

**DEPARTMENT OF NAVIGATION AND OCEANOGRAPHY
OF THE MINISTRY OF DEFENSE OF THE RUSSIAN FEDERATION**

**NATIONAL REPORT
OF THE RUSSIAN FEDERATION**



**The 22nd CONFERENCE of the BALTIC SEA
HYDROGRAPHIC COMMISSION**

Rostock, Germany, 19-21 September, 2017

1. Hydrographic Office

In accordance with the legislation of the Russian Federation matters of 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 Ministry of Defense of the Russian Federation.

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.

Since the end of 2016 the Ministry of Defense of the Russian Federation (Department of Navigation and Oceanography of the Ministry of Defense of the Russian Federation, further in the text - DNO) has been provided with the authority to prepare, issue and update the state nautical charts (including electronic navigational charts) for water areas of the national jurisdiction, water area of the Northern Sea Route and high sea.

The DNO is authorized by the Ministry of Defense of the Russian Federation to represent the State in civil law relations arising in the field of nautical and hydrographic services for the purpose of aiding navigation. It is in charge of the National Hydrographic Office of the Russian Federation.

The main activities of the National Hydrographic Office 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 and electronic navigational charts, sailing directions and other nautical publications to Russian and foreign mariners.

The National Hydrographic Office includes the Department of Navigation and Oceanography of the Ministry of Defense of the Russian Federation and the Naval Chart Division situated in Saint Petersburg and the regional hydrographic

divisions for the Arctic, Pacific, Baltic Sea, Black Sea and Caspian Sea regions.

The regional hydrographic divisions include oceanographic and hydrographic survey vessels and hydrographic survey divisions carrying out hydrographic surveys and hydrographic data collecting and processing.

urveys

2.1. Areas covered by new surveys

Table 1

The list of hydrographic surveys

№	Area of surveys	Type of surveys	Period	Scale	Scope of surveys	
					sq.km	l.km
Baltic Sea						
1.	Water Areas and Canals of Seaports Vyborg and Vysotsk	Area surveys	2016	1:2 000	47	
2.	Approach Fairway of Saymenskiy Canal from Mariankivi Beacon to Brusnichnoye Lock	Area surveys	2016	1:1 000	1,48	
3.	Approach Canal and Water Area of «Bronka» Multipurpose Maritime Transshipment Complex	Area surveys	2016	1:2 000	3,95	
4.	Seaport «Bol'shoy Port of Sankt-Peterburg» - water area of coal harbor - line of a cordon of berths №89 и №90 – topographic survey	Area surveys Topographic surveys	2016	1:2 000	0,6	1,04
5.	Water Areas and Canals of Seaports Vyborg and Vysotsk Anchorages: №№18A,18B,18C, 19, 20	Area surveys	2017	1:2 000	7,01	

№	Area of surveys	Type of surveys	Period	Scale	Scope of surveys	
					sq.km	l.km
6.	Underwater Section of transition through the Water Area of the Nevsky Guba from a Fort Men'shikov to the Ostrov Kronshlot	Measuring of depth	2017	1:500		16,655

The scheme of hydrographic surveys

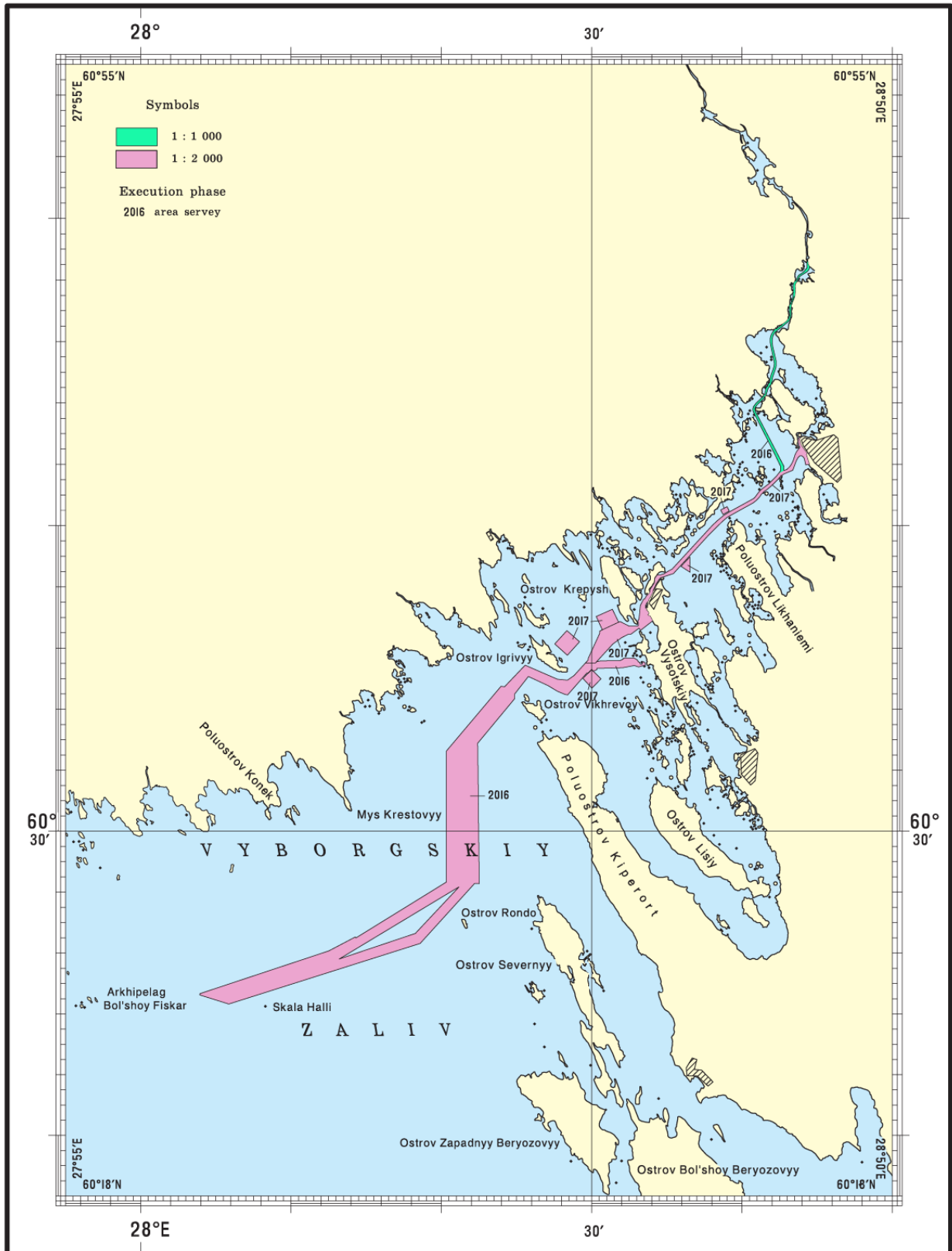


Fig. 1

The scheme of hydrographic survey



Fig. 2

The scheme of hydrographic surveys

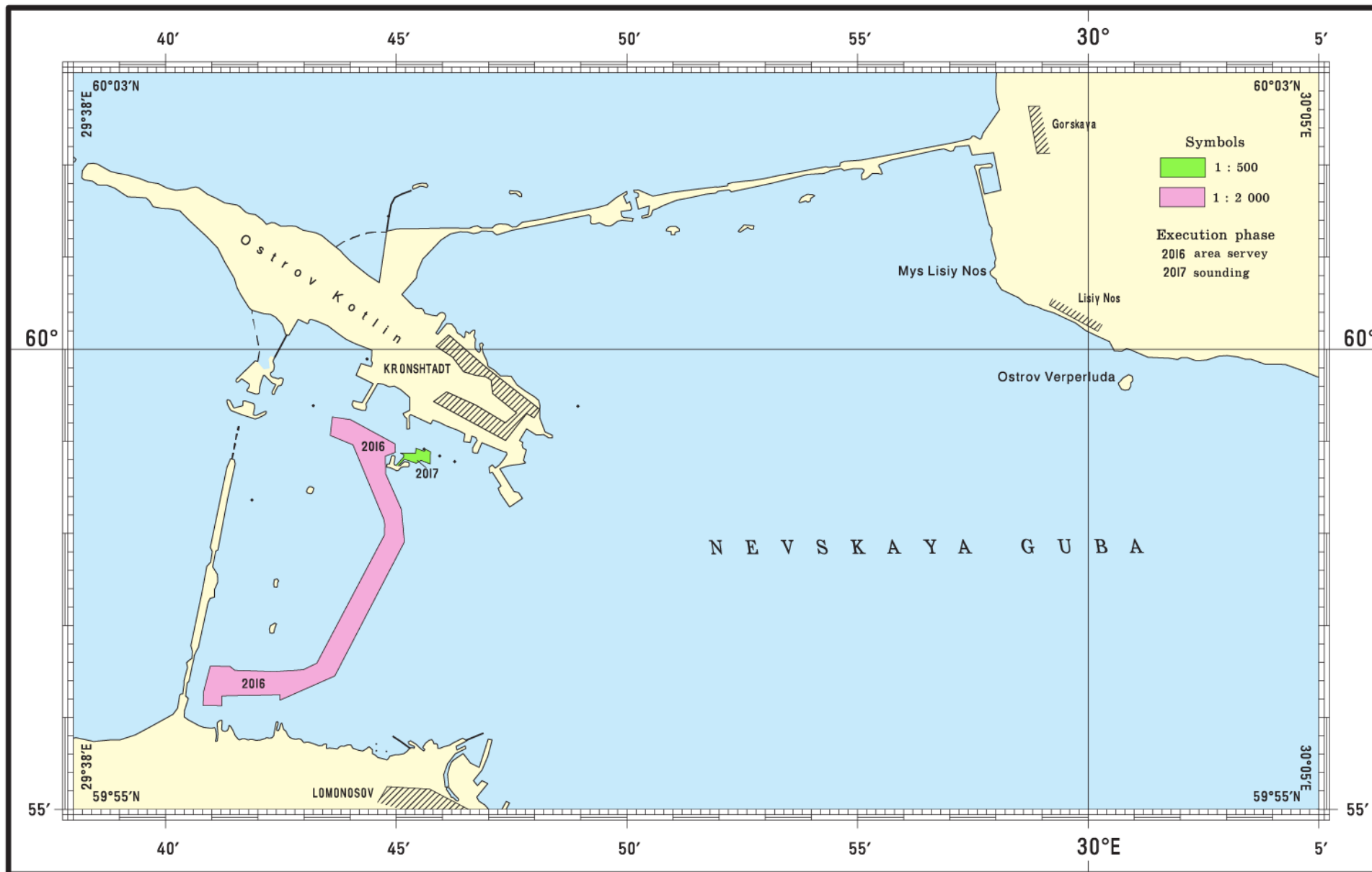


Fig. 3

ew technologies and/or equipment

In 2015 – 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.



Fig. 2. Mobile side scan sonar complex “Neman GBOE” (general view)



Fig. 3. Mobile side scan sonar complex “Neman GBOE” (packed in cases)



Fig. 4. Antenna unit



Fig. 5. Portable workstation based on the notebook (mobile installation)

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

2.3. New vessels

In 2015 – 2017 the regional hydrographic divisions received modern hydrographic survey echo-sounding launches equipped with the multi-beam echo-sounders and side-scanning sonars.

The Hydrographic survey echo-sounding launch is designed and constructed to provide bathymetric surveying and gathering underwater data in coastal waters at 400 meters depths and at 100 miles from the shore.



Fig. 4. Hydrographic survey echo-sounding launch

Basic specifications:

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

3. New charts and updates.

3.1. Electronic navigational charts.

Table 2

The list of electronic navigation charts

№	Cell №	Name (Area)	Scale 1:	Year of edition
1.	RU3NSKI9	Baltic Sea Gulf of Finland Rodsher Lighthouse to Nerva Lighthouse	1:90 000	2016
2.	RU3NSKO9	Baltic Sea Gulf of Finland Seskar Island to Primorsk	1:90 000	2016
3.	RU4NTKO9	Baltic Sea Gulf of Finland Luzhskaya Inlet to Ustinsky Point	1:45 000	2016

№	Cell №	Name (Area)	Scale 1:	Year of edition
4.	RU4NTKQ0	Baltic Sea Gulf of Finland Shepelevskiy Lighthouse to Pesochnyy Point	1:45 000	2016
5.	RU4NTKS0	Baltic Sea Gulf of Finland Krasnaya Gorka Lighthouse to Tolbukhin Lighthouse	1:22 000	2016
6.	RU4NTKS9	Baltic Sea Gulf of Finland Kotlin Island and Approaches	1:22 000	2016
7.	RU4O1KP0	Baltic Sea Vyborgskiy Gulf Approaches to Vysotsk and Vyborg	1:22 000	2016
8.	RU4O1KO9	Baltic Sea Vyborgskiy Gulf Ruonninmatala Bank to Baltiyets Bay	1:22 000	2016
9.	RU5NTKT4	Baltic Sea Gulf of Finland Petrodvortsovaya Harbor	1:8 000	2016
10.	RU5O1KP0	Baltic Sea Vyborgskiy Gulf Povorotnyy Lighthous to Malyy Vysotskiy Island	1:8 000	2016
11.	RU4O1KN0	Baltic Sea Gulf of Finland Khalli Light Buoy to Dal'nyaya Bay	1:22 000	2017
12.	RU4O1KP9	Baltic Sea Gulf of Finland N Part of B'yorkyozund Strait and Klyuchevskaya Bay	1:22 000	2017
13.	RU5O1KP1	Baltic Sea Gulf of Finland Klyuchevskaya Bay Approaches to Terminal at Putevoy Point	1:8 000	2017
14.	RU5O1KQ0	Baltic Sea Gulf of Finland Klyuchevskaya Bay Narrows Lying of Lisiy Island	1:8 000	2017
15.	RU5NTKT2	Baltic Sea Gulf of Finland Lomonosovskaya Harbour to Bol`shoy Kronshtadtskiy Roads	1:12 000	2017
16.	RU5NTKT0	Baltic Sea Gulf of Finland Bol`shoy Kronshtadtskiy Roads	1:4 000	2017
17.	RU5NTKT1	Baltic Sea Gulf of Finland Malyy Kronshtadtskiy Roads	1:4 000	2017

The scheme of electronic navigational charts

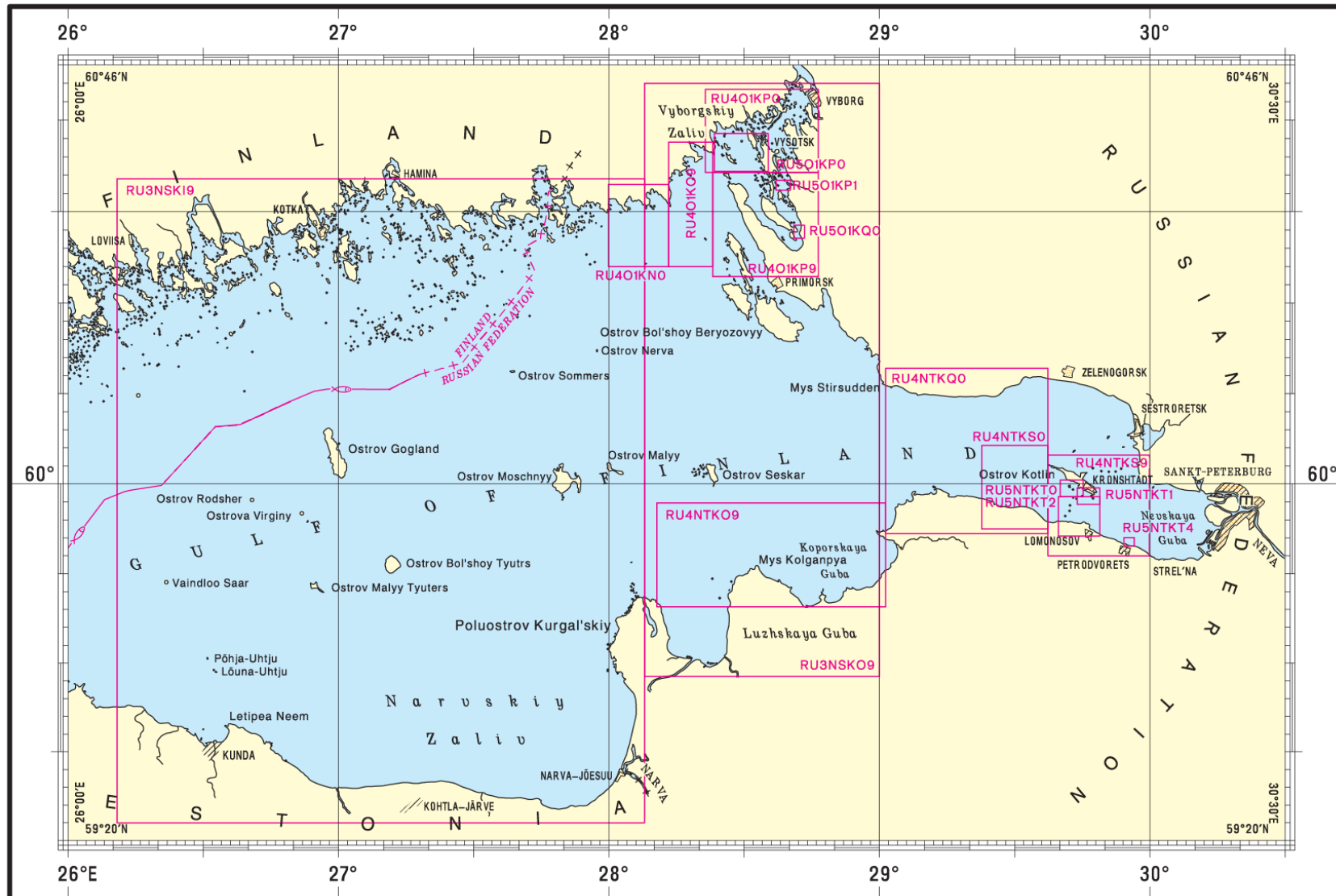


Fig. 4

Table 3

The list of the international charts

№	Cell №	Admiralty №	Name (Area)	Scale 1:	Year of edition
1.	1255	25006	Baltic Sea Gulf of Finland Ostrov Rondo to Ostrov Sommers	1:50 000	2016
2.	1259	28010	Baltic Sea Vyborgskiy Zaliv Approaches to Saymenskiy Kanal Dubovyy Light-Beacon to Ostrov Lavola	1:12 500	2016
3.	1260	25004	Baltic Sea Vyborgskiy Zaliv Approaches to Saymenskiy Kanal Bukhta Zashchitnaya to Shlyuz Brusnichnoye	1:5 000	2016

The scheme of the INT charts

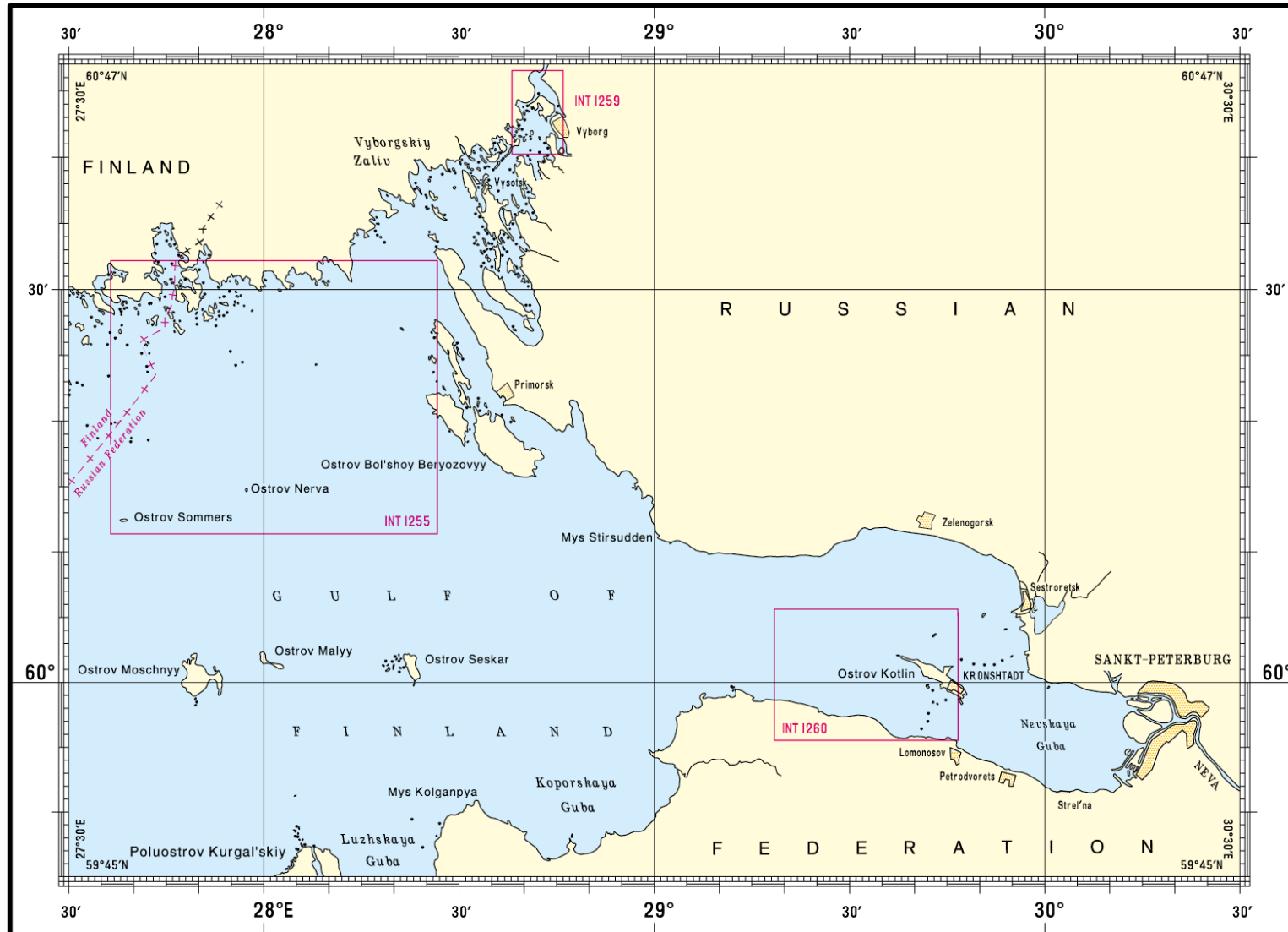


Fig. 5

3.5. National paper charts.

There are 80 nautical charts issued by the DNO on the water areas of the Baltic Sea. The Scale row is shown in the Table 5. 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 Office:

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

Table 4

The list of paper charts issued in 2016-2017

№	Adm. №	Name (Area)	Scale	Year of new edition
1.	25005	Baltic Sea Gulf of Finland Proliv B'yorkyozund to Ostrov Vysotskiy and Bukhta Klyuchevskaya	1:25 000	2016
2.	25009	Baltic Sea Gulf of Finland Northern Part of Proliv B'yorkyozund and Approaches to Ostrov Zapadnyy Beryozovyy and Ostrov Severnyy Beryozovyy	1:25 000	2016
3.	25010	Baltic Sea Gulf of Finland Poluoostrov Kiperort to Mys Krestovyy	1:25 000	2016
4.	27066	Baltic Sea Kaliningradskiy Zaliv North Part of Bukhta Primorskaya	1:10 000	2016
5.	28058	Baltic Sea Gulf of Finland Mys Krestovyy to Ostrov Bol'shoy Fiskar	1:12 500	2016
6.	28004	Baltic Sea Gulf of Finland Bol'shoy Kronshtadtskiy Reyd	1:5 000	2017
7.	28005	Baltic Sea Gulf of Finland Malyy Kronshtadtskiy Reyd	1:5 000	2017
8.	28006	Baltic Sea Gulf of Finland Lomonosovskaya Gavan' to Kronshtadt	1:12 500	2017

Table 5

Scale	National charts	International charts	Σ
1:2 000 000	1	-	1
1:100 000 – 1:500 000	12	2	14
>1:25 000 – <1:100 000	13	2	15
1:2 000 – 1:25 000	35	15	50
Σ	61	19	80

The scheme of paper charts

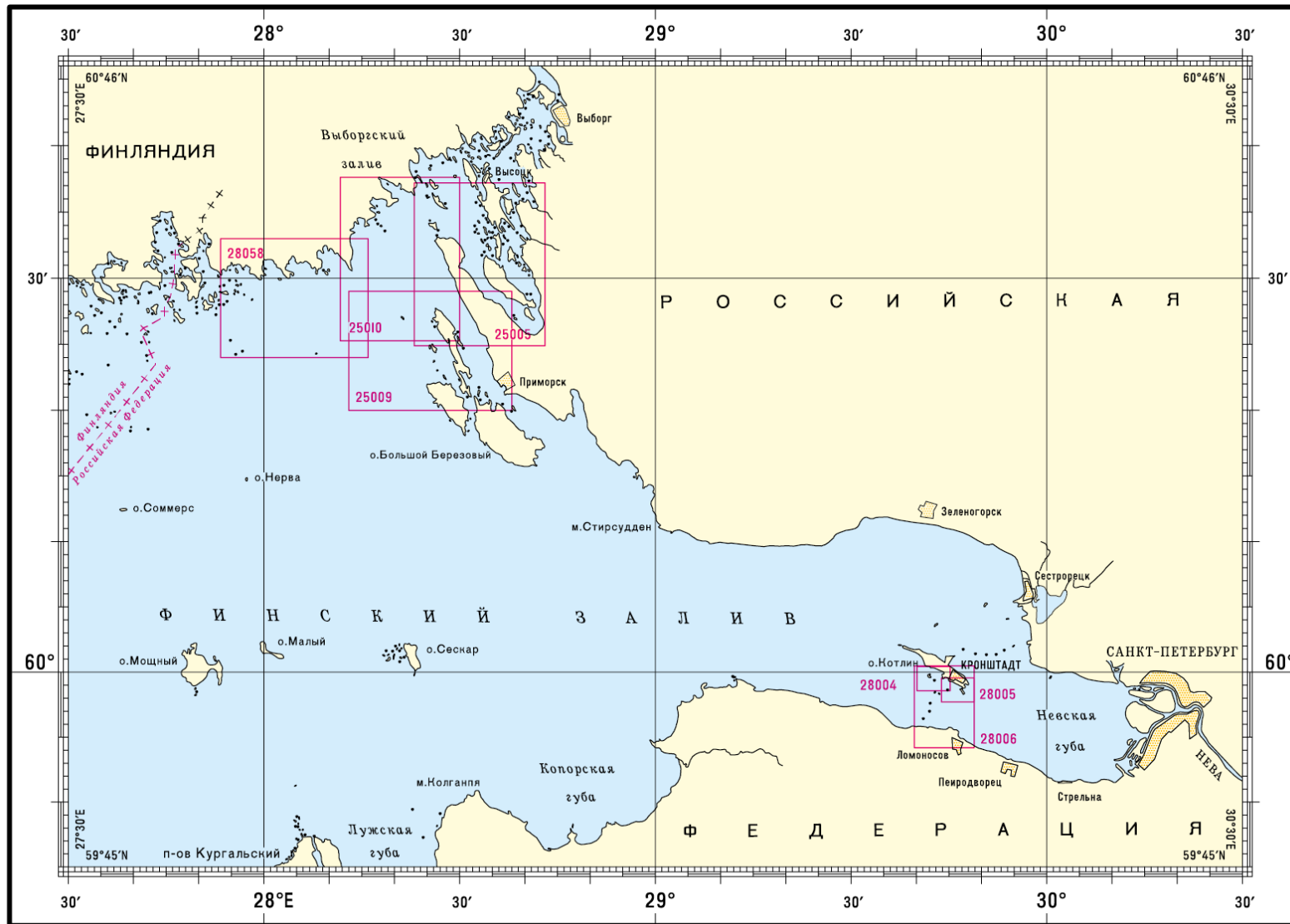


Fig. 6

The scheme of paper charts

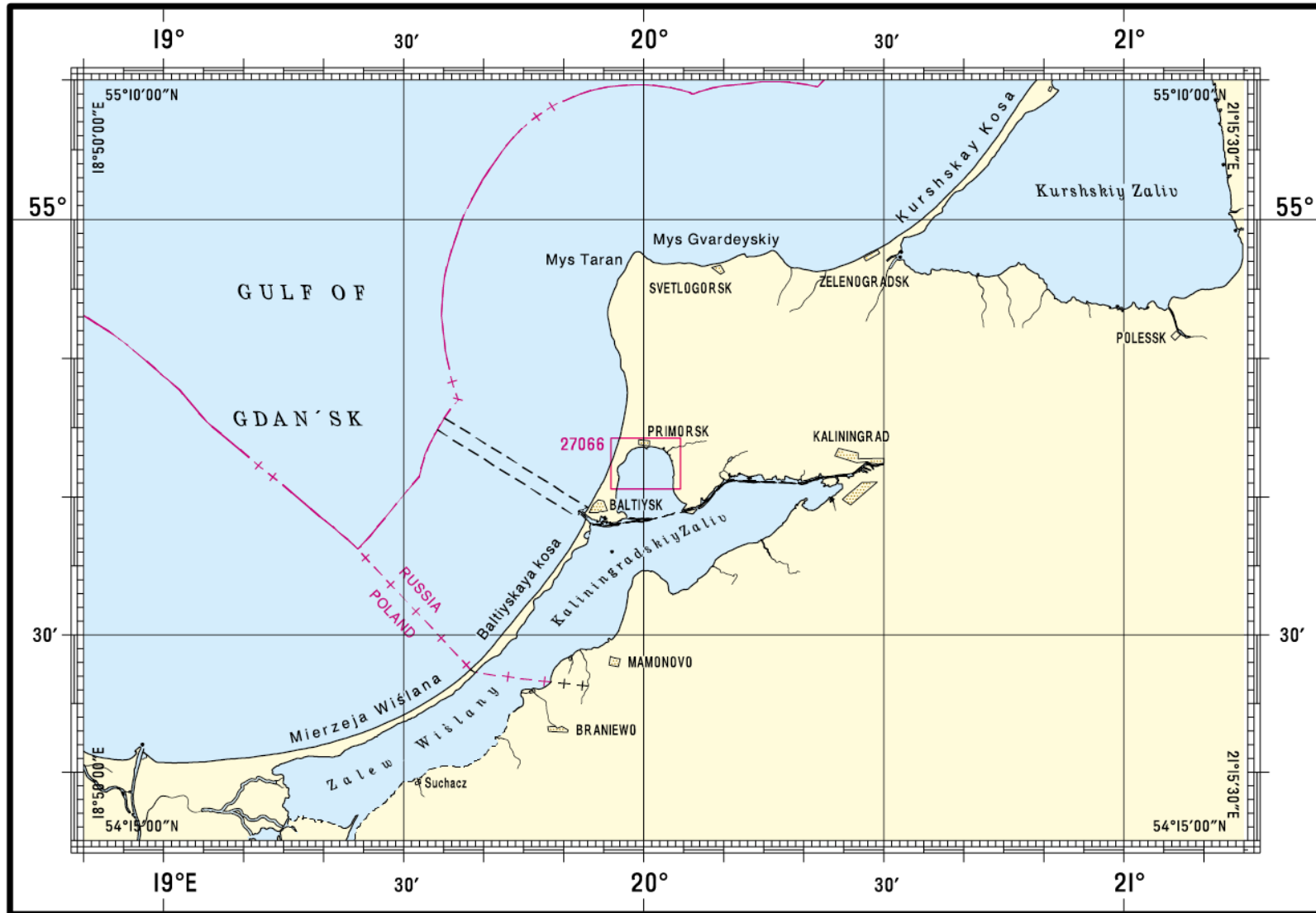


Fig. 7

3.6. Print-On-Demand Charts System.

Beginning from 2011 the paper nautical charts are being published with the Print-on-Demand Charts System.

The present day database of Print-on-Demand nautical charts contains 3658 charts.

Print-On-Demand Charts System Scheme

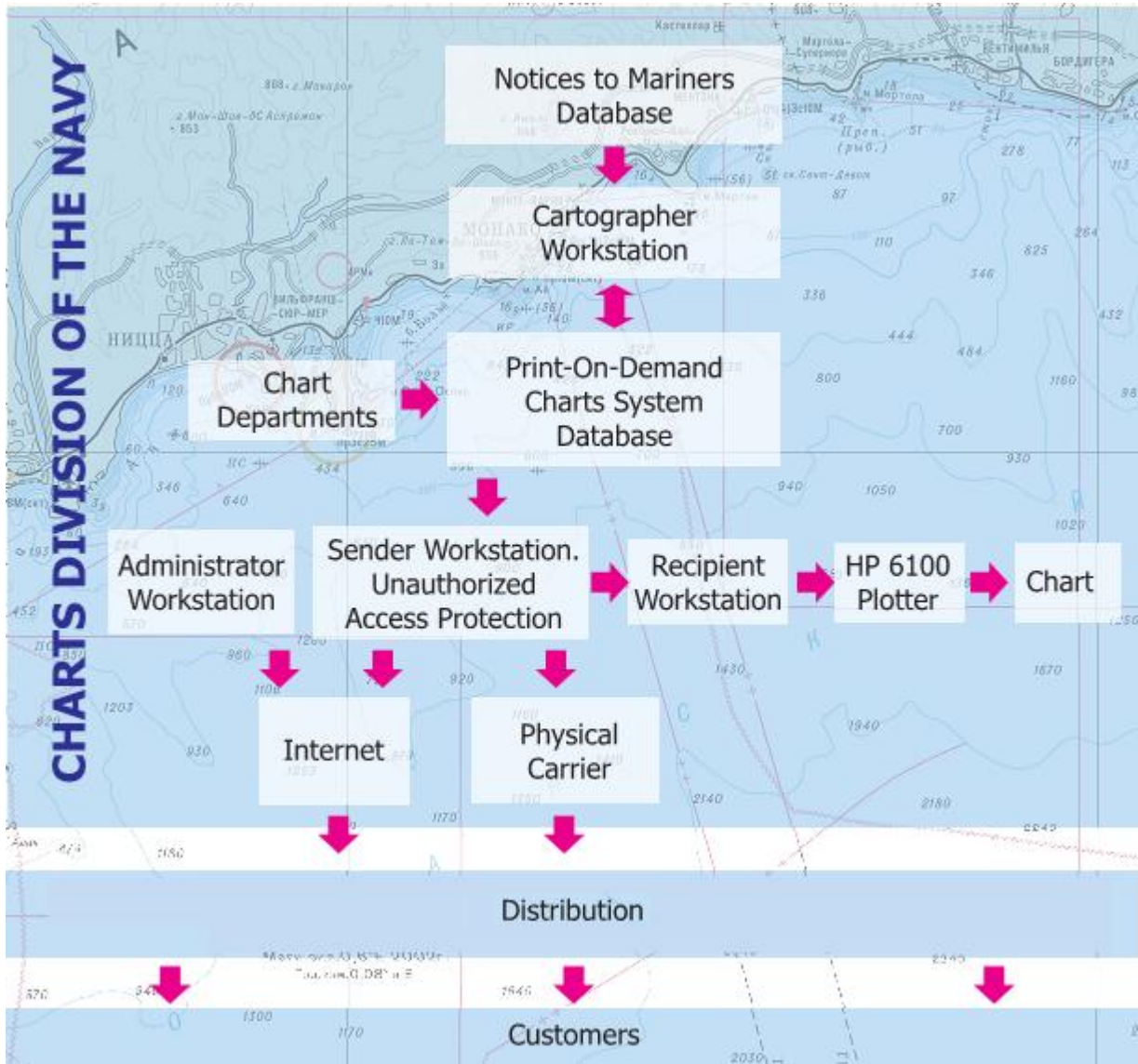


Fig. 8

4. New publications and updates.

4.1. New publications.

Table 6

№	Adm. №	Name	Year of new edition
1.	1200	Sailing directions of the Baltic Sea General review	2017
2.	1203	Sailing directions of the Baltic Sea, part II Southern part of the sea	2016

4.2 Updated Publications.

Issued publications are updated through the DNO Notices to Mariners.

4.3 Means of Supply (e.g. paper, digital).

All publications are supplied on a paper basis.

5. Maritime Safety Information (MSI).

Electronic versions of Notices to Mariners Editions and Navigational Warnings Bulletins in pdf. are available on official website of the National Hydrographic Office:

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

5.1. Existing infrastructure for transmission.

The obligations of promulgating Navigational Warnings in the Baltic Sea region are provided to the Baltic Sea regional Hydrographic Division.

Navigational Warnings are being promulgated in two coastal regions:

region of Coastal Warnings Saint Petersburg (eastern part of the Gulf of Finland);

region of Coastal Warnings Kaliningrad (south eastern part of the Baltic Sea).

Transmission of the Coastal Warnings in NAVTEX system is being carried out:

Coastal Warnings Saint Petersburg – Tallinn NAVTEX Station (Estonia);
 Coastal Warnings Kaliningrad – Gislövshammar NAVTEX Station (Sweden).

Sweden is the coordinator of a sub district of the World Wide Navigational Warning Service (WWNWS) of the Baltic Sea.

The region of the announcement coastal warnings



Fig. 9

Table 7

Number of the announced coastal warnings

Region	2014	2015	2016
CW Saint Petersburg	352	313	321
CW Kaliningrad	216	201	294

new infrastructure according to the Master plan of the Global Maritime Distress and Safety System (GMDSS).

Control over the implementation of obligations for creation and functioning of GMDSS and informing International Hydrographic Organization on the means of a radio communication providing GMDSS are assigned to the Ministry of Transport of the Russian Federation.

5.3. Problems encountered.

N-55

6.1. Latest updates.

The Russian Federation Water Area in Baltic Sea – 23 460 sq. km;
 depths < 200 m – 23 460 sq. km;
 eastern part of the Gulf of Finland – 11 990 sq. km;
 south eastern part of the Baltic Sea – 11 470 sq. km.

Table 8

Survey coverage

Depth Range	The areas which are surveyed enough	The areas demanding re-surveying	Areas which were never surveyed systematically
Depths < 200 m	99,7%	0,3%	-
Depths > 200 m	-	-	-

7. Capacity Building.

The Saint Petersburg Naval College is the base for realization different educational programs for foreign hydrographers. More than 20 students graduated from the College in 2016-2017.

8. Oceanographic Activities.

No information to include in the report.

9. Other activities.

The National Hydrographic Office of the Russian Federation is a member of IHO committees and regional hydrographic commissions – GEBCO Guiding Committee (as a representative of the Intergovernmental Oceanographic Commission) Baltic Sea Hydrographic Commission, Arctic Regional Hydrographic Commission, Mediterranean and Black Sea Hydrographic Commission, Hydrographic Commission on Antarctica.

During the 1st Session of the IHO Assembly the National Hydrographic Office of the Russian Federation was elected to the IHO Council as a representative of the Arctic Regional Hydrographic Commission.

10. Conclusion.

The present report summarizes activities of the National Hydrographic Office of the Russian Federation in hydrography from the 21st to the 22nd Baltic Sea Hydrographic Commission Conferences.

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