



SWPHC21-08J UK National Report

United Kingdom
Hydrographic Office

UNITED KINGDOM NATIONAL REPORT

to the

SOUTH-WEST PACIFIC
HYDROGRAPHIC COMMISSION (SWPHC)
21ST MEETING

28 FEBRUARY -1 MARCH 2024



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

1. UK HYDROGRAPHIC OFFICE (UKHO)

UK Delivery of Hydrographic Services

1.1 The UK is a Contracting Government to the International Convention for the Safety of Life at Sea (as amended). The UK Maritime and Coastguard Agency (MCA) is the UK's National Maritime Administration. The UK Hydrographic Office works closely with MCA to ensure appropriate provision of hydrographic services for waters of UK national responsibility and representation of the UK in international hydrographic and maritime forums.



UKHO Governance and Targets

1.2 This is described in the [UK Generic National Report](#) to the IHO.

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 SWPHC 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 collaborative partnerships delivered through bilateral arrangements, developed in co-operation with other national government hydrographic authorities and data providers, covering a range of topics, including the use and re-use of data protected by copyright and intellectual property rights of those authorities. Our bilateral arrangements 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). The OTSMP 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. The UKHO continued to plan and deliver a range of programme activity in several UK OTs in 2023, to improve their compliance with the hydrographic elements of SOLAS.

2.2 The UK fulfils the Primary charting responsibilities of the following UK OT within the SWPHC region:

- Pitcairn Islands (Pitcairn, Henderson, Ducie and Oeno Islands)

2.3 The OTSMP is funded by the UK Government to assess and redress the deficit of bathymetric data and lack of sound hydrographic governance in the UK's OTs.

2.4 Work has also continued on developing Hydrographic Action Plans with each territory to identify future requirements for development supporting the building of strong governance and future survey planning.

Surveys and Capacity Building

2.5 Any requests for survey assistance from nations within the SWPHC 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 opportunities.

3. CHARTS

3.1 Our guiding principle is the provision of trusted, official ADMIRALTY navigation solutions that support the safety of the mariner. It is clear that the future of navigation is digital, as shown by the declining demand for paper charts. Digital solutions offer significant positional, safety and operational advantages to mariners, including the potential for near real-time updates, which greatly improve the accuracy of navigation and ease of use. These benefits will be further enhanced as we bring forward the next generation of navigation solutions, underpinned by the S-100 data standards.



However, we recognise the ongoing demand for paper charts for primary navigation and as back-up for ECDIS users, as well as planning and shore-based operations. This demand varies between regions and vessel types, but despite the widespread transition to digital navigation, the requirement for paper charts is likely to continue for some time. Our goal therefore is to continue to develop solutions to meet the needs of the mariner, aligned to support current market demand.

Our commitment is 'to leave no one behind' in the transition to digital navigation. We will continue to provide an ADMIRALTY paper chart service that supports the needs of those mariners that remain reliant upon them during the transition period.

The UKHO's Generic National Report provides information on UK's portfolio of chart products and services.

The following paragraphs provide information specifically relevant to the SWPHC 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 SWPHC meeting as New Charts or full New Editions:

- Six New Editions of charts previously adopted from the Australian (AUS) series, including prefixed charts produced by AHO (PNG & SLB).
- Three New Editions of charts previously adopted from the New Zealand (NZ) series, including prefixed charts produced by LINZ (CK, NU, TO, TK & WS).

In addition, the table below lists the two charts that have been published in addition to those mentioned above.

GB Chart Number	Title	Published
2464	Mont Dore to Port - Boise Passe de Mato and Passe de Uatio	23 rd February 2023
2465	Ile Ouen to Ile des Pins Passe de la Sarcelle	23 rd February 2023

Charts scheduled for publication in the next 6 months:

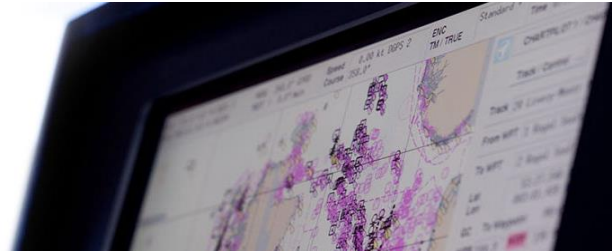
GB Chart Number	Title	Planned
	Four new charts of Kiribati are scheduled to be published on completion of the data collect phase of the Kiribati Outer Islands Transport Infrastructure Investment Project (KOITIIP)	Late 2024

The following charts have been independently withdrawn from the ADMIRALTY Paper Chart Series since the last SWPHC meeting.

GB Chart Number	Title	Withdrawn
AUS0901	Approaches to Dili – (Withdrawn from ADMIRALTY Series Only)	14 th December 2023

Digital Charts

3.3 As noted in Section 3.6, 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 SWPHC region.



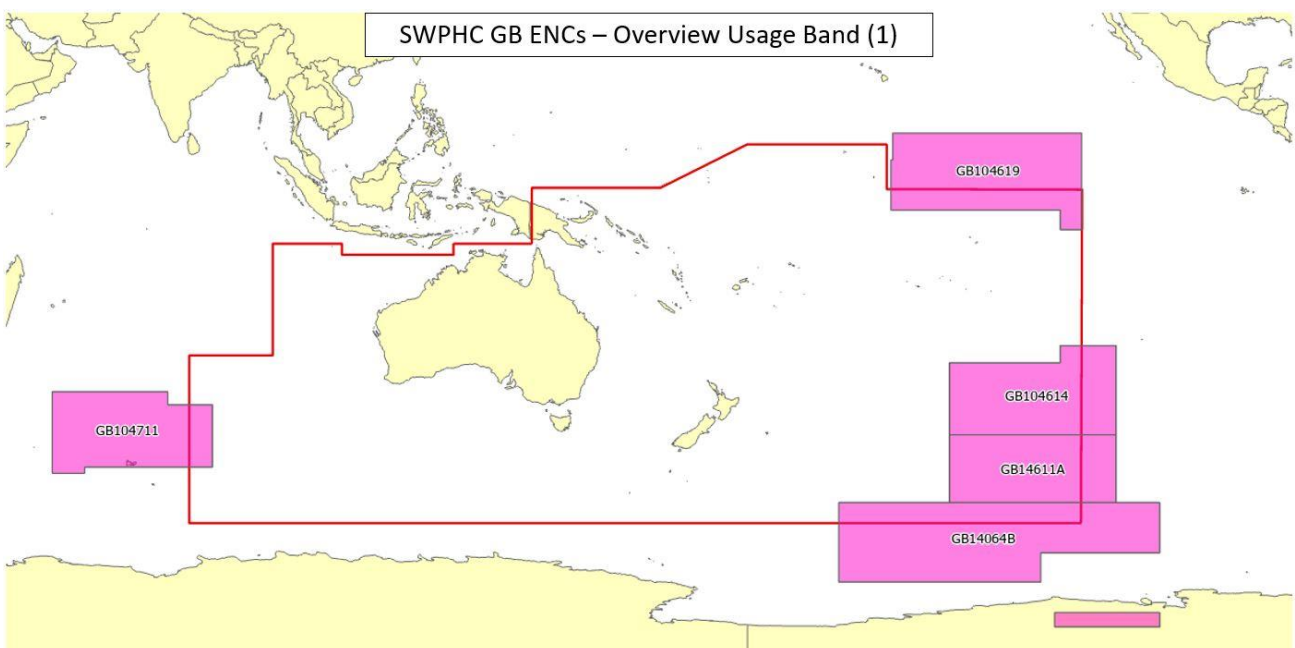
ENCs

3.4 Within the SWPHC region, the UKHO has released a total of 100 ENC cells. The breakdown by usage band is shown in the table below:

ENC totals by usage band as produced by UKHO

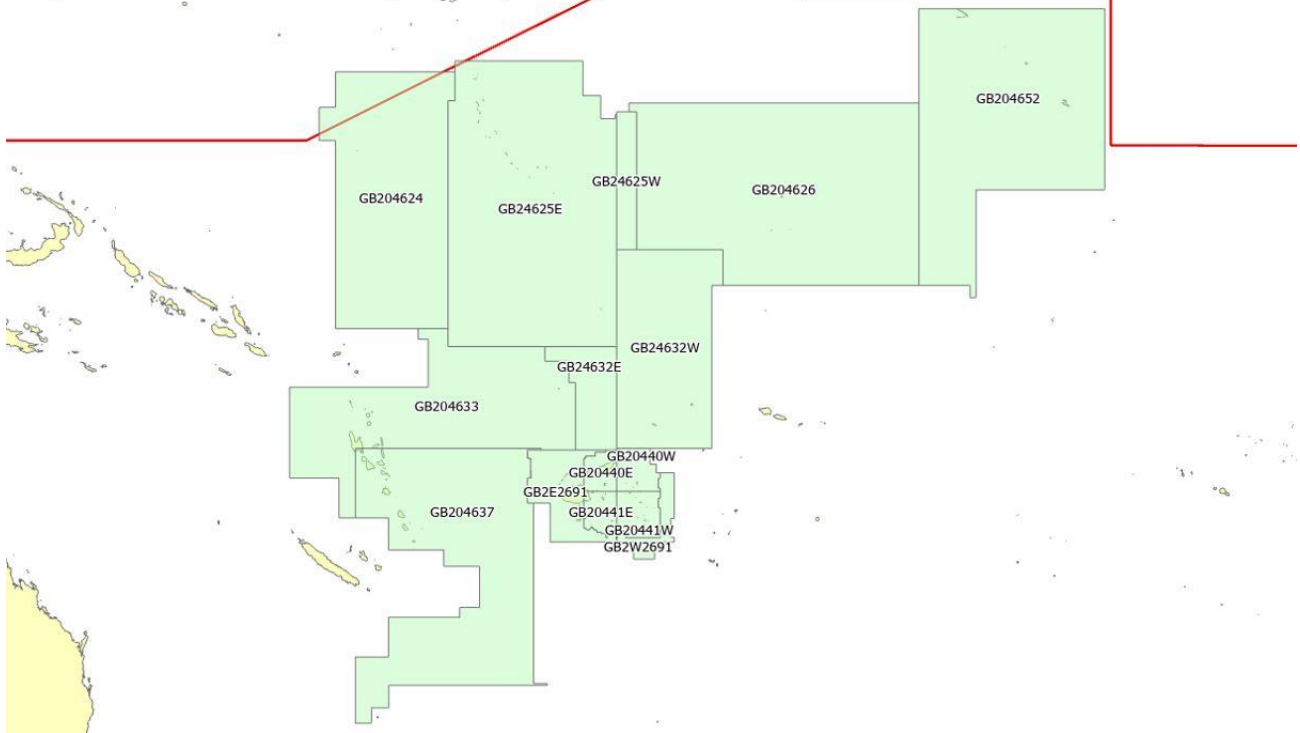
SWPHC Region Released Cells	
ENC Usage Band	Number of GB ENC's
Usage Band 1	5
Usage Band 2	15
Usage Band 3	20
Usage Band 4	34
Usage Band 5	24
Usage Band 6	2
Total Number of ENCs	100

No new GB ENCs have been released within the SWPHC region from February 2023 to January 2024. The diagrams below illustrate the current coverage of GB ENCs within the SWPHC Region.

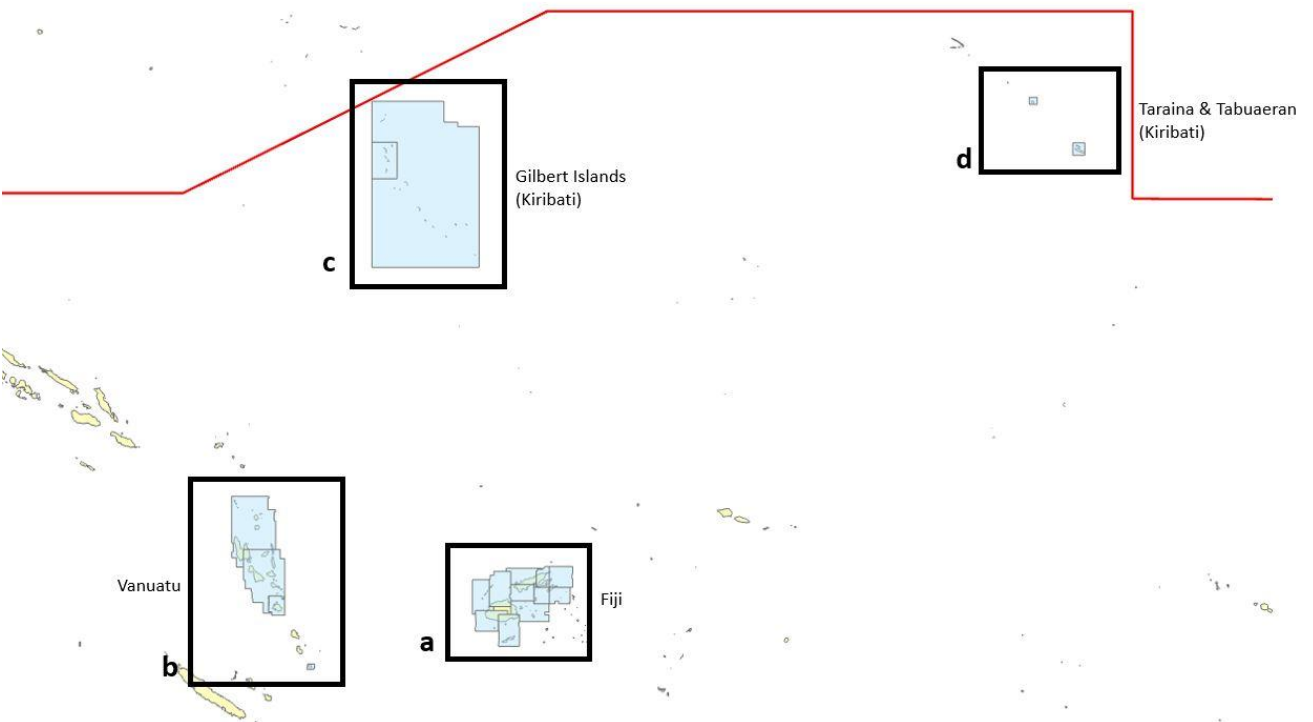


SWPHC GB ENC's – General Usage Band (2)

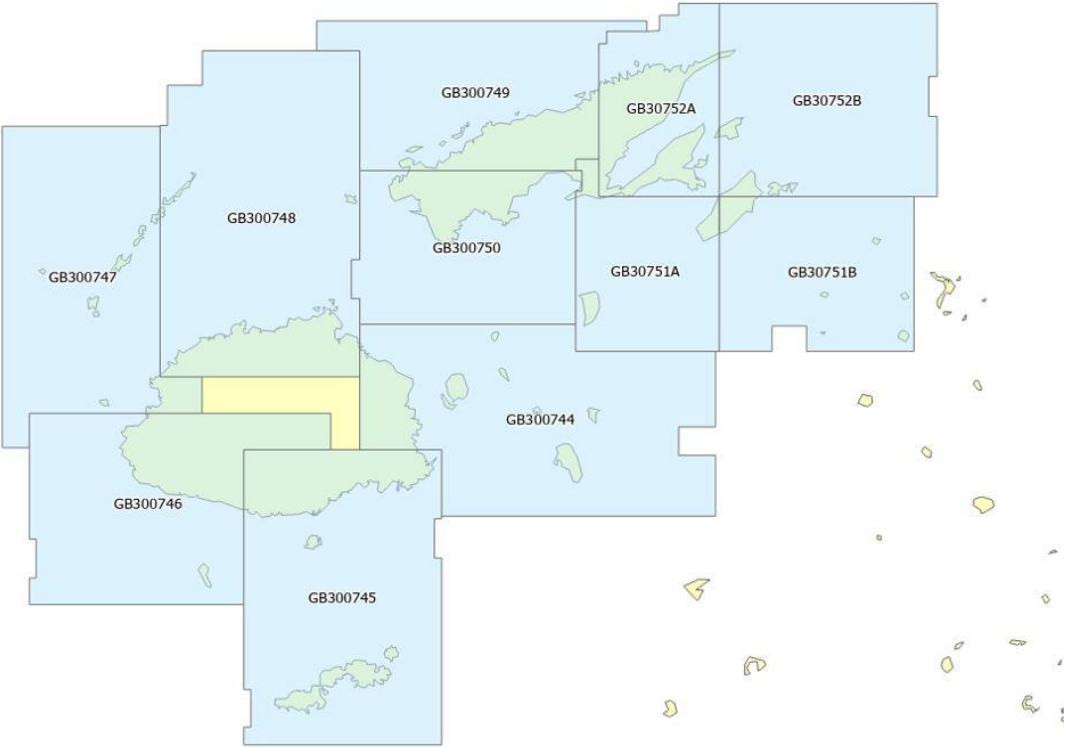
Eastern Melanesia & Kiribati



SWPHC GB ENC's – Coastal Usage Band (3)



a - Fiji



b - Vanuatu



c - Gilbert Islands (Kiribati)



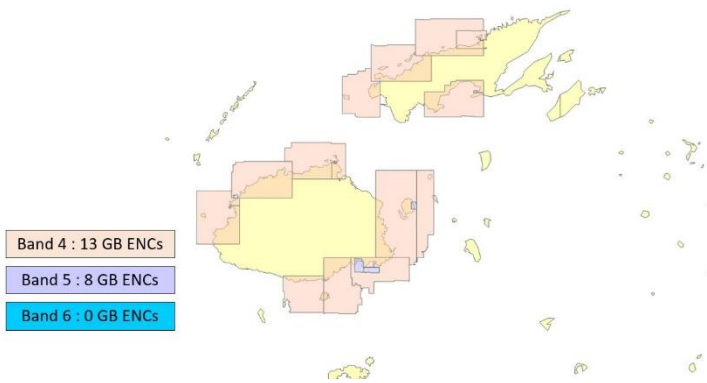
d - Taraina & Tabuaeran (Kiribati)



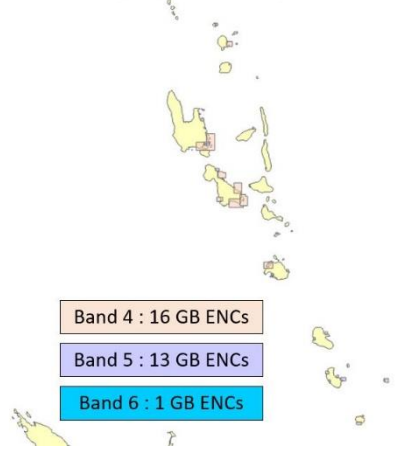
SWPHC GB ENC – Approach, Harbour, & Berthing Usage Band (4,5,6)



a - Fiji



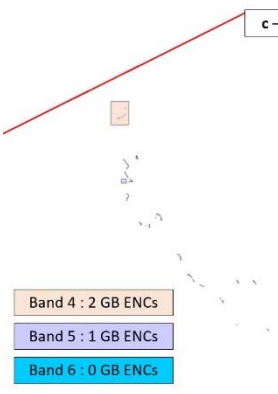
b - Vanuatu



d - Taraina & Tabuaeran (Kiribati)



c - Gilbert & Phoenix Islands (Kiribati)



e - Pitcairn Islands (UKOT)

Oeno Island

Henderson Island

Ducie Island

Pitcairn Island

Band 3 : 1 GB ENC

Band 4 : 3 GB ENC

Band 5 : 0 GB ENC

Band 6 : 1 GB ENC

ENC Distribution

3.5 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).

The UKHO also acts as a VAR, providing a global range of ENCs under the AVCS brand as part of its successful ADMIRALTY range of navigational products. Additional details can be found on the ADMIRALTY website (www.admiralty.co.uk).

S-100

3.6 The UKHO is at the forefront of developing S-100 based products and services; we are doing this by working in collaboration and actively engaging with other Hydrographic Offices and our industry partners. We are sharing our knowledge and experiences with others as we go on this journey.

UKHO is focusing on the detailed development of:

- S-101 Electronic Navigational Chart (ENC)
- S-102 Bathymetric Surface
- S-104 Water Level Information for Surface Navigation
- S-111 Surface Currents
- S-124 Navigational Warnings due to our commitments as NAVAREA coordinators
- S-128 Catalogue of Nautical Products
and supporting S-122 Marine Protected Areas

This aligns with the IHO Prioritisation of S100 data sets, to support Phase I – Route Monitoring Mode needed to support maritime navigation of the future.

We will offer a route to market for all S-100 products for the January 2026 start of the rollout of S-100 ECDIS carriage on vessels defined by the International Maritime Organization and in line with the International Hydrographic Organization timeline for implementation of S-100 standards.

Data Improvement including Rescheming

3.7 The UKHO has chosen the parameters of a gridded ENC scheme for S-57 and S-101 which is applicable to all GB ENCs across the globe at all scale bands. The UKHO has engaged with many FGHOs and RHCs to explain the chosen scheme and is keen to share the parameters, our experience and offer any guidance to HOs who would wish to align their ENC scheme with the UK grid.

Several national HOs have shown an interest in using the UKHO scheme and aligning their data limits with GB ENC coverage and one RHC has chosen to adopt the UK grid where their contributor nations chose to do so.

The GB ENC rescheme is the foundation of UKHO's future strategy to deliver an interactive portfolio of S-100 products and services to the mariner. The GB ENC rescheme is also part of a wider Data Improvement Programme of work which specifically aims to improve the usability of GB ENCs, resolve user pain-points, and enhance safety for the mariner.

The UKHO has already successfully delivered several areas of reschemed GB ENC coverage, including High Density contouring, which is generating positive feedback from users.

4. PUBLICATIONS

Paper Publications

4.1 The Admiralty Paper Publications in the SWPHC region are as follows:

ADMIRALTY Sailing Directions:

- NP 13 Australia Pilot Vol 2
- NP 14 Australia Pilot Vol 2
- NP 15 Australia Pilot Vol 3
- NP 34 Indonesia Pilot 2
- NP 39 South Indian Ocean Pilot
- NP44 Malacca Strait and W Coast of Sumatra Pilot
- NP51 New Zealand Pilot
- NP60 Pacific Islands Pilot Vol 1 / NP61 Pacific Islands Pilot Vol 2
- NP62 Pacific Islands Pilot Vol 3

ADMIRALTY Tide Tables:

- NP204 Tide Table 4 - South Pacific Ocean

ADMIRALTY Lists of Lights:

- NP 83 Lights List K - Western Pacific Oceans, S of the Equator
- NP 88 Lights List Q - Eastern Indian Ocean, S of the Equator

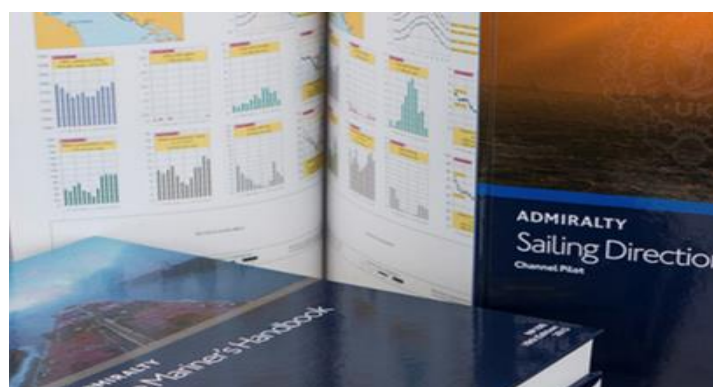
ADMIRALTY Lists of Radio Signals

- NP 281 (2) (Vol 1 Part 2) Maritime Radio Stations - The Americas, Far East, and Oceania
- NP 282 (2) (Vol 2 Part 2) Radio Aids to Navigation, Differential GPS (DGPS) Legal Time, Radio Time signals and Electronic Position Fixing Systems
- NP283 (2) (Vol 3 Part 2) Maritime Safety Information Services - The Americas, Far East, and Oceania
- NP 286 (4) (Vol 6 Part 4) Pilot Services, Vessel Traffic Services & Port Operations - Indian Sub-Continent, South East Asia & Australasia

New Editions published since last SWPHC FEB 2021:

ADMIRALTY Sailing Directions:

- NP 51 New Zealand Pilot - Published 02/09/2021
- NP 34 Indonesia Pilot 2 - Published 27/01/2022
- NP 15 Australia Pilot Vol 3 - Published 10/3/22
- NP44 Malacca Strait and W Coast of Sumatra Pilot - Published 2/6/22



ADMIRALTY Sailing Directions:

Admiralty Sailing Directions are maintained internally on a continuous revision cycle with new editions published as required.

ADMIRALTY Tide Tables, ADMIRALTY Lists of Lights and ADMIRALTY Lists of Radio Signals are published annually.

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 produces a range of ADMIRALTY Digital Publications which are digital versions of ADMIRALTY paper Nautical Publications to support the IMO mandate of ECDIS. These publications provide mariners with additional functionality, are subscription-based, and automate the task of updating through Notice to Mariners.

- **ADMIRALTY e-Nautical Publications (AENP):** e-Book versions of ADMIRALTY Sailing Directions and reference publications. The UKHO is now working on a fully digital version of the ADMIRALTY Sailing Directions that will replace the e-NP versions.
- **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.



4.3 The **ADMIRALTY Digital Catalogue (ADC)** can be downloaded free from the ADMIRALTY website (www.admiralty.co.uk). It includes details of all paper and digital charts and publications and is updated weekly. It is a useful tool to check chart coverage within the region, and to show the latest edition dates of both charts and publications.

5. MARITIME SAFETY INFORMATION

5.1 On behalf of the United Kingdom, the UKHO acts as NAVAREA I Coordinator for the World-Wide Navigational Warning Service (WWNWS) of the Global Maritime Distress and Safety System (GMDSS). Close links are maintained with National Coordinators and other NAVAREA Coordinators to ensure relevant information is exchanged and broadcast, as necessary. Any information received at UKHO which may require distribution is immediately passed to the respective NAVAREA Coordinator on a 24-hour basis.

5.2 The UK fulfils its requirements under SOLAS Ch.5 and IMO resolution A706(17) to broadcast navigation warnings in line with the Joint IMO/IHO/World Meteorological Organization (WMO) Manual on Maritime Safety Information.

5.3 The UK contributes at international forums that consider MSI matters, including IHO WorldWide Navigational Warning Service Sub-Committee and numerous IMO Committees and Sub-Committees. UK currently provides the Chair and Secretary of the IMO International NAVTEX Co-ordinating Panel.

5.4 Notices to Mariners. Assistance with 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. The current ADMIRALTY weekly Notices to Mariners are now supplemented by daily updates; these are available on the ADMIRALTY website.

6. C-55 LATEST UPDATE

6.1 As described in the UK Generic National Report, 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 The UK offers assistance to update C-55 entries to other countries where 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.

6.3 Table of navigationally significant areas within UKHO's jurisdiction (Pitcairn Dependencies) and PCAs Fiji, Kiribati, Nauru, Tuvalu, and Vanuatu. Geographical locations as referenced per largest scale chart.

Ref. IHO Strategic Plan, Goal 1, Target 1.2, SPI 1.2.2.

Navigationally significant area	Location	Chart
Southwest Channel	Maskelyne Islands, Vanuatu	1577
Malo Passage	Malo, Espiritu Santo, Vanuatu	1638
Recommended Inshore Track	Viti Levu, Fiji	387, 389 & 750
Recommended Inshore Track (Sau Sau Passage, Mali Pass, Monkey Face Passage & Yadua Passage)	Vanua Levu, Fiji	749 & 750
Daveta Yawa-Levu	Makogai, Fiji	488
Natubari (South Entrance)	Levuka, Fiji	1244
Levu Passage	Suva, Fiji	1660
Navula Passage	Viti Levu, Fiji	1670
Approach to Betio	Kiribati	729
Recommended tracks	Funafuti Atol, Tuvalu	2983

7. CAPACITY BUILDING

7.1 The UK fully supports the IHO Capacity Building Sub-Committee (CBSC) strategy, particularly its emphasis on getting Phase 0, 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 Capacity Building. Its key aims are to ensure that capacity building is carefully 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.

Training provided by the UKHO International Training Team

7.3 The International Training Team drives forward the continuous skills and knowledge development of our global network through world-class training. Details of all UKHO-awarded training opportunities currently offered are provided on the UKHO website or by contacting internationaltraining@ukho.gov.uk.

UKHO recognises the importance of continued training and, to enable continued activity, has developed a Learning Management System (LMS). The LMS acts as the learning portal for training, offering all delegates ease of access to online seminars and interactive learning material.

Further details are described in the UKHO's Generic National Report.

Please visit [HERE](#) for a detailed list of all UKHO International Training Courses.



LT. Wahyudi Mardasin from Indonesia attended the GEOMAC course held from July – December 2023

8. HYDROGRAPHIC LEADERS PROGRAMME

8.1 UKHO was pleased to support development of the pilot Hydrographic Leaders Programme delivered to 13 countries across the South West Pacific region concluding in 2023.

8.2 In May 2023, UKHO commissioned an evaluation of the pilot programme; the report is available [online](#). The report found that a leadership programme is an important part of making a positive contribution to the region, that core elements of the programme worked effectively, and any future programmes should retain the principle of programme being development focused rather than on the basis of participant evaluation or assessment.

8.3 UKHO has been working with the UK's Foreign, Commonwealth and Development Office to explore the impact of this programme and secure funding for future iterations which incorporate the lessons learned and a number of improvements from the pilot programme. We expect to be able to work with partners on development of a future Hydrographic Leaders Programme later in 2024.

9. OCEANOGRAPHIC ACTIVITIES

9.1 UKHO's Ocean Environment Team maintains databases of oceanographic information collected by the Royal Navy or obtained during exchange with other nations. Data exchange is an important source of data and so UKHO is always keen to discuss new exchanges. UKHO has participated in the Argo project and in the UN's International Oceanographic Data Exchange (IODE), to work with the international oceanographic community. On behalf of the Royal Navy, UKHO has made periodic releases of data to international data centres including US NODC, for inclusion in the World Ocean Database and the British Oceanographic Data Centre (BODC).

9.2 The UK national repository for oceanographic data collected for scientific purposes is the British Oceanographic Data Centre (BODC) (<https://www.bodc.ac.uk/>) which includes data from UK-sponsored research cruises anywhere in the world. BODC is funded by the Natural Environment Research Council (NERC) and located in Liverpool, UK. The UK's main centre for scientific oceanography is the National Oceanographic Centre (NOC) in Southampton (<https://www.noc.soton.ac.uk/>).

9.3 Global Sea levels are monitored as part of the Global Sea Level Observing System (GLOSS) project, by the Permanent Service for Mean Sea Level (PSMSL). This operation is based at the National Oceanographic Centre in Liverpool.

9.4 The UKHO participates in and Chairs 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.

9.5 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) previously operated by the UK Environment Agency with a recent (summer 2021) contract to maintain and upgrade the National Tide gauge Network (NTGN) awarded to the commercial company OceanWise (<https://www.oceanwise.eu/>).

9.6 However, under the auspices of the Overseas Territories Seabed Mapping Programme (OTSMP), the UKHO has been working to establish permanently installed tide gauges in some of the UK Overseas Territories. As well as being an essential part of the OTSMP work, they form an integral and important contribution to global sea level monitoring networks which are instrumental for the scientific study of long-term sea-level rise. In addition, they can form part of regional tsunami warning networks and provide essential observations for use in coastal inundation (storm surge) modelling studies. It is the UKHO's intent to further expand this network under the various hydrographic programmes.



MEMS installed on Road Bay jetty Anguilla.

10. SPATIAL DATA INFRASTRUCTURES

10.1 The UKHO is actively developing the concept of Marine Spatial Data Infrastructure in Line with the United Nations Committee of Experts on Global Geospatial Information Management (UNGGIM) Integrated Geospatial Information Framework (IGIF).

10.2 While the UK does not yet have a recognised NSDI, a UK Geospatial Commission was established in 2017 with partner bodies consisting of national geospatial agencies, including the UKHO. This Commission is focused on unlocking the value of geospatial data within the UK and is working to establish 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.

10.3 The UKHO is an active member of the UNGGIM and Open Geospatial Consortium (OGC) groups which contribute towards Global MSDI activities and methodologies. The UKHO has recently upgraded its membership of the OGC from Technical to Strategic. The UKHO is also a member of the IHO MSDI Working Group. The UKHO Chairs the South West Pacific Hydrographic Commission (SWPHC) Marine Spatial Data Infrastructure Working Group (MSDIWG), the Southern African and Islands Hydrographic Commission (SAIHC) MSDIWG, Vice-Chairs the Meso American and Caribbean Hydrographic Commission (MACHC) MSDIWG and is represented on the Baltic Sea and North Sea Hydrographic Commission (BS-NSHC) MSDIWG. The UKHO has also provided briefings on MSDI to other Regional Hydrographic Commissions (RHCs) which do not yet have MSDIWGs. The UKHO represents the UK on the UNGGIM Working Group on Marine Geospatial Information and Leads UK input into the UNGGIM-Americas Caribbean Geospatial Development Initiative (CARIGEO).

10.4 We are actively working at creating the appropriate standards to support national and international MSDIs, a good example is our sponsorship of the OGC S- 121 pilot study to develop a standard for the exchange of Maritime Limits and boundaries and our current sponsorship of the Federated Marine Spatial Data Infrastructure Pilot which looks at S- 100 within an MSDI, and MSDI geospatial maturity considering the UNGGIM IGIF principles.

10.5 The UKHO is a Lead sponsor of the Marine Environment Data Information Network (MEDIN) which coordinates the delivery of INSPIRE obligations to Findable, Accessible, Inter-operable and Re-usable (FAIR) standards. The UKHO is actively engaged with projects 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.

10.6 The ADMIRALTY Marine Data Portal from the UKHO continues to grow and develop. As the organised gateway to our non-navigation data and services, it gives users easy and timely access to marine Location-based information from seabed to surface to help them with sustainable maritime-decision making. The portal allows users access to several free of charge datasets and services mainly covering the UK territorial waters. The portal also 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.

11. AUTONOMOUS NAVIGATION

11.1 The UKHO has been engaging with several industry experts and project initiatives surrounding Maritime Autonomous Surface Ships (MASS) to try and understand the navigation data needs as momentum gathers in this area.

UKHO has proactively sought out several organisations such as Thales, Atlas Elektronik, TGP Polaris and Marine AI (the team behind the historic Mayflower Project) and discussed the issues with current products and services. In our work with industry operators, UKHO has supplied data to stimulate and facilitate discussions and allow industry partners to provide feedback and explore what future navigation services might look like.

The UK is Chair of the Maritime Autonomous Surface Ships (MASS) Navigation Project Team (MASS PT) which received approval at HSSC 13 following a proposal by the United Kingdom, Norway, and Singapore. The project team has conducted an extensive gap analysis of S-100 standards and has made recommendations to address these gaps to the relevant Working Group and Project Team chairs to ensure S-100 is fit for purpose for both manned and unmanned navigation.

HSSC 15 extended the MASS PT for a further 12 months to further engage with industry representatives.

The intention is to propose the project team becomes a permanent Working Group at HSSC 16.

12. OTHER ACTIVITIES

12.1 Alexander Dalrymple Award Every year in celebration of the IHO World Hydrography Day, the UKHO presents the Alexander Dalrymple Award in recognition of outstanding dedication and contribution to international hydrography. It is named after Alexander Dalrymple who established the UKHO in 1795 and thus regarded as a Leading figure in the history of the development of hydrography within the UK.

Broader UK Government Work

12.2 UK Centre for Seabed Mapping (UK CSM) In support of a more integrated Marine Geospatial Sector for the UK and internationally, the UKHO has created the UK CSM, with a core focus on bathymetry and its associated data. Through increased coverage, quality and access to seabed mapping data collected using public money or in collaboration with industry, the UK CSM aims to enable a more unified voice to promote seabed mapping, and the resultant data, as the foundation data set to ocean mapping. The UK CSM is a UK government voluntary commitment to the UN Ocean Decade and a policy commitment within the UK's National Strategy for Maritime Security.

12.3 Seabed 2030 Following the signature of a data sharing MoU between the UKHO and the SB2030 Project, and a successful data sharing trial with the Southern Ocean Regional Centre, the UKHO is pleased to have supplied bathymetric survey data for non-UK waters to the General Bathymetric Chart of the Oceans (GEBCO). UKHO have contributed over 75,000 km² of data into the GEBCO grid, including data in the South Atlantic, Caribbean and Atlantic Ocean. A total of 4625 km² of data have been shared within the Pacific region, covering Tuvalu, Vanuatu, Kiribati, Tonga, and the Pitcairn Islands.

UKHO has entered a technical cooperation agreement with Teledyne Caris and Seabed 2030 which will allow the Seabed 2030 Regional and Global Centres to use the ADMIRALTY GAM service. The ADMIRALTY GAM Service was developed by the UKHO and is a tool that cleans noise in single track bathymetry survey data. This tool will help to improve the speed and human effort associated with processing of bathymetry data. The Admiralty GAM service was recently released at Ocean Business 2021 and is now also available commercially.

12.4 Where UKHO is Primary Charting Authority, and has the appropriate permissions, the UKHO will continue to share gridded bathymetry data with SB2030 to help improve the GEBCO grid product. The UKHO will not share full resolution raw survey data. The UKHO continues to be supportive of other global bathymetry initiatives, such as EMODNET, where we intend to contribute data on the same basis as that shared with SB2030.

12.5 UKHO will continue to actively engage with associated working groups at the IHO and Regional Hydrographic Commissions.

12.6 The UK Member State, consisting of the UK, the OTs, and Crown Dependencies, was audited against the IMO Instrument Implementation Code's (IIIC) and Mandatory IMO Member State Audit Scheme (MIMSAS) in late 2021. The work of the UKHO was specifically mentioned as an example of best practice in this field. This has raised awareness of the importance of maritime compliance and the benefits to everyone. To complement the work of the UKHO's OTSMP, the UK Maritime and Coastguard Agency have established a UK Government aid funded programme to review maritime obligations compliance, search and rescue and oil pollution response.

The UKHO's International Activities

12.7 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	x
NIPWG	Nautical Information Provision Working Group		x
S-100WG	S-100 Working Group		x
S-101PT	S-101ENC Project Team	x	x
S-102PT	S-102Bathymetric Surface Project Team		x
S-121PT	S-21 Maritime Limits and Boundaries Project Team		x
S-124PT	S-124 Navigational Warnings Project Team		x
S-130PT	S-130 Polygonal Project Team		x
S-131PT	S-131 Marine Harbour Infrastructure Project Team		x
TWCWG	Tides, Water Level & Currents Working Group	x	x
HSWG	Hydrographic Survey Working Group	x	x
MASS PT	Maritime Autonomous Surface Ships Navigation Project Team	x	x
ABLOS	Advisory Board on the Law of the Sea		x
International Hydrographic Organisation - IRCC		Chair/Vice Chair	Member
IRCC	Inter-Regional Coordination Committee		x
CBSC	Capacity Building Sub-Committee	x	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	x
MBSHC	Mediterranean and Black Seas Hydrographic Commission		x
NIOHC	North Indian Ocean Hydrographic Commission		x
NSHC	North Sea Hydrographic Commission	x	x
RSAHC	ROPME Sea Area Hydrographic Commission		x
SAIHC	Southern African and Islands Hydrographic Commission	x	x
SWPHC	South-West Pacific Hydrographic Commission		x
EAtHC	Eastern Atlantic Hydrographic Commission		x
International Maritime Organization		Chair/Vice Chair	Member
NAVTEX	NAVTEXT Coordination panel	x	x
International Association of Marine Aids to Navigation and Lighthouse Authorities		Chair/Vice Chair	Member
ENAV	E-navigation Committee		x
Other International Bodies		Chair/Vice Chair	Member
IAU	International Astronomical Union		x
CIRM	Comité International Radio-Maritime		x
BALTICO	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

13. CONCLUSION

13.1 The UK is working across the South West Pacific to deepen ties and work in partnership to build a cleaner, safer and a more resilient future. Our history of shared values, common interests and long-standing friendships are vital aspects of the important relationship between the UK and Pacific countries. The UKHO's commitment to our partners in the region and to the work of the South West Pacific Regional Hydrographic Commission endures; in the coming years we will continue our work to forge closer partnerships for mutual benefit.

13.2 Building on discussions at SWPHC20, UKHO has been pleased to play its part in developing proposals to make IHO events more inclusive. As a community, recognising that how we do things has changed is as important as recognising that why we do things has not changed. To that end, UKHO will continue its work to ensure that nobody is left behind as we take steps to develop and implement the future of navigation; we will continue to promote engagement across all members of the SWPHC and support mechanisms which ensure varied perspectives from a wide geographical footprint are heard and understood.

13.3 UKHO continues to act as Primary Charting Authority for the Pitcairn Islands and for Fiji, Tuvalu, Nauru, Kiribati and Vanuatu. We support the region with a range of capacity building interventions, and we continue to support the hydrographic community through delivery of the Nippon-funded IHO GEOMAC Category B course.

13.3 In the coming year, we will continue our work with UK and other government bodies to deliver coherent and impactful partnerships for the benefit of the region and the hydrographic community at large. This will include additional measures to support capability and additional support to the South West Pacific region which will be announced in due course.

Taunton February 2024

UKHO POINTS OF CONTACT

UKHO Website: www.gov.uk/ukho

The general UKHO address is:

UK Hydrographic Office,
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Email: SDImpactAnalysis@ukho.gov.uk

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

Country information / Informations sur le pays/ Información sobre el país	
-Declared National Tonnage -Tonnage national déclaré -Tonelaje Nacional Declarado	40,632,143 tons
National day -Fête nationale -Fiesta nacional	The Third Saturday in June (The King's Official Birthday)
-Date first joined IHO -Date d'adhésion à l'OHI -Fecha de adhesión a la OHI	21/06/1921
-Date ratification Convention -Date de ratification de la Convention -Fecha de ratificación de la Convención	03/05/1967
Official Representative to IHO (as designated by Member Government) UNITED KINGDOM HYDROGRAPHIC OFFICE	
Contact information/ Informations de contact / Información de contacto	
-National Hydrographer or equivalent -Directeur du service hydrographique ou équivalent -Director del Servicio Hidrográfico o equivalente	Rear Admiral Angus Essenhigh - National Hydrographer & Director Data Acquisition and Defence Postal address: Admiralty Way TAUNTON Somerset, TA1 2DN United Kingdom Tel: + 44 (0) 1823 484444 E-mail: IBTE@UKHO.gov.uk
Other point(s) of contact -Autre(s) point(s) de contact -Otros punto(s) de contacto	
-Web site -site web -sitio web	http://www.gov.uk/UKHO
Agency information	
Date of establishment	12 August 1795
Relevant National Legislation	Order in Council 1795 under King George III - Government Trading Funds Act 1973 as amended by the Government Trading Act 1990 and the Finance Acts 1991, 1993 and 2001 - Civil Service (Management Functions) Act 1992 - The Hydrographic Office Trading Fund Order 1996 (legislation.gov.uk) The Hydrographic Office Trading Fund Order 1996 SI No. 773 of 1996 - United Kingdom Hydrographic Office Framework Document update February 2022 - Memorandum of Understanding with the Maritime and Coastguard Agency to enable UK to meet obligations under Safety of Life at Sea 1974 Convention where compliance lies within UK Hydrographic Office's expertise (as set out in UK Hydrographic Office's Public Task Annex A Framework Document updated February 2022)

Top level parent organization	Ministry of Defence
Principal functions of the organization or the department	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	970
Total number of paper charts	3500 (Approx)
Number of ENC cells published	1771 GB cells
Number of Raster Charts	582
Number of Other Charts	52
Type of publications produced	Full suite of Admiralty Charts and Publications including some digital products. For details see UK Catalogue of Admiralty Charts and Publications (NP131) or the UKHO web site: http://www.gov.uk/UKHO

Other Organizations providing national Hydrographic Services
Autre Organismes fournissant des services hydrographiques au niveau national.

**CAPTAIN HYDROGRAPHY & METEOROLOGY AND
HYDROGRAPHER OF THE NAVY**

Contact information / Informations de contact / Información de contacto		
Head of the Hydrographic Office (if different from the person indicated above) -Directeur du service hydrographique (si différent de la personne indiquée ci-dessus) -Jefe del Servicio Hidrográfico (si es diferente de la persona indicada anteriormente)	Head of Hydrographic Office - Royal Navy. Hydrographer of the Navy Cdr Adam COLES (Commander HM) Tel: + 44 (0) 3001618853 Fax: + 44 (0) 1752 555844 E-mail: Adam.Coles222@mod.gov.uk Agency address: Navy Command Headquarters, Leach Building, Whale Island, Portsmouth, Hampshire, PO2 8BY, United Kingdom of Great Britain and Northern Ireland	
Other point(s) of contact -Autre(s) point(s) de contact -Otros punto(s) de contacto	Postal address: SURFLOT, 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	Displacement -	Commissioning Date -
		Crew -

vessels/ Aircraft - Détail des bâtiments hydrographiques/aéronefs - Detalle de buques hidrográficos/Aeronaves	Déplacement - Desplazamiento	Date de mise en service - Fecha de puesta en servicio	Equipage - Personal
HMS SCOTT (H131)	13500	1997	63
HMS PROTECTOR	5000	2011	88
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. Commander Operations 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 & 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 Devonport PLYMOUTH Devon PL2 2BG</p> <p>Details of courses are available at: www.mod.uk/DefenceInternet/AboutDefence/Whatwedo/Training and Exercises/IDT/IDTRN</p>		

Input to the IHO Publication C-55 (Status of Hydrographic Surveying and Charting Worldwide)
Country: United Kingdom of Great Britain and Northern Ireland

Country: Pitcairn Dependencies

C-55 Summary for:				Comments on Charts:
Country:	Pitcairn Dependencies			No coverage between 1:90 and 1:1,500,000 4 main islands covered by scales greater than 1:90,000 (Chart 991) Large Scale ENC Coverage of the main 4 islands.
Country Iso Code:	PN			
Country SubCode:				
INT Region:	L			
Country/Depend:				
Last updated:	15/01/2024			
Provided by:	UK			
Chart coverage	Passage (%)	Coastal (%)	Port (%)	
INT	100	0	0	Comments on Surveys: Coastal satellite derived bathymetry of all islands up to 30m
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 (%)			90	
Status of surveys	Adequate (%)	Resurvey (%)	No survey (%)	
0-200m	0	0	100	
> 200m	0	0	100	
MSI	Y/N	Comments on MSI:		
Local warning	Unknown	Local authority responsibility - no requirement to promulgate internationally.		
Coastal warning	YES	Only via NAVAREA coordinator & SafetyNET. Available/offered, but not currently used.		
Nav warning	YES	Only via NAVAREA coordinator & SafetyNET.		
Port warning	YES			
GMDSS	Y/N	Comments on GMDSS:		
Master Plan	NO			
Area A1	NO			
Area A2	NO			
Area A3	NO			
NAVTEX	NO			
SafetyNet	NO			