

National Report of Iceland

Executive summary

This report gives an overview of the work of the Hydrographic and Maritime Safety Department (HMSD) of the Icelandic Coast Guard (ICG) for the period between ARHC12 in September 2022 and ARHC13 in September 2023.

- A new Coastal chart published in June 2023. No. 45 Bjargtangar – Stigahlíð
- Surveying started in Húnaflói in NW-Iceland in May 2023
- Work on implementation of the CARIS Bathymetry DataBASE (BDB) delayed

1. Hydrographic Office / Service

The Icelandic Coast Guard (ICG) is responsible for hydrographic surveying and nautical charting in the waters around Iceland. The Hydrographic and Maritime Safety Department (HMSD) carries out these tasks.

Current number of staff at the HMSD is seven people. One member of staff retired in June 2023. Two that have been on sick leave have returned to work. A new member of staff joins in October and will strengthen the survey processing capacity of the HMSD.

Considering the above, the changes in staffing and sick leave of employees, it called rescheduling to meet reduced capacity the department. This caused unavoidable delays in important tasks such as work on the Bathymetry DataBASE.

2. Surveys

The 2023 survey season is planned 85 days, from May to September. The focus this year is on Húnaflói, a bay in northwest Iceland immediately east of the Westfjords. The emphasis is on the area chart IS 52 Hornstrandir covers i.e., from Horn in the north, south to Gjögur (see fig. 1).

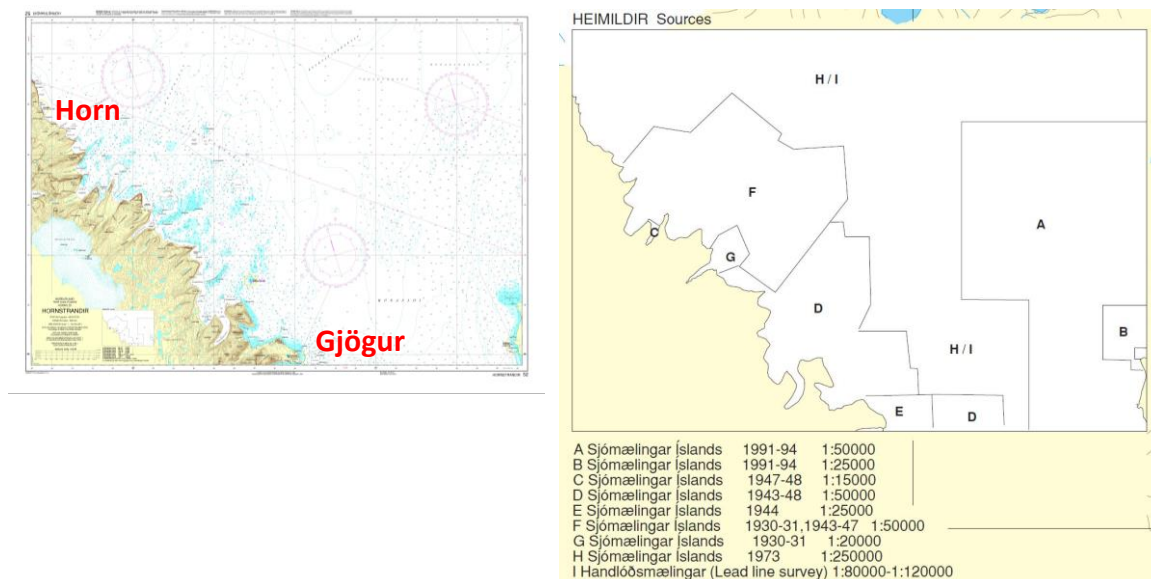


Fig. 1 Coastal chart IS 52 Hornstrandir, scale 1:100 000. The Source Diagram lists year of survey and scale.

The current IS 52 is based on surveys from the first half of last century. In some cases, older lead line soundings are the only data available. Many nearshore areas on the western side of the bay have never been surveyed.

This area is challenging to survey as there are isolated dangers to navigation considerable distance from shore. Some charted, some not. Close to shore are numerous skerries, shallows and rocky areas, many extending several miles to sea (see fig. 2)

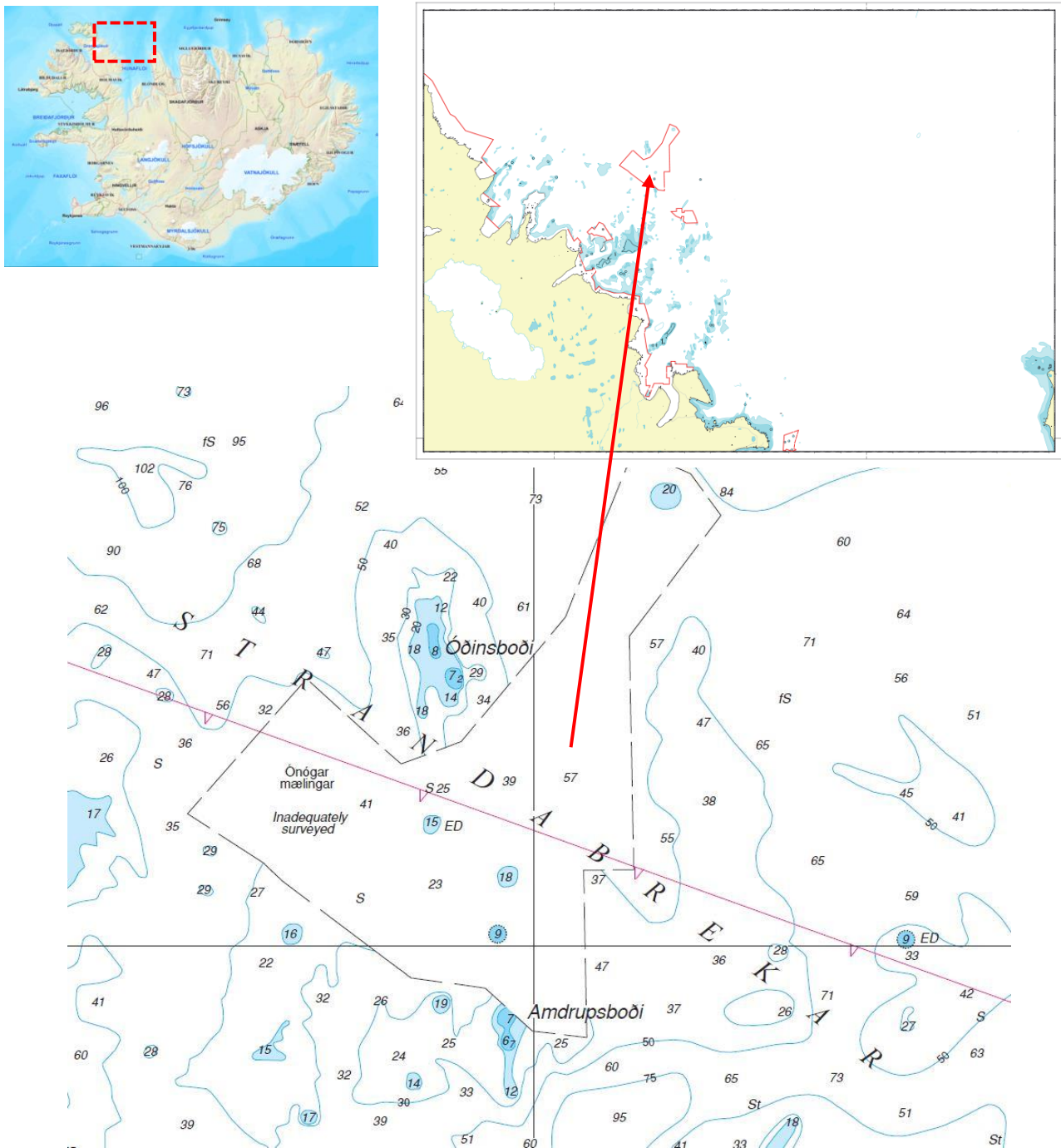


Fig. 2. IS 52 covers the northern part of Húnaflói. Shallows and rocky areas either lie or extend several miles from shore. Red lines show unsurveyed areas on right hand side image.

Increasing traffic of smaller cruise ships, known as expedition ships, into the area highlights the need for resurveying to meet modern requirements with updated the charts.

The west coast of Húnaflói north from the tiny village in Norðurfjörður (pop. 43), is practically uninhabited. Norðurfjörður has a small harbour that offers shelter in fair weather. Next safe and sheltered port, Hólmavík, lies south of Norðurfjörður, some 3-4 hours away. The northern most survey areas are 3-4 hour north of Norðurfjörður.

Surveying the area is highly weather dependent on a small vessel like BALDUR. The area is unsheltered and open to northerly winds which even in the summertime can become quite strong and cause rough sea conditions. This summer conditions have been mostly favourable.

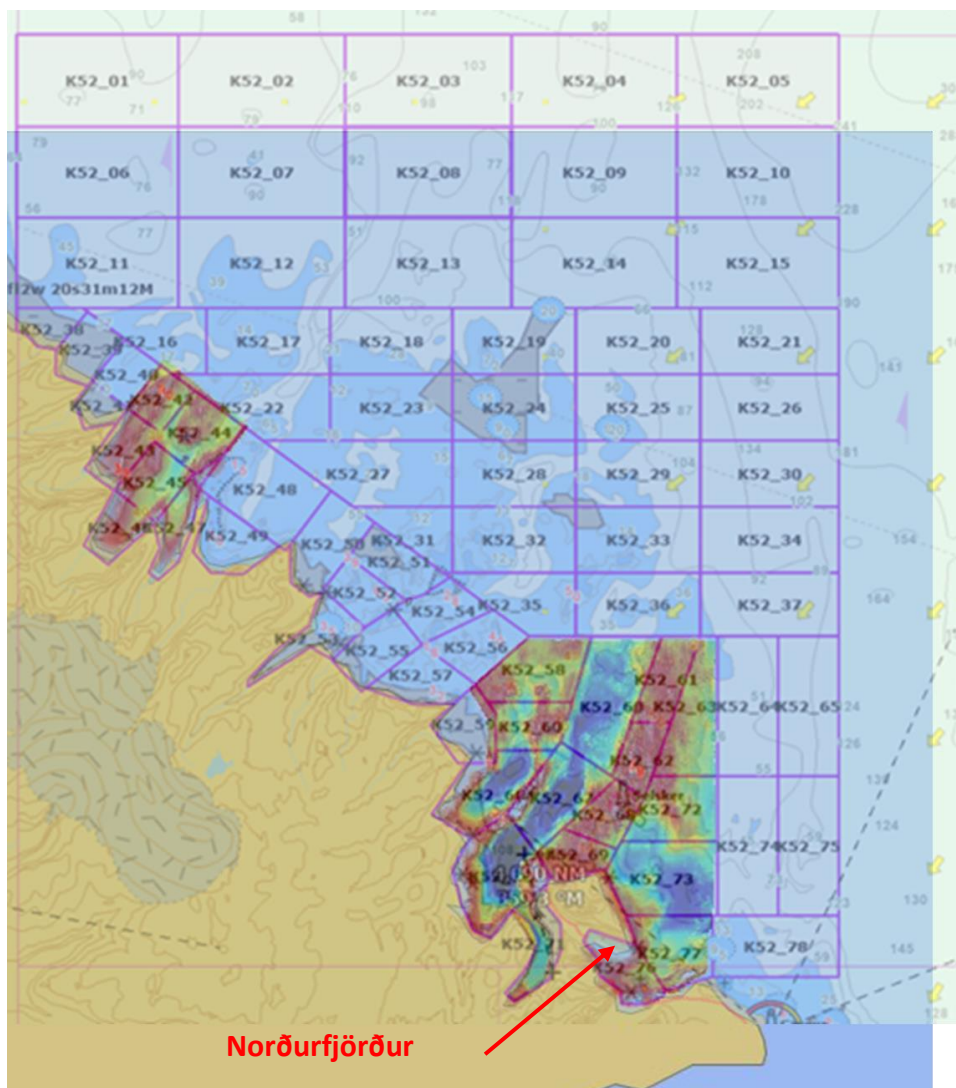


Fig. 3. Survey plan and status of surveying in August 2023.

As many years before, in addition to scheduled survey activities, contract work was carried out for the Port Authorities in Reykjavík in relation to works in progress, dredging and key extensions.

3. New charts & updates

ENCs

International Centre for ENC (IC-ENC) distributes Icelandic ENCs. In 2022, 31 new editions made and four updates. In 2023 so far, one new cell has been issued, four new editions and 18 updates. Iceland produces and maintains 74 ENC cells.

National paper charts

New Coastal chart, scale 1:100 000, was published in June 2023. The chart's title is Bjargtangar – Stigahlíð and it is No. 45 (see Fig. 3). Seven new editions have been published since last report in September 2022. The fig. and table below.

New editions and a New Chart

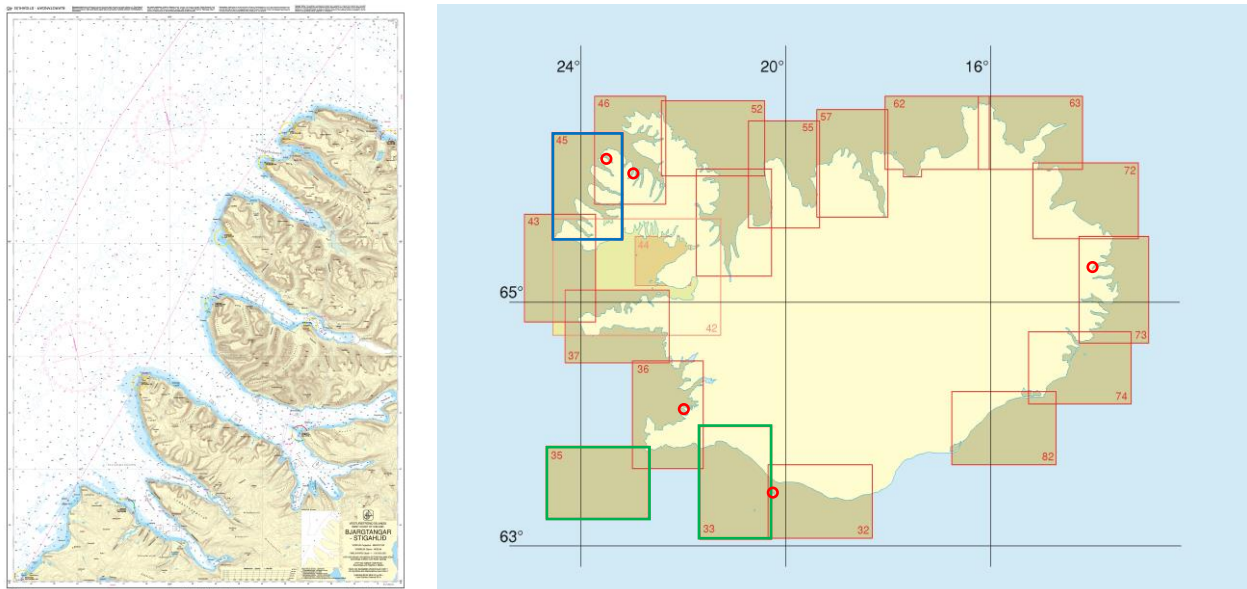


Fig. 4. The new chart No. 45 Bjargtangar – Stigahlíð and new ed. of coastal (green line) and harbour charts (red circle).

Coastal charts			
No.	New Chart	Scale	Pub. month
45	Bjargtangar – Stigahlíð	1:100 000	06/2023
New Editions			
33	Selvogur-Vestm.eyjar	1:100 000	12/2022
35	Fuglasker	1:100 000	12/2022
Harbour charts			
310	Vestmannaeyjar	1:10 000	01/2023
415	Suðureyri	1:10 000	02/2023
418	Súðavík	1:10 000	02/2023
712	Seyðisfjörður	1:10 000	02/2023
362	Reykjavík [INT 1113]	1:10 000	06/2023

New harbour charts planned.

Ten new harbour plans (size A3, scale 1:10 000) are planned in 2023 to Q1-2 2024. Once published these harbour plans will mark a milestone in publication of Icelandic harbour plans. Harbour plans size A3 will be available for all medium size ports in Iceland and almost all small size ports. Overview below.

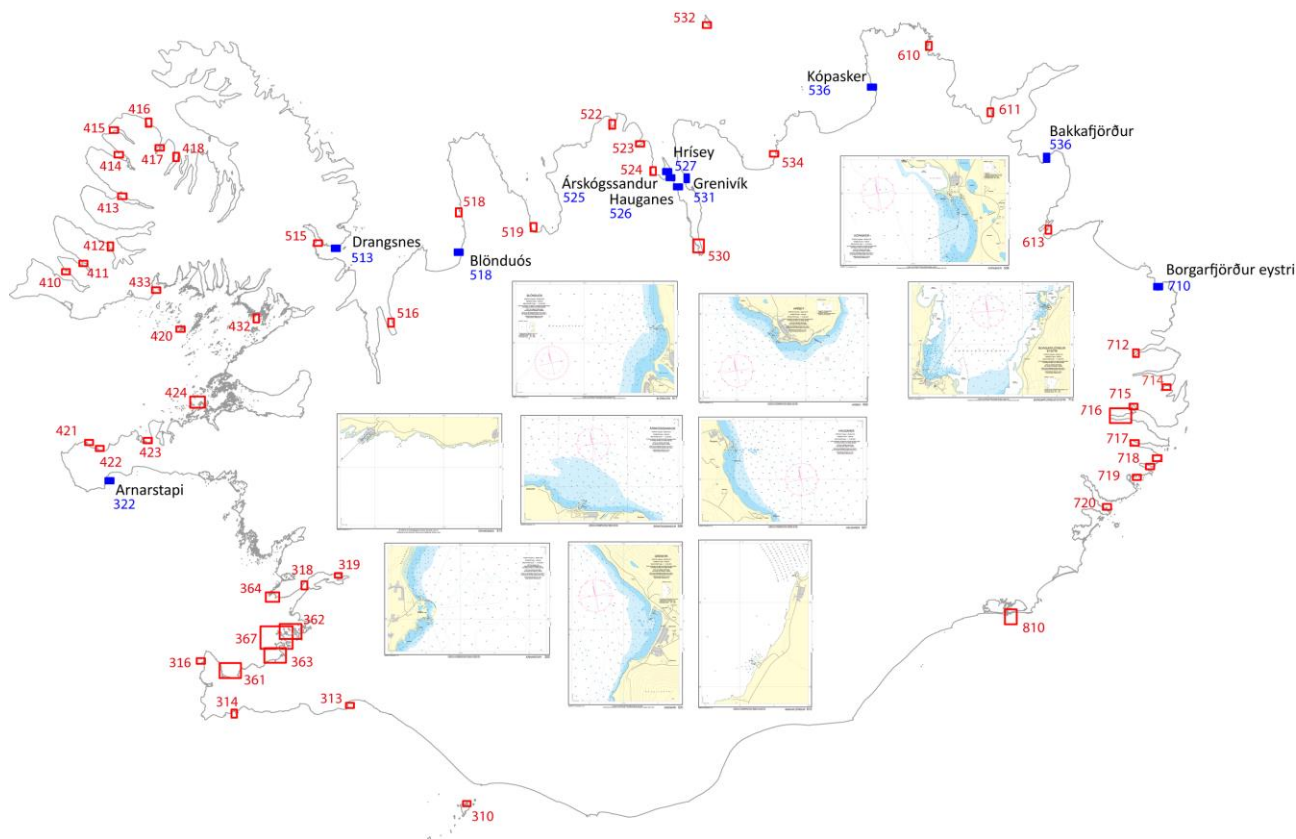


Fig. 5. Existing harbour charts, scale 1:10.000 (red) and planned ones (blue).

New editions of all (17) coastal charts in scale 1:100.000 was planned in Q3-Q4, 2022. Those have been rescheduled and moved to Q4, 2023 and Q1-Q2 of 2024.

4. New publications & updates

Annual publications, *Tide Tables 2023*, and *Tide Almanac 2023* were printed in October 2022. The 2024 editions will be ready in September.

The 2022 pdf-publication, *List of Lights* was updated in March and *Catalogue of charts* was updated in June 2022. Both are available for download at www.lhg.is. The 2023 update for both is planned in September.

Twelve issues of *Notices to Mariners* were published in 2022, 71 NM in total. Eight issues of NMs have been published so far in 2023, total of 49 NMs. The pdf-publications are available for download at www.lhg.is.

List of Lights: https://www.lhg.is/media/sjomaelingar_islands/Vitaskra_vefutg_28.03.2022.pdf

Catalogue of charts: https://www.lhg.is/media/sjokort/Kortaskra_IS_Catalogue_of_Charts_15.06.2022.pdf

For Icelandic NMs visit <https://www.lhg.is/starfsemi/sjomaelingasvid/tts/nyjustu-tts/>

Cumulative list of NMS for Icelandic Charts: <https://www.lhg.is/starfsemi/sjomaelingasvid/tts/uppsafnadar-tilkynningar/>

5. MSI

The Icelandic Coast Guard runs VTS. MSI service is an integrated part of that operation. The ICG VTS services Iceland and Greenland. NAVTEX messages in 2022 were in total 11.743 (12.038 in 2021) for Iceland and 4.525 (5.656 in 2021) for Greenland. The figures include storm and ice warnings.

6. C-55

Update of C-55 was planned in Q1 2023 but has been pushed back to Q4 2023. Considerable time has been invested in the updating and organizing of the file-based data management system. The implementation of a database was postponed due to the personnel situation.

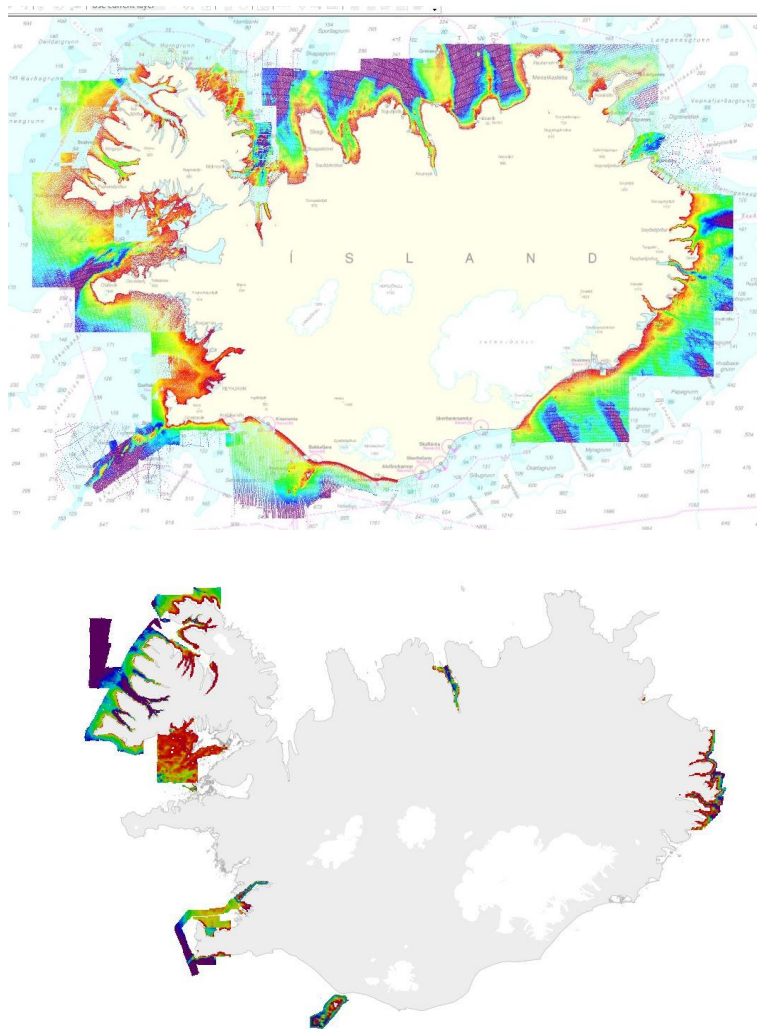


Fig. 6. The 2022 coverage of ICG multibeam data (below) and combined MB and single beam coverage (above).

7. Capacity Building

Nothing to report.

EMODnet Bathymetry

Iceland has delivered a dataset to EMODnet Bathymetry. The dataset contains all depth data used to compile Icelandic charts (processed data). The dataset, a collection of xyz export files from Icelandic charts in June 2019, will not be updated. Future updates will come from the *CARIS Bathy DataBASE* once it has been implemented.

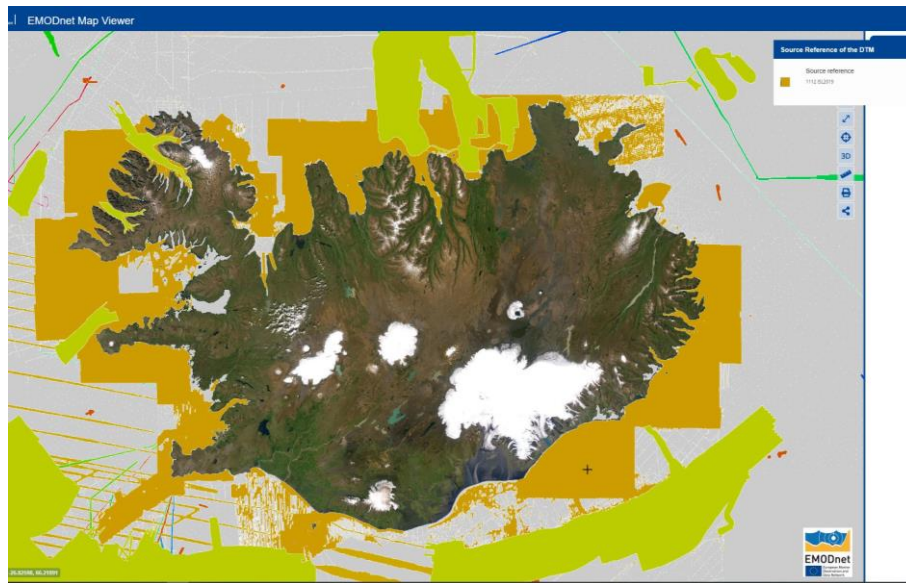


Fig. 7. Coverage of the Icelandic dataset as seen in [EMODnet Map Viewer](#).

8. Oceanographic activities

The project of surveying the EEZ of Iceland continues. The *Marine & Freshwater Research Institute (MFRI)* leads the project and ICG takes part.

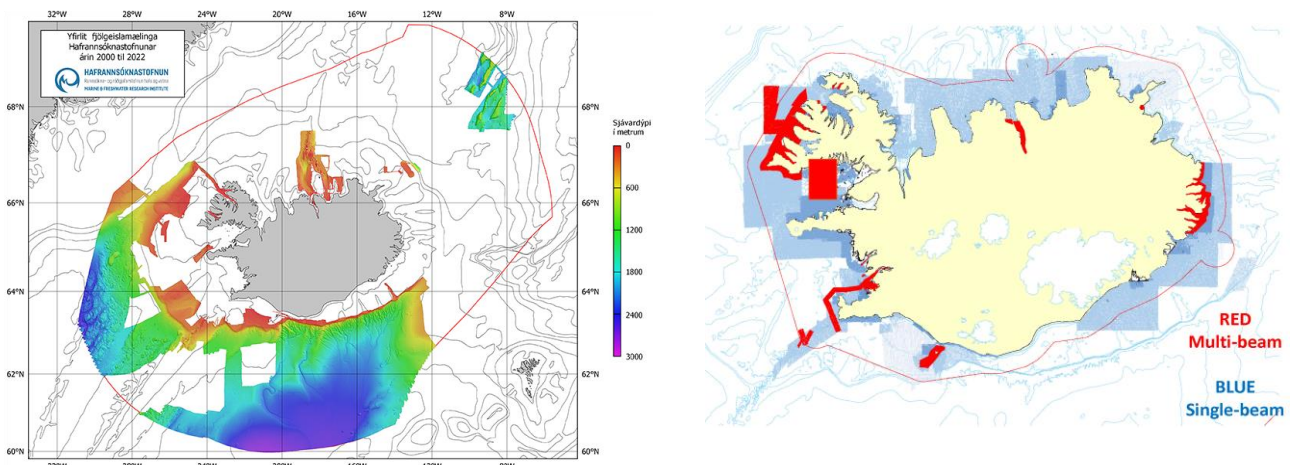


Fig.8. Status of surveying the EEZ of Iceland in 2022. The image on left shows data from MFRI. Image on right shows coastal surveying by the ICG.

The MFRI data is available for download at <https://www.hafogvatn.is/en/research/seabed-mapping>

9. Spatial data infrastructure

Awareness about the importance of Spatial data infrastructure and Marine spatial data infrastructure has grown in Iceland both at government and municipality level in recent years.

A web portal “Hafsjá” launched 2021 and mentioned in ARHC12 IS National Report. It was Icelandic only in the beginning but now English is a second language. <https://atlas.lmi.is/mapview/?application=haf>

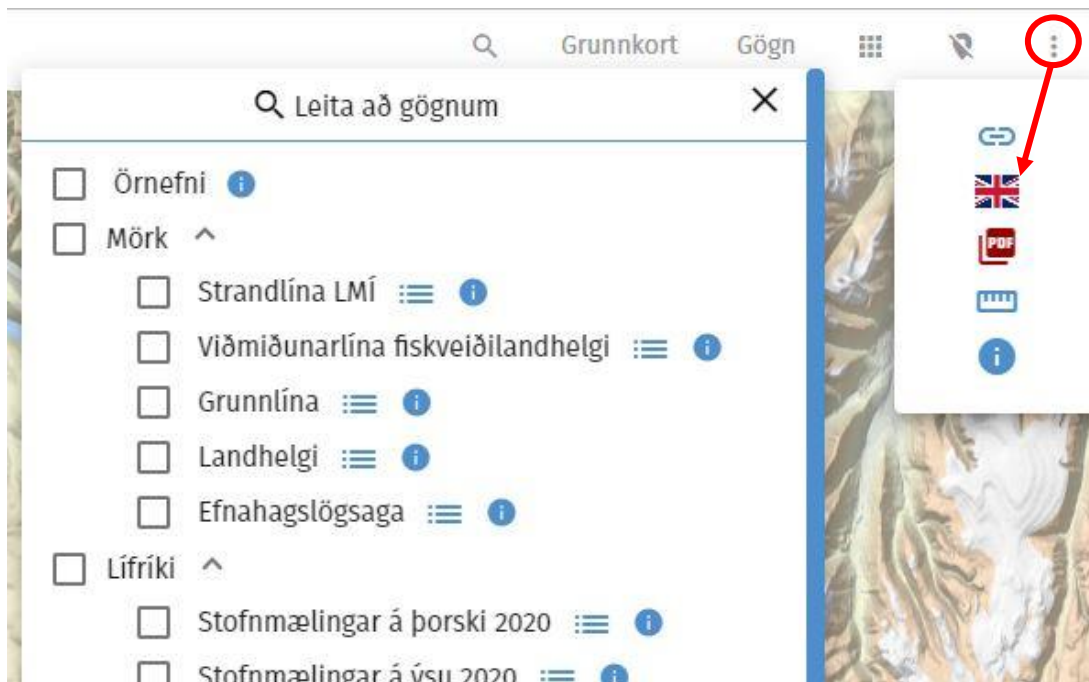


Fig. 9. The Icelandic Ocean Viewer “Hafsjá” offers now the possibility to switch to English.

ARMSDIWG

Iceland has taken part in the work of the Arctic Region Marine Spatial Data Infrastructure Working Group (ARMSDIWG) from November 2016. Effective from ARHC13 Iceland has decided to discontinue participation in the working group. The outgoing chairman has been informed of Iceland's decision.

10. Innovation

CARIS BDB

Work on implementing the *CARIS Bathy DataBASE (BDB)* was affected heavy workload because of sick leave of a member of staff. Priorities had to be shifted to accommodate most important tasks.

In November 2021 a plan was introduced to set up a database to serve the needs of the department regarding management of depth data. That includes public access to depth data. The work will pick up phase in the coming months.

11. Other activities.

IHO RHCs, WGs and other work

Representatives of ICG-HMSD participated in the following meetings or workshops held by IHO bodies:

- NHC-NSEG and -NCPEG Workshops in January 2023
- BSNSMSDIWG VTC in January 2023
- NHC NCPEG Follow Up in February 2023

- NSHC-TWG25 VTC February 2023
- ARHC-VTC pre-Assembly 3 in March 2023
- NHC66 in March 2023
- NSHC36 – VTC in March 2023
- IHO Assembly, 3rd Session in May 2023

Representatives of ICG-HMSD participated in IC-ENC Technical Committee meetings in 2022/2023 and the IC-ENC Steering Committee meeting in July 2023 (SC24).

The Faroe Islands HO i.e., the Faroese Environment Agency, Land and navigation charts, (www.us.fo) visited the Icelandic HO in September 2022.

11. Conclusions:

This report highlights activities of the Hydrographic and Maritime Safety Department of the Icelandic Coast Guard for the period from September 2022 through August 2023.