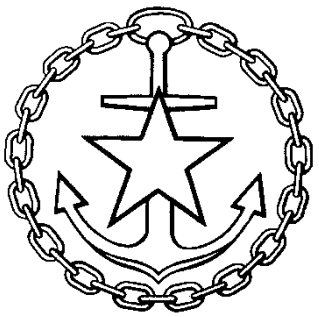
DEPARTMENT OF NAVIGATION AND OCEANOGRAPHY
OF THE MINISTRY OF DEFENSE OF THE RUSSIAN FEDERATION

NATIONAL REPORT

OF THE RUSSIAN FEDERATION



The 20th CONFERENCE of MEDITERRANEAN and BLACK SEAS HYDROGRAPHIC COMMISSION

Herceg-Novi, Montenegro, 4-6 July 2017

1. Hydrographic Office

In accordance with the legislation of the Russian Federation the 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 Service of the Navy – the National Hydrographic Service of the Russian Federation.

The main activities of the Hydrographic Service 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 Service of the Navy 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.

2. Surveys

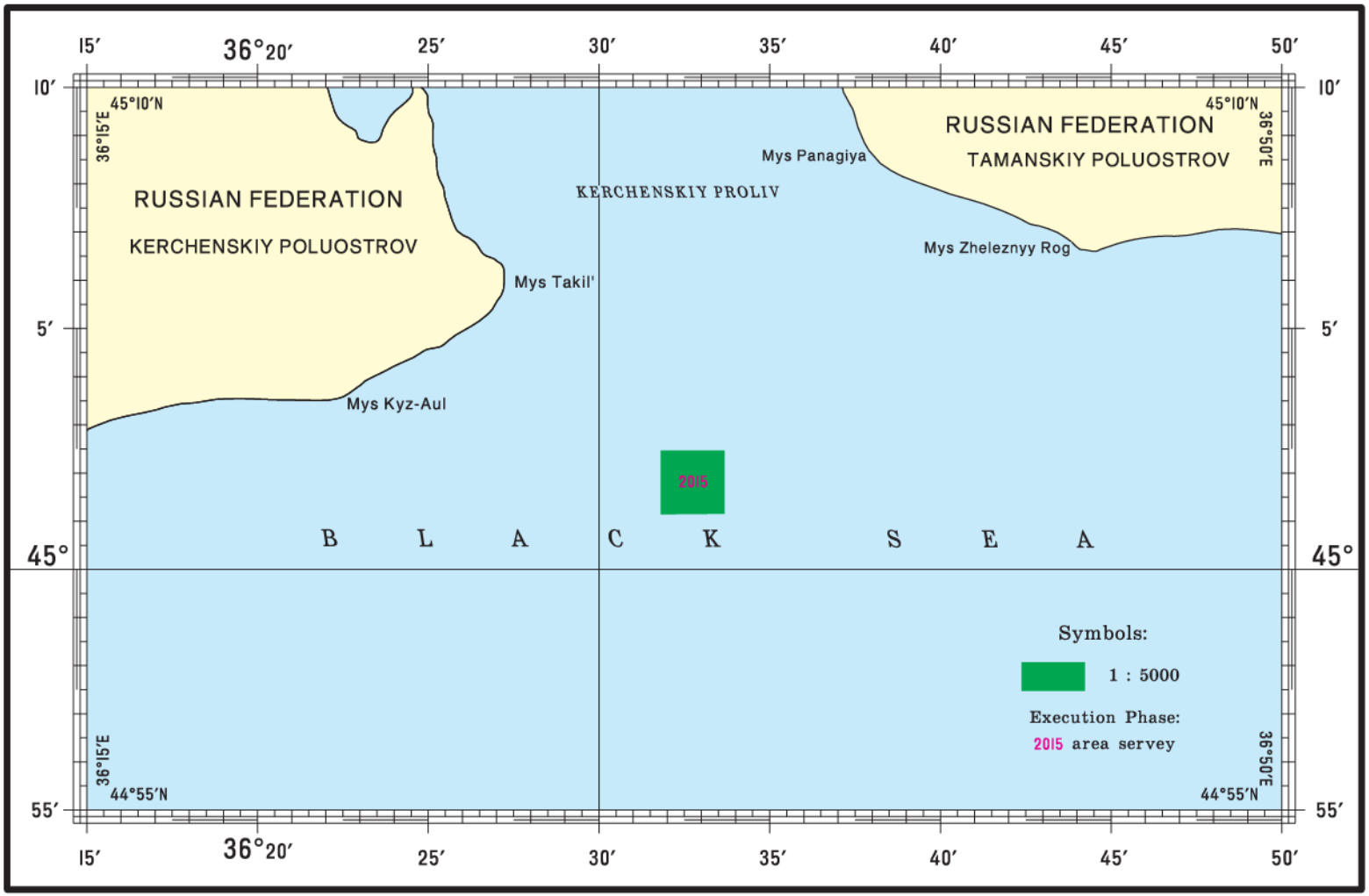
2.1. Areas covered by new surveys.

Table 1

The list of hydrographic coverage

№	Area of surveys	Type of surveys	Period	Scale	Scope of surveys	
					sq.km	l.km
Black Sea and Mediterranean Sea						
1	Approaches to Kerchenskiy Proliv, Outer roads of Port Kavkaz, Water area of the projected anchorage	Area surveying	2015	1:5000	5,29	
2	The coast from the village of Dagomys to border with the Abkhazia	Topographic surveying	2015	1:10000		44,2
3	Water area of the Balaklavskaya Bukhta	Topographic surveying	2015	1:1000 1:2000		5,55
4	Water area of Seaport Sochi, water areas of underwater canyons around cargo Port Sochi Mzymta, water areas of passenger terminals Lazarevskoye, Loo, Dagomys, Matsesta, Khosta, Kurgorodok, Adler	Area surveying	2016	1:500 1:1000	3,98	
5	Coasts of the Krymskiy Poluostrov and Tamanskiy Poluostrov (determination (clarification) of geographical coordinates of points defining the position of the baselines	Topographic surveying	2016	1:1000 1:2000 1:3000 1:4000 1:5000		10,5

The scheme of hydrographic coverageFig. 1.2.2. New 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).

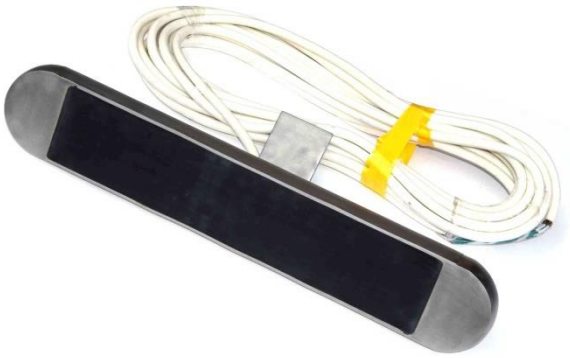


Fig. 4. Antenna unit.

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 survey 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

List of electronic navigational charts

№	Cell №	Name (Area)	Scale 1:	Year of edition
Black Sea				
1	RU3MEL60	Black Sea North-Western Part Tendrovskoy Spit to Evpatoriya	1: 180 000	2015
2	RU3MAL61	Black Sea Coast of the Crimea From Nikolayevka to Point Kikineyz	1: 180 000	2016
3	RU3MALO0	Black Sea Coast of the Caucasus Idokopas Point to Khosta	1: 180 000	2015
4	RU3MBLB0	Black Sea Coast of the Crimea	1:	2015

№	Cell №	Name (Area)	Scale 1:	Year of edition
		From Opasnyy Point to Chauda Point	180 000	
5	RU3MBLJ0	Black Sea Coast of the Crimea and Caucasus Point Opuk to Point Tolstyy	1: 180 000	2015
6	RU4MBLQ0	Black Sea Coast of the Caucasus Port Tuapse and approaches	1: 45 000	2015
7	RU4MELF0	Black Sea Coast of the Crimea From Meganom Point to Chauda Point	1: 45 000	2015
8	RU4MDL90	Black Sea Coast of the Crimea From Point Lukull to Point Fiolent	1: 45 000	2017
9	RU5MDLA0	Black Sea Crimea Peninsula Bay of Sevastopol′	1:8 000	2017
10	RU5MDLA1	Black Sea Crimea Peninsula Streletskaya Bay and Kruglaya Bay	1:4 000	2017
11	RU5MDLA2	Black Sea Coast of the Crimea Dvoynaya and Kamyshovaya Bays	1:8 000	2017
12	RU5MELJ0	Port Taman’ and approaches	1: 12 000	2016
13	RU5MELN0	Black Sea Coast of the Russia Piers of Port Novorossiysk	1:8 000	2016
14	RU5MFLG0	Black Sea Coast of the Crimea Port Feodosiya and Approacher	1:8 000	2016
15	RU6MDLA0	Black Sea Bay of Sevastopol′ Sukharnaya Bay to Neftyanaya Harbour	1:2 000	2017
16	RU6MDLA1	Black Sea Bay of Sevastopol′ Kilen Bay to Gollandiya Bay	1:2 000	2017
17	RU6MDLA3	Black Sea Bay of Sevastopol′ Matyushenko Bay to Yuzhnaya Bay	1:2 000	2017
18	RU6MDLA4	Black Sea Port Sevastopol′ Central and Southern part of Yuzhnaya Bay	1:2 000	2017
19	RU6MELN0	Black Sea Coast of Russia Piers of Port Novorossiysk North part	1:2 000	2016
20	RU6MELN1	Black Sea Coast of Russia Piers of Port Novorossiysk Eastern part	1:2 000	2016

The scheme of electronic navigational charts

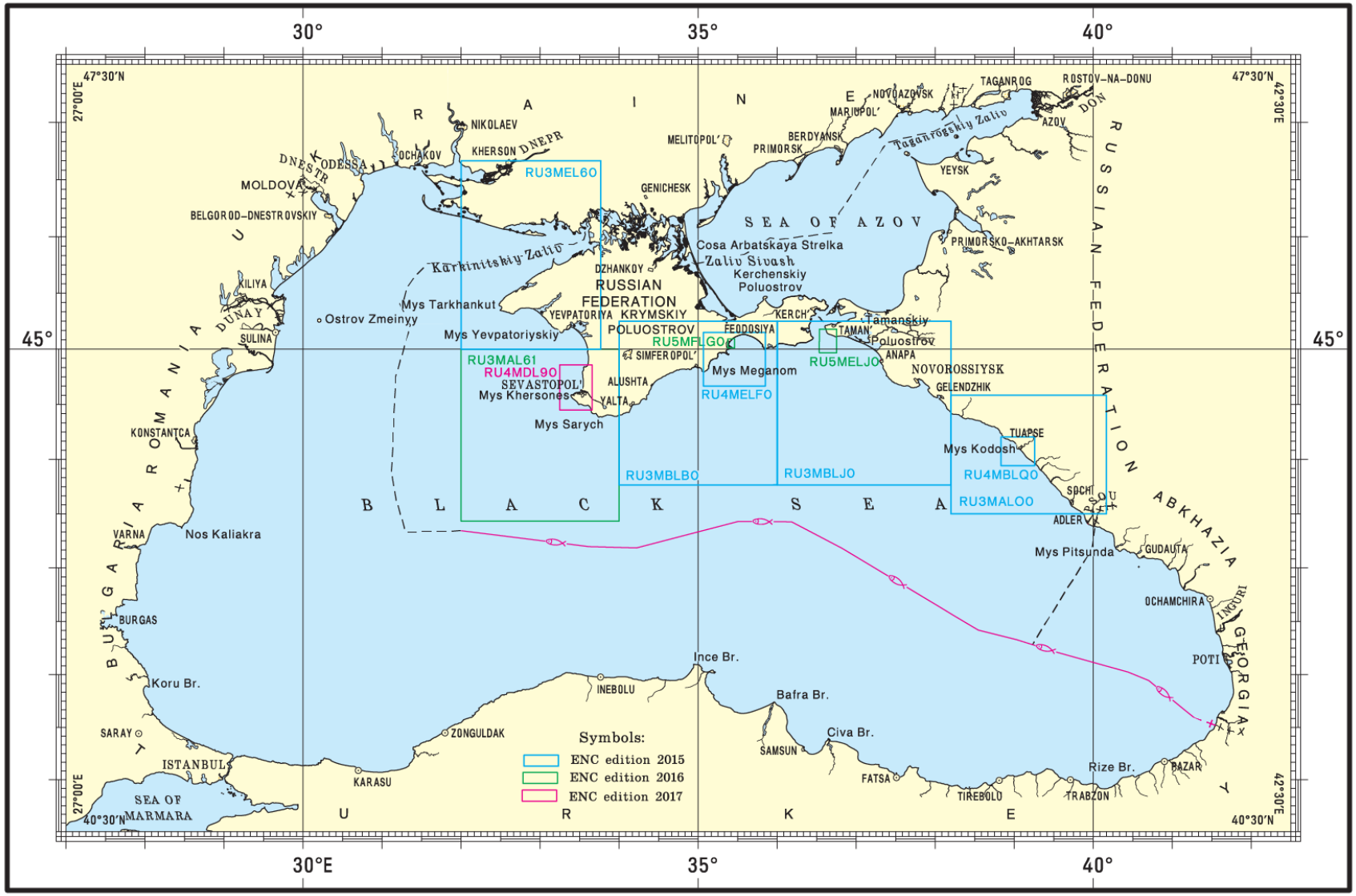


Fig. 6.

The scheme of electronic navigational charts

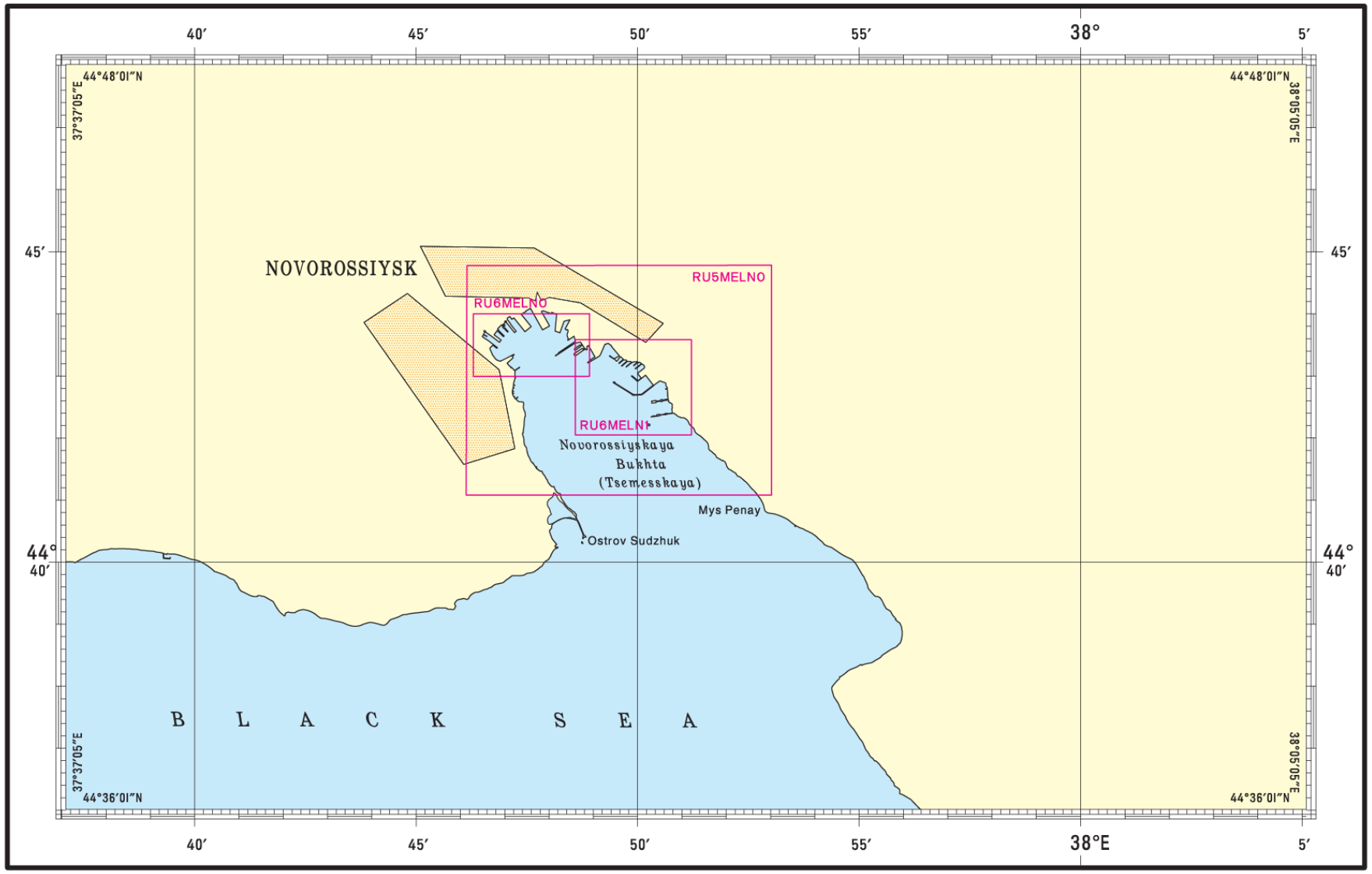


Fig. 7.

The scheme of electronic navigational charts

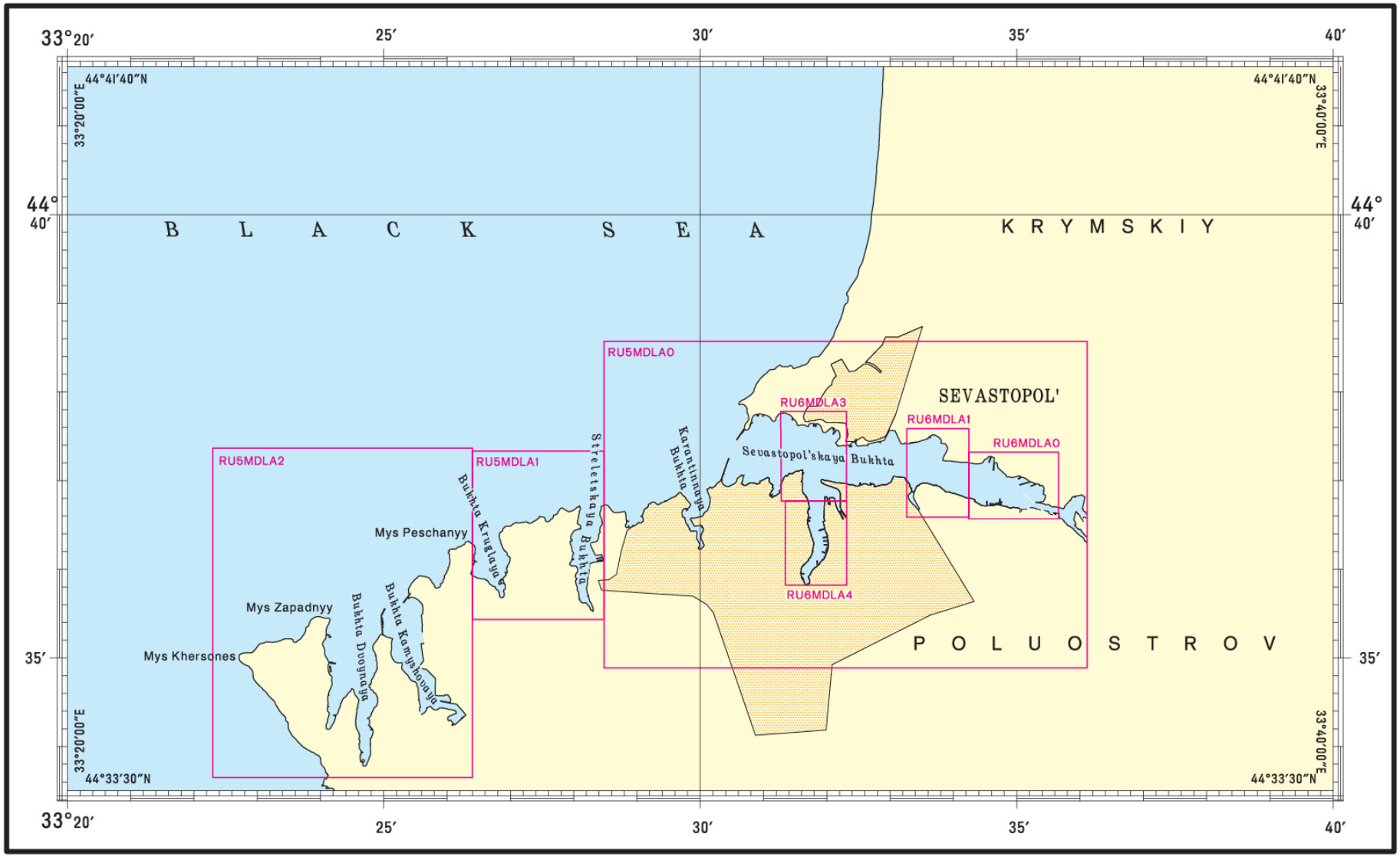


Fig. 8.

ENCs distribution method.

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

Raster navigational charts (RNCs).

The DNO does not distribute RNCs.

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

Table 3

The list of INT charts

№	Cell №	Admiralty №	Name (Area)	Scale 1:	Year of edition
1	3810	32173	Black Sea Caucasian coast Bukhta Vulan to Port Ochamchira	1: 300 000	2016
2	3812	32172	Black Sea Coast of Russia Mys Il'i to Bukhta Vulan	1: 300 000	2016
3	3879	35160	Black Sea Coast of Russia Port Tuapse and approaches	1: 50 000	2016
4	3881	38172	Black Sea Coast of Russia Northern part of Port Novorossiysk	1: 10 000	2016

The scheme of INT charts

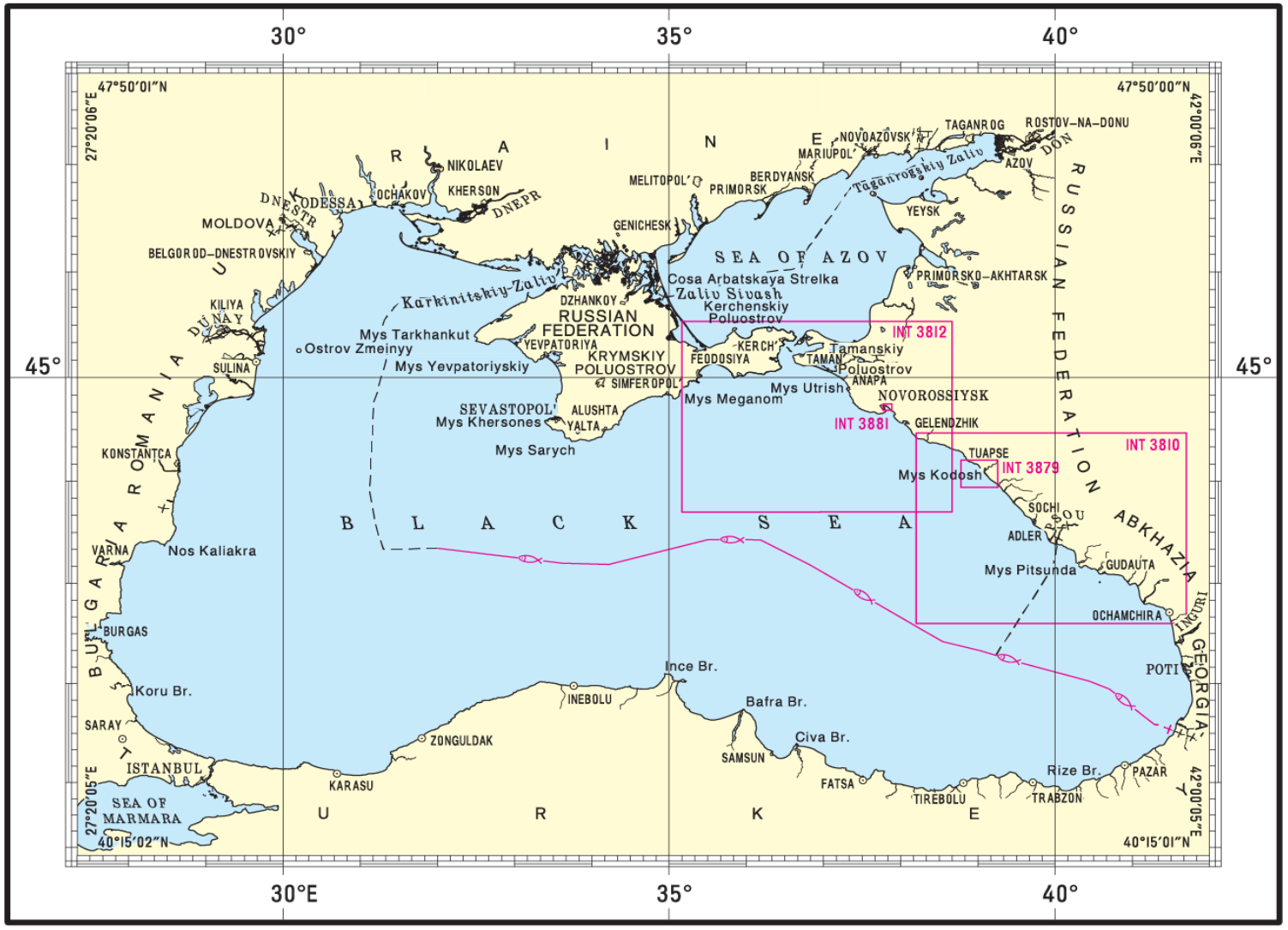


Fig. 9.

National paper charts.

There are 575 nautical charts issued by the DNO on the water areas of the Black 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.

Table 4

Scale	**National paper charts**	**INT charts**	∑
Black Sea			
1:1250000	1		1
1:100000 – 1:750000	59	3	62
1: 25000 – 1:100000	45	3	48
1: 2000 – 1:25000	43	1	44
Mediterranean Sea			
1:1000000 – 1:2000000	12		12
1:100000 – 1:500000	197		197
1: 25000 – 1:100000	118		118
1:7500 – 1:25000	93		93
∑	568	7	575

Table 5

The list of national paper charts

№	Admiralty №	Name (Area)	Scale	Year of edition
Black Sea and Mediterranean Sea				
1	31009	Eastern part of Black Sea	1: 750 000	2016
2	31012	Black Sea Easte part Novorossiysk to Perşembe Limani	1:500 000	2015
3	31017	Mediterranean Sea Southern part of Aegean Sea	1: 500 000	2017
4	31018	Mediterranean Sea Eastern part Nísos Kríti to Antalya Körfezi	1: 500 000	2017
5	31019	Mediterranean Sea Eastern part Kaleardy Burun (Dilvarda) to Beyrouth (Beirut) with Cyprus	1: 500 000	2016
6	31020	Mediterranean Sea Eastern part Beirut to El Iskandarîya (Alexandria)	1: 500 000	2016
7	31021	Mediterranean Sea Eastern part Nísos Kríti to Port El Iskandarîya (Alexandria)	1: 500 000	2015
8	31027	Mediterranean Sea Central part Area to south-east of Sicily	1: 500 000	2016
9	31030	Mediterranean Sea Southern part of Adriatic Sea	1: 500 000	2016
10	31035	Mediterranean Sea Western part Capo d'Anzio to Port Nizza and Île de Corse	1: 500 000	2015
11	32104	Black Sea Coast of Russia Sevastopol' to Mys Meganom	1: 200 000	2017
12	32106	Black Sea Coast of Russia Anapa to Tuapse	1: 200 000	2015
13	32110	Black Sea Coast of Turkey Port Trabzon to Fatsa Körfezi	1: 200 000	2016
14	32116	Black Sea Coast of Bulgaria Nos Kaliakra to Bukhta Michurin	1: 200 000	2017
15	32170	Black Sea North-western part Ostrov Zmeinyy to Mys Tarkhankut	1: 300 000	2015
16	32171	Black Sea Coast of the Russia Mys Tarkhankut to Mys Il'i	1: 300 000	2017
17	32204	Aegean Sea Coast of Greece Thermaïkos, Kolpos	1: 200 000	2016

№	Admiralty №	Name (Area)	Scale	Year of edition
18	32220	Aegean Sea Coast of Turkey and Greece Güllük Körfezi to Nísos Ródhos	1: 200 000	2016
19	32222	Mediterranean Sea Coast of Turkey and Cyprus Antalya Körfezi	1: 200 000	2015
20	32231	Mediterranean Sea Coast of Egypt Port El Iskandarîya (Alexandria) to Râs El Hekma	1: 200 000	2015
21	32301	Adriatic Sea Southern part Porto di Brindisi to Rt Volujica	1: 200 000	2016
22	32315	Mediterranean Sea Middle part Sicilian Channel South-eastern part	1: 200 000	2016
23	32340	Mediterranean Sea Coast of Algeria Pointe d'El Haoua to Île Rachgoun (Leïla)	1: 200 000	2015
24	32344	Mediterranean Sea Coast of Spain Puerto de Tarragona to Puerto de Sagunto	1: 200 000	2015
25	32347	Mediterranean Sea Coast of France and Spain Golfe de Lion	1: 200 000	2016
26	32361	Mediterranean Sea Islas Baleares Isla de Mallorca to Isla de Ibiza	1: 200 000	2017
27	33111	Black Sea Coast of Russia Approaches to Kerchenskiy Proliv	1: 100 000	2015
28	33200	Sea of Marmara Coast of Turkey Istanbul to Izmit (Kocaeli)	1: 100 000	2016
29	33201	Sea of Marmara Eastern part	1: 100 000	2017
30	34101	Black Sea Coast of Turkey Rize Limani to Trabzon	1: 100 000	2016
31	34102	Black Sea Coast of Turkey Trabzon to Tirebolu	1:100 000	2017
32	34259	Mediterranean Sea Coast of Tunisia Hammamet to Kelibia	1: 100 000	2015
33	35157	Black Sea Coast of Russia Port Novorossiysk	1: 25 000	2016
34	35186	Black Sea Coast of Abkhazia Approaches to Port Sukhum	1: 50 000	2015

№	Admiralty №	Name (Area)	Scale	Year of edition
35	35202	Sea of Marmara Coast of Turkey Izmit Körfezi Approaches to ports Derince, Gölcük, Izmit (Kocaeli)	1: 60 000	2016
36	35212	Sea of Marmara Coast of Turkey Northern part of Dardanelles	1: 75 000	2017
37	35225	Aegean Sea Coast of Greece Liménas Thessaloníkis and approaches	1: 50 000 1: 7 500	2016
38	35263	Aegean Sea Coast of Turkey Izmir Körfezi Izmir Limani and approaches	1: 25 000	2016
39	35379	Tyrrhenian Sea Coast of Italy Golfo di Napoli Approaches to Porto di Neapoli	1: 30 000	2017
40	35396	Mediterranean Sea Coast of Italy Porto di Genova to Porto di Savona	1: 50 000	2015
41	36127	Black Sea Coast of Turkey Approaches to Bosporus	1: 50 000	2015
42	36129	Sea of Marmara The Bosporus	1: 30 000	2017
43	36234	Mediterranean Sea Coast of Lebanon Beyrouth (Beirut) and approaches	1: 30 000	2016
44	36342	Mediterranean Sea Coast of Spain Balear Sea Approaches to Puerto de Valencia	1: 50 000	2016
45	36362	Mediterranean Sea Coast of France Cap du Dramont to Cap Kamarat	1: 50 000	2015
46	36363	Mediterranean Sea Coast of France Cap Gros to Cap du Dramont	1: 50 000	2016
47	36377	Mediterranean Sea Coast of Italy Isola di Sardegna Porto di Oristano and approaches	1: 50 000	2016
48	36390	Mediterranean Sea Spain Islas Baleares Isla de Mallorca Puerto de Palma and approaches	1: 50 000	2016
49	38101	Black Sea Coast of Romania Konstanţa and approaches	1: 25 000	2015
50	38104	Black Sea North-west coast Port Yuzhnyy	1: 12 500	2017
51	38174	Black Sea Coast of the Russia Piers of Port Novorossiysk	1: 5 000	2016

№	Admiralty №	Name (Area)	Scale	Year of edition
52	38206	Sea of Marmara Coast of Turkey Ambarli Limani, Mudanya Limani, Gemlik Limani and Būyūkçekmece Koyu	1:7 500 1:25 000	2016
53	38277	Aegean Sea Coast of Turkey and Greece Kazikli Limani, Asin Körfezi and Órmos Gyalí	1: 25 000	2015
54	38331	Adriatic Sea Coast of Croatia Ports in Riječki Zaljev	1: 10 000	2015
55	38384	Mediterranean Sea Coast of Italy Gulf of Genoa Porto di Savona and Rada di Vado	1: 10 000	2015
56	38398	Ligurian Sea Coast of Italy Porto di Genova East part	1: 10 000	2017
57	39172	Black Sea Coast of Bulgaria Port Varna and Channel №1	1: 10 000	2015
58	39173	Black Sea Coast of Bulgaria Port Varna Varnensko Ezero	1: 10 000	2015
59	39203	Mediterranean Sea Coast of Turkey Port Antalya and approaches	1: 20 000	2015
60	39219	Mediterranean Sea Eastern part Ports of Cyprus	1: 10 000 1: 25 000	2017
61	39244	Mediterranean Sea Coast of Egypt Al Iskandarīyah (Alexandria)	1: 12 500	2016
62	39342	Balear Sea Coast of Spain Puerto de Valencia	1: 10 000	2015
63	39343	Balear Sea Coast of Spain Puerto de Sagunto	1: 10 000	2016
64	39347	Mediterranean Sea Coast of Spain Puerto de Tarragona	1: 10 000	2016
65	39349	Mediterranean Sea Coast of Spain Puerto de Barcelona	1: 12 500	2017

The scheme of national paper charts

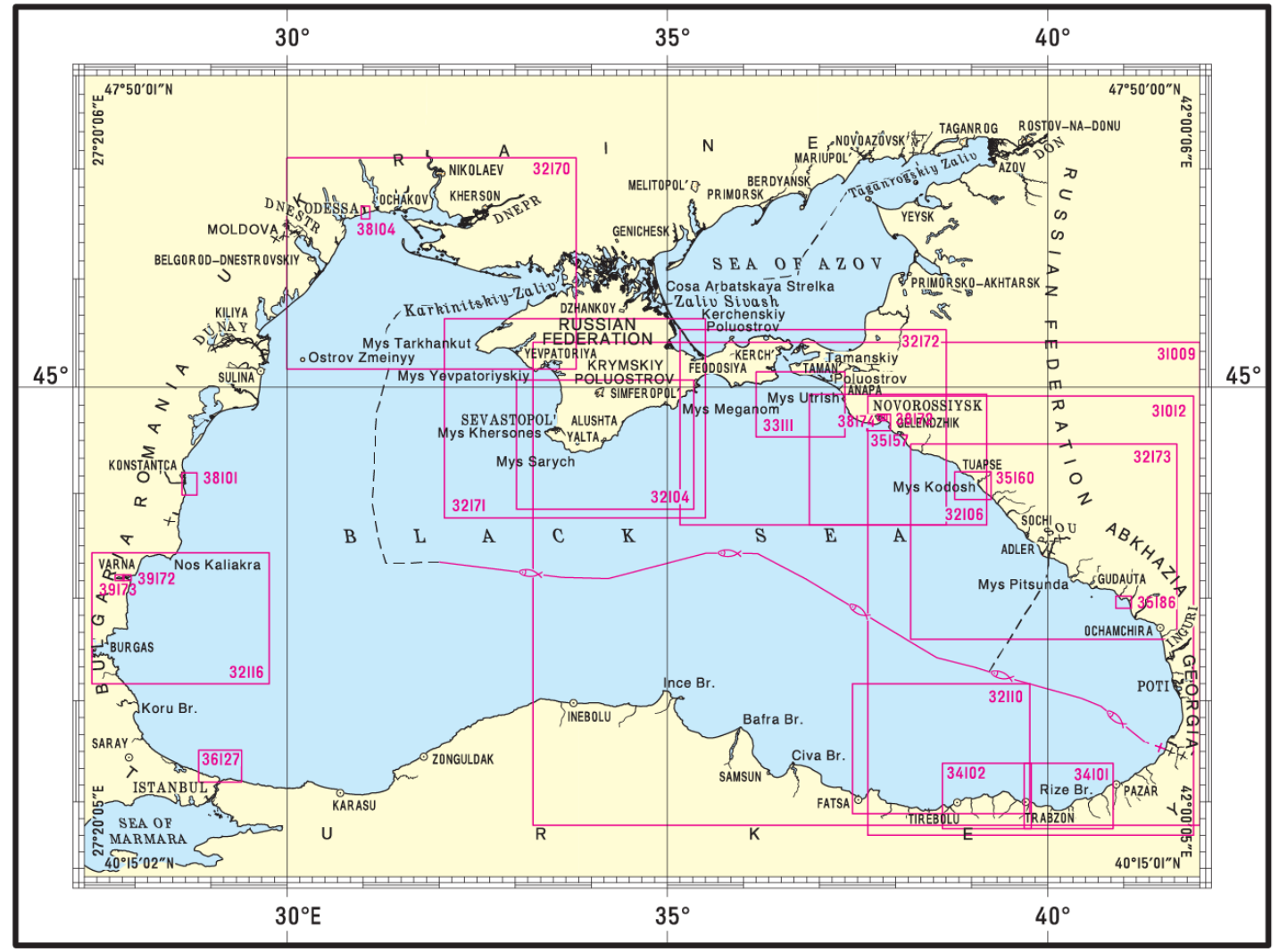


Fig. 10.

The scheme of national paper charts

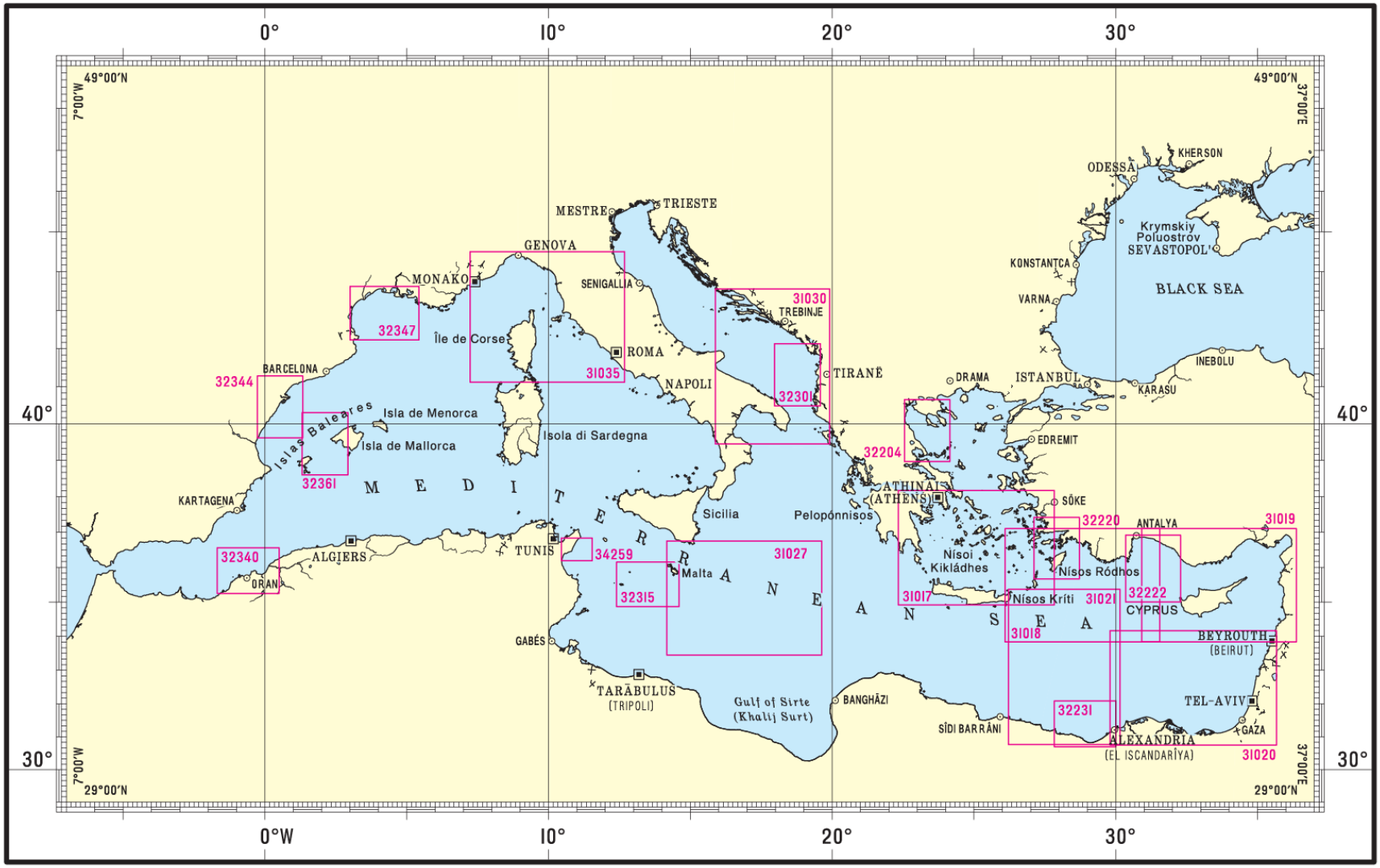


Fig. 11.

The scheme of national paper charts

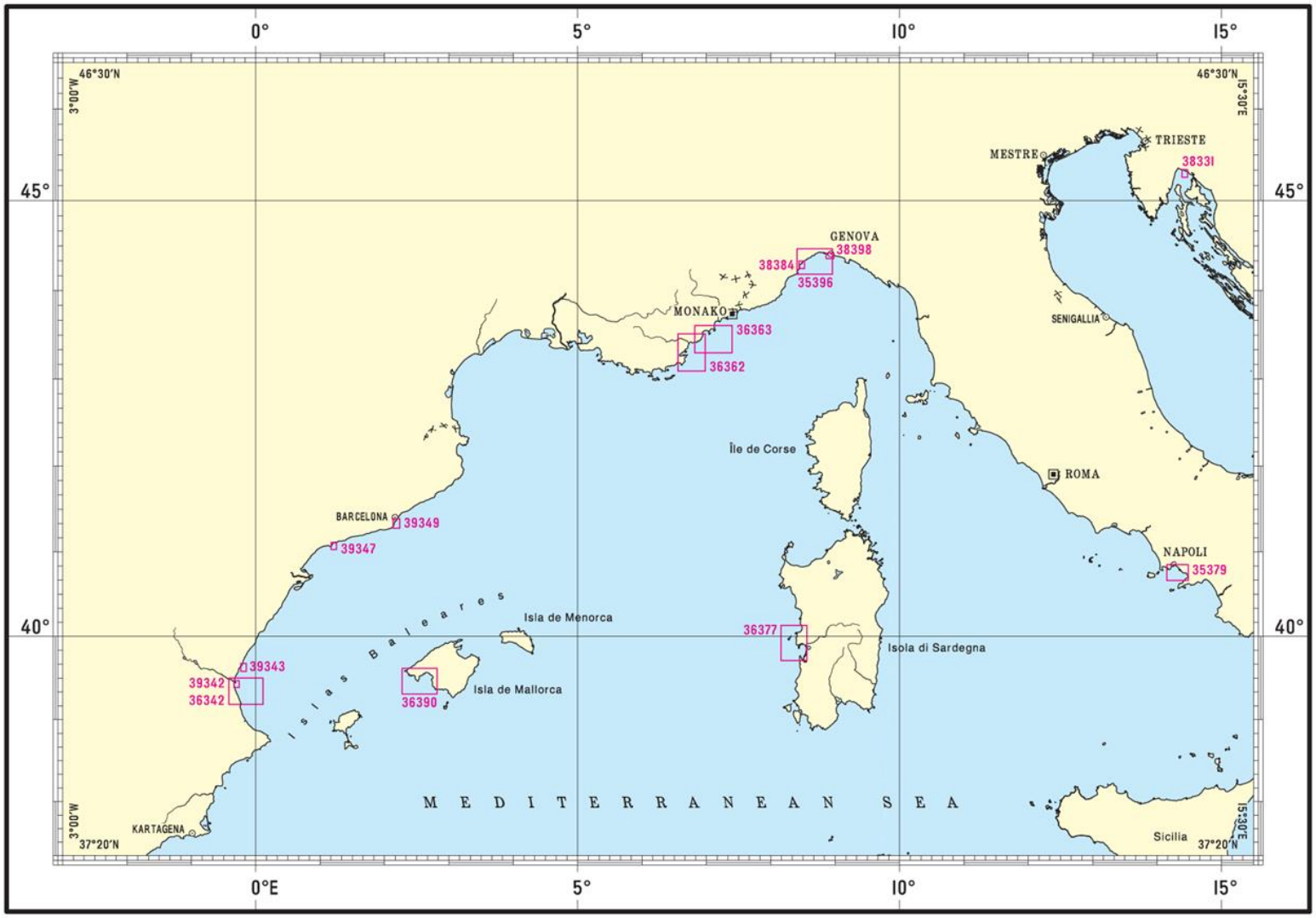


Fig. 12.

The scheme of national paper charts

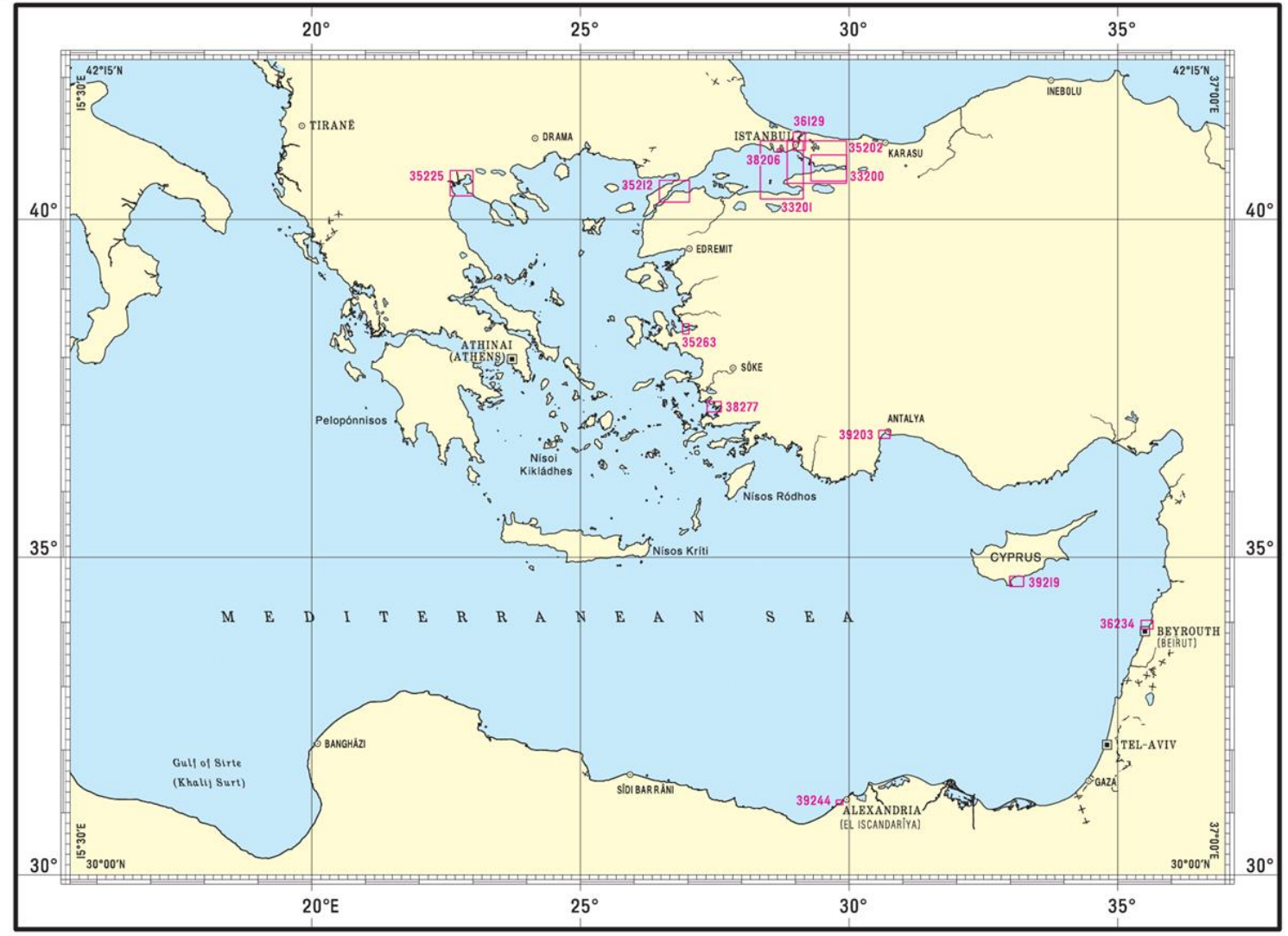


Fig. 13.

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 3639 charts.

Print-On-Demand Charts System Scheme

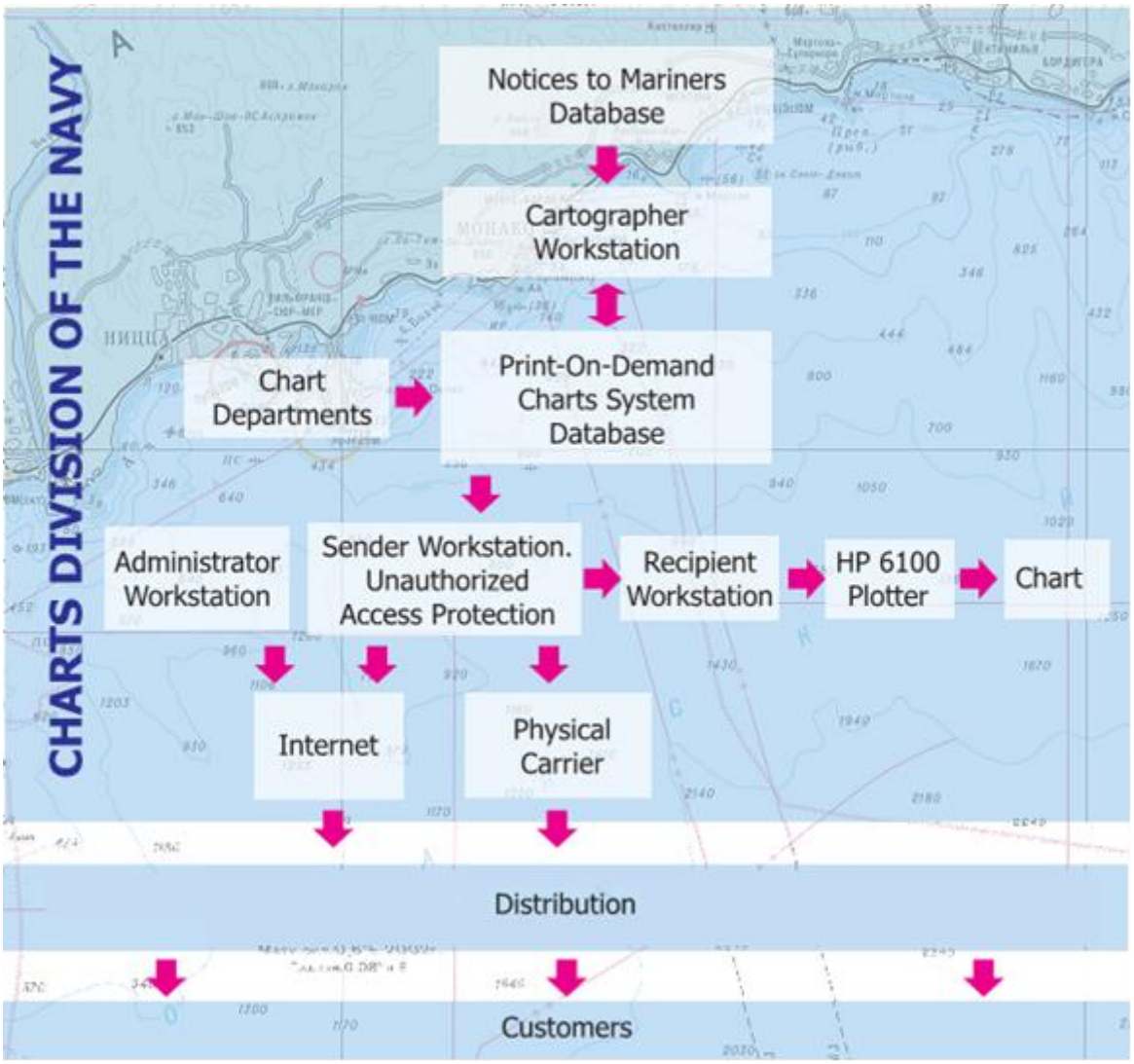


Fig. 14

4. New publications and updates.

4.1. New publications.

Table 6

№	Admiralty №	Name	Year of edition
1	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)

Electronic versions of Notices to Mariners Editions and Navigational Warnings Bulletins in pdf. are available on official website of Ministry of Defense of the Russian Federation:

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

5.1. Existing transmission infrastructure.

The Russian Federation is one of six coastal states, along with Turkey, Romania, Bulgaria, Ukraine and Georgia, which are carrying out functions of the national coordinator in system of distribution of maritime safety information (MSI) in the Black Sea region, entering into area of NAVAREA III of the World Wide Navigational Warning Service (WWNWS).

Transfer of MSI on the Black Sea is mainly provided with NAVTEX stations: Varna, Odessa, Berdyansk, Novorossiysk, Samsun and Istanbul. Transfer of navigation warnings within WWNWS is carried out by national coordinators through the stations or, in coordination, through stations of neighboring states, and also by the regional coordinator NAVAREA III (Spain). Of the uniform coordinated system of transfers within this region, the similar scheme of the sub-district of NAVAREA I, many years successfully functioning out on Baltic, does not exist.

The Russian Federation repeatedly drew attention to an initiative of creation of such sub-district. The representative of the coordinator of HABAPEA III in the certificate of information activity, once again, reminded about the necessity of coordinated cooperation of the Black Sea countries, however any initiatives of establishment of the sub-district of HABAPEA III on the Black Sea deviate in view of lack of a consent between neighboring states.

Owing to changes of the interstate relations in 2014, Russian Federation Hydrographic office faced need to change borders of a zone of responsibility for providing seafarers by information on change of a navigation situation, by expansion of its borders from the former PRIP Novorossiysk region of up to the 32nd meridian to the west and to the most part of the Sea of Azov in the north. Approximate borders of a zone of responsibility of the Russian Federation Hydrographic office are displayed on the scheme by a dashed line (fig. 13).

For transfer of maritime safety information in water areas to the West from the Krymskiy Poluostrov and partially in the Sea of Azov, real capabilities of NAVTEX station Novorossiysk, is not enough. Interaction with Hydrographic office of Ukraine concerning distribution of IBM in the region is stopped not because of the Russian side. Up to the solution of a question about normalization of such interaction, informing seafarers is carried out by duplication of important are PRIP, into address to the coordinator of NAVAREA III, with the subsequent announcement of the corresponding warning of NAVAREA III. Information of NAVAREA III in the water area to the West from the Krymskiy Poluostrov is duplicated by the announcement of PRIP of Ukraine with transfer from NAVTEX station Odessa.

Transfer of MSI, national Hydrographic office, is carried out by VHF and MW radio stations on sea areas of A1 and A2, and out by NAVTEX station Novorossiysk, by transmission of coastal warnings: PRIP Novorossiysk – a zone of responsibility of Hydrographic office of the Black Sea Fleet.

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

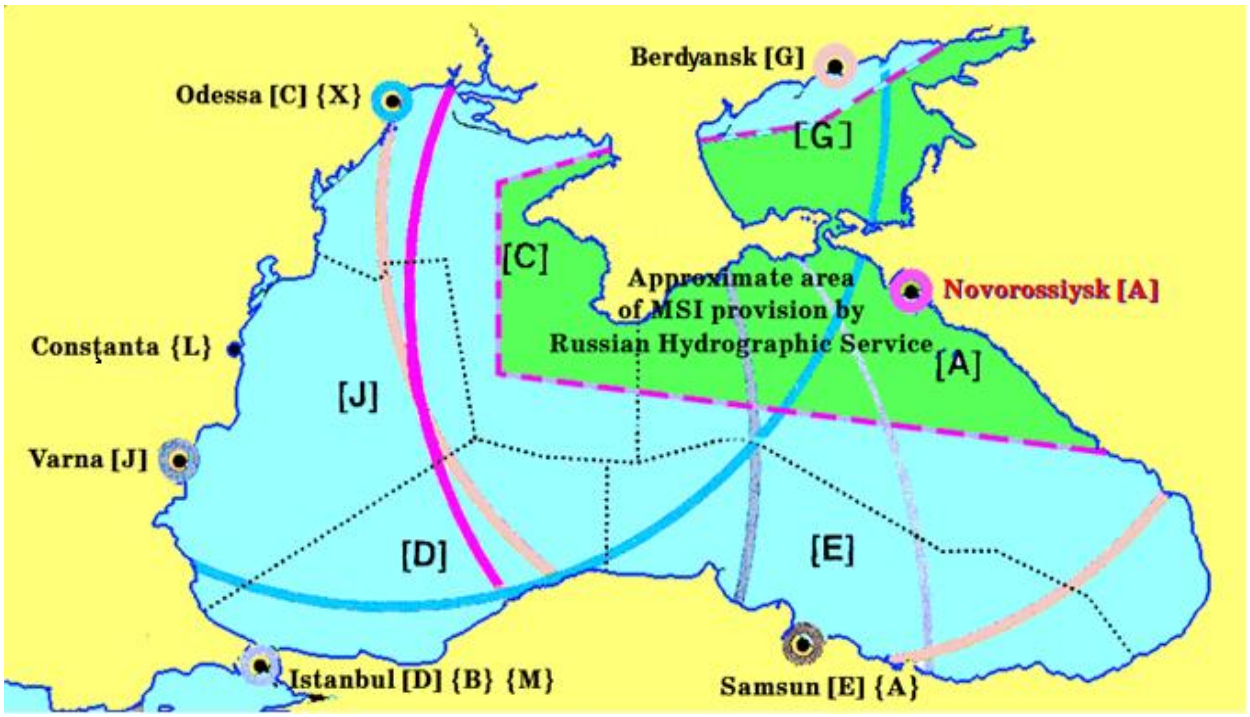


Fig. 15.

Table 7

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	**2014**	**2015**	**2016**
Novorossiysk	518	541	765

5.2. 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 it is assigned to the Ministry of Transport of the Russian Federation.

6. S-55.

6.1. Latest updates.

The water area of the Russian Federation in the Black Sea – 138780 sq. km:
Depths < 200 m – 30640 sq. km;
Depths > 200 m – 108140 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
< 200 m	90,0 %	10,0 %	-
> 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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e-mail: unio@mil.ru
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, Saint Petersburg, 199034, Russia