



MACHC18-03Y UK National Report

United Kingdom
Hydrographic Office

UNITED KINGDOM NATIONAL REPORT

to the

**MESO AMERICAN - CARIBBEAN SEA
HYDROGRAPHIC COMMISSION 18TH MEETING
(MACHC)**

**VARADERO, CUBA
27 November - 2 December 2017**

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

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1. UNITED KINGDOM 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 UK's Hydrographic Office (UKHO) and UK's maritime administration Maritime & Coastguard Agency (MCA) in providing a co-ordinated 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, 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, covering a range of topics, including the use of copyright data. These also promote other forms of co-operation between the participants, helping to enhance international maritime safety and protection of the environment.

2. SURVEYS

2.1 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 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, and has been considerably successful in promoting co-operation between these organisations.

2.2 The UK government has created the Commonwealth Marine Economies (CME) programme which was first announced by the then Prime Minister at the 2015 Commonwealth Summit. The programme aims to support the sustainable economic growth of Small Island Developing States (SIDS) by maximising 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. After a successful year 1, funding for year 2 has been secured and implementation is underway. We are working in partnership on the CME programme with the Centre for Environment, Fisheries and Aquaculture Science (Cefas) and the National Oceanography Centre (NOC) to provide a wide range of expertise.

2.3 The multibeam echo-sounder and lidar work conducted in St Vincent and Grenada last year under the Commonwealth Marine Economies Programme has completed validation at the UKHO and is currently in the process of being charted. CME Programme partners plan to deliver the data to the respective governments through in-country workshops before year end.

2.4 Last year a combined survey team from UKHO and Cefas working under the Darwin+ Programme conducted a high resolution acoustic survey using multibeam echo-sounder and associated equipment in key areas of Anguilla, along with an extensive lidar survey by the UKHO under the Overseas Territories (OTs) Seabed Mapping Programme. This work covers an area of 738km² and will be used to update coverage in the area.

2.5 A survey team from the UKHO has recently completed a survey of the west coast of Montserrat using multibeam echo-sounder and associated equipment. The survey covering 116.9km² will update coverage in the area, much of which dates back to before the recent volcanic eruptions that have significantly changed the nearshore bathymetry.

2.6 On completion of the Montserrat survey the UKHO team travelled to Tortola (BVI) to conduct a survey of the western part of the Sir Francis Drake Channel. Unfortunately, Hurricane Irma hit 5 days into the work and the subsequent destruction of the survey vessel and impact on local infrastructure curtailed further work at this time. The team were able to provide some disaster support post the hurricane by conducting rudimentary surveys of a number of approaches and jetties.

2.7 The following multibeam 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:

- o Guyana - Approaches to Demerara River
- o Jamaica - Kingstone Harbour and Portland Bight
- o Cayman Islands - Grand Cayman and Cayman Brac

2.8 The following surveys are currently in the process of being developed:

- Belize - Key Port Approaches.

2.9 Any requests for survey assistance from nations within the MACHC region will be considered as the UKHO has a dedicated team of specialists that manages our 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 is the Head of International Programmes and Training and is the initial point of contact for UKHO involvement in overseas hydrographic programmes and Regional Hydrographic Commission initiatives. Further information can be obtained from (samuel.harper@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 UKHO 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
2189	Brazil – East Coast, Rio Amazonas Canal do Norte	01 Dec 16
1021	Costa Rica and Nicaragua – Pacific Ocean Coast	22 Dec 16
1022	Central America – Pacific Ocean Coast	22 Dec 16
3698	United States – East Coast, Florida, Miami Harbor	22 Dec 16
410	West Indies - Cuba – North West Coast, Bahia del Mariel and Approaches	15 Dec 16
2866	United States – Bahamas – Cuba, Straits of Florida	19 Jan 17
2195	Colombia – North Coast, Punta Gallinas to Bahia de Santa Marta	19 Jan 17
1277	Colombia – North Coast, Punta Canoas to Isla Fuerte	26 Jan 17
3382	United States – Gulf of Mexico, Louisiana, Mississippi River, Southwest Pass to New Orleans	26 Jan 17
3384	United States – Gulf of Mexico, Louisiana, Mississippi River, New Orleans to Baton Rouge	26 Jan 17
596	West Indies, Southern Martinique to Saint Vincent	02 Feb 17
1278	Colombia – North Coast, Isla Fuerte to Cabo Tiburon including Golfo de Uraba	02 Feb 17
1629	Caribbean Sea, Ports and Anchorages on the Coast of Venezuela	02 Feb 17
3935	West Indies, Windward Passage and Southern Approaches	02 Feb 17
3936	West Indies, Approaches to Jamaica	02 Feb 17
2530	United States and Mexico, West Coast, San Diego Bay to Cape Mendocino	16 Feb 17
468	Cruise Terminals in the Caribbean, Amber Cove, Dominican Republic and Grand Turk, Turks and Caicos	23 Feb 17
2766	South America – North Coast, Guyana – Suriname, Corantijn and Nickerie River Entrance	06 Apr 17
1307	Mexico – East Coast, Bahia de Campeche	13 Apr 17
2626	Mexico – East Coast, Bay of Campeche	13 Apr 17
359	Mexico – East Coast, Dos Bocas Terminal	13 Apr 17

3907	Bahama Islands and Hispaniola Passages	04 May 17
3908	West Indies, Passages between Turks and Caicos Islands and Dominican Republic	04 May 17
2863	United States – Bahamas – Cuba, Straits of Florida	11 May 17
2833	Cuba – Mexico, Yucatan Channel	01 Jun 17
2846	Cuba – South Coast, Punta Frances to Punta Maria Aguilar including Cayman Ridge	01 Jun 17
2848	West Indies, Formigas Bank to Punta Cabeza del Este including Lesser Caymans	01 Jun 17
594	West Indies, Southern Guadeloupe to Northern Martinique	08 Jun 17
8227	Port Approach Guide Miami	15 Jun 17
2958	West Indies, Cuba - North Coast, Old Bahama Channel	22 Jun 17
2959	West Indies, Cuba and Bahamas, Punta Maisi to Great Bahama Bank	22 Jun 17
2318	Colombia – West Coast, Approaches to Bahia de Buenaventura	13 Jul 17
2319	Colombia – West Coast, Bahia de Buenaventura	13 Jul 17
472	West Indies, Dominican Republic and Puerto Rico, Mona Passage	20 Jul 17
702	Caribbean Sea – Nederlandse Antillen and Aruba, Aruba and Curacao	20 Jul 17
1400	Panama – North Coast, Approaches to Puerto Cristobal	27 Jul 17
1401	Panama – Pacific Coast, Southern Approaches to the Panama Canal	27 Jul 17
3098	Panama, Panama Canal	27 Jul 17
3111	Panama, North Coast, Atlantic Entrance to the Panama Canal including adjacent ports	27 Jul 17
396	Caribbean Sea, Barranquilla to Miskito Bank	17 Aug 17
3913	Bahamas – Crooked Island Passage and Exuma Sound	17 Aug 17
3914	Turks and Caicos Islands and Bahamas – Caicos Passage and Mayaguana Passage	17 Aug 17
2016	West Indies, Puerto Rico to Leeward Islands	21 Sept 17
2189	Brazil – East Coast, Rio Amazonas, Canal do Norte	21 Sept 17
5504	Mariners' Routeing Guide Approaches to the Panama Canal	21 Sept 17
8006	Port Approach Guide Panama Canal Northern Entrance	21 Sept 17
8007	Port Approach Guide Panama Canal Southern Entrance	21 Sept 17
2261	Colombia – North Coast, Puerto Barranquilla and Approaches	05 Oct 17
2267	Caribbean Sea, Ports on the North Coast of Colombia	19 Oct 17
1628	Venezuela, Puerto Cabello and Approaches	26 Oct 17
2190	Venezuela, Peninsula De Paraguana, Punta Salinas to Punta Cardon	02 Nov 17

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 ENCs. Within the MACHC Region, UK has published 193 ENC cells.

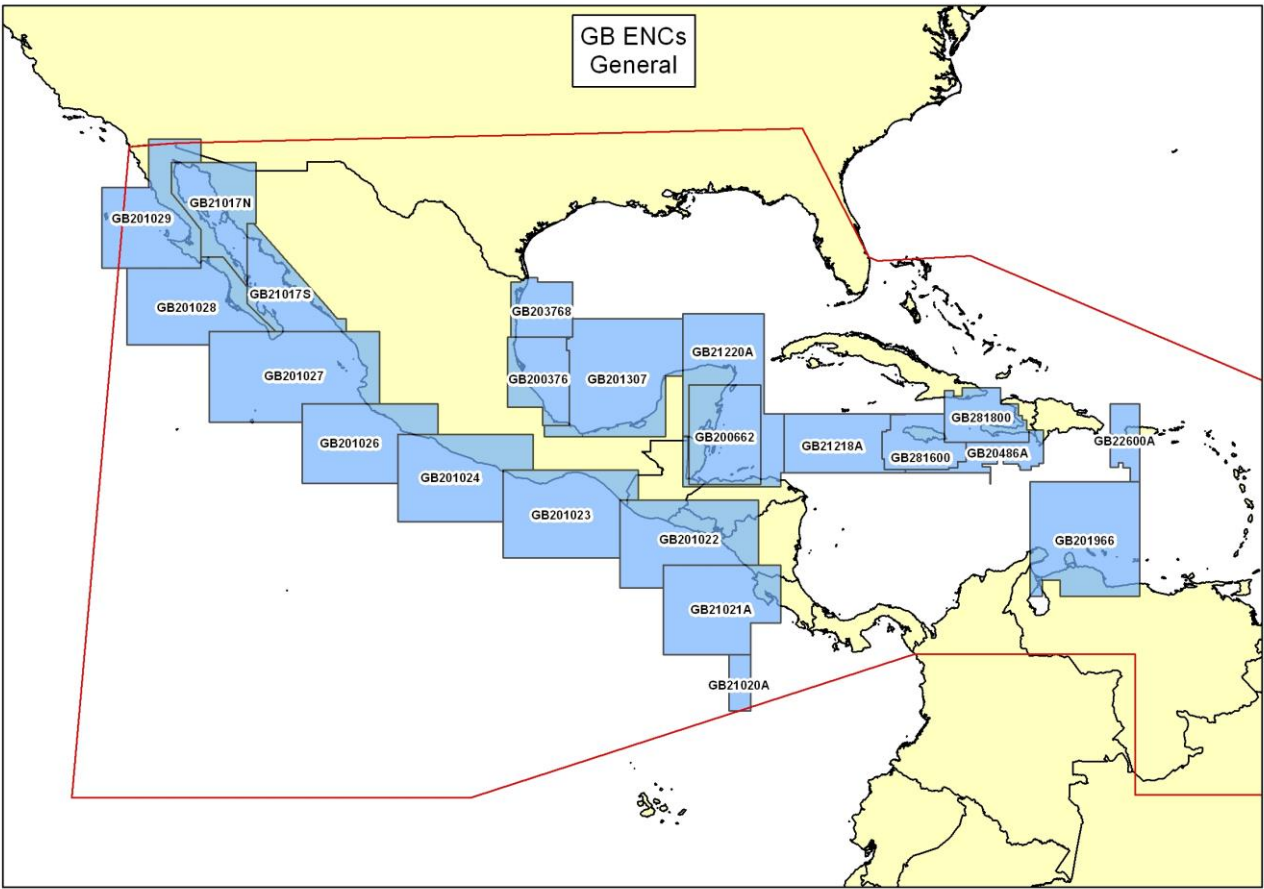
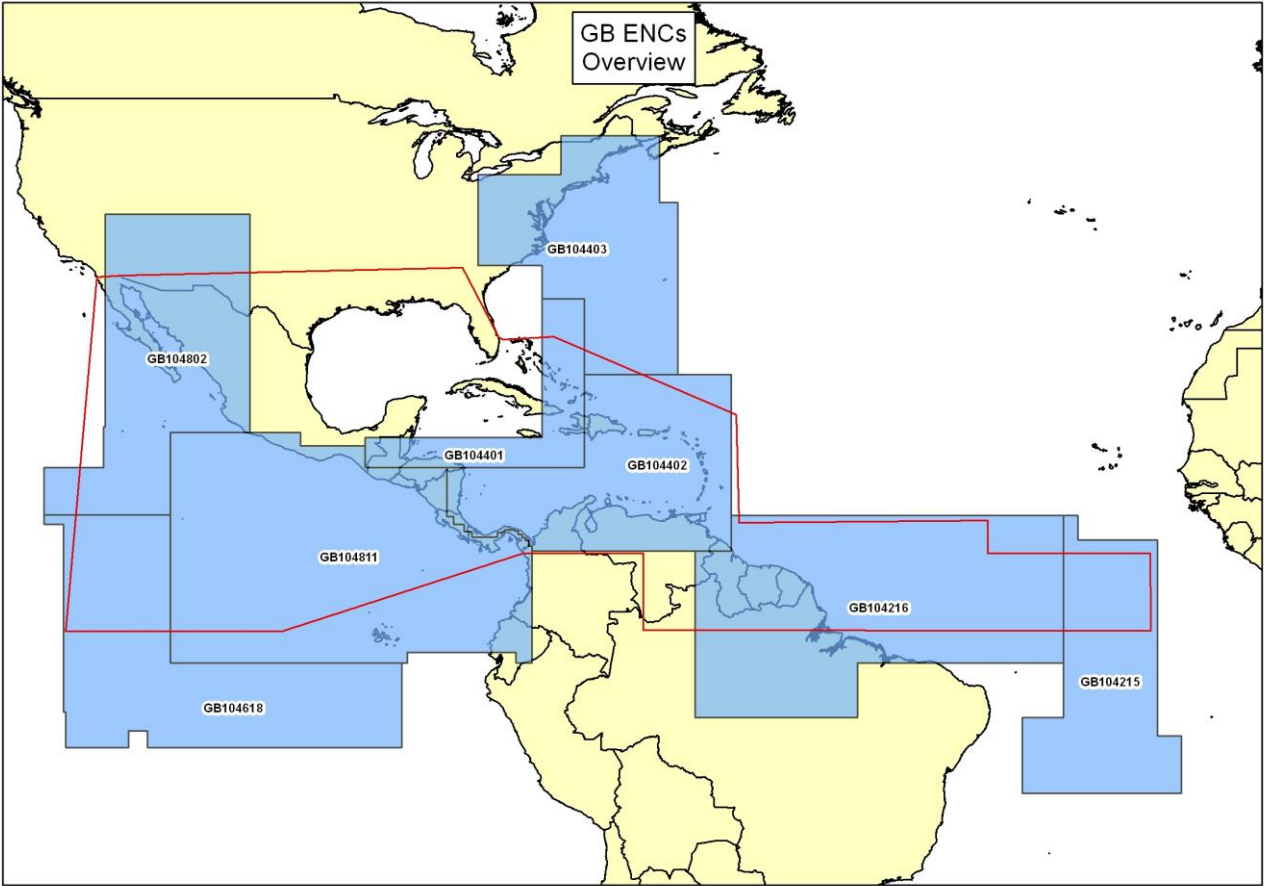
The breakdown by usage band is shown in the table below:

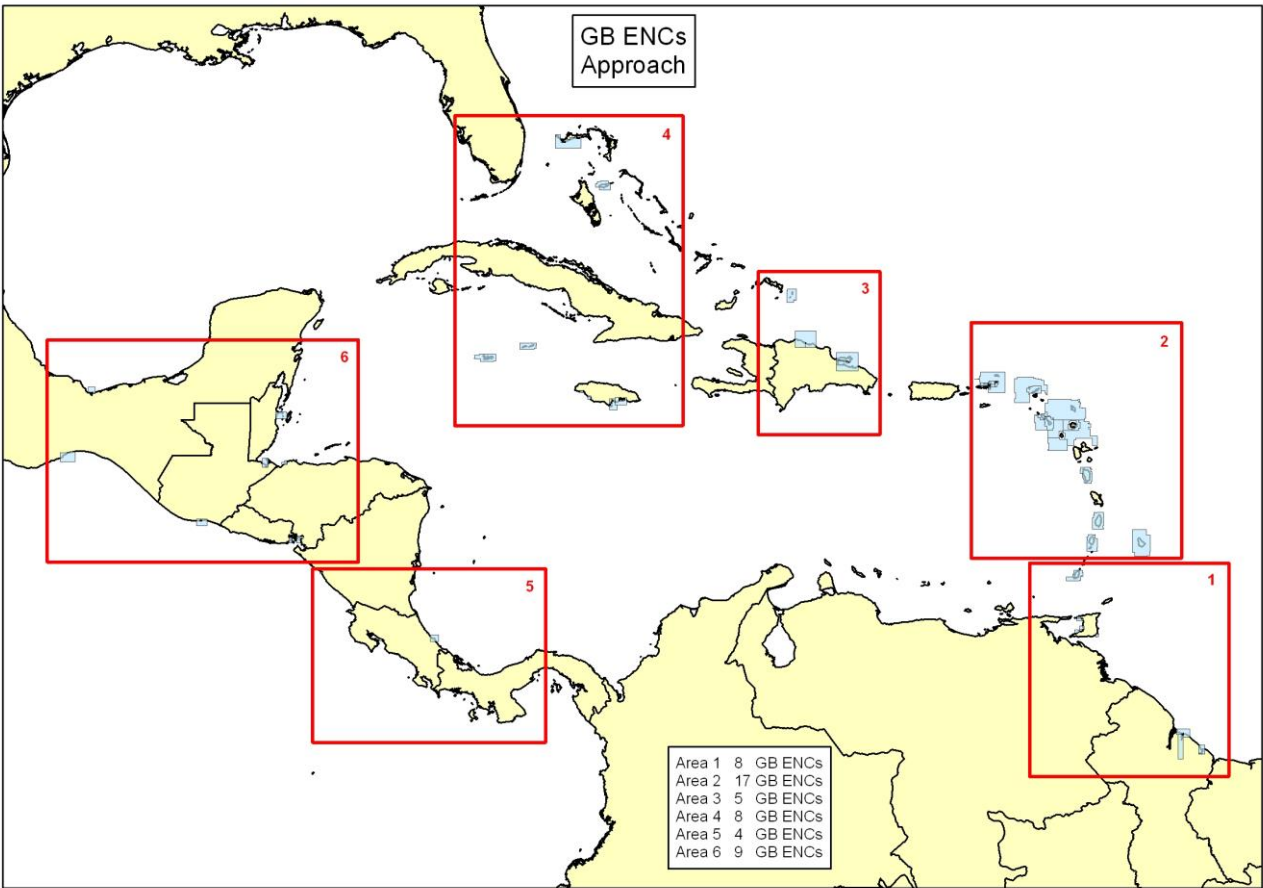
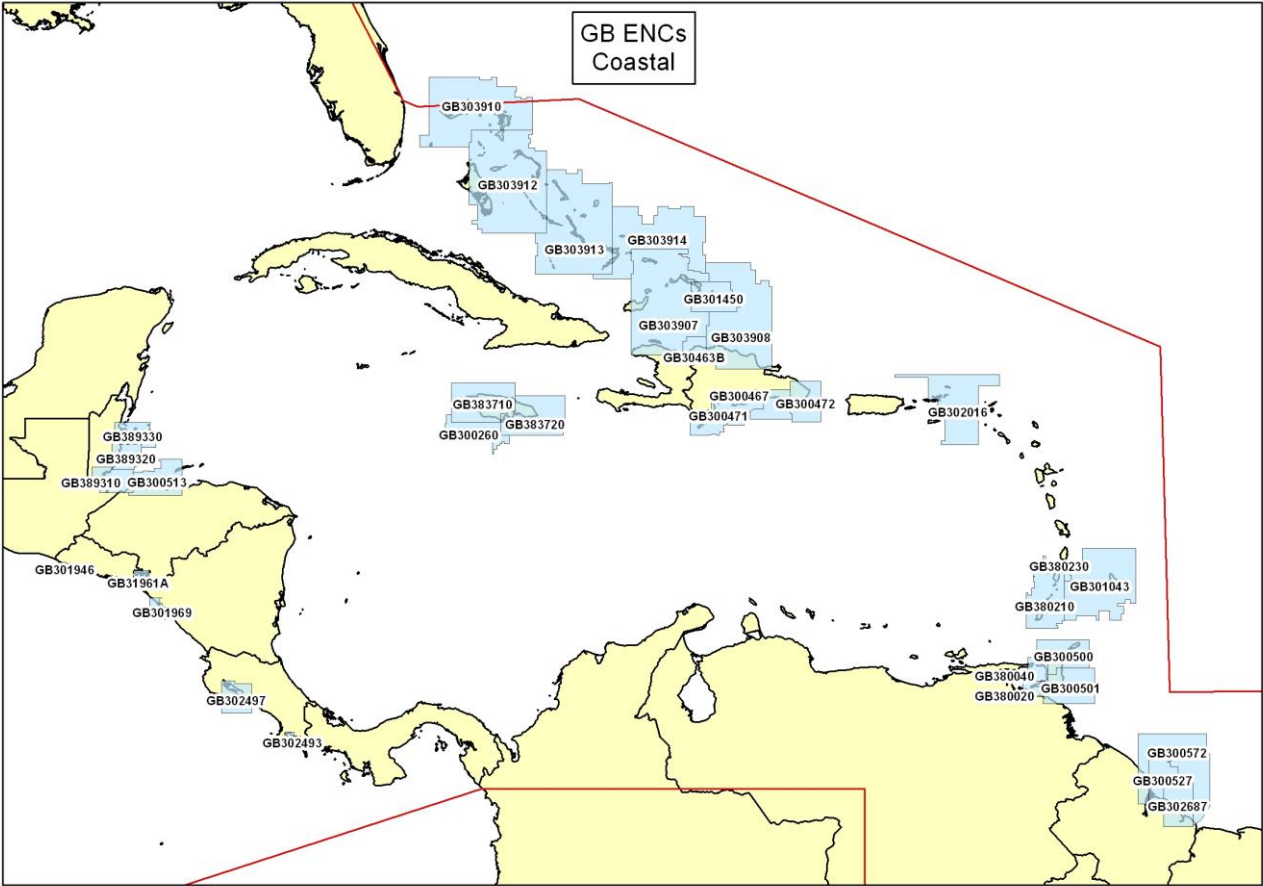
ENC Usage Band	Number of GB ENC's
Usage Band 1	8
Usage Band 2	22
Usage Band 3	34
Usage Band 4	51
Usage Band 5	71
Usage Band 6	7
Total Number of ENCs	193

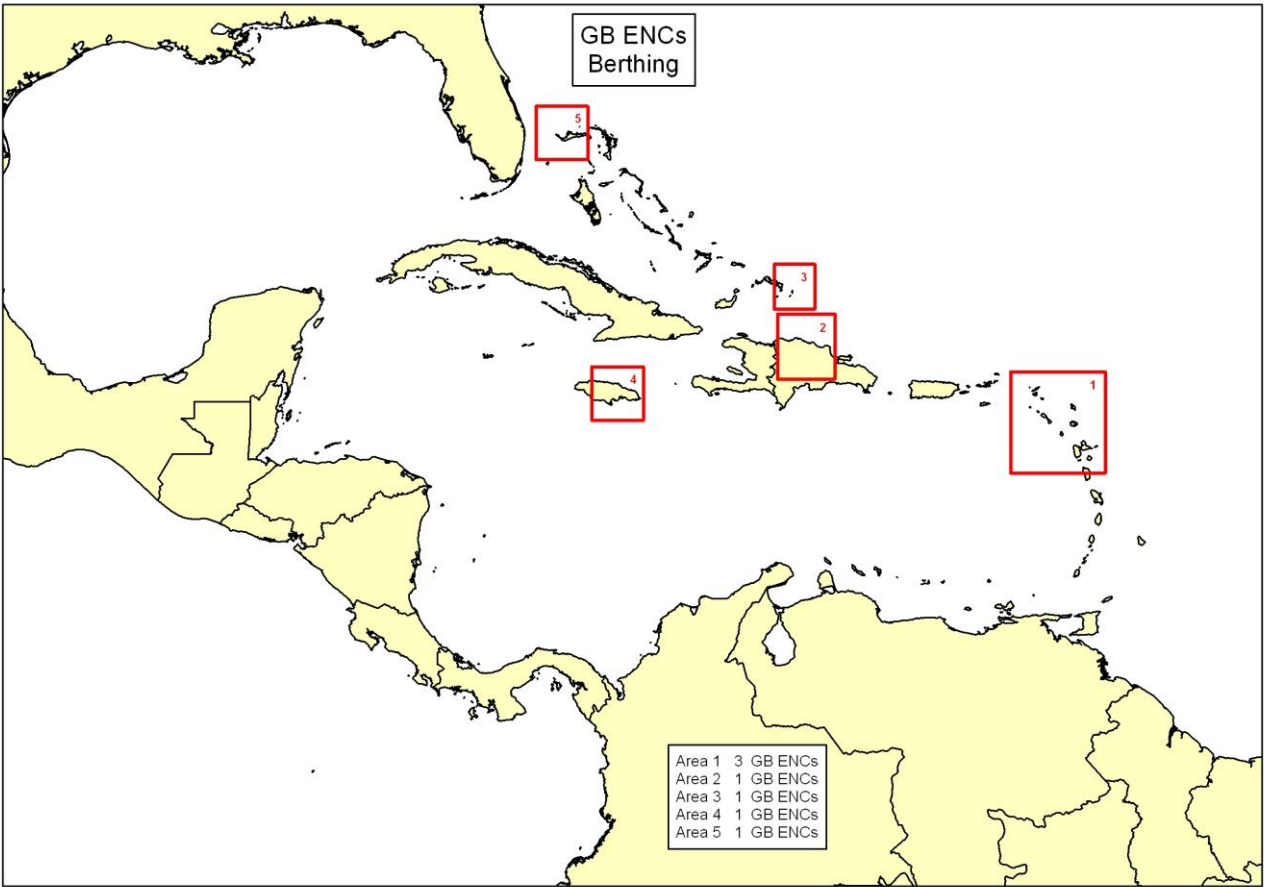
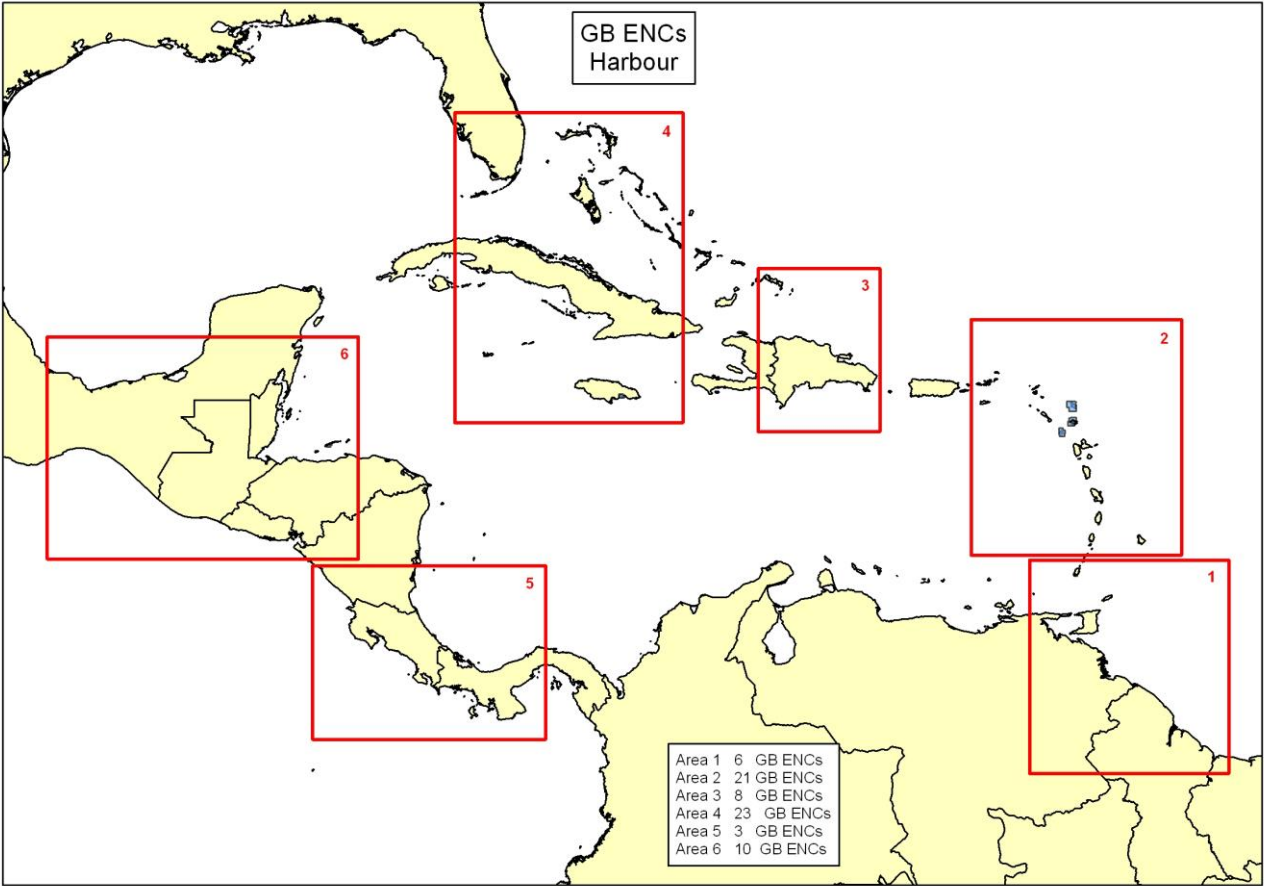
The tables below show revisions to GB ENC coverage for the MACHC Region during 2016/17. The subsequent diagrams illustrate the current coverage of GB ENCs within the MACHC Region.

New cells Dec 2016 – Nov 2017	Week No.
GB201307	50/16
GB203768	50/16
GB21220A	50/16
GB400463	36/17
GB402005	40/17
GB40463C	36/17
GB40585A	37/17
GB42019A	40/17
GB42064A	37/17
GB600463	36/17
GB600468	32/17

Cancelled cells Dec 2016 – Nov 2017	Week No.	Replacements
GB201220	50/16	GB21220A
GB201225	50/16	GB201307
GB30463A	36/17	GB303908
GB30463C	36/17	GB303908
GB501441	32/17	GB600468
GB50463A	36/17	GB600463







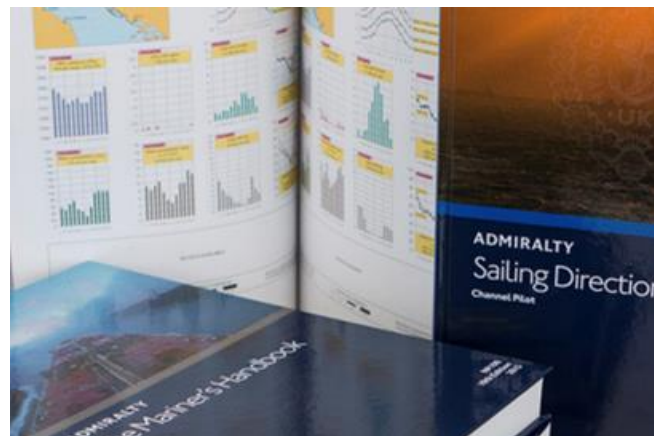
ENC Distribution

3.5 ENC Distribution. The UKHO, along with other European hydrographic offices, was a founder member of the International Centre for ENCs (IC-ENC) Regional ENC Co-Ordination Centre (RENC). The IC-ENC concentrates its efforts on the validation and consistency of ENC data and leaves the marketing of ENCs to the shipping industry and to its value-added resellers (VARs) 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 UKHO's 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.

Digital Publications



- 4.2 The UKHO continues to develop digital equivalents to its existing paper publications, to support the IMO mandation of ECDIS; these publications have advantages to the mariner of providing additional functionality and minimising the task of updating.
- 4.3 **Catalogue.** The Admiralty digital catalogue may be downloaded free from the UKHO's 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 the ENC 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 9.5) and those Commonwealth of Nations countries where the UK is the primary charting authority (PCA), including:

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

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.

5.2 **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.

5.3 **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.

6.2 UK provides 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 UK fully supports the IHO Capacity Building Sub-Committee (CBSC) strategy and particularly its emphasis on putting in place 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.

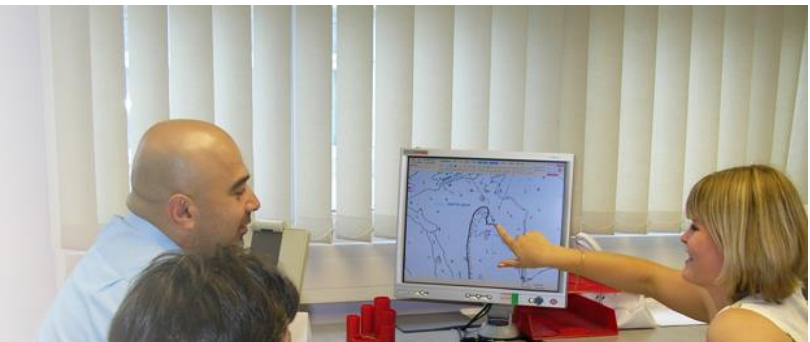
7.2 UKHO has a post dedicated to International Training & Capacity Building. Its key aims are to ensure that capacity building is properly considered in UKHO activity and that UKHO's capacity building activities are fully coordinated. It acts as the initial point of contact for UKHO involvement in capacity building activities, including UK involvement in regional hydrographic commission initiatives and IHO Capacity Building Sub Committee activities together with UKHO's own dedicated CB activities. Further information can be obtained from Mr. Jeff Bryant (jeff.bryant@ukho.gov.uk). As well as the MACHC, Mr. Bryant is also the Capacity Building Coordinator for the SAIHC and NIOHC regions.

Cartographic Training provided by UKHO



7.3 A general description of training provided by UKHO is included in the UK Generic National Report. Further details of the training opportunities offered by the UKHO can be found on the UKHO website or by contacting the UKHO's International Training & Capacity Building Manager, Mr Jeff Bryant (see above for details)

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. OTHER ACTIVITIES

UK Celebrations for World Hydrography Day

The IHO theme for the 2017 World Hydrography day is

"Mapping out seas, oceans and waterways - more important than ever"

9.1 The UK celebration of WHD 2017 was held as an evening reception at Lancaster House, London in July 2017. Guests were welcomed by the Rt. Hon. the Earl Howe, Minister of State for Defence, John Humphrey, the UKHO Chief Executive, and Rear Admiral Tim Lowe, UK National Hydrographer. The guests at this high-level networking opportunity event included; Mr Robert Ward, General Secretary of the International Hydrographic Organization, Vice-Admiral Ben Key, RN Fleet Commander and many representatives from Government, Ports, Harbours, maritime related commercial companies, Embassies and Consulates.

9.2 The reception also saw Robert Ward presented with a gift of an 18th century chart, in recognition of his contributions to the hydrographic community during his period of office as President and Secretary General of the International Hydrographic Organization.

9.3 As part of the events to mark the 2017 World Hydrography Day in June, the United Kingdom Hydrographic Office (UKHO) hosted an interactive family day around the theme of 'Getting to know the UKHO', which gave the opportunity for hundreds of parents and children to participate in fun hydrographic activities, as well as meet expert mariners and representatives from the UKHO. This year's event was expanded to include 'UKHO Archives' and 'Electronic Charting' exhibitions together with an outdoor Royal Navy exhibition, in the courtyard, which was very popular and acted as a link between the two events.

9.4 In celebration of World Hydrography Day, the UK Hydrographic Office has established the Alexander Dalrymple Award in recognition of an individual's outstanding dedication and contribution to hydrography. The annual award is named in honour of Alexander Dalrymple FRS who, following orders from King George III in 1795, set up what is now the UK Hydrographic Office. Mr Adam Greenland, National Hydrographer, Land Information New Zealand was awarded the 2017 Alexander Dalrymple Award in recognition of his tireless contribution to the International Hydrographic Community, particularly for his leadership and driving force in the aid-funded Pacific Region Navigation Initiative (PRNI), which focused on navigation related aspects of maritime safety to support Pacific Island Countries fulfil their own SOLAS obligations. Mr Greenland was unable to attend the reception but his sister, Jessica Waterhouse accepted the award on his behalf.

United Kingdom Overseas Territories

9.5 UK fulfils the Primary charting responsibilities of the following UK Overseas Territories within the MACHC region:

- Anguilla
- British Virgin Islands
- Cayman Islands
- Montserrat
- Turks and Caicos Islands

The UKHO is now running an Overseas Territories Seabed Mapping Programme, which is reviewing the status of hydrography within the UK 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 are delivering survey activity in a

number of UK OTs during 2017 (reported in section 2), as well as working with OTs to ensure their compliance with the Hydrographic elements of SOLAS, and plan further similar activity in future years.

Satellite Derived Bathymetry (SDB)

9.6 Since August 2016, the UKHO now have a specification and framework contract with several SDB companies to be able to acquire SDB data if we need it, predominantly for the UK OTs and CME programmes.

We are currently preparing the first SDB data acquisition project on this framework for an area in Tuvalu.

UKHO's International Activities

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

International Hydrographic Organisation		Chair/Vice Chair	Member
ABLOS	Advisory Board on Law of the Sea		x
CSBWG	Crowd-sourced Bathymetry Working Group		x
DPSWG	Data Protection Scheme Working Group	x	x
DQWG	Data Quality Working Group		x
ENCWG	ENC Standards Maintenance Working Group	x	x
GEBCO	General Bathymetric Chart of Oceans		x
HSSC	Hydrographic Services and Standards Committee		x
MSDIWG	Marine Spatial Data Infrastructure Working Group		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
WENDWG	Worldwide ENC Database Working Group	x	x
WWNWS	Worldwide Navigational Warning Service		x
International Hydrographic Organisation		Chair/Vice Chair	Member
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	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
International Maritime Organisation		Chair/Vice Chair	Member
NCSR	Navigation, Communication, Search and Rescue		x
NAVTEX	NAVTEXT Coordination panel	x	x
DRWG	Document Review Working Group of NAVTEXT		x
International Association of Marine Aids to Navigation and Lighthouse Authorities		Chair/Vice Chair	Member
ENAV	E-navigation Committee		x
WVTSAB	World Vessel Traffic System Advisory Board		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

10. CONCLUSION

10.1 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.

10.2 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.

10.3 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.

10.4 The provision of adequate ENC coverage, in support of the IMO carriage requirement for ECDIS is planned for completion in 2018, which will present a challenge in the MACHC region as well as other regions.

10.5 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.

Taunton, November 2017

UKHO POINTS OF CONTACT

UKHO Website: GOV.uk/UKHO

The general UKHO address is:
United Kingdom Hydrographic Office,
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TAUNTON
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United Kingdom



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

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

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For matters related to Sailing Directions within the MACHC, please contact:
Email: SDImpactAnalysis@ukho.gov.uk