



NIOHC17-06i UK National Report

United Kingdom
Hydrographic Office

UNITED KINGDOM NATIONAL REPORT

to the

17th NORTH INDIAN OCEAN HYDROGRAPHIC
COMMISSION (NIOHC)

Cairo, Egypt
17-20 July 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 benefits which derive from the close liaison which exists between UK's hydrographic office (UKHO) and UK's maritime administration (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 organization are provided in the UK Generic National Report (section 1) together with general contact details. Specific contact details relevant to the NIOHC 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 NIOHC 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 specifically relevant to the NIOHC region.

Paper Charts



3.2 The following charts have been published since the last NIOHC meeting:

GB Chart Number	INT Chart	Title	Scale	Published
569	-	Approaches to Krishnapatnam	15,000	19-May-16
569	-	Approaches to Krishnapatnam	15,000	19-May-16
123	-	Approaches to Hugli River	150,000	23-Jun-16
243	7410	Approaches to Visakhapatnam	60,000	23-Jun-16
244	7411	Visakhapatnam Harbour	12,500	23-Jun-16
3660	7165	Aden Inner Harbour	7,500	23-Jun-16
2623	-	Mumbai Docks	10,000	30-Jun-16
2624	7337	Port of Mumbai (Bombay)	20,000	30-Jun-16
2630	7338	Jawahar Lal Nehru Port and Trombay	20,000	30-Jun-16
675	-	Harbours and Anchorages on the Coast of Sudan	30,000	14-Jul-16
801	7143	Plans in the Gulf of Aqaba	25,000	13-Oct-16
1655	7387	Colombo and Approaches	30,000	26-Jan-17
IN 2004	7359	Kochi Harbour	25,000	16-Feb-17
IN 2045	7360	Port of Kochi	7,500	16-Feb-17
IN 3013	7422	Haldia to Kukrahati Reach	37,500	16-Feb-17
3264	-	Hambantota and Approaches	30,000	09-Mar-17
IN 2079	7329	Approaches to Mundra Port	37,500	09-Mar-17
IN 2106	-	Mundra Port	12,500	09-Mar-17
IN 2107	-	Mundra Port, West Basin	12,500	09-Mar-17
IN 2027	-	Rozi Anchorage	25,000	16-Mar-17
IN 2080	-	Gulf of Kachchh, Eastern Portion	75,000	16-Mar-17
IN 3009	7407	Kakinada Port	25,000	16-Mar-17
IN 3033	-	Karaikal Anchorage	20,000	16-Mar-17
39	-	Gulf of Kachchh to Sonmiani Bay	500,000	11-May-17
IN 203	7319	Gulf of Kachchh	150,000	18-May-17
IN 2013	7324	Port of Okha	12,500	18-May-17
IN 2018	7321	Approaches to Kandla	37,500	18-May-17
IN 2031	7326	Okha Harbour	37,500	18-May-17
IN 2059	7322	Kandla Sogal Channel	20,000	18-May-17

GB Chart Number	INT Chart	Title	Scale	Published
2895	-	Outer Approaches to Mina Şalālah (Mina Raysut)	100,000	25-May-17
2896	-	Mina Salalah (Mina Raysut) and Approaches	25,000	25-May-17
IN 2034	7349	Hazira Port	10,000	25-May-17
IN 2108	-	Essar Bulk Terminal	12,500	25-May-17
IN 2109	-	Tapi River	12,500	25-May-17
IN 2008	-	Approaches to Karwar	25,000	08-Jun-17
IN 2120	-	Karwar Port	15,000	08-Jun-17
IN 2036	7352	Dighi Harbour and Approaches	25,000	15-Jun-17
IN 3010	7418	Paradip Port	12,500	15-Jun-17
IN 3037	-	Dhamra Port	12,500	15-Jun-17
IN 3038	-	Approaches to Dhamra Port	25,000	15-Jun-17
IN 3041	-	Approaches to Paradip Port	60,000	15-Jun-17
IN 2001	-	Mumbai Docks	10,000	22-Jun-17
IN 2015	7337	Port of Mumbai	20,000	22-Jun-17
IN 2016	7336	Inner App. to Mumbai	60,000	22-Jun-17
IN 2076	7338	Jawaharlal Nehru Port and Trombay	20,000	22-Jun-17
IN 2082	-	Approaches to Dahej	25,000	29-Jun-17
IN 2110	-	Dahej Harbour	12,500	29-Jun-17
IN 202	-	Jakhau to Dwarka	150,000	06-Jul-17
IN 2029	7358	Approaches to Kochi	60,000	06-Jul-17
IN 2045	7360	Port of Kochi	7,500	06-Jul-17
IN 3001	7402	Approaches to Chennai	50,000	13-Jul-17
IN 3004	7403	Chennai Harbour	1,500	13-Jul-17
IN 3028	7404	Ports of Ennore	12,500	13-Jul-17
IN 3039	-	Kattupalli Port	12,500	13-Jul-17
IN 3013	7422	Haldia to Kukrahati Reach	37,500	20-Jul-17

Table 1 List of charts produced by UKHO since the last NIOHC



Figure 1 Charts produced by the UKHO since the last NIOHC (western region)

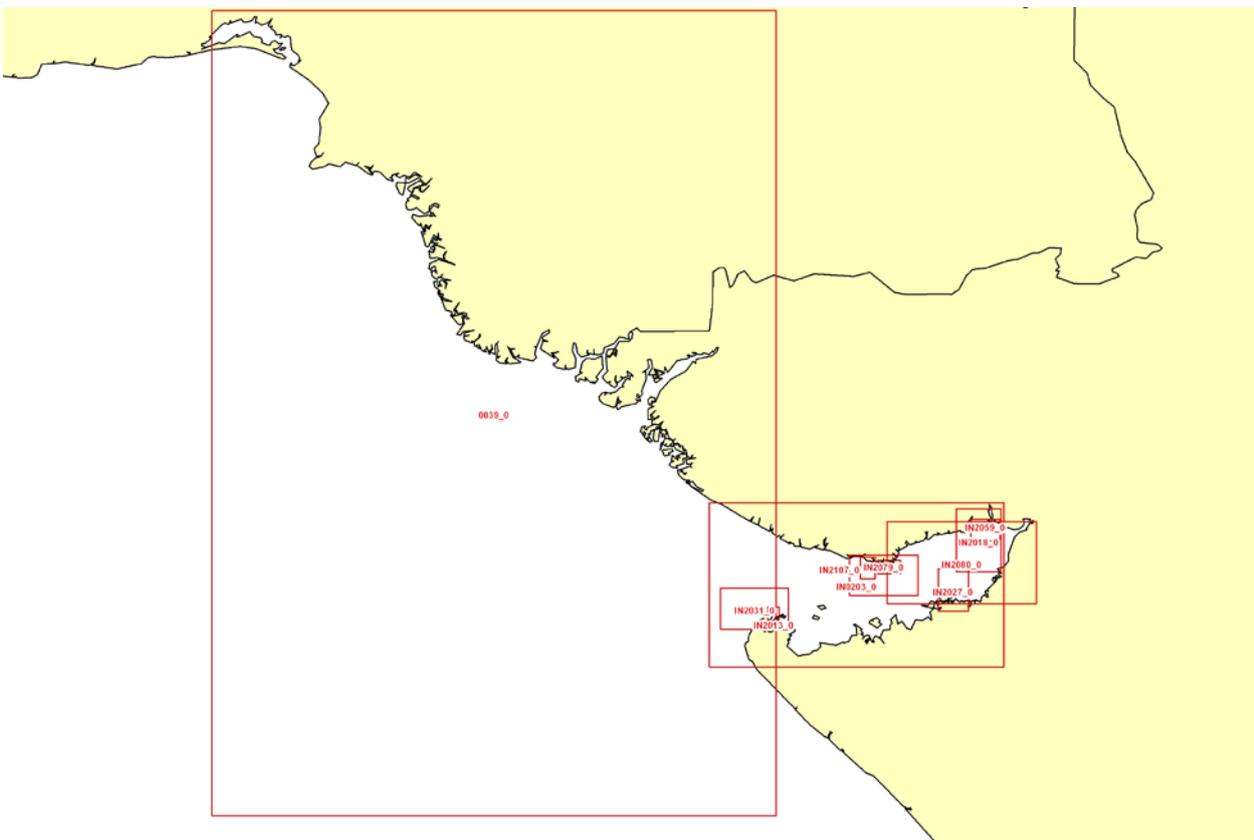


Figure 2 Charts produced by the UKHO since the last NIOHC (west India)

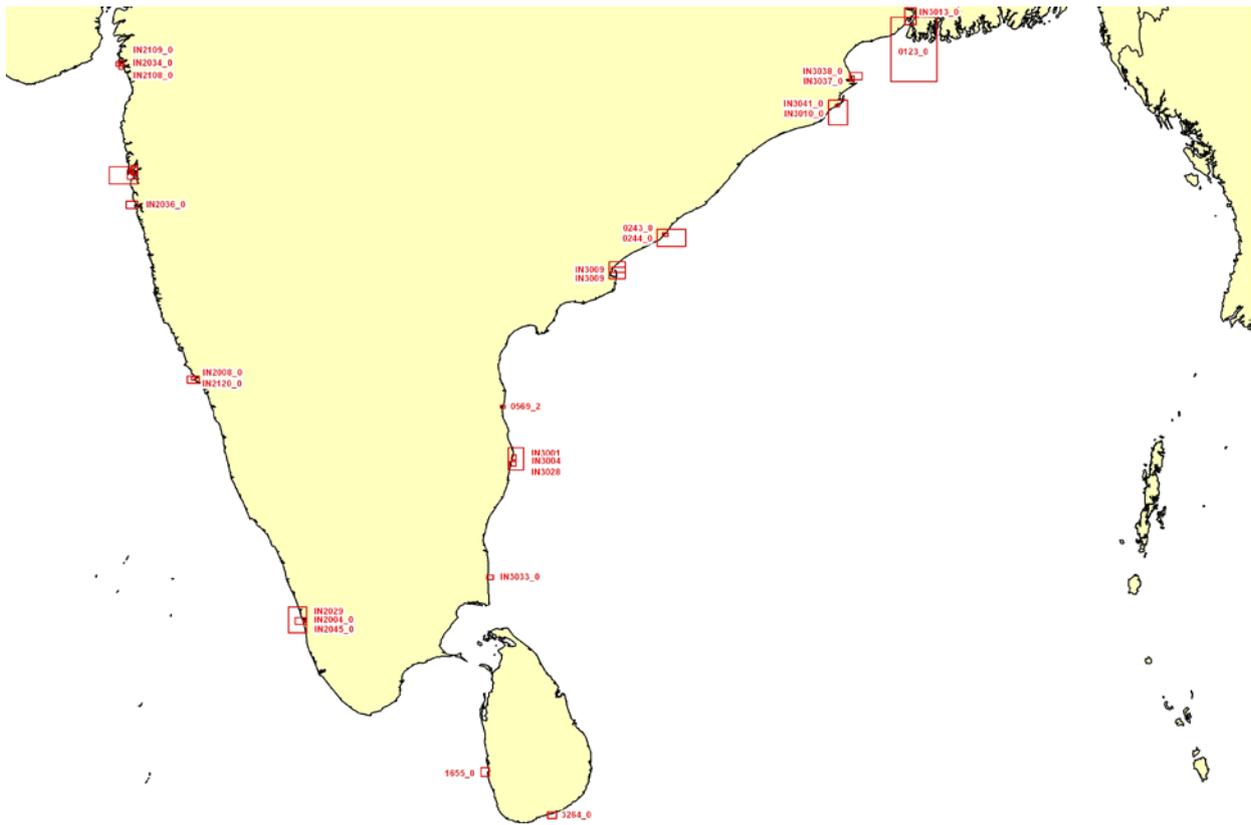


Figure 3 Charts produced by the UKHO since the last NIOHC

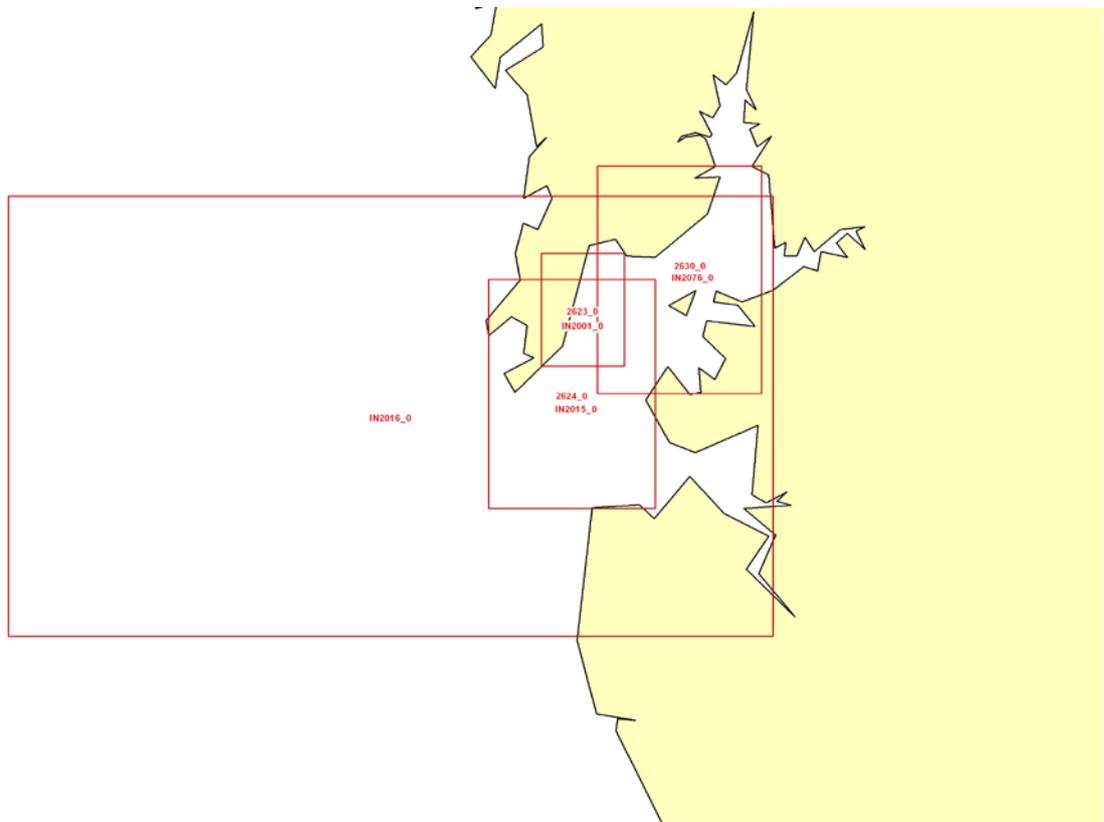


Figure 4 Charts produced by the UKHO since the last NIOHC

3.3 Charts scheduled for publication in the next six months.

GB Chart Number	INT Chart	Title
3	7380	Chagos Archipelago
265	7114	Bab El Mandab and Golfe De Tadjoura
725	-	Plans in Chagos Archipelago
726	-	Egmont Islands to Three Brothers
727	-	Peros Banhos to Blenheim Reef including Nelson's Island
833	7442	Yangon River and Approaches
IN 2075	7366	Tuticorin Harbour

Table 2 Charts to be published by UKHO in the next 6 months

3.4 There are no charts scheduled for independent withdrawal in the next six months

Digital Charts



3.5 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 NIOHC region.

3.6 Within the NIOHC region, the UKHO has released a total of 134 ENC cells; the breakdown by usage band is shown in the table 3; the limits of the ENC's are shown with figures 5-9.

NIOHC Region Released Cells	
ENC Usage Band	Number of GB ENCs
Overview	6
General	16
Coastal	35
Approach	44
Harbour	32
Berthing	1
Total number of released ENCs	134

Table 3 ENC totals by usage band as produced by UKHO

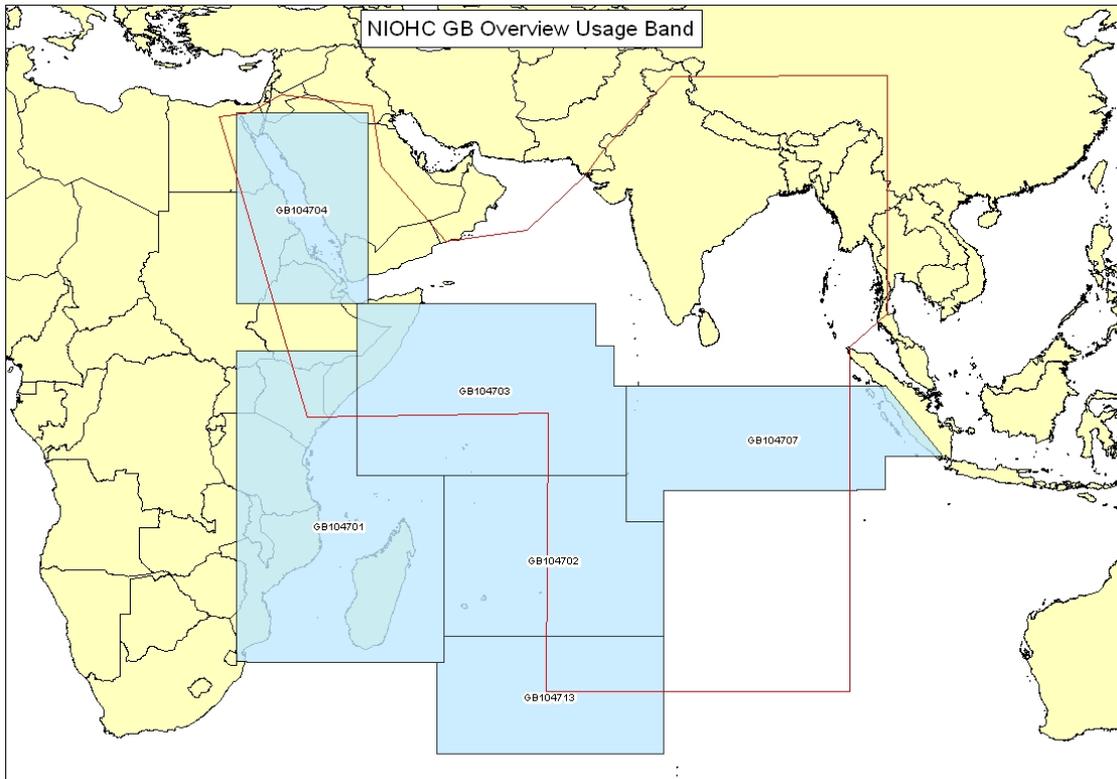


Figure 5 UKHO produced GB overview ENCs

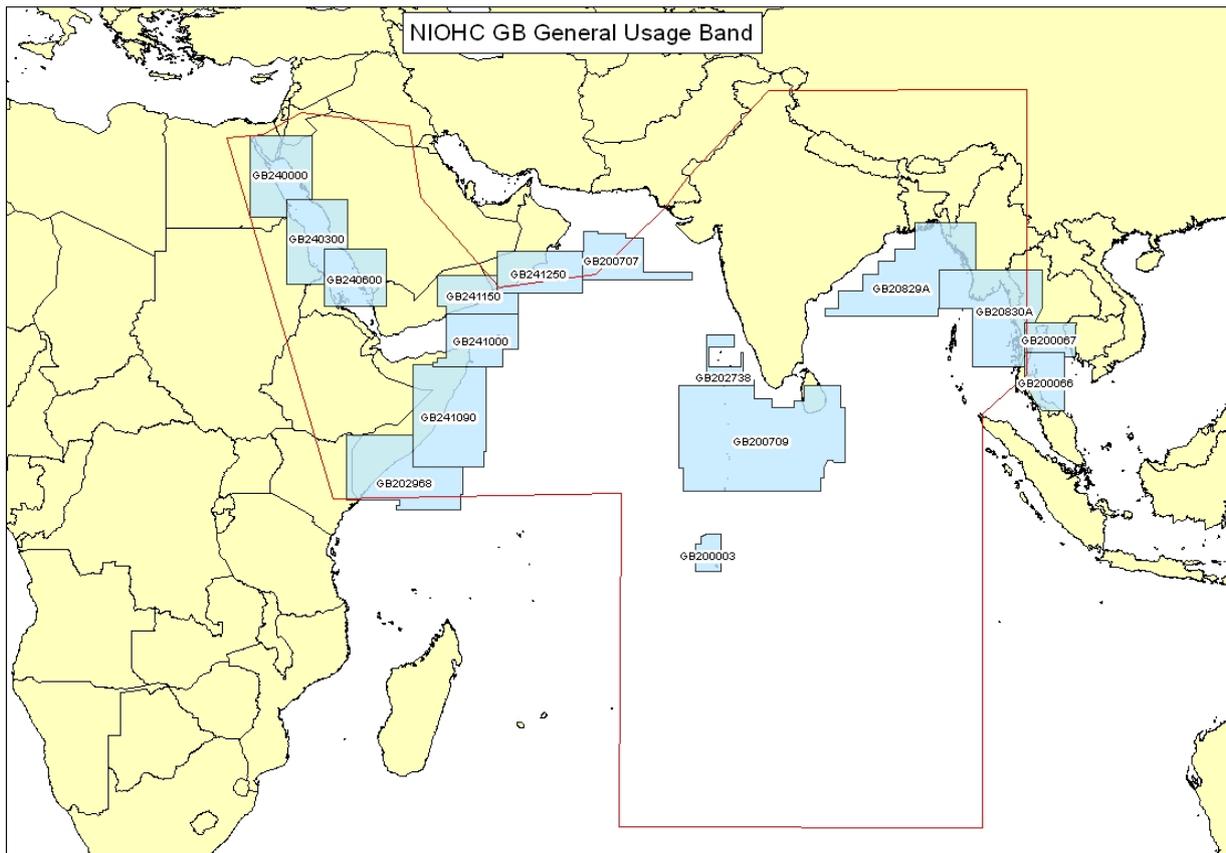


Figure 6 UKHO produced GB general ENCs

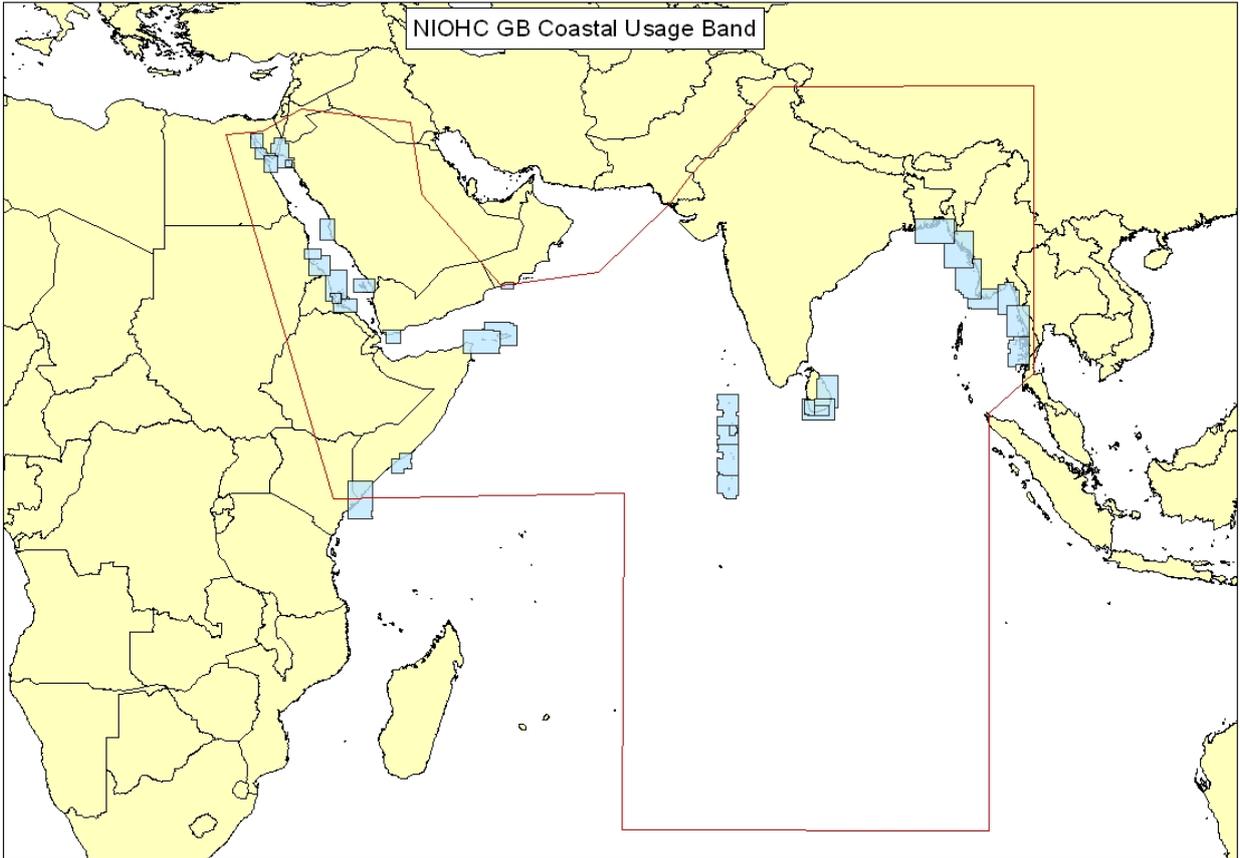


Figure 7 UKHO produced GB coastal ENC

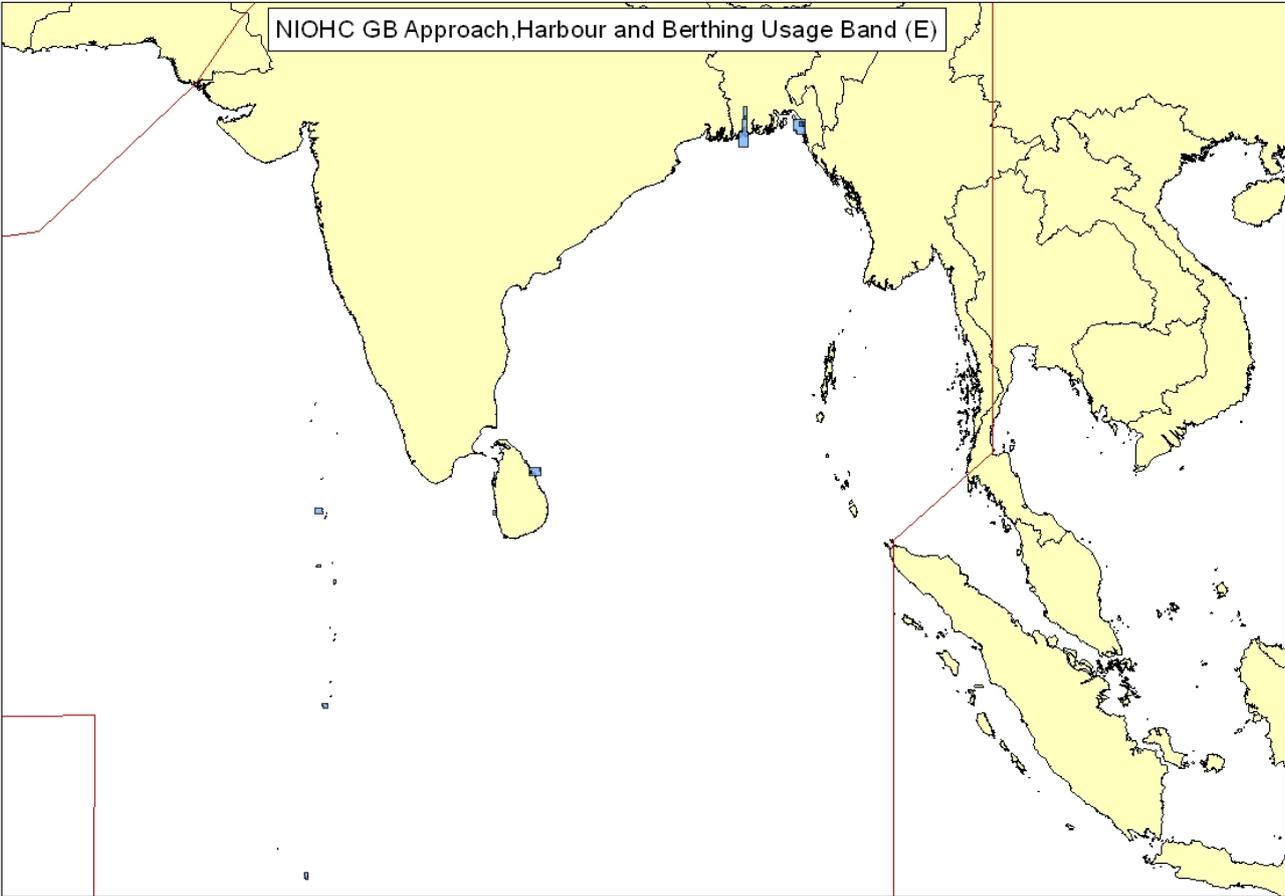


Figure 8 UKHO produced GB approach, harbour and berthing ENCs (E)

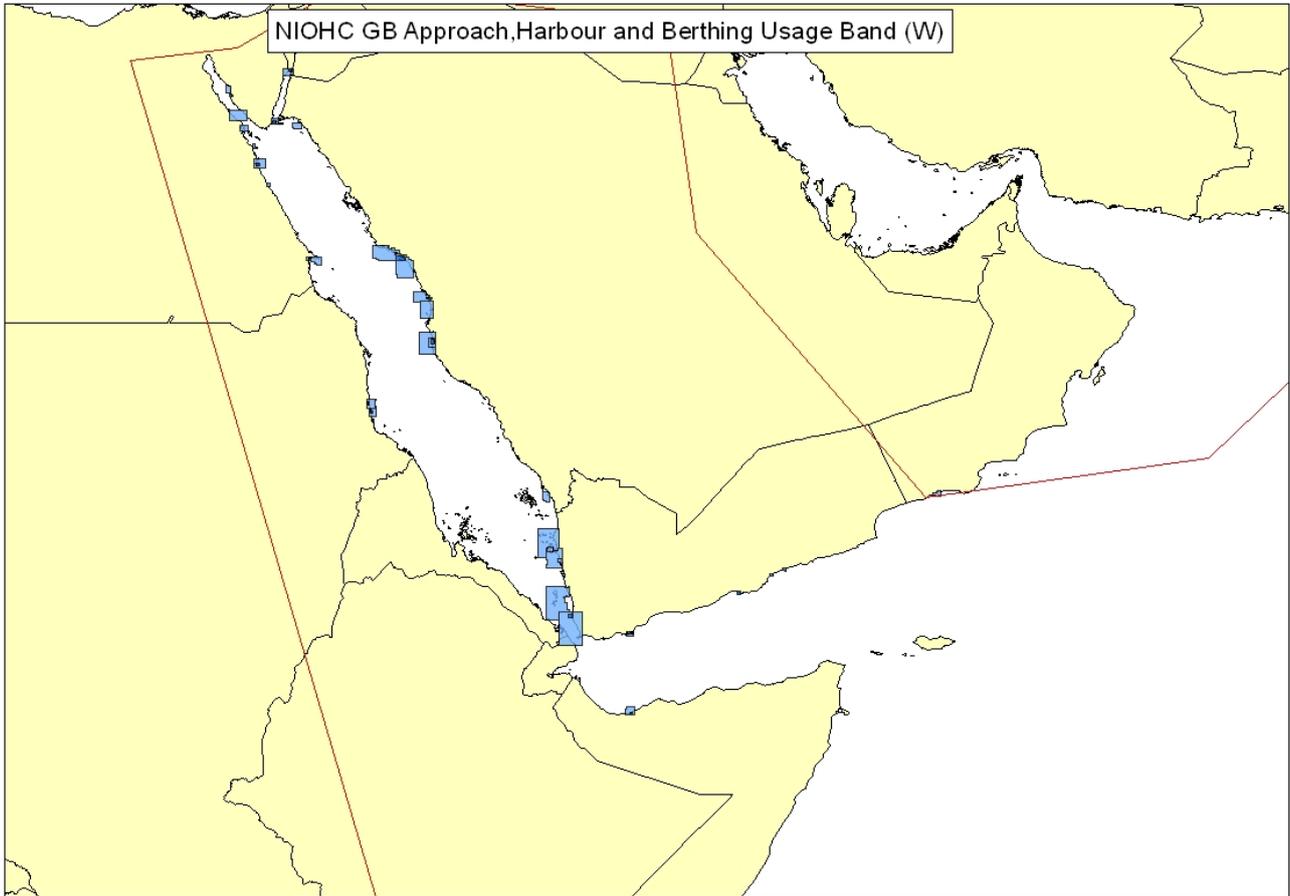


Figure 9 UKHO produced GB approach, harbour and berthing ENC (W)

ENC Distribution

3.8 The UKHO, along with other European hydrographic offices, was a founder member of the IC-ENC RENC. IC-ENC (International Centre for ENCs) concentrates its efforts on the validation and consistency of ENC data and leaves the marketing of ENCs to the shipping industry to its value-added resellers and chart agents. Additional details can be found on the IC-ENC website (www.ic-enc.org).

3.9 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 (gov.uk/ukho)

4. PUBLICATIONS

Paper Publications



4.1 The Admiralty Sailing Directions in the NIOHC region is as follows:

- NP3 Africa Pilot Vol 3
- NP21 Bay of Bengal Pilot

NP38 West Coast of India Pilot
NP39 South Indian Ocean Pilot
NP64 Red Sea and Gulf of Aden Pilot

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

Digital Publications



4.3 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.

4.4 The UKHO has produced e-Nautical Publications (e-NPs) which are the digital version of Admiralty paper Nautical Publications. The e-NPs are subscription based pdf style e-books that are updatable by Notices to Mariners.

4.5 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 on 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 NIOHC region is for its Overseas Territory of British Indian Ocean Territory (BIOT), which is an almost exclusively military facility. Therefore any MSI broadcast is to meet military needs rather than those of the GMDSS. UK maintains close liaison with India, the NAVAREA Co-ordinator for NAVAREA VIII and with Pakistan, the neighbouring NAVAREA IX Co-ordinator. Any information received at UKHO which requires urgent promulgation is passed to the respective NAVAREA Co-ordinator on a 24 hour basis.

5.2 GMDSS coverage in the NIOHC region is generally modest and administrations should be encouraged to develop their capabilities and infrastructure further and to provide at least Phase One hydrographic capability to promulgate MSI in a timely and efficient manner through their National Co-ordinators in coastal regions, or to utilise the communication facilities of NAVAREA VIII and IX Co-ordinators as appropriate for navigational warnings.

5.3 Assistance in promulgating Notices to Mariners and other paper and electronic chart correcting material should also be encouraged through co-operation with other hydrographic offices in the region if required.

5.4 The current Admiralty weekly Notices to Mariners are supplemented by daily updates and are available on UKHO website.

6. C-55 (previously known as S-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, including British Indian Ocean Territory within the NIOHC area; this entry is up to date. 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, where the UKHO retains the primary charting responsibility, 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 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 organised a MBES Processing courses for Myanmar and an Advanced ENC production course for Sri Lanka (both delivered by CARIS) together with an Introductory course on MSDI and Data Management in conjunction with the IIC Academy in Visakhapatnam, India. In early 2017 NIOHC members joined members of the adjoining RSAHC in a joint ENC QA workshop.

7.3 UKHO has a post dedicated to 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. Further information can be obtained from Mr Jeff Bryant (jeff.bryant@ukho.gov.uk).

Cartographic Training provided by UKHO



7.4 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.

Regional Achievements

7.5 The UKHO has provided cartographic training to candidates from Bangladesh, Egypt, Myanmar, Oman, Pakistan, Sri Lanka & Thailand under the Nippon Foundation CAT B programme; Seychelles under an IMO course and Bangladesh, Mauritius, Oman and Sri Lanka under IHO Nautical Cartography - Module 1 programme.

ENC Training and Assistance



7.6 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)

7.7 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 2016 World Hydrography Day was

“Hydrography – the key to well-managed seas and waterways”

9.1 The UK celebration of WHD 2016 took place at the International Maritime Organisation Headquarters, London in July 2016. The United Kingdom Hydrographic Office (UKHO), in collaboration with CEFAS and NOC, used displays to demonstrate the hydrographic management of seas and waterways and how hydrographic data can be utilised for wider activity.

9.2 This high-level event was aimed at Ministers, CEO's, directors, the chairs and senior managers of national organisations and offered an excellent networking opportunity in a central London location. Welcomed by the UKHO Chief Executive John Humphrey and National Hydrographer Rear Admiral, Tim Lowe, guests included, the Minister Lord Earl Howe, Mr Ashok Mahapatra, IMO Director, Maritime Safety Division and Dr Parry Oei, Director (Port Services)/Chief Hydrographer Maritime and Port Authority of Singapore.

9.3 As part of the events to mark the 2016 World Hydrography Day in June, the UKHO hosted an interactive family day on 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. The activity at the Museum of Somerset followed on from the success of STEMFEST 2016 where the UKHO joined with Taunton School to celebrate British Science week in March. Students from Years 6-13 from 500

local schools and colleges came together at this festival of Science, Technology, Engineering and Maths (STEM).

9.4 The theme of this year's World Hydrography Day is

“Mapping our seas and oceans – more important than ever”

Owned and managed by the Foreign and Commonwealth Office, Lancaster House will be the venue for this year's World Hydrography Day event, due to take place on July 20th. The reception will be held in the Long Galley, which is where Winston Churchill gave a coronation banquet for the newly crowned Queen Elizabeth II in 1953. We will be inviting the UK based diplomatic community and hopefully our Minister Lord Howe will attend. We hope this event will broaden the knowledge of the importance of hydrography.

Alexander Dalrymple Award.

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 1775, set up what is now the UK Hydrographic Office. Dr Parry Oei, Chief Hydrographer Maritime and Port Authority of Singapore was awarded the 2016 Alexander Dalrymple Award (Figure 10) in recognition of his tireless contribution to the International Hydrographic Community, particularly for his leadership and guidance within both the East Asia Hydrographic Commission's capacity building initiatives and the tripartite Marine Electronic Highway Working Group in the straits of Malacca and Singapore.



Figure 10 UK National Hydrographer Rear Admiral presenting the 2016 Alexander Dalrymple Award to Dr Parry Oei, Chief Hydrographer Maritime and Port Authority of Singapore

British Overseas Territories (BOTs)

9.5 UK undertakes Primary charting of the British Indian Ocean Territory with the NIOHC region; the UKHO has begun a programme of work to review the status of hydrography within the British Overseas Territories (BOT), 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 as well as seeking opportunities to collaborate with regional projects. 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.

Satellite Derived Bathymetry (SDB)

9.6 Following the 2014 trial of Satellite Derived Bathymetry (SDB) conducted in Antigua, the UKHO published our 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, it allowed the uncertainties to be quantified; it does mark a step change for the UKHO and the way that unconventional data gathering techniques are used.

International

9.7 Due to its technical expertise, primary charting responsibilities and BOTs 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
NSHC	North Sea Hydrographic Commission		x
RSAHC	ROPME Sea Area Hydrographic Commission		x
SAIHC	Southern Africa and Islands Hydrographic Commission		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 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.

10.2 UK has a strong commitment to the Northern Indian Ocean and Red Sea areas, through its primary charting and through its continuing interest in developing regional hydrographic self-sufficiency through capacity building measures.

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

10.5 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 globally; the NIOHC is progressing ENC coverage.

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

Taunton, July 2017

UKHO POINTS OF CONTACT

UKHO Website: www.ukho.gov.uk

The UKHO address is:

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For all matters related to charting and hydrographic data in the NIOHC region, please contact:

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