



UK Hydrographic
Office

MACHC22-03.13-UK National Report

UNITED KINGDOM NATIONAL REPORT

TO THE

22ND MEETING OF THE MESO AMERICAN - CARIBBEAN SEA HYDROGRAPHIC COMMISSION (MACHC22)

30 November 2020 to 3 December 2021
(Virtual Meeting)



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, the 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.

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 MACHC 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 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 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), and continues to highlight 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 2022, as well as working with OTs to ensure their compliance with the Hydrographic elements of SOLAS.

2.2 The UK fulfils the Primary Charting Authority (PCA) responsibilities of the following UK OTs within the MACHC region:

Anguilla;

Bermuda (falls within USCHC region, more in common with MACHC region);

British Virgin Islands;

Cayman Islands;

Montserrat; and

Turks and Caicos Islands.

2.3 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 sixth year and in November 2021 saw the mobilisation of an airborne lidar survey in the Cayman Islands which will capture bathymetry data in the Cayman's coastal waters down to approximately 40m water depth.

Commonwealth Marine Economies Programme

2.4 The UKHO is also continuing to support the Commonwealth Marine Economies (CME) Programme. The CME Programme is providing 17 Commonwealth Small Island Developing States (SIDS) with accurate hydrographic and scientific data relating to their marine environment, as well as capacity building for national bodies. Of these 17 countries, 7 are within the MACHC region, including:

Antigua and Barbuda;
Belize;
Grenada;
Guyana;
Jamaica;
St. Lucia; and
St. Vincent and The Grenadines.

2.5 The UK Government's CME Programme aims to support the sustainable economic growth of SIDS by maximizing the potential of their marine resources, helping to improve their resilience to climate change and natural disasters, protect their environment and food security, and ultimately improve the livelihood of local communities.

Surveys and Capacity Building

2.6 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. The 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).

2.7 In total, international UKHO survey operations under the OTSMP and CME Programme have covered a combined area of around 20,000KM² around the world. In 2021, further surveys are scheduled to take place in Saint Helena and Ascension under the OTSMP.

2.8 Both programmes have continued to deliver capacity building and in the last year have remotely delivered training to Antigua & Barbuda, Guyana, Jamaica and Montserrat. We have also conducted an in-person technical visit to Antigua and Barbuda and are currently developing an Action and Implementation Plan to assist with its Hydrographic Development. Further capacity building activity is planned for Guyana in 2022.

2.9 Since the last MACHC, UKHO has supported two surveys in the region. These were:

- i. An airborne lidar survey in the Cayman Islands under the OTSMP (see Figure 1 Area covered by Lidar survey in the Cayman Islands is shown in green).
- ii. A multibeam survey of Willoughby Bay in Antigua under the CME Programme (see Figure 1 Area covered by Lidar survey in the Cayman Islands). The survey was carried out alongside local personnel from various key Antigua maritime organisations. This builds on previous training and has helped develop capacity in Antigua for future hydrographic survey campaigns.

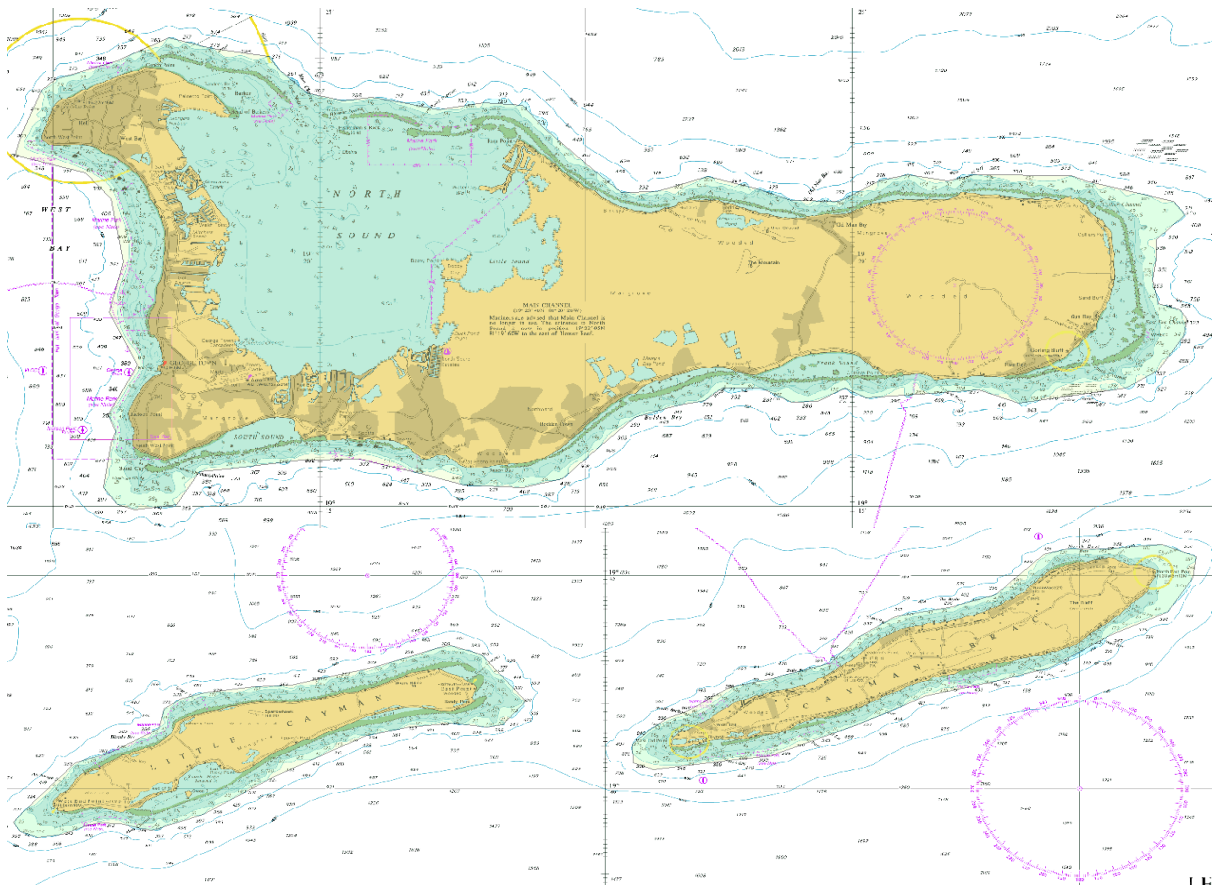


Figure 1 Area covered by Lidar survey in the Cayman Islands is shown in green

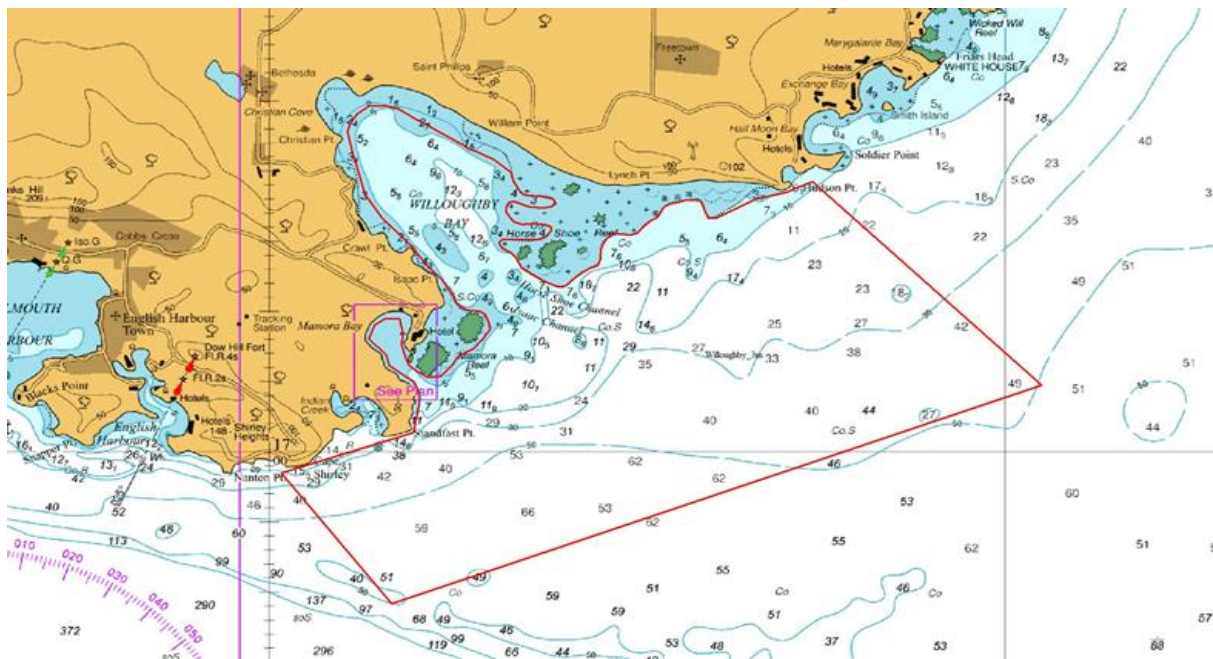


Figure 2 Survey coverage of Willoughby Bay in Antigua

2.10 As part of the survey campaign in the Cayman Islands, permanent tide gauges will be installed on the island; these will be connected to the worldwide tidal monitoring network for ongoing measurement and modelling purposes.

UKHO are also actively supporting Saildrone in the planning of a survey of the Cayman Islands EEZ which is using autonomous survey vessels.

2.11 The UK continues to explore how we can strengthen the relationship with countries for which we are the PCA. We have increased our level of engagement to better understand prioritised requirements in the MACHC region and are currently updating our strategy to reflect this.

2.12 Any requests for survey assistance from nations within the MACHC 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 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 MACHC region.

Paper Charts

3.2 Information on UK's chart portfolio is provided on the ADMIRALTY website. Within the MACHC region, the UKHO has published 29 New Paper Editions and 1 New INT Editions since the last MACHC meeting (December 2020). The breakdown is shown in the table below:



GB Chart Number	Title	Published
2261	Colombia – North Coast, Puerto Barranquilla and Approaches.	22 nd October 2020
530	Brazil – South Coast, Cabo de São Tomé to Rio Grande	16 th November 2020
468	Cruise Terminals in the Caribbean, Amber Cove, Dominican Republic and Grand Turk, Turks and Caicos.	10 th December 2020
1441	Turks and Caicos Islands, Turks Islands	10 th December 2020
CP5	Panamá – Pacific Coast, Panamá Canal, Pacific Entrance	10 th December 2020
618	West Indies, Southern Guadeloupe including Marie-Galante and Les Saintes	14 th January 2021
CP1	Panamá – North Coast, Panamá Canal, Atlantic Entrance including Adjacent Ports	4 th February 2021
1105	Mexico – West Coast, Approaches to Guaymas.	11 th February 2021
410	West Indies – Cuba – North West Coast, Bahía del Mariel and Approaches	18 th February 2021
414	West Indies – Cuba, Puerto de la Habana	1 st April 2021
3186	United States – Gulf of Mexico, Texas, Galveston Bay, Houston Ship Channel, Pelican Island to Barbour's Cut.	1 st April 2021
483	Trinidad and Venezuela, Gulf of Parí	29 th April 2021
2751	Mexico – East Coast, Approaches to Coatzacoalcos and Pajaritos	29 th April 2021
3849	United States and Mexico, Gulf of Mexico, Brownsville to Galveston Bay	6 th May 2021
2193	Venezuela and Nederlandse Antillen, Punta San Juan to Punta Macolla including Bonaire, Curaçao and Aruba	20 th May 2021
2626	Mexico – East Coast, Bay of Campeche	20 th May 2021

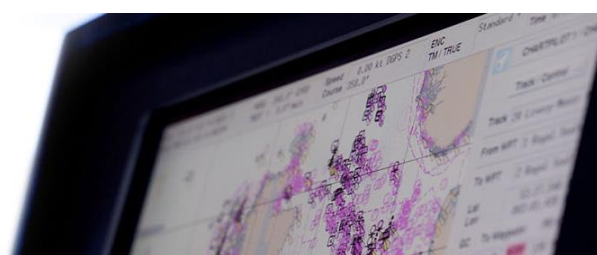
GB Chart Number	Title	Published
584	West Indies, Saint Barthélemy to Antigua	3 rd June 2021
585	West Indies, Nevis and Antigua to Northern Guadeloupe.	3 rd June 2021
1307	Mexico - East Coast, Bahía de Campeche	3 rd June 2021
1979	Mexico - Pacific Coast, Manzanillo and Approaches	10 th June 2021
331	Brazil - North Coast, Approaches to Belém and Porto de Vila do Conde	10 th June 2021
2258	Colombia - Panama, Bahía Buenaventura to Panama	8 th July 2021
781	Caribbean Sea, Aruba	22 nd July 2021
2753	Mexico - East Coast, Tuxpan and Approaches	22 nd July 2021
3384	United States - Gulf of Mexico, Louisiana, Mississippi River, New Orleans to Baton Rouge	12 th August 2021
3184	United States - Gulf of Mexico, Texas, Corpus, Christi and Brownsville	9 th September 2021
1043	INT Chart 4186 - International Chart Series, West Indies - Windward Island, Saint Lucia to Grenada and Barbados	27 th September 2021
3382	United States - Gulf of Mexico, Louisiana, Mississippi River, Southwest Pass to Baton Rouge	1 st October 2021

The following charts are scheduled for publication in the next six months:

GB Chart Number	Title
3907	INT Chart 4160 - International Chart Series, Bahama Islands and Hispaniola, Passages Between Mayaguana Island and Turks and Caicos Islands, Including Northern Approaches to Haiti and Dominican Republic
3908	INT Chart 4162 - International Chart Series, West Indies, Passages Between Turks and Caicos Islands and Dominican Republic
2005	Virgin Islands, Road Harbour to Capella Islands
2006	West Indies, Virgin Islands, Anegada to Saint Thomas
2019	British Virgin Islands, North Sound to Road Harbour
2020	West Indies, Harbours and Anchorages in the British Virgin Islands
332	Bermuda Islands, Grassy Bay and Great Sound Including Little Sound
867	Bermuda, North and South Channels to Great Sound
868	Bermuda, Eastern and Western Approaches to the Narrows including Murray's Anchorage
1073	Bermuda Islands, Dundonald Channel to Hamilton Harbour
1315	Bermuda Islands, Five Fathom Hole, The Narrows and Saint George's Harbour
1415	Turks and Caicos Islands, Turks Island Passage and Mouchoir Passage

Digital Charts

3.3 As noted in Section 3.1, the 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 MACHC region.



ENCs

3.4 Within the MACHC region, the UKHO has released a total of 221 ENC cells. The breakdown by usage band is shown in the table below:

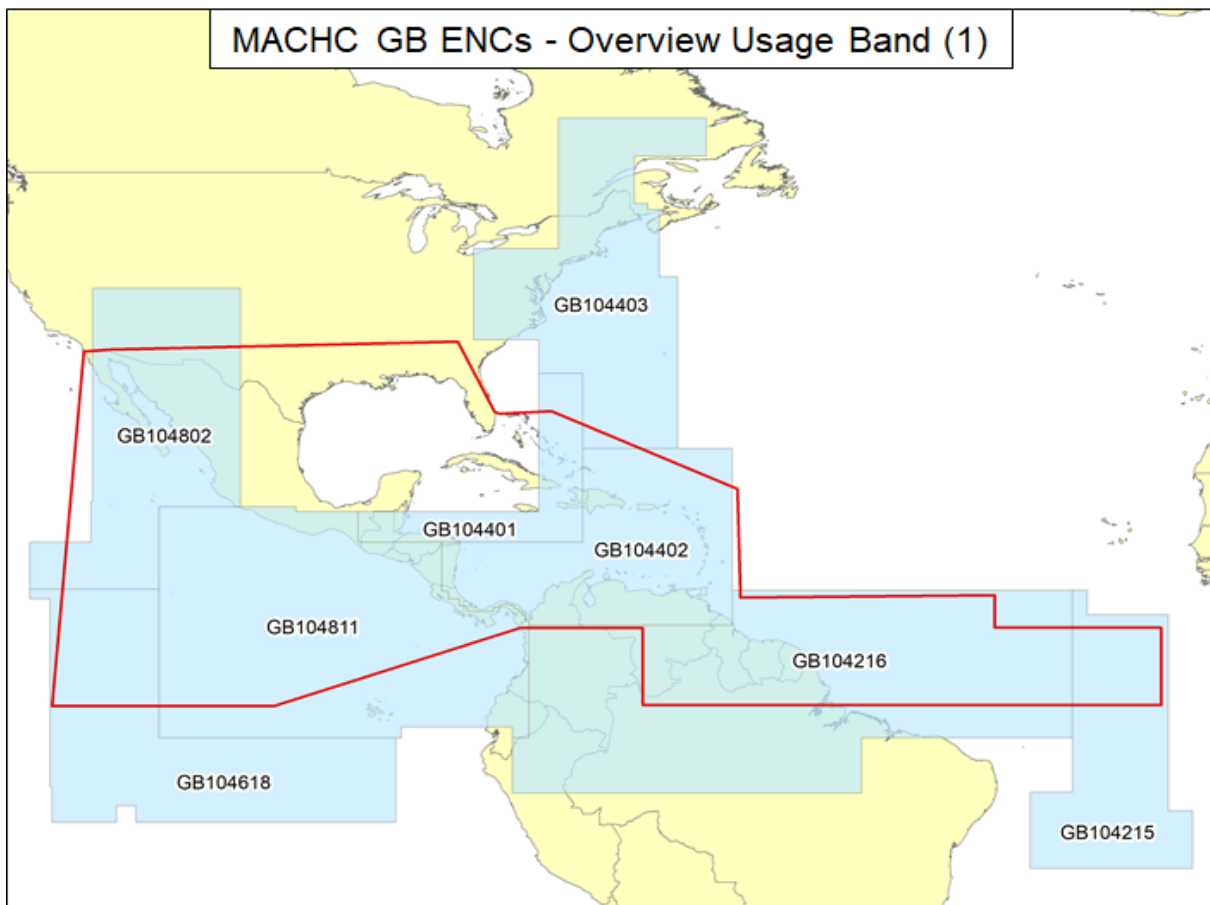
MACHC Region Released Cells	
ENC Usage Band	Number of GB ENC's
Usage Band 1	8
Usage Band 2	15
Usage Band 3	35
Usage Band 4	67
Usage Band 5	82
Usage Band 6	14
Total Number of ENCs	221

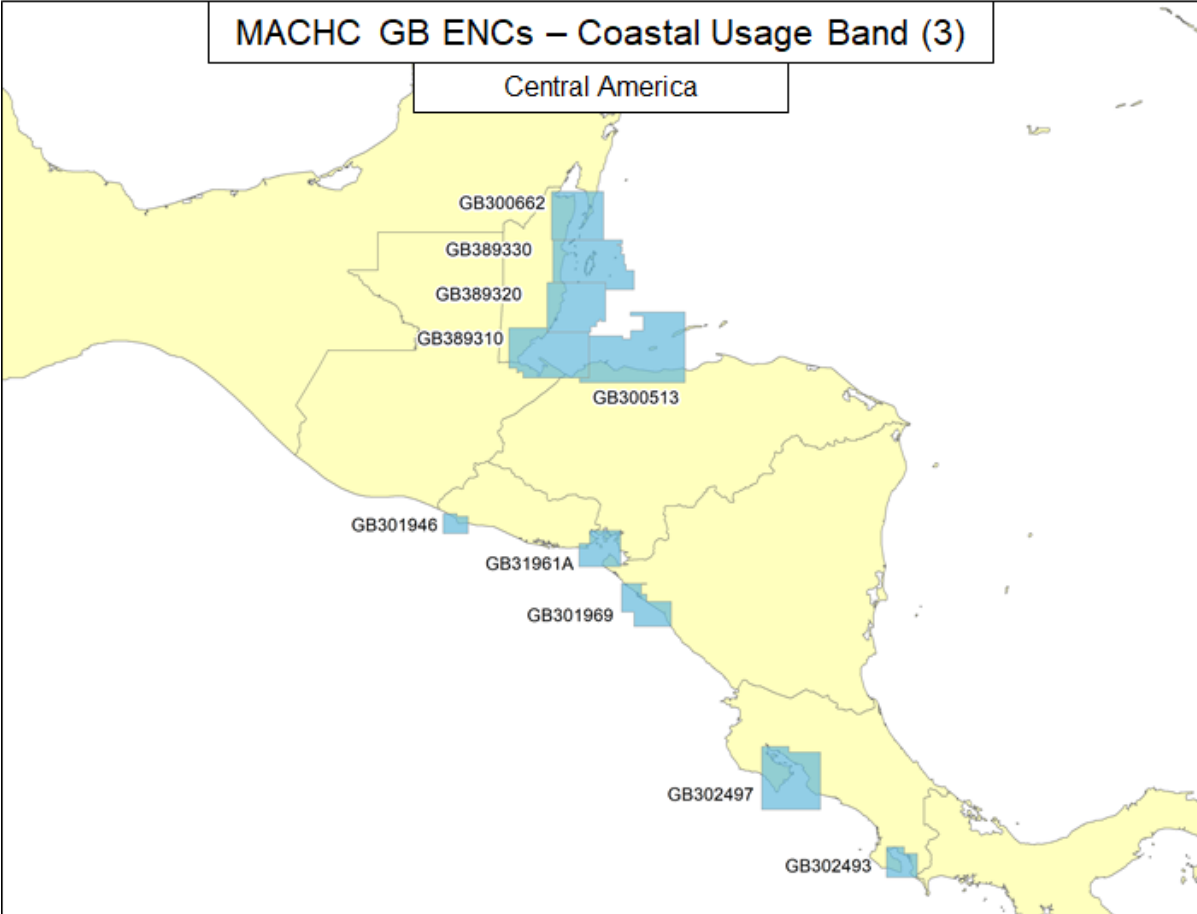
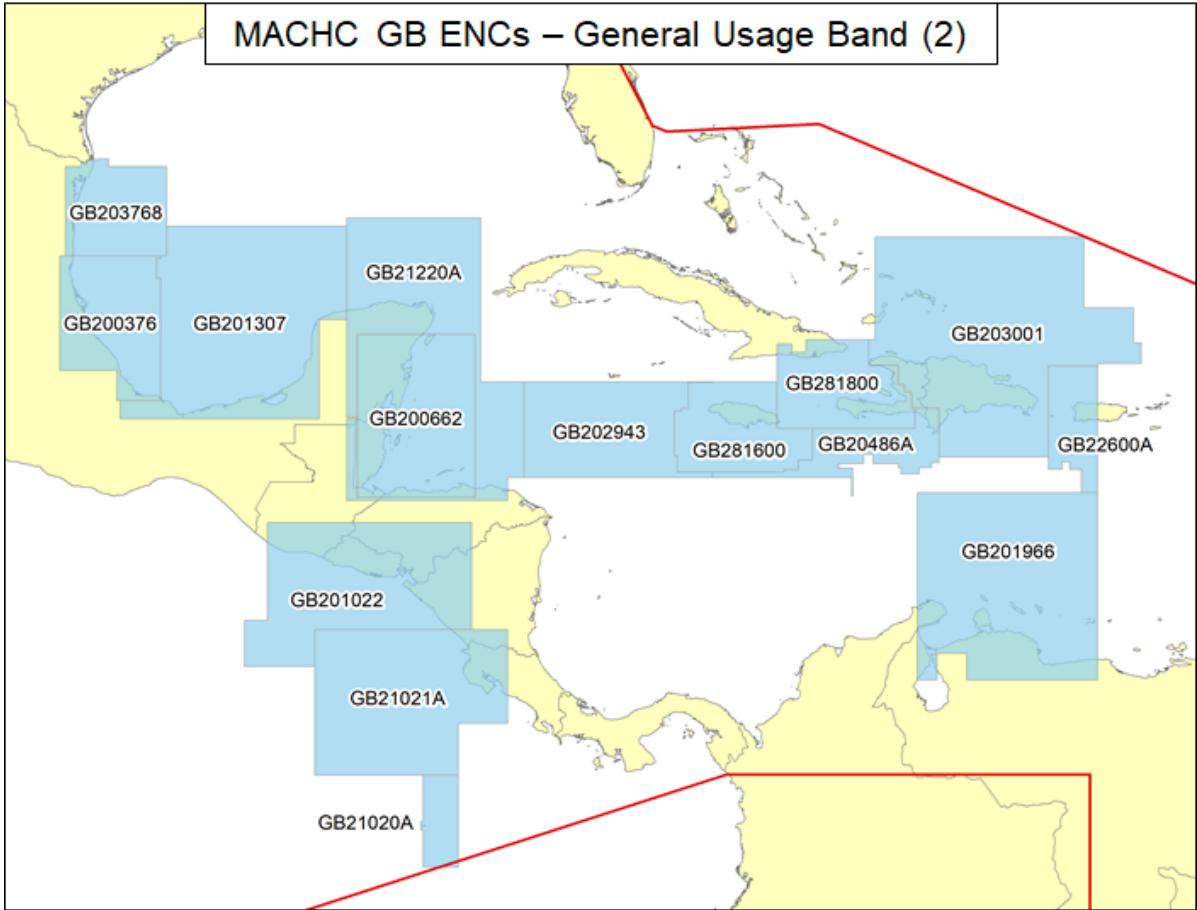
ENC totals by usage band as produced by UKHO

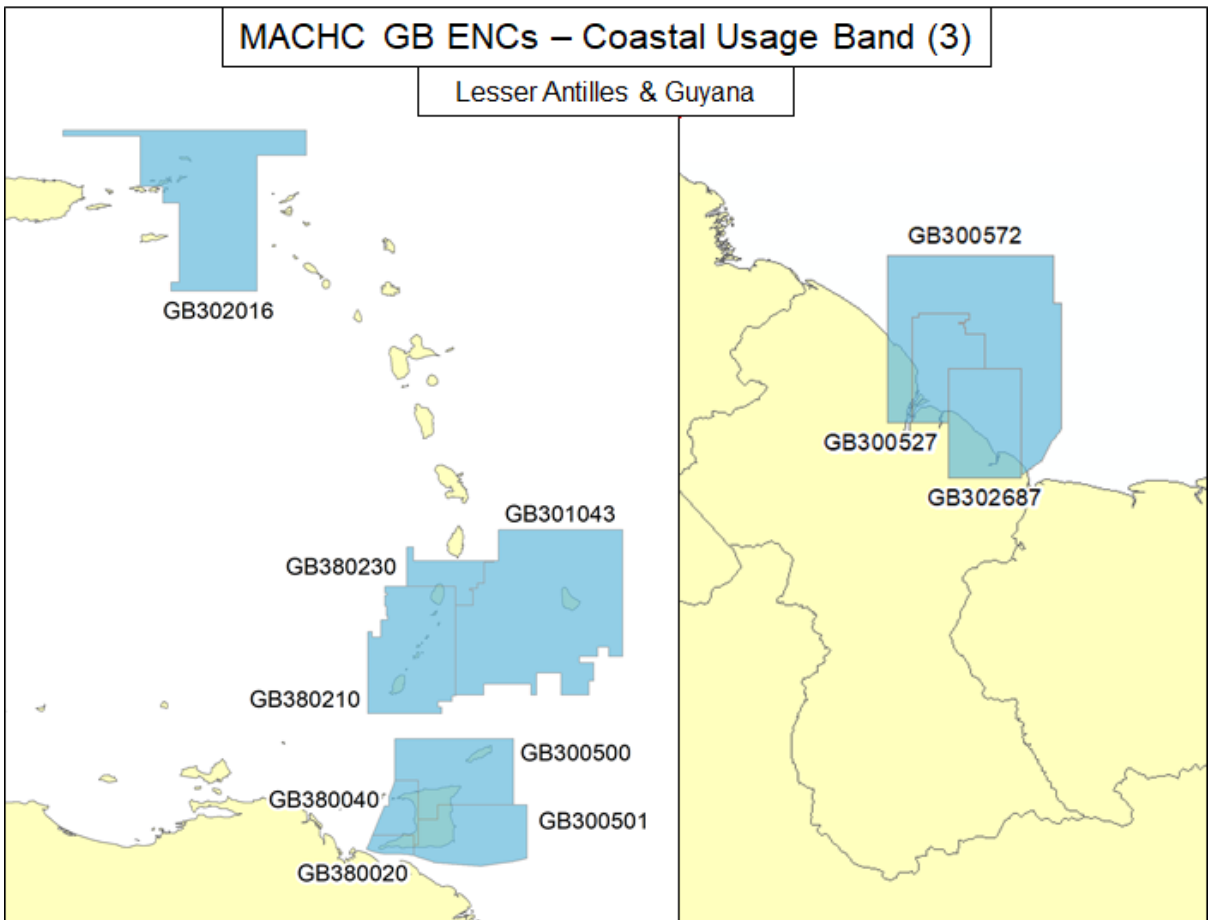
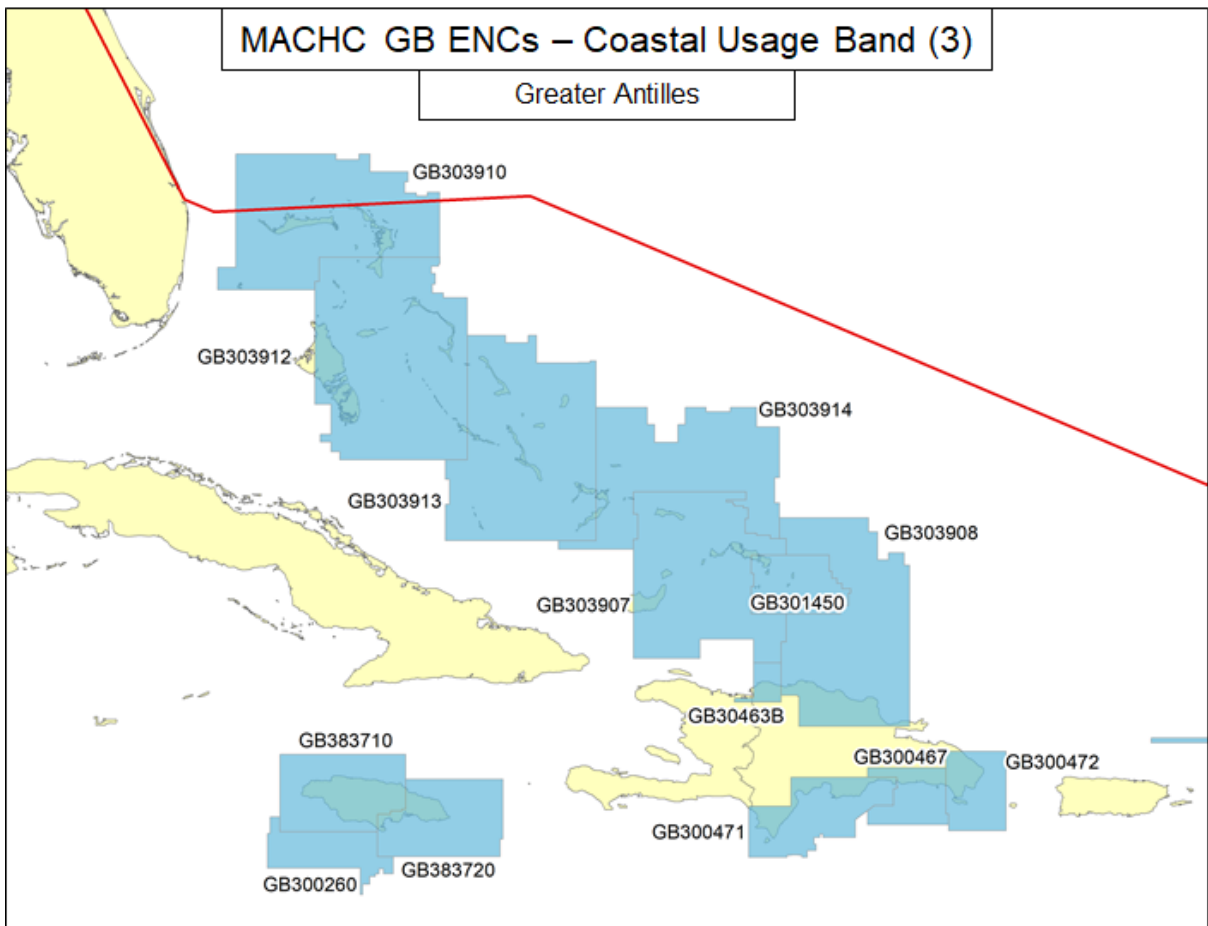
The tables below show revisions to GB ENC coverage for the MACHC Region during 2020/21. The subsequent figures illustrate the current coverage of GB ENCs within the MACHC Region.

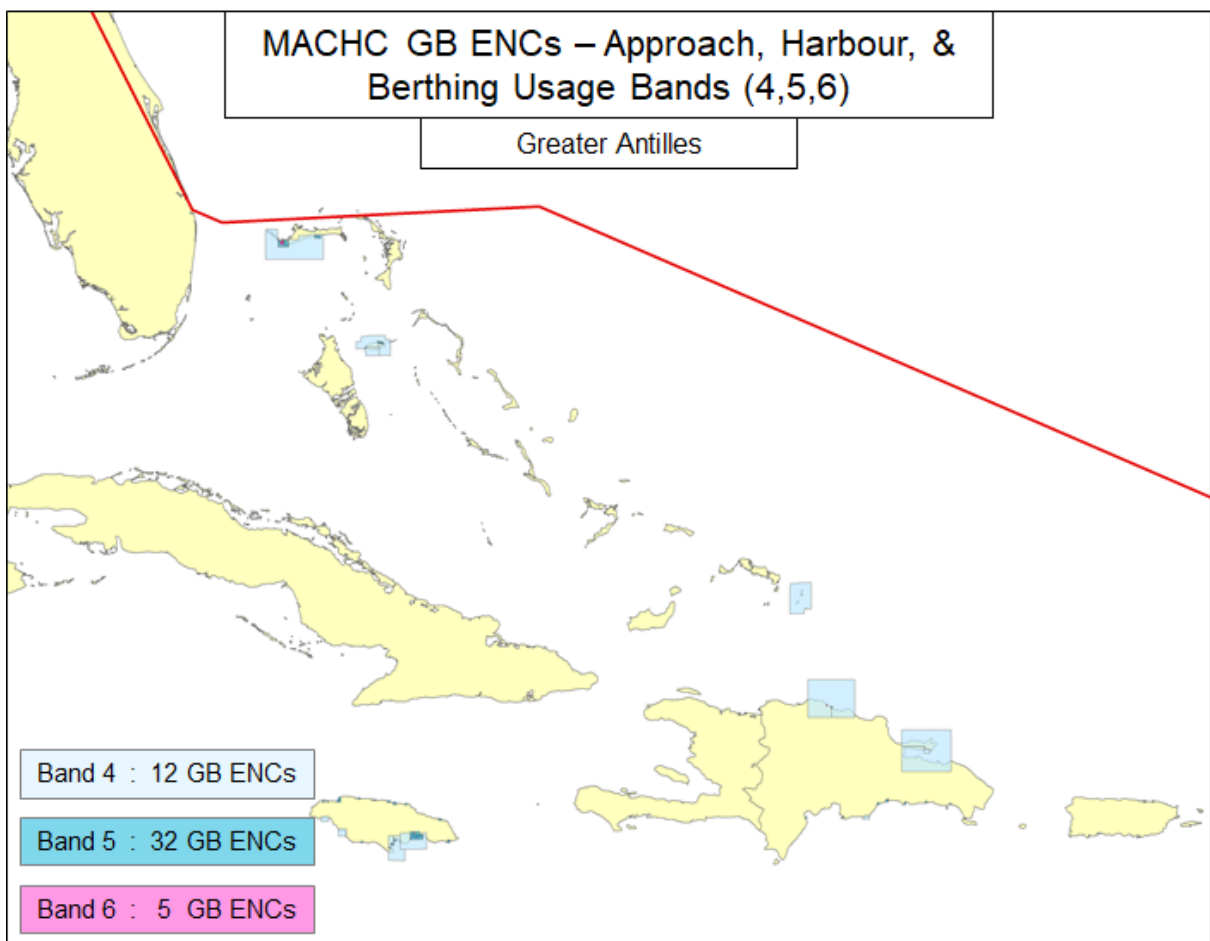
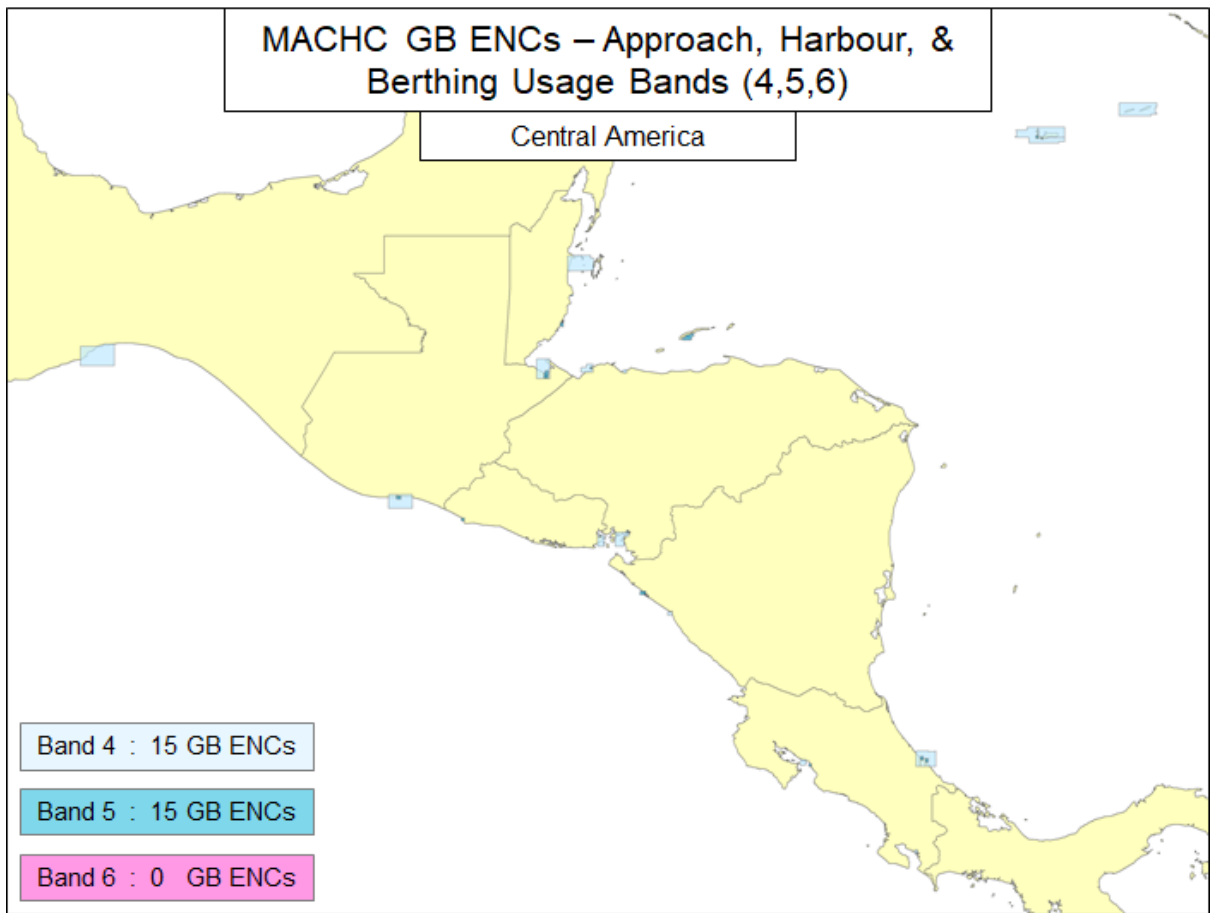
New Cells Nov 2020 - Oct 2021	Week No.
None	NA

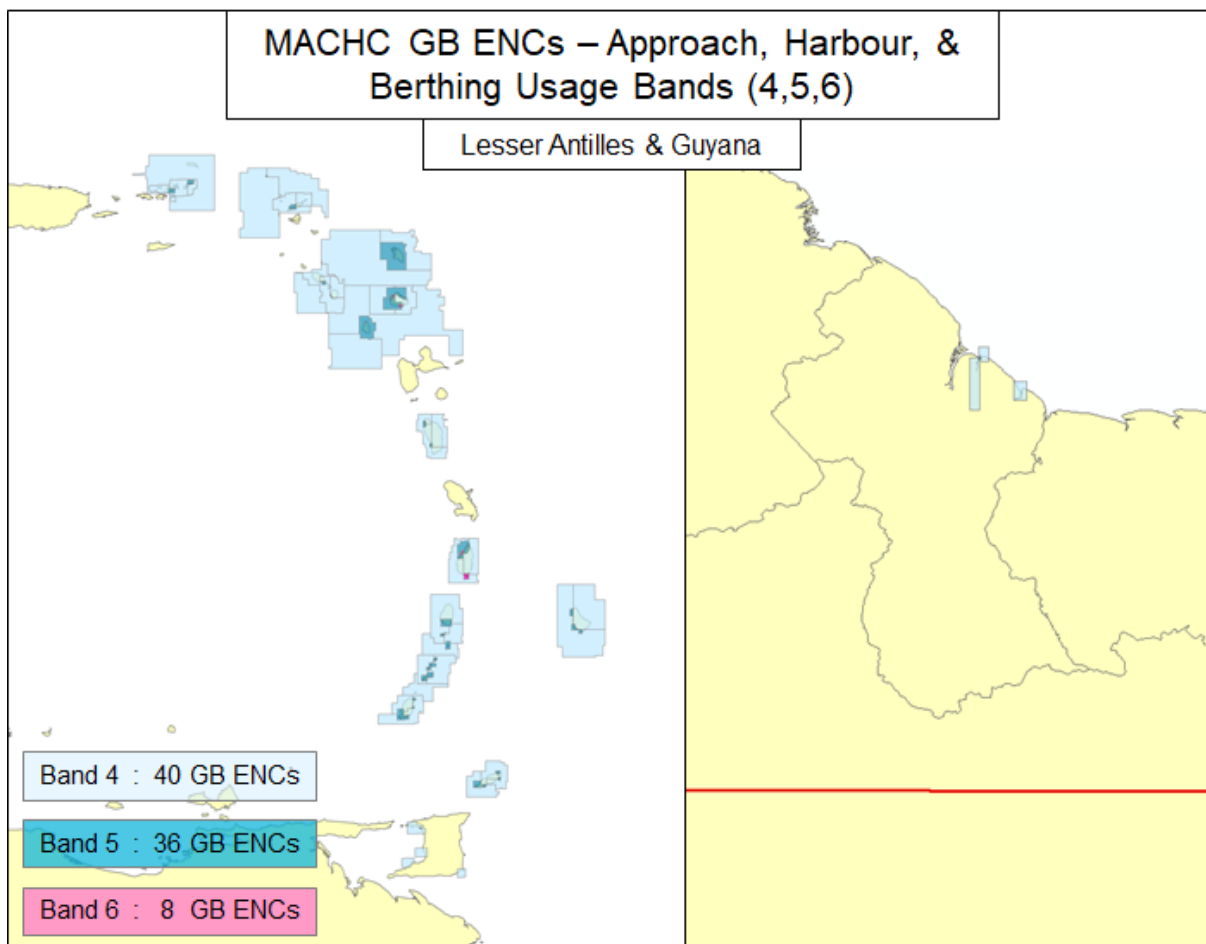
Cancelled Cells Nov 2020 - Oct 2021	Week No.	Replacement	
		Cell Name	Cell Title
GB40372D	53_20	MX483100	Coatzacoalcos Ver. y Proximidades











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 ENCs under the AVCS brand alongside its successful ADMIRALTY range 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

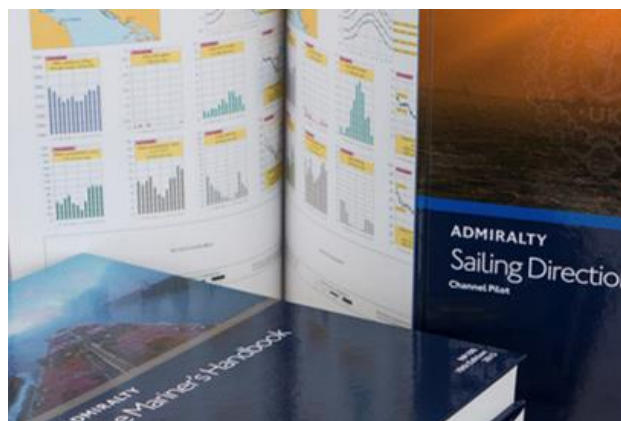
3.7 The UKHO has chosen the parameters of a gridded scheme for S-57 and S-101 which can be applied to all GB ENCs across the globe at all scale bands. The grid was chosen following testing and trialling, comparing the grid size options which best align with the existing GB coverage. The work to apply 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 MACHC region are as follows:

NP5	South America Pilot Vol 1
NP7	South America Pilot Vol 3
NP7A	South America Pilot Vol 4
NP8	Pacific Coasts of Central America & United States Pilot
NP69A	East Coasts of Central America & Gulf of Mexico Pilot
NP70	West Indies Pilot Vol 1
NP71	West Indies Pilot Vol 2



New editions published since last MACHC Dec 2020:

NP 69A	East Coasts of Central America & Gulf of Mexico Pilot -Published 10 th Dec 2020
NP 70	West Indies Pilot Vol 1 Published 1 st April 2021
NP5	South America Pilot Vol 1 Published 7 th October 2021

New editions to be published:

NP7A	South America Pilot Vol 4: To be confirmed 3 rd February 2022
NP71	West Indies Pilot Vol 2: To be confirmed 7 th July 2022

These publications are all maintained on a continuous revision cycle and new editions are published every 3-5 years or as required.

Full details of the ADMIRALTY publication range and their status can be found on the ADMIRALTY website (<https://www.admiralty.co.uk>).

Digital Publications

4.2 The UKHO offers digital equivalents to its existing paper publications to support the IMO mandate of ECDIS. These publications provide mariners with additional functionality and automate the task of updating.

4.3 The UKHO produces a range of ADMIRALTY Digital Publications which are digital versions of ADMIRALTY paper Nautical Publications. These publications are subscription-based and updatable by 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.



4.4 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. MARITIME SAFETY INFORMATION

5.1 Responsibilities. The UK's principal responsibility within the MACHC region is for its UK Overseas Territories (listed at Para **2.2**) and those Commonwealth of Nations countries where the UK is the Primary Charting Authority (PCA), including:

- Antigua and Barbuda
- Barbados
- Belize
- Dominica
- Grenada
- Guyana
- Jamaica
- Saint Lucia
- St. Kitts and Nevis
- St. Vincent and The Grenadines
- Suriname
- The Bahamas
- Trinidad and Tobago

5.2 The UK maintains close liaison with the NAVAREA Co-ordinators for NAVAREAs IV and XII which cover the MACHC area. Any information received at UKHO which may require urgent promulgation is passed to NAVAREA IV or XII Co-ordinators for consideration.

5.3 GMDSS. With the exception of the USA, GMDSS coverage in the MACHC region is generally sparse and administrations should be encouraged to develop their capabilities and infrastructure and to provide at least Phase One hydrographic capability to promulgate MSI in a timely and efficient manner. This can be achieved by utilising existing (or establishing new) National Co-ordinators for MSI within each littoral state in the region and fostering direct liaison with NAVAREA Co-ordinators for Navigational Warnings and with Regional Hydrographic Offices.

5.4 The UK contributes at international forums that consider MSI matters, including IHO World-Wide Navigational Warning Service Sub-Committee and numerous IMO Committees and Sub Committees. UK currently provides the Chair and Secretary of the IMO International NAVTEX Co-ordinating Panel.

5.5 Notices to Mariners. 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, the UKHO is committed to providing regular updates to the C-55 entries for UK Home Waters and its Overseas Territories. The latest status is correctly depicted within C-55, as shown in Annex B.

6.2 The UK has also provided assistance to update C-55 entries to other countries, including Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Panama, Saint Lucia, St. Kitts and Nevis, St. Vincent and The Grenadines, Suriname and Trinidad and Tobago, where the UKHO

provides primary charting, recognising 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 Training and 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.

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 has seen 1,960 delegates places being assigned during a five-month period, studying across three topics:

- Compiling for Navigational Safety
- Introduction to S-57
- Understanding ENCs

As a result of customer and stakeholder feedback the following courses are under development and will be offered across the network in the future:

- Introduction to/unpacking of S-100
- Chart Awareness

Further details are described in the UK Generic National Report.

The UKHO International Training Academy are pleased to announce that the Category B Nippon funded Course in Geospatial Marine Analysis and Cartography (GEOMAC) will recommence in February 2022. The course will welcome three delegates from the MACHC region joining the programme, Colombia, Dominican Republic, Guyana.

Royal Navy Training in Hydrography, Meteorology and Oceanography

7.4 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 Marine Environment and Situational Awareness 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. Through participation in the Argo project and in the UN's International Oceanographic Data Exchange (IODE), UKHO work with the international oceanographic community. On behalf of the Royal Navy, UKHO makes periodic releases of data to international data centres including US NODC, for



inclusion in the World Ocean Database, the IHO Data Centre for Digital Bathymetry, 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 currently developing its plan for contributing to both the Ocean Decade and Seabed 2030. In doing so we are looking at ways in which we can support these initiatives through sharing our technical knowledge and expertise in data collection and processing, and carefully considering how we can further facilitate access to our existing data holdings.

We have recently 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.

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 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 these at the UK national level - this is the remit of the National Tidal and Sea Level Facility (NTSLF, www.ntsrf.org) operated by the UK Environment Agency and very recently (summer 2021) contract work to maintain and upgrade the National Tide gauge Network (NTGN) has been 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 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. 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, CME Programme and any future overseas work under other programmes.



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 UNGGIM 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. The UKHO is also a member of the IHO MSDI Working Group. The UKHO Chairs the SWPHC MSDI WG, the SAIHC MSDI WG, Vice-Chairs the MACHC MSDI WG and is represented on the BNSHC MSDI WG. The UKHO has also provided briefings on MSDI to other RHCs which do not yet have MSDI WGs. 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).

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-12 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 MSDI maturity.

9.4 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, Interoperable 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 future IHO S-100 standards.

9.5 MSDI national portal. The UKHO has a Marine Data Portal which 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 the UK territorial waters. The Portal 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.

9.6 Anguilla Data Hub MSDI portal. The UKHO has been collaborating with the Anguilla Maritime Administration to trial usage of an MSDI portal. The Anguilla Data Hub provides a one stop shop for access to a wide range of Blue Data from UKHO and partner organisations, including Bathymetry, Seabed Composition, Depths and Contours, AIS, Maritime Limits and Boundaries, Storm Surge data and Underwater ROV footage of Wrecks. The Data Hub trial has provided the Anguilla Maritime Administration with easy access to the data required to help complete tasks such as establishing a COVID safe fishing zone and identifying alternative berthing opportunities for larger vessels to visit the island, facilitating economic growth.

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 have 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 celebrates World Hydrography Day 2021 by producing a short film to showcase the UKHO's rich history of partnerships. This includes the 140 collaborative partnerships established across the globe and our Primary Charting Authority responsibilities for 71 coastal states, to the work carried out through our International Hydrographic Programmes and International Training. The theme this year is "*100 years of international cooperation in hydrography*" and a link to the film can be found [here](#). In 2021, UKHO recognised the achievements of the US National Oceanic and Atmospheric Administration's Office of Coast Survey (OCS) team with the Alexander Dalrymple Award.

11.2 In January 2021, the UKHO hosted a virtual ADMIRALTY Blue Data Conference. This involved leading experts in Ocean Science, Marine Data and the Blue Economy discussing and exploring some of the defining questions for our ocean industries and the marine environment. The Blue Data Conference attracted significant global reach and was well received by the audience. The ADMIRALTY Blue Data Conference is still available to watch online by going to <https://discover.admiralty.co.uk/blue-data-conference>

Broader UK Government Work

11.3 The UK Member State, consisting of the UK, the Overseas Territories and Crown Dependencies, will be audited in late 2021 (delayed from late 2020 due to issues surrounding COVID-19) against the IMO Instrument Implementation Code's (IICC) and Mandatory IMO Member State Audit Scheme (MIMSAS). 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 The Commonwealth Litter Programme (CLiP), is led by the UK through the Centre for Environment Fisheries and Aquaculture Science (Cefas). Funded by the UK Department for Environment, Food and Rural Affairs, the programme will support four developing countries across the Commonwealth to take action on plastics entering the oceans. The programme will contribute to the UK meeting its responsibilities under the Commonwealth Blue Charter, which calls for Commonwealth countries to drive action and share expertise on issues affecting the world's oceans, including marine litter. CLiP will contribute to delivering the objectives under the UK and Vanuatu-led Commonwealth Clean Oceans Alliance (CCOA), which calls on other countries to pledge action on plastics. CCOA also promotes actions in line with the United Nations Sustainable Development Goal 14 (life below water) to conserve and sustainably use the oceans, as well as contributing to the UK Government's 25 Year Environment Plan. The programme will work in the South Pacific, Caribbean and Africa. In May 2019, work began in Belize.

The programme encompasses the following five pillars:

- Land based sources of litter;
- Sea based sources of litter;
- Removal of litter from the marine environment;
- Science and Education; and
- Outreach.

11.5 The UK's Joint Nature Conservation Committee continues its work in the Overseas Territories, providing technical assistance to support biodiversity and wider environmental management strategies and scientific advice. Their UK Government aid funded programme, Natural Capital in the Caribbean and South Atlantic Overseas Territories, uses economic assessments and analysis, spatial mapping and satellite data to provide an assessment of natural capital in a few the UK's Caribbean and South Atlantic Overseas Territories.

11.6 Under the Blue Planet Fund, the UK Government has committed funding into a wide range of research projects that aim to protect the world's oceans. Amongst the initiatives to improve marine conservation, the funding will support work by the Global Fund for Coral Reefs (GFRC) in the Caribbean and other parts of the world.

11.7 UK commits to maintain funding share of Caribbean Special Development Fund pledging up to £21m over the next four years. The pledged funding will help Caribbean countries better cope with the COVID-19 crisis, help mitigate the wider social and economic impacts, increase funding to tackle climate change, strengthen resilience to disasters, and protect the most vulnerable. This Fund is supporting 14 major infrastructure projects, including climate resilient investments in roads, ports, water supply and agriculture. Countries that will continue to benefit from the fund include Haiti, Belize, Dominica, Grenada, Guyana, Jamaica, Saint Lucia, St Vincent and the Grenadines, and Suriname.

The UKHO's International Activities

11.8 Due to the UKHO's technical expertise, primary charting responsibilities and UK OTs 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-101PT	S-101ENC Project Team	x	x
S-102PT	S-102Bathymetric Surface Project Team		x
S-121PT	S-21 Maritime Limits and Boundaries Project Team		x
S-124PT	S-124 Navigational Warnings Project Team		x
S-130PT	S-130 Polygonal Project Team		x
S-131PT	S-131 Marine Harbour Infrastructure Project Team		x
TWCWG	Tides, Water Level & Currents Working Group	x	x
HSWG	Hydrographic Survey Working Group	x	x
MASSPT	Maritime Autonomous Surface Ships Navigation Project Team	x	x
ABLOS	Advisory Board on the Law of the Sea		x
IRCC	Inter-Regional Coordination Committee		x
CBSC	Capacity Building Sub-Committee		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

International Hydrographic Organization - HSSC		Chair/Vice Chair	Member
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 2020, the UK has continued to experience significant impact due to the COVID-19 pandemic. Most of our workforce has, for at least half of the year, been working from home in an effort to reduce the spread and infection rate. Since the end of the summer, however, more people are beginning to spend a greater proportion of their time in office.

We have formalised our approach to prioritisation and continue to recognise the critical importance of SOLAS and the related products. In this regard, the UKHO continues to enable safer navigation by revising and maintaining existing paper and electronic portfolios of charts and publications; introducing new adoptions, New Charts, New Editions and New Cells, where appropriate.

12.2 The UKHO remains committed to the Meso American and Caribbean Sea region. This is demonstrated through its primary charting responsibilities and its continued interest in developing regional hydrographic self-sufficiency through capacity building measures. Despite the ongoing pandemic, this has recently included a series of in-country technical visits and survey support for regional UK Overseas Territories and PCA nations.

12.3 Last year, the UKHO welcomed the series of MACHC-IOCARIBE co-hosted Webinars covering the regional Seabed 2030 efforts. It was pleasing to note that MACHC has led the way in developing a Strategy to support this important initiative. The UKHO is now developing its own plan for contributing to both the Ocean Decade and Seabed 2030. In doing so we are looking at ways in which we can support these initiatives through sharing our technical knowledge and expertise in data collection and processing, and carefully considering how we can further facilitate access to our existing data holdings. Over the past year, the UKHO has begun to develop an approach to a possible ENC gridding framework for its ENCs, and will soon be engaging with MACHC stakeholders to outline its own proposed scheme for the region.

12.4 The challenges of the year meant that we did not achieve everything we set out to do, with some plans curtailed, others postponed and little opportunity for in-person engagement with our partners and colleagues. However, new ways of working have also provided opportunities to innovate. We have run an internal Innovation Programme which identified significant opportunity for the non-navigational use of hydrographic data. This offers tangible opportunities for the identification and best use of our technical skills to mitigate the impact of shipping on our planet. In 2021 the UKHO also started to deliver a range of new, free online courses to support the ability of Member States to maintain safety and efficiency of maritime navigation.

Taunton, November 2021

UKHO POINTS OF CONTACT:

UKHO Website: 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: internationalrelations.ukho@ukho.gov.uk
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For capacity building matters within the MACHC region, please contact:

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Mr Simon Hardern

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

Mr Paul Hardacre

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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 ton
National day -Fête nationale -Fiesta nacional	Second Saturday in June (Queen's Official Birthday)
-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
Official Representative to IHO (as designated by Member Government) UNITED KINGDOM HYDROGRAPHIC OFFICE	
Contact information/ Informations de contact / Información de contacto	
-National Hydrographer or equivalent -Directeur du service hydrographique ou équivalent -Director del Servicio Hidrográfico o equivalente	RAdm Rhett Hatcher - National Hydrographer & Director Data Acquisition and Defence Postal address: Admiralty Way TAUNTON Somerset, TA1 2DN United Kingdom Tel: + 44 (0) 1823 484444 E-mail: IBTE@UKHO.gov.uk
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	TS Baseline 25.09.64 12nm TS Limit 15.05.87 200nm EFZ 22.12.76
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 (NPI 31) 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. Capt(HM)/Hydrographer of the Navy Capt.(HM) Derek RAE* Tel: + 44 (0) 1752 555780 Fax: + 44 (0) 1752 555844 E-mail: navydevflot-capthmhofn@mod.uk or Derek.rae531@mod.gov.uk *		
Other point(s) of contact -Autre(s) point(s) de contact -Otros punto(s) de contacto	Postal address: COMDEVFLOT, Room 260, 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. 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 Commander Fleet Operational Training - Hydrography, Meteorology and Oceanography</p> <p>HMS DRAKE HM Naval Base Devonport PLYMOUTH Devon PL2 2BG</p> <p>Details of courses are available at: www.mod.uk/DefenceInternet/AboutDefence/Whatwedo/Training and Exercises/IDT/IDTRN</p>		

Input to the IHO Publication C-55 (*Status of Hydrographic Surveying and Charting Worldwide*)
Country: United Kingdom of Great Britain and Northern Ireland – Anguilla

C-55 Summary for:				Comments on Charts: Charts have not been fully updated for the latest MBES survey data (H11604). A new edition of 2079 is in the production plan for this FY 21/22.
Country:	United Kingdom of Great Britain and Northern Ireland			
Country Iso Code:	UK			
Country SubCode:	AI			
INT Region:	B			
Country/Depend:	Anguilla			
Last updated:	22/10/2021			
Provided by:	UK			
Chart coverage	Passage (%)	Coastal (%)	Port (%)	Comments on Surveys: 1. Extensive LiDAR survey undertaken 2017 covering 1479km and Full sea floor coverage of Road Bay 2016. 2. New high resolution MBES survey starting September 2018 for selected priority areas to identify changes since Hurricane Irma.
INT	100	100	100	
RNC	100	100	100	
ENC	100	100	100	
Status of Paper Charts				
Paper charts with depths in meters (%)			100	
Paper charts referenced to a satellite datum (%)			100	
Status of surveys	Adequate (%)	Resurvey (%)	No survey (%)	
0-200m	40	7	53	
> 200m	3	0	97	

MSI	Y/N	Comments on MSI:
Local warning	N	
Coastal warning	Y	Via NAVAREA IV.
Nav warning	Y	Via NAVAREA IV.
Port warning	N	
GMDSS	Y/N	Comments on GMDSS:
Master Plan	N	
Area A1	N	
Area A2	N	
Area A3	N	
NAVTEX	N	
SafetyNet	N	

Input to the IHO Publication C-55 (Status of Hydrographic Surveying and Charting Worldwide)
Country: United Kingdom of Great Britain and Northern Ireland - British Virgin Is

C-55 Summary for:				Comments on Charts: New editions of charts 2020, 2019 and 2006 are planned for later 2020/21.
Country:	United Kingdom of Great Britain and Northern Ireland			
Country Iso Code:	UK			
Country SubCode:	VG			
INT Region:	B			
Country/Depend:	British Virgin Is			
Last updated:	22/10/2021			
Provided by:	UK			
Chart coverage	Passage (%)	Coastal (%)	Port (%)	
INT	100	100	100	
RNC	100	100	100	
ENC	100	100	100	
Status of Paper Charts				
Paper charts with depths in meters (%)			100	
Paper charts referenced to a satellite datum (%)			100	
Status of surveys	Adequate (%)	Resurvey (%)	No survey (%)	
0-200m	81	13	6	
> 200m	5	0	95	
Comments on Surveys:				
1. New LIDAR survey covers all of the 20m contour and in some areas 38m.				

MSI	Y/N	Comments on MSI:
Local warning	Y	
Coastal warning	Y	Via NAVAREA IV
Nav warning	Y	Via NAVAREA IV
Port warning	N	
GMDSS	Y/N	Comments on GMDSS:
Master Plan	N	
Area A1	N	
Area A2	N	
Area A3	N	
NAVTEX	N	
SafetyNet	N	

Input to the IHO Publication C-55 (*Status of Hydrographic Surveying and Charting Worldwide*)
 Country: United Kingdom of Great Britain and Northern Ireland - Cayman Islands

C-55 Summary for:				Comments on Charts: 1. Chart 462 fully updated Mar 2019 to include latest full seafloor multi beam surveys. 2. New ENC for Spotts Bay released. 3. New surveys (UKHO Airborne Survey, Saildrone Deep water USV) being planned for Nov 2021.
Country:	United Kingdom of Great Britain and Northern Ireland			
Country Iso Code:	UK			
Country SubCode:	KY			
INT Region:	B			
Country/Depend:	Cayman Islands			
Last updated:	22/10/2021			
Provided by:	UK			
Chart coverage	Passage (%)	Coastal (%)	Port (%)	
INT	100	100	100	
RNC	100	100	100	
ENC	100	100	100	
Status of Paper Charts				
Paper charts with depths in meters (%)			100	
Paper charts referenced to a satellite datum (%)			100	
Status of surveys	Adequate (%)	Resurvey (%)	No survey (%)	
0-200m	8	37	55	
> 200m	0	0	100	
Comments on Surveys: Multibeam surveys conducted of Cayman Brac (West end) and Grand Cayman (West Bay and Spotts Bay) in 2017.				

MSI	Y/N	Comments on MSI:
Local warning	Y	Via NAVAREA IV
Coastal warning	Y	Via NAVAREA IV
Nav warning	Y	Via NAVAREA IV
Port warning	N	
GMDSS	Y/N	Comments on GMDSS:
Master Plan	N	
Area A1	N	
Area A2	N	
Area A3	N	
NAVTEX	N	
SafetyNet	N	

Input to the IHO Publication C-55 (*Status of Hydrographic Surveying and Charting Worldwide*)
 Country: United Kingdom of Great Britain and Northern Ireland - Montserrat

C-55 Summary for:				Comments on Charts: 1. New edition of chart 254 published October 2018 including latest full seafloor survey data. 2. UKHO assistance has been used to train local staff with newly acquired survey equipment. First area delivered: south-west Plymouth.
Country:	United Kingdom of Great Britain and Northern Ireland			
Country Iso Code:	UK			
Country SubCode:	MS			
INT Region:	B			
Country/Depend:	Montserrat			
Last updated:	22/10/2021			
Provided by:	UK			
Chart coverage	Passage (%)	Coastal (%)	Port (%)	Comments on Surveys: 1. Multibeam survey of Western side Montserrat carried out by UKHO in 2017 2. Multibeam survey of western side of Montserrat carried out by Montserrat surveyors together with UKHO in 2020
INT	100	100	100	
RNC	100	100	100	
ENC	100	100	100	
Status of Paper Charts				
Paper charts with depths in meters (%)			100	
Paper charts referenced to a satellite datum (%)			100	
Status of surveys	Adequate (%)	Resurvey (%)	No survey (%)	
0-200m	37	4	59	
> 200m	37	0	63	

MSI	Y/N	Comments on MSI:
Local warning	N	
Coastal warning	Y	Via NAVAREA IV
Nav warning	Y	Via NAVAREA IV
Port warning	N	
GMDSS	Y/N	Comments on GMDSS:
Master Plan	N	
Area A1	N	
Area A2	N	
Area A3	N	
NAVTEX	N	
SafetyNet	N	

Input to the IHO Publication C-55 (*Status of Hydrographic Surveying and Charting Worldwide*)
 Country: United Kingdom of Great Britain and Northern Ireland – Turks & Caicos Is

C-55 Summary for:				Comments on Charts: 1. 2019 LIDAR Survey data was delayed. Larger scale charts have been fully updated. Smaller scale charts 3907 & 3908 to follow. 2. New large-scale products of Approach Channel to Providenciales are with the Fast Track Team for publication this FY20/21.
Country:	United Kingdom of Great Britain and Northern Ireland			
Country Iso Code:	UK			
Country SubCode:	TC			
INT Region:	B			
Country/Depend:	Turks & Caicos Is			
Last updated:	22/10/2021			
Provided by:	UK			
Chart coverage	Passage (%)	Coastal (%)	Port (%)	Comments on Surveys: 1. 2019 Multibeam surveys conducted on major routes in Cockburn Harbour, Grand Turk and Providenciales. 2. 2019 LIDAR survey carried out and covers all of 20m contour and out to 30m in a large proportion.
INT	100	100	100	
RNC	100	100	100	
ENC	100	100	100	
Status of Paper Charts				
Paper charts with depths in meters (%)			100	
Paper charts referenced to a satellite datum (%)			100	
Status of surveys	Adequate (%)	Resurvey (%)	No survey (%)	
0-200m	82	1	17	
> 200m	9		91	

MSI	Y/N	Comments on MSI:
Local warning	N	
Coastal warning	Y	Via NAVAREA IV
Nav warning	Y	Via NAVAREA IV
Port warning	N	
GMDSS	Y/N	Comments on GMDSS:
Master Plan	N	
Area A1	N	
Area A2	N	
Area A3	N	
NAVTEX	N	
SafetyNet	N	

National MSI Self-Assessments

for

Country: United Kingdom – Anguilla

Organization: United Kingdom Hydrographic Office
and

Country: United Kingdom – British Virgin Islands

Organization: United Kingdom Hydrographic Office
and

Country: United Kingdom – Cayman Islands

Organization: United Kingdom Hydrographic Office
and

Country: United Kingdom – Montserrat

Organization: United Kingdom Hydrographic Office
and

Country: United Kingdom – Turks and Caicos Islands

Organization: United Kingdom Hydrographic Office

1. Maritime area:

N/A

2. Operational Points of Contact for the National Coordinator

INSTITUTION	TELEPHONE	FACSIMILE	EMAIL
NAVAREA I Coordinator	+44(0)1823 353448	+44(0)1823 322352	navwarnings@ukho.gov.uk

3. GMDSS Master Plan:

Not in GMDSS Master Plan

Equipment Type for Ports and Local Area	Software Version	Date of Up-date

Year Y-2		Year Y-1		Year Y	
Total	Average elapsed time	Total	Average elapsed time	Total	Average elapsed time
xx	xx.x Mins	xx	xx.x Mins	xx	xx.x Mins

4. NAVTEX Coverage:

N/A

5. Operational Issues:

N/A

6. Contingency Planning:

N/A

7. Capacity Building:

N/A

8. Other Activities:

N/A

9. National Maritime Website:

N/A

10. Recommendations:

N/A

11. Summary:

Any MSI in the area may be sent to UKHO for assessment and then forwarded to NAVAREA IV with recommendations for EGC broadcast as a Navigational Warning.

Notes:

National Points of Contact:

Country	Hydrographic Organisation	Contact	Telephone Number	E-Mail
Anguilla	Anguilla Maritime Administration & Shipping Registry	Rawle Hazell - Director of Maritime Affairs	+264 497 2651	Rawle.Hazell@gov.ai
British Virgin Islands	Virgin Islands Shipping Registry	Captain Raman Bala - Director of Shipping	+284 468 9636	rBala@gov.vg
Cayman Island	Cayman Islands Government Lands and Survey Department	Michael Whiteman - Chief Surveyor	+ 345 244 3413	Michael.Whiteman@gov.ky
Montserrat	Montserrat Port Authority	Joseph O'Garro - Port Manager	+ 664 491 2791/2	Joseph.ogarro@mpa.ms
Turks and Caicos Islands	Turks and Caicos Maritime and Shipping Department	Henry Wilson - Acting Director of the Maritime Department	+649 338 4171	hwilson@gov.tc