



IHO File No S1/3074

CIRCULAR LETTER 16/2022
04 May 2022

UKRAINE'S REQUEST FOR ASSISTANCE

Reference : Letter from SHSU received 03 May 2022 - *Provision of Financial, Technical, Humanitarian or other Assistance and Support to Ukraine as the IHO Member State*

Dear Hydrographer,

1. The State Hydrographic Service of Ukraine (SHSU), a subordinate body of the State Service for Maritime, Inland Waterway Transport and Shipping of Ukraine, functioning as the national hydrographic service and the national lighthouse authority, has informed the IHO Secretariat about the critical situation with the provision of their services for national coastal waters and inland waterways.
2. The letter in reference enclosed, indicates that SHSU would appreciate any possible financial assistance, technical, humanitarian support, including educational and training opportunities for the SHSU staff, from the International Hydrographic Organization and its respected Member States.
3. The Annexes to the letter include the lists of urgent and priority needs of the State Hydrographic Service of Ukraine for the fastest restoration of its normal functioning and performance of its key functions at a permanently high level.
4. While the IHO Budget, being bound by Member States approval along the Annual Work Plan, does not offer options to cover the requested financial assistance, Member States are invited to consider how to respond to the requested support in the interest of safety of navigation and the preservation of the environment through continued conduct of hydrographic services under military conflict conditions. The Secretariat was informed by IALA that in response to SHSU's request similar action is being undertaken.

Yours sincerely,

Dr Mathias JONAS
Secretary-General

Encl. Correspondance from Ukraine (*in English only*)

ДЕРЖАВНА УСТАНОВА
«ДЕРЖГІДРОГРАФІЯ»



STATE HYDROGRAPHIC
SERVICE OF UKRAINE

просп. Ю. Гагаріна, 23, м. Київ, 02094, Україна

23, Gagarina Avenue, Kyiv 02094, Ukraine

tel: + 38 044 296 60 40, fax: +38 044 292 12 17, e-mail: office@hydro.gov.ua, web: hydro.gov.ua

Attn.: Dr Mathias JONAS
Secretary-General
International Hydrographic Organization (IHO)
4b quai Antoine 1er B.P. 445
MC 98011 MONACO CEDEX
E-mail: info@iho.int

Copy to: - Ministry of Foreign Affairs of Ukraine
- The State Service for Maritime, Inland Waterway Transport and
Shipping of Ukraine

Subject: Provision of Financial, Technical, Humanitarian or other
Assistance and Support to Ukraine as the IHO Member State

Dear Dr. Mathias JONAS,

As a result of the war waged by Russia, as an aggressor country and invader, against Ukraine on February 24, 2022 and also due to the Russian barbaric methods of warfare on land, air and sea, Ukraine suffers from significant human, economic and infrastructural losses on a daily basis. As of today, the direct combat operations are taking place in nine regions of our country, where the enterprises provided approximately 50 per cent of the Ukrainian GDP were located. Among other negative economic effects, Ukraine continues to redirect logistics and supply chains from sea to railway via the Eastern Europe due to piracy and terrorist activities of the Russian Federation in the maritime area of Ukraine, including the violation of rules of warfare by the Russian Navy. In particular, it concerns the deliberate use of drifting sea mines by the Russian Federation – and that turns these very mines into an indiscriminate destruction weapon within an uncertain and unlimited area of mining, that in its turn poses the threats to the safety of navigation and human life at sea in violation of numerous requirements and provisions of the international maritime law.



СИСТЕМА УПРАВЛІННЯ ЯКІСТЮ
СЕРТИФІКОВАНА НА
ВІДПОВІДНІСТЬ ДСТУ ISO 9001:2015
Регістром судноплавства України



СЕД АСКОД - ДУ «Держгідрографія»
№ документа: 464/16-1/22
Дата реєстрації: 29.04.2022 00:00:00
Сертифікат: 58E2D9E7F900307B040000007802340061EB9E00
Дійсний з: 20.01.2022 00:00:00
Дійсний до: 19.01.2024 23:59:59
Підписувач: Анісімов Андрій Євгенович
Мітка часу: 29.04.2022 21:29:41

The State Hydrographic Service of Ukraine (SHSU), a subordinate body of the State Service for Maritime, Inland Waterway Transport and Shipping of Ukraine, functions both as the national hydrographic service and the national lighthouse authority. Thus, the SHSU represents Ukraine both in the International Hydrographic Organization (IHO) and the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) respectively.

First of all, herewith the SHSU deems it necessary to inform the Secretariat of the current inability of Ukraine to ensure timely payment of the annual membership contribution of our state to the budget of the organization for 2022, at least until the end of the military situation in Ukraine, which was declared on February 24, 2022 and goes on up to the moment.

Meanwhile, as a long-term member of the Organization devoted to its mission and goals and an active participant of numerous international events under the aegis of the IHO, the SHSU currently needs assistance and addresses to the Secretariat of the International Hydrographic Organization and national hydrographic services of the IHO Member States as to its long-standing partners and friends with a request for comprehensive support, which would help the SHSU to preserve, first of all, its human resource that consists of highly qualified professionals, as well as production capacities, hydraulic structures, specialized fleet, equipment, including shipborne, etc., at the SHSU head office in Kyiv, and also in its regional branches along the coastline and navigable inland waterways. Herewith we ask you to consider the possibility of issuing an IHO Circular Letter to promulgate the request of Ukraine among as wide range of the IHO Member States as possible.

The SHSU would also appreciate any possible financial assistance (to ensure the current salary payments due to the total loss of income by the SHSU), technical, humanitarian or other kind of assistance or support, including educational and training capabilities for the SHSU staff, from the side of the International Hydrographic Organization and its respected Member States.

Anyway, we enclose to this letter the lists of urgent and priority needs of the State Hydrographic Service of Ukraine for the fastest restoration of its normal functioning and so, performance of its key functions at the permanently high level.

SHSU contact person / coordinator for assistance and support issues: Miss Alla MIAGKOVA, Head of the International Relations Division of the Department for International Relations and Communications with Public Authorities of the SHSU, e-mail: miagkova.a@hydro.gov.ua, miagkova@yahoo.com, tel. +380503440108.

Annexes: 7 sheets

Best regards,

Andrii ANISIMOV
Acting Head of the State Hydrographic Service of Ukraine

List of needs in hardware equipment and software tools for uninterrupted functioning of the State Hydrographic Service of Ukraine (SHSU) under conditions of martial law and in the post-war period estimated to be received as the international designated assistance and support

SHSU Branches Needs in Hydrographic (Surveying) Equipment

Item no.	Hardware Equipment and Software Tools	Quantity	Need Justification
1	Multibeam echosounder, including, dual-head multibeam system, inertial measurement unit (IMU) including 2 x GPS antennas, acoustic velocity sensor, acoustic velocity profile recorder, data collection and processing software, PC or laptop, any other components required for proper functioning of the multibeam echosounder system (Manufactured by RESON or SIMRAD)	3 sets	Duly fulfillment of the SHSU international obligations concerning hydrographic surveys in the Black Sea and the Sea of Azov for further production, update and issuing of official nautical charts and special publications for mariners. Replacement of the outmoded, obsolescent and physically outworn equipment, as well as the equipment currently out of order.
2	Singlebeam hydrographic echosounder (Manufactured by RESON or SIMRAD) GNSS receiver (Manufactured by Trimble)	2 2	
3	Marine magnetometer	2	Magnetic field strength measurement and iron-containing objects detection.
4	Sea waves characteristics automatic measurement equipment (for example, mounted on data buoys)	3	Oceanographic research performance.
5	HYPACK software update service (update valid until end of 2023)	19 license keys	Duly fulfillment of the SHSU international obligations concerning hydrographic surveys in the maritime area of responsibility of Ukraine in the Black Sea and the Sea of Azov and along the inland (river) waterways.
6	IALA approved Waterway Risk Assessment Program (IWRAP MK II) (licensed)	2 license keys	Vessel traffic intensity estimation in accordance with the Safety of Life at Sea Convention (SOLAS-74), Chapter V, Regulation 13, and vessel traffic separation scheme review and effectiveness assessment in accordance with the National Maritime Administration and the Minister of Infrastructure of Ukraine special orders.
7	Facilitation in the SHSU staff training in the field of hydrography (meeting the requirements of internationally		The SHSU staff training in the field of sea hydrography focusing on modern technologies, cartographic and

	recognized Categories A and B).		hydrographic data management, modern methods and technologies of oceanographic data collection and processing.
8	Acoustic velocity sensor ultraSV Valeport (to be used together with the Reson SeaBat T20 multibeam echosounder)	1 set	Replacement of the equipment currently out of order.
9	Internal cable – connector on the buoy surface, cables inside the buoy (Mast kebel på lokk-insert (101211). Mast cable – external (Mastcable SW-midi m/visibility (150311). http://www.oceanor.com	2	Repair of the SW Midi-185 (data) data buoy. The specified components should be purchased from the Company-producer of the SW Midi-185 (data) data buoy, namely, the Fugro OCEANOR AS (Norway). http://www.oceanor.com
10	Lithium Battery Units with Output Voltage Controller (64 pcs in each unit) http://www.oceanor.com	3 units	http://www.oceanor.com
11	PowerSafe 12V62f lead acid batteries, charged from solar cells for hours of darkness usage	4 items	
12	Aquadopp current meter - 2 MHz (Nortec (Norway)	1 set	Repair of the SW Midi-185 (data) data buoy.

Odesa Branch of the SHSU Needs in Navigation Equipment

1	LogixPlus LP6-12 rechargeable batteries (LPM 6V12Ah)	110 items	Floating AtoN functioning restoration during the post-war period, old batteries replacement in the Photon-3-M and LB-GSM-1 light-optical devices.
2	SUNLIGHT SP12-200, 12V 200 Ahr rechargeable batteries	6 items	The Chornomorskyi Lighthouse light-optical device uninterrupted operation (after changing the mode of this lighthouse into the lighted one under the peace time conditions). Old rechargeable batteries have lost their capacity because of long exploitation period and are not suitable for further use.
3	LR20 Duracell D Basic 1.5V Alkaline type batteries (Manufactured in Belgium)	20,000 items	Galvanic power elements production for AtoN. The power elements reserves in the Odesa Branch of the SHSU have been exhausted. The purchase planned for 2022 has not taken place.
4	The Zmiinyi Lighthouse autonomous power supply.	1 item	The Zmiinyi Lighthouse light-optical device, navigation equipment and household appliances power supply. The system consists of photovoltaic modules, rechargeable batteries, battery charge controllers, voltage converters (inverters), and emergency diesel generator set. System power – 10 kW.

5	BOSCH T5 080 rechargeable batteries	12 items	For the vessels operated by the Branch, namely, O. Solodunov, Kapitan Cheremnykh and Shliakhovyk – in case of emergency generators dropping, to provide power supply for emergency lighting network, radio and telephone, signaling, emergency power supply for the remote control system of the main diesel engines, steering and signal light stations; the batteries are also used for diesel engines starting (main engine, auxiliary engine and diesel generation set).
6	BOSCH T4 076 rechargeable batteries	12 items	
7	12 V-190 AHr rechargeable batteries	9 items	The Budaky, Shahany and Karbush Lighthouses power supply to support uninterrupted operation of light-optical devices and navigation equipment.
8	Hydrographic (surveying) craft	1 item	To expand hydrographic and oceanographic researches performance area. Dimensions: - length – 16-19 m; - width – 5-6 m.
9	Hydrographic (surveying) and tender (buoy) vessel	1 item	The Odesa Branch of the SHSU supports safety of navigation in the north-western part of the Black Sea, which includes the largest sea ports of Ukraine, such as, Pivdennyi, Odesa, Chornomorsk, Bilhorod-Dnistrovskiy. At present, the only vessel of the same project (Kapitan Cheremnykh) is operated for the floating AtoN maintenance in all mentioned sea ports. For duly performance of the Branch's tasks on the AtoNs maintenance, more rapid response to AtoNs failures and their timely fixing. Dimensions: - length – 25-30 m; - width – 7-10 m; - boom lifting capacity – 5 tons.

Mykolaiv Branch of the SHSU Needs in Navigation Equipment

1	LR-20 galvanic elements	50,000 items	Enerhiia-type power supply sources production
2	S-2-type steel buoy	10 items	
3	C-3-type steel buoy	10 items	
4	Black plastic cone buoy	5 items	
5	БМБЛ-У*-type steel buoy (*sea large ice buoy)	5 items	

6	Sabik VLB-5X-SA or equivalent light-optical device with remote control and GPS-synchronization	100 items	AtoN modernization in accordance with modern trends (outdated Luch-type devices replacement)
7	LightGuard monitoring and remote control innovative software (Manufactured by Sabik Marine)	3 items	Modernized AtoN remote monitoring and operational control with further synchronization of their actual GPS coordinates with electronic charts in accordance with modern trends.

SHSU Charting Branch Ukrmorcartographia

Item no.	Hardware Equipment and Software Tools	Quantity	Need Justification
1	Teledyne CARIS Marine Cartography Software including: - CARIS LOTS; - CARIS HPD publication module; - CARIS S-57 Composer - CARIS Paper Chart Composer		Duly fulfillment of the SHSU international obligations concerning production, update and publication of sea and inland navigational charts, special publications for sailing, in particular recent generation electronic navigation charts (ENC) production and new products development in accordance with requirements of the new IHO S-100 data standard.
2	Facilitation in the SHSU staff training in the field of hydrography and nautical cartography (meeting the requirements of internationally recognized Categories A and B).		The SHSU staff training in the field of nautical cartography focusing on modern technologies, cartographic and hydrographic data management, new electronic products / publications development and production in accordance with the IHO S-100 standard requirements.

List of needs in hardware equipment and software tools for uninterrupted operation of the State Hydrographic Service of Ukraine (SHSU) under conditions of martial law and in the post-war period

Item No.	Hardware Equipment and Software Tools	Quantity	Need Justification
1	Server types: Dell PowerEdge R740xd 2xXeon Gold 5218R, 8x16GB, PERC H740P(with Battery) 8x8TB SAS 10k, BOSS-S1 2x512Gb, iDRAC9Ent, 2x10GbE BASE-T, 2xPS 900/750W.	10	The SHSU main functions performance, such as, safety of navigation support, the NAVTEX and AIS AtoN monitoring systems operation, as well as all auxiliary systems – such as, electronic documents workflow system, accounting systems, e-mail etc., both in the head office and branches.
2	Synology RS3618xs type disk storage solutions with 12 (twelve) Seagate IronWolf Pro 8 TB HDDs.	10	Critical data storage and backups – both in the head office and branches.
3	Fortinet FortiGate 500E type firewall with all required licenses.	1	Head office local computer network security provision and remote access and workflow management.
4	Fortinet FortiGate 200E type firewall with all required licenses.	4	The SHSU branches local computer networks security provision and remote access and workflow management.
5	Fortinet FS-1024D type network core.	5	Server equipment and internal local computer networks switching provision in the SHSU main office and branches.
6	PoE-enabled Fortinet FS-248E-PoE type network switches.	10	Internal local computer networks switching provision in the SHSU main office and branches.
7	PoE-enabled Fortinet FS-224E-PoE type network switches.	20	Internal local computer networks switching provision in the SHSU main office and branches.
8	APC Smart-UPS 3000VA LCD 2U type uninterruptible power supply.	10	Uninterrupted power supply provision to the server equipment in the head office and branches.
9	Laptop type: 15,6”IPS, Intel Core i5-11400, RAM 8 GB, SSD 256 GB M.2 PCIe NVMe, TPM2.0, Windows 10 Pro.	290	Remote access and workflow provision for the SHSU head office and branches staff.
10	Secured laptop type: Dell Latitude 7424 Rugged Extreme Laptop (Intel Core i7-8650U,16 GB DDR4,SSD 256 GB, M.2,	10	Remote access and workflow provision for the SHSU head office and branches staff onboard or in field.

	PCIe NVMe, Self-Encrypting, Class 40, Windows 10 Pro (Windows 11 Pro license included).		
11	VMware vSphere 7 Enterprise Plus for 1 processor with production support/subscription for VMware vSphere 7 Enterprise Plus for 1 processor for 3 years (licence key format:).	24	Virtual environment development for information systems and servers deployment in the head office and branches.
12	VMware vCenter Server 7 Enterprise for vSphere 7 (Per Instance) (licence key format).	1	Virtual environment management in the head office and branches.
13	Microsoft Windows Server DataCenter 2019 16 CoreLic (licence key format).	25	Installation on the head office and branches servers in order to provide the NAVTEX and AIS AtoN monitoring systems operation, as well as all auxiliary systems, such as, electronic document workflow system, accounting systems, e-mail etc., both in the head office and the branches.
14	Microsoft Office 2019 Home and Business Multilang (licence key format).	290	Remote access and workflow provision for the SHSU head office and branches staff.

List of needs in hardware equipment and software tools for uninterrupted functioning of Military Unit A1940 estimated to be received as the international designated assistance and support

Item no.	Hardware Equipment and Software Tools	Quantity	Need Justification
1	Multibeam echosounder system, including, SeaBat T51-R multibeam echosounder, inertial measurement system (IMU) including 2 x GPS antennas, acoustic velocity sensor, acoustic velocity profile recorder, data collection and processing software, PC or laptop, any other components required for proper functioning of the multibeam echosounder system	1 set	Duly performance of military unit functions concerning hydrographic surveying of the Black Sea and the Sea of Azov for the needs of the Ukrainian Naval Forces.
2	HYPACK office/HYSWEEP office software	1 license key	Processing the data obtained by the multibeam echosounder system, as well as monitoring data obtained in real-time mode, in absence of the manufacturer's software for the multibeam echosounder.
3	Inverter power generator	1 set	Providing the system with electric power.
4	KR2000-rm uninterrupted power supply	1 set	Uninterrupted power supply due to system high sensitivity.
5	Hydrographic (surveying) craft	1 item	Duly and full-fledged functioning of the military unit. - length – 7 m - 11 m.
6	FORD TRANSIT (or alike) cargo-passenger minivan	1 item	Staff and equipment transportation
7	Campbell Scientific MetSENS 500 weather station	15 items	Meteorological parameters real-time measurement and transmission