

**MEDITERRANEAN AND BLACK SEAS
HYDROGRAPHIC COMMISSION
(MBSHC)**

STATE HYDROGRAPHIC SERVICE OF UKRAINE



NATIONAL REPORT OF UKRAINE

**TO THE 21st CONFERENCE
OF THE MEDITERRANEAN AND BLACK SEAS
HYDROGRAPHIC COMMISSION
(MBSHC21)**

NATIONAL REPORT OF UKRAINE
to the 21st Conference of the Mediterranean and Black Seas Hydrographic
Commission (MBSHC21)

1. Hydrographic Office/Service

a. General

The State Hydrographic Service of Ukraine (SHSU) is a national hydrographic office established within the framework of the Ministry of Infrastructure of Ukraine, while the State Service for Maritime and River Transportation of Ukraine performs surveillance over the navigational and hydrographic support of shipping.

The main tasks of the SHSU are as follows:

- Fulfillment of international commitments of Ukraine pertaining to the safety of navigation, in particular hydrographic surveying of oceans and seas in accordance with the IHO standards, provision of the seas and inland waterways within zone of responsibility of Ukraine with AtoNs, their maintenance and ensuring of continuous operation in conformity with the IALA requirements;
- Compilation and distribution of nautical and pilot inland charts, Sailing Directions, Notices to Mariners, other nautical publications;
- Acting as a national navigational warnings coordinator and a National NAVTEX Service Coordinator in Ukraine;
- Development of the AtoN system by means of implementation of new methods, techniques and technologies in the fields of navigation, hydrography and cartography;
- Lighthouses renovation involving the energy-saving technologies (solar batteries, wind power stations, LEDs etc.), modernization of floating AtoNs through use of plastics, flasher mechanisms with LED modules and implementation of the Automatic Identification System (AIS);
- development and maintenance of the uniform system of hydrographic support of navigation in the seas and inland waterways of Ukraine.

Due to the Russian Federation's occupation and annexation of the part of Ukrainian territory, from March 2014 the SHSU doesn't have access to Ukraine's inland waters and territorial sea in the area of Crimean Peninsula. Aids to navigation on the Crimean coast have been temporarily out of the SHSU's control. Mariners are requested to exercise caution.

The sea ports of Kerch, Sevastopol, Feodosiia, Yalta, Yevpatoriia are closed until the restoration of the constitutional order of Ukraine within the territory of the Autonomous Republic of Crimea and Sevastopol city that are temporarily occupied by the Russian Federation (in accordance with the Order of the Ministry of Infrastructure of Ukraine No 255 of June 16, 2014).

In compliance with the Law of Ukraine No 1207-VII of 15 April 2014 'On Securing the Rights and Freedoms of Citizens and the Legal Regime on the Temporarily Occupied Territory of Ukraine', inland waterways and territorial sea of Ukraine around Crimean Peninsula, as well as the territory of exclusive (maritime) economic zone of Ukraine along Crimean coastline have been defined as temporarily occupied territories.

The United Nations General Assembly Resolutions A/Res/68/262 of 27 March 2014 “Territorial integrity of Ukraine”, A/Res/71/205 of 19 December 2016 “ Situation of Human Rights in the Autonomous Republic of Crimea and the city of Sevastopol (Ukraine)”, A/Res/72/190 of 19 December 2017 “Situation of Human Rights in the Autonomous Republic of Crimea and the city of Sevastopol, Ukraine”, A/Res/73/194 of 17 December 2018 “Problem of the Militarization of the Autonomous Republic of Crimea and the City of Sevastopol, Ukraine, as well as parts of the Black Sea and the Sea of Azov”, and A/Res/73/263 of 22 December 2018 “Situation of Human Rights in the Autonomous Republic of Crimea and the city of Sevastopol, Ukraine” have confirmed the unchanged status of the territorial integrity of Ukraine within its internationally recognized boundaries and also call upon “all international organizations and specialized agencies of the United Nations system, when referring to Crimea in their official documents, communications and publications, including with regard to statistical data of the Russian Federation, to refer to “the Autonomous Republic of Crimea and the city of Sevastopol, Ukraine, temporarily occupied by the Russian Federation”, and encourages all States and other international organizations to do the same”.

- b. *Updates for the IHO Yearbook, e.g. reorganization (please, see below the updates to the IHO Yearbook as of May 2019; all updated information is in **red bold**)*

STATE HYDROGRAPHIC SERVICE OF UKRAINE 23, Gagarina Avenue Kyiv 02094 UKRAINE	
Department of which the Hydrographic Office is part	Ministry of Infrastructure of Ukraine
Principal functions of the H.O.	Hydrographic surveys, oceanography, nautical charts and inland charts in paper and digital form, cells, nautical publications (Notices to Mariners, Sailing Directions, List of Lights etc.), broadcasting of meteorological information , radio navigational warnings, aids to navigation.
National day	24 August
Telephone: Fax: E-mail:	+38 (044) 296 60 40 +38 (044) 292 12 17 office@hydro.gov.ua
Date of establishment and Relevant National Legislation	February 9, 1994 Ordinance of the Cabinet of Ministers of Ukraine No 84 of February 9, 1994
Name and rank of the Director or Head	Mr. Dmytro PADAKIN, PhD Acting Head Mr Oleksandr SHCHYPTSOV, PhD Head
Tonnage	2017 = 496 423
Staff employed	

<p>- Hydrographers (Name and rank of managing staff)</p>	<p>Mr. Mykola GOLODOV, PhD – Deputy Head of the State Hydrographic Service of Ukraine</p> <p>Mr. Sergii OSYPCHUK, PhD – Deputy Head of the State Hydrographic Service of Ukraine</p> <p>Mr Bohdan USTYMENKO Deputy Head</p> <p>Mr Anatoliy SHEMELIN Deputy Head</p> <p>Mr. Oleg Marchenko – Head of <i>Ukrmorcartographia</i> (the charting branch of the State Hydrographic Service of Ukraine)</p>
<p>№ of charts published</p> <p>№ of INT charts published</p> <p>№ of ENC cells published</p>	<p>177 175 paper charts 129 paper charts for inland waterways</p> <p>15 16</p> <p>239 ENCs 102 129 cells 181 176 inland ENCs</p>
<p>Type of publications produced (e.g.; Tide Tables, Sailing Directions, List of Lights etc.)</p>	<ul style="list-style-type: none"> - Notices to Mariners (in Ukrainian and English) No.907.00; - ‘Sailing Directions on Ukrainian Waters of the Black Sea and the Sea of Azov’ No.101 (in Ukrainian); - ‘Lights and Beacons of the Black Sea and Sea of Azov’ No.201 (in Ukrainian); - ‘Regime of Navigation in Ukrainian Waters of the Black Sea and the Sea of Azov’ (summary description) No.402 (in Ukrainian); - Catalogue ‘Nautical Charts and Publications’ No.701 (in Ukrainian and English); - ‘Nautical Charts Symbols’ No.902 (in Ukrainian and English); - ‘Description of Maritime Buoyage System in Ukrainian Waters. IALA System. Region A’ No.903 (in Ukrainian); - ‘Maritime Buoyage System in Ukrainian Waters. IALA System - Region A’ No. 904 (in Ukrainian); - ‘Symbology for Inland Waterways Charts’ No. 908 (in Ukrainian, English and Russian); - ‘Lights and Beacons of the Danube River. Kiliiske Mouth Delta to the Prut River Mouth’ No.202 (in Ukrainian and Russian); - ‘Sailing Directions of the Danube River. Kiliiske Mouth Delta to the Prut River Mouth’ No.103 (in Ukrainian and Russian); - ‘Instructions on Requirements and Methods of Bottom Features Surveying for Navigational Purposes’ No.933 (in Ukrainian);

	<ul style="list-style-type: none"> - 'Regulation on Aids to Navigation on the Inland Waterways, in the Territorial Sea and Exclusive (Maritime) Economic Zone of Ukraine' No.937 (in Ukrainian); - 'General Provisions for Compilation of Notices to Mariners' No.935 (in Ukrainian); - 'Oceanographic Atlas of the Black Sea and the Sea of Azov' No. 601 (in Ukrainian and English); - 'The List of Current Temporary and Preliminary NtMs of State Hydrographic Service of Ukraine' No. 910 (in Ukrainian and English), 2019; - 'Navigational and Reference Tables for Navigators' No. 909 (in Ukrainian); - 'Dnipro River Pilot' No.105; - Navigational-Hydrographic Dictionary (in Ukrainian, English and Russian); - 'Charting Support for Navigation' (in Ukrainian); - 'Navigational Support of Sailing' (in Ukrainian); - 'Nautical Hydrography' (in Russian); - 'Oceanography' (in Russian); - 'Navigational Hydrometeorology' (in Russian). 		
Surveying vessels / Aircraft	Displacement	Date Launched	Crew
GS – 82	807.0	1969	23
GS – 273 *	713.0	1972	23
A. LYSENKO	52.7	2003	4
A. SOLODUNOV	52.7	2005	4
V. ZARUDNIY *	53.0	2006	4
ODESA *	320.0	2007	10
SHLIAHOVYK	92.0	2010 (remanufactured)	6
BGK-334	127	1974	11
KAPITAN ZIBER	133	2015 (remanufactured)	7
KAPITAN BASHEV	133	2014 (remanufactured)	6
KAPITAN CHEREMNYKH	133	2017 (remanufactured)	6
MGK-catamaran *	2.5	2013	2
MGK-catamaran	2.5	2013	2
MGK-catamaran	2.5	2014	2
MGK-catamaran	2.5	2014	2
MGK-catamaran	2.5	2014	2
* Temporarily detained in the occupied territory.			

2. Surveys

a. Coverage of new surveys

Within Ukrainian zone of responsibility the SHSU routinely performs hydrographic surveys in the water areas of commercial ports, approaches to ports, places of anchorage and areas of high-density vessel traffic.

The hydrographic surveys at scales of 1:5 000 and 1:1 000 were performed in 2018 in the water areas of Buzko-Dniprovsko-Lymanskyi channel, Khersonskyi sea channel, Spaskyi channel, sea approach channel to Bystre Mouth, water areas, anchorages and approach channels to the sea ports of Odesa, Chornomorsk (also, the fishing port), Mykolaiv (also, the river port), Yuzhnyi, Khersonskyi, Dnipro-Buzkyi, Bilhorod-Dnistrovskyi, Ochakiv port, as well as the Olviia Stevedoring Company.

Since March 2014 the State Hydrographic Service of Ukraine has not carried out hydrographic surveys in water areas and approaches to the Crimean ports, inland waterways and territorial sea of Ukraine in the vicinity of the Crimean Peninsula, due to occupation and annexation of the Autonomous Republic of Crimea by the Russian Federation. Consequently, the depths in these areas can be different from those specified on charts.

The sea ports of Kerch, Sevastopol, Feodosiia, Yalta, Yevpatoriia are closed in accordance with the Order of the Ministry of Infrastructure of Ukraine No 255 of June 16, 2014.

For reissuing of nautical navigational and inland charts and preparation for issuing of the ENC cells in compliance with the IHO standards, during the years 2016-2018 it was carried out the hydrographic surveys:

- in the coastal water areas on approaches to the sea ports of Yuzhnyi and Odesa;
- in the coastal water areas southwest from the Dnister Firth;
- in the coastal water areas near the Bystre Mouth and the Danube delta;
- in the north-western part of the Black Sea southwestward from the Tendrivska Beak Island within limits of the cell No.UA4CC814;
- on approaches to the Traffic Separation Scheme No. 2 (approaches to the ports of Chornomorsk, Odesa and Yuzhnyi) and in the water area of the recommended routes Nos. 44, 60;
- in the fairway of the Ukrainian part of the Danube river from the Reni port to the mouth (Kiliiske Mouth);
- in some sections of the Pivdennyi Buh River from Voznesensk to Mykolaiv;
- in some sections of the navigable pass of the Dnipro river, within the Kyivske, Kremenchutske, Dniprovske, Kamianske and Kakhovske Reservoirs.

The State Hydrographic Service of Ukraine routinely fulfils examination of sunken wrecks and other navigational dangers. The information about detected dangers and changes in navigational conditions is disseminated in the coastal warnings and in the Ukrainian Notices to Mariners. The Hydrographic Surveys Scheme for 2016-2018 is included to Annex A.

b. New technologies and/or equipment

The SHSU uses the multi-beam echosounder systems to meet the needs in hydrographic surveying of the coastal waters of Ukraine, port water areas, navigable waterways and areas with minimum depths.

The hydrographic surveying and data processing are fulfilled using the HYPACK and HYSWEEP software.

In 2016 the SHSU has put into operation the StrataBox bottom profiler and G-882SX marine magnetometer.



Small surveying catamaran (MGK-catamaran *Hydrograph-2*) with the onboard (ship borne) multibeam echosounder system



Big surveying vessel *A.Lysenko* with the multibeam system installed in 2016

c. *New ships*

NtR

d. Problems encountered

The State Hydrographic Service of Ukraine is not able to carry out hydrographic surveys in the area of the Crimean Peninsula due to the occupation of the Autonomous Republic of Crimea and the City of Sevastopol by the Russian Federation.

3. New Charts & Updates*a. ENCs*

16 updated ENCs

16 new river navigational charts.

27 new ENC cells in the Usage Band 5

ENC schemes are included to Annex B.

№	Usage Band / Scale Category	Released ENC Cells	Target	Coverage %
1.	Overview	2	2	100.00%
2.	General	6	6	100.00%
3.	Coastal	32	32	100.00%
4.	Approach	37	37	100.00%
5.	Harbour	52	61	85.25%
6.	Berthing	-	19	0%

b. ENC distribution method

Distribution Agreements with PRIMAR and UKHO.

c. RNCs

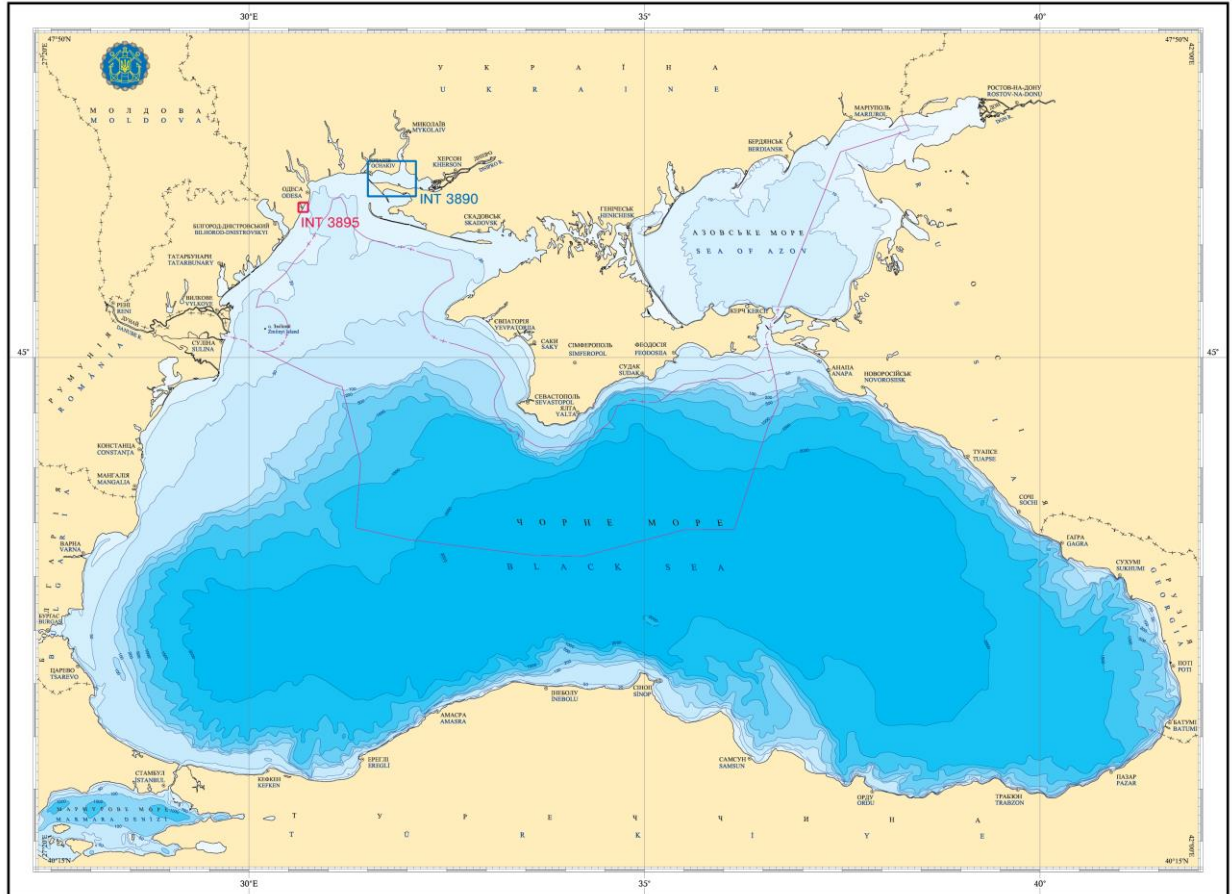
The SHSU does not produce RNCs.

d. INT Charts

The following international (INT) charts were updated;

№ 3405 INT3890 "Ochakiv to Pivdennyi Buh River", scale 1:50 000

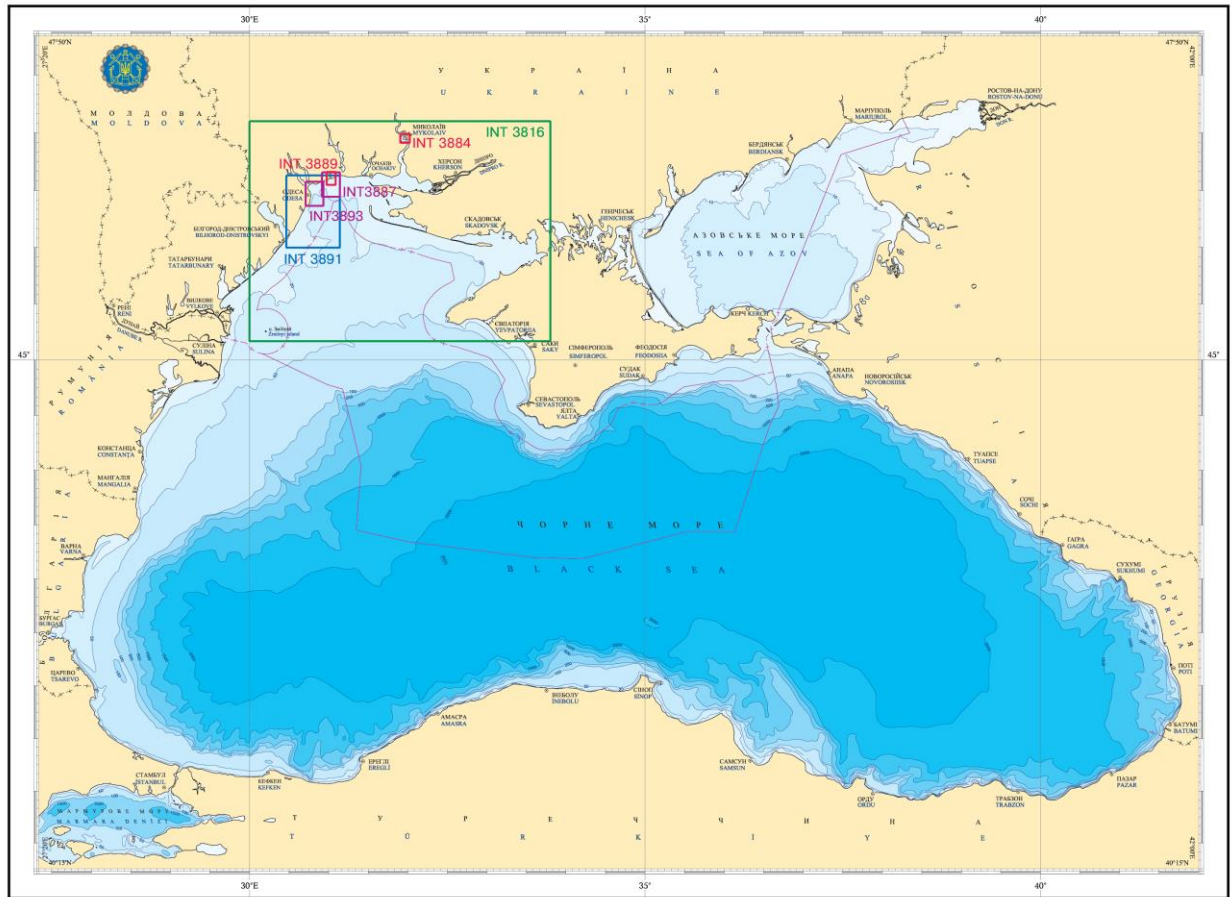
№ 3606 INT3895 "Chornomorsk Port with Approaches", scale 1:10 000



INT charts updated in 2018

It has been scheduled work on the following INT charts to be updated in 2019:

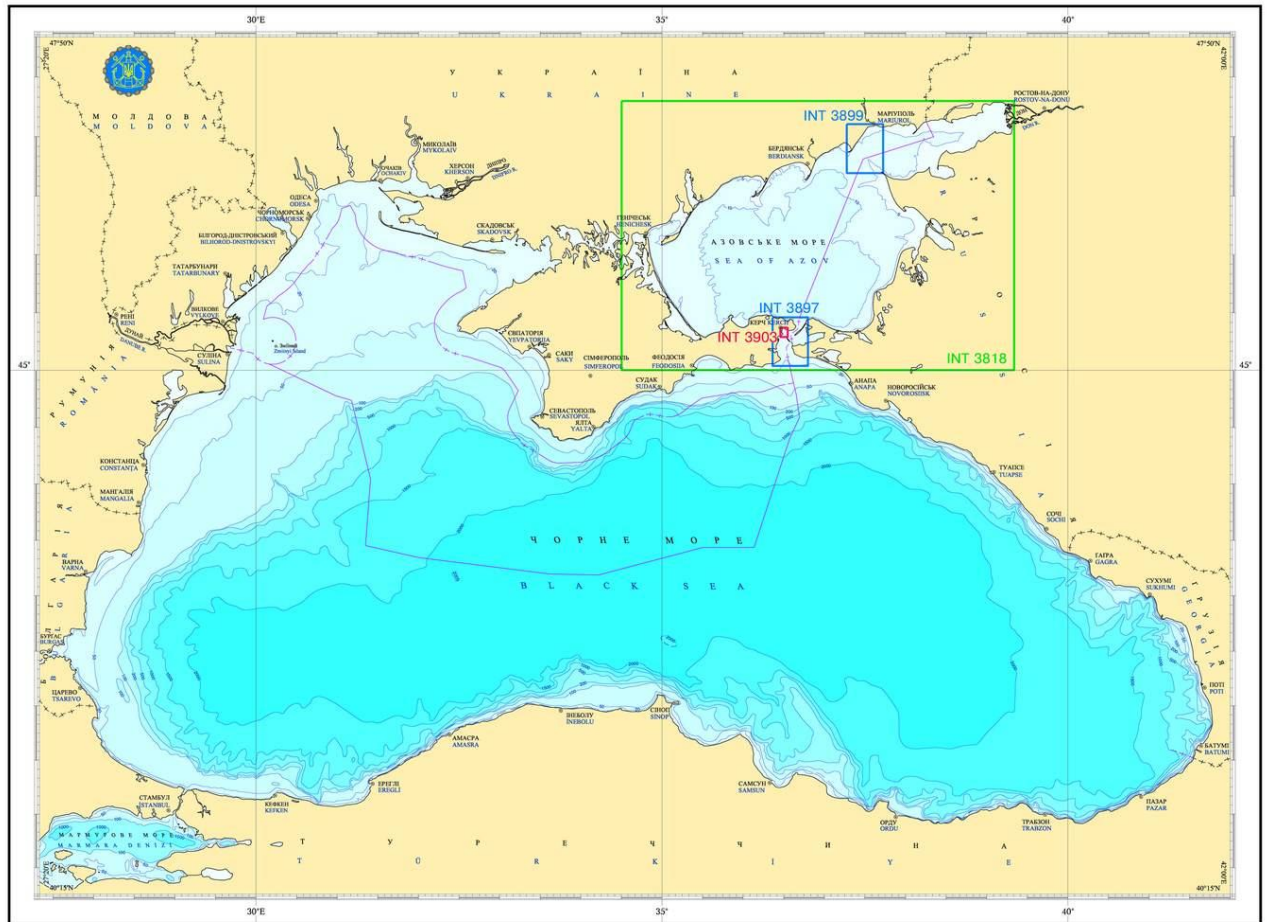
- № 3226 INT3816 "Zmiinyi Island to Tarkhankut Cape", scale 1:300 000
- № 3407 INT3891 "Approaches to Odesa, Chornomorsk and Yuzhnyi Ports", scale 1:75 000
- № 3502 INT3887 "Approaches to Yuzhnyi Port", scale 1:25 000
- № 3503 INT3893 "Approaches to Odesa Port", scale 1:25 000
- № 3605 INT3889 "Yuzhnyi Port", scale 1:12 500
- № 3615 INT3884 "Mykolaiv Port", scale 1:10 000



INT charts to be updated in 2019

4 more INT charts have been under consideration of the Region F Coordinator:

3417	3897	UA	50 000	Kerchenska Strait
3421	3899	UA	50 000	Approaches to Mariupol Port
3632	3903	UA	10 000	Kerch Port
3229	3818	UA	350 000	Sea of Azov



INT charts being under consideration of the Region F Coordinator

e. National paper charts

- Set of river navigational charts of the Dnipro River No. 3533 “Kanivske Reservoir from Kyivska Hydroelectric Power Station to Kanivska Hydroelectric Power Station” (16 sheets)

f. Other charts, e.g. for leisure craft

- The Ukrainian Notices to Mariners (NtMs) Database published in Ukrainian and English is currently available at the official SHSU website: Cartographic safety > Notices to Mariners > Ukrainian NtM Database: http://charts.gov.ua/pm_arhive_en.htm

4. New publications & updates

a. New publications

NtR

b. Updated publications

Re-issued:

- No. 910 ‘List of Current Temporary and Preliminary Notices to Mariners (NtMs) of the State Hydrographic Service of Ukraine’ (2019).

c. Means of delivery, e.g. paper, digital

Publications are delivered in paper form.

Notices to Mariners are provided on the users' requests either in paper or in digital form.

The technology "Print-on-Demand" has been implemented for production, maintenance and dissemination among users of paper navigational nautical charts from national portfolio.

5. MSI

a. *Existing infrastructure for transmission*

General supervision over MSI dissemination has been fulfilled by the National Coordinator – the State Hydrographic Service of Ukraine, through its Centre for Navigational and Hydrographic Information operating in Kyiv. Informing mariners on changes in navigational conditions and regime of navigation in the sea area of Ukraine is carried out by means of:

- broadcasting of coastal warnings in English via NAVTEX at frequencies 518 and 490 kHz;
- broadcasting of coastal warnings in English and Russian via radiotelephone at frequency 2650 kHz;
- transmission to ship-owners and mariners via Internet of daily Bulletins of the latest navigational information including: texts of coastal warnings for the past 24 hours, current coastal warnings and NAVAREA III navigational warnings for 031 region (the Black Sea and the Sea of Azov), 24-hour weather forecast, ice conditions, storm warnings for the past 24 hours, as well as other information concerning safety of navigation;
- dissemination of Notices to Mariners.

Coastal warnings (navigational information) in NAVTEX mode are transmitted by **Odesa-NAVTEX** and **Berdiansk-NAVTEX stations**.

Coastal warnings are transmitted on schedule only for their operative range, while *vital* and *important* coastal warnings (including information about distresses, drifting mines and storm warnings) are transmitted out of schedule.

The SHSU posts the Maritime Safety Information (MSI) in its official website. The Coastal Warnings en force are currently available in the MSI Section of the SHSU site –

http://hydro.gov.ua/?page_id=144

453 Coastal Warnings and 2580 Meteorological Warnings (including weather forecasts, storm warnings and ice conditions) were broadcasted, while 11 warnings were delivered to the NAVAREA III Coordinator (Instituto Hidrografico de la Marina, Cadiz, Spain).

Operational Point of Contact for Ukraine's National Co-ordinator within the NAVAREA:

COUNTRY	TELEPHONE	FACSIMILE	EMAIL
UKRAINE	+380 44 292 41 20 +380 50 411 84 73	+380 44 292 41 20	navtex@ukr.net navtexukr@gmail.com navigation@hydro.gov.ua Web: http://hydro.gov.ua

NAVTEX Coverage:

Country	NAVTEX Stations	Telephone	Fax	Email	Status
UKRAINE	Berdiansk [G] [U]	+380 50 411 20 13 +380 6153 372 29	+38 0629 40 78 58	mayak1878@gmail.com	operational
	Odesa [C] [X]	+380 48 753 17 53 +380 48 746 80 87 +380 50 490 15 47	+380 48 773 18 72	cngi@hydro.od.ua	operational

Nation/Area	Service MSI		GMDSS	
Ukraine	a. Local warnings b. Coastal warnings c. Navarea warnings d. Information about ports	Yes Yes Yes Yes	a. Master plan b. A1 Area c. A2 Area d. A3 Area e. NAVTEX f. SafetyNET	Yes Yes Yes No Yes No

Diagram of NAVTEX stations and International NAVTEX Service Areas in the Black and Azov Seas.



The SHSU has established and currently operates and maintains the AIS Base Stations network in Ukraine that consists of 16 base stations.

Implementation of the automated system for navigational situation monitoring in Ukrainian waters has allowed to the State Hydrographic Service of Ukraine to complete the following tasks:

- to broadcast differential corrections from Differential Reference Stations via AIS channels;
- to broadcast vital NAVTEX navigational warnings, distress and disasters alerts and storm warnings via AIS channels;
- to use AIS as AtoN.

b. New infrastructure in accordance with GMDSS Master Plan

NtR

c. Problems encountered

Starting from 23 October 2015, the Russian Federation stopped providing the State Hydrographic Service of Ukraine (SHSU) with any navigation warnings to be broadcasted by the Odesa NAVTEX station to the north-western part of the Black Sea and Berdiansk NAVTEX station to the Sea of Azov and the Kerchenska Strait. Such unilateral actions of the Russian Federation are inconsistent with the responsibilities of a national coordinator as defined by section 3.6 of the Joint IHO/IMO/WMO S-53 Manual on MSI.

In October 2018, in the framework of the International Maritime Organization, Ukraine expressed its protest to the Russian Federation in connection with the unauthorized expansion by the Novorossiysk NAVTEX station of its service area into the Sea of Azov and the Kerchenska Strait in spite of the fact that the specified sea areas do not belong to the service area of this radio station. Such unilateral actions of the Russian Federation violate the procedure outlined in the Revised NAVTEX Manual (MSC.1/Circ.1403/Rev.1, paragraph 4.2.9.2).

The violations of the procedures envisaged by IMO MSC.1/Circ.1403/Rev.1 from the side of the Russian Federation have been evidenced in the National Report of the Russian Federation submitted to the MBSHC20. In particular, page 26 of the aforementioned National Report of the Russian Federation contains the Scheme of Coastal Warnings Broadcasting by the Novorossiysk NAVTEX that covers, among others, the coastal areas adjacent to the Crimean Peninsula in the Black Sea and the Sea of Azov and the Kerchenska Strait. Meanwhile, the areas of the Sea of Azov and the Kerchenska Strait belong to the service area of the Ukrainian Berdiansk NAVTEX station, whereas the north-western part of the Black Sea, together with the western coast of the Crimean Peninsula – to the service area of the Ukrainian Odesa NAVTEX station.

In addition to the attempts aiming to illegally widen the service area of the Novorossiysk NAVTEX station, the regular breakage of the Broadcasting Schedule by this very Russian station and overlapping the allocated timeslots for transmission at 518 kHz frequency make obstacles for proper functioning of the Ukrainian Odesa NAVTEX station, causing the radio interference that makes threatens to the safety of navigation within the service areas of both the aforementioned NAVTEX stations.

6. C-55 latest update (Tables)

The table below describes the hydrographic surveys for the depth ranges 0-200m and > 200m (/--) out to the limits of Exclusive Economic Zone:

Nation/ Area	A	B	C	Amplifying notes including significant gaps in coverage
Ukraine	75%/100%	25%/0%	0%/0%	High-priority tasks: a. Regional routes: water areas of sea ports and their approach channels, in particular in the north-western part of the Black Sea, Kerchenska Strait and approaches to it. b. Inland waterways routes: surveys for inland charts of the Dnipro, Danube and Pivdennyi Buh rivers.

In accordance with the IHO C-55 Annex B, the latest update on the status of Ukrainian charts portfolio coverage in Ukrainian zone of responsibility in the International Charting Region F is as follows:

Nation/Area	Offshore passage/ Small			Landfall and Coastal passage/ Medium			Approaches and ports/ Large			Amplifying notes
	A	B	C	A	B	C	A	B	C	
Ukraine	100%	-	100%	100%	-	100%	100%	-	99%	Ukraine does not produce RNCs. A number of large-scale charts needs to be updated.

7. Capacity Building

a. *Offer of and/or demand for Capacity Building*

According to the Standards of Competence for Hydrographic Surveyors (S-5 IHO Publication) the SHSU has implemented the program of advanced training for hydrographic surveyors using facilities of the National University ‘Odesa Maritime Academy’. Meanwhile, the State Hydrographic Service of Ukraine has been constantly looking for supplementary ways of its personnel training, such as visiting by our hydrographic surveyors various specialized courses under the auspices of the International Hydrographic Organization.

b. *Training received, needed, offered*

During the period from 26 June to 15 December 2017, two SHSU employees (1 cartographer and 1 hydrographic surveyor) have taken part at the theme-focused training course ‘Hydrography for Charting and Disaster Management (Internationally Accredited Category B)’, which took place in Japan and was organized by the Japan International Cooperation Agency (JICA).

From 4 September to 15 December 2017, our nautical cartographer has participated at the 9th training course in Marine Cartography and Data Assessment (Internationally Accredited Category B), which was organized by the IHO and funded by the Nippon Foundation and took place in the United Kingdom Hydrographic Office in Taunton.

In September 2018 one SHSU professional attended the Port and Shallow Water Survey Study Course hosted and organized by the Italian Navy Hydrographic Institute (IIM) in Genoa, Italy under the aegis of the IHO in accordance with the IHO Working Program on Capacity Building.

From 16 to 18 October 2018 the Cartographer Engineer from the SHSU Charting Branch ‘Ukrmorcartographia’ took part in the third Follow-Up Visit to Georgia as a member of the International Expert Group, in accordance with the IHO Working Program on Capacity Building for 2018.

The HYPACK training seminar on hydrographic survey software took place in Odesa in November 2018. The seminar was presented by the engineering staff of HYPACK Inc. in the National University ‘Odesa Maritime Academy’.

c. Status of national, bilateral, multilateral or regional development projects with hydrographic component (in progress, planned, under evaluation or study):

To date the SHSU has concluded the agreement on exchange of navigational information with the United Kingdom Hydrographic Office (UKHO). For the purpose of the ENC's distribution, the agreements have been signed with the RENC PRIMAR and UKHO.

d. Definition of bids to IHO CBC

The State Hydrographic Service of Ukraine is in want of training its personnel through participation at the following courses/workshops/seminars:

Short courses:

- Port and Shallow Water Survey Course;
- Hydrographic Data Management;
- Advanced ENC and ENC Production;
- ENC Validation;
- S-100 and Product Specifications;
- Cartographic Data Management;
- Law of the Sea Workshop.

Long courses:

- Category “B” Hydrographic Programme;
- Category “B” Nautical Cartography Programme.

8. Oceanographic Activities

a. General

The SHSU has commenced the multidisciplinary scientific research expeditions within the areas of the Black Sea and Sea of Azov and also along the inland waterways of Ukraine in collaboration with the institutions of the National Academy of Science of Ukraine, subject to the Scientific and Research Schedules.

In 2018 and 2019 four multidisciplinary expeditions in the north-western part of the Black Sea and in the Danube and Dnipro Rivers have been performed.

The SHSU uses a data buoy with the purpose of monitoring of meteorological and oceanographic findings aimed to safety of navigation support in approaches to the ports of Odesa, Chornomorsk and Yuzhnyi.

Measurements of the water hydrological structure have been taken at several sea ranges that are located in the north-western part of the Black Sea along the Ukraine's coastal line and in the area of the Danube mouth.

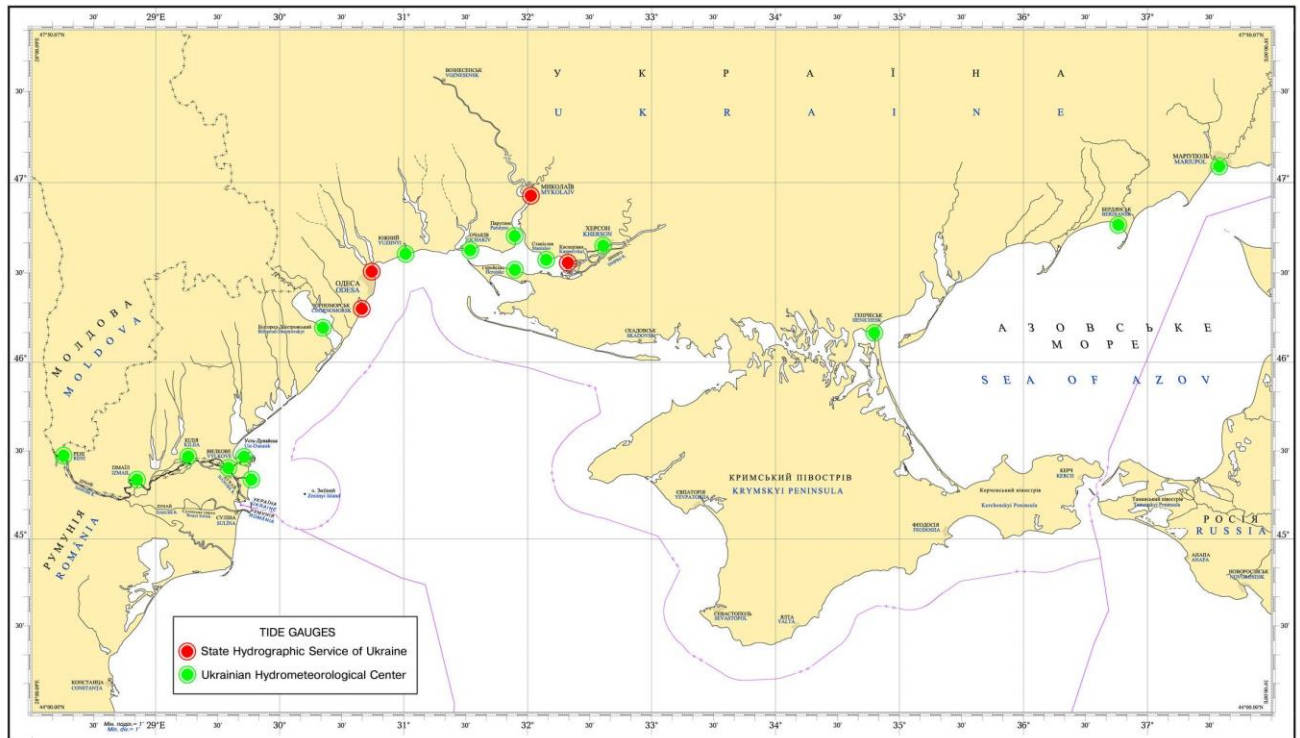
b. GEBCO/IBC's activities

NtR

c. Tide gauge network

SHSU uses hydrological probes, current gauges and data buoy for performance of oceanographic researches.

The automatic tide gauges designed for continuous monitoring of sea level on the coast of the Black Sea have been deployed and commissioned.



d. New equipment

NtR

e. Problems encountered

NtR

9. Other activities

a. Participation in IHO Working Groups

The employees of the State Hydrographic Service of Ukraine take part in the activities within MBSHC and BASWG.

b. Meteorological data collection

There is a formal agreement between the State Hydrographic Service of Ukraine and the Ukrainian Hydrometeorological Center of the State Emergency Service of Ukraine (UkrHMC) covering the issues of usage of meteorological and hydrological information for the Black and Azov Seas and inland waterways.

Using the data buoy, the SHSU collects meteorological data (air temperature, atmospheric pressure, wind velocity and direction, visibility) in approaches to the ports of Odesa, Chornomorsk and Yuzhnyi.

c. Geospatial studies

NtR

d. Disaster prevention

NtR

e. Environmental protection

NtR

f. Astronomical observations

NtR

g. Magnetic/Gravity surveys

NtR

h. MSDI Progress

NtR

i. Overlapping issues: national ENC's

The SHSU raises its concerns on the situation that has come about the ENC overlapping issues in the Black Seas and Sea of Azov.

The SHSU has considered the Report of the 9th meeting of the Worldwide ENC Database Working Group (WENDWG-9) held in February 2019 and share qualms expressed in the aforementioned report on the increasing number of overlapping in the Mediterranean and Black Seas region. The most extreme concerns are caused by the fact that the existing ENC overlapping cases may cause threatens to the safety of navigation in the region.

In pursuance of the IHO Resolution 1/2018 (IHO CL19/2018) as concerns defining the overlapped ENC data significant for the navigational safety within the area of its chart production and preventing to increase the aforementioned cases, the SHSU analyzes and provides with the corresponding information the Region F International Charting Coordinator (ICC).

Meanwhile, Ukraine stresses on its permanent unwavering commitment to the WEND Principles, as defined by the IHO Resolution 1/1997 as amended – “Principles of the Worldwide Electronic Navigational Chart Database (Wend) & its Annex (Guidance for Establishment of ENC Production Boundaries)”, as follows, –

“Guidance for the Establishment of ENC Production Boundaries

1 ENC duplication should be avoided. A single ENC producing country should exist in any given area.

2 A country is normally the ENC producing country for waters within its national jurisdiction.

3 Responsibility for the production of ENC can be delegated in whole or in part by a country to another country, which then becomes the producing country in the considered area.”

Among other things, in accordance with the IHO Publication S-65 – “ENC Production Guidance”, the hydrographic offices are responsible for digital data processing, distribution and its further updating for the waters within their national jurisdictions.

Meeting the requirements of the relevant IHO Publications, the SHSU produces ENCs in six Usage Bands for the area of responsibility of Ukraine in the Black Sea and Sea of Azov, which is limited to the continental shelf boundary line and exclusive economic zone (with Turkey and Romania) and boundary line as specified by the legal acts of Ukraine (with the Russian Federation).

Ukraine produces, distributes and updates its official ENCs through the facilitation of the Regional Electronic Navigational Chart Co-ordinating Centre (RENC) and other international partners for its jurisdiction zone only.

At the same time, Ukraine has never delegated its responsibility (either in full or in part) for ENC production for the zone of jurisdiction of Ukraine to any of foreign states.

Nevertheless, to date the Ukrainian ENCs have 38 overlapping cases with the ENCs produced by other countries, namely:

Russian Federation – 32

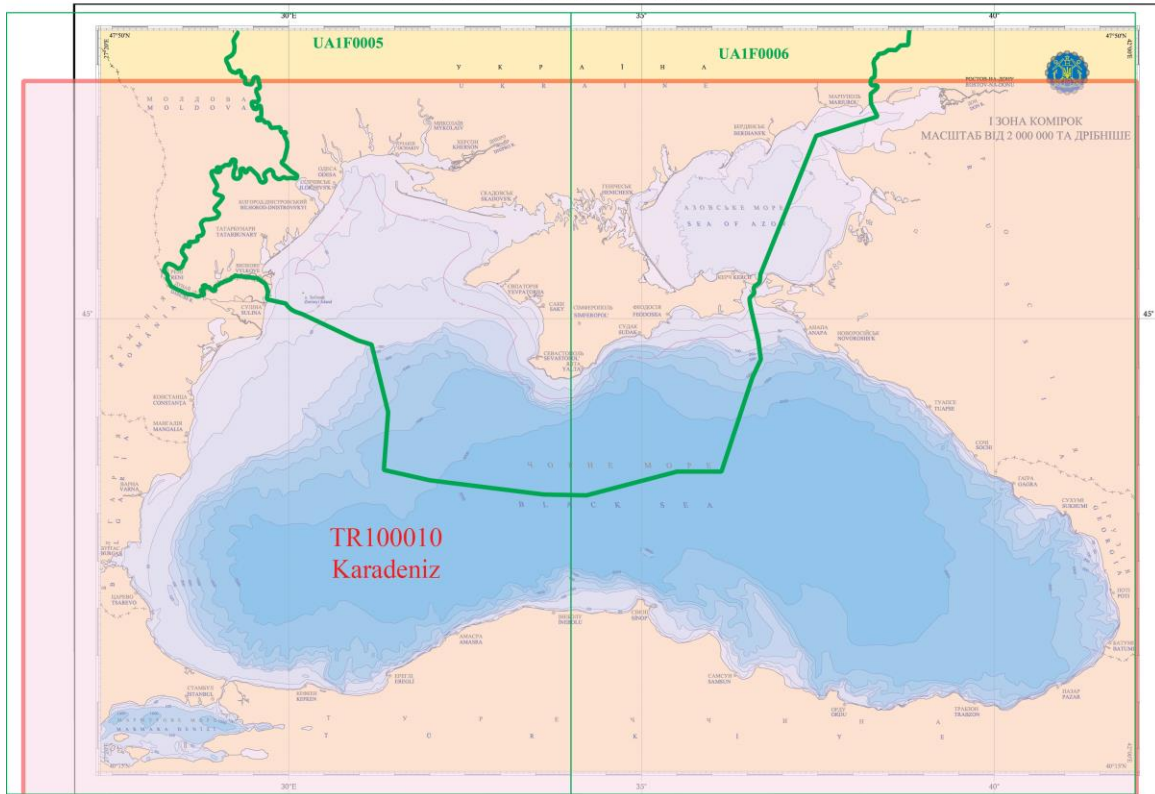
Turkey – 3

Romania – 2

Great Britain – 1

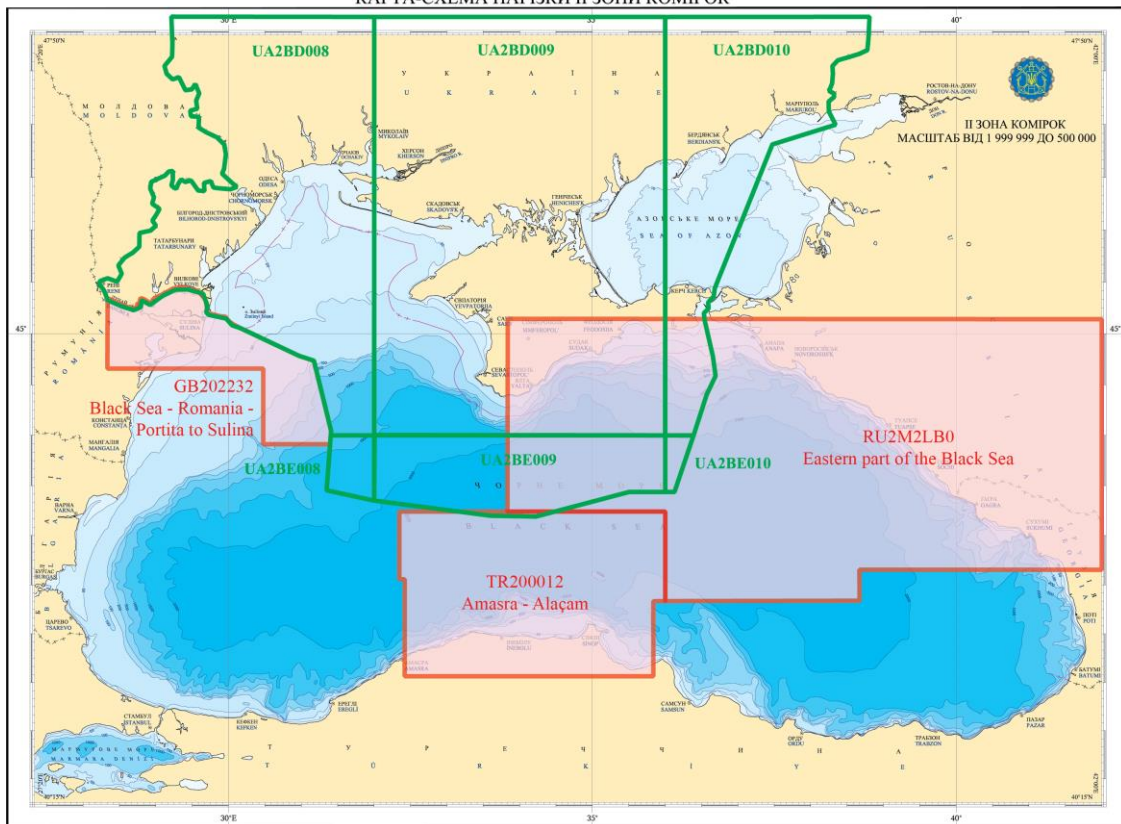
84 per cent of all overlappings for the zone of jurisdiction of Ukraine account for Russia. What is more, the whole number of the Ukrainian ENCs are 100 per cent overlapped.

КАРТА-СХЕМА НАРІЗКИ І ЗОНИ КОМІРОК



Ukrainian Usage Band 1 ENC's overlapping with Turkish ENC TR100010 Karadeniz

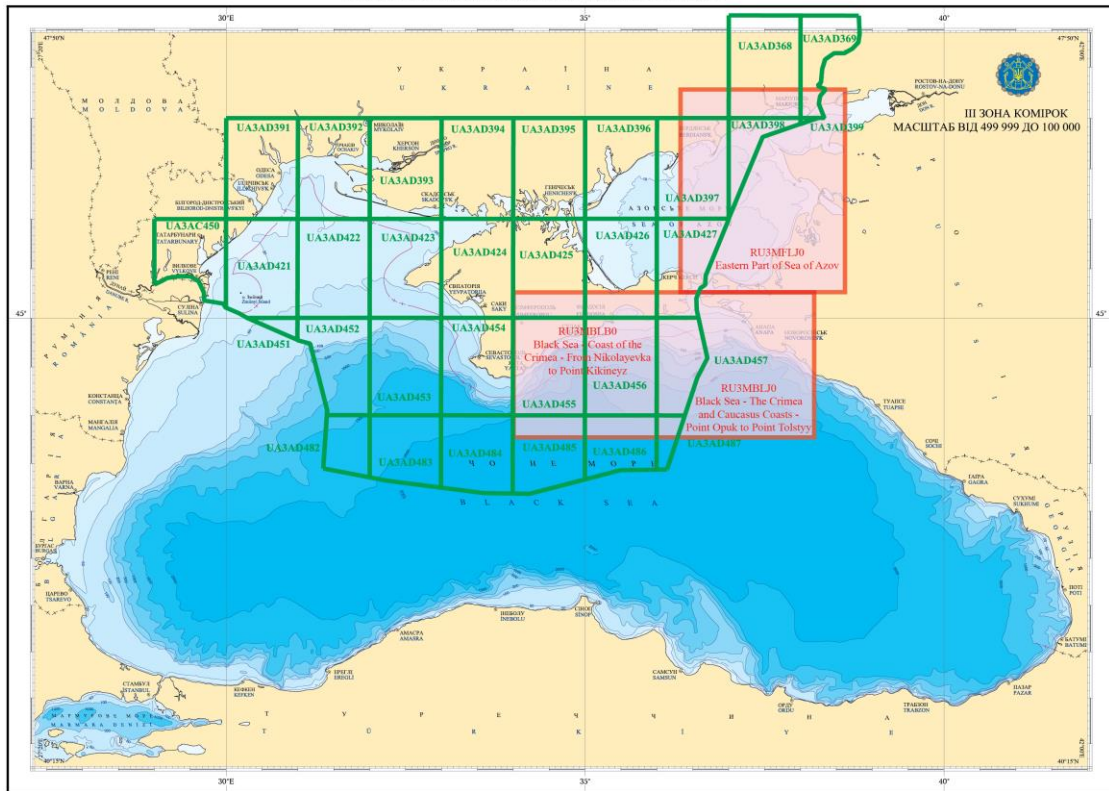
КАРТА-СХЕМА НАРІЗКИ ІІ ЗОНИ КОМІРОК



Ukrainian Usage Band 2 ENC's overlapping with
Russian ENC RU2M2LB0 - Eastern part of the Black Sea
Turkish ENC TR200012 - Amasra – Alaçam

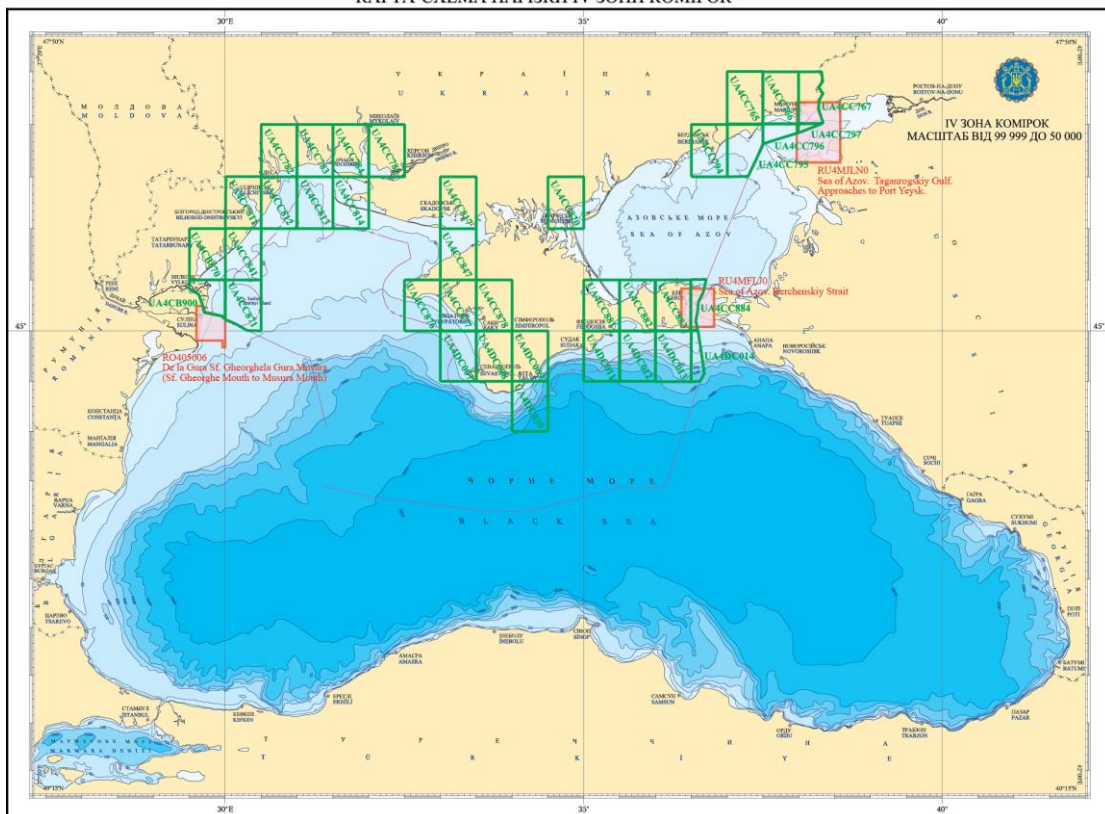
British ENC GB202232 - Black Sea - Romania - Portița to Sulina

КАРТА-СХЕМА НАРІЗКИ ІІІ ЗОНИ КОМІРОК

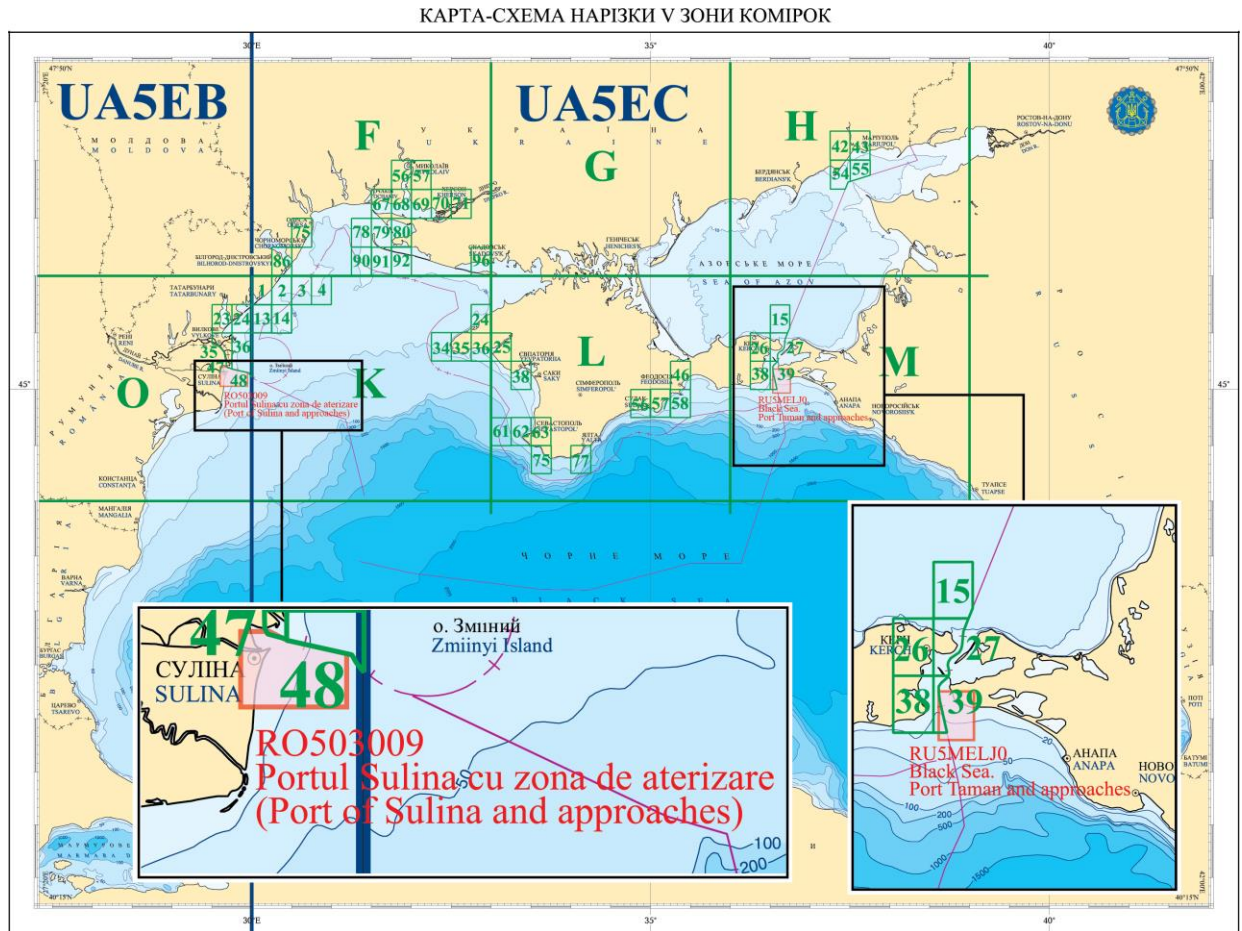


Ukrainian Usage Band 3 ENC's overlapping with Russian ENC's –
 RU3MBLJ0 - Black Sea - The Crimea and Caucasus Coasts - Point Opuk to Point Tolstyj
 RU3MBLB0 - Black Sea - Coast of the Crimea - From Nikolayevka to Point Kikineyz
 RU3MFLJ0 - Eastern Part of Sea of Azov

КАРТА-СХЕМА НАРІЗКИ ІV ЗОНИ КОМІРОК



Ukrainian Usage Band 4 ENC's overlapping with Russian ENC's –
 RU4MFLJ0 - Sea of Azov. Kerchenska Strait
 RU4MJLN0 - Sea of Azov. Taganrogskiy Gulf. Approaches to Port Yeysk
 And Romanian ENC RO405006 - De la Gură Sf. Gheorghe la Gură Musura (Sf. Gheorghe Mouth to Musura Mouth)



Ukrainian Usage Band 5 ENC's overlapping with
 Russian ENC RU5MELJ0 - Black Sea. Port Taman and approaches
 Romanian ENC RO503009 - Portul Sulina cu zona de aterizare (Port of Sulina and approaches)

At that, the situation of Ukrainian ENC's overlapping with Russian charts has become even more complicated following the illegal annexation of the Autonomous Republic of Crimea by the Russian Federation. Moreover, even before 2014 there had been no the slightest willingness to collaborate on the issue from the side of Russia. At this point, the bilateral negotiable solution of the issue is low-probable, taking into account the Crimea annexation and occupation, and also emanating aggression of the Russian Federation against Ukraine.

One among the possible steps to solving the matter could be a more effective pressure of the IHO on the RENCs aiming to more severe adherence both to the IHO recommendations and WEND Principles by the ENC printing nations, including the Guidance for the Establishment of ENC Production Boundaries, in particular as concerning the ENC production for waters within the zone of national jurisdiction.

Nevertheless, the SHSU, in the same way as before, urges the hydrographic offices of the Black and Mediterranean Seas region to give up the current practice of distribution under the

facilitation of the RENCs the ENC for waters within the jurisdiction zone of the third (foreign) countries (except for the cases, when such distribution is stipulated by the corresponding agreements) for the purpose of avoidance the ENCs overlapping and so, decreasing the risks for navigation in the Black Sea and Sea of Azov.

Ukraine does welcome and highly appreciates the decision of Italy to cut its ENC cell IT100360 to eliminate overlapping with Ukrainian ENC cells UA1F0005, UA1F0006. This decision of Italy is a very important step forward on the way towards helping the matters on the ENC overlapping in the Black Sea region, and all other MBSHC Member States should make it an example.

As to the overlaps between Ukrainian ENCs, it should be stated that Ukraine has implemented a system of ENC cells of the 1st, 2nd, 3rd, 4th and 5th usage bands (129 cells in total). Thus the implementation of ENC cells of the 5th (during 2019) and 6th (during 2020) usage bands will eliminate any overlapping between Ukrainian ENCs.

10. Conclusions

- 1 In 2016-2018 the State Hydrographic Service of Ukraine has successfully ensured the fulfillment of international obligations of Ukraine as pertaining to aids to navigation and, in particular, in development of aids to navigation system through implementation of new navigational, hydrographical and charting methods, techniques and technologies.
- 2 The high-priority tasks include hydrographic surveys in the sea areas of traffic separation schemes (TSS), recommended and actual vessel traffic routes, harbour waters and approaches to ports, heavy traffic areas and critical shallow waters.
- 3 The important condition for hydrographic surveys is a need in resurveying for the purposes of nautical charts re-edition and/or updating.
- 4 The SHSU ensures performance of hydrographic surveying along the inland waterways (the Dnipro, Danube and Southern Buh Rivers) for further update of the river navigational charts.
- 5 The SHSU perform hydrographic surveys for the Ukrainian state boundaries delimitation along the Danube River, pursuant to the Resolution of the Cabinet of Ministers of Ukraine.
- 6 At the same time, due to the Russian Federation's occupation and annexation of the part of Ukrainian territory since March 2014, the State Hydrographic Service of Ukraine has not had access to Ukraine's inland sea waters and territorial sea in the area of the Crimean Peninsula. According to the Law of Ukraine No. 1207-VII 'On Securing the Rights and Freedoms of Citizens and the Legal Regime on the Temporarily Occupied Territory of Ukraine' as of April 15, 2014, these waters have been defined as temporarily occupied territories.

The sea ports of Kerch, Sevastopol, Feodosiia, Yalta, Yevpatoriia will remain closed until the restoration of the constitutional order of Ukraine within the territory of the Autonomous Republic of Crimea and the City of Sevastopol in accordance with the Order of the Ministry of Infrastructure of Ukraine No 255 of June 16, 2014.

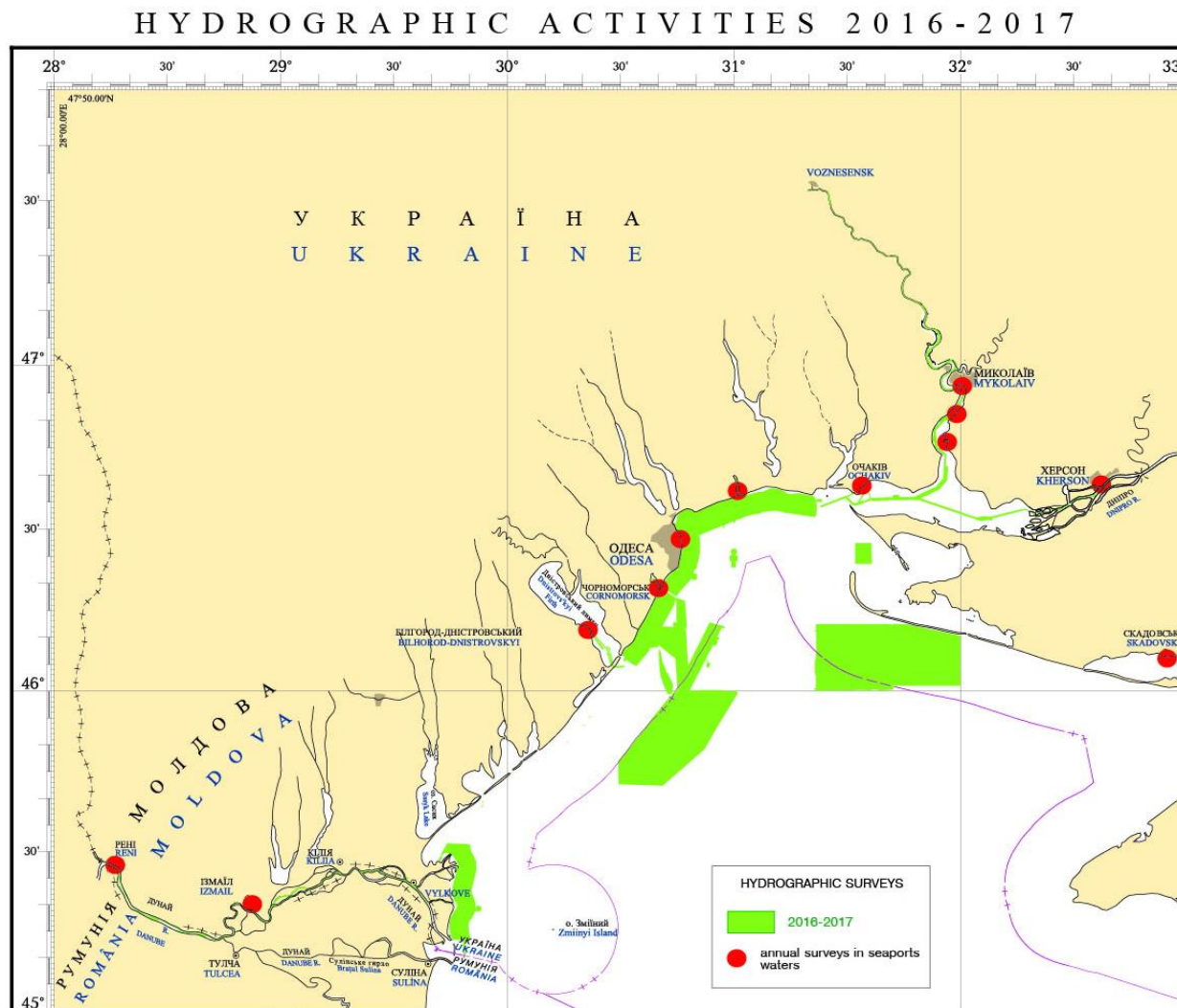
- 7 The SHSU urges the IHO Member States to abide by the United Nations General Assembly Resolution A/Res/73/263 of 22 December 2018 "Situation of Human Rights

in the Autonomous Republic of Crimea and the city of Sevastopol, Ukraine”, which ‘calls upon all international organizations and specialized agencies of the United Nations system, when referring to Crimea in their official documents, communications and publications, including with regard to statistical data of the Russian Federation, to refer to “the Autonomous Republic of Crimea and the city of Sevastopol, Ukraine, temporarily occupied by the Russian Federation”, and encourages all States and other international organizations to do the same’.

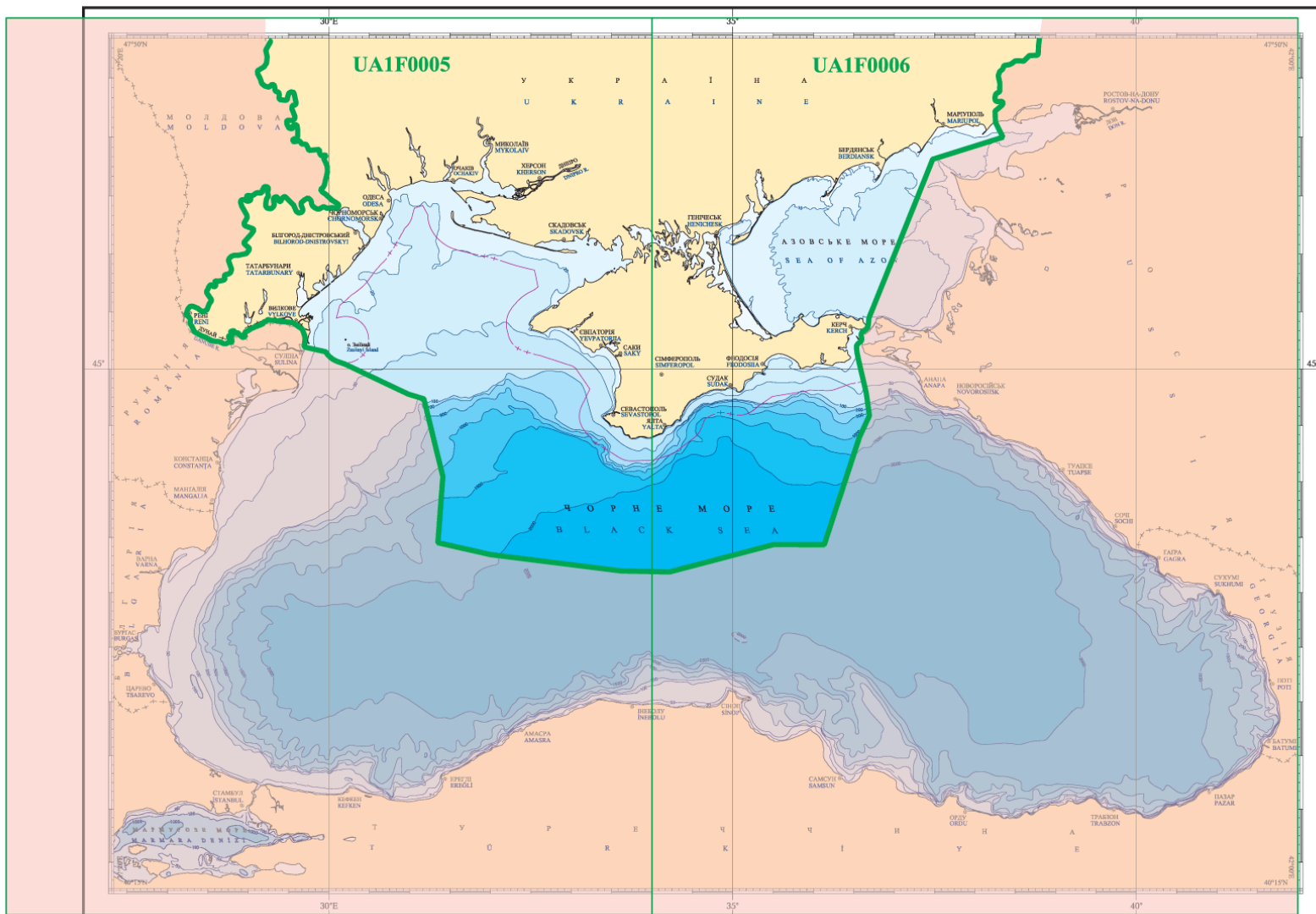
Date: 4 June 2019

Signature:

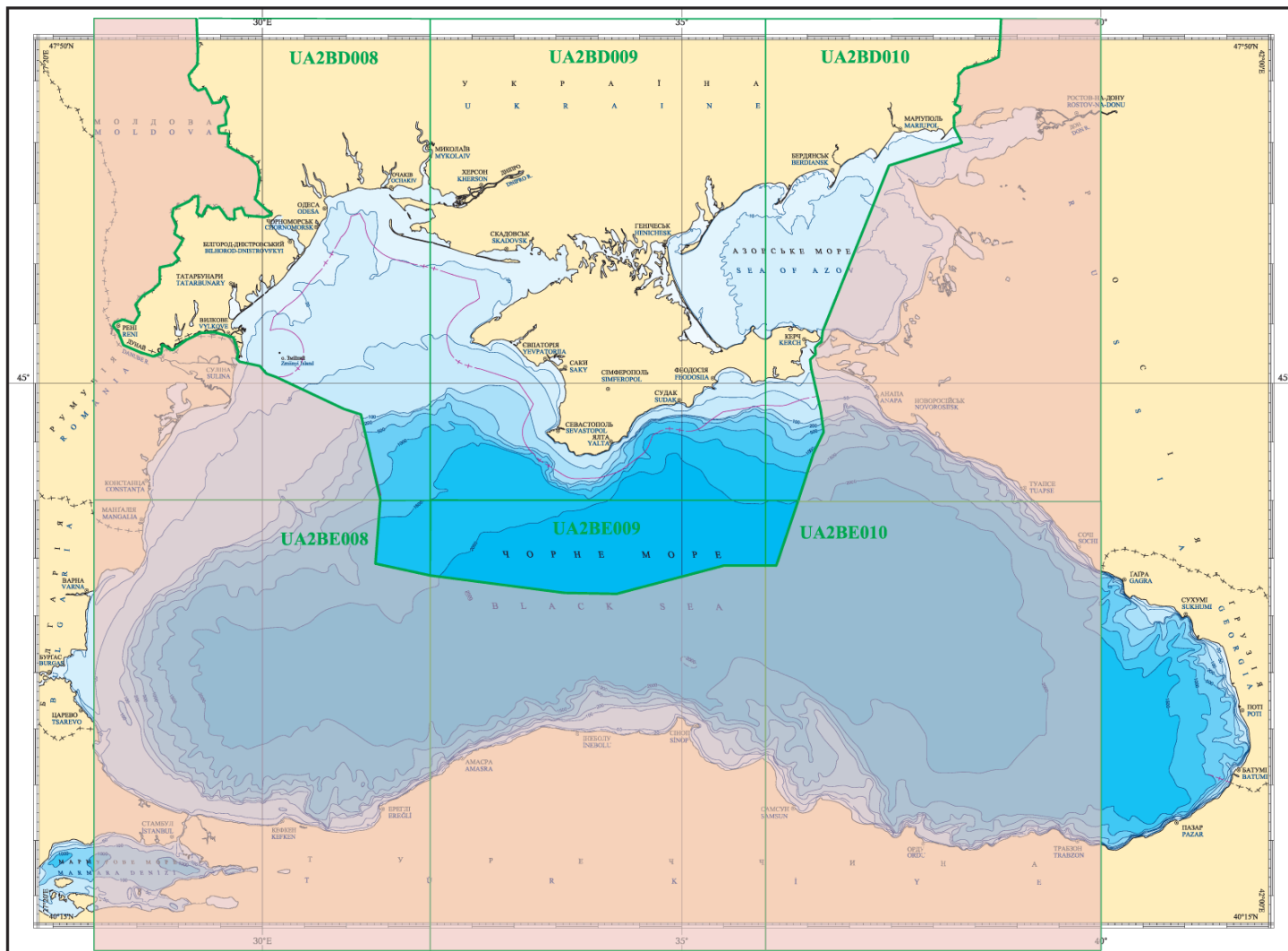
Annex A - Hydrographic Surveys in 2016-2017



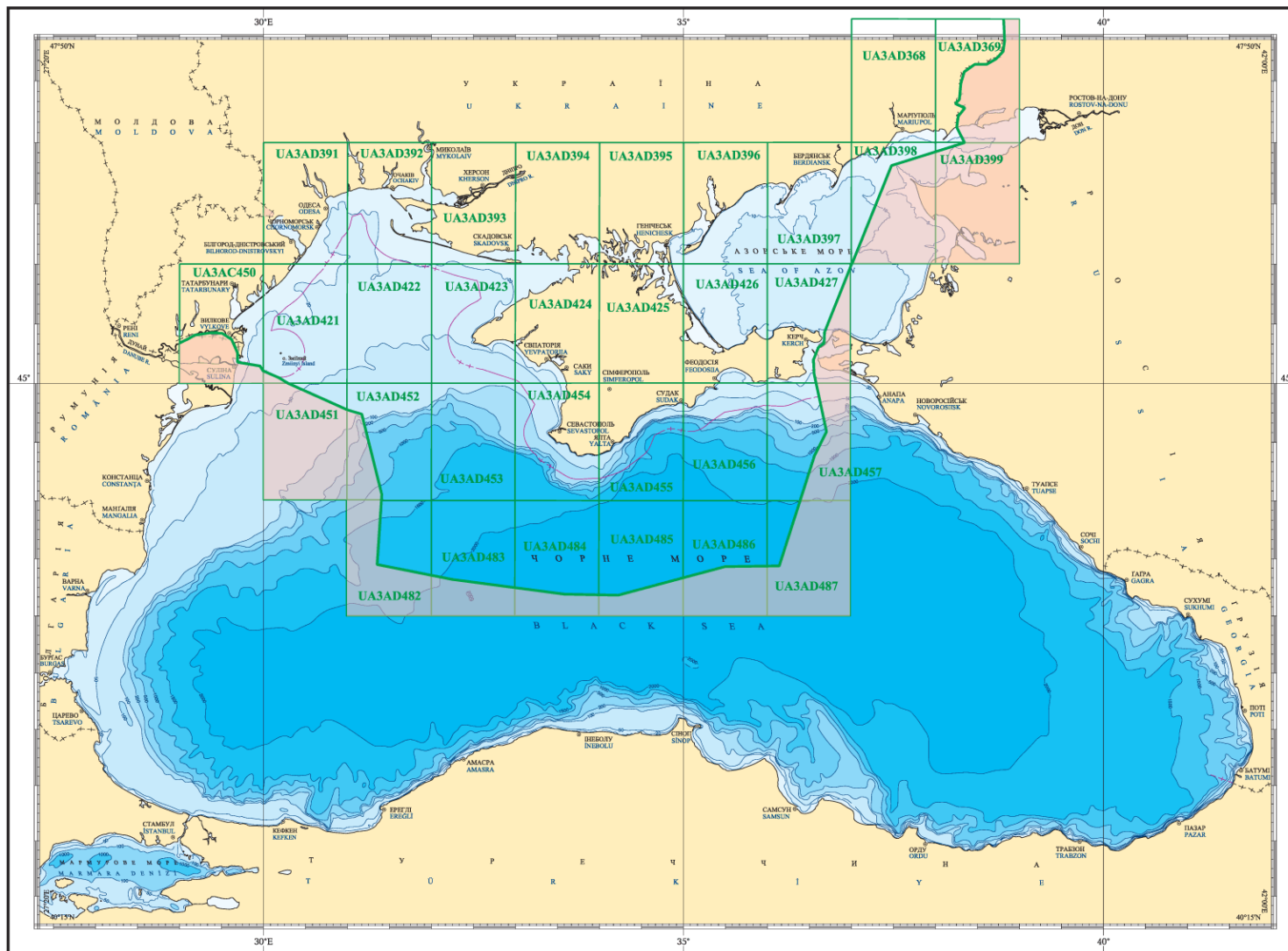
Usage Band 1 Coverage. Overview



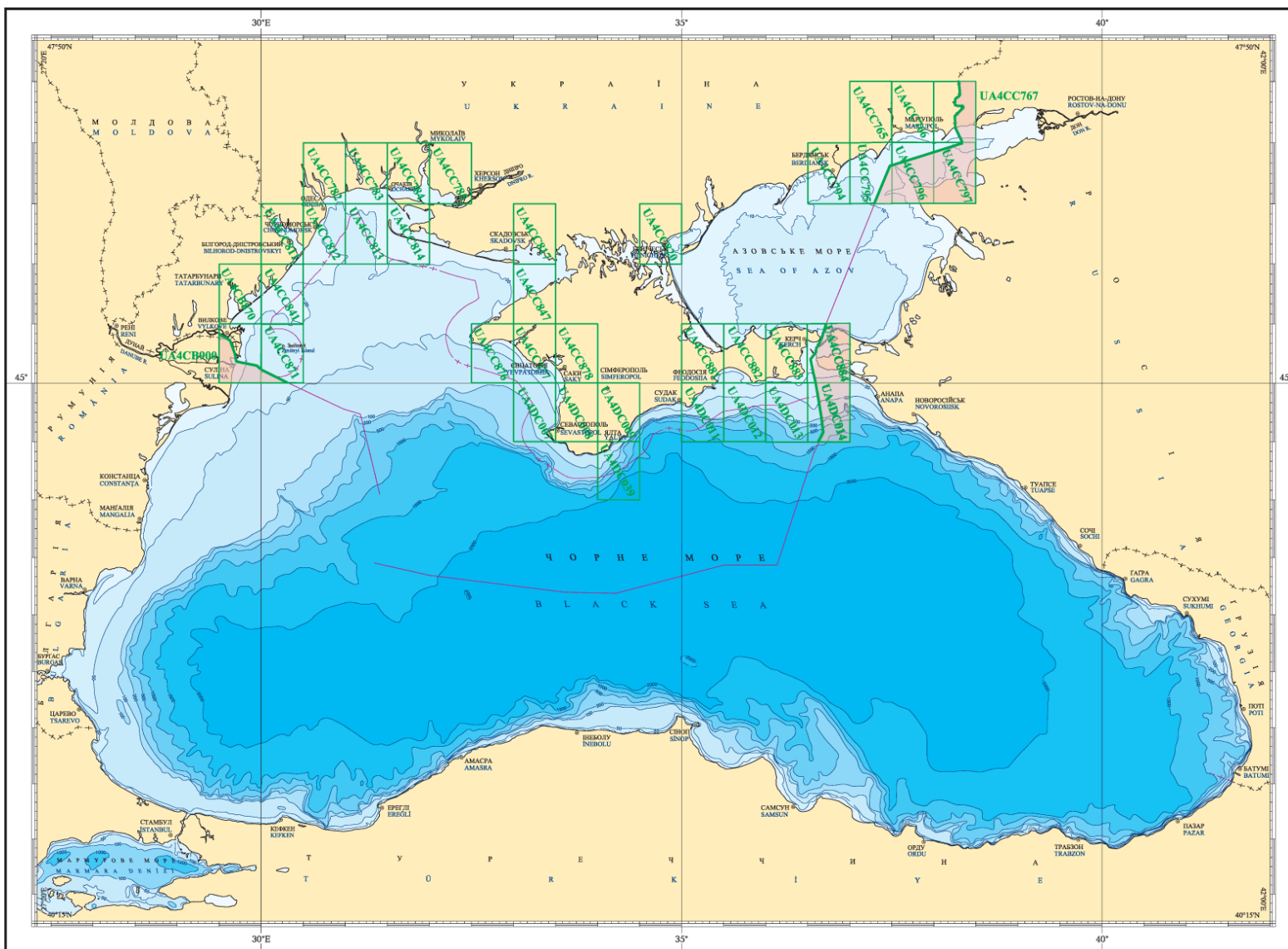
Usage Band 2 Coverage. General



Usage Band 3 Coverage. Coastal



Usage Band 4 Coverage. Approach



Usage Band 5 Coverage. Harbour

