastructure for transmission of the MSI extends:

on the region of the WWNWS XIII as NAVAREA XIII Navigational Warnings (Pacific region);

on the region of the WWNWS XX and XXI as NAVAREA XX and NAVAREA XXI Navigational Warnings (Arctic region);

on the region of the Russian national zone of responsibility as Coastal Warnings covering the areas:

Arkhangelsk (the White Sea), Murmansk (the Barents Sea), the West (the seas along the western part of the water area of the Northern Sea Route), the East (the seas along the eastern part of the water area of the Northern Sea Route).

Transmission of MSI is carried out for four regions of Coastal Warnings entering two of the WWNWS NAVAREA regions:

the region of COASTAL WARNINGS (CW) Murmansk (the southern part of the Barents Sea) - a zone of responsibility of the Arctic regional hydrographic division;

the region of COASTAL WARNINGS (CW) Arkhangelsk (the White Sea) - a zone of responsibility of the Arctic regional hydrographic division;

the region of COASTAL WARNINGS (CW) the West (the southern part of the Kara Sea and the Laptev Sea to the West from a meridian of 125°E) - a zone of responsibility of the State Unitary Hydrographic Enterprise of the Ministry of Transport of the Russian Federation;

the region of COASTAL WARNINGS (CW) the East (the southern part of the Laptev Sea to the East from a meridian of 125°E, the East-Siberian Sea and the Chuckchee Sea) - a zone of responsibility of the State Unitary Hydrographic Enterprise of the Ministry of Transport of the Russian Federation;

The Federal State Unitary Enterprise «Rosmorport» of the Ministry of Transport of the Russian Federation is a coordinator of the WWNWS NAVAREA XX and NAVAREA XXI regions (the Arctic sector from a meridian of 30°E to a meridian of 168°W).

The MSI for the WWNWS NAVAREA XX and NAVAREA XXI regions is being transmitted in Safety Net and in SB the range (NBDP) by radio station Moscow.





## 5. MSI existing infrastructure for transmission

Announced Coastal Warnings for the WWNWS NAVAREA XX and NAVAREA XXI regions:

Region	2015	2016	2017
NAVAREA XX	218	224	216
NAVAREA XXI	61	61	69
CW Murmansk	410	387	368
CW Arkhangelsk	98	65	61
CW West	172	128	163
CW East	15	99	78

NAVTEX stations in the Arctic region:

<b>Murmansk</b>	68°46'N	32°58'E	300 miles	518 kHz	K
<b>Archangelsk</b>	64°51'N	40°17'E	300 miles	518 kHz	L
<b>Tiksi</b>	71°38'N	128°50'E	300 miles	518 kHz	Q



## 5. MSI existing infrastructure for transmission

The WNWWS NAVAREA XX and NAVAREA XXI regions and NAVTEX stations in the Arctic region (for Coastal Warnings):





## **5. MSI existing infrastructure for transmission**

New infrastructure in accordance with GMDSS Master Plan:

Control of creation and functioning of GMDSS and informing the International Hydrographic Organization are assigned to the Ministry of Transport of the Russian Federation.

## **6. S-55 latest update**

No information to include in the report.

## **7. Capacity building**

No information to include in the report.

## **8. Oceanographic activities**

No information to include in the report.

## **9. Other activities**

the DNO participates in the IHO Committees and Working Groups: the Arctic Regional Hydrographic Commission, the Baltic Sea Hydrographic Commission, the Mediterranean and Black Seas Hydrographic Commission, the Hydrographic Commission on Antarctica, the World-Wide Navigational Warning Service Sub-Committee, the GEBCO Guiding Committee, the ENC Standards Maintenance Working Group, the Nautical Information Provision Working Group, the Transfer Standard Maintenance and Application Development Working Group.

## **10. Conclusion**

the present report reflects the activities of the National Hydrographic Service of the Russian Federation during the period since the last meeting of the commission.

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