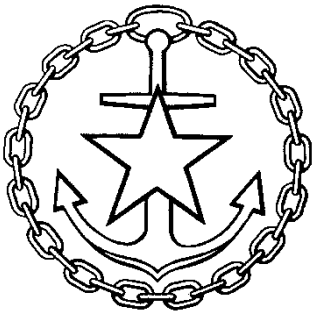
DEPARTMENT OF NAVIGATION AND OCEANOGRAPHY
OF THE MINISTRY OF DEFENSE OF THE RUSSIAN FEDERATION

NATIONAL REPORT

OF THE RUSSIAN FEDERATION



21TH MEETING OF MEDITERRANEAN and BLACKSEAS HYDROGRAPHIC COMMISSION

Spain, Cadiz, 11-13 June 2019

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 (further in the text - DNO).

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 Hydrographic office of the Navy – the National Hydrographic office of the Russian Federation.

The main activities of the Hydrographic office of the Navy 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.

The Hydrographic office of the Navy includes the DNO 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.

2. Surveys

2.1. Areas covered by new surveys

Table 1

The list of hydrographic coverage

Item №	Area of works	Kind of works	Date of works execution	Scale	Volume of works	
					sq. km	l.km
1	2	3	4	5	6	7
Black Sea and Mediterranean Sea						
1.	Port Tuapse	Area survey	2017	1:500 1:1 000 1:2 000	1.81	
2.	The area of berths №5,6,7,8 for four large-capacity vessels in borders of a section №3 of the water area of Seaport Kavkaz	Area survey	2017	1:5 000	5.02	

The scheme of hydrographic coverage

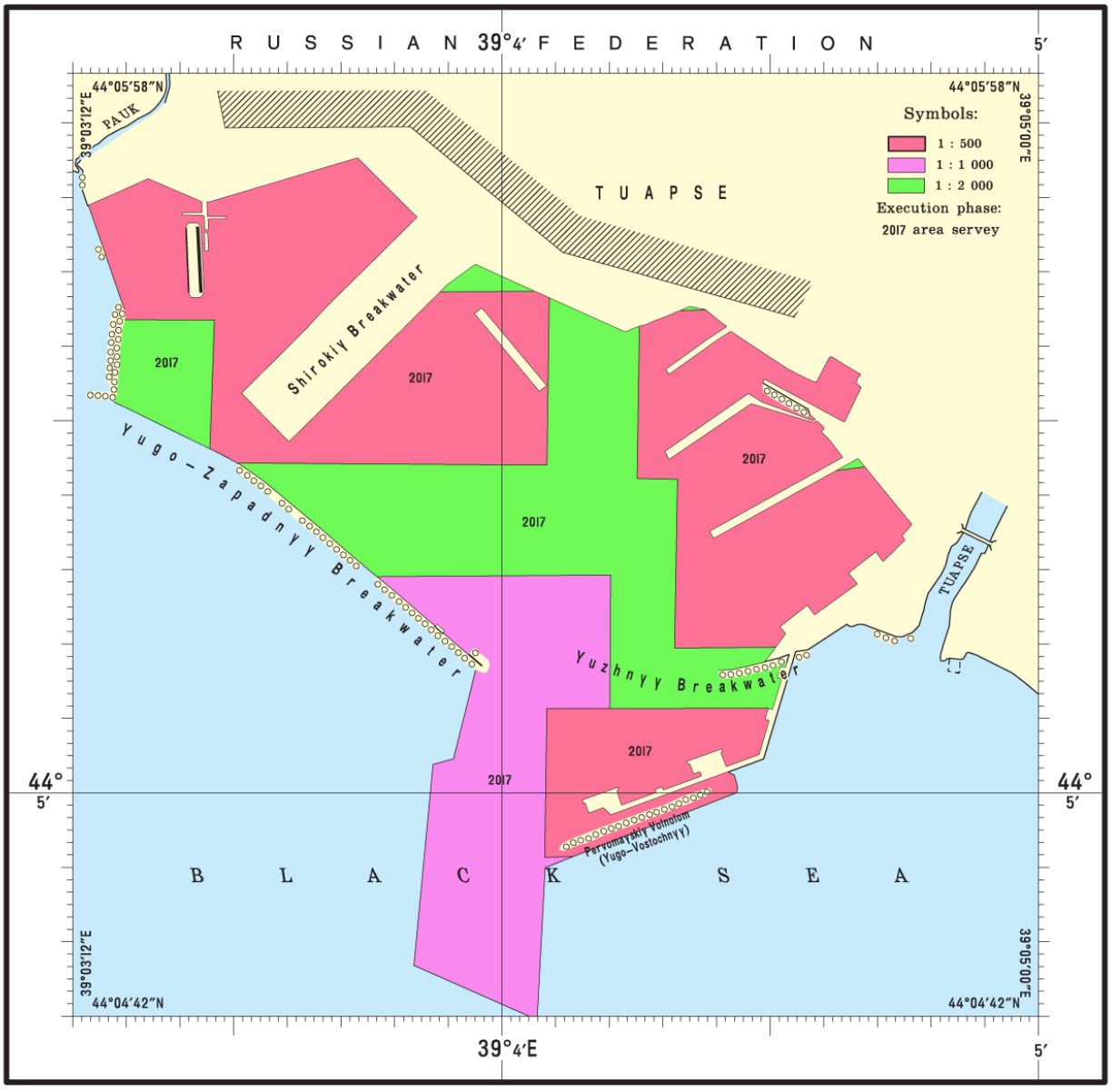


Fig.1

The scheme of hydrographic coverage

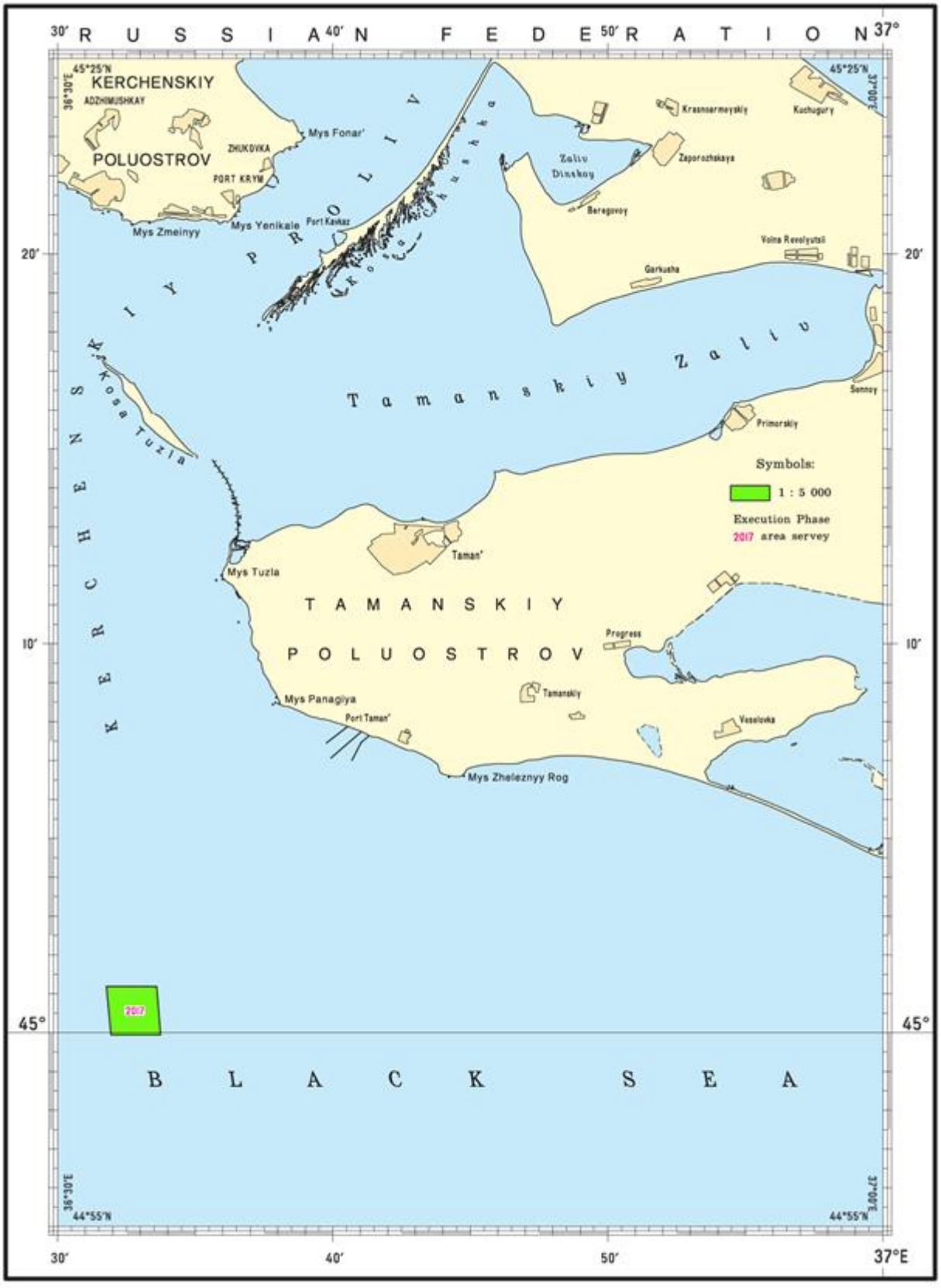


Fig.2

2.2. New technologies and/or equipment

In 2017 – 2019 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. 3. Mobile side scan sonar complex “Neman GBOE” (general view).

Fig. 4. Mobile side scan sonar complex “Neman GBOE” (packed in cases)

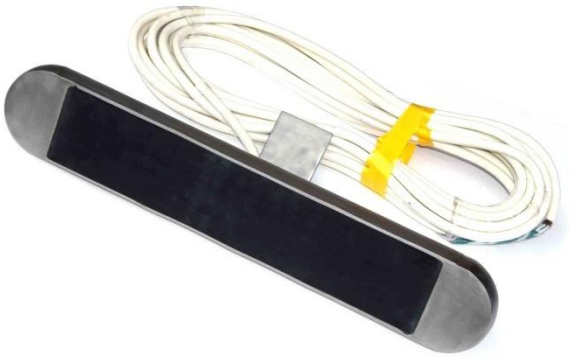


Fig. 5. Antenna unit

Fig. 6. Portable workstation based on the notebook (mobile installation)

Basic specifications:

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

2.3 New survey vessels

In 2017 – 2019 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. 7. 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

Table2

The list of electronic navigation charts

№ Item	Cell №	Name of the area	Scale	Date of new edition
BlackSea				
1.	RU2M2LB0	Eastern Part of Black Sea	700 000	2019
2.	RU3MEL60	Black Sea North-Western Part Tendrovskoy Spit to Evpatoriya	1:180 000	2015
3.	RU3MAL61	Black Sea Crimea of the Caucasus Approaches of Port Sevastopol’	1: 180 000	2016
4.	RU3MALO0	Black Sea Crimea of the Caucasus Idokopas Point to Khosta	1:180 000	2015
5.	RU3MBLB0	Black Sea Coast of the Crimea From Opasnyy Point to Chauda Point	1:180 000	2015

6.	RU3MBLJ0	Black Sea Coast of the Crimea and Caucasus Point Opuk to Point Tolstyy	1:180 000	2015
7.	RU4M9LS0	Black Sea Coast of the Caucasus Port Sochi and Adler Roads with Approaches	45 000	2018
8.	RU4MBLQ0	Black Sea Coast of the Caucasus Tuapse Port wint approaches	1:45 000	2015
9.	RU4MCLB0	Black Sea Crimea Peninsula Simeiz to Gurzuf	45 000	2018
10.	RU4MCLP0	Black Sea Coast of the Caucasus Port VulanBay to Tenginskaya Bay	45 000	2018
11.	RU4MDL91	Black Sea Crimea Peninsula From Point Lukull to Point Fiolent	45 000	2018
12.	RU4MDLE0	Black Sea Crimea Peninsula Approaches to Morskoye Settlement	22 000	2018
13.	RU4MDLM0	Black Sea Coast of the Caucasus Approaches to Novorossiysk and Gelendzhik	45 000	2018
14.	RU4MELJ0	Black Sea Approaches to Kerchenskiy Straitfrom the South	45 000	2018
15.	RU4MELF0	Black Sea Crimea Peninsula Meganom Point to Port Feodosiya	45 000	2018
16.	RU4MELG0	Black Sea Crimea Peninsula Feodosiyskiy Gulf	45 000	2018
17.	RU4MELH0	Black Sea Crimea Peninsula Dyurmen Leading Light to Settlement Yakovenkovo	45 000	2018
18.	RU4MELK0	Black Sea Coast of the Caucasus Yantarnyy Lighthouse to Kubanskiy Light-Beacon	22 000	2018
19.	RU4MELL0	Black Sea Coast of the Caucasus Approaches to Port Anapa	22 000	2018
20.	RU5MALT3	Black Sea Coast of the Caucasus Adler Harbour	4 000	2018
21.	RU5MCLQ0	Black Sea Coast of the Caucasus Ol'ginskaya Bay	8 000	2018
22.	RU5MCLQ1	Black Sea Coast of the Caucasus Dzhubga Bay and Tenginskaya Bay	8 000	2018
23.	RU5MCLR1	Black Sea Coast of the Caucasus Tuapse Port	12 000	2018
24.	RU5MDLA0	Black Sea Crimea Peninsula Bay of Sevastopol′	1:8 000	2017

25.	RU5MDLA1	Black Sea Crimea Peninsula Streletskaya Bay and Kruglaya Bay	1:4 000	2017
26.	RU5MDLA2	Black Sea Coast of the Crimea Dvoynaya and Kamyshovaya Bays	1:8 000	2017
27.	RU5MDLC0	Black Sea Crimea Peninsula Port Yalta with Approaches	8 000	2018
28.	RU5MDLM0	Black Sea Coast of the Caucasus Oil Terminalof Port Novorossisk	12 000	2018
29.	RU5MDLM1	Black Sea Coast of the Caucasus Malyy Utish (Utrishyonok) Point	8 000	2018
30.	RU5MELE0	Black Sea Crimea Peninsula Sudakskaya Bay	12 000	2018
31.	RU5MELG0	Black Sea Crimea Peninsula Dvuyakornaya Bay	8 000	2019
32.	RU5MELJ0	Port Taman’ and approaches	12 000	2016
33.	RU5MELL0	Black Sea Coast of the Caucasus Anapskiy Roads	8 000	2018
34.	RU5MELM0	Black Sea Coast of the Caucasus Anchoragesat Utrish Point	4 000	2018
35.	RU5MFLG0	Black Sea Coast of the Crimea Port Feodosiya and Approaches	8 000	2018
36.	RU6MCLR0	Black Sea Coast of the Caucasus Port Tuapse Inner Roads	2 000	2018
37.	RU6MDLA0	Black Sea Sevastopol'skaya Bay Sukharnaya Bay to Oil Harbour	2 000	2018
38.	RU6MDLA1	Black Sea Sevastopol'skaya Bay Kilen-Bukhta Bay to Gollandiya Bay	2 000	2018
39.	RU6MDLA2	Black Sea Sevastopol'skaya Bay Middle Part	2 000	2018
40.	RU6MDLA3	Black Sea Sevastopol'skaya Bay Matyushenko Bay to Yuzhnaya Bay	2 000	2018
41.	RU6MDLA4	Black Sea Sevastopol'skaya Bay Central Part and Southern Part of Yuzhnaya Bay	2 000	2018
42.	RU6MDLA5	Black Sea Sevastopol'skaya Bay Konstantinovskiy Point to Artilleriyskaya Bay	2 000	2018
43.	RU6MDLC0	Black Sea Crimea Peninsula Port Yalta	2 000	2018
44.	RU6MDLC1	Black Sea Crimea Peninsula Massandra Cargo Port	2 000	2018
45.	RU6MFLG0	Black Sea Crimea Peninsula Port Feodosiya	2 000	2018

The scheme of electronic navigational charts

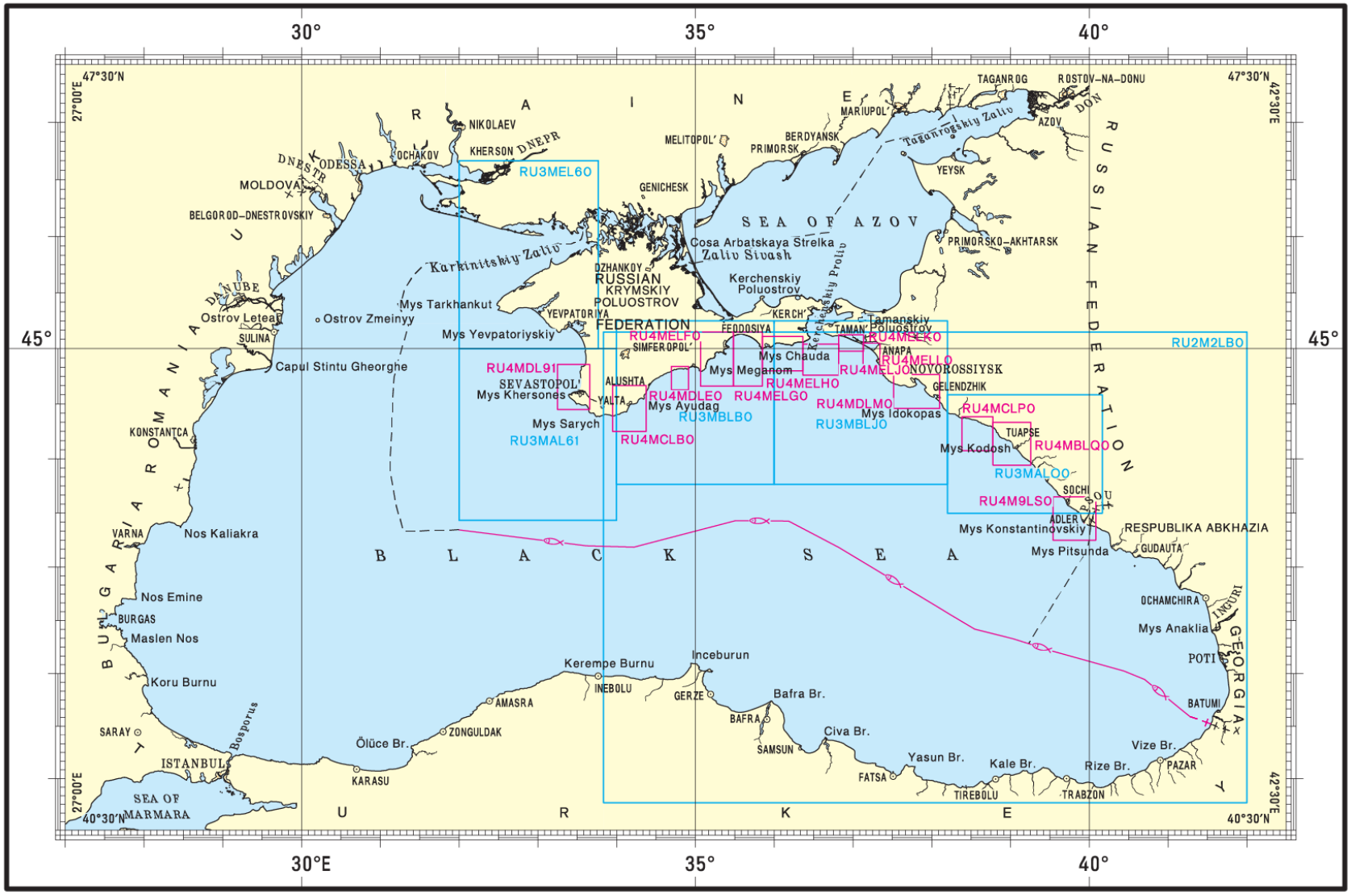


Fig. 8

The scheme of electronic navigational charts

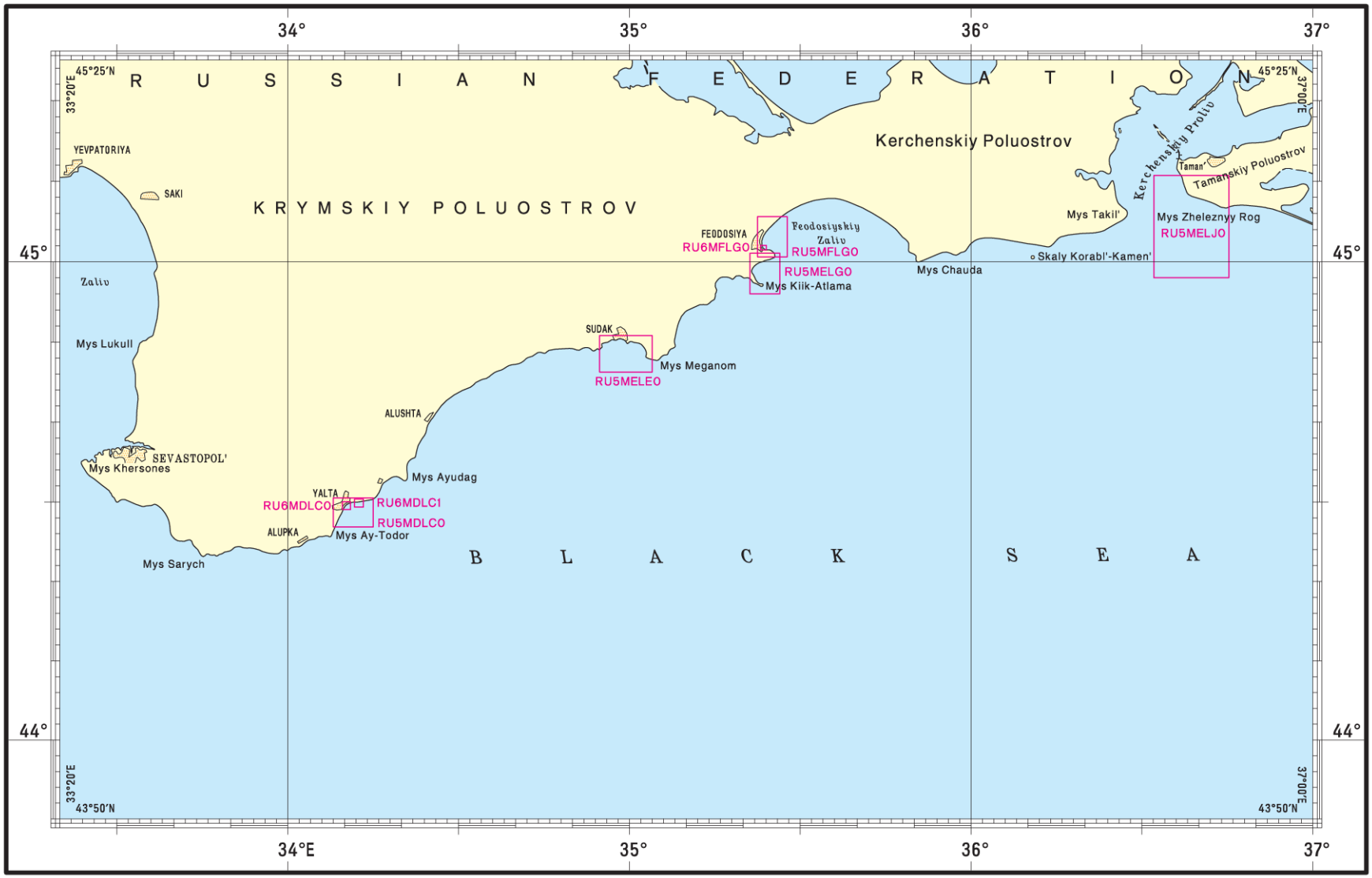


Fig.9

The scheme of electronic navigational charts

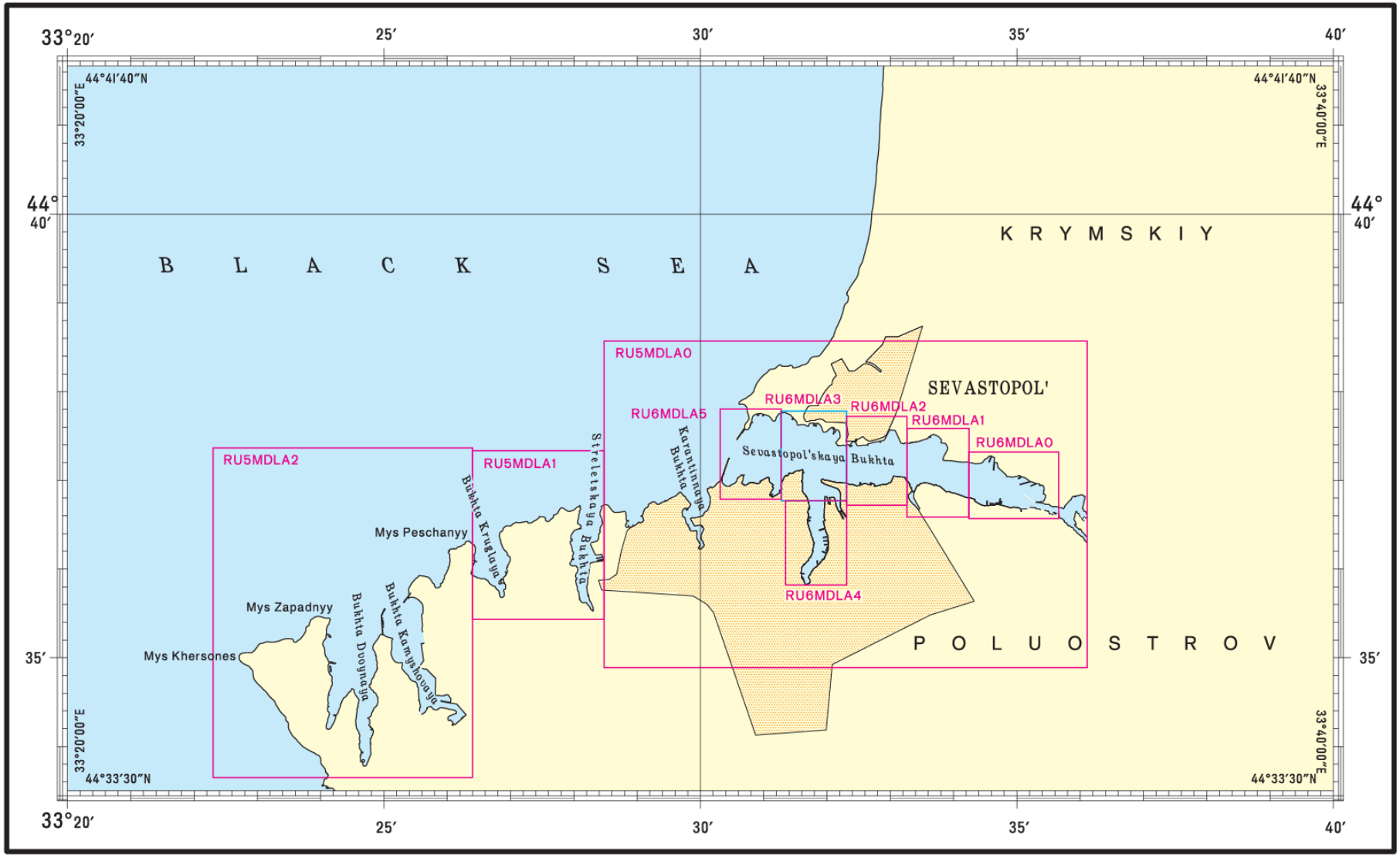


Fig.10

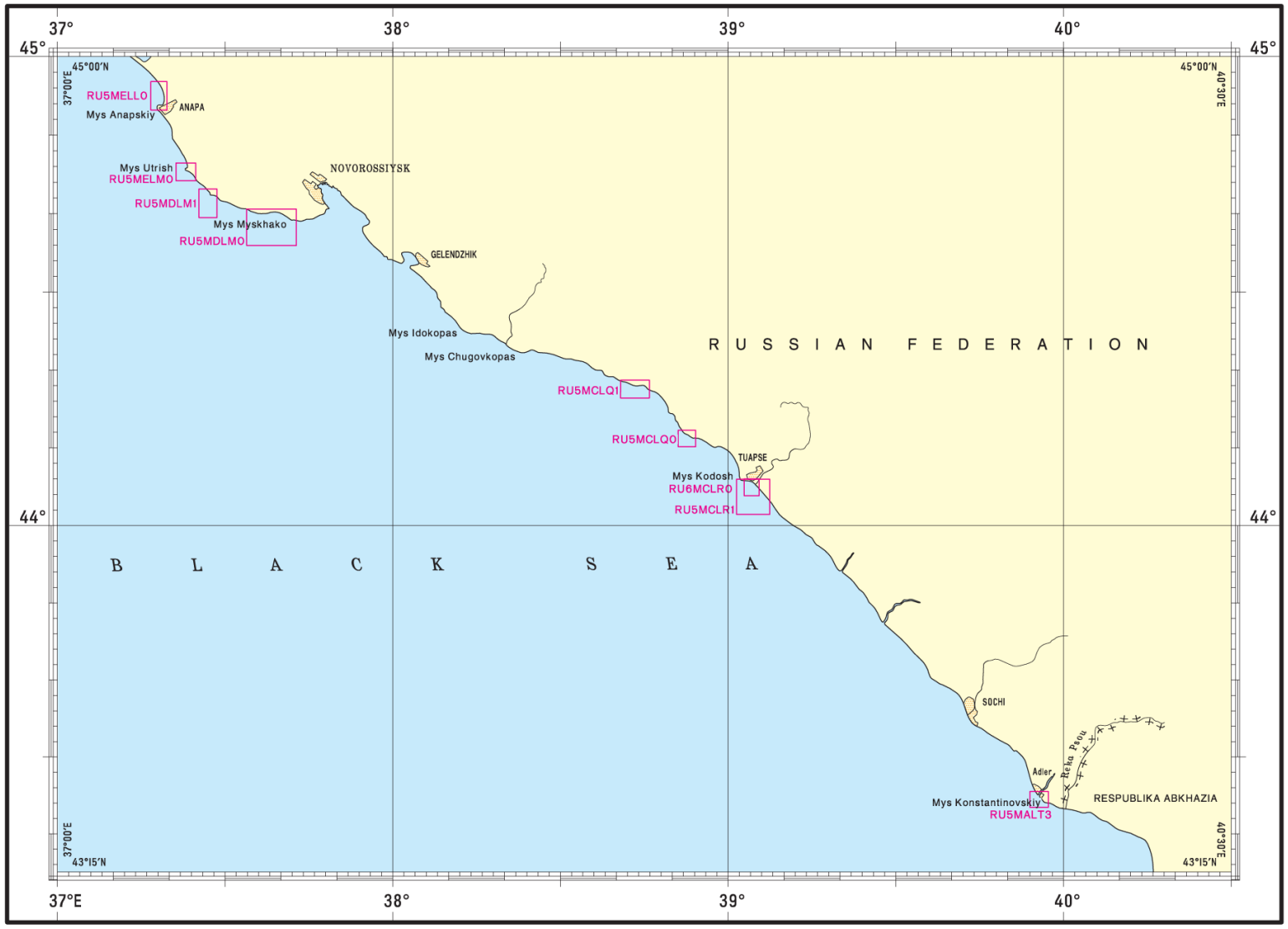

37°
38°
39°
40°
45°
45°00'N
37°00'E
40°30'E
RU5MELL0
ANAPA
Mys Anapskiy
Mys Utrish
RU5MELM0
RU5MDLM1
Mys Myskhako
RU5MDLM0
NOVOROSSIYSK
GELENDZHIK
Mys Idokopas
Mys Chugovkopas
RUSSIAN FEDERATION
RU5MCLQ1
RU5MCLQ0
TUAPSE
Mys Kodosh
RU6MCLR0
RU5MCLR1
44°
BLACK SEA
SOCHI
Adler
Reka Psou
Mys Konstantinovskiy
RU5MALT3
RESPUBLIKA ABKHAZIA
43°15'N
37°E

Fig.11

3.2. ENCs distribution method

The ENCs are distributed through the official distributor of cartographic products of the National Hydrographic Service of the Russian Federation.

3.3. Raster navigational charts(RNCs)

The DNO does not distribute RNCs.

3.4. The list of international charts (INT charts).

Table3

The list of INT charts

№	Cell №	Admiralty №	Name (Area)	Scale	Year of edition
Black Sea					
1	3808	32174	Black Sea South-east part Port Ochamchira to Port Tirebolu	1:300000	2019

The scheme of INT charts

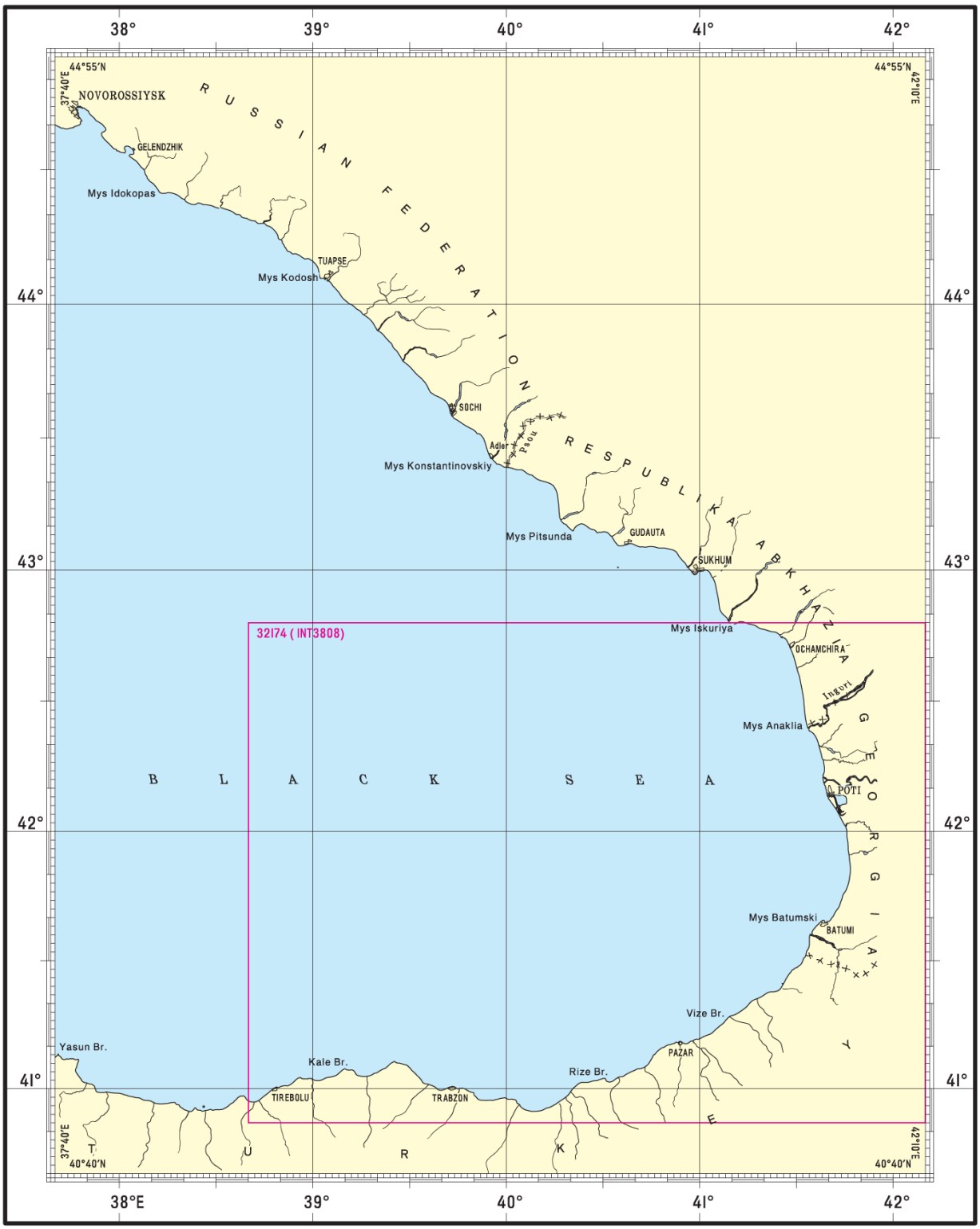


Fig.12

3.5. National paper charts

There are 575 nautical charts issued by the DNO on the water areas of theBlack Sea and the Mediterranean Sea. The Scale row is shown in the Table 4. The collection is being updated using corrections and re-issues of the charts as new hydrographic data become available.

Electronic versions of releases of Notices to mariners and Bulletins of navigation warnings in a format pdf are published on the official website of the Ministry of Defence of the Russian Federation:

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

Table4

Scale	**National paper charts**	**INT charts**	∑
Black Sea			
1:1 250 000	1		1
1:100 000-1:750 000	59	3	62
1: 25 000-1:100 000	45	3	48
1: 2 000- 1:25 000	43	1	44
Mediterranean Sea			
1:1000 000-1:2 000 000	12		12
1:100 000 – 1: 500 000	197		197
1: 25 000-1:100 000	118		118
1:7 500-1:25 000	93		93
∑	568	7	575

Table5

The list of the national paper charts

№	Admiralty №	Name (Area)	Scale	Year of edition
Black Sea and Mediterranean Sea				
1.	31008	Western part of Black Sea	1: 750 000	2017
2.	31010	Black Sea North-West part Port Sevastopol' to Port Constanța	1:500 000	2017
3.	31011	Black Sea Coast of Russia Sevastopol to Novorossiysk	1: 500 000	2017
4.	31014	Black Sea South-West part Port Amasra to Port Constanța	1: 500 000	2018
5.	31018	Mediterranean Sea Eastern part Island Crete to Antaliya Bay	1: 500 000	2017
6.	31026	Mediterranean Sea Central part Strait of Tunisia	1: 500 000	2018
7.	32100	Black Sea West Coast Odessa to Brațul Sulina	1: 200 000	2018
8.	32101	Black Sea North-West Coast Odessa to Zheleznyy Port	1: 200 000	2019
9.	32109	Black Sea South-East Coast Port Potito Port Trabzon	1: 200 000	2018
10.	32200	Sea of Marmara	1: 200 000	2018
11.	32201	Aegean Sea North-East Coast Port Alexandroupolis to Nísos Lésvos and Dardanelles	1: 200 000	2018
12.	32202	Aegean Sea Northern part Dardanelles to Nísos Skyros	1: 200 000	2017
13.	32221	Mediterranean Sea Coast of Turkey Kadirga (Marmaris) Burun to Yardimci Burun	1: 200 000	2017
14.	32223	Mediterranean Sea Coast of Turkey and Cyprus Antalya Korfezi to Incekum Burnu and Northen part of Cyprus	1: 200 000	2018
15.	32227	Mediterranean Sea Eastern part Port Tripoli to Port Haifa	1: 200 000	2017
16.	32240	Mediterranien Sea Coast of Libya Ra's Al Barg to port Tripoli	1: 200 000	2019

17.	32305	Adriatic Sea Coast of Italy Peschici to San Benedetto del Tronto	1: 200 000	2018
18.	32307	Adriatic Sea Coast Croatia Island Kornat to Cape Kamenyak	1: 200 000	2017
19.	32309	Adriatic Sea Gulf of Venice	1: 200 000	2018
20.	32314	Straite of Tunisia Central part Malta Channel	1: 200 000	2019
21.	32325	Mediterranien SeaCoast of Italy Island Elba to Genova	1: 200 000	2018
22.	32330	Mediterranean Sea Coast of Tunisia Cape et Tib (Cap Bon) to Bizerte	1: 200 000	2019
23.	32338	Mediterranean Sea Strait of Gibraltar and Western part of the Alboran Sea	1: 200 000	2019
24.	32361	Mediterranean Sea Islas Baleares Islade Mallorca to Isla de Ibiza	1: 200 000	2017
25.	33107	Black Sea Coast of Russia Sevastopol'to Yalta	1: 100 000	2018
26.	33108	Black Sea Coast of Russia Yaltato Mys Meganom	1: 100 000	2017
27.	33111	Black Sea Coast of Russia Approaches to Kerchenskiy Proliv	1: 100 000	2018
28.	33201	Sea of Marmara Eastern part	1: 100 000	2017
29.	33216	Aegean Sea Eastern part Steno Mytilíni	1: 100 000	2017
30.	34209	Mediterranean Sea and Cyprus Larnaca and Famagusta Bays	1: 100 000	2018
31.	34251	Mediterranian Sea Coast of Libya Cape Tadjura toSabrata Bay	1: 100 000	2018
32.	35105	Black Sea Coast of Ukraine Approaches to Ports Odessa, Chernomorsk and Yuzhnyy	1: 50 000	2018
33.	35107	Black Sea Coast of Ukraine Port Yuzhnyy and approaches	1: 25 000	2018
34.	35112	Black Sea Coast of Ukraine Approaches to Ports Odessa, Chernomorsk and Yuzhnyy	1: 75 000	2018
35.	35120	Black Sea Coast of Russia Mys Lukull to Mys Fiolent	1: 50 000	2018
36.	35131	Black Sea Approaches to Kerchenskiy Proliv	1: 50 000	2017
37.	35201	Marmara Denizi Coast of Turkey	1: 50 000	2017

		Approaches to Istanbul Boğazi		
38.	35212	Marmara Denizi Coast of Turkey Nothern part of Çanakkale Boğazi	1: 75 000	2017
39.	35213	Sea of Marmara Southern part of Dardanelles	1: 50 000	2017
40.	35358	Mediterranien Sea Coast of Italy Nothern part of Stretta di Messina	1: 30 000	2018
41.	35397	Mediterranien Sea Coast of Italy Port Savona to Mele Cape	1: 50 000	2018
42.	36127	Black Sea Coast of Turkey Approaches to Istanbul Boğazi	1: 50 000	2018
43.	36315	Western part of Mediterranien Sea Port D'Alger and approaches	1: 10 000 1: 50 000	2019
44.	36365	Tyrrhenian Sea Island Corsica Port Bastia to Anielo Cape	1: 50 000	2018
45.	38121	Black Sea Coast of Russia Balaklavskaya Bukhta	1:3 000	2018
46.	38166	Black Sea Coast of Russia Mys Panagiya to Yantarnyy lighthouse	1: 25 000	2018
47.	38178	Black Sea Coast of Russia Adler harbour	1: 5 000	2018
48.	38356	Ionian Sea Coast of Italy Porto Di Taranto	1: 12 500- 1: 25 000	2018
49.	39219	Mediterranien Sea Eastern part Ports of Cyprus	1: 10 000 1: 25 000	2017
50.	39328	Mediterranien Sea Spanish Coast Port of Tanger and approaches	1: 5 000 - 1: 15 000	2018

The scheme of national paper charts

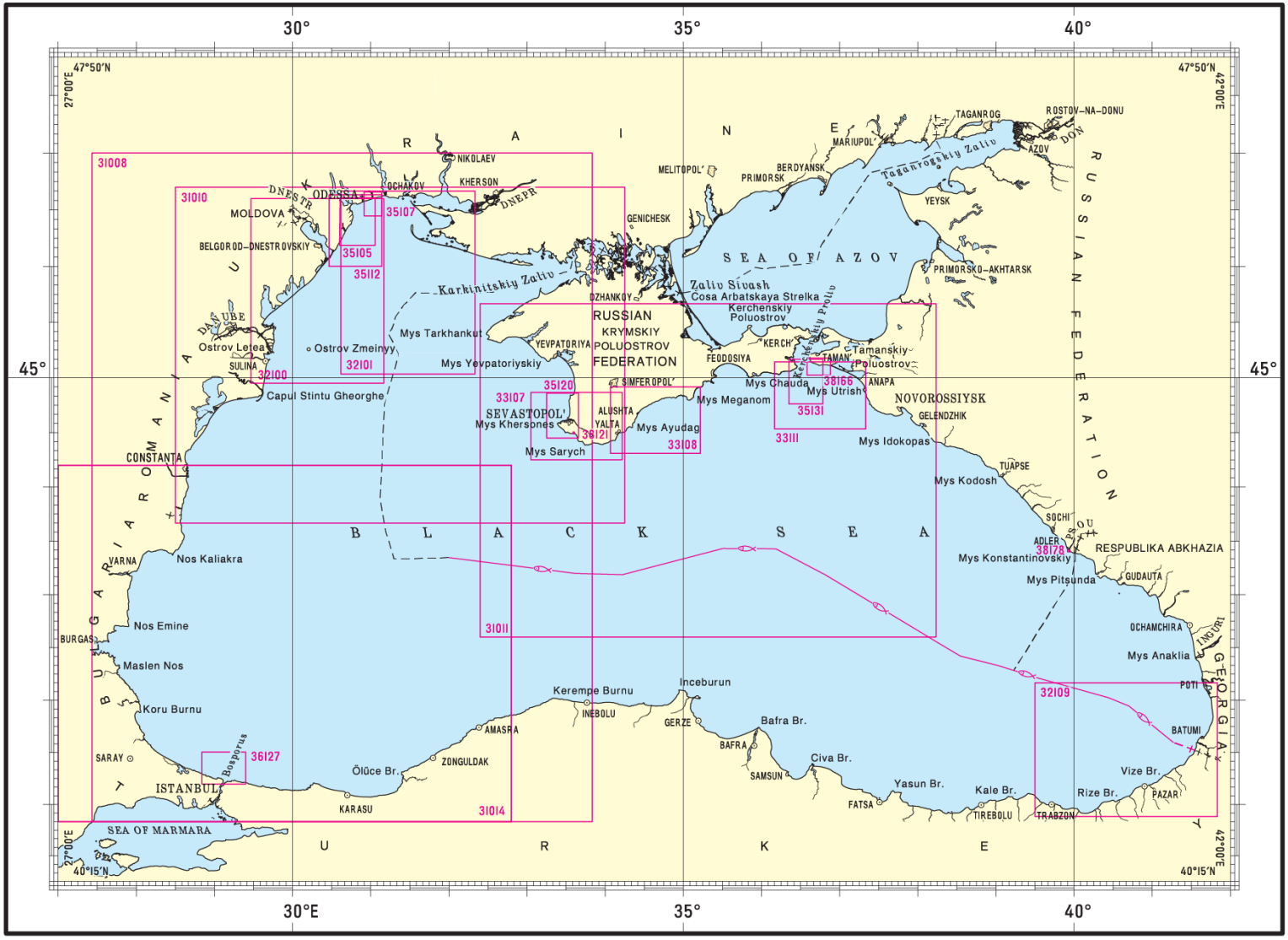


Fig. 13

The scheme of national paper charts

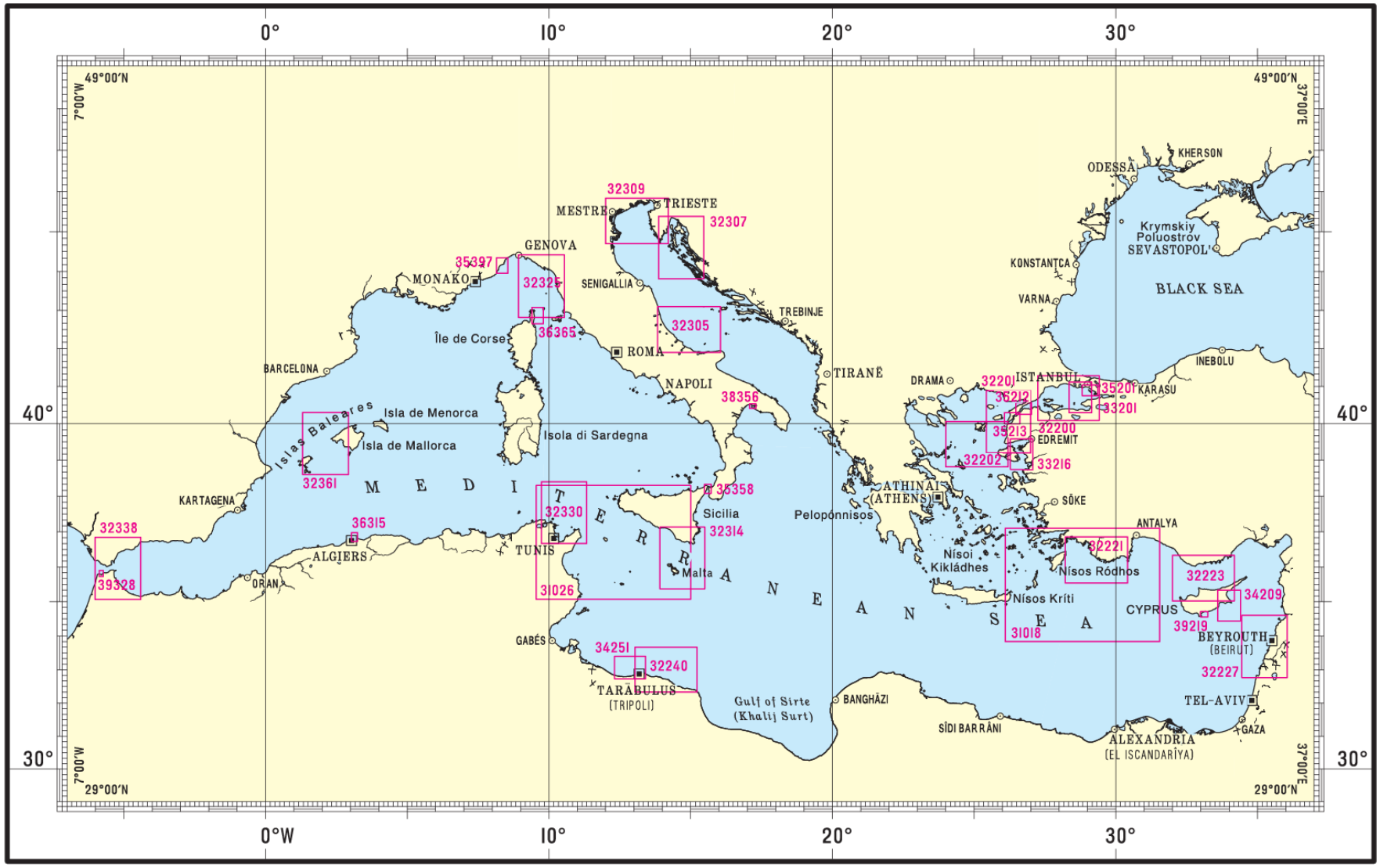


Fig. 14

3.6. System of the printing the charts on-demand

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 4053 charts.

Print-On-Demand Charts System Scheme

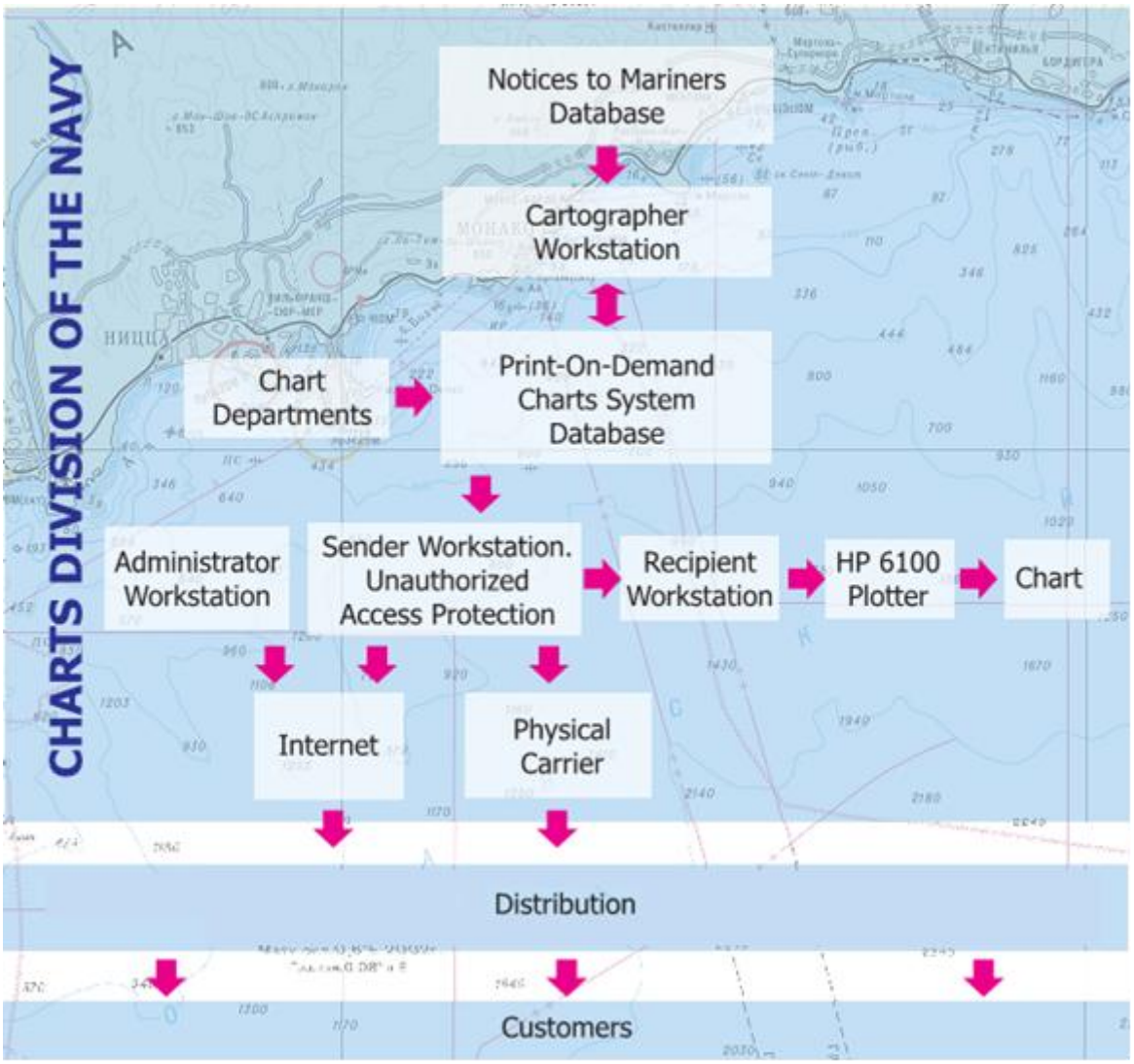


Fig. 15

4. New publications and updates

4.1.New publications

Table6

№	Admirality №	Name	Year of edition
1.	1248	Sailing directions of the Ionian Sea and Island of Sicily	2018
2.	1249	Sailing directions of the Adriatic Sea	2018
3.	2217	Lights and signs of the Black Sea and Sea of Azov	2017

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)

5.1. Existing infrastructure for transmission

The Hydrographic Office of the Russian Black Sea region is authorized for disseminating the navigation warnings in the coastal areas of the Black Sea and Sea of Azov within the Russian national zone of responsibility.

The Russian Federation provides providing navigation information on the coastal region of Coastal Warnings Novorossiysk (northeast part of the Black Sea and southeast part of the Sea of Azov).

Transfer of navigation information is carried out by broadcast of Coastal Warnings: CW Area Novorossiysk VHFs and SV radio stations on sea areas A1 and A2, by station NAVTEX Novorossiysk, and by the regional coordinator NAVAREA III (Spain) in the International network of safety.

Interaction with Hydrographic office of Ukraine concerning distribution of maritime safety information in the region is absent. For providing seafarers of maritime safety information, to water areas to the west from the Krymskiy Poluostrov and northwest part of the Sea of Azov, data go to the coordinator of NAVAREA III with the subsequent readdressing to Hydrographic office of Ukraine with the announcement of the corresponding Warning of NAVAREA III and Coastal Warnings Odessa or Berdyansk.

The area of the announcement of the Russian Coastal Warnings and NAVTEX station

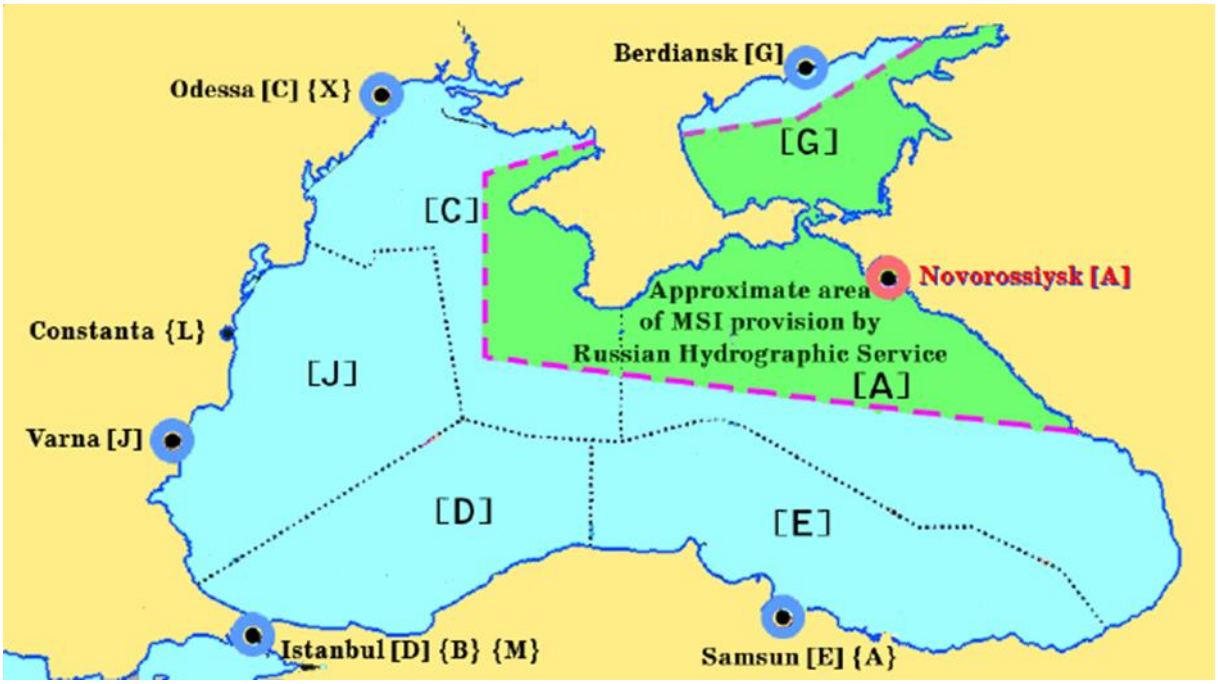


Table7

Fig. 16

Russian NAVTEX station in the Black Sea					
Novorossiysk	44°36’N	37°58’E	300 M	518 kHz	A

Number of Announced Russian Coastal Warnings			
CW Area	**2016г.**	**2017г.**	**2018г.**
Novorossiysk	765	695	563

5.2. New infrastructure according to the Master plan of the Global Maritime Distressand 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 it is assigned to the Ministry of Transport of the Russian Federation.

6. S-55

6.1. Latest updates

S-55 - the special publication IHO«The status of hydrographical surveys and nautical cartography around the world».

The water area of the Russian Federation in the Black Sea – 138780sq. km:
Depths< 200 m – 30640sq. km;
Depths> 200 m – 108140sq. km.

Table8

Survey coverage

Depth Rage	The areas which are enough investigated	The areas demanding repeated survey	Areas which were never investigated systematically
Depths< 200 m	90,0%	10,0 %	-
Depths > 200 m	99,6%	0,4 %	-

7. Capacity-building

No information to include in the report.

8. Oceanographic Activities

No information to include in the report.

9. Other Activities

No information to include in the report.

10. Conclusion

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

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unio_navarea13@mil.ru

website: http://structure.mil.ru/structure/forces/hydrographic/about.htm
(Notices to Mariners are available in English)
address:8,11th liniya, St.-Petersburg,199034, Russia