



UK Hydrographic  
Office

MACHC21-03.13-UK National Report

# UNITED KINGDOM NATIONAL REPORT

to the

21<sup>ST</sup> MEETING OF THE  
MESO AMERICAN - CARIBBEAN SEA  
HYDROGRAPHIC COMMISSION  
(MACHC21)

30 November to 3 December 2020  
(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 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.<sup>1</sup>

### **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 2021, 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 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 fifth year and has seen recent completion of an airborne lidar survey in Bermuda which captured bathymetry data in

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<sup>1</sup>. This will be updated in the course of 2021.

Bermuda'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:

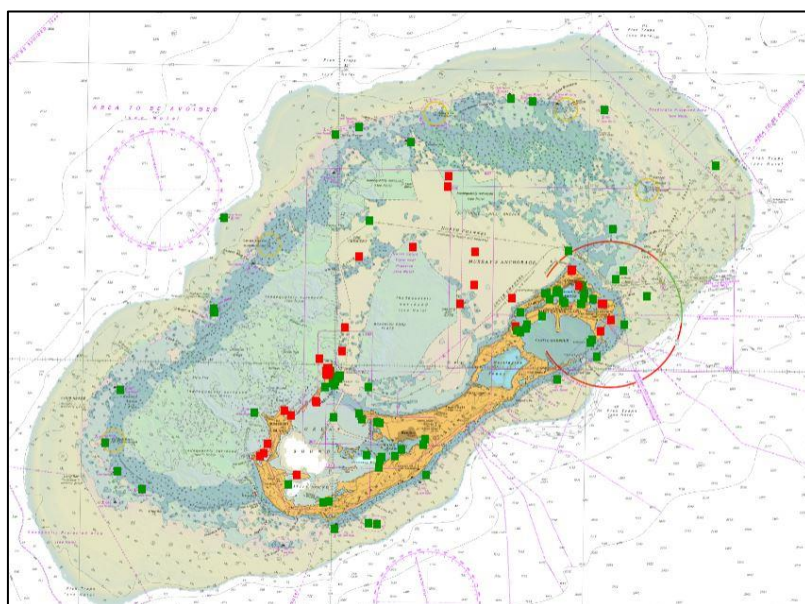
Antigua and Barbuda;  
Belize;  
Grenada;  
Guyana;  
Jamaica;  
St. Lucia; and  
St. Vincent and The Grenadines.

**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. Despite entering its final year, UKHO continues to take a leading role in this programme with a series of capacity building training courses planned through to 2021. We are now in discussions regarding possible continuation of the programme.

## 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. 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** Since the last MACHC, one survey has taken place in the nearby USCHC region, this being an airborne lidar survey in Bermuda under the OTSMP. In addition, a vessel based acoustic MBES survey has been conducted in the Falkland Islands, also under the OTSMP. This equates to approximately 1,200 KM<sup>2</sup> of new survey data. In total, UKHO survey operations under the OTSMP and CME programme have covered a combined area of nearly 20,000KM<sup>2</sup>, approximately 70% of which is in the MACHC region.



Airborne lidar survey of Bermuda conducted under the OTSMP showing known wrecks identified during the survey (green squares x57) and new unknown wrecks identified during the survey (red squares x45).

**2.8** As part of the survey campaign in Bermuda, permanent tide gauges were installed on the island; these will be connected to the IOC network for ongoing measurement and modelling purposes. Permanent tide gauges are also soon to be installed in the Turks and Caicos Islands.

**2.9** At the end of 2019, survey equipment and training were delivered to Montserrat under the OTSMP to build capacity in-country, allowing them to undertake their own hydrographic surveys and so reducing risk in their coastal waters. This was followed up with additional support in early 2020, where the Montserrat survey team conducted their own hydrographic survey utilising the equipment, skills, and expertise that were delivered in the initial training course. Due to the success of the follow up training in Montserrat, plans are underway to deliver similar survey support and follow-up training to the other MACHC countries who were provided with survey equipment and training during 2019; these countries include Antigua and Barbuda, Jamaica and Guyana.

**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](mailto: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 charts have been published since the last MACHC meeting as New Charts or full New Editions:



GB Chart Number	Title	Published
499	West Indies – Harbours in Saint Lucia	5 Dec 2019
2189	Brazil – East Coast, Rio Amazonas, Canal do Norte	2 Jan 2020
197	West Indies – North West Approaches to Saint Lucia	19 Mar 2020
522	Central America – East Coast – Belize, Belize City and Approaches	2 Apr 2020
959	Central America – East Coast – Belize, Colson Point to Belize City including Lighthouse Reef and Turneffe Islands	2 Apr 2020
3149	United States – Gulf of Mexico, Florida, Approaches to Pensacola Bay	9 Apr 2020
4020	International Chart Series – South Atlantic Ocean, Western Part	16 Apr 2020
517	South America – North East coast, Trinidad to Cayenne	16 Apr 2020
520	South America – North East Coast, Cayenne to São Luís	16 Apr 2020
502	West Indies – Harbours and Anchorages in Barbados	23 Apr 2020
2485	West Indies – Approaches to Barbados	23 Apr 2020



GB Chart Number	Title	Published
2988	Central America – Ports in the Gulf of Honduras	30 Apr 2020
1573	Central America – East coast, Gulf of Honduras	7 May 2020
1797	Central America – East coast, Belize, Monkey River to Colson Point	7 May 2020
CP1	Panamá – North Coast, Panamá Canal Atlantic Entrance Including Adjacent Ports	28 May 2020
CP2	Panamá Canal, North Gatún Lake	28 May 2020
CP3	Panamá Canal, South Gatún Lake	28 May 2020
CP4	Panamá Canal, Gaillard Cut	28 May 2020
CP5	Panamá – Pacific Coast, Panamá Canal, Pacific Entrance	28 May 2020
4012	International Chart Series – North Atlantic Ocean, Southern Part	2 Jul 2020
4013	International Chart Series – North Atlantic Ocean, Western Part	2 Jul 2020
471	West Indies – Dominican Republic – South Coast, Cabo Caucedo to Isla Alto Velo	30 Jul 2020
4400	International Chart Series – North Atlantic Ocean, The West Indies	24 Sep 2020
4401	International Chart Series – North Atlantic Ocean, Gulf of Mexico	24 Sep 2020
4402	International Chart Series – North Atlantic Ocean, Caribbean Sea	24 Sep 2020
4403	International Chart Series – North Atlantic Ocean, South East Coast of North America including The Bahama Islands and Greater Antilles	24 Sep 2020
4216	International Chart Series – Atlantic Ocean, North East Coast of South America	1 Oct 2020

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

GB Chart Number	Title
CP5	Panamá – Pacific Coast, Panamá Canal, Pacific Entrance
468	Cruise Terminals in the Caribbean
1450	Turks and Caicos Islands, Turks Island Passage and Mouchoir Passage
3907	International Chart Series – Bahama Islands and Hispaniola
3908	International Chart Series – West Indies, Passages between Turks and Caicos Islands and Dominican Republic
1400	Panama – North Coast, Outer Approaches to Puerto Cristóbal
1043	International Chart Series, West Indies – Winward Islands, Saint Lucia to Grenada and Barbados

## 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:



<b>MACHC Region Released Cells</b>	
<b>ENC Usage Band</b>	<b>Number of GB ENC's</b>
Usage Band 1	8
Usage Band 2	15
Usage Band 3	35
Usage Band 4	68
Usage Band 5	82
Usage Band 6	14
Total Number of ENCs	222

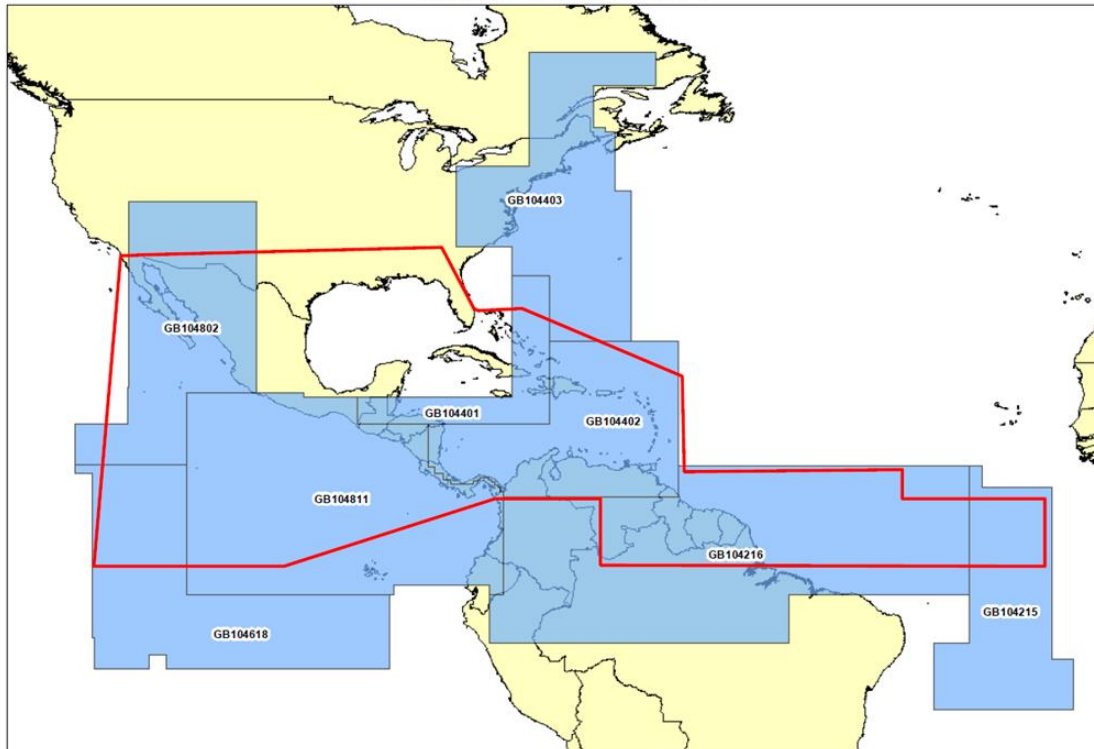
**ENC totals by usage band as produced by UKHO**

The tables below show revisions to GB ENC coverage for the MACHC Region during 2019/20. The subsequent diagrams illustrate the current coverage of GB ENCs within the MACHC Region.

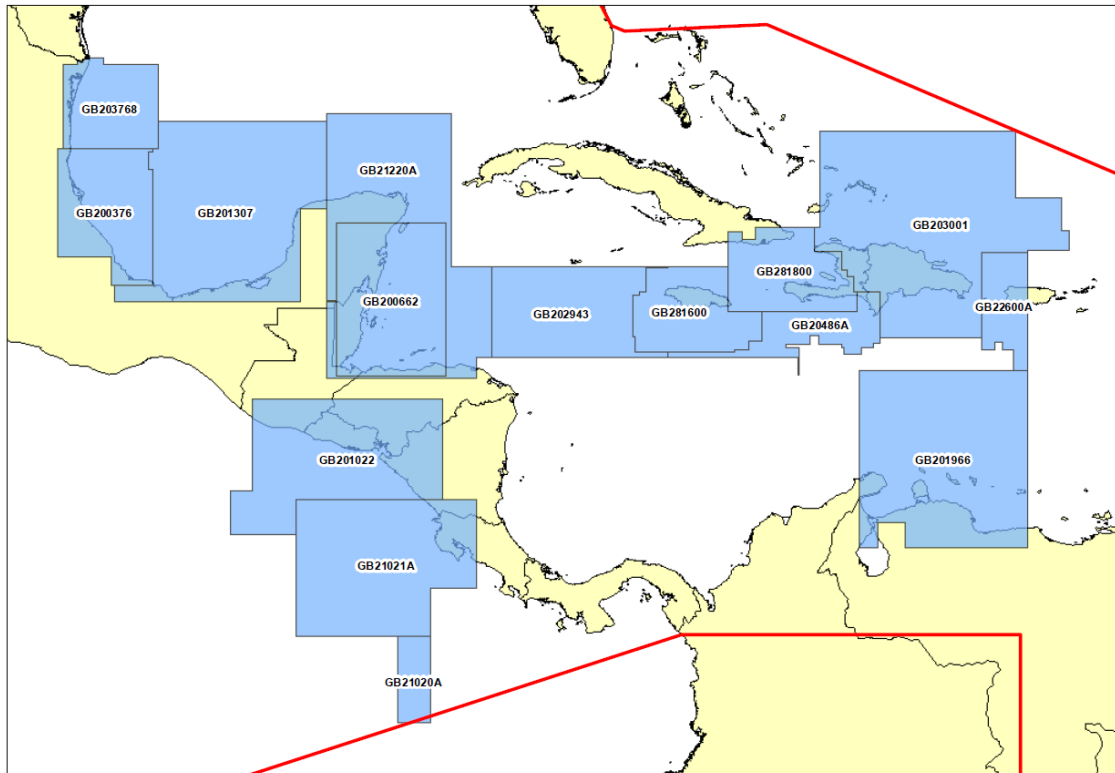
<b>New Cells Nov 2019 - Oct 2020</b>	<b>Week No.</b>
GB300662	13/20

<b>Cancelled Cells Nov 2019 - Oct 2020</b>	<b>Week No.</b>	<b>Replacements</b>
None	NA	NA

MACHC - GB ENC's, Band 1

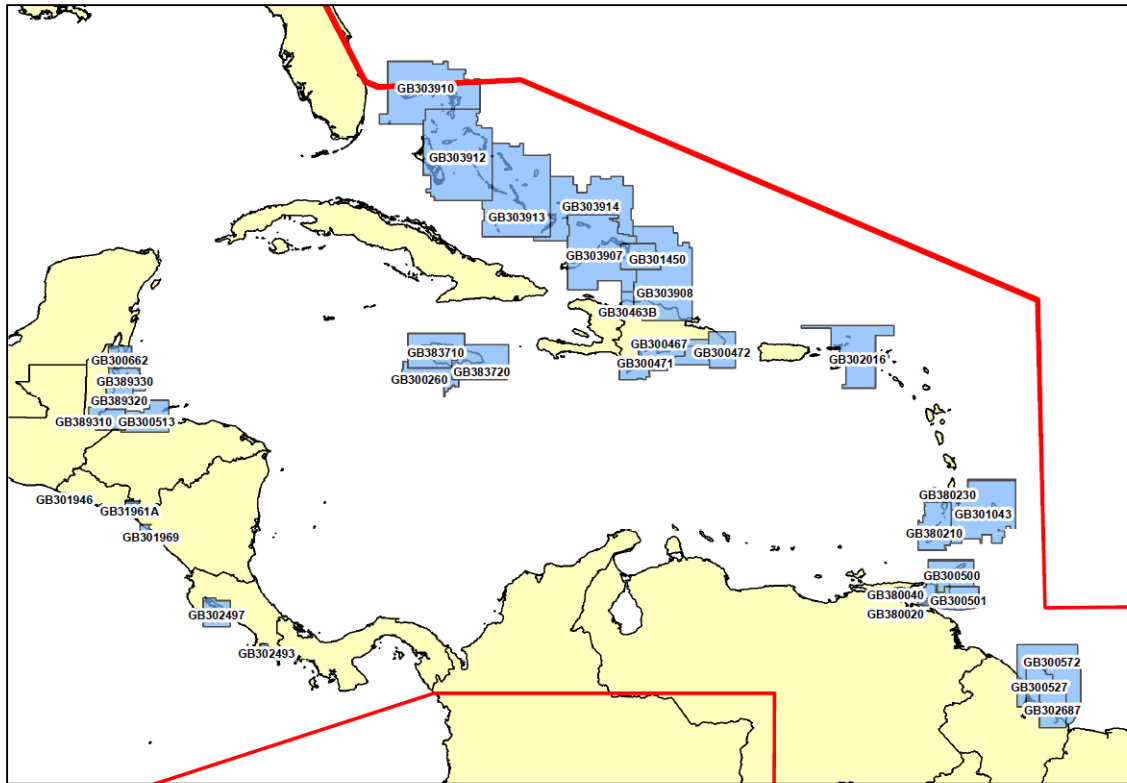


MACHC - GB ENC's, Band 2

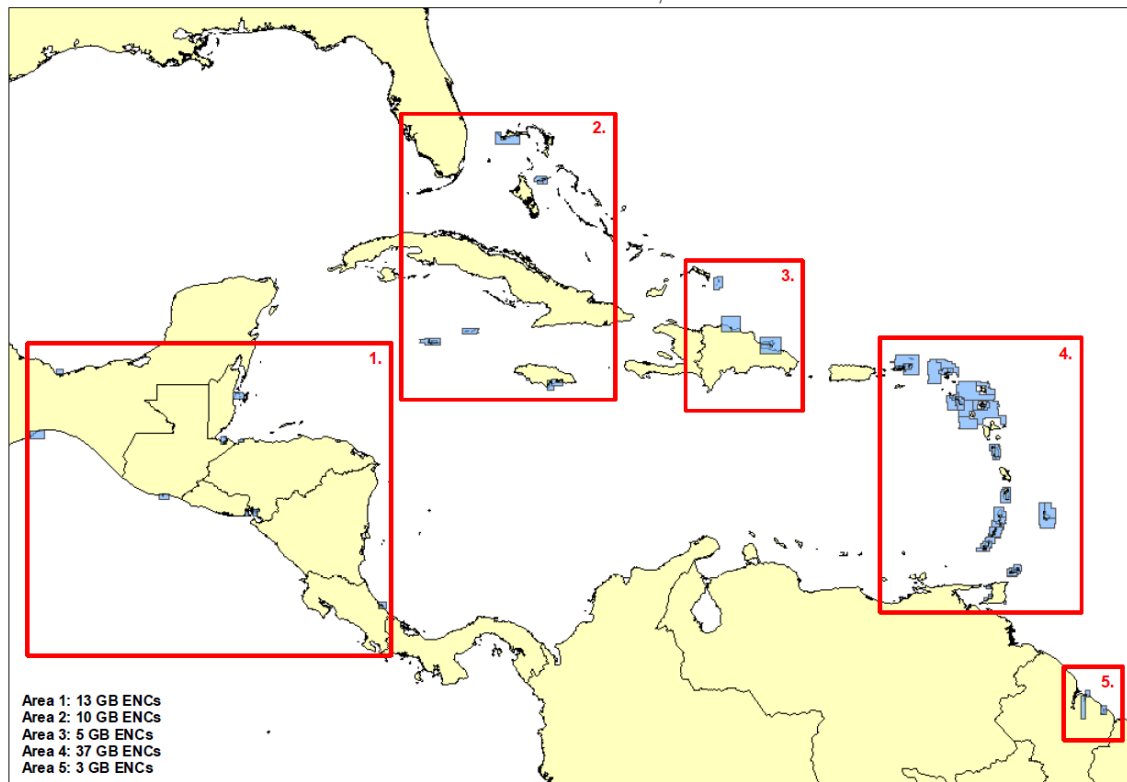




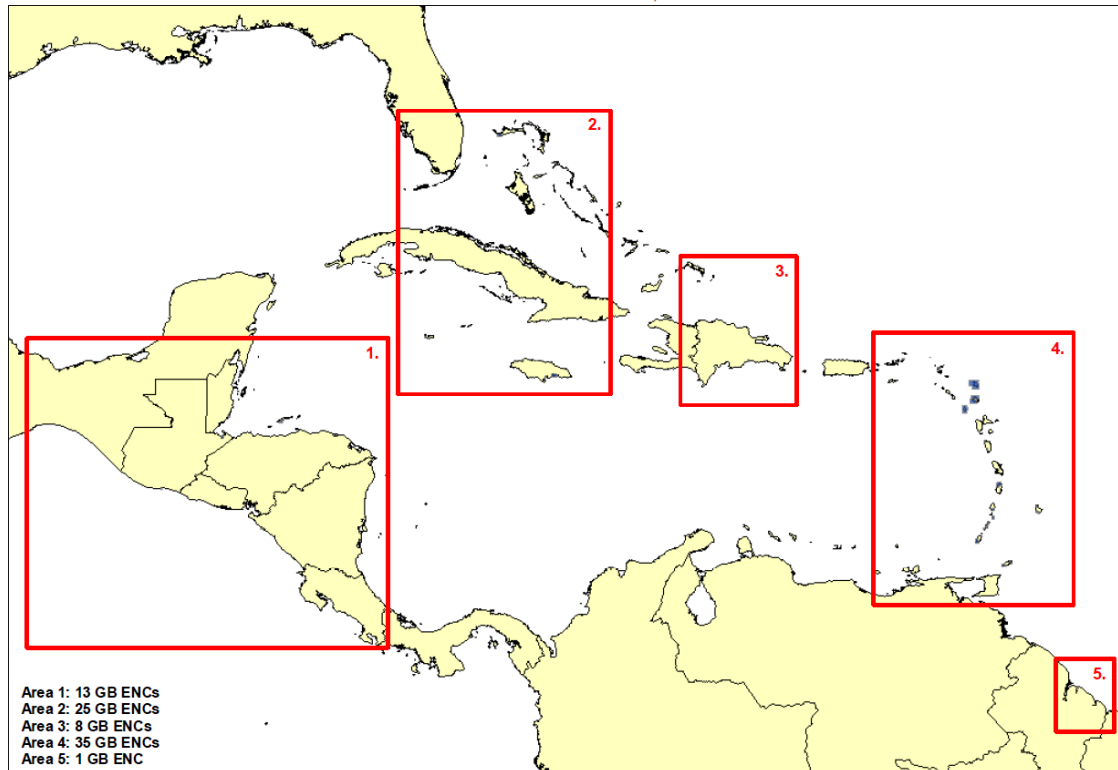
# MACHC - GB ENC's, Band 3



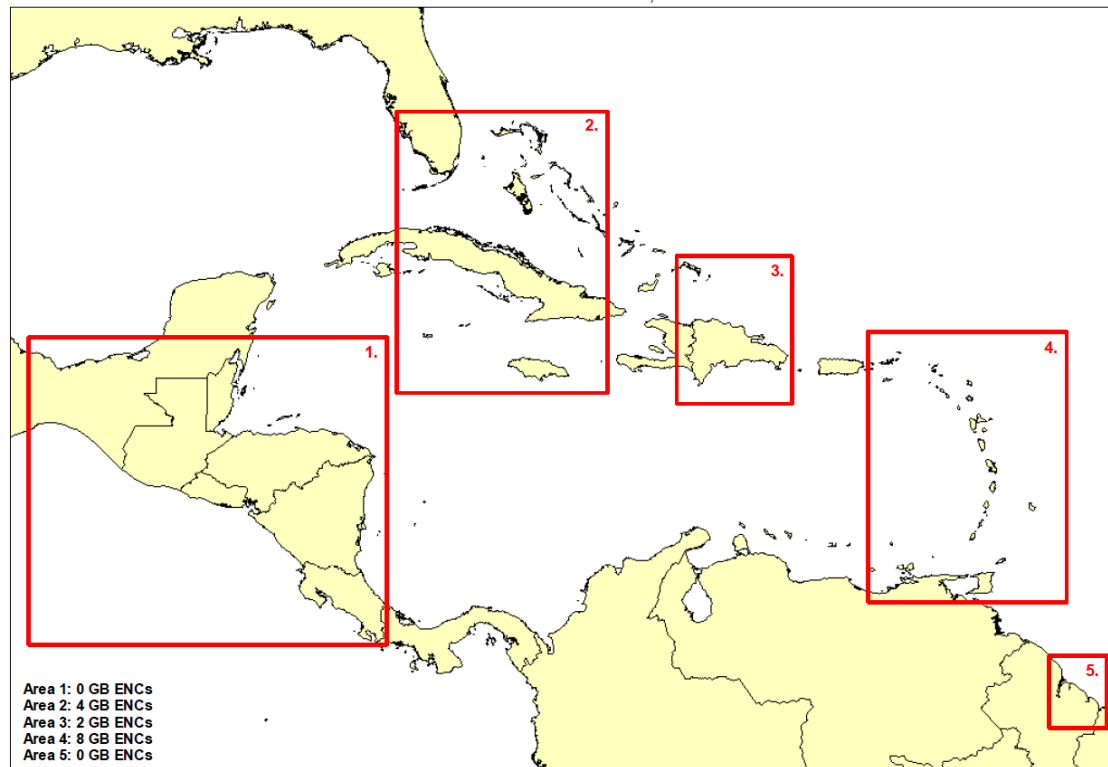
# MACHC - GB ENC's, Band 4



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 ENC's (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 ENC's 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](http://www.ic-enc.org)).

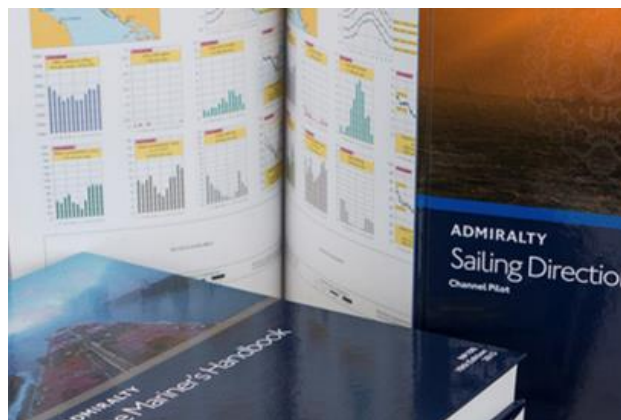
The UKHO also acts as a VAR in its own right, particularly promoting a global range of ENC's under the AVCS brand alongside its successful ADMIRALTY range of paper charts and publications. Additional details can be found on the ADMIRALTY website ([www.admiralty.co.uk](http://www.admiralty.co.uk)).

## 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



### New editions published since last MACHC Dec 2019:

None

### New editions to be published:

NP 69A East Coasts of Central America & Gulf of Mexico Pilot – 10 Dec 20

NP 70 West Indies Pilot Vol 1 (To be confirmed scheduled for 1 Apr 21)

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](http://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
- 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 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, 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, 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.

### **Cartographic Training provided by UKHO**

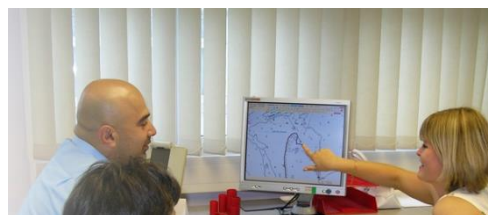
**7.3** The UKHO provides two annual CAT B accredited nautical cartography training opportunities to FGHO students. These are the IHO-NF CHART Project course which is funded by the Nippon Foundation and the newly established UKHO course. Applications for the Nippon Foundation course are by responding to the IHO Circular Letter on the subject (this year it was CL09 /2020). The UKHO invites participants to its version of the course as part of bilateral arrangements.



From the MACHC region, the Dominican Republic and Guyana are participating in the Nippon Foundation course that has been rescheduled to commence December 2020.

### **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 Commander Fleet Operational Training - Hydrography, Meteorology and Oceanography**

**7.5** Nationally and internationally certified courses delivered by Commander Fleet Operational Training in Plymouth, are described in the UK Generic National Report.

## **8. OCEANOGRAPHIC ACTIVITIES**

**8.1** The UK participates on the IOC-IHO Guiding Committee for GEBCO, to support GEBCO's aim to provide the most authoritative, publicly available Bathymetric data sets for the world's oceans.

**8.2** 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.

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](http://www.ntsrf.org)) operated by the UK Environment Agency.

However, as discussed at Para 2.8, the UKHO has recently been involved in the establishment of permanent gauges in Bermuda and the Turks & Caicos Islands as part of its Overseas Territories Seabed



Mapping Programme (OTSMP). These now feed into the NOAA GOES (Geostationary Operation Environmental Satellites) Collection System.

**8.3** Further details are 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 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 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 Para 11.5 of this document as well as most of the MSDI Working Groups within the Regional Hydrographic Commissions for which the UKHO has membership of. The UKHO represents the UK on the UNGGIM Working Group on Marine Geospatial Information and has recently agreed to lead UK input into the UNGGIM-Americas Caribbean Geospatial Development Initiative (CARIGEO).

We are actively working at creating a domain with the appropriate standards to support national and international MSDIs, a good example 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 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 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, which may be extended across the Geospatial Commission in due course subject to circumstances.





The UKHO is currently collaborating with one of its Primary Charting Authorities to develop an MSDI Data Management Solution on their behalf, to aid in making geospatial data more widely discoverable, accessible and usable. It is hoped this will be made available to a select group of user within the PCA for use by the end of November, and lessons learnt will directly inform further MSDI Professional Services available from the UKHO.

**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](https://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; and
- Increasing the range of data which is ingested.

## **10. INNOVATION**

**10.1** The UKHO has launched its new ADMIRALTY Marine Innovation Programme, spearheaded by the UKHO's Research, Design and Innovation team. The programme will give innovators and start-ups a chance to develop new solutions that solve some of the world's most pressing challenges when it comes to our oceans. The launch of this Programme follows extensive research commissioned by the UKHO into the Blue Economy, which is estimated to be worth £3.2 trillion by the year 2030.

**10.2** Successful innovation programme participants will develop their own solutions for these areas, using ADMIRALTY data sets that range from seabed composition samples and bathymetric profiles of the seafloor, to tidal and navigational information. Entrants to some challenges will also work alongside leading experts in research, design and development at the UKHO, with winners receiving an opportunity to launch their products into some of the world's fastest growing marine sectors.

**10.3** The themes for this year's Programme are as follows:

- Unlocking Autonomous Vessel Navigation;
- Transforming Maritime Risk & Insurance;
- Identifying Suitable Areas for Offshore Renewable Energy; and
- Open Innovation in Blue Carbon Sequestration Areas.

## **11. OTHER ACTIVITIES**

### **UK Celebrations for World Hydrography Day (WHD)**

**11.1** The UKHO has celebrated World Hydrography Day and the theme of "Enabling Autonomous Technologies" with an Autonomous film uploaded to IHO and social media platforms. Due to COVID-19, the UKHO will be hosting a virtual ADMIRALTY Blue Data Conference 2021 with a close link to WHD covering the future of navigation.

### **Broader UK Government Work**

**11.2** The UK Member State, consisting of the UK, the Overseas Territories and Crown Dependencies, will be audited in 2021 (delayed slightly 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 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.

**11.3** 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.

**11.4** 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.

### The UKHO's International Activities

**11.5** 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
NIPWG	Nautical Information Provision Working Group		x
S-100WG	S-100 Working Group		x
TWCWG	Tides, Water Level & Currents Working Group		x
ABLOS	Advisory Board on the Law of the Sea		x
International Hydrographic Organization - IRCC		Chair/Vice Chair	Member
IRCC	Inter-Regional Coordination Committee		x
CBSC	Capacity Building Sub-Committee		x
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
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
<b>International Hydrographic Organization</b>		<b>Chair/Vice Chair</b>	<b>Member</b>
SPRWG	Strategic Plan Review Working Group		x
<b>International Maritime Organization</b>		<b>Chair/Vice Chair</b>	<b>Member</b>
NAVTEX	NAVTEXT Coordination panel	x	x
<b>International Association of Marine Aids to Navigation and Lighthouse Authorities</b>		<b>Chair/Vice Chair</b>	<b>Member</b>
ENAV	E-navigation Committee		x
<b>Other International Bodies</b>		<b>Chair/Vice Chair</b>	<b>Member</b>
IAU	International Astronomical Union		x
CIRM	Comité International Radio-Maritime		x
BALTICO	Navarea I member states meeting		x
ISO	International Standards Organisation		x
OGC	Open Geospatial Consortium		x
UNGGIM WGMGI	UNGGIM Working Group on Marine Geospatial Information		x
CARIGEO	Caribbean Geospatial Development Initiative		x

## 12. CONCLUSION

**12.1** Like all MACHC states, the UK has experienced significant impact due to the COVID-19 virus. Most of our workforce has been working from home in an effort to reduce the spread and infection rate. Despite the resulting restrictions, the UKHO remains committed to the Meso American and Caribbean Sea region. This commitment is demonstrated 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 Programme.

**12.2** The UK, through the UKHO and the national maritime administration (the 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. We are also working closely with our Overseas Territories to develop MSDI data portals to assist them in making data more widely available for use. Any reasonable requests for MSDI development assistance from nations within the MACHC region will be considered.

**12.4** The UKHO welcomed the series of MACHC-IOCARIBE co-hosted Webinars covering the regional Seabed 2030 efforts. It was pleased to note that this HC has led the way in developing a Draft Strategy to support this important initiative; we look forward to supporting the endeavour and helping deliver against the supporting Action Plan. The MACHC is blazing the trail from which other HCs can, hopefully, refer (as a model).

**12.5** 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 to others. Good progress

continues to be made to improve the availability and quality of suitable ENC coverage along with digital publications to support the digital bridge. The ongoing development of S-100 will provide opportunities for the improvement of coverage and data within the Region.

**12.6** 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.

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

Taunton, November 2020

## UKHO POINTS OF CONTACT:

**UKHO Website:** [GOV.uk/UKHO](http://GOV.uk/UKHO)

The general UKHO address is:

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Admiralty Way  
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Somerset  
TA1 2DN  
United Kingdom

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**Lee Truscott**

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

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

<b>Country information / Informations sur le pays/ Información sobre el país</b>	
-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 Colour)
-Date first joined IHO -Date d'adhésion à l'OHI -Fecha de adhesión a la OHI	21/06/1921
-Date ratification Convention -Date de ratification de la Convention -Fecha de ratificación de la Convención	03/05/1967
Official Representative to IHO (as designated by Member Government) <b>UNITED KINGDOM HYDROGRAPHIC OFFICE</b>	
<b>Contact information/ Informations de contact / Información de contacto</b>	
-National Hydrographer or equivalent -Directeur du service hydrographique ou équivalent -Director del Servicio Hidrográfico o equivalente	National Hydrographer & Acting Chief Executive 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
Other point(s) of contact - Autre(s) point(s) de contact - Otros punto(s) de contacto	Director of Data Acquisition RAdm Rhett Hatcher Tel: + 44 (0) 1823 484444 E-mail: IBTE@UKHO.gov.uk
-Web site -site web -sitio web	<a href="http://www.gov.uk">http://www.gov.uk</a>
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: <a href="http://www.gov.uk/UKHO">http://www.gov.uk/UKHO</a>

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 <u>Derek.rae531@mod.gov.uk*</u>		
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	Displacement -déplacement -Desplazamiento	Commissioning Date -date de mise en service - Fecha de puesta en servicio	Crew -équipage -Personal

hidrográficos/Aeronaves			
HMS SCOTT (H131)	13500	1997	63
HMS PROTECTOR	5000	2011	88
HMS ECHO (H87)	3470	2002	72
HMS ENTERPRISE (H88)	3470	2002	72
HMS MAGPIE (H130)	37	2018	12
Other information of interest -Autres informations utiles -Otra información de interés	<p>HM personnel are also borne in other RN vessels. Capt(HM) directs all hydrographic, meteorological and oceanographic support to the fleet.</p> <p>The programme for Civil hydrography in UK waters is managed by the Maritime &amp; 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</p> <p>Devonport</p> <p>PLYMOUTH</p> <p>Devon PL2 2BG</p> <p>Details of courses are available at:</p> <p><a href="http://www.mod.uk/DefenceInternet/AboutDefence/Whatwedo/TrainingandExercises/IDT/IDTRN">www.mod.uk/DefenceInternet/AboutDefence/Whatwedo/TrainingandExercises/IDT/IDTRN</a></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: 1. New band 5 ENC for Crocus Bay and Road Bay. 2. Band 4 ENC for total area coverage.
Country:	United Kingdom of Great Britain and Northern Ireland			
Country Iso Code:	UK			
Country SubCode:	AI			
INT Region:	B			
Country/Depend:	Anguilla			
Last updated:	05/11/2020			
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	60	40	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: 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:	05/11/2020			
Provided by:	UK			
Chart coverage	Passage (%)	Coastal (%)	Port (%)	Comments on Surveys: New LIDAR 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:	05/11/2020			
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:				<b>Comments on Charts:</b> 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:	05/11/2020			
Provided by:	UK			
Chart coverage	Passage (%)	Coastal (%)	Port (%)	<b>Comments on Surveys:</b>
INT	100	100	100	
RNC	100	100	100	
ENC	100	100	100	
<b>Status of Paper Charts</b>				
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	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:				<b>Comments on Charts:</b> Survey data delayed. Larger scale charts are planned to be fully updated later this FY 20/21.
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:	05/11/2020			
Provided by:	UK			
Chart coverage	Passage (%)	Coastal (%)	Port (%)	<b>Comments on Surveys:</b> 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	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 Island

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 SafetyNET 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	<a href="mailto:Rawle.Hazell@gov.ai">Rawle.Hazell@gov.ai</a>
British Virgin Islands	Virgin Islands Shipping Registry	Captain Raman Bala – Director of Shipping	+284 468 9636	<a href="mailto:rBala@gov.vg">rBala@gov.vg</a>
Cayman Island	Cayman Islands Government Lands and Survey Department	Michael Whiteman – Chief Surveyor	+ 345 244 3413	<a href="mailto:Michael.Whiteman@gov.ky">Michael.Whiteman@gov.ky</a>
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