IHO Capacity Building Programme

The State of
Hydrography and Nautical Charting
in Georgia

22-24 April 2014

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Contents

Abbreviations

BASWG	Black and Azov Seas Working Group
CB	Capacity Building
CBSC	Capacity Building Sub-Committee
ENC	Electronic Navigational Chart
IHB	International Hydrographic Bureau
IHO	International Hydrographic Organization
IMO	International Maritime Organization
INT	International
MBSHC	Mediterranean and BlackSeas Hydrographic Commission
MSI	Maritime Safety Information
MTA	Maritime Transport Agency
NHC	National Hydrographic Committee
NtMs	Notice to Mariners
RHC	Regional Hydrographic Commission
SHSG	State Hydrographic Service of Georgia
SOLAS	[United Nations] Convention for the Safety of Life at Sea
UN	United Nations
UNCLOS	United Nations Convention on Law of the Sea
WMO	World Meteorological Organization
WWNWS	Worldwide Navigation Warning Service

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Executive Summary

A proposal for a technical visit to Georgia was approved by 11th meeting of the Capacity Building Sub-Committee (CBSC) to assess the current status of nautical charting and hydrography in the country and to provide advice to the government and to stakeholders on a way ahead. At the last 18thMediterranean and Black Seas Hydrographic Commission (MBSHC) the visiting team was defined to be comprised of Turkey (Lead), Russian Federation and Ukraine, but the visit was paid by the representatives from Turkey and Ukraine, as the representative of Russian Federation did not participate. The first Technical Visit to Georgia was paid in 2010 under the IHO Capacity Building (CB) Program. This visit was to follow up the recommendations made in the first visit in 2010 and for further recommendations.

Georgia is a member of International Maritime Organization (IMO) and a signatory to the Safety of Life at Sea Convention (SOLAS). In general there is awareness in Georgia on the obligations of Regulations 4 and 9 of SOLAS Chapter V, which places an obligation on contracting Governments to arrange for the collection, compilation, dissemination and maintenance of all information required for safe navigation. Therefore, Georgia is required to collect and publish Maritime Safety Information (MSI), arrange for hydrographic surveys to be undertaken and nautical charts and publications to be compiled and published and for these documents to be maintained.

Georgia is not a member of the IHO, but applied to become a Member State of the IHO in 2012. According to the information provided by the External Relations Department of the Government of Monaco, at the end of 2013 Georgia has received 38 approvals out of a required 52. Nevertheless, Georgia is an Associate Member of the Mediterranean and Black Seas Hydrographic Commission (MBSHC) and is participating in its meetings from 2009 and in meetings of the Black and Azov Seas Working Group (BASWG) which is subordinate body of the MBSHC, since 2008 on a permanent basis.

The Government of Georgia, through its various maritime authorities, is aware of the current status of hydrography and nautical charting in the country and the benefits of modern hydrography to economic growth, safety of navigation and protection of the marine environment. Awareness was raised at the administrative and working level by the visit of the IHO Technical Team.

Regarding the performance of Georgia's international obligations arising from SOLAS, State Hydrographic Service of Georgia (SHSG) assumed main responsibility for national hydrography and nautical cartography development. SHSG reports directly to the Ministry of Economic and Sustainable Development of Georgia. The IHO Technical Team considers that SHSG staff in all levels is fully aware of the national responsibilities and takes intense pride in its successful delivery. However, SHSG does not have Cat A/B hydrographic surveyor nor nautical cartographer.

Georgia has currently capability for hydrographic surveying and paper chart/publication and Electronic Navigational Chart (ENC) production. They produce paper charts in Georgian waters, but Russian Federation and Turkey are responsible for the International (INT) charts of the area. The cartographic production is kept up-to-date but the underlying surveys are generally old. A comprehensive chart updating programme is required so to contribute to a modern maritime and port infrastructure and to allow Georgia to fulfil its international obligations under the SOLAS Convention (except waters of occupied Abkhazia, where there is no access for SHSG).

SHS is also responsible for MSI. Currently there is no national/international NAVTEX Service in Georgia but MSI service through NAVAREA III Coordinator for international shipping is established. Coastal Warnings are disseminated via radio through voice communication.

It was evident to the visiting team that Georgia already possesses hydrographic/charting capability, awareness and willingness and there has been many developments and improvements, such as application to IHO membership, ENC production, MSI provision through NAVAREA III Coordinator and procurement of the new equipment and the tools to follow up the recommendations made in the technical visit paid in 2010 under the IHO CB program that will help Georgia to build a solid maritime infrastructure to support the safety of navigation and the economic growth.

REPORT

1. Introduction

The International Hydrographic Organization (IHO) is an intergovernmental international organization, currently comprising of 82 Member States. The IHO seeks to ensure that all States with coastlines and maritime interests provide adequate and timely hydrographic data, products and services, thereby advancing maritime safety and efficiency in support of the protection and sustainable use of the marine environment. The United Nations recognizes the IHO as the competent authority for hydrography and nautical charting. The International Hydrographic Bureau (IHB), based in Monaco, is the secretariat of the IHO. Georgia is not currently a member of IHO.

The IHO has encouraged the establishment of Regional Hydrographic Commissions (RHCs) to coordinate hydrographic activity and cooperation at the regional level. The RHCs are made up predominantly of IHO Member States; however, other regional States also participate as Associate Members. RHCs are not formal bodies of the IHO, but work in close cooperation with the Organization to help further achieve its goals and programs. RHCs meet at regular intervals to solve mutual hydrographic and chart production issues, plan joint survey operations, and resolve schemes for INT Chart coverage in their regions. Non-Member States may participate as RHC Associate Members or Observer as it is currently the case of Georgia in the MBSHC.

This report has been written with the express intention of assisting the Government of Georgia to strengthen and develop its hydrographic/cartographic capability to meet its current and future needs and its international maritime obligations under the UN Convention for the Safety of Life at Sea (SOLAS). The report comprises a description of the visit, major conclusions and a number of recommended actions for consideration by the relevant organizations.

2. IHO Technical Visit

A proposal for a technical visit to Georgia was approved by CBSC in its 11th meeting to assess the current status of nautical charting and hydrography in the country and to follow up the recommendations made after the first technical visit to Georgia in 2010 under the IHO CB program, and to provide further advice to the government and to stakeholders on a way ahead. In the 18th meeting of the Mediterranean and Black Seas Hydrographic Commission (MBSHC) the visiting team was defined to be comprised of Turkey (Lead), Russian Federation and Ukraine, but the visit was paid by the representatives from Turkey and Ukraine, as the representative of Russian Federation did not participate.

LCDR.Eşref GÜNSAY (lead) from Turkey and Mr Iurii SMIRNOV from Ukraine carried out a hydrographic awareness and technical assessment and follow up visit to Georgia between 22 and 24 April 2014.

The IHO Team first visited SHSG in Poti and the main meeting was held at the SHSG. The meetings with the staff of the SHSG enabled the IHO Technical Team to assess the current status of the hydrographic, cartographic activities in Georgia.

This resulting report was written with the express intention of assisting the Government of Georgia to develop and strengthen its hydrographic capability to meet its current and future needs and also its international maritime obligations under the SOLAS Convention. The report comprises a description of the visit, a brief assessment of the current situation and an analysis of the nation's hydrographic needs, major conclusions and a number of recommended actions for consideration by the relevant authorities.

Annex A contains the Technical Visit Programme jointly prepared for the visit by the visiting team and the SHSG a general description of Georgia and its geography and infrastructure. **Annex B** to this report presents the points of contact of the organizations. **Annex C** to this report presents detailed information about Georgia including the dependence on hydrography and nautical charting of Georgian waters.

3. Assessment of the Previous Technical Visit

The previous (the first) technical visit to Georgia under the IHO CB program was paid in 2010. The report of that visit can be found at https://www.iho.int/mtg_docs/CB/Assessment_Reports.htm. Recommendations that were made following previous technical visit to Georgia are key headings below with an assessment of progress made with each item:

- **Participate fully in the activities of the MBSHC and BASWG:** After the technical visit in 2010 Georgia participated in all MBSHC and BASWG meetings (17th meeting of MBSHC in Athens and 18th meeting of MBSHC in Istanbul and 11th meeting of BASWG in Monaco)

- **Apply for membership of the IHO as this will allow them to achieve the maximum benefit from the IHO Capacity Building programme:** Georgia is applied for IHO membership in 2012.

- **Consider the formation of a National Hydrographic Committee to oversee hydrographic provision:** No formal Committee was established in Georgia but currently the Committee's role has been covered by the Ministry of Economic and Sustainable Development of Georgia. The Ministry supervises the operation and activities of SHSG (as the authority responsible for collection, systematization, processing and dissemination of hydrographic data in one form or another) and other main services and agencies of the country, which are interested in obtaining of hydrographic data.

- **Continue with equipment purchase and training as proposed:** SHSG focused extensively on upgrading and procurement of new equipment for hydrographic surveying from 2011. The details of the new equipment procured can be found under Article 4 of this report.

- **Seek opportunities for staff to attend hydrographic and cartographic training courses. Some opportunities may be available through the IHO Capacity Building Programme e.g. the Marine Cartography Course hosted by the UK Hydrographic Office. Other opportunities may be offered by other States in the Region. Details of other courses can be found in IHO Publication C-47:** The SHSG staff participated in training courses conducted by some of manufacturers of hydrographic equipment and visited the Hydrographic Offices of Ukraine, Turkey and Denmark with the aim of on-the-job training. Three staff of SHSG completed training in the charting branch of State Hydrographic Service of Ukraine. After the membership of the IHO, Georgia will seek the opportunities for long term certificate trainings on hydrography (Cat A/B) and marine cartography under the IHO CB Program.

- **Seek opportunities to improve the English language skills of key staff members:** After the technical visit in 2010, English language courses at beginning, intermediate and advance levels for the staff were organized by the SHSG.

- **Arrange for the dissemination of MSI via both national and international services. Georgia was advised of the existing NAVTEX stations and service areas in the Black Sea, which cover Georgian waters. The GSHS should therefore seek agreement for the broadcast of Coastal warnings in the international NAVTEX service through existing stations. Prior to finalizing the establishment of a national NAVTEX station the GSHS should consult the IMO NAVTEX Coordinating Panel regarding the allocation of a B1 Character (broadcast time slot):** SHSG is planning to establish NAVTEX station to provide NAVTEX service in national language first which will be operational in 2015. SHSG also provides the NAVAREA III with MSI via email for international shipping.

- **Establish a chart scheme to cover Georgian waters:** SHSG has new charting scheme to cover the Georgian waters.

- **Establish a prioritised survey plan to update the information required for the charts:** Multibeam surveys was performed in the water of Batumi, Poti, Kulevi, Supsa ports as well as in approach channels to the ports and areas with the highest traffic density.

4. Hydrographic Assessment of Georgia

The following is a general assessment of the situation in Georgia regarding hydrography and nautical charting services.

4.1 National Hydrographic Awareness

The Government of Georgia, through its various maritime authorities, is aware of the current status of hydrography and nautical charting in the country and the benefits of modern hydrography to economic growth, safety of navigation and protection of the marine environment. The IHO Technical Team considers that SHSG staff in all levels is fully aware of the national responsibilities and takes intense pride in its successful delivery. Awareness was raised at the administrative and working level by the visit of the IHO Technical Team.

Georgia is not a member of the IHO, but applied to become a Member State of the IHO in 2012. According to the information provided by the External Relations Department of the Government of Monaco, at the end of 2013 Georgia has received 38 approvals out of a required 52. Nevertheless, Georgia is an Associate Member of the Mediterranean and Black Seas Hydrographic Commission (MBSHC) and is participating in its meetings from 2009 and in meetings of the Black and Azov Seas Working Group (BASWG) which is subordinate body of the MBSHC, since 2008 on a permanent basis.

4.2 National Hydrographic Infrastructure

Georgia is a member of IMO and a signatory to the Safety of Life at Sea Convention (SOLAS). In general there is awareness in Georgia on the obligations of Regulations 4 and 9 of SOLAS Chapter V, which places an obligation on contracting Governments to arrange for the collection, compilation, dissemination and maintenance of all information required for safe navigation. Therefore, Georgia is required to collect and publish Maritime Safety Information (MSI), arrange for hydrographic surveys to be undertaken and nautical charts and publications to be compiled and published and for these documents to be maintained.

Regarding the performance of Georgia's international obligations arising from SOLAS, State Hydrographic Service of Georgia (SHSG) assumed main responsibility for national hydrography and nautical cartography development. SHSG is the only authority in the country, which is responsible for collection and dissemination among mariners of Maritime Safety Information (MSI), arrangement and fulfilment of hydrographic surveys, issuance of nautical charts and publications and their timely updating. SHSG also is Lighthouse Authority in Georgia and responsible for establishment and the maintenance of the navigational aid in Georgian waters. SHSG reports directly to the Ministry of Economic and Sustainable Development of Georgia.

The SHSG's budget consists completely of Harbour and Lighthouse fees paid by vessels using Georgian Ports. Ports of Georgia do not belong to government property. However, there is a Port State Supervision and Control Service, which operates in each port at the command of a harbour master and is a part of Maritime Transport Agency (MTA) of Georgia.

Maritime Transport Agency (MTA) of Georgia has responsibility for Maritime Affairs and implementation of all Maritime Conventions ratified by the State of Georgia. Commitments and responsibilities of MTA include: approval of ports' security plans; exercising of state port control functions; maintenance of state shipping register; inspection of ships flying the Georgian flag; control of seagoing vessels from the side of port state; cooperation with relevant international organizations and foreign maritime authorities; support of ratification by Georgian government of international conventions related to maritime transport, etc. It has no hydrographic capability. It is the principal point of contact with the IMO. MTA, as well as SHSG report to the Ministry of Economic and Sustainable Development of Georgia. At the same time MTA works closely with SHSG in the field of maritime safety provision.

4.3 National Hydrographic Authority

The IHO recommends that every coastal State should designate a National Hydrographic Authority responsible for coordinating hydrography and charting in the country. The role of the National Hydrographic Authority is to be the principal national and international point of contact and to act on behalf of the government to ensure that the State meets its international obligations to make proper MSI and nautical charting services available to mariners. The National Hydrography Authority is the first point of contact for in-country stakeholders and for maintaining relations with relevant international organisations. In the case of Georgia, SHSG is the National Hydrographic Authority and the first point of contact for in-country stakeholders and for maintaining relations with relevant international organisations in terms of hydrography. This includes the IHO (in particular MBSHC and BASWG), other national hydrographic offices and agencies that might support hydrographic development and assistance in Georgia. SHSG must seek a formal arrangement in order to establish a national legal framework by means of a law, decree or equivalent.

4.4 Maritime Safety Information (MSI)

There is clearly established MSI infrastructure that coordinates its activities with the Worldwide Navigation Warning Service (WWNWS) implemented globally by the IMO, World Meteorological Organization (WMO) and IHO. SHSG is the primary MSI authority in Georgia. Currently there is no national/international NAVTEX Service in Georgia but, however Coastal Warnings are disseminated via radio through voice communication. MSI service through NAVAREA III Coordinator for international shipping is established via email. SHSG is planning to establish NAVTEX station to provide NAVTEX service in national language first which will be operational in 2015 and then apply for B1 code to IMO NAVTEX Panel for international NAVTEX Service.

4.5 Hydrographic Surveying

Hydrographic Researches, Correction and Cartography Department operates in the framework of SHSG. The department carries out hydrographic surveying of port waters, approach channels, approaches to ports, water areas with overflow vessel traffic and offshore waters for subsequent use of the findings with the aim of issuing and updating of nautical charts and informing mariners on changes in navigational circumstances.

In accordance with its Statute SHSG carries out on a regular basis hydrographic surveys in water areas of all Georgian ports (except waters of occupied Abkhazia, where there is no access for SHSG). Hydrographic surveys have been carried out by SHSG in compliance with its Statute (Regulations for the Service) on free of charge basis for the purpose of obtaining data for nautical charts correction.

Periodicity of hydrographic surveying depends on hydrological conditions in water areas and extent of sediment accumulation in harbour waters and approach channels. SHSG is the only service carrying out hydrographic surveys in port waters. The exception is the port of Poti, where owing to considerable sediment accumulation the dredging operations have been carried out repeatedly. Surveying team, which is a part of Port State Supervision and Control Service, carries out surveys of the port waters for continuous depth control. SHSG cooperates closely with Maritime Transport Agency and its divisions in sea ports with regard to exchange of navigational and hydrographic information and hydrographic data for harbour waters.

4.6 Nautical Charting

SHSG has both paper charts and ENCs in Georgian waters as well as several nautical publications. Georgian waters are currently covered by 5 paper charts and 4 ENCs. As Georgia is not IHO Member State, the 6 INT charts covering that area are published and maintained by Russian Federation and Turkey. After the IHO membership, Georgia has intention to propose to get the production responsibilities of those INT charts. After the recommendation regarding the chart scheme in the technical visit in 2010, SHS has prepared new chart scheme which consists of 8 charts. 5 of them are produced. The detail of the charts in Georgian waters is in **Annex D**. There is currently no information in IHO publication C-55 for Georgia, as no relevant information is received from SHSG.

4.7 Hydrographic Resources

SHSG pays focuses extensively on upgrading and procurement of new equipment for hydrographic surveying. From 2011 SHSG has been utilizing Reson multibeam echosounder complex SeaBat 7125 that ensures surveying in compliance with IHO S-44 standard for hydrographic surveys. Multibeam surveys have been performed in water areas of Batumi, Poti, Kulevi, Supsa ports, as well as in approach channels to the ports and areas with the highest traffic density.

Along with this, until recently the multibeam echo sounder was installed on the elderly survey boat, which also completed the tasks for aids to navigation deployment and was not fully suitable for hydrographic surveys performance. Currently for hydrographic surveys it is used, as the situation requires, big hydrographic boat LHSB81, 1 surveying launch and 2 small boats.

SHSG has paid and is waiting for delivery in the short run of hydrographic catamaran boat that is custom designed for a multibeam echosounder usage. After the boat's delivery it is anticipated to install on it the Reson multibeam echosounder complex SeaBat 7125. In addition, SHSG runs 2 singlebeam echosounders, side-scan sonar, sound velocity meter, GPS-equipment for positioning purposes in the course of surveying. PDS-2000 and HYPACK software is used for hydrographic surveys performance and processing of hydrographic data.

Staff of Hydrographic Researches, Correction and Cartography Department also monitor the coastline location through the utilization of appropriate GPS-equipment and satellite images.

After installation of the SeaBat 7125 multibeam echo sounder on the new hydrographic catamaran boat it is planned to arrange and perform systematic hydrographic surveys not only in port waters, approaches to ports and in areas with high-density vessel traffic, but also in all coastal waters of Georgia.

4.8 Other Service

In addition to the SHSG's functions that are described above, Georgian Hydrographic Service has got in its framework a Synoptic Department. According to its Statute SHSG bears responsibility for collection of meteorological information and its transmission to concerned authorities.

From 2 state-of-the-art synoptic buoys Synoptic Department acquires all necessary data about speed and direction of current, sea state and salinity, water temperature, atmospheric pressure and temperature, humidity, wind direction and velocity, rainfall amount and visibility. The collected information is telemetered repeatedly to Synoptic Department for appropriate processing. Then it is used for preparation of meteorological forecasts and satellite meteorological charts, which are delivered to port services twice a day. The information can also be transferred upon request.

5. A Way Ahead

5.1 Maritime Safety Information

MSI is considered by the IHO as the first phase in hydrographic capacity building and currently there is no national/international NAVTEX Service in Georgia but, however Coastal Warnings are disseminated via radio through voice communication. MSI service through NAVAREA III Coordinator for international shipping is established via email. SHSG is planning to establish NAVTEX station to provide NAVTEX service in national language first which will be operational in 2015 and then apply for B1 code to IMO NAVTEX Panel for international NAVTEX Service. Notices to Mariners (NtMs) are issued when necessary.

5.2 National Hydrographic Surveying and Charting

Considering the coastline length of Georgia, new chart scheme and existing paper charts and ENCs published and maintained by SHSG, the nature of coastal waters with few hazards and dangers, and the together with the existing hydrographic resources, it seems that there is not that much to do for Georgia to reach a very good state in the worldwide hydrographic community. A current chart production, hydrographic surveying and procurement program seems well enough for the future.

5.3 National Hydrographic Authority

Regarding the performance of Georgia's international obligations arising from SOLAS, SHSG assumes main responsibility for collection and dissemination among mariners of MSI, arrangement and fulfilment of hydrographic surveys, issuance of nautical charts and publications and their timely updating. SHSG also is Lighthouse Authority in Georgia and responsible for establishment and the maintenance of the navigational aid in Georgian waters. Therefore, SHSG is the National Hydrographic Authority and the first point of contact for in-country stakeholders and for maintaining relations with relevant international organisations in terms of hydrography.

The technical team recommends SHSG to create national legislation concerning the role, duties and responsibilities of SHS of Georgia and its budget (refer to IHO publication C-16 for examples abroad) and procedure to get the data from foreign surveys carried out in the waters under its national jurisdiction with the other ministries in charge (MoD, Ministry of Foreign Affairs etc.).

5.4 National Hydrographic Committee

The Government of Georgia, through its various maritime authorities, is aware of the current status of hydrography and nautical charting in the country and the benefits of modern hydrography to economic growth, safety of navigation and protection of the marine environment. No formal National Hydrographic Committee (NHC) was established in Georgia but currently the Committee's role has been covered by the Ministry of Economic and Sustainable Development of Georgia. The Ministry supervises the operation and activities of SHSG (as the authority responsible for collection, systematization, processing and dissemination of hydrographic data in one form or another) and other main services and agencies of the country, which are interested in obtaining of hydrographic data. The technical team concludes that currently there is no need to establish an NHC in Georgia.

5.5 National Hydrographic Capability Development

SHSG is funded in the proper way and has significant national hydrographic resources but lacks a coordinated approach to developing its staff and gaining the best from the equipment available. It is strongly recommended that the SHSG review this situation and propose first a coordinated plan to obtain a Category B hydrographic surveyor in order to gain the necessary professional experience.

A list of courses is contained in IHO publication C-47 - Training Courses in Hydrography and Nautical Cartography, freely available from the IHO website. The list of the IHO recognized programmes in Hydrography and Nautical Cartography can be found on the IHO website under "Capacity Building" section. Short courses for fundamentals of hydrographic data collection are available through the IHO Capacity Building Programme and should be considered by Georgia with the MBSHC CB Coordinator support.

Aappropriate training of personnel will ensure more benefits for SHSG with respect to arrangement of hydrographic surveys and use of state-of-the-art surveying techniques. Therefore the technical team recommends SHSG to seek ways to provide the technical staff with the necessary trainings in the fields of hydrography, nautical cartography and MSI and to favour Ministry of Economic and Sustainable Development of Georgia in facilitation of procedures related to training of its technical staff in the international certified programmes (training/courses).

6. Technical Visit Conclusions

As a result of discussions and on the ground of obtained information and facts the following main conclusions were drawn:

- All branches of Georgian Government demonstrate understanding of importance and advantages of activities of State Hydrographic Service of Georgia, as well as willingness to improve it in the future.

- SHSG owns necessary technological tools for fulfilment of hydrographic surveys. The work has been carried out for modernization of vessels involved in hydrographic surveys and equipment for hydrographic surveying in order to ensure compliance with IHO standards.

- SHSG surveying personnel feels the lack of formal hydrographic qualifications that hinder their professional development and improvement of skills.

- SHSG employees experience problems with participation in the IHO Cat B training courses due to peculiarities of Georgian domestic legislation concerning purchase of services.

7. Technical Visit Recommended Actions

Considering the high level of awareness on hydrography in Georgia and its application for becoming a member of the IHO in 2012,

Considering the high level of equipment technological development available in SHS of Georgia,

Considering the existence of several organizations and institutions dealing with maritime issues, marine knowledge, marine environment, safety of navigation, geospatial information,

Considering the extension of the major ports and harbors in Georgia,

And in order to improve the situation on hydrographic matters,

In order to enhance the quality of the performed work and fulfilment by Georgia of its international commitments regarding provision of navigational safety in Georgian waters, the IHO technical visit team provides the following recommendations for the consideration of Georgian relevant authorities:

1. To seek ways to provide the technical staff with the necessary trainings in the fields of hydrography, nautical cartography and MSI.

2. To favour SHS of Georgia (by Ministry of Economic and Sustainable Development of Georgia) in facilitation of procedures related to training of its technical staff in the international certified programmes (training/courses).

3. To establish NAVTEX Service (national service at the first stage and then international service) in order to promulgate the Maritime Safety Information for Georgian waters.

4. To schedule performance of hydrographic surveys for complete the coverage of Georgian coastal waters with up-to-date data, taking into consideration the priority surveys program.

5. To schedule production of new edition of the existing charts and new charts (both paper charts and ENCs) with the up-to-date data.

6. To continue purchasing of up-to-date hydrographic/cartographic equipment, systems and software for carrying out the hydrographic surveys and chart production.

7. To have a duplicated or corresponding water studying and measuring apparatus in reserve in case of a malfunction or an accident.

8. To make necessary arrangement for printing both paper charts and nautical publications.

9. To complete and forward to International Hydrographic Bureau the IHO C-55 Questionnaire “Status of Hydrographic Surveying and Nautical Charting World-Wide” that is of significant importance for international cooperation strategy.

10. To create maritime spatial data centre under the umbrella of SHS of Georgia. This future hydrographic service could provide “more than nautical charts” to all parties interested (maritime portal, bespoke charts, recognized marine database, qualified data, etc.). For interoperability, it is important that the future hydrographic service adopts the relevant standards and be aware of the emerging S-100-compliant standards.

11. To create national legislation concerning the role, duties and responsibilities of SHS of Georgia and its budget (refer to IHO publication C-16 for examples abroad) and procedure to

get the data from foreign surveys carried out in the waters under its national jurisdiction with the other ministries in charge (MoD, Ministry of Foreign Affairs etc.).

12. To continue to participate in International Hydrographic Conferences, the meetings of Mediterranean and Black Seas Hydrographic Commission and it sub bodies (Black and Azov Seas Working Group for example) as well as the meetings of relevant IHO bodies.

Technical Visit Programme (22-24 April 2014)

Date	Time Frame	Event	Explanation
Tuesday Apr 22	09.00-09.45	Transport from Alik Hotel to the central office of State Hydrographic Service (SHS) in Poti	
	09.45-12.30	Meeting with the representatives of SHS of Georgia and presentations	-IHO activities in general and benefits of being IHO member -Technical visit to Georgia in 2010-Overview - SHS of Georgia in general and activities
	12.30-14.30	Lunch	
	14.30-16.30	- Visit to Poti Port Authorities/Harbour Master - Meeting with the representatives of SHS of Georgia - Tour of the premises of SHS of Georgia	Target: assessment of the equipment, systems and the staff and identifying the Capacity Building requirements
	16.30-17.15	Transport from Poti to Alik Hotel	
Wednesday Apr 23	09.30-12.30	Visit to : - Regional office in Batumi - Survey vessels - Lighthouses and Navigational Aids section - Batumi Port Authorities/Harbour Master	Target: assessment of the situation and meeting with relevant authorities
	12.30-14.30	Lunch	
		Visit to : - Georgian Maritime Administration	Target: assessment of the situation and meeting with relevant authorities
Thursday Apr 24	09.00-12.30	Meeting with the representatives of SHS of Georgia and presentations for final assessment	Target: final assessment of hydrographic activities in Georgia and prepare the draft report of the visit
	13.00-14.30	Lunch	
	14.30-16.30	Meeting with the representatives of SHS of Georgia and presentations for final assessment (Cont.)	Target: final assessment of hydrographic activities in Georgia and prepare the draft report of the visit

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Georgia Dependency on Hydrography and Charting

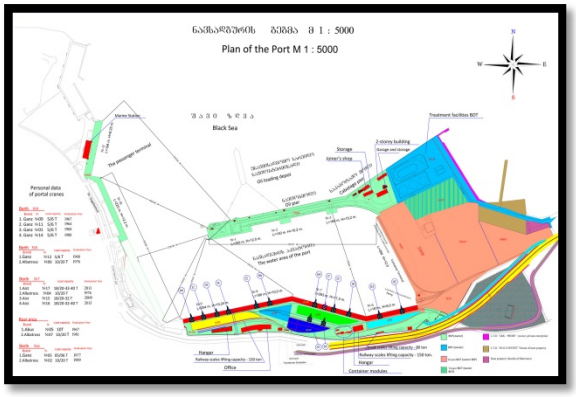
1. Introduction

Georgia is located in the mountainous South Caucasus region of Eurasia, straddling Western Asia and Eastern Europe between the Black Sea and the Caspian Sea. The coastline of Georgia is 310 km long. Out of the Georgian coastline, 57 km is the coastline of Ajaria (Ajara), and 200 km is the coastline of Abkhazia. The Encyclopaedia of the Nations lists the total length of the coastline as 315 km long.

Georgia

2. Ports and Harbours

2.1 Port of Batumi



Port of Batumi

Oil Terminal

Berth	No. 1	No. 2	No. 3	CBM
Length(m)	200	140	165	
Depth(m)	12	10.2	10.2	15.5-20.0
Area($м^2$)	9 546	5 662	12 481	
Ships' DWT	45 000	16 000	25 000	140 000

Throughout efficiency of the oil terminal is – up to 15 million tons annually. The terminal specializes in refining raw oil and almost all types of oil products: diesel fuel, petrol, reduced cruel and so on.
The given berths are leased to Ltd "Batumi Oil Terminal" until 2019.

Container and the railway ferry terminal

Berth	No. 4,5	Railway Ferry Terminal
Length(m)	284.0	43.9
Depth(m)	12.0	8.24
Area($м^2$)	40 000	
Ships' DWT	35 000	12 600

Throughout efficiency of the container terminal is 100 000 TEU annually. The container terminal has open storing areas and possesses transhipment equipment, which specializes in operating with containers in direct and storage ways.

The ferry runs between Varna, Iliychevsk, Poti and Batumi. The operation of the ferry is totally automated. The nominal throughput efficiency of the terminal is approximately 700 000 tones.

From November 2007, berths 4, 5, 6 and railway ferry terminal were leased to Batumi International Container Terminal LLC, which is the member of group of companies International Container Terminal Services INC (ICTSI).

Dry Cargo Terminal

Berth	No. 6	No. 7	No. 8	No. 9
Length(m)	183.0	263.3	180.0	204.0
Depth(m)	8.2	11.5	10.7	10.2
Area($м^2$)		6 655	5 630	3 371
Ships' DWT		60 000	20 000	25 000

The Berth No.6 owns open storing area and specializes in handling the scrap metal in direct and storage ways.

The Berth No.7 serves the large-capacity vessels and specializes in bulk cargo, fluid cargo, general and packing and piece load with the weight of one piece no more than 20 tones.

The Berth No.8 serves the small-capacity vessels and specializes in bulk cargo, fluid cargo, general and packing- piece load with the weight of one piece no more than 10 tones.

The Berth No.9 serves the small-capacity vessels and specializes in fluid cargo, general and packing and piece load with the weight of one piece no more than 6 tones.

Maximum throughput of the dry cargo terminal – 2,0 million tonnes annually.

Marine Passenger Terminal

Berth	No. 10	No. 11
Length(m)	225.7	188.5
Depth(m)	12.2	8.25
Area($м^2$)	13.5	19.5
Ships' DWT	3 080	2 716

The marine passenger terminal is situated in the centre of the city, in the seaside boulevard. The throughput efficiency is about 180 000 passengers annually. The passenger berths No.10 and No.11 ensure handling passenger ships as well as small-capacity cargo and passenger ferries (Ro-Ro).

2.2 Port of Poti

Port of Poti

The **Port of Poti** is a major seaport and harbor off the eastern Black Sea coast at the mouth of the Rioni River in Poti, Georgia. Its UN/LOCODE is GEPTI and is located at 42°9′18″N 41°39′16″E. The Poti Port is a cross point of the Trans-Caucasian Corridor/TRACECA, a multinational project which connects the Romanian port of Constanţa and Bulgarian port Varna with the landlocked countries of the Caspian region and Central Asia.

2.3 Kulevi Oil Terminal

Kulevi Oil Terminal

The **Kulevi oil terminal** is an oil port on the eastern Black Sea coast in Georgia. The terminal is located in Khobi District, close to the populated area of the village Kulevi, formerly Redoubt Kali, and from the coastal area between rivers Tsiva and Khobistskali.

Kulevi Oil Terminal incorporates three piers, a canal for tankers, a mobile service fleet of 9 vessels, and a laboratory for oil and refined products testing. The terminal has a tank park with overall storage capacity of 320,000 cubic metres (11,000,000 cu ft) with the prospect of increase up to 380,000 cubic metres (13,000,000 cu ft). For loading operations there are two berths for receiving tankers with tonnage up to 100,000 tonnes. Loading performance is from 1,000 to 8,000 m3/h. The terminal has its own railway station, where 180 oil tank cars can be placed for discharging. The trestles make possible the simultaneous discharge of 168 oil tank cars, through four railway branches.
The terminal has annual processing capacity of 10 million tonnes of crude oil and refined products. SOCAR plans to increase the capacity of the terminal to 20 million tonnes per year. That would make Kulevi the largest oil terminal in South Caucasus.

2.4 Supsa Oil Terminal

Supsa Oil Terminal

Supsa is a Black Sea port village in western Georgia. It is located at around 42°2′36″N 41°49′9″E.
It is the terminus of the Western Early Oil pipeline from Azerbaijan and the Caspian Sea oil fields. In 2011 a cement plant was put into operation.

3. Cruise Ship Operations

Port of Batumi contains passenger terminal serving cruise and ferry passengers.

4. Maritime Claims

Georgia claims a 12 mile territorial sea. Georgia ratified the United Nations Convention on the Law of the Sea (UNCLOS).

5. Defence including Coastguard

The Georgian Coast Guard is the maritime arm of the Georgian Border Police, within the Ministry for Internal Affairs. It is responsible for the maritime protection of the entire 310 km (190 mi) coastline of Georgia, as well as the Georgian territorial waters. The primary missions of the service are administration of the territorial waters, marine pollution protection, maritime law enforcement, search and rescue, port security and maritime defence. The former Georgian Navy was absorbed into the Coast Guard in 2009.

The Georgian Navy was a branch of the Georgian Defence Ministry armed forces until 2009, when it was merged with the Coast Guard and transferred to the Ministry for Internal Affairs. Before the 2008 South Ossetia war, the Georgian Navy consisted of 19 vessels and 531 personnel of which 181 were officers, 200 NCOs, 114 conscripts and 36 civilians.

The headquarters and a principal Coast Guard base are located at the Black Sea port of Poti. A second smaller base is in Batumi, Adjara. Besides the Poti-based force, the Coast Guard also includes a special counter-terrorist Detachment. Maritime surveillance radar stations are maintained at Anaklia, Poti, Supsa, Chakvi and Gonio, providing coverage of all territorial seas.

6. Sea Fishery

Georgia is rich in hydro biological resources. The Black Sea and the numerous rivers, reservoirs and lakes make the country suitable for marine and inland capture fisheries and aquaculture activities. The abundance of pelagic species such as anchovy and sprats in the Black Sea Exclusive Economic Zone (EEZ) of Georgia provides good opportunities for marine fisheries development. In 2003 total catches

of anchovy in the Georgian EEZ reached 12 200 tonnes while total marine catch in the same area was estimated at 14 450 tonnes. As the total catch in 2001 and 2002 was much lower, at 9 300 and 7 770 tonnes respectively, it appears that the marine capture sector is developing rapidly. It should be noted however that more than one-third of the total catch in 2003 was achieved by foreign fleets from Ukraine and Turkey. Compared with these two countries the catch in the Black Sea in recent years by the Georgian fleet is of limited importance.

Georgia's marine fishing fleet is small. It consists of 36 medium-sized seiners (110-225 HP) which were all constructed during the Soviet period. No significant modernization of the fleet has taken place since independence in 1991 and many of the vessels are in a bad condition because of lack of funds for maintenance and repair. There are also an estimated 324 small-scale fishing vessels involved in coastal capture fishery activities; these are equipped with seine nets, gillnets, bottom lines, cast nets and fishing rods.

7. Marine Reserves

No Marine protected area in Georgia.

8. Tourism and Coastal Recreational Amenities

Georgia is a traditional tourist country. On relatively small territory (about 69,5 thousand square kilometers), we have great diversity of landscapes beginning from the wet subtropics (in West Georgia) and semi deserts (in South-East Georgia), finished with the eternal snows and glaciers in the Northern part of the republic. Development of tourism industry reached its maximum at the end of 1980s when the number of people who came for rest to Georgia was 4,5-4,8 million. About half of tourists came to seaside resorts of the Black Sea region.

The Black Sea coastal area is very rich with natural and anthropogenic tourist resources as well and their great number and diversity favors the development of different types of tourism. During the XX century the coastal part of Ajaro-Kolkheti region was the traditional tourist area of the country. While transition the utilization of rich tourist resources of the region is changing and new tourist activities like business, adventure, cruise, ecological tourism and diving occur.

After analyzing and consideration of the main parts of the territorial-recreational system there were distinguished three tourist-recreational zones and several subzones with characteristic for them types of tourist activities. Those zones are medical, health-improving and cognitive. On some territories they are overlapped.

9. Education and Science

There is not any educational or scientific programme sponsored by Georgian government requiring or including the gathering of hydrographic data.

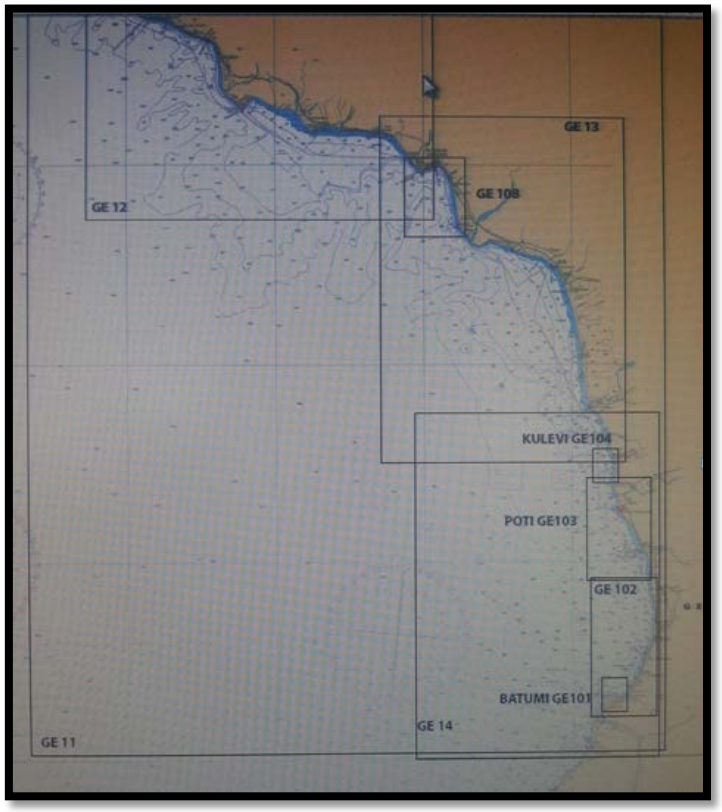
10. Planned Maritime Developments in Georgia Waters

There are some plans to develop the ports facilities in Georgia.

Charting Analysis of Georgian Waters

1. Paper Chart Coverage

Georgia does have a chart production capability and is at the beginning stage to fulfil this function. The planned chart scheme for Georgia is below:



Paper Chart Coverage

2. ENCs

There are 10 ENCs produced by Georgia, Italy, Russian Federation and Turkey covering the Georgian waters:

ENCNo	Title	Usage Band
IT100360	Black Sea, Northern and Eastern sides	Overview
TR100010	Karadeniz	Overview
RU2M2LB0	Eastern Part of the Black Sea	General
TR200014	Vakfikebir – Gürcistan Sınırı	General
RU3M6LO0	Black Sea – Coasts of Caucasus – Kudepsta to Kholodnaya Rechka	Coastal
GE310300	Georgian coast, Black Sea	Coastal
GE410110	Batumi Port	Approach
RU4M9LS0	Black Sea – Caucasian Coast – Port Sochi and Adler Roads with Approaches	Approach
GE410325	Poti Port	Approach
GE510420	Port of Kulevi	Harbour

Summary of ENCs

IHO Yearbook Revision

GEORGIA

STATE HYDROGRAPHIC SERVICE OF GEORGIA (SHSG)

Contact information/ Informations de contact / Información de contacto

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Agency information/ Information sur l'agence/ Información sobre la agencia

Date of establishment **-Date de mise en place** **-Fecha de constitución**	25 September 2004
Top level parent organization **-Organisme mère** **-Organización asocieda de nivel superior**	Ministry of Economy and sustainable development of Georgia
Principal functions of the organization or the department **-Attribution principales de l'organisme ou du département** **-Principales funciones de la Organización o el departamento**	- Navigational marks, technical services and monitoring department - Hydrographic survey and cartography department - Meteorological department - Navtex
Total number of staff employed **-Effectifs totaux** **-Número total de personal empleado**	84
Total number of paper charts published **-Nombre total de cartes papier publiées** **-Número total de cartas de papel publicadas**	5
Number of ENC cells published - Nombres de cellules ENC publiées - Número de células ENC publicadas	4
Type of publications produced **-Type d'ouvrages produits** **-Tipo de publicaciones producidas**	List of ATON of Georgia Navigational Region of Georgia Notice to Mariners
Detail of surveying vessels/ Aircraft **-Détail des bâtiments**	**Displacement -déplacement -Desplazamiento** **Commissioning Date -date de mise en service -Fecha de puesta en servicio** **Crew -équipage -Person**

hydrographiques/aéronefs -Detalle de buques hidrográficos/Aeronaves	