



UK Hydrographic
Office

MACHC20-03.13 UK National Report

UNITED KINGDOM NATIONAL REPORT

to the

**20TH MEETING OF THE
MESO AMERICAN - CARIBBEAN SEA
HYDROGRAPHIC COMMISSION (MACHC20)**

SANTO DOMINGO, DOMINICAN REPUBLIC

4 - 6 December 2019

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. However, it is worth highlighting the close liaison which exists between the UK's Hydrographic Office (UKHO) and the UK's maritime administration, the Maritime & Coastguard Agency (MCA). Together they provide a co-ordinated approach to hydrographic and maritime safety representation, nationally and internationally.

UKHO Governance and Targets

1.2 This is described in the UK Generic National Report to the IHO, see www.gov.uk/government/organisations/uk-hydrographic-office/about

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.

The photo above shows the class of 2019 Nippon Foundation course, with UKHO staff and IHO representatives. The Category B course is being held in Taunton, UK, from September to December 2019.

2. REGIONAL ACTIVITY

PROGRAMMES OVERVIEW

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. Under this programme, UKHO is delivering survey activity in several UK OTs through to 2020, as well as working with OTs to ensure their compliance with the Hydrographic elements of SOLAS. We are now in discussions regarding possible continuation of the programme.

2.2 The UK fulfils the Primary charting responsibilities of the following UK OTs within the MACHC region:

- Anguilla
- British Virgin Islands (BVI)
- Cayman Islands
- Montserrat
- Turks and Caicos Islands (TCI)

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 fourth year and will see surveys being undertaken in Bermuda and Falkland Islands in the coming year.

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:

- Jamaica
- Antigua and Barbuda
- Belize
- Grenada
- Guyana
- Saint Lucia
- Saint 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; protecting their environment and food security, and; ultimately improve the livelihood of local communities. The CME Programme is now in its fourth year and the UKHO continues to take a leading role in this programme with a series of surveys, equipment procurement and capacity building planned through to 2020. We are now in discussions regarding possible continuation of the programme.

SURVEYS

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 taken into account when prioritising the work of the **Civil Hydrography Programme (CHP)**. CHAS was expanded in 2007 to include a much wider range of organisations, which conduct hydrographic surveys. It has been successful in promoting co-operation between these organisations.

2.7 Since the last MACHC, a total of 8 surveys have been carried out in the MACHC region. These include Airborne Lidar Bathymetry (ALB) surveys of Belize, the BVI and the TCI, and vessel-based multibeam surveys of Dominica, Saint Lucia, Anguilla, and the Turks and Caicos Islands. In addition to these, a multibeam survey has been conducted in Saint Helena (outside of the MACHC region). Since the last MACHC, UKHO survey operations under the OTSMP and CME programmes have covered a combined area of 13,500 KM². In total, UKHO survey operations under the OTSMP and CME programme have covered a combined area of nearly 20,000KM², with a further 1,600 KM² planned this FY.

2.8 The LiDAR surveys conducted in Belize under the CME programme, and in BVI and TCI under the OTSMP, have now completed validation at the UKHO; they are currently in the process of being assessed against ADMIRALTY products and services. The OTSMP and CME Programme partners plan to deliver the data to the respective governments through in-country workshops before the year end.

2.9 The following multibeam and lidar surveys have been commissioned by the UK under the CME and OTs programmes to provide high resolution data in these important navigational areas. The following surveys are now underway:

- Bermuda (Airborne Survey)
- Falklands Islands (Vessel Survey)

2.10 The UK continues to explore how we can strengthen the relationship with countries for which we are the Primary Charting Authority (PCA). We have increased our level of engagement to better understand prioritised requirements in the MACHC region.

2.11 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. Mr Sam Harper, Head of Hydrographic Programmes (a dedicated UKHO team that focuses on hydrographic survey programmes) is the initial point of contact for UKHO involvement in overseas survey programmes. 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. The following paragraphs provide information specifically relevant to the MACHC region.

The following charts have been published since the last MACHC meeting as New Charts or full New Editions:

GB Chart Number	Title	Published
522	Central America - East Coast, Belize, Belize City and Approaches	29 Nov 18
1042	West Indies - Lesser Antilles, Montserrat to Saint Lucia	20 Dec 18
230	Venezuela - Canal de Margarita to Bahia de Barcelona	07 Jan 19
2434	Colombia - North Coast, Bahia de Cartagena	10 Jan 19
3320	South America - Venezuela, Rio Orinoco, Boca Grande to Matanzas	10 Jan 19
655	Mexico - West Coast, Puerto Lazaro Cardenas and Approaches	31 Jan 19
2996	United States - Bahamas, Cuba, Cuba to Bahama Islands Including Straits of Florida	31 Jan 19
3001	West Indies - Cuba to Puerto Rico	31 Jan 19
CP1	Panama - North Coast, Panama Canal, Atlantic Entrance including Adjacent Ports	14 Feb 19
CP2	Panama Canal - North Gatun Lake	14 Feb 19
CP5	Panama - Pacific Coast, Panama Canal, Pacific Entrance	14 Feb 19
2600	West Indies - Mona Passage to Dominica	28 Feb 19
2863	United States - Bahamas, Cuba, Straits of Florida	28 Feb 19
2866	United States - Bahamas, Cuba, Straits of Florida, Cape Canaveral to Key West including the Western Part of the Bahama Banks	28 Feb 19
454	West Indies - Jamaica, South Coast, Kingston Harbour	07 Mar 19
456	West Indies - Jamaica, South Coast, Approaches to Kingston Harbour	07 Mar 19
457	West Indies - Jamaica, South Coast, Portland Bight	07 Mar 19
462	West Indies - The Cayman Islands	14 Mar 19
2710	North America - East Coast, Delaware Bay to Straits of Florida	28 Mar 19
519	Guyana - Georgetown	04 Apr 19
527	South America - Guyana, Approaches to Demerara and Essequibo Rivers	04 Apr 19
537	South America - Guyana, Approaches to Georgetown	04 Apr 19
2005	Virgin Islands - Road Harbour to Capella Islands	04 Apr 19
2019	British Virgin Islands - North Sound to Road Harbour	04 Apr 19
2020	West Indies - Harbours and Anchorages in the British Virgin Islands	04 Apr 19
2764	South America - North Coast, Guyana, Suriname, Berbice River to Suriname River	04 Apr 19

CP3	Panama Canal - South Gatun Lake	02 May 19
CP4	Panama Canal - Gaillard Cut	02 May 19
3384	United States - Gulf of Mexico, Louisiana, Mississippi River, New Orleans to Baton Rouge	23 May 19
3183	United States - Gulf of Mexico, Texas, Approaches to Galveston Bay	13 Jun 19
3184	United States - Gulf of Mexico, Texas, Corpus Christi and Brownsville	13 Jun 19
3186	United States - Gulf of Mexico, Texas, Houston Ship Channel, Pelican Island to Barbours Cut	13 Jun 19
3188	United States - Gulf of Mexico, Texas, Houston Ship Channel, Carpenters Bayou to Houston Turning Basin	13 Jun 19
3190	United States - Gulf of Mexico, Louisiana, Calcasieu Pass and Approaches to Lake Charles	13 Jun 19
3192	United States - Gulf of Mexico, Louisiana, Texas, Sabine Pass and Approaches to Port Arthur and Beaumont	13 Jun 19
3854	United States - Gulf of Mexico, Louisiana, Texas, Freeport to Calcasieu Pass	13 Jun 19
2881	United States - East Coast, Florida Keys, Key West Harbor and Approaches	04 Jul 19
3148	United States - Gulf of Mexico, Florida, St Joseph and St Andrew Bays	04 Jul 19
3149	United States - Gulf of Mexico, Florida, Approaches to Pensacola Bay	04 Jul 19
3150	United States - Gulf of Mexico, Alabama, Mobile Bay	04 Jul 19
3151	United States - Gulf of Mexico, Alabama, Mississippi, Louisiana, Approaches to Pascagoula and Gulfport	04 Jul 19
3841	United States - Gulf of Mexico, Mississippi, Pascagoula Harbor	04 Jul 19
3847	United States - Gulf of Mexico, Florida, Approaches to Tampa Bay	04 Jul 19
3848	United States - Gulf of Mexico, Florida, Tampa Bay	04 Jul 19
3896	United States - Gulf of Mexico, Louisiana, Approaches to Port Fourchon	04 Jul 19
3684	United States - East Coast, Florida, Port of Palm Beach with Approaches and Port Everglades	15 Aug 19
3692	United States - East Coast, Florida, Approaches to Port Canaveral	15 Aug 19
3698	United States - East Coast, Florida, Miami Harbor	15 Aug 19
359	Mexico - East Coast, Dos Bocas Terminal	22 Aug 19
1277	Colombia - North Coast, Punta Canoas to Isla Fuerte	12 Sep 19
597	West Indies - Saint Vincent to Grenada	26 Sep 19
791	West Indies - Saint Vincent to Bequia	26 Sep 19
793	West Indies - The Grenadines, Northern Part	26 Sep 19
794	West Indies - The Grenadines, Central Part	26 Sep 19
795	West Indies - The Grenadines, Southern Part	26 Sep 19
1043	West Indies - Saint Lucia to Grenada and Barbados	26 Sep 19
461	Bahamas - Approaches to Ocean Cay	03 Oct 19
375	Mexico - East Coast, Approaches to Veracruz	17 Oct 19
376	Mexico - East Coast, Veracruz to Altamira	17 Oct 19
1797	Central America, Belize - Monkey River to Colson Point	17 Oct 19
2807	United States - East Coast-Georgia-South Carolina- Savannah River	07 Nov 19
1044	Caribbean Sea - Trinidad & Tobago to Archipelago Los Testigos including Grenada	21 Nov 19
697	West Indies - Dominica	28 Nov 19

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

GB Chart Number	Title
502	West Indies - Harbours and Anchorages in Barbados
2485	West Indies - Approaches to Barbados
1940	Salina Cruz and Approaches
499	West Indies - Harbours in Saint Lucia

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 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	34
Usage Band 4	68
Usage Band 5	82
Usage Band 6	14
Total Number of ENCs	221

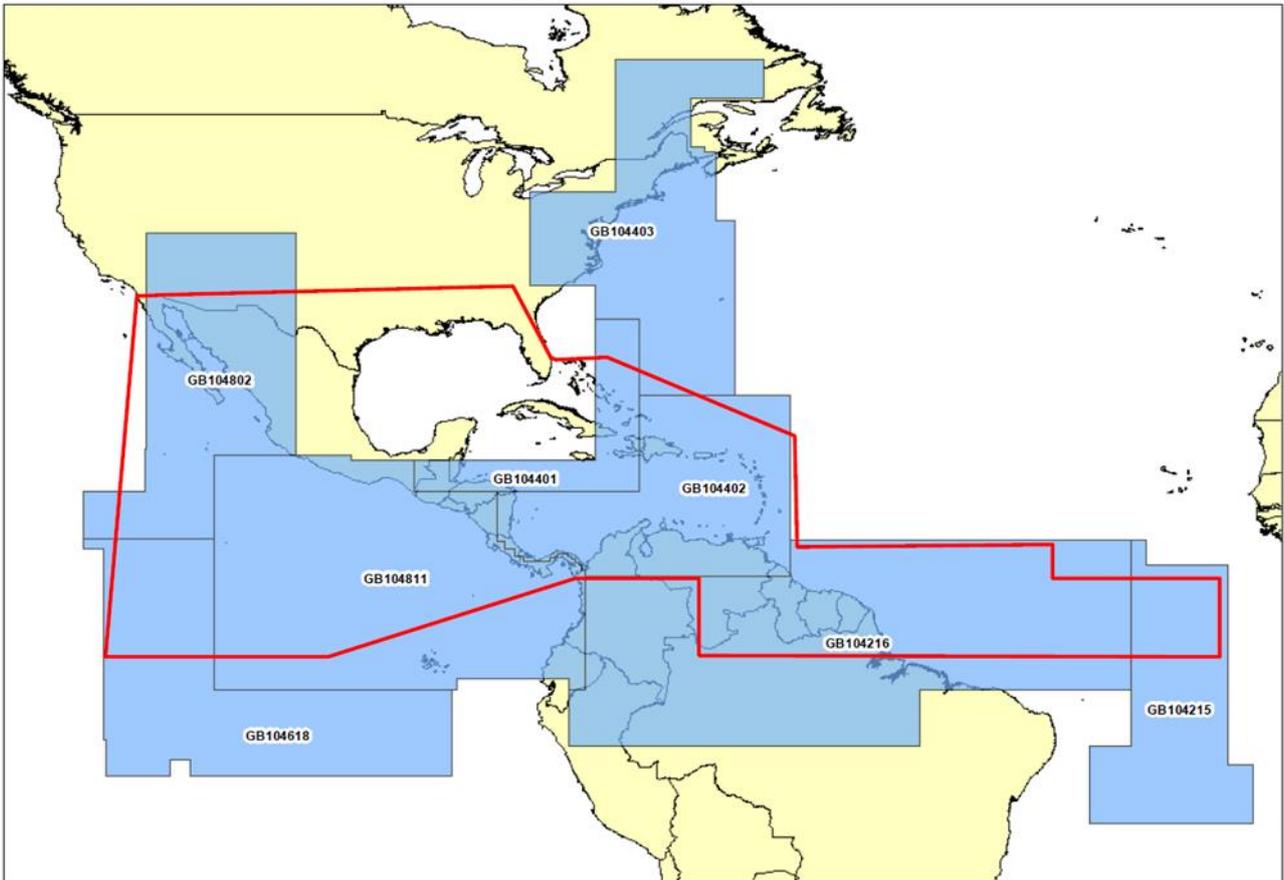
ENC totals by usage band as produced by UKHO

The tables below show revisions to GB ENC coverage for the MACHC Region during 2018/19. The subsequent diagrams illustrate the current coverage of GB ENCs within the MACHC Region.

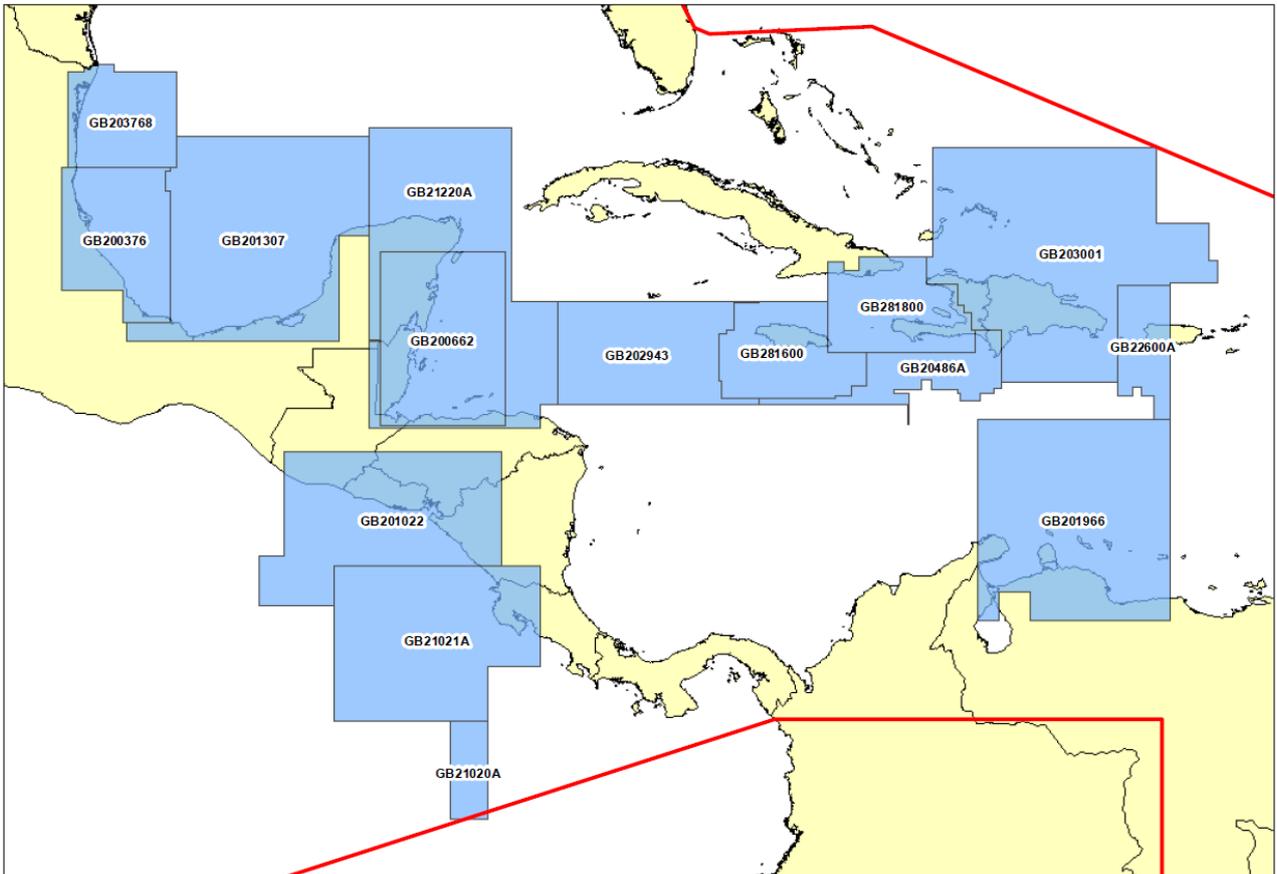
New cells Nov 2018 - Oct 2019	Week No.
GB203001	06/19
GB400537	15/19
GB40583B	46/18
GB42047A	46/18
GB500461	35/19
GB600461	35/19

Cancelled cells Nov 2018 - Oct 2019	Week No.	Replacements
GB400533	15/19	GB400537

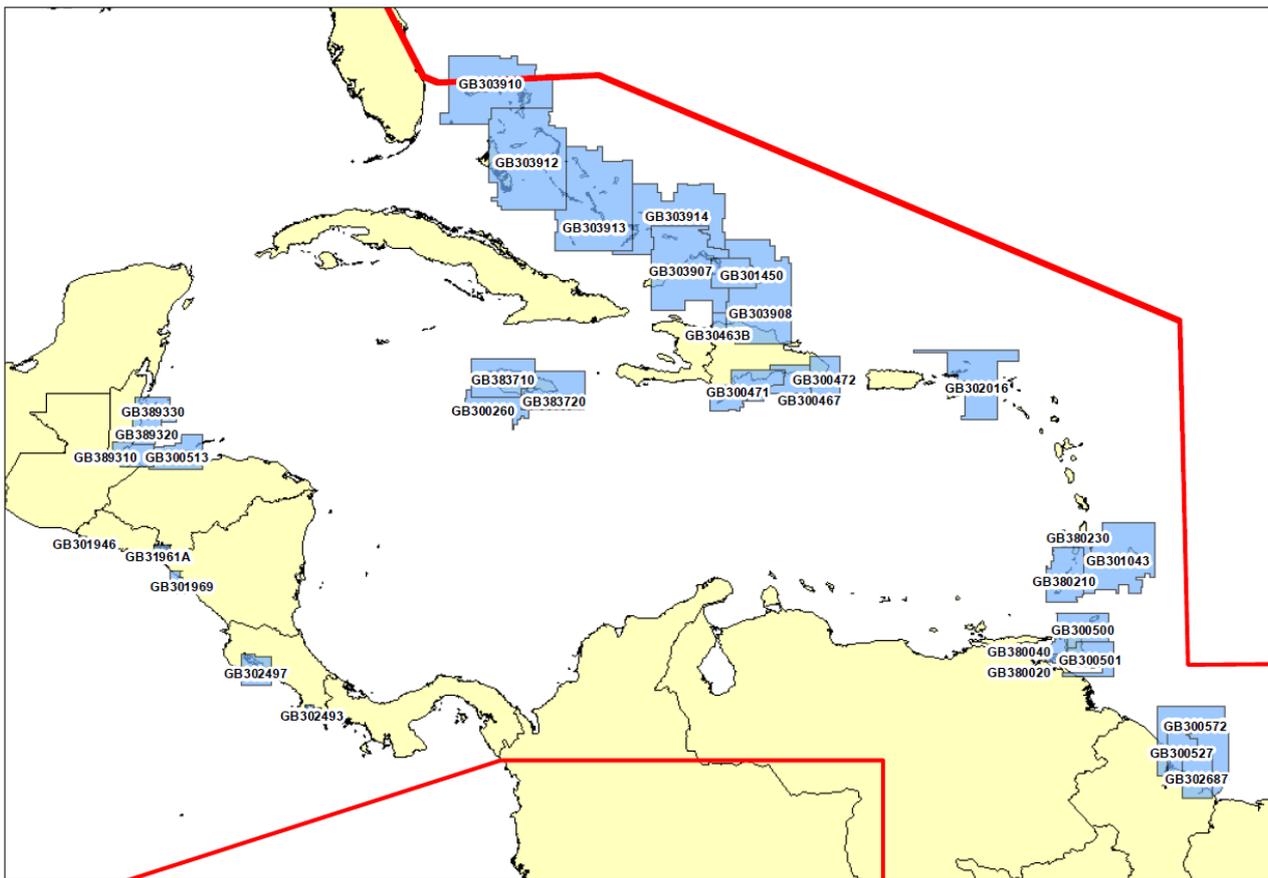
MACHC - GB ENC's, Band 1



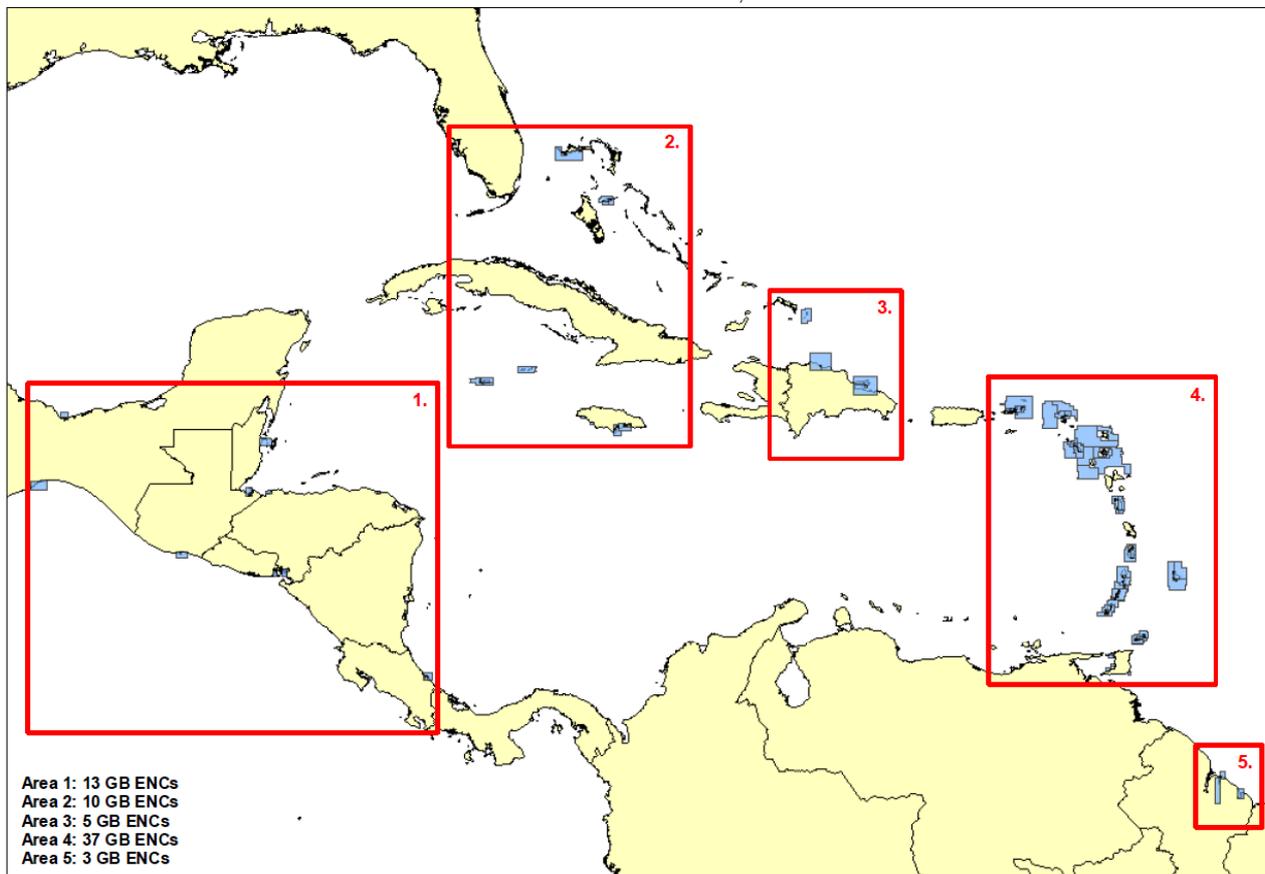
MACHC - GB ENC's, Band 2



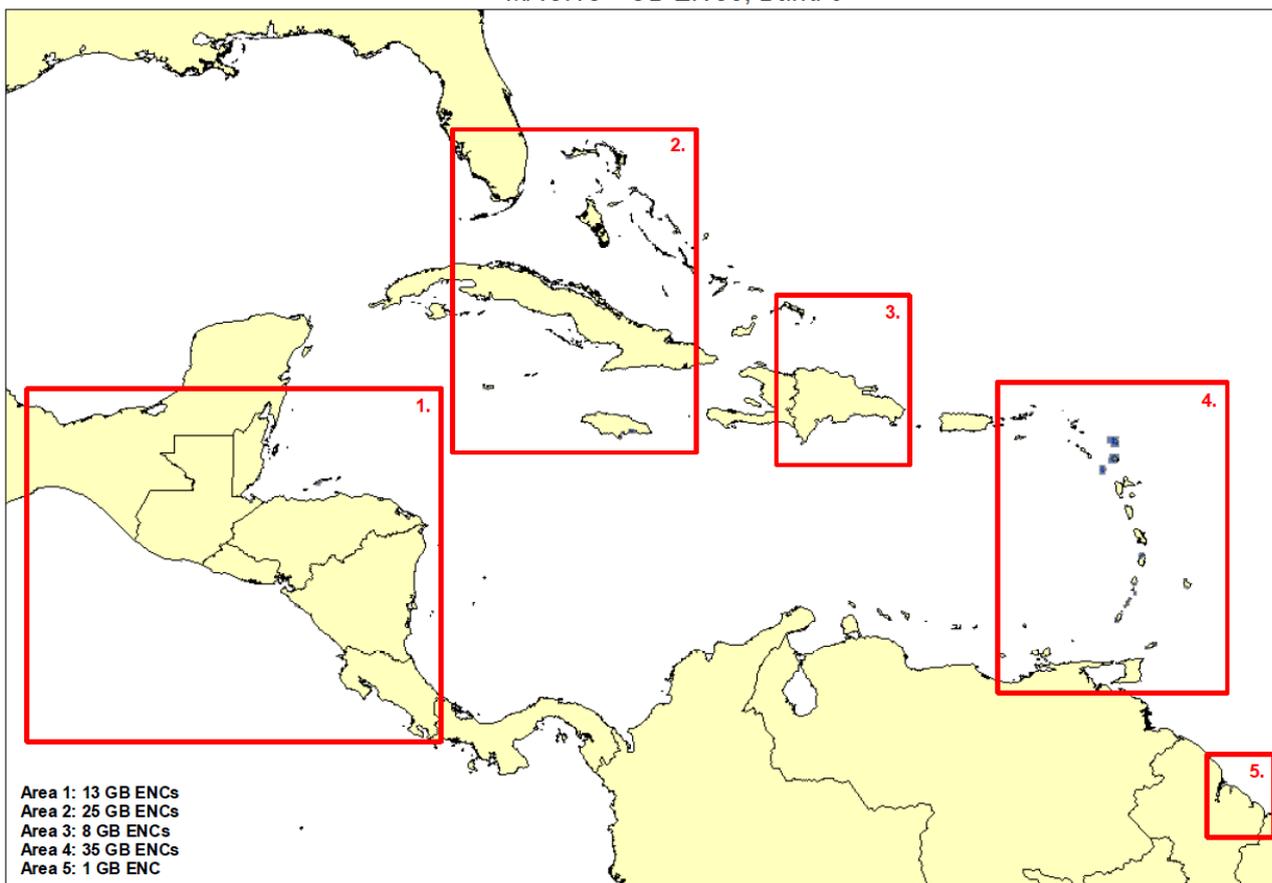
MACHC - GB ENC's, Band 3



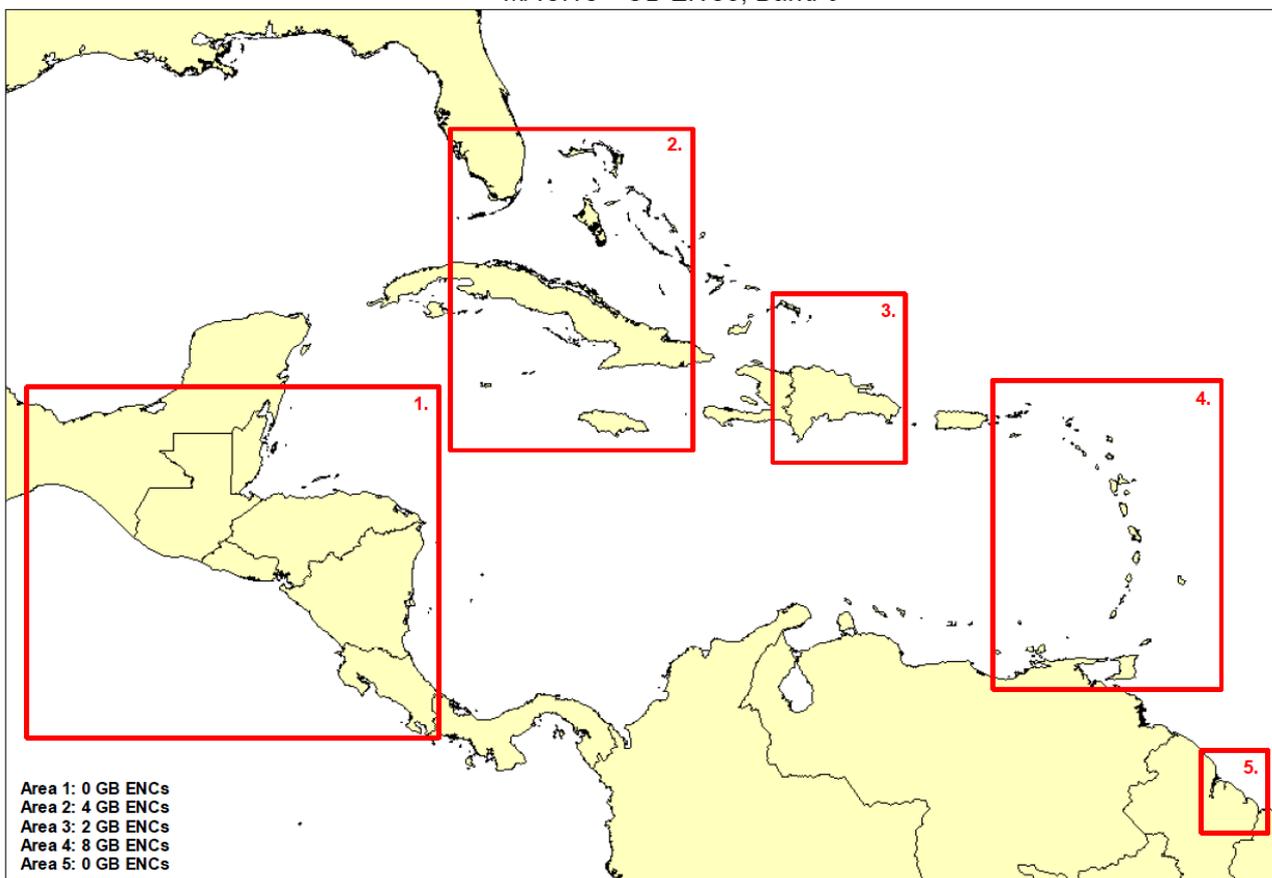
MACHC - GB ENC's, Band 4



MACHC - GB ENC's, Band 5



MACHC - GB ENC's, Band 6



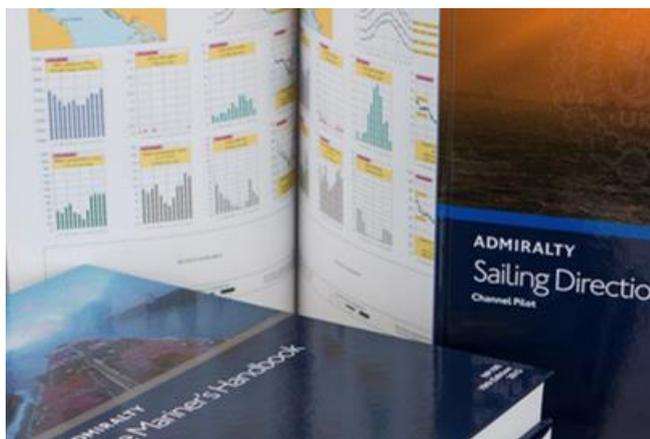
ENC Distribution

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 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).

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

These publications are all maintained on a continuous revision cycle and new editions are published every 3 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 in 2.1) and those Commonwealth of Nations countries where the UK is the primary charting authority (PCA), including:

- Antigua and Barbuda
- The Bahamas
- Barbados
- Belize
- Bermuda (falls within USCHC region, more in common with MACHC region)
- Dominica
- Grenada
- Guyana
- Jamaica
- Saint Lucia
- St.Kitts and Nevis
- St.Vincent and The Grenadines
- Trinidad and Tobago.

5.2 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 requires urgent promulgation is passed to NAVAREAs IV or XII co-ordinators.

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 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 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, Saint Lucia, St. Kitts and Nevis, St. Vincent and The Grenadines, 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 and 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. UK will continue to contribute resources to both CBSC initiatives and to providing bilateral assistance.

7.2 UKHO has a post dedicated to International Training and Capacity Building. Its key aims are to ensure that capacity building is properly considered in UKHO activity and that UKHO's capacity building activities are fully coordinated. It acts as the initial point of contact for UKHO involvement in IHO capacity building activities, including UK involvement in regional hydrographic commission initiatives and IHO Capacity Building Sub Committee (CBSC) activities. Further information can be obtained from the International Training and Capacity Building Manager - Ms Lucy Fieldhouse (Lucy.Fieldhouse@ukho.gov.uk). Ms Lucy Fieldhouse is also the Capacity Building Coordinator for the MACHC, NIOHC and SAIHC regions.

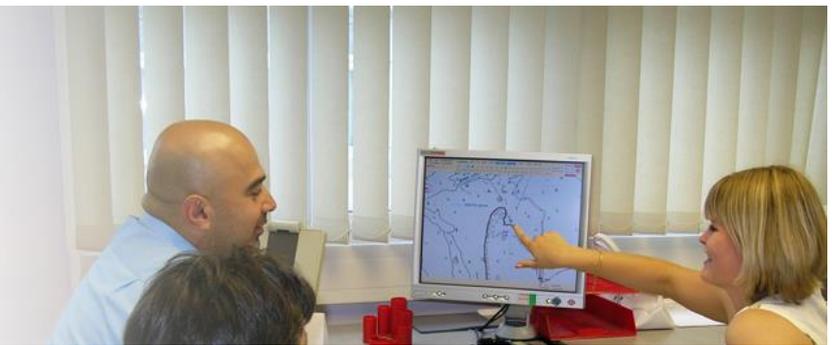
Cartographic Training provided by UKHO



7.3 The UKHO provides two annual CAT B accredited nautical cartography training opportunities to FGHO students. These are the IHO-NF CHART Project course which is funded by the Nippon Foundation and the newly established UKHO course. It should be noted that in 2019 only the IHO-NF CHART Project course was provided. Applications for the Nippon Foundation course are by responding to the IHO Circular Letter on the subject (this year it was CL04 / 2019). The UKHO invites participants to its version of the course as part of bilateral arrangements.

From the MACHC region, Trinidad and Tobago is participating in the current Nippon Foundation course (September - December 2019).

ENC Training and Assistance



7.4 The UKHO strongly supports the successful uptake of ECDIS using ENC, and is happy to assist other nations to produce, maintain and distribute ENCs. Details of courses, sponsorship, venues and options for bespoke training provided by the UKHO are included in the UK Generic National Report.

Survey Training at Flag Officer Sea Training - Hydrography, Meteorology and Oceanography (FOST-HM)

7.5 Nationally and internationally certified courses delivered by FOST-HM in Plymouth, are described in the UK Generic National Report.

8. OCEANOGRAPHIC ACTIVITIES

This is described in the UK Generic National Report.

9. SPATIAL DATA INFRASTRUCTURES

9.1 Status of MSDI. The UKHO has recently adopted the UNGGIM IGIF as a means of auditing its work so far in establishing an MSDI and prioritising future activities. The UKHO's aspiration is to have established itself as the de-facto owner of the UK's MSDI by 2022. This aspiration has led to a review of the UKHO's internal data platforms and Marine Data Portal.

9.2 Relationship with the 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. It is currently establishing a UK Geospatial Strategy which is likely to form the foundation of a NSDI in the near future. The Commission is supporting several collaborative projects undertaken by the UKHO, all of which 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 OGC groups which contribute towards Global MSDI activities and methodologies. The UKHO is also a member of the IHO MSDI Working group, as highlighted in 11.7 of this document, as well as most of the MSDI Working Groups within the Regional Hydrographic Commissions.

We are actively working at creating a domain with the appropriate standards to support national and international MSDIs. A good example of this is our sponsorship of S-121, a pilot project to develop a standard for the exchange of Maritime limits and boundaries.

9.4 National implementation of the Shared Data Principles - including any national data policy and impact on marine data. The UKHO is actively engaged with a project 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 is in a state of continual development. 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 a number of 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 Best practices and lessons learned. The UKHO via the (UK) Geospatial Commission is leading on a limited-scope Governance project to inform, guide and direct effective joint working between the participating UK agencies. The project will draw upon suggested 'Best Practices' as represented via the UN-GGIM IGIF with a focus on technology-agnostic Governance between formal institutions. These may be extended across the Geospatial Commission in due course, subject to circumstances.

The UKHO is currently investigating the possibility of providing MSDI Services to one of its Primary Charting Authorities as a small-scale proof of concept. Lessons learnt from this exercise may inform decisions about the UKHO's future larger scale MSDI activities.

9.7 Challenges and achievements. As part of the UK Geospatial Commission collaborative projects, the UKHO and other partners have made more public geospatial data available through a government hosted website data.gov.uk and are now:

- Looking at ways of standardising data licensing agreements
- Improving the discoverability of national geospatial data
- Providing guidance to better link geospatial data sets

Increasing the range of data which is ingested.

10. INNOVATION

10.1 Use of new technologies. The UK Hydrographic Office has established a Data Science and Data Engineering team, which uses machine learning techniques to illustrate the art of the possible. The Team has been working on a variety of prototype projects, from the automated cleaning of Bathymetry data to using satellite imagery for automatic identification of coastline, as an aid to change detection and to find mangrove forests.

11. OTHER ACTIVITIES

UK Celebrations for World Hydrography Day

11.1 The UK Hydrographic Office has celebrated World Hydrography Day and the theme of "Hydrographic information driving marine knowledge" with a number of celebratory moments throughout the year.

Visit from HRH The Princess Royal - 25 April 2019

11.2 To officially open our new building and celebrate World Hydrography Day, we held a commemorative event attended by HRH The Princess Royal. During her visit, The Princess Royal delivered a speech to an audience of UKHO staff and over 100 guests who gathered from across the world to celebrate the landmark occasion. In her speech, she commended the UKHO for the vital role it plays in supporting maritime navigation, safety, security, and marine development around the UK and worldwide.

The Rt Hon Earl Howe, Deputy Leader of the House of Lords and Minister of State for Defence, was also in attendance. He addressed guests to speak of the UKHO's long and successful history of supplying navigation services to shipping companies around the world, as well as its continued contribution to defence and the long-term prosperity of the UK and its allies around the world.

Science, Technology, Engineering and Maths (STEM) activities

11.3 Throughout the year, our STEM Ambassadors have attended a number of events to promote our work as an organisation and encourage young people in the South West into STEM careers. Some of the outreach work in which we have been actively involved this year includes guest lecturing at a 'Science of the Sea' community event in Taunton to celebrate British Science Week, and participating in the regional Big Bang Near Me science fairs. Central to these events was the theme of hydrography, with educational activities including:

- An Augmented Reality bathymetry sandbox to explain the science behind mapping the seafloor
- An activity on ocean environment marine sounds
- A bathymetry pairing game, featuring images of wrecks taken from hydrographic surveys
- A bathymetric drone coding challenge activity

Broader UK Government Work

11.4 The UK Member State, consisting of the UK, the Overseas Territories and Crown Dependencies, will be audited in September 2020 against the IMO Instrument Implementation Code (commonly known as the Triple I Code). This has raised awareness of the importance of maritime compliance and the benefits to everyone. To compliment the work of the UKHO's OT Seabed Mapping Programme, 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.

11.5 The Commonwealth Litter Programme (CLiP), is led by the UK through the Centre for Environment Fisheries and Aquaculture Science (Cefas). Funded by Defra, 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 will encompass the following five pillars:

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

11.6 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 number of the UK's Caribbean and South Atlantic Overseas Territories.

11.7 In 2019, the UK Department for Transport published its *Maritime 2050 Navigating the Future strategy*. This recognises the critical role of the maritime sector for the growth and development of the UK, including its Overseas Territories, as a primary facilitator of global trade.

UKHO's International Activities

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

International Hydrographic Organisation - HSSC		Chair/Vice Chair	Member
DQWG	Data Quality Working Group		x
ENCWG	ENC Standards Maintenance Working Group	x	x
HSSC	Hydrographic Services and Standards Committee		x
NCWG	Nautical Cartography Working Group		x
NIPWG	Nautical Information Provision Working Group		x
S-100WG	S-100 Working Group		x
TWCWG	Tides, Water Level & Currents Working Group		x
International Hydrographic Organisation - IRCC		Chair/Vice Chair	Member
CBSC	Capacity Building Sub-Committee		x
CSBWG	Crowd-sourced Bathymetry Working Group		x
DRWG	Document Review Working Group of NAVTXT		x
HCA	Hydrographic Commission on Antarctica		x
IRCC	Inter-Regional Coordination Committee		x
MACHC	Meso American and Caribbean Sea Hydrographic Commission		x

MBSHC	Mediterranean and Black Seas Hydrographic Commission		x
MSDIWG	Marine Spatial Data Infrastructure Working Group		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
WENDWG	Worldwide ENC Database Working Group		x
WWNWS	Worldwide Navigational Warning Service		x
International Maritime Organisation		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	Navarea1 member states meeting		x
ISO	International Standards Organisation		x
OGC	Open Geospatial Consortium		x

12. CONCLUSION

12.1 UK has a strong commitment to the Meso American and Caribbean Sea region, through its primary charting responsibilities, its continuing interest in developing regional hydrographic self-sufficiency through capacity building measures and more recently through its work to review the status of hydrography within the UK Overseas Territories and its commitment to the Commonwealth Marine Economies (CME) programme.

12.2 The UK, through the UKHO and the national maritime administration (Maritime Coastguard Agency), continues to pursue opportunities to improve access to bathymetric data gathering in waters around UK Overseas Territories.

12.3 There is a continuing challenge to link the scarce local data gathering resources into a broad programme of prioritised chart compilations and new editions to meet the needs of the mariner.

12.4 The provision of adequate ENC coverage, in support of the IMO carriage requirement for ECDIS completed in July 2018, was a challenge in the MACHC region as well as other regions. 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.

12.5 With a diverse range of shipping interests in the Region, improving the effective distribution of information to support the marine and maritime user remains paramount.

12.6 Noting the increasing demand and the International Hydrographic Organisation's (IHO) direction to enable the maximum and widest use of Hydrographic maritime and marine information and data, the UKHO is now well on the journey into looking at how it can meet this demand as part of its transformation to a Marine Geospatial Information Agency and Hydrographic Office.

Taunton, November 2019

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
Telephone: +44 (0)1823 484444

For capacity building matters within the MACHC region, please contact:

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Mobile: +44 (0) 7989 152246
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Head of Partnering and Engagement (Americas)
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For charting matters in the MACHC region, please contact:

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Telephone: +44 (0)1823 483584

Lee Truscott
Geographic Technical Manager - South America, south Pacific, Southern Ocean & Antarctica
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For matters related to Sailing Directions within the MACHC, please contact:

Mr Paul Hardacre
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Telephone: +44 (0)1823 483427

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	48102992 tons (CCL7/2016)
National day -Fête nationale -Fiesta nacional	Second Saturday in June (Trooping the Colours)
-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	National Hydrographer RAdm Peter SPARKES Postal address: Admiralty Way, TAUNTON, Somerset, TA1 2DN, United Kingdom Tel: + 44 (0) 1823 484444 Fax: + 44 (0) 1823 284077 E-mail: IBTE@UKHO.gov.uk
-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	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	782
Total number of paper charts	739 SNC (2018)
Number of ENC cells published	2966 GB cells (2018)
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. Capt(HM)/Hydrographer of the Navy Capt.(HM) Derek RAE Tel: + 44 (0) 1752 555780 Fax: + 44 (0) 1752 555844 E-mail: navydevflot-caphmhfhn@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	Commissioning Date -date de mise en service - Fecha de puesta en servicio	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
HMSL GLEANER (H86)	26	1983	8
Other information of interest - Autres informations utiles -Otra información de interés	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. Training in hydrographic surveying and meteorology is provided for naval personnel by the Flag Officer Sea Training (HM) Unit Officer Commanding FOST (HM) HMS DRAKE HM Naval Base Devonport PLYMOUTH Devon PL2 2BG Details of courses are available at: www.mod.uk/DefenceInternet/AboutDefence/Whatwedo/TrainingandExercises/IDT/IDTRN		

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 fully updated for 2018 survey data.
Country:	United Kingdom of Great Britain and Northern Ireland			
Country Iso Code:	UK			
Country SubCode:	AI			
INT Region:	B			
Country/Depend:	Anguilla			
Last updated:	11/10/2019			
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	60	0	
> 200m	0	0	100	

MSI	Y/N	Comments on MSI:
Local warning	N	
Coastal warning	N	Via NAVAREA IV.
Nav warning	Y	Also, 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: Latest multi-beam survey 2018 fully included in charting.
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:	14/10/2019			
Provided by:	UK			
Chart coverage	Passage (%)	Coastal (%)	Port (%)	Comments on Surveys: Latest LIDAR survey delivered to UKHO late 2018: not yet completed verification. This survey covers all of the 20m contour and in some areas 38m.
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	84	12	4	
> 200m	42	0	58	

MSI	Y/N	Comments on MSI:
Local warning	Y	
Coastal warning	Y	Also, via NAVAREA IV.
Nav warning	Y	Also, 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.
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:	14/10/2019			
Provided by:	UK			
Chart coverage	Passage (%)	Coastal (%)	Port (%)	Comments on Surveys: Multibeam surveys conducted of Cayman Brac (West end) and Grand Cayman (West Bay and Spotts Bay) in 2017.
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	22	45	33	
> 200m	32	3	65	

MSI	Y/N	Comments on MSI:
Local warning	N	Via NAVAREA IV.
Coastal warning	N	Via NAVAREA IV.
Nav warning	N	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. New volcanic activity expected.
Country:	United Kingdom of Great Britain and Northern Ireland			
Country Iso Code:	UK			
Country SubCode:	MS			
INT Region:	B			
Country/Depend:	Montserrat			
Last updated:	14/10/2019			
Provided by:	UK			
Chart coverage	Passage (%)	Coastal (%)	Port (%)	Comments on Surveys: New Surveys conducted West and South of the island.
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	60	0	
> 200m	15	30	55	

MSI	Y/N	Comments on MSI:
Local warning	N	
Coastal warning	N	Via NAVAREA IV.
Nav warning	N	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: Larger scale charts are planned to be fully updated later this FY 19/20.
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:	14/10/2019			
Provided by:	UK			
Chart coverage	Passage (%)	Coastal (%)	Port (%)	Comments on Surveys: Multibeam surveys conducted on major routes. New LIDAR survey data received recently. 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	92	8	0	
> 200m	70	30	0	

MSI	Y/N	Comments on MSI:
Local warning	N	
Coastal warning	N	Via NAVAREA IV.
Nav warning	N	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-Assessment

Country: United Kingdom - Anguilla*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 SafetyNET broadcast as a Navigational Warning.

National MSI Self-Assessment

Country: United Kingdom - British Virgin 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 SafetyNET broadcast as a Navigational Warning.

National MSI Self-Assessment

Country: United Kingdom - Cayman Island
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 SafetyNET broadcast as a Navigational Warning.

National MSI Self-Assessment

Country: United Kingdom - Montserrat
 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

[Detail the number of warnings identified as immediate priority (requiring transmission within 30 minutes) and the average elapsed time for passing to NAVAREA coordinator, as reported to the last RHC meeting]:

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 SafetyNET broadcast as a Navigational Warning.

National MSI Self-Assessment

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 SafetyNET broadcast as a Navigational Warning.