



United Kingdom
Hydrographic Office

UNITED KINGDOM
NATIONAL REPORT
TO THE
22ND MEDITERRANEAN AND BLACK SEA
HYDROGRAPHIC COMMISSION MEETING
27 – 28 May 2021 (Virtual Meeting)

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

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1. UK HYDROGRAPHIC OFFICE (UKHO)

UK Delivery of Hydrographic Services

1.1 The UK delivery of hydrographic services is described in the UK Generic National Report; it is worth highlighting, however, the close liaison which exists between UK's Hydrographic Office (UKHO) and UK's maritime administration Maritime & Coastguard Agency in providing a coordinated approach to hydrographic and maritime safety representation both nationally and internationally.



UKHO Governance and Targets

1.2 This is described in the [UK Generic National Report](#) to the IHO.¹

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 MBSHC region are included at the end of this Report.

Production Systems

1.4 This is described in the UK Generic National Report.

Cooperation and Partnerships

1.5 The UK is committed to bilateral arrangements, developed in co-operation with other international government hydrographic authorities and data providers, covering a range of topics, including the use/re-use of data protected by copyright and intellectual property rights of those authorities. These also promote other forms of co-operation between the participants, helping to enhance international maritime safety and protection of the environment.

2. REGIONAL ACTIVITY

UK Overseas Territories Programme

2.1 The UKHO continues to run the government funded Overseas Territories Seabed Mapping Programme (OTSMP), which is reviewing the status of hydrography within the UK Overseas Territories (OTs) and assessing and redressing the deficit of bathymetric data and lack of sound hydrographic governance. The programmes continue to highlight the importance and utility, both locally and within UK government, of Hydrography and the wider blue economy within the context of the UK OTs. Despite current restrictions as a result of COVID-19, the UKHO is continuing to plan and deliver Programme activity in several UK OTs through to 2021, as well as working with OTs to ensure their compliance with the Hydrographic elements of SOLAS. The programme is now in its sixth year and has seen recent completion of an airborne lidar survey in Bermuda which captured bathymetry data in Bermuda's coastal waters down to approximately 40m water depth, and an acoustic multibeam survey in the Falkland Islands of several high priority areas.

2.2 The UK fulfils the Primary Charting Authority responsibilities of the following UK OTs within the MBSHC region: Gibraltar and Cyprus Sovereign Base Area.

Survey and Capacity Building

2.3 Details of the management of civil hydrographic surveys in UK Home Waters are provided in the UK Generic National Report, and on the UKHO website. UK's National Hydrographic Committee (known as the Civil Hydrography Annual Seminar (CHAS) meets on an annual basis and provides the necessary breadth of interests to ensure that all surveying requirements are considered when prioritising the work of the Civil Hydrography Programme (CHP).

2.4 In total, UKHO survey operations under the OTSMP and CME programme have covered a

¹. This will be updated in the course of 2021.

combined area of nearly 20,000KM² around the world.

2.5 In February 2019, UKHO held a hydrographic governance workshop at the UKHO in Taunton. Representatives from Gibraltar attended a five-day course along with delegates from several other OT's. The workshop was designed to help raise knowledge of the need for and requirements of hydrographic governance.

2.6 The UK continues to explore how we can strengthen the relationship with countries for which we are the Primary Charting Authority (PCA). We have increased our level of engagement to better understand prioritised requirements in the MBSHC region.

2.7 Any requests for survey assistance from nations within this RHC region will be considered. The UKHO has a dedicated team of specialists that manage the portfolio of survey and hydrographic development programmes. In addition to survey advice, the team are configured to provide support and advice in the development of hydrographic governance and identifying funding. Mr Sam Harper, Head of Hydrographic Programmes (a dedicated UKHO team that focuses on hydrographic survey programmes) is the initial point of contact for UKHO involvement in overseas survey programmes. Further information can be obtained from (hydrographicprogrammes@UKHO.gov.uk).

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 MBSHC region.



Paper Charts

3.2 Information on UK's chart portfolio is provided on the ADMIRALTY website. Within the MBSHC region, the UKHO has published 0 New Charts and 21 New Editions since the last MBSHC meeting (June 2019). The breakdown is shown in the table below:

| GB Chart Number | INT Chart | Title | Published |
|---|-----------|---|------------|
| INT Charts published since 1 June 2019 | | | |
| 1585 | 3680 | Hefa (Haifa) and Approaches | 21/11/2019 |
| 518 | 3172 | Approaches to Valencia | 16/01/2020 |
| 562 | 3173 | Valencia | 16/01/2020 |
| 1563 | 3670 | Beyrouth (Beirut) and Approaches | 16/01/2020 |
| 247 | 3794 | Iskenderun Korfezi Northern Terminals | 23/01/2020 |
| 1591 | 3681 | Ports on the Coast of Israel | 06/02/2020 |
| 153 | 3195 | Approaches to Marseille | 26/03/2020 |
| 246 | 3660 | Iskenderun Korfezi | 20/08/2020 |
| 4301 | 301 | Mediterranean Sea Western Part | 08/10/2020 |
| 1196 | 3184 | Approaches to Barcelona | 29/10/2020 |
| 2245 | 3191 | Villefranche-sur-Mer to Menton | 10/12/2020 |
| 2246 | 3199 | Cap d'Antibes to Cap Ferrat including Baie des Anges and Rade de Villefranche | 10/12/2020 |
| 1522 | 3785 | Izmir Korfezi | 24/12/2020 |
| 2407 | 3493 | Kerkyra Harbour and Approaches | 31/12/2020 |
| 2578 | 3550 | Mina' Dumyat to Port Said | 21/01/2021 |
| 302 | 3553 | Approaches to Al Iskandariyah (Alexandria) | 21/01/2021 |
| 2114 | 3188 | Ports in the Golfe du Lion | 11/02/2021 |
| 2573 | 3500 | Al Burullus to Al 'Arish | 11/02/2021 |

| | | | |
|---|------|---|------------|
| 2574 | 3502 | Ra's ad Dab'ah to Masabb Dumyat (Damietta Mouth) | 11/02/2021 |
| 3400 | 3504 | Ra's al Muraysah to Al Iskandariyah | 11/02/2021 |
| 240 | 3549 | Approaches to Port Said (Bur Sa'id) | 04/03/2021 |
| INT Charts to be published in the next six months | | | |
| 4300 | 300 | Mediterranean and Black Seas | |
| 4302 | 302 | Mediterranean Sea Eastern Part | |
| 1561 | 3671 | Ports in Lebanon | |
| 355 | 3362 | Port of Genova East Part | |
| 2742 | 3252 | Ceuta | |
| 2244 | 3190 | Monaco and Approaches | |
| 2245 | 3191 | Villefranche-sur-Mer to Menton | |
| 2246 | 3199 | Cap d'Antibes to Cap Ferrat including Baie des Anges and Rade de Villefranche | |
| INT Charts scheduled for independent withdrawal in the next six months | | | |
| | | Unknown | |

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 MBSHC region.



ENCs

3.4 Within the MBSHC region, the UKHO has released a total of 370 ENC cells.

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

ENC totals by usage band as produced by UKHO

| MBSHC Region Released Cells | |
|------------------------------------|---------------------------|
| ENC Usage Band | Number of GB ENC's |
| Usage Band 1 | 0 |
| Usage Band 2 | 18 |
| Usage Band 3 | 51 |
| Usage Band 4 | 100 |
| Usage Band 5 | 165 |
| Usage Band 6 | 36 |
| Total Number of ENCs | 370 |

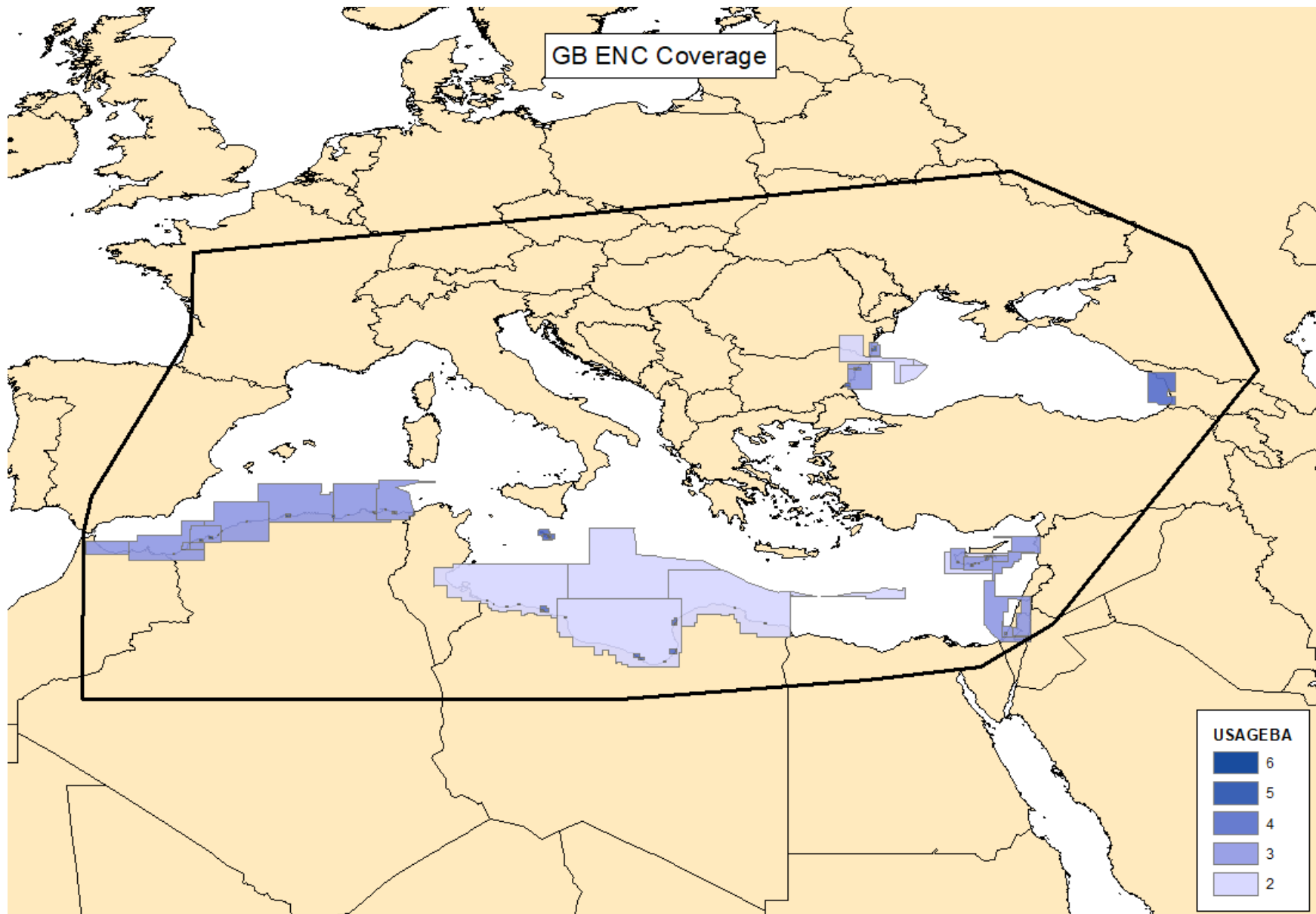
The tables below show revisions to GB ENC coverage for the MBSHC Region during 2019/21.

| New Cells June 2019 - May 2021 | Week No. |
|---|-----------------|
| Nil | |

| Cancelled Cells June 2019 - May 2021 | Week No. | Replacements |
|---|-----------------|---------------------|
| GB202232 | 21_19 | RO2350BS |
| GB300186 | 23_20 | AL300001 |
| GB300188 | 23_20 | AL300001 |

| | | |
|----------|-------|--|
| GB301578 | 08_20 | ME3MNE01 |
| GB302122 | 25_19 | TN313208 |
| GB331420 | 34_19 | MT300194 |
| GB400205 | 47_19 | AL400003 |
| GB401578 | 46_20 | ME4BARAN |
| GB401585 | 18_21 | 11400351,11400352,11400353,11400354,11400355 |
| GB41590A | 47_19 | AL400002 |
| GB41590B | 47_19 | AL400001 |
| GB41591A | 49_19 | 11400311 |
| GB41591B | 39_19 | 11400313 |
| GB53142C | 26_20 | MT500177 |

The subsequent diagrams illustrate the current coverage of GB ENC's within the MBSHC Region.



ENC Distribution

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

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 ADMIRALTY website (www.admiralty.co.uk).

4. PUBLICATIONS

Paper Publications

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

NP48 Mediterranean Pilot
NP24 Black Sea and Sea of Azov Pilot
NP49 Mediterranean Pilot
NP46 Mediterranean Pilot
NP45 Mediterranean Pilot

New Editions Published since last MBSHC meeting June 2019:

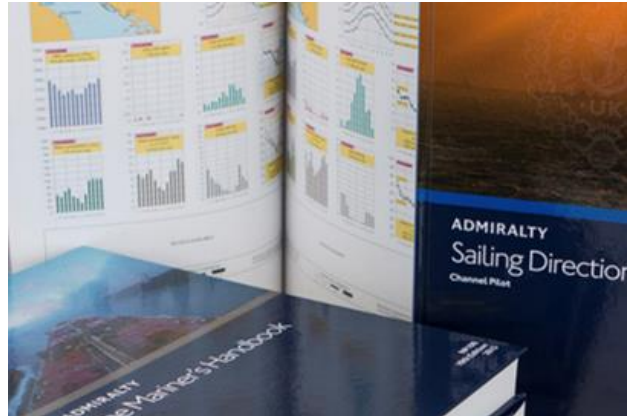
NP48 Mediterranean Pilot 22nd August 2019
NP24 Black Sea and Sea of Azov Pilot 15th August 2019
NP49 Mediterranean Pilot 15th October 2020
NP45 Mediterranean Pilot 15th April 2021

New Editions to be published:

NP46 Mediterranean Pilot 22nd July 2021
NP48 Mediterranean Pilot 22nd October 2021 **to be confirmed**

These publications are all maintained on a continuous revision cycle and new editions are published every 3-5 years or as required.

Full details of the ADMIRALTY publication range and their status can be found on the ADMIRALTY website (<https://www.admiralty.co.uk>).



Digital Publications

4.2 The UKHO 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.

- **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. MSI

5.1 The UK's principal responsibility in the MBSHC region is for the British Overseas Territory of Gibraltar and Cyprus SBA.

5.2 UK maintains close liaison with Spain, the coordinator for NAVAREA III (covering the Mediterranean area). UK also maintains close liaison with France, the coordinator for NAVAREA II (covering the western part of the Straights of Gibraltar).

5.3 GMDSS. GMDSS coverage in the MBSHC region is generally robust and administrations should be encouraged to develop and maintain their capabilities and infrastructure and continue to provide at least Phase One hydrographic capability to promulgate MSI in a timely and efficient manner. This can be achieved by utilising existing National Co-ordinators for MSI within each littoral state in the region and fostering direct liaison with NAVAREA Co-ordinator for Navigational Warnings and with Regional Hydrographic Offices.

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 UKHO website.

6. C-55 LATEST UPDATE

6.1 As described in the UK Generic National Report, UK is committed to providing regular updates to the C-55 entries for UK Home Waters and its Overseas Territories, including, within the MBSHC area. The latest status is correctly outlined within C-55.

6.2 UK has also provided assistance to other countries to update C-55 entries, where UKHO retains the primary charting responsibility; recognizing that local input remains critical to the maintenance of C-55 as an up-to-date and authoritative reference document.

7. CAPACITY BUILDING

7.1 The UK fully supports the IHO Capacity Building Sub-Committee (CBSC) strategy, particularly its emphasis on getting Phase 1 and appropriate Phase 2 capacity in place to enable coastal states to meet their obligations under SOLAS Chapter V Regulations 4 and 9. The UK will continue to contribute resources to both CBSC initiatives and to providing bilateral assistance.

7.2 The UKHO has a post dedicated to International Capacity Building. Its key aims are to ensure that capacity building is properly considered in the UKHO activity and that the UKHO's capacity building activities are fully coordinated. It acts as the initial point of contact for the UKHO involvement in IHO capacity building activities, including UK involvement in regional hydrographic commission initiatives and IHO CBSC activities.

Cartographic Training provided by UKHO

7.3 The UKHO provides two annual CAT B accredited nautical cartography training opportunities to FGHO students. These are the IHO-NF GEOMAC Project course which is funded by the Nippon Foundation and the newly established UKHO course. Applications for the Nippon Foundation course are by



responding to the IHO Circular Letter on the subject (this year it was CL09 /2020). The UKHO invites participants to its version of the course as part of bilateral arrangements. Due to the ongoing COVID-19 pandemic the UKHO have postponed the Nippon Foundation funded course scheduled to begin September 2020 and will run September 2021, with further courses running in February and September 2022. From the MBSHC region, Malta and Romania are participating in the Nippon Foundation course that has been rescheduled to commence September 2021.

The UKHO recognises the importance of continued training and to enable continued activity have developed a new Learner 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. As a result of this the UKHO are currently running a series of virtual courses which started with an introductory series in March 2021. The first phase of this blended learning has seen over 500 delegates study three topics:

- Compiling for Navigational Safety
- Introduction to S-57
- Understanding ENCs.

ENC Training and Assistance

7.4 The UKHO strongly supports the successful uptake of ECDIS using ENC, and is happy to assist other nations to produce, maintain and distribute ENCs. Details of courses, sponsorship, venues and options for bespoke training provided by the UKHO are included in the UK Generic National Report.



Survey Training at Commander Fleet Operational Training - Hydrography, Meteorology and Oceanography

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

8. OCEANOGRAPHIC ACTIVITIES

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

8.2 The UKHO participates on the IHO Tides, Water Levels and Surface Currents Working Group (TWCWG). Part of the WG activities involve Member States activities and experiences with long term [permanent] 'National' Tide Gauge Networks.

The UKHO is not directly tasked with owning and operating these at the UK national level - this is the remit of the National Tidal and Sea Level Facility (NTSLF, www.ntsrf.org) operated by the UK Environment Agency.

8.3 Further details are described in the UK Generic National Report.

9. SPATIAL DATA INFRASTRUCTURES

9.1 Status of MSDI. The UKHO has recently adopted the UNGGIM IGIF as a means of auditing its work so far in establishing an MSDI and prioritising future activities. The UKHO's aspiration is to have established itself as the de-facto owner of the UK's MSDI by 2022. This aspiration has led to a review of the UKHO's internal data platforms and Marine Data Portal.

9.2 Relationship with the NSDI. The UK does not yet have a recognised NSDI however, a UK Geospatial Commission was established in 2017 with partner bodies consisting of several national geospatial agencies, including the UKHO. This Commission is focused on unlocking the value of geospatial data within the UK and is currently establishing a UK Geospatial Strategy which is likely to form the foundation of a NSDI soon. The Commission is currently supporting several collaborative projects being undertaken by the UKHO which all have strong links to NSDI principles.

9.3 Involvement in regional or global MSDI efforts. The UKHO is an active member of the UNGGIM and OGC groups which contribute towards Global MSDI activities and methodologies. The UKHO is also a member of the IHO MSDI Working Group as highlighted in Para 11.7 of this document as well as most of the MSDI Working Groups within the Regional Hydrographic Commissions for which the UKHO has membership of. The UKHO represents the UK on the UNGGIM Working Group on Marine Geospatial Information and has recently agreed to lead UK input into the UNGGIM-Americas Caribbean Geospatial Development Initiative (CARIGEO).

We are actively working at creating a domain with the appropriate standards to support national and international MSDIs, a good example is our sponsorship of S-121 a pilot project to develop a standard for the exchange of Maritime limits and boundaries.

9.4 National implementation of the Shared Data Principles - including any national data policy and impact on marine data. The UKHO is actively engaged with a project directed by the UK Geospatial Commission to improve the handling and publication of Government datasets. This work involves improving the discoverability of data as well as working towards a set of shared principles within UK Government. The UKHO also continues to produce Electronic Navigational Charts to the IHO S-57 standard which contains a defined structure for metadata and the modelling of maritime related features. Work is ongoing to transition to the future IHO S-100 standards.

9.5 MSDI national portal. The UKHO has a Marine Data Portal which continues to grow and develop. As the organised gateway to our non-navigation data and services it gives people easy and timely access to marine location-based information from seabed to surface to help them with sustainable marine decision making. The Portal allows users access to several free of charge datasets and services mainly covering the UK territorial waters. The Portal provides access to premium data sets which can be purchased. The underlying Marine Data Portal technology has the capability to host other agencies', or even other nation's datasets.

9.6 Best practices and lessons learned. The UKHO, via the UK Geospatial Commission, is leading on a limited-scope Governance project to inform, guide and direct effective joint working between the participating UK agencies. The project will draw upon suggested Best Practices as represented via the UN-GGIM IGIF with a focus on technology-agnostic Governance between formal institutions, which may be extended across the Geospatial Commission in due course subject to circumstances.

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

9.7 Challenges and achievements. As part of the UK Geospatial Commission collaborative projects, the UKHO and other partners have made more public geospatial data available through a government hosted website data.gov.uk and are now:

- Looking at ways of standardising data licensing agreements;
- Improving the discoverability of national geospatial data;
- Providing guidance to better link geospatial data sets; and
- Increasing the range of data which is ingested.

10. INNOVATION

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

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

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

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

11. OTHER ACTIVITIES

UK Celebrations for World Hydrography Day (WHD)

11.1 The UKHO celebrates World Hydrography Day. In 2020, UKHO recognised the achievements of Indonesia's Chief Hydrographer, RAdm Harjo Susmoro with the Alexander Dalrymple Award. In January 2021 UKHO hosted a virtual ADMIRALTY Blue Data Conference focused on "Enabling Autonomous Technologies."

Broader UK Government Work

11.2 The UK Member State, consisting of the UK, the Overseas Territories and Crown Dependencies, will be audited in 2021 (delayed slightly from late 2020 due to issues surrounding COVID-19) against the IMO Instrument Implementation Code's (IIC) and Mandatory IMO Member State Audit Scheme (MIMSAS). This has raised awareness of the importance of maritime compliance and the benefits to everyone. To complement the work of the UKHO's OT Seabed Mapping Programme, the UK Maritime and Coastguard Agency have a UK Government aid funded programme to review maritime obligations compliance, search and rescue and oil pollution response.

11.3 The Commonwealth Litter Programme (CLiP), is led by the UK through the Centre for Environment Fisheries and Aquaculture Science (Cefas). Funded by the UK Department for Environment, Food and Rural Affairs, the programme will support four developing countries across the Commonwealth to take action on plastics entering the oceans. The programme will contribute to the UK meeting its responsibilities under the Commonwealth Blue Charter, which calls for Commonwealth countries to drive action and share expertise on issues affecting the world's oceans, including marine litter. CLiP will contribute to delivering the objectives under the UK and Vanuatu-led Commonwealth Clean Oceans Alliance (CCOA), which calls on other countries to pledge action on plastics. CCOA also promotes actions in line with the United Nations Sustainable Development Goal 14 (life below water) to conserve and sustainably use the oceans, as well as

contributing to the UK Government's 25 Year Environment Plan. The programme will work in the South Pacific, Caribbean and Africa. In May 2019, work began in Belize.

The programme encompasses the following five pillars:

- Land based sources of litter;
- Sea based sources of litter;
- Removal of litter from the marine environment;
- Science and Education; and
- Outreach.

11.4 The UK's Joint Nature Conservation Committee continues its work in the Overseas Territories, providing technical assistance to support biodiversity and wider environmental management strategies and scientific advice. Their UK Government aid funded programme, Natural Capital in the Caribbean and South Atlantic Overseas Territories, uses economic assessments and analysis, spatial mapping and satellite data to provide an assessment of natural capital in a few the UK's Caribbean and South Atlantic Overseas Territories.

11.5 The 2020s have been designated by the United Nations as the Decade of Ocean Science for Sustainable Development. In addition, the G7 at the 2018 summit in Charlevoix, Canada also recognised the importance of the oceans by publishing the Charlevoix Blueprint for Healthy Oceans, Seas and Resilient Coastal Communities. Seabed Mapping is a key component to both. The UK has now taken on the Presidency of this year's G7 summit which is being hosted in Cornwall; 11-13 June 2021. This summit seeks to continue the narrative of creating a sustainable and prosperous future for our global ocean. This theme will then continue into the COP26 UN Climate Conference in November 2021, which is also being hosted by the UK Government, in Glasgow.

11.6 In 2019, the UK Department for Transport published its *Maritime 2050 (M2050) Navigating the Future* strategy. Along with the Government Office for Science's (GO Science) Foresight Future of the Sea Report, M2050 recognises the critical role of the maritime sector for the growth and development of the UK, including its Overseas Territories, as a primary facilitator of global trade. Both pivotal documents also recognise that marine geospatial data is essential to unlocking a sustainable and prosperous global blue economy and that the UKHO is a world leading authority in this area. The UKHO is currently working to bring together all the stakeholders in the UK's Marine Geospatial Community to ensure we have a comprehensive and inclusive approach to pursuing and developing opportunities to deliver against national and international priorities.

The UKHO's International Activities

11.7 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 |
| TWCWG | Tides, Water Level & Currents Working Group | x | x |
| HSWG | Hydrographic Survey Working Group | x | x |
| ABLOS | Advisory Board on the Law of the Sea | | x |
| International Hydrographic Organization - IRCC | | Chair/Vice Chair | Member |
| IRCC | Inter-Regional Coordination Committee | | x |

| | | | |
|--|---|-------------------------|---------------|
| CBSC | Capacity Building Sub-Committee | | x |
| CSBWG | Crowd-sourced Bathymetry Working Group | | x |
| MSDIWG | Marine Spatial Data Infrastructure Working Group | | x |
| WENDWG | Worldwide ENC Database Working Group | | x |
| WWNWS | Worldwide Navigational Warning Service | | x |
| GEBCO | General Bathymetric Chart of the Oceans | | x |
| HCA | Hydrographic Commission on Antarctica | | x |
| MACHC | Meso American and Caribbean Sea Hydrographic Commission | x | x |
| MBSHC | Mediterranean and Black Seas Hydrographic Commission | | x |
| NIOHC | North Indian Ocean Hydrographic Commission | | x |
| NSHC | North Sea Hydrographic Commission | | x |
| SAHC | ROPME Sea Area Hydrographic Commission | | x |
| SAIHC | Southern African and Islands Hydrographic Commission | x | x |
| SWPHC | South-West Pacific 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 | UNGGIM Working Group on Marine Geospatial Information | | x |
| WGMGI | | | |
| CARIGEO | Caribbean Geospatial Development Initiative | | x |

12. CONCLUSION

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. The particular challenges facing MBSHC are those of capacity building and the provision of adequate chart coverage for the region. The provision of adequate ENC coverage in support of the IMO carriage requirement for ECDIS that came progressively into force from 2012 presents a challenge in the MBSHC region as well as others.

When MBSHC met in Cadiz in June 2019, none of us could have predicted the way in which the COVID-19 pandemic would transform the world. Much has changed in the space of a year. The global pandemic and associated economic shock has required us all to focus on critical activities while taking extra care to sustain one another during a most uncertain and rapidly evolving situation.

One area which has remained constant for the UKHO, and indeed the wider hydrographic community, is our commitment to serving the needs of the mariner. We have witnessed outstanding professionalism and enormous dedication across the world. Long may this continue.

While adhering to UK Government guidelines to delay the spread of COVID-19, UKHO implemented a range of precautionary measures including staff moving to a 'working from home' arrangement. We formalised our approach to prioritisation, recognising the critical importance of SOLAS and related products. In this regard, UKHO continues to enable safer

navigation by revising and maintaining existing paper and electronic portfolios of charts and publications; and introducing new adoptions, New Charts, New Editions and New Cells, where appropriate.

The challenges of the year mean that we did not achieve everything we set out to do, with some plans curtailed, others postponed and zero opportunity for in-person engagement with our partners and colleagues. However, new ways of working have also provided opportunities to innovate. Our Innovation Programme offers significant opportunity for the non-navigational use of hydrographic data and gives tangible opportunities for the identification and best use of our technical acumen to mitigate the impact of shipping on our planet.

Notwithstanding the ongoing challenges of the pandemic, in 2021 UKHO started to deliver a range of new, online courses to support the ability of Member States to support safety and efficiency of maritime navigation.

The UKHO remains committed to the MBSHC region. This commitment is demonstrated through its primary charting responsibilities, its continuing interest in developing regional hydrographic self-sufficiency through capacity building measures and, through its commitment to the Overseas Territories Seabed Mapping Programme.

Taunton, 11 May 2021

UKHO POINTS OF CONTACT

UKHO Website: GOV.uk/UKHO

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