



UK Hydrographic
Office

EAtHC17 UK National Report

UNITED KINGDOM NATIONAL REPORT

TO THE

17th EASTERN ATLANTIC

HYDROGRAPHIC COMMISSION MEETING (EAtHC)

28 – 30 September 2022 Mindelo, Cape Verde

This report supplements the UK Generic National Report, posted on the UKHO website

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1. UK HYDROGRAPHIC OFFICE (UKHO)

UK Delivery of Hydrographic Services

1.1 The UK delivery of hydrographic services is described in the [UK Generic National Report](#); it is worth highlighting, however, the close liaison which exists between UK's Hydrographic Office (UKHO) and UK's maritime administration Maritime & Coastguard Agency in providing a coordinated approach to hydrographic and maritime safety representation both nationally and internationally.



UKHO Governance and Targets

1.2 This is described in the [UK Generic National Report](#) to the IHO.¹

UKHO Organisation

1.3 Details of the UKHO's organisation are provided in the UK Generic National Report (Section 1) together with general contact details. Specific contact details relevant to the EAtHC region are included at the end of this Report.

Production Systems

1.4 This is described in the [UK Generic National Report](#).

Cooperation and Partnerships

1.5 The UK is committed to collaborative partnerships through bilateral arrangements, developed in co-operation with other international government hydrographic authorities and data providers, covering a range of topics, including the use/re-use of data protected by copyright and intellectual property rights of those authorities. These also promote other forms of co-operation between the participants, helping to enhance international maritime safety and protection of the environment.

2. REGIONAL ACTIVITY

UK Overseas Territories Seabed Mapping Programme

2.1 The UKHO continues to run the Overseas Territories Seabed Mapping Programme (OTSMP), which is reviewing the status of hydrography within the UK Overseas Territories (OTs). This highlights the importance and utility, both locally and within UK government, of Hydrography and the wider blue economy within the context of the UK OTs. Despite current restrictions as a result of COVID-19, the UKHO is continuing to plan and deliver Programme activity in several UK OTs through to 2023, as well as working with OTs to ensure their compliance with the Hydrographic elements of SOLAS.

2.2 The OTSMP has UK government funding to assess and redress the deficit of bathymetric data and lack of sound hydrographic governance in the UK's OTs; the programme is now in its seventh year.

Commonwealth Marine Economies Programme

2.3 The Commonwealth Marine Economies programme ended in 2022 and work is ongoing to develop a follow-on programme to replace it.

Survey and Capacity Building

2.4 Details of the management of civil hydrographic surveys in UK Home Waters are provided in the [UK Generic National Report](#), and on the UKHO website. UK's National Hydrographic Committee (known as the Civil Hydrography Annual Seminar (CHAS)) meets on an annual basis and provides the necessary breadth of interests to ensure that all surveying requirements are considered when prioritising the work of the Civil Hydrography Programme (CHP).

2.5 In total, UKHO survey operations under the OTSMP and CME programme have covered a combined area of nearly 21,000KM² since their inception.

2.6 The UK continues to explore how we can strengthen the relationship with countries for which we

¹. This will be updated in the course of 2021.

are the Primary Charting Authority (PCA). We have increased our level of engagement to better understand prioritised requirements in the EAtHC region.

2.7 Any requests for survey assistance from nations within the EAtHC region will be considered. The UKHO has a dedicated team of specialists that manage the portfolio of survey and hydrographic development programmes. In addition to survey advice, the team are configured to provide support and advice in the development of hydrographic governance and identifying funding. Further information can be obtained from hydrographicprogrammes@UKHO.gov.uk.

3. CHARTS

3.1 In July 2022 the UKHO announced its strategic decision to implement a fully digital chart solution by the end of 2026, enabling the UKHO to move away from the production of traditional paper charts. This decision was made with the support of the UK regulator, the Maritime and Coastguard Agency (MCA), in response to declining demand for Standard Navigational Charts (SNC) over a number of years. The UKHO now intends to replace its paper chart coverage with an official, endorsed and compliant digital alternative that will meet the needs of the mariner and allow us to move seamlessly towards the future benefits of the S-100 world within the timescales proposed by the International Maritime Organisation (IMO).



3.2 [UK's Generic National Report](#) provides information on UK's portfolio of chart products and services. The following paragraphs provide information specifically relevant to the EAtHC region.

Paper Charts

3.3 Information on UK's chart portfolio is provided on the ADMIRALTY website. Within the EAtHC region, the UKHO has published 1 New INT Chart and 12 INT Adoptions since the last EAtHC16 meeting (Sept 2021). The breakdown is shown in the table below:

GB Chart Number	INT Chart	Title	Adoption	Published
4103	103	English Channel to the Strait of Gibraltar and the Arquipélago dos Açores	FR6623	24/06/2021
4104	104	Lisboa to Freetown	FR6624	24/06/2021
1292	1805	Mimizan-Plage to Cabo de Ajo	ES39A	23/06/2022
2986	1840	Approaches to La Loire	FR7395	17/02/2022
2743	1844	Approaches to La Rochelle	FR7413	23/06/2022
1175	1848	Port de Bayonne and Approaches including L'Adour	FR7430	18/08/2022
1731	1858	Vigo	ES4165	28/04/2022
3220	1875	Entrance to Rio Tejo including Baía de Cascais	PT26303	05/05/2022
3221	1876	Lisboa, Paço de Arcos to Terreiro do Trigo	PT26304	05/05/2022
3259	1880	Setubal and Approaches	PT26308	31/03/2022
366	1960	Arquipélago De Cabo Verde	PT62102	17/02/2022*
3103	2873	Port d'Abidjan	FR7576	23/09/2021
INT Charts to be published in the next six months				
3103	2873	Port d'Abidjan	FR7576	15/09/2022
1118	1855	Ria De Ferrol	ES4122	03/11/2022
1145	1852	Santander	ES4011	03/11/2022
INT Charts scheduled for independent withdrawal in the next six months				
Unknown at present				

Digital Charts

3.3 As noted in Section 3.1, UK's Generic National Report provides information on UK's portfolio of chart products and services. The following paragraphs provide information specifically relevant to the EAtHC region.

ENCs

3.4 Within the EAtHC region, the UKHO has released a total of 74 GB ENC cells since EAtHC I 5.

The breakdown by usage band is shown in the table below:

ENC totals by usage band as produced by UKHO

EAtHC Region Released Cells	
ENC Usage Band	Number of GB ENC's
1	5
2	1
3	25
4	22
5	17
6	4
Total Number of ENCs	74

The table below shows new cells in the GB ENC coverage for the EAtHC Region that were released between November 2018 and August 2021.

New GB Cells	Cell Title	Week No.
None		

GB ENCs planned for release in the next six months:

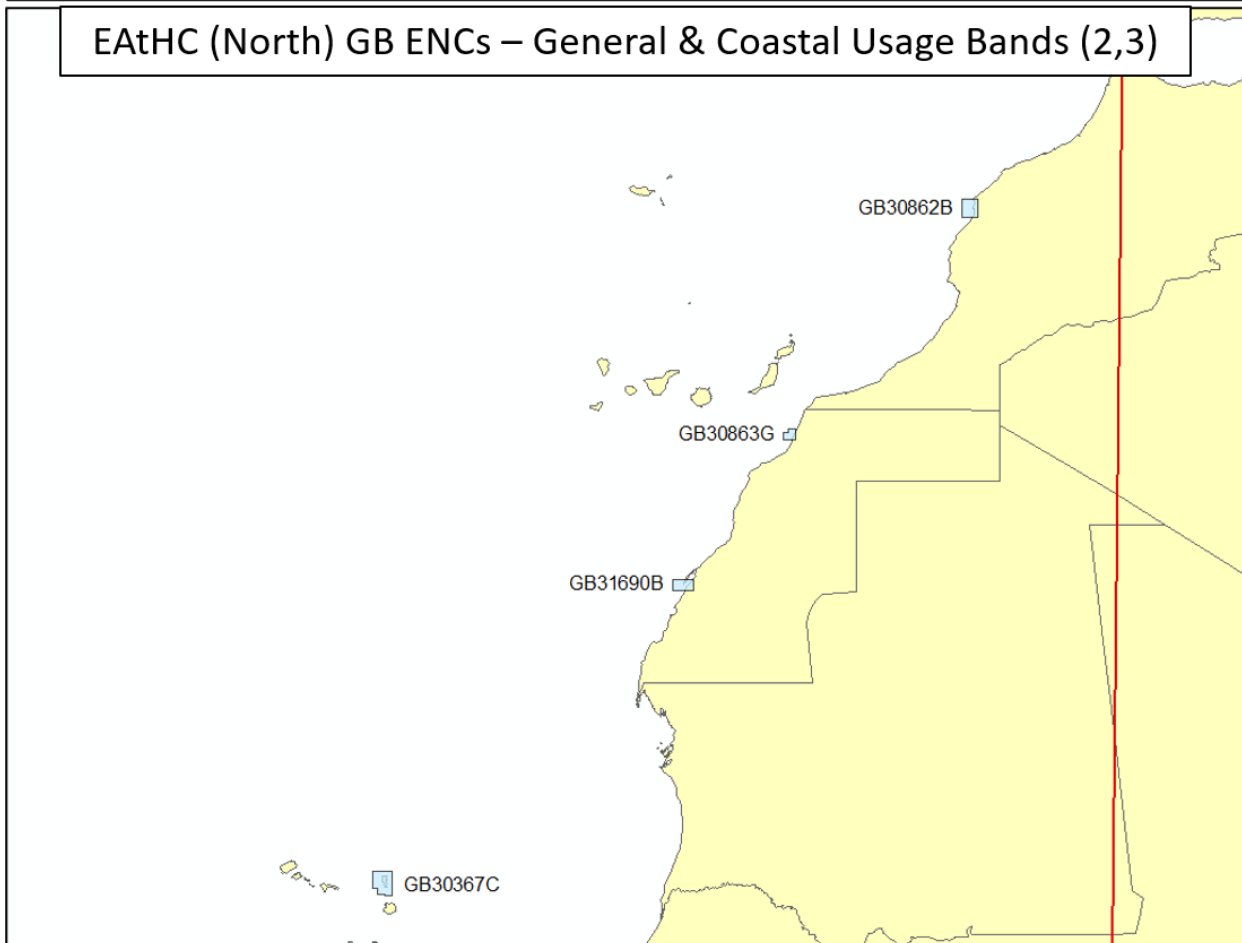
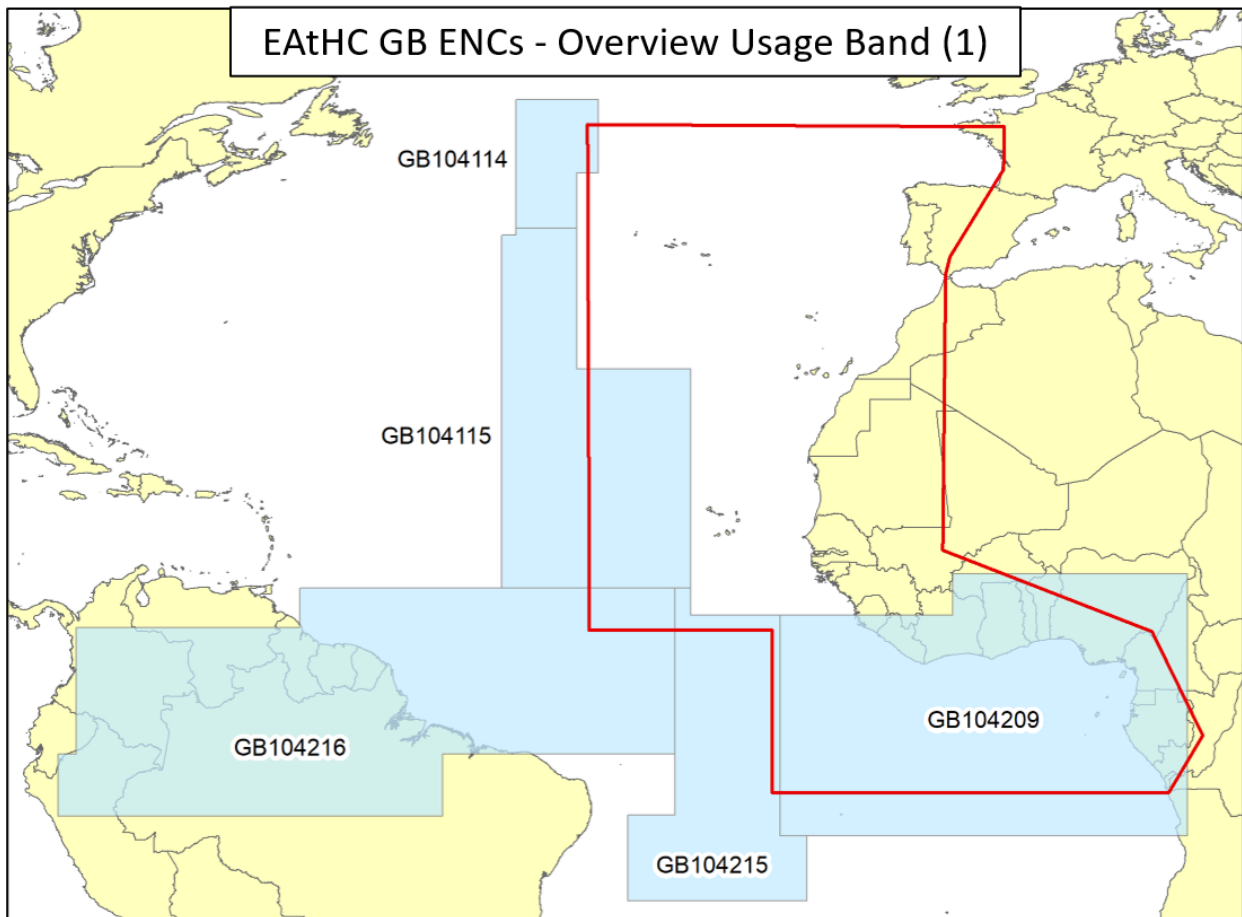
New GB Cells	Cell Title
TBC	Port of Lekki

The table below shows cancelled cells and their replacements in the GB ENC coverage for the EAtHC Region between November 2018 and August 2021.

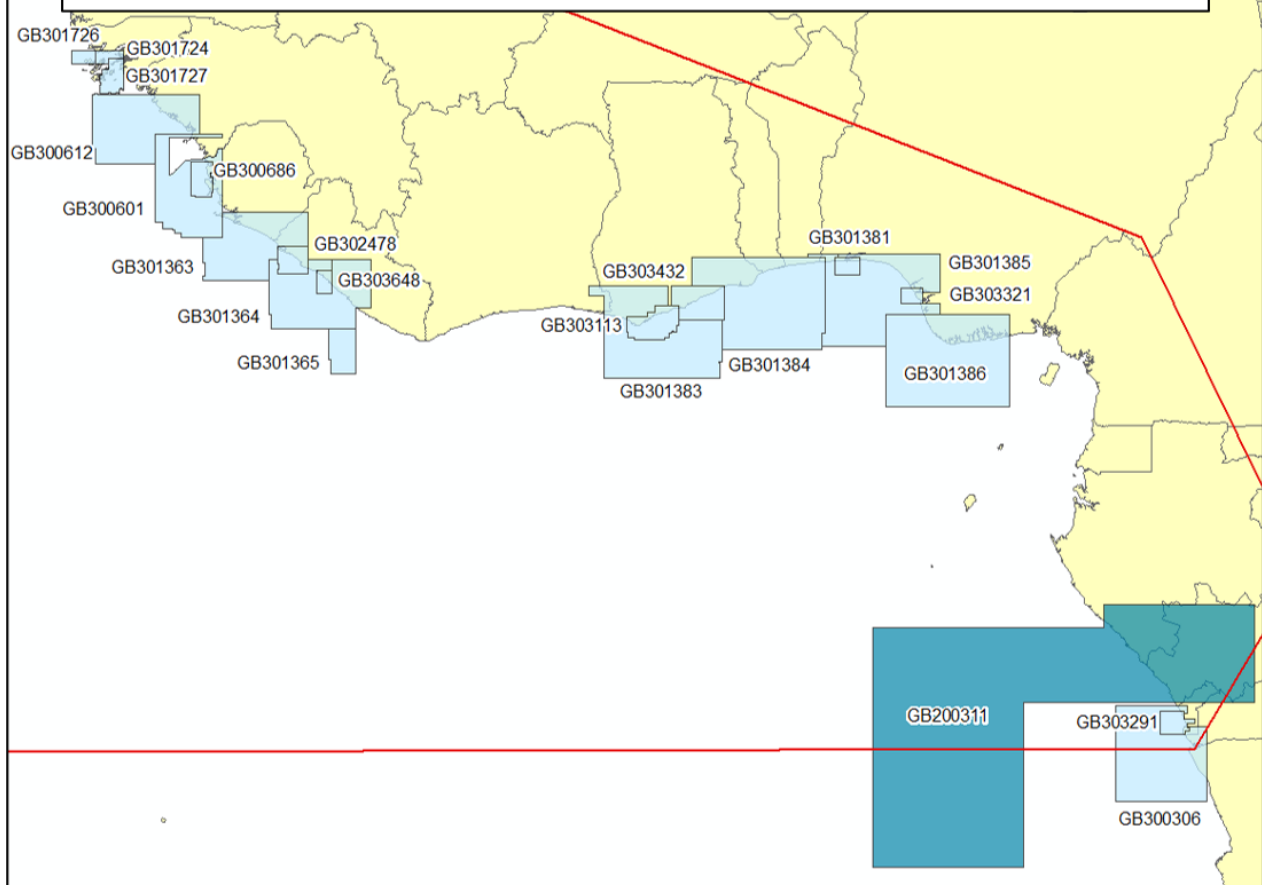
Cancelled GB Cells	Week No.	Replacements	
		Cell Name	Cell Title
None			

The following images illustrate the current coverage of UKHO produced GB ENCs within the EAtHC.

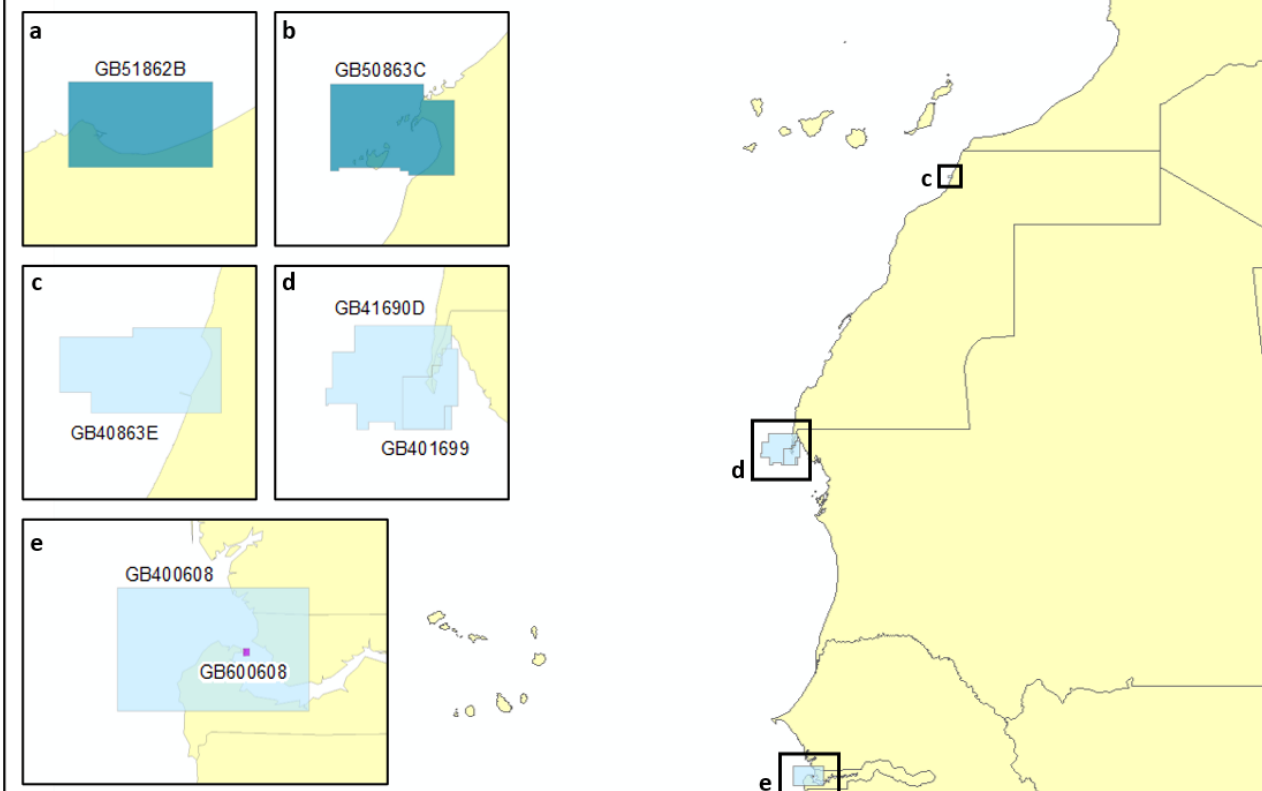


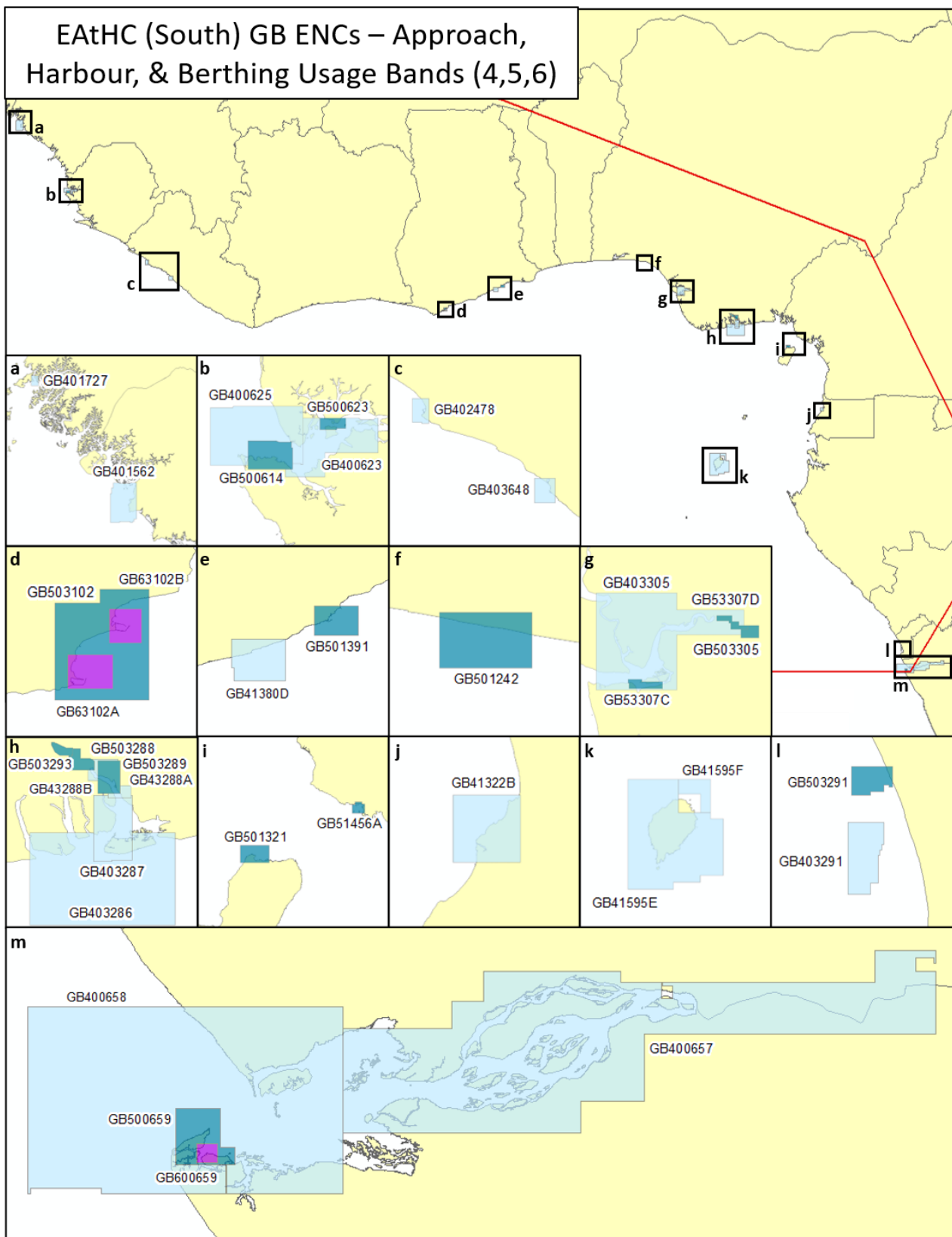


EAtHC (South) GB ENC – General & Coastal Usage Bands (2,3)



EAtHC (North) GB ENC – Approach, Harbour, & Berthing Usage Bands (4,5,6)





ENC Distribution

3.5 The UKHO, along with other European hydrographic offices, was a founder member of the International Centre for ENCs (IC-ENC) Regional ENC Coordination Centre (RENC). IC-ENC concentrates its efforts on the validation and consistency of ENC data and leaves the marketing of ENCs to the shipping industry to its value-added resellers (VAR) and chart agents. Additional details can be found on the IC-ENC website (www.ic-enc.org).

The UKHO also acts as a VAR in its own right, particularly promoting a global range of ENC's under the AVCS brand alongside its successful ADMIRALTY portfolio of paper charts and publications. Additional details can be found on the ADMIRALTY website (www.admiralty.co.uk).

S-100

3.6 The UKHO is at the forefront of developing S-100 based products and services; we are doing this by working in collaboration and actively engaging with other Hydrographic Offices and our industry partners. We are sharing out knowledge and experiences with others as we go on this journey. With regard to S-100 based products and services, the UKHO is focusing on the detailed development of S-101 (Electronic Navigational Chart (ENC)), S-102 (Bathymetric Surface), S-104 (Water Level Information for Surface Navigation) and S-111 (Surface Currents). It anticipates roll-out of initial commercial services from 2024 onwards.

Gridding

3.7 The UKHO has chosen the parameters of a gridded scheme for S-57 and S-101 which can be applied to all GB ENC's across the globe at all scale bands. The grid was chosen following testing and trialling, comparing the grid size options which best align with the existing GB coverage. The work to apply the grid will also include Data Improvement themes including harmonising and consistency of scale and features. This is part of the UKHO's response to the findings in a recent joint UK Marine Accident Investigation Branch and Danish Marine Accident Investigation Department report.

4. PUBLICATIONS

Paper Publications

4.1 The Admiralty Sailing Directions in the EAtHC region are as follows:

NP39 South Indian Ocean Pilot

NP64 Red Sea and Gulf of Aden Pilot

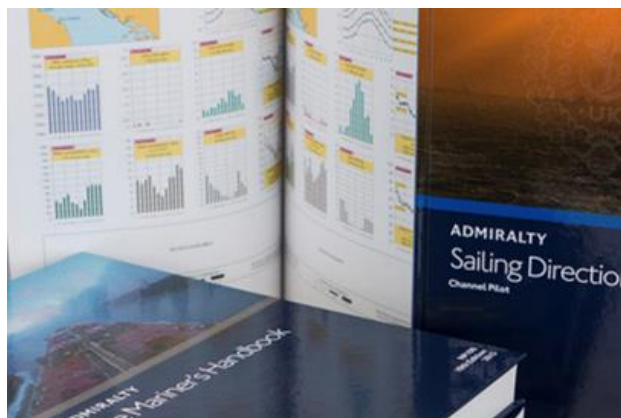
NP3 Africa Pilot Vol 3

NP21 Bay of Bengal Pilot

NP38 West Coast of India Pilot

New Editions Published since last EAtHC meeting September 2021:

None.



New Editions to be published soon:

NP38 – West Coast of India Pilot, to be published in 2023

NP3 – Africa Pilot Vol 3 to be published 2023/2024

NP21 – Bay of Bengal Pilot to be published 2023/2024

NP64 – Red Sea and Gulf of Aden to be published 2023/2024

These publications are all maintained on a continuous revision cycle and new editions are published as required.

Full details of the other ADMIRALTY publication range and their status can be found on the ADMIRALTY website (www.admiralty.co.uk).

Digital Publications

4.2 The UKHO produces a range of ADMIRALTY Digital Publications which are digital versions of ADMIRALTY paper Nautical Publications to support the IMO mandate of ECDIS. These publications

provide mariners with additional functionality, are subscription-based and automate the task of updating through Notice to Mariners.

- **ADMIRALTY e-Nautical Publications (AENP):**
e-Book versions of ADMIRALTY Sailing Directions and reference publications.
- **ADMIRALTY Digital List of Lights (ADLL):**
Digital versions of ADMIRALTY lights publications.
- **ADMIRALTY TotalTide (ATT):** Digital versions of ADMIRALTY tidal publications.
- **ADMIRALTY Digital Radio Signals (ADRS):**
Digital versions of ADMIRALTY radio signal publications.



4.3 The **ADMIRALTY Digital Catalogue (ADC)** can be downloaded free from the ADMIRALTY website (www.admiralty.co.uk). It includes details of all paper and digital charts and publications and is updated weekly. It is a useful tool to check chart coverage within the region, and to show the latest edition dates of both charts and publications.

5. MSI

5.1 UK maintains close liaison with the NAVAREA II Coordinator. Any information received at UKHO which requires urgent promulgation is passed to the respective NAVAREA Coordinator on a 24-hour basis. All administrations are encouraged to promulgate their MSI in a timely manner. This can be achieved by utilising existing National Co-ordinators for MSI within each littoral state in the region and fostering direct liaison with NAVAREA Coordinator for Navigational Warnings and with Regional Hydrographic Offices.

5.2 Notices to Mariners. Assistance with promulgating Notices to Mariners and other paper and electronic chart correcting material should also be encouraged through co-operation with other hydrographic offices in the region if required. The current ADMIRALTY weekly Notices to Mariners are now supplemented by daily updates; these are available on the UKHO website.

6. C-55 LATEST UPDATE

6.1 As described in the [UK Generic National Report](#), UK is committed to providing regular updates to the C-55 entries for UK Home Waters and Overseas Territories. The latest status is correctly outlined within C-55.

6.2 UK has also provided assistance to other countries to update C-55 entries where UKHO retains the primary charting responsibility (Gambia, Ghana, Liberia, Nigeria & Sierra Leone); recognizing that local input remains critical to the maintenance of C-55 as an up-to-date and authoritative reference document.



7. CAPACITY BUILDING

7.1 The UK fully supports the IHO Capacity Building Sub-Committee (CBSC) strategy, particularly its emphasis on getting Phase 1 and appropriate Phase 2 capacity in place to enable coastal states to meet their obligations under SOLAS Chapter V Regulations 4 and 9. The UK will continue to contribute resources to both CBSC initiatives and to providing bilateral assistance.

7.2 The UKHO has a post dedicated to International Capacity Building. Its key aims are to ensure that capacity building is properly considered in the UKHO activity and that the UKHO's capacity building activities are fully coordinated. It acts as the initial point of contact for the UKHO involvement in IHO capacity building activities, including UK involvement in regional hydrographic commission initiatives and IHO CBSC activities.

Training provided by the UKHO - International Training Academy (ITA)

7.3 The International Training Academy drives forward the continuous skills and knowledge development of our global network through world-class training. Details of all UKHO awarded training

opportunities currently offered by the ITA are provided on the UKHO website or by contacting internationaltraining@ukho.gov.uk.

7.4 The UKHO recognises the importance of continued training and, to enable continued activity, has developed a new Learner Management System (LMS). The LMS acts as the learning portal for training, offering all delegates ease of access to online seminars and interactive learning material. As a result of this the UKHO are currently running a series of virtual courses which started with an introductory series in March 2021. The first phase of this blended learning saw 1,960 delegates places being assigned during a five-month period, studying across the following topics:

- Compiling for Navigational Safety
- Introduction to S-57
- Understanding ENC's
- Introduction to S-100

Further details are described in the [UK Generic National Report](#).

7.5 The UKHO International Training Academy are pleased to announce, following the postponement due to the COVID-19 pandemic, the 12th Category B Nippon Funded Course in Geospatial Marine Analysis and Cartography (GEOMAC) was completed in May 2022. The 13th and 14th Nippon Funded Courses commenced August and will be completed in December 2022. From the EAHC region we welcome participants from Ghana and Nigeria.

Royal Navy Training in Hydrography, Meteorology and Oceanography

7.6 Nationally and internationally certified courses delivered by the Royal Navy's Maritime Warfare school are described in the [UK Generic National Report](#).

8. OCEANOGRAPHIC ACTIVITIES

8.1 UKHO's Ocean Environment Team maintains databases of oceanographic information collected by the Royal Navy or obtained during exchange with other nations. Data exchange is an important source of data and so UKHO are always keen to discuss new exchanges. UKHO has participated in the Argo project and in the UN's International Oceanographic Data Exchange (IODE), to work with the international oceanographic community. On behalf of the Royal Navy, UKHO has made periodic releases of data to international data centres including US NODC, for inclusion in the World Ocean Database, and British Oceanographic Data Centre (BODC).

8.2 The UK national repository for oceanographic data collected for scientific purposes, including data from UK-sponsored research cruises anywhere in the world, is British Oceanographic Data Centre (BODC) (<https://www.bodc.ac.uk/>); it is funded by the Natural Environment Research Council (NERC), and located in Liverpool. The main centre for scientific oceanography is the National Oceanography Centre (NOC) in Southampton (<https://www.noc.soton.ac.uk/>).

8.3 Seabed 2030. The UKHO is delighted to announce that they have now signed a data sharing MOU with the SB2030 Project. This MOU will enable UKHO to develop its data contribution plan to the SB2030 Project. Where UKHO is Primary Charting Authority and have the appropriate permissions, the UKHO will share (100m) gridded bathymetry data with SB2030 to help improve the GEBCO grid product. Recently, the UKHO shared data in the Southern Ocean at gridded 100m resolution, for an area covering 33,200m². The UKHO will not be sharing full resolution raw survey data. The UKHO is also supportive of other global bathymetry initiatives, such as EMODNET, where we intend to contribute data using the same rules as SB2030.

We have also entered a technical cooperation agreement with Teledyne Caris and Seabed 2030 which will allow the Seabed 2030 Regional and Global Centres to use the ADMIRALTY GAM service. The ADMIRALTY GAM Service was developed by the UKHO and is a tool that cleans noise in single track bathymetry survey data. This tool will help to improve the speed and human effort associated with

processing of bathymetry data. The Admiralty GAM service was recently released at Ocean Business 2021 and is now also available commercially.

UKHO will also continue to actively engage with associated working groups at the IHO and Regional Hydrographic Commissions.

8.4 Global sea levels are monitored as part of the GLOSS project, by the Permanent Service for Mean Sea Level (PSMSL). This operation is based at the National Oceanographic Centre in Liverpool.

8.5 The UKHO participates on and Chairs the IHO Tides, Water Levels and Surface Currents Working Group (TWCWG). Part of the WG activities involve Member States activities and experiences with long-term [permanent] 'National' Tide Gauge Networks.

8.6 The UKHO is not directly tasked with owning and operating tide gauges at the UK national level – this is the remit of the National Tidal and Sea Level Facility (NTSLF, www.ntsrf.org), previously operated by the UK Environment Agency with a recent (summer 2021) contract to maintain and upgrade the National Tide Gauge Network (NTGN) awarded to the commercial company OceanWise (<https://www.oceanwise.eu/>).



8.7 However, under the auspices of the OTSMP, the UKHO has been working with external contractors to establish permanently installed tide gauges in Overseas Territories, including to date Bermuda, Caymans and the Turks and Caicos Islands. As well as being an essential part of the OTSMP work, they form an integral and important contribution to global sea level monitoring networks. These now feed into the NOAA GOES (Geostationary Operation Environmental Satellites) Collection System, and also linked into the [IOC Sealevel Monitoring System](#). Such permanent installations are instrumental for the scientific study of long-term sea-level rise. In addition, they can form part of tsunami warning systems and also provide essential observations for use in coastal inundation (storm surge) modelling studies. It is the UKHO's intent to further expand this network under the OTSMP and

any future overseas work under other programmes. A Marine Environmental Monitoring Station (MEMS) framework is now in place and will streamline any future projects. The OTSMP is currently funding one MEMS for Ascension Island which will be installed later in 2022.

8.3 Further details are described in the [UK Generic National Report](#).

9. SPATIAL DATA INFRASTRUCTURES

9.1 Status of MSDI. The UKHO is actively developing the concept of Marine Spatial Data Infrastructure in line with the United Nations Committee of Experts on Global Geospatial Information Management (UNGIM) Integrated Geospatial Information Framework.

9.2 Relationship with the National Spatial Data Infrastructure (NSDI). The UK does not yet have a recognised NSDI however, a UK Geospatial Commission was established in 2017 with partner bodies consisting of several national geospatial agencies, including the UKHO. This Commission is focused on unlocking the value of geospatial data within the UK and is currently establishing a UK Geospatial Strategy which is likely to form the foundation of a NSDI soon. The Commission is currently supporting several collaborative projects being undertaken by the UKHO which all have strong links to NSDI principles.

9.3 Involvement in regional or global MSDI efforts. The UKHO is an active member of the UNGIM and Open Geospatial Consortium (OGC) groups which contribute towards Global MSDI activities and methodologies. The UKHO has recently upgraded its membership of the OGC from Technical to Strategic and is now Co-Chair of the OGC Marine Domain Working Group. The UKHO is also a member of the IHO MSDI Working Group. The UKHO Chairs the SWPHC MSDIWG, the SAIHC MSDIWG, Vice-Chairs the MACHC MSDIWG and is represented on the BNSHC MSDIWG. The UKHO has also provided briefings on MSDI to other RHCs which do not yet have MSDIWGs. The UKHO represents

the UK on the UNGGIM Working Group on Marine Geospatial Information and leads UK input into the UNGGIM-Americas Caribbean Geospatial Development Initiative (CARIGEO). UKHO has also recently signed up to the G7 Digital Twins of the Ocean initiative.

We are actively working at creating the appropriate standards to support national and international MSDIs, a good example is our sponsorship of the OGC S-121 pilot study to develop a standard for the exchange of Maritime limits and boundaries and our current sponsorship of the Federated Marine Spatial Data Infrastructure Pilot which looks at S100 within an MSDI and MDSI maturity.

9.4 The IGIF-MSDI Maturity Framework is being developed (by UKHO) in conjunction with the UN, IHO, OGC and World Bank, with representation from Denmark, Singapore, and the United States. As a compact and accessible document, its intent to provide a more quantitative and prescriptive “Quick Start” or “Stepping Stone” for nations beginning their IGIF-aligned MSDI implementation plans. The current World Bank SDI Diagnostic Toolkit with its Terrestrial heritage is being augmented with IHO and OGC insights to maximize its benefits to the Marine community, whilst being aligned with the UN IGIF principles (and UN SDGs as a result) – effectively putting the “M” into (M)SDI. The involvement of the World Bank is crucial in providing answers to the Funding question (incl. business cases), alongside Why (UN), What (IHO), and How (OGC). The IGIF-MSDI Maturity Framework provides quantitative baselining of an agency or nation’s (marine) geospatial development, being aligned to UN IGIF principles, the IHO MSDI model, OGC Best Practice, and the World Bank’s SDI investment process. The Maturity Framework is also designed such that MSDI considerations are modular and interoperable with the full “all-domain” (N)SDI approach (air, land, sea, plus space and cyberspace if applicable).

9.5 National implementation of the Shared Data Principles – including any national data policy and impact on marine data. The UKHO is a lead sponsor of the Marine Environment Data Information Network (MEDIN) which coordinates the delivery of INSPIRE obligations to Findable, Accessible, Inter-operable and Re-usable (FAIR) standards. The UKHO is actively engaged with projects directed by the UK Geospatial Commission to improve the handling and publication of Government datasets. This work involves improving the discoverability of data as well as working towards a set of shared principles within UK Government. The UKHO also continues to produce Electronic Navigational Charts to the IHO S-57 standard which contains a defined structure for metadata and the modelling of maritime related features. Work is ongoing to transition to the of future IHO S-100 standards.

9.6 MSDI national portal. The UKHO has a Marine Data Portal that continues to grow and develop. As the organised gateway to our non-navigation data and services, it gives people easy and timely access to marine location-based information from seabed to surface to help them with sustainable marine decision making. The Portal allows users access to several free of charge datasets and services mainly covering UK territorial waters. The Portal also provides access to premium data sets which can be purchased. The underlying Marine Data Portal technology has the capability to host other agencies’, or even other nation’s datasets.

10. AUTONOMOUS NAVIGATION

10.1 The UKHO have been engaging with several industry experts and project initiatives surrounding Maritime Autonomous Surface Ships (MASS) to try and understand the navigation data needs as momentum gathers in this area.

UKHO have proactively sought out a number of organisations such as Thales, Atlas Elektronik and TGP Polaris and discussed the issues with current products and services and have provided data to stimulate discussions about what they see as gaps in the current offering and identify the new products going forward.

In our work with industry operators, UKHO has supplied data to facilitate discussion and allow operators to explore what the future navigation service might look like.

The establishment of the Maritime Autonomous Surface Ships (MASS) Navigation Project Team (MASS PT) was approved at HSSC13 following a proposal by the United Kingdom, Norway and Singapore, to address Maritime Autonomous Surface Ships (MASS) requirements on navigation data and services, of which UK are Chair.

11. OTHER ACTIVITIES

UK Celebrations for World Hydrography Day (WHD)

11.1 The UKHO celebrated World Hydrography Day 2022 by coming together at an internal exhibition to showcase the important work carried out by our teams in support of the global hydrographic community. The theme this year was "*Hydrography – contributing to the United Nations Ocean Decade*" and a link to a short film can be found [here](#).

Broader UK Government Work

11.2 UK Centre for Seabed Mapping (UK CSM): In support of a more integrated Marine Geospatial Sector for the UK, both nationally and internationally, the UKHO has created the UK CSM, with a core focus on bathymetry and its associated data. Through increased coverage, quality and access of seabed mapping data collected from public money or in collaboration with industry, the UK CSM aims to enable a more unified voice to promote seabed mapping, and the resultant data, as the foundation data set to ocean mapping. The UK CSM is also a UK government voluntary commitment to the UN Ocean Decade.

11.3 The UK Member State, consisting of the UK, the Overseas Territories and Crown Dependencies, was audited in late 2021 (delayed from late 2020 due to issues surrounding COVID-19) against the IMO Instrument Implementation Code's (IIC) and Mandatory IMO Member State Audit Scheme (MIMSAS). The work of the UKHO was specifically mentioned as an example of best practice in this field. This has raised awareness of the importance of maritime compliance and the benefits to everyone. To complement the work of the UKHO's OT SMP, the UK Maritime and Coastguard Agency have a UK Government aid funded programme to review maritime obligations compliance, search and rescue and oil pollution response.

11.4 UK ocean priorities

The UK is a global ocean leader, continuing to take action and push for increased ambition on climate, pollution, and biodiversity loss issues working with counterparts in the UK and overseas to help achieve these aims. The UK is continuing to push for strong action at key negotiations and conferences in 2022 including BBNJ, CBD, Our Ocean, UN Ocean, UNFCCC COP27 and UNEA. The UK launched a £500m Blue Planet Fund that will support developing countries to protect their marine environment and reduce poverty.

Background and key 2022 information

Conferences –

11.4.1 UN Ocean Summit in Lisbon June 2022– Lord Goldsmith led the UK delegation, joined by Minister Pow. FCDO SIDS Envoy Rebecca Fabrizi and RAdm Rhett Hatcher of the UK Hydrographic Office were among the 30-strong visiting group. The UK hosted, with Fiji, a side event on sustainable ocean finance. Lord Goldsmith announced £154m for COAST, a new global programme to protect and restore habitats, support small-scale fisheries and unlock aquaculture, and £100m to support Marine Protected Areas (MPAs), both under the Blue Planet Fund. The UK also joined the High Level Panel for a Sustainable Ocean Economy and, with the US and Canada, launched the IUU Fishing Action Alliance to tackle illegal, unregulated and unreported fishing. RAdm Rhett Hatcher joined an International Hydrographic Organisation led panel session, which aimed to raise awareness about the role of hydrography / seabed mapping, and how it contributes to marine spatial planning for sustainable management of the marine environment and knowledge of the world's oceans.

11.4.2 One Ocean Summit in France February 2022. The UK was represented by Lord Goldsmith, with the Prime Minister delivering a video message of support. At the Summit, the UK announced it would be joining the High Ambition Coalition for Biodiversity Beyond National Jurisdiction along with EU Member States and 16 other countries. The UK is committed to agreeing an ambitious BBNJ Agreement as soon as possible in 2022.

The UK is supportive of the Our Ocean Conferences, the 7th of which was held in Palau in April 2022, in collaboration with the US. The UK has continued work on the commitments submitted to the conference in 2019 and has recently submitted further commitments for 2022.

The UK will look to harness the momentum garnered in Glasgow, Brest, Palau and of the UN Ocean Summit in Lisbon and work with partners to maintain momentum on ocean action into UNFCCC COP27

in Egypt and the CBD COP15 negotiations in Montreal.

11.4.3 Convention on Biological Diversity 7 - 19 December 2022 Canada- The UK is committed to playing a leading role in developing an ambitious post-2020 global biodiversity framework to be adopted at COP15 of the Convention on Biological Diversity (CBD), including ambitious outcomes for the ocean through targets on marine protection, ecosystem restoration and nature-based solutions, pollution reduction, sustainable fisheries, and the reform and elimination of harmful subsidies. The UK is committed to championing international ocean action to drive ambitious outcomes for ocean from CBD COP15, including through our role as leader of the Global Ocean Alliance.

11.4.4 Blue Planet Fund - The UK has launched a £500 million Blue Planet Fund that will support developing countries to protect the marine environment and reduce poverty. Financed from the UK overseas aid budget, the Blue Planet Fund will help eligible countries reduce poverty, protect and sustainably manage their marine resources and address human-generated threats across four key themes: biodiversity, climate change, marine pollution, and sustainable seafood. The Blue Planet Fund will mainly operate in five priority regions, including West Africa.

11.4.5 International Partnership on Blue Carbon (IPBC) - Since 2018 the UK have been a member of the International Partnership for Blue Carbon (IPBC). The IPBC, coordinated by the Australian Government, works across society to build awareness, share knowledge and accelerate action on the important role of blue carbon ecosystems in climate change adaptation and mitigation. The UK announced our intention to join the Partnership at the Our Ocean conference in 2018. Our membership of the IPBC enables the UK government to lead on a critical sector of the environment on the global stage. It creates multiple strategic benefits for, and synergies with, existing work across government, and complements our project delivery with a commitment to leading international policy. In 2022, the Partnership has 50 Partners, of which 17 are country government agencies. This includes representation from states including France, Norway, Portugal and the Commonwealth Blue Charter.

11.5 Blue Belt Programme: In support of the UN Global Goals for Sustainable Development, the UK Government has committed £20 million to a four year programme providing long term protection and sustainable management of over four million square kilometres of marine environment across the UK Overseas Territories.

The Blue Belt Programme supports delivery of the UK Government's manifesto commitment to provide long term protection of:

- improve scientific understanding of the marine environment
- develop and implement evidence based, tailored marine management strategies including surveillance and enforcement
- ensure management is sustainable and long term

The programme is being delivered in partnership between the Centre for Environment, Fisheries and Aquaculture Science (Cefas) and the Marine Management Organisation (MMO) with the UK Overseas Territories on behalf of the Foreign and Commonwealth Office and the Department for Environment, Food and Rural Affairs.

Further information can be found in the [Blue Belt Annual Report 2021](#) and [Annual Update 2021/22](#).

11.6 COP26. The UKHO provided material for the DEFRA's nature theme day and Department for Transport's Clydebank Declaration on green corridors at COP26 in Glasgow, November 2021. We also represented at the Glasgow University College Campus where we raised awareness of the challenges of marine data paucity and its impact on the environment.

The UKHO's International Activities

11.7 Due to the UKHO's technical expertise, primary charting responsibilities and UK Overseas Territories, the UK is represented at the following groups:

International Hydrographic Organization - HSSC		Chair/Vice Chair	Member
HSSC	Hydrographic Services and Standards Committee		x

DQWG	Data Quality Working Group		x
ENCWG	ENC Standards Maintenance Working Group	x	x
NCWG	Nautical Cartography Working Group	x	x
NIPWG	Nautical Information Provision Working Group		x
S-100WG	S-100 Working Group		x
S-101 PT	S-101 ENC Project Team	x	x
S-102 PT	S-102 Bathymetric Surface Project Team		x
S-121 PT	S-21 Maritime Limits and Boundaries Project Team		x
S-124 PT	S-124 Navigational Warnings Project Team		x
S-130 PT	S-130 Polygonal Project Team		x
S-131 PT	S-131 Marine Harbour Infrastructure Project Team		x
TWCWG	Tides, Water Level & Currents Working Group	x	x
HSWG	Hydrographic Survey Working Group	x	x
MASS PT	Maritime Autonomous Surface Ships Navigation Project Team	x	x
ABLOS	Advisory Board on the Law of the Sea		x
International Hydrographic Organization - IRCC		Chair/Vice Chair	Member
IRCC	Inter-Regional Coordination Committee		x
CBSC	Capacity Building Sub-Committee	x	x
CSBWG	Crowd-sourced Bathymetry Working Group		x
MSDIWG	Marine Spatial Data Infrastructure Working Group		x
WENDWG	Worldwide ENC Database Working Group		x
WWNWS	Worldwide Navigational Warning Service		x
GEBCO	General Bathymetric Chart of the Oceans		x
HCA	Hydrographic Commission on Antarctica		x
MACHC	Meso American and Caribbean Sea Hydrographic Commission	x	x
MBSHC	Mediterranean and Black Seas Hydrographic Commission		x
NIOHC	North Indian Ocean Hydrographic Commission		x
NSHC	North Sea Hydrographic Commission		x
RSAHC	ROPME Sea Area Hydrographic Commission		x
SAIHC	Southern African and Islands Hydrographic Commission	x	x
SWPHC	South-West Pacific Hydrographic Commission		x
EAtHC	Eastern Atlantic Hydrographic Commission		x
International Maritime Organization		Chair/Vice Chair	Member
NAVTEX	NAVTEXT Coordination panel	x	x
International Association of Marine Aids to Navigation and Lighthouse Authorities		Chair/Vice Chair	Member
ENAV	E-navigation Committee		x
Other International Bodies		Chair/Vice Chair	Member
IAU	International Astronomical Union		x
CIRM	Comité International Radio-Maritime		x
BALTICO	Navarea I member states meeting		x
ISO	International Standards Organisation		x
OGC	Open Geospatial Consortium		x
UNGGIM WGMGI	UNGGIM Working Group on Marine Geospatial Information		x
CARIGEO	Caribbean Geospatial Development Initiative		x

12. CONCLUSION

12.1 As with previous reports, the UKHO has continued to experience the impacts of the COVID-19 pandemic. Our flexible working environment has enabled a hybrid working approach, with negligible impact on output. We aim to continue this hybrid approach to retain the positive aspects of the changes since the pandemic. We applaud our partners in the wider hydrographic community, with the continued commitment to serving the needs of the Mariner and marine user, despite this challenging environment.

12.2 Since the 16th meeting of the Eastern Atlantic Hydrographic Commission (EAthC), the UKHOs commitment to the region has been recognised by being promoted to Associate Members by the Chair.

12.3 The UKHO is committed to our primary charting activity and continuing its efforts in developing regional hydrographic self-sufficiency through capacity building measures. The UKHO is currently hosting two students from the East Atlantic region on our Nippon GeoMAC Cat B Cartography course and has ambitious plans to provide training and support to multiple regional partners over the coming year.

12.4 The UKHO collaborates closely with the regional Capacity Building Coordinator and plans to support IHO Technical Assessment visits in region. Furthermore, over the past year we have been grateful for the support, encouragement, and positive feedback that our partners have provided in response to the launch of our online training academy. More than 3,000 training places have been provided to the hydrographic community worldwide, many within the EAtHC region.

12.5 Good progress continues to be made to improve the availability and quality of suitable ENC coverage along with digital publications to support the digital bridge. The UKHO has supported partners through MoUs to continue to grow digital coverage. This underpins the UKHO announcement to move to a digital only environment by the end of 2026; a move reflected by the significant drop in analogue sales and usage, and the continued development of the second generation of digital navigation products and services, through IHO S-100.

12.6 Noting the increasing demand and the IHO direction to enable the maximum and widest use of Hydrographic maritime and marine information and data, the UKHO is continuing the journey into looking at how it can meet this demand as part of its efforts to develop its Marine Geospatial Information credentials.

UKHO Taunton

August 2022

UKHO POINTS OF CONTACT

UKHO Website: [GOV.uk/UKHO](https://gov.uk/UKHO)

The general UKHO address is:

UK Hydrographic Office,
Admiralty Way,
TAUNTON
Somerset
TA1 2DN
United Kingdom

For further information on this report, UKHO representation in international fora, and UKHO activities in general, please contact:

E-mail: IBTE@ukho.gov.uk

Telephone: +44 (0) 1823 484444

For bilateral arrangements and other international partnering matters within the EAtHC region, please contact:

Mr Nathanael Knapp

Head of Partnering & Engagement, East Atlantic and Caribbean

Telephone: +44 (0) 1823 483553

E-mail: Nathanael.Knapp@ukho.gov.uk

Mr Jeremy Kitchker

International Training Manager

Telephone: +44 (0) 1823 483438

E-mail: Jeremy.Kitchker@ukho.gov.uk

Ms Lucy Fieldhouse

International Capacity Building Manager

Telephone: +44 (0) 1823 483335

E-mail: Lucy.Fieldhouse@ukho.gov.uk

For charting matters in the EAtHC region, please contact:

Ms Cathy Tunks

Geographical Technical Lead,

Telephone: +44 (0) 1823 483956

E-mail: Cathy.Tunks@ukho.gov.uk

For matters related to Sailing Directions within the EAtHC region, please contact:

Email: SDImpactAnalysis@ukho.gov.uk

Input to the IHO Publication P-5 (Yearbook)
United Kingdom of Great Britain and Northern Ireland

Country information / Informations sur le pays/ Información sobre el país	
-Declared National Tonnage -Tonnage national déclaré -Tonelaje Nacional Declarado	40,631,143 tons
National day -Fête nationale -Fiesta nacional	Second Saturday in June (Trooping the Colour)
-Date first joined IHO -Date d'adhésion à l'OHI -Fecha de adhesión a la OHI	21/06/1921
-Date ratification Convention -Date de ratification de la Convention -Fecha de ratificación de la Convención	03/05/1967
<p>Official Representative to IHO (as designated by Member Government)</p> <p>UNITED KINGDOM HYDROGRAPHIC OFFICE</p>	
Contact information/ Informations de contact / Información de contacto	
-National Hydrographer or equivalent -Directeur du service hydrographique ou équivalent -Director del Servicio Hidrográfico o equivalente	<p>RAAdm Rhett Hatcher - National Hydrographer & Director of Defence & Data Acquisition</p> <p>Postal address: Admiralty Way TAUNTON Somerset, TA1 2DN United Kingdom Tel: + 44 (0) 1823 484444 E-mail: IBTE@UKHO.gov.uk</p>
Other point(s) of contact -Autre(s) point(s) de contact -Otros punto(s) de contacto	
-Web site -site web -sitio web	http://www.gov.uk
Agency information	
Date of establishment	12 August 1795
Relevant National Legislation	<p>TS Baseline 25.09.64 12nm TS Limit 15.05.87 200nm EFZ 22.12.76</p>
Top level parent organization	Ministry of Defence
Principal functions of the organization or the department	Publication of analogue and digital navigational charts and supporting publications, transmission of maritime safety information, Notices to Mariners (weekly), provision of geodetic, oceanographic and geophysical data and publications

	to meet defence requirements. Provision of tidal information and Ocean currents.
Number of INT charts published	970
Total number of paper charts	3500 (Approx)
Number of ENC cells published	1771 GB cells
Number of Raster Charts	582
Number of Other Charts	52
Type of publications produced	Full suite of Admiralty Charts and Publications including some digital products. For details see UK Catalogue of Admiralty Charts and Publications (NP131) or the UKHO web site: http://www.gov.uk/UKHO

Other Organizations providing national Hydrographic Services
Autre Organismes fournissant des services hydrographiques au niveau national.

**CAPTAIN HYDROGRAPHY & METEOROLOGY AND
HYDROGRAPHER OF THE NAVY**

Contact information / Informations de contact / Información de contacto			
Head of the Hydrographic Office (if different from the person indicated above) - Directeur du service hydrographique (si différent de la personne indiquée ci-dessus) - Jefe del Servicio Hidrográfico (si es diferente de la persona indicada anteriormente)	Head of Hydrographic Office - Royal Navy. Hydrographer of the Navy Cdr Matthew Warren Commander HM Tel: + 44 (0) 3001618853 Fax: + 44 (0) 1752 555844 E-mail: Matthew.warren967@mod.gov.uk		
Other point(s) of contact - Autre(s) point(s) de contact -Otros punto(s) de contacto	Postal address: SURFLOT, Defiance Building HM Naval Base Devonport, PLYMOUTH, Devon, PL2 2BG, United Kingdom of Great Britain and Northern Ireland		
Agency information / Information sur l'agence / Información sobre la agencia			
Top level parent organization -Organisme mère -Organización asociada de nivel superior	Ministry of Defence - Fleet Commander		
Principal functions of the organization or the department -Attribution principales de l'organisme ou du département - Principales funciones de la Organización o el departamento	Commander of RN ships, units and personnel engaged in collection analysis and dissemination of all forms of geospatial information through the hydrographic, meteorological and oceanographic disciplines		
Detail of surveying vessels/ Aircraft -Détail des bâtiments hydrographiques/aéronefs - Detalle de buques hidrográficos/Aeronaves	Displacement -déplacement -Desplazamiento - Fecha de puesta en servicio	Commissioning Date -date de mise en service	Crew -équipage -Personal

HMS SCOTT (H131)	13500	1997	63
HMS PROTECTOR	5000	2011	88
HMS ECHO (H87)	3470	2002	72
HMS ENTERPRISE (H88)	3470	2002	72
HMS MAGPIE (H130)	37	2018	12
Other information of interest -Autres informations utiles -Otra información de interés	<p>HM personnel are also borne in other RN vessels. Capt(HM) directs all hydrographic, meteorological and oceanographic support to the fleet.</p> <p>The programme for Civil hydrography in UK waters is managed by the Maritime & Coastguard Agency and is outsourced to the commercial sector</p> <p>Training in hydrographic surveying and meteorology is provided for naval personnel by the</p> <p>Commander Fleet Operational Training - Hydrography, Meteorology and Oceanography</p> <p>HMS DRAKE HM Naval Base</p> <p>Devonport</p> <p>PLYMOUTH</p> <p>Devon PL2 2BG</p> <p>Details of courses are available at:</p> <p>www.mod.uk/DefenceInternet/AboutDefence/Whatwedo/Training and Exercises/IDT/IDTRN</p>		