



United Kingdom
Hydrographic Office

UNITED KINGDOM NATIONAL REPORT

16TH MESO AMERICAN AND CARIBBEAN SEA HYDROGRAPHIC COMMISSION

St John's, Antigua and Barbuda
7 – 12 December 2015

This report supplements the UK Generic National Report, posted on the UKHO website
(see www.ukho.gov.uk → About Us → Role & Purpose → UK National Report)
and describes UK's activities of direct relevance to the MACHC Region.

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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, the Maritime and 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, 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 Any requests for survey assistance from nations within the MACHC region will be assessed within the UK MoD, with advice from UKHO. UKHO can also contribute to project management of hydrographic surveys, and has a post dedicated to the phased development of new international survey activity and capability. It acts as the initial point of contact for UKHO involvement in direct overseas surveying schemes, including British Overseas Territories and Regional Hydrographic Commission initiatives. Further information can be obtained from Mr. Sam Harper (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 relevant to the MACHC region.

Paper Charts



3.2 Information on UK's global chart portfolio is provided on the UKHO website. Working with our many valued partners in the region, the following charts have been published since the last MACHC meeting as New Charts or full New Editions:

GB Chart Number	Title	Published
655	Mexico – West Coast, Puerto Lazaro Cardenas and Approaches	3 Dec 15
656	Mexico – West Coast, Acapulco and Approaches	3 Dec 15
1105	Mexico – West Coast, Approaches to Guaymas	10 Dec 15
1106	Mexico – West Coast, Mazatlan	10 Dec 15
1940	Mexico – West Coast, Salina Cruz and Approaches	12 Feb 15
1979	Mexico – West Coast, Manzanillo and Approaches	12 Mar 15
8066	Port Approach Guide, Manzanillo	23 July 15
364	Mexico – East Coast, Approaches to Tampico and Altamira	5 Nov 15
365	Mexico – East Coast, Puerto de Altamira	5 Nov 15
375	Mexico – East Coast, Approaches to Veracruz	19 Nov 15
2753	Mexico – East Coast, Tuxpan and Approaches	19 Nov 15
376	Mexico – East Coast, Veracruz to Altamira	19 Nov 15
5520	Mariners Routeing Guide – Gulf of Mexico	2 Apr 15
3148	United States – Gulf of Mexico, St Joseph and St Andrew Bays	19 Nov 15
3896	United States – Gulf of Mexico, Louisiana, Approaches to Port Fourchon	12 Feb 15
8077	Port Approach Guide, Houston	13 Aug 15
8078	Port Approach Guide, Houston Ship Channel, Morgans Point to Carpenters Bayou	13 Aug 15
8079	Port Approach Guide, Houston Ship Channel Bay Port and Texas City	13 Aug 15
8080	Port Approach Guide, Galveston to Houston Ship Channel	13 Aug 15
8098	Port Approach Guide, Corpus Christi	1 Oct 15
8103	Port Approach Guide, Port Arthur and Beaumont	1 Oct 15
8057	Port Approach Guide, New Orleans	9 July 15
8031	Port Approach Guide, Mobile Bay	21 May 15
8112	Port Approach Guide, Tampa Bay	22 Oct 15
8113	Port Approach Guide, Approaches to Tampa Bay	22 Oct 15

444	West Indies – Cuba – South Coast, Bahia de Cienfuegos and Approaches	30 Apr 15
416	West Indies – Cuba – North Coast, Bahia de Matanzas	4 Jun 15
417	West Indies – Cuba – North West Coast, Cayo Arenas to La Habana	18 Jun 15
418	West Indies – Cuba – North Coast, La Habana to Bahia de Cardenas	6 Aug 15
419	West Indies – Cuba – North Coast, Bahia de Cardenas to Cayo Bahia de Cadiz and Cay Sal Bank	6 Aug 15
2065	West Indies, Northern Antigua	15 Oct 15
2066	West Indies, Southern Antigua	15 Oct 15
2079	West Indies, Ports and Anchorages in Anguilla, Sint Maarten and Saint Barthelemy	3 Dec 15
1276	Colombia – North Coast, Bahia Santa Marta to Punta Canoas	23 Apr 15
2434	Colombia – North Coast, Bahia de Cartagena	25 Dec 14
8065	Port Approach Guide, Puerto Cabello	23 July 15
2267	Caribbean Sea, Ports on the North Coast of Colombia	26 Feb 15
526	South America, Ports on the North Coast of Brazil	1 Oct 15
541	Brazil – North Coast, Porto de Itaquí	2 July 15
565	Brazil – North Coast, Bahia de Sao Marcos	2 July 15
2189	Brazil – North Coast, Rio Amazonas, Canal do Norte	9 Apr 15

The UKHO have recently published chart GB 2066 containing data collected during the 2014 trial of Satellite Derived Bathymetry (SDB) conducted in Antigua – see 9.2 for further comments.

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.

ENCs

3.4 Within the MACHC Region, UK has published 198 ENC cells.

The breakdown by usage band is shown in the table below, and the diagrams that follow:

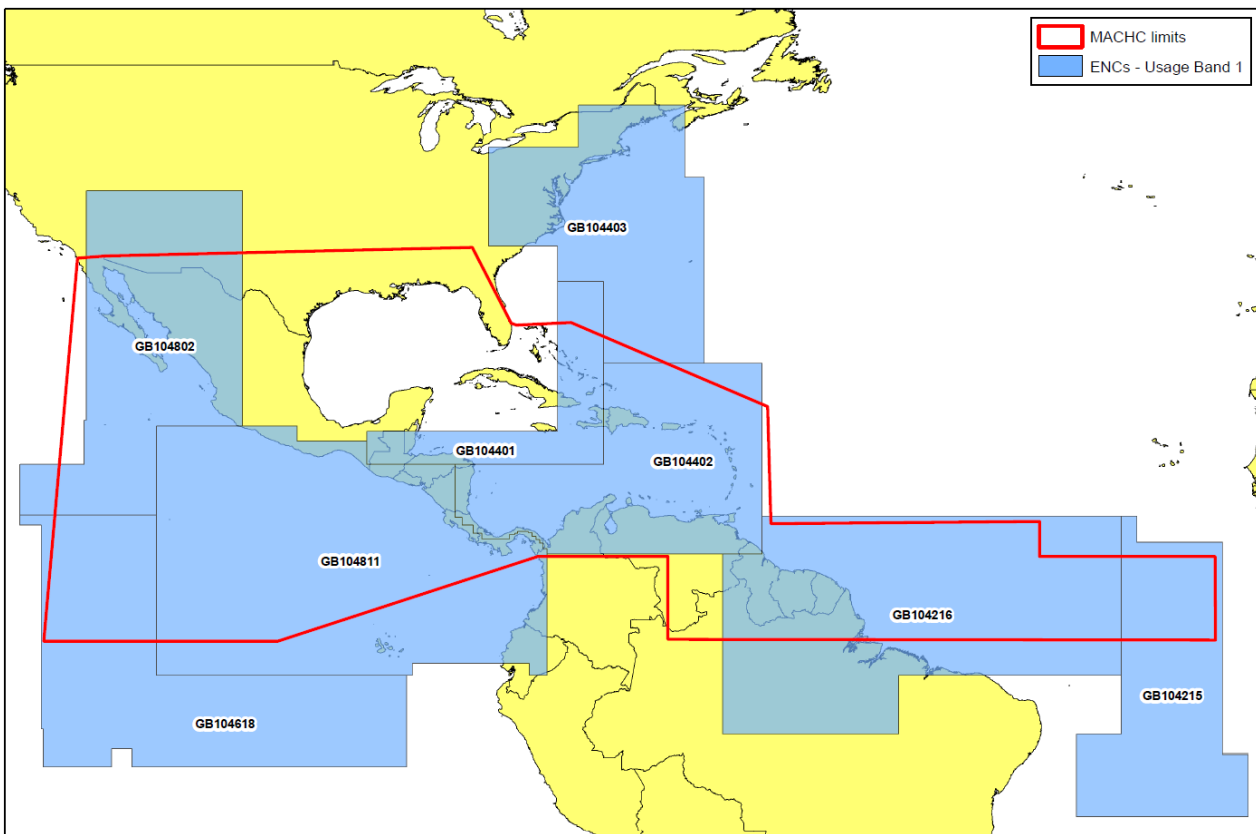
MACHC Region	
ENC Usage Band	Number of GB ENC's
Usage Band 1	8
Usage Band 2	21
Usage Band 3	39
Usage Band 4	48
Usage Band 5	76
Usage Band 6	6
Total Number of ENCs	198

The tables below shows new ENC coverage added in 2015 for the MACHC Region. The diagrams further below illustrate the current coverage of GB ENCs within the MACHC Region.

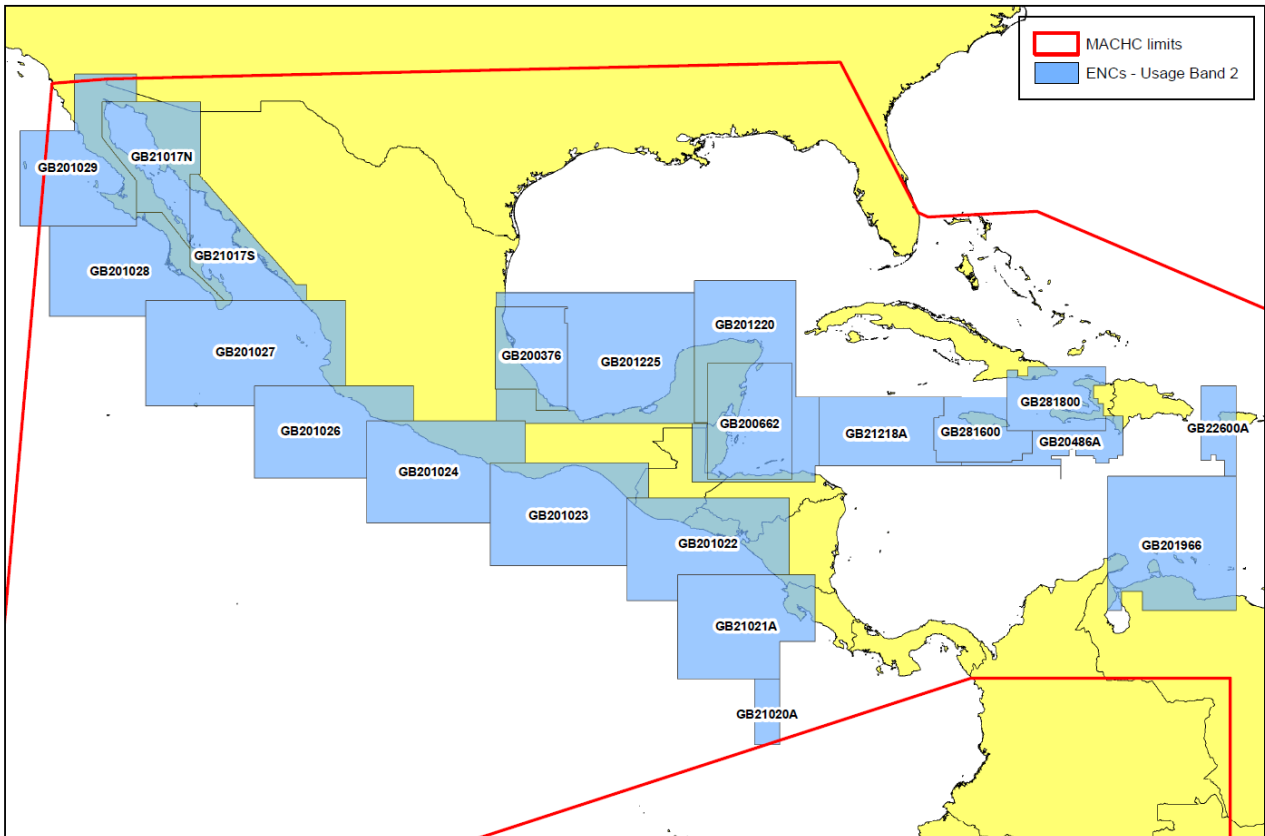
MACHC Region	
New cells Dec 2014 – Nov 2015	WeekNo.
GB502066	42/15
GB50463A	28/15
GB53912A	50/14
GB602066	42/15

MACHC Region	
Cancelled cells Dec 2014 – Nov 2015	WeekNo.
GB500414	32/15
GB52064A	42/15

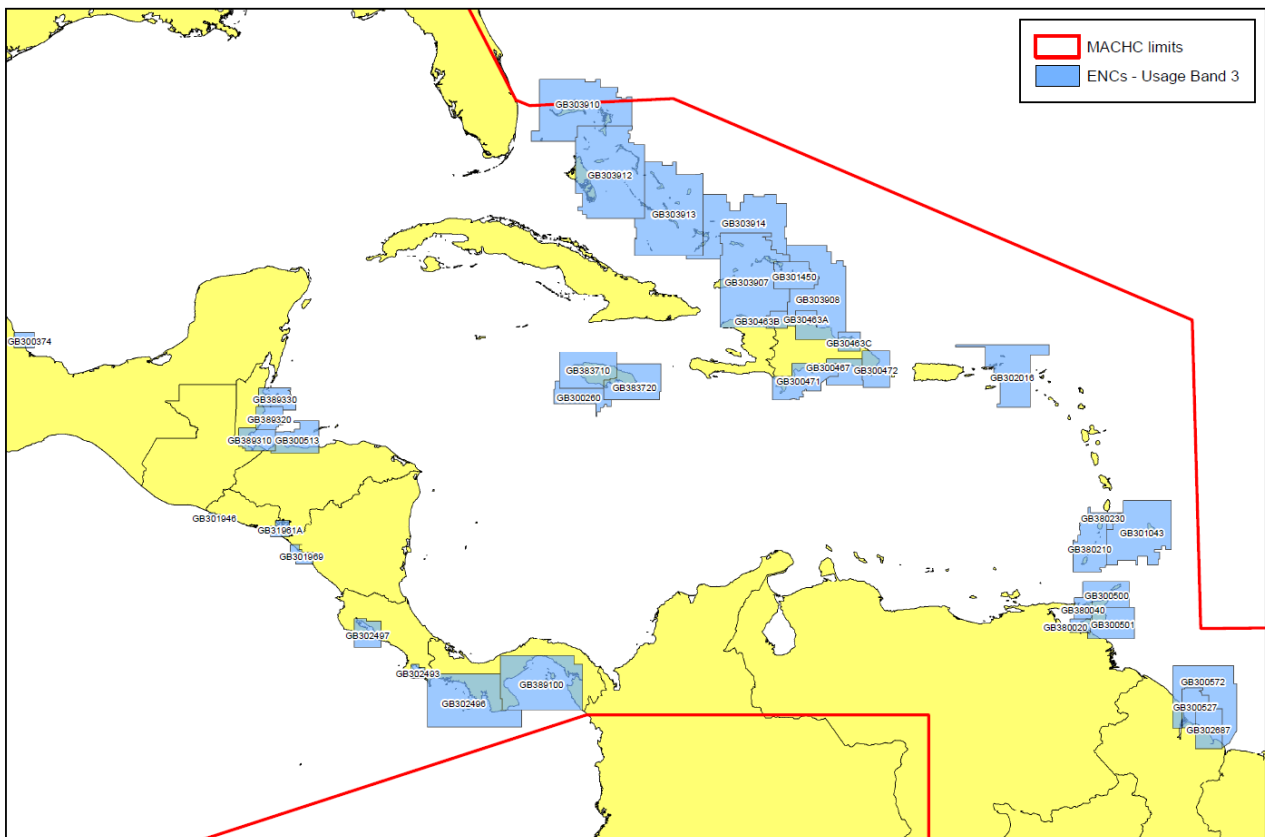
MACHC - Usage Band 1 Overview GB ENC Coverage



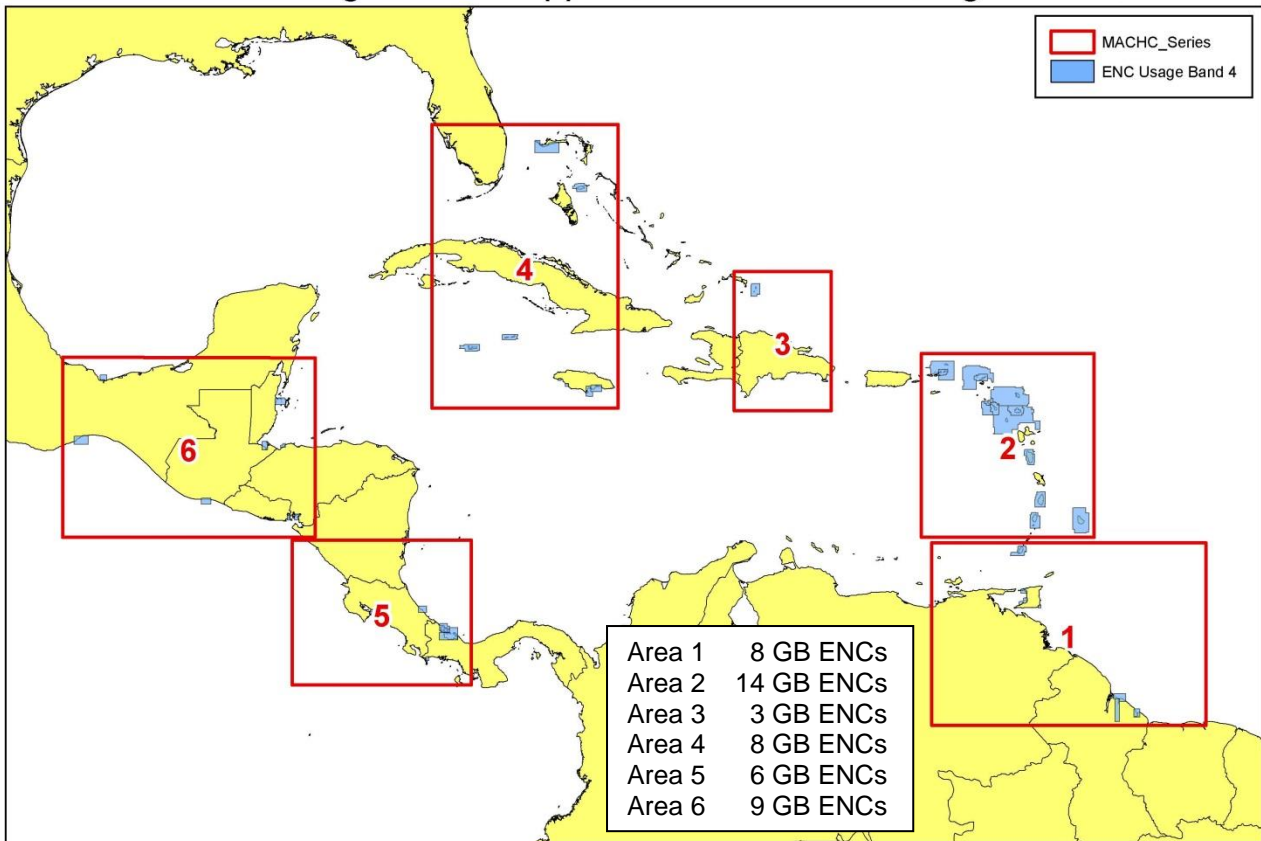
MACHC - Usage Band 2 GB ENC Coverage



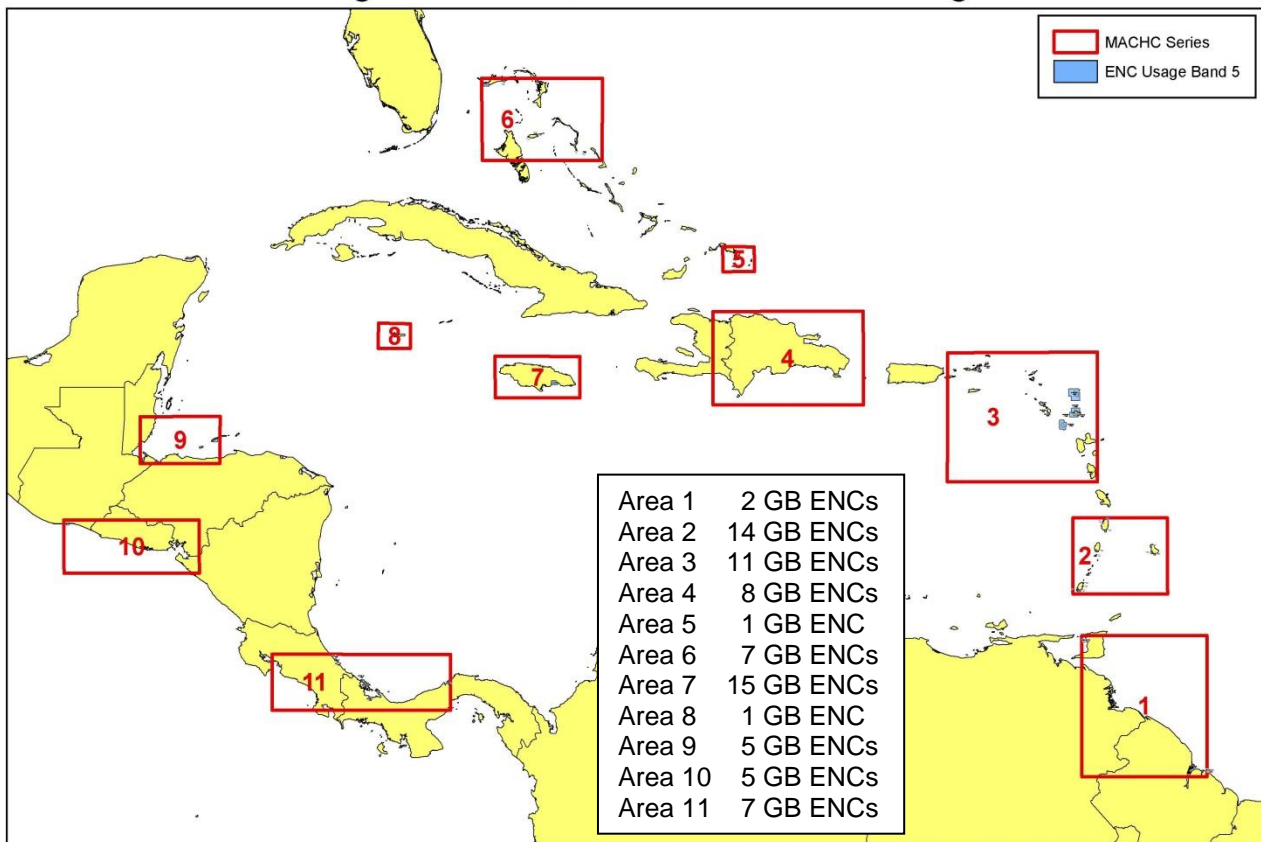
MACHC - Usage Band 3 Coastal GB ENC Coverage



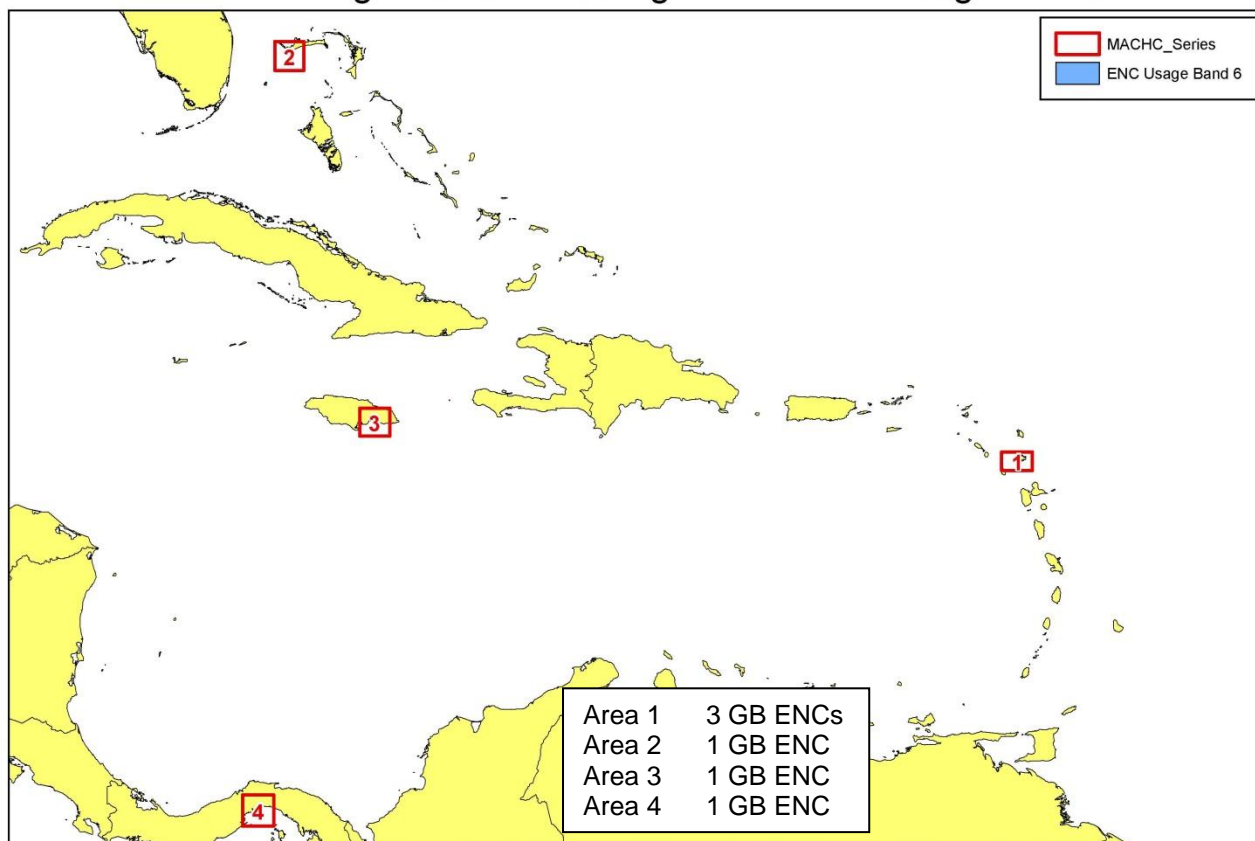
MACHC - Usage Band 4 Approach GB ENC Coverage Overview



MACHC - Usage Band 5 Harbour GB ENC Coverage Overview



MACHC - Usage Band 6 Berthing GB ENC Coverage Overview



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 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 website (www.ukho.gov.uk)

4. PUBLICATIONS

4.1 Paper Publications



The Admiralty Sailing Directions in the MACHC region are as follows:

NP5	South America Pilot Vol 1
NP6	South America Pilot Vol 2
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.

4.2 Digital Publications



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 The Admiralty digital catalogue may be downloaded free from the UKHO website (www.ukho.gov.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 The UK's principal responsibility within the MACHC region is for its British Overseas Territories (BOTs; listed in **9.5**) and those Commonwealth of Nations countries where the UK is the primary charting authority, 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 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.

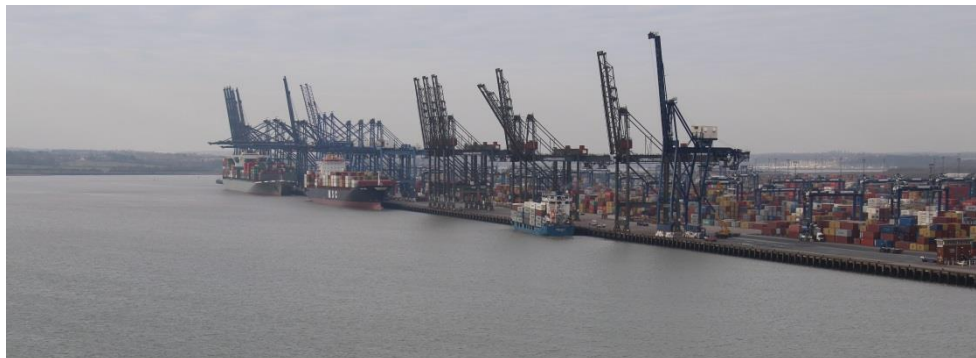
5.3 The current Admiralty weekly Notices to Mariners are now supplemented by daily updates; these have been available on UKHO website from January 2015.

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 Waters, including the British Overseas Territories within the MACHC area. For the latest update see C-55; we have incorporated the additional breakdown of chart coverage (percentage of metric and WGS84 charts), as requested in IHO Circular Letter 102/2008.

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, 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 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 UK has participated in numerous technical visits and workshops, in several RHC regions. In the MACHC region UKHO organised and provided instructors to deliver a Technical Aspects of Maritime Boundaries and Baselines workshop. Other regional activities for which the UKHO assisted in arrangements were a sub-regional Phase 1 Skills Course for Spanish speakers and a Seminar on Raising Awareness of Hydrography for MACHC Associate Members and Observers which will precede this meeting.

7.3 UKHO has a post dedicated to capacity building. Its key aims are to ensure that capacity building is a properly considered 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 (CBSC) activities. Further information can be obtained from Mr. Jeff Bryant (jeff.bryant@ukho.gov.uk). Mr. Bryant is the Capacity Building Coordinator for the MACHC, SAIHC, NIOHC and RSAHC regions.

7.4 Cartographic Training provided by UKHO



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.

7.5 ENC Training and Assistance



The UKHO strongly supports the successful uptake of ECDIS using ENC, and is pro-active in offering assistance to 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.

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

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

9.1 British Overseas Territories (BOTs)

UK undertakes Primary charting of the following British Overseas Territories with the MACHC region:

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

The UKHO has begun a programme of work to review the status of hydrography within the BOTs, 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 BOTs. This has involved raising awareness of the importance of hydrography in forums such as the Red Ensign Group Conference and the UK Overseas Territories and Crown Dependencies Attorney Generals Conference, as well as seeking opportunities to collaborate with regional projects, such as the OECS scoping study, and donor funded projects such as the Darwin Plus survey of the British Virgin Islands. In addition, the UKHO has supported the use of Royal Navy assets to supplement survey activity in the region. The UKHO has been working with the UK Foreign and Commonwealth Office to conduct an audit of data collected under the Marine Scientific Research licensing programme; the intention is that where bathymetric data has been collected but not supplied to the UKHO, this will be requested and assessed for charting action

9.2 Satellite Derived Bathymetry (SDB)

Following the 2014 trial of Satellite Derived Bathymetry (SDB) conducted in Antigua, the UKHO have published their first chart (GB 2066) containing data collected using this technique. Whilst this was only made possible because the 'ground truth' reference data collected as part of the trial allowed the uncertainties to be quantified, it does mark a step change for the UKHO and the way that novel data gathering techniques are used.

9.3 UK Celebrations for World Hydrography Day

The IHO theme for the 2015 World Hydrography day has been

“Our seas and waterways - yet to be fully charted and explored”

The UKHO celebrated World Hydrography Day 2015 in conjunction with The Institute of Marine Engineering, Science and Technology event “Oceans of Knowledge: Realising the Benefits of Ocean Information” on Wednesday 11 November 2015 at the Royal Institution, London, followed by an evening reception hosted by Mr John Humphrey (Chief Executive, UKHO) and Rear Admiral Tim Lowe (National Hydrographer, UKHO).



Our World Hydrography Day guests, including Robert Ward, President of the IHO, were invited from across the maritime sector to an event exploring the economic, safety and environmental benefits of improved observation and prediction of our oceans and seas, which inevitably increased awareness of the vital role that hydrography plays in everyone’s life.

9.4 Co-operation with OECS

The UKHO have continued to work with the OECS on their Hydrographic Scoping Study which is now nearing completion. A key element of this work has been the development of a simplified Risk assessment/survey prioritisation methodology that has been used to provide object justification of the survey areas selected. The next step will be to work with the OECS to identify funding sources and commence data gathering within the next financial year.

9.5 Alexander Dalrymple Award

Julian Brazier MP, Parliamentary Under Secretary of State and Minister for Reserves, presented the annual Alexander Dalrymple award to this year’s winner, Rear Admiral Patricio Carrasco, Director of the Hydrographic and Oceanographic Service of the Chilean Navy (SHOA). The award is a symbol of recognition for outstanding dedication and contribution to hydrography and, as such, is an extremely prestigious award in this sector. It takes its name from Alexander Dalrymple who established the Hydrographic Office in 1795 and is regarded as a leading figure in the history of the development of hydrography.

10. CONCLUSION



The UKHO continues its commitment to carrying forward hydrographic activities through the work of the IHO's Regional Hydrographic Commissions, and notes that each commission has its own particular opportunities and challenges.

UK has a strong commitment to the Meso-American and Caribbean Sea region, through its primary charting and through its continuing interest in developing regional hydrographic self-sufficiency through capacity building measures.

The UK, through the UKHO and the national maritime administration (MCA), continues to pursue opportunities to improve access to bathymetric data gathering in waters around British Overseas Territories, particularly to support Caribbean Sea cruise-ship traffic and marine flora and fauna.

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

The provision of adequate ENC coverage, in support of the IMO carriage requirement for ECDIS that comes progressively into force from 2012, presents a significant challenge in the MACHC region as well as others.

With a diverse range of shipping interests in the Region, improving the effective distribution of hydrographic publications and updates remains paramount.

UKHO POINTS OF CONTACT

UKHO Website: www.ukho.gov.uk

The general UKHO address is:

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

United Kingdom

E-mail: customerservices@ukho.gov.uk

Telephone: +44 (0)1823 337900

Fax: +44 (0)1823 284077



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

E-mail: internationalrelations.ukho@ukho.gov.uk

For bilateral arrangements and capacity building within the MACHC region, please contact:

Mr Chris Thorne,
Head of International Partnering (Americas)

Telephone: 001 571 558 1893
+1 202 445 3956 (Mobile)

E-mail: Chris.Thorne@ukho.gov.uk

Mr Jeff Bryant,
International Capacity Building Manager

Telephone: +44 (0)1823 337900 ext 3821

E-mail: Jeff.Bryant@ukho.gov.uk

For charting matters in the MACHC region, please contact:

Mrs Stephanie Vincent,
Geographic Manager, Regional Team 6N
North and Central America and Caribbean

E-mail: Stephanie.Vincent@UKHO.gov.uk

Telephone: +44 (0)1823 337900 ext 4226

Mr Paul Barrett,
Geographic Manager, Regional Team 6S
South America

E-mail: Paul.Barrett@UKHO.gov.uk

Telephone: +44 (0)1823 337900 ext 3612

For Sailing Direction matters in the MACHC region, please contact:

E-mail: RT6NavSpecialists@ukho.gov.uk

Mr David Vaughan

E-mail: David.Vaughan@ukho.gov.uk

Telephone: +44 (0)1823 337900 ext 3047

Mr Paul Hardacre

E-mail: Paul.Hardacre@ukho.gov.uk

Telephone: +44 (0)1823 337900 ext 3551

Admiralty Sailing directions for the MACHC region are NP 5, 6, 7, 7A, 8, 69A, 70 and 71