General Lighthouse Authorities

The United Kingdom and Ireland

Aids to Navigation Review 2025-30

The tri-GLA Aids to Navigation Review has been undertaken by:-
Irish Lights | **Northern Lighthouse Board** | **Trinity House**

Commissioners of IRISH LIGHTS | Navigation and Maritime Services

Northern Lighthouse Board

TRINITY HOUSE

Aids to Navigation Review 2025-30

Undertaken by the General Lighthouse Authorities:

Commissioners of Irish Lights
Northern Lighthouse Board
Trinity House

1 Contents

2 Introduction

The three General Lighthouse Authorities (GLA); the Commissioners of Irish Lights, the Northern Lighthouse Board and Trinity House, operate an integrated aids to navigation service throughout the coastal waters of Britain and Ireland. This service is delivered to recognised standards set by the International Organization for Marine Aids to Navigation (IALA) in order to meet the responsibilities of the British and Irish Governments under the International Maritime Organization (IMO) Safety of Life at Sea Convention (SOLAS).

The mandate of the GLA and their statutory responsibility is to provide sufficient aids to navigation to mitigate risks to navigation and protect the marine environment. The GLA are required to provide an efficient service and therefore work with Government, shipping interests, and other stakeholders to minimise costs where possible.

This is the sixth time the GLA have conducted a formal, simultaneous and coordinated review and assessment of all the Aids to Navigation (AtoN) under their responsibility. This review addresses the current and anticipated future requirements for the safe passage of domestic and international shipping, both commercial and leisure. It also addresses the requirements for the GLA to provide a seamless aids to navigation service in a shared and increasingly congested sea space.

The GLA Marine Aids to Navigation Strategy to 2040 (2040 Navigating the Future), forms the strategic foundation for this Review. In the strategy the GLA recognise that the future maritime environment is likely to be very different to today, but that our Islands will continue to depend almost entirely upon trade by sea. 95% of our trade currently moves by sea and this is not expected to change significantly in the next 20 years. Increasingly complex and congested use of the maritime space will require careful consideration of the requirement for aids to navigation with the potential for different technological solutions that enable greater interaction with vessels.

Various policy considerations that are reflected in this Review can be found in the GLA Joint Navigation Requirement Policies (JNRP) and the Tri GLA Marine Navigation Plan 2040 (2024). Key is the continued recognition that five years is an appropriate periodicity for these reviews. While the rate of change in navigational risk varies geographically depending on a number of factors including the degree of risk and volume of traffic, the GLA agree that a review every five years continues to be sufficient to underpin effectively both short and longer term requirements across the entire operational area.

The General Lighthouse Authorities provide aids to navigation for all types of mariners; the traffic mix comprises vessels of many sizes and performance levels

When assessing the requirement, the principles applied are that the amount, mix and nature of AtoN provided must be:

- Commensurate with the volume and nature of the traffic
- Appropriate for the degree of navigational risk
- Integrated and cost-effective
- Compliant with internationally accepted standards

The priorities in applying such principles are:

- The safety of life at sea
- Safe passage of shipping
- The protection of the marine environment
- Environmentally sustainable solutions
- The maintenance of trade

Each AtoN has been studied in isolation as well as in relation to the other AtoN in its vicinity which is referred to as the “mix” of AtoN. While the need for cost effectiveness has been noted, this review has nonetheless been predicated only on the navigational requirement. Cost effectiveness is therefore a consideration in the delivery of the resulting AtoN service.

The GLA provide AtoN for all types of mariners; the traffic mix comprises vessels of many sizes and performance levels. Across all classes, the GLA note an alarming and overwhelming reliance on GPS with its inherent vulnerabilities to man-made interference and space weather. The GLA consider this over reliance on electronic navigation techniques, combined with increasing Cyber Security threats, to represent a major risk to the safety of navigation and to the environment around our coasts.

The GLA also recognise that key to the ongoing success in AtoN service delivery is the requirement to adapt to climate change and to provide a sustainable service that respects nature. The GLA have undertaken to meet, and where possible, exceed climate change targets and our service delivery seeks to minimise our impact on the environment.

3 Review process

3.1 Start of review process

The 2025 AtoN Review was formally announced at the Joint User Group (JUG) meeting in London on 18 May 2023.

3.2 Conduct of the 2025 Review

Each GLA has carried out a review of its own area of responsibility. Where the boundaries of two or even all three GLA meet, a co-ordinated view of the AtoN mix across boundaries has been taken.

In producing the recommendations contained in the Review, the GLA have:

- Carried out their own internal study of the AtoN in their area of responsibility.
- Followed a review process in compliance with IALA recommendations and guidelines.
- Completed an identical risk assessment process including common risk assessment forms and signoff procedures.
- Assessed AtoN individually and then as part of a 'mix'.
- Shared their individual findings with the other two GLA for assessment, cross examination and comment.
- Through distribution of a Notice to Mariners (NtoM), involved users in initial discussions and sought their feedback on key changes/ recommendations. Users were formally consulted during 2023/2024 both for input into the review and to comment on the draft proposals.
- Listened to user feedback and initiated a number of changes as a direct result.
- Formally briefed the individual GLA User Groups on the outcomes/recommendations.

3.3 Transfers of AtoN to LLA and period of transfer

In the case of transfer of AtoN to a Local Lighthouse Authority (LLA) it is possible that all recommendations may not be fully completed within the period of the Review. It is important that there is an orderly transfer of such AtoN and that they are transferred in good condition.

3.4 Determining the Navigational Requirement

The following principles have been applied to determining the requirement for AtoN in this review.

- Visual and radio AtoN are generally considered as complementary to and an essential back-up system for Global Navigation Satellite Systems (GNSS).
- Physical aids are important for both offshore and inshore spatial awareness and hazard marking.
- For navigation other than pilotage, having one AtoN in view is generally acceptable.
- A maximum nominal range of 18 miles is considered sufficient for most lighted visual AtoN.
- Leading lights, sectored lights and Precision Directional Lights (PDL) remain important.
- Fog signals are no longer considered to be AtoN and are only used as hazard warning signals.
- Use can be made of sequential and synchronised lights.

3.5 Methodology

As in previous reviews, the coasts of UK and Ireland have been divided into 21 areas. Areas 1 to 8 are the responsibility of Northern Lighthouse Board. Areas 9 to 14 are the responsibility of Trinity House and areas 15 to 21 are the responsibility of Irish Lights.

When determining the requirement for AtoN and conducting risk assessment:

- Both qualitative information and quantitative data have been used.
- AIS analysis has been used to determine the volume, type, individual track and patterns of traffic.
- Collisions & groundings data provided by the MAIB has been used.
- Use has been made of Geographic Information Systems (GIS) overlay tools.
- Information has been incorporated from RYA cruising routes and other sources affecting the safety of the Mariner, including proposals for Oil and Gas, Renewable Energy and Aquaculture developments.
- The risk assessment process has been applied to both individual AtoN and to groups of interrelated AtoN.

The GLAs have cross checked their risk assessments and recommendations with each other. Where changes have resulted, full written risk assessments have been subsequently carried out.

The assessment of changes to AtoN and the format of risk assessments conducted have included the following considerations:

- Whether the AtoN is a significant part of a group of aids which may also be affected more broadly by the change.
- An assessment of local bathymetry.
- The frequency and accuracy of hydrographic surveys.
- Traffic density, type, size, draft and speed.
- Traffic patterns considered in relation to conflict between route and types of vessel.
- Existing obstructions and developments.
- Planned new obstructions or developments.
- IMO international and local charted traffic routing measures.
- Port & local information systems e.g. VTS, information service, sailing directions and local Notices to Mariners.
- Local knowledge of users including the availability of pilotage.
- Prevailing weather conditions including the effect on luminous range of regular poor visibility, sea conditions and background lighting.
- Accident or incident history recorded for this station.
- Any other considerations.

4 Factors relevant to the review

4.1 Navigational Issues

4.1.1 Modern Navigation

The GLA must provide an AtoN service for all mariners. At one extreme this includes modern commercial vessels with fully integrated bridge systems that include navigational, communication and safety elements that are combined. The majority of these systems derive their position from satellites and GNSS also provides timing for a wide array of ship systems that are critical to safe passage and general operation. At the other extreme the GLA must provide a safe AtoN service to many users that do not have integrated systems or electronic charts, some will have stand-alone systems including chart plotters, some may use only a mobile phone and indeed some may just use the mark one eyeball. Included in the service must be a level of redundancy in order to ensure safe navigation can continue in adverse conditions. The GLA recognise they play a key role in providing resilience for mariners in being able to derive repeatable and accurate position and navigation information, in particular when GNSS data is either deliberately withheld or interfered with, or is disrupted by natural events such as solar flares.

Similarities in GNSS space-based signals from different constellations mean they are all vulnerable to the same interference. The GLA recognise it is therefore essential to retain a mix of complementary systems, as the fundamental principle of marine navigation is not to rely on a single source of navigation information when alternative sources are available and physical AtoN provide a resilient Position Navigation and Timing (PNT) solution.

4.1.2 Human Factors

The growing use of technology is set to continue and will influence day to day maritime operations, placing different demands on the mariner and the nature of GLA operations. Mariner expectation of digital service provision will increase, as their home use of technology extends to their seafaring. This will add further dependence on digital systems for all aspects of seafaring and increase the importance of human factor concerns such as digital display design.

Accident investigation shows that the misuse of, and over reliance on, electronic display systems and technology for navigation and passage planning leads to accidents. In some incidents a series of clearly identifiable aids to navigation have been ignored in the run up to a serious incident. Increased attention needs to be paid to human factors issues relating to the use of aids to navigation by modern mariners, and while that is beyond the scope of this review, it nonetheless remains germane to the principle of the GLAs providing physical AtoN in an increasingly digital maritime world.

4.2 Shared Marine Space

A key feature of the future of navigation around our coasts is the increase in complexity and congestion in the maritime space. AtoN services will need to adapt to this and there are already measures in this review that result directly from anticipated changes in traffic patterns resulting from new offshore energy development.

4.2.1 Aquaculture

Applications for aquaculture licenses are made to the various Government Departments responsible for such activities for almost every coastal region. Long-established salmon farming has been augmented by the cultivation of other industries including finfish, shellfish and seaweed. The GLA are consulted by the responsible Government Departments with regard to the impact of aquaculture on the safety of navigation in specific coastal areas. This includes the marking and lighting of fish farms, floating structures, cages and trestles.

4.2.2 Fishing

The fishing industry remains an important industry throughout Britain and Ireland, both inshore and offshore. Fishing vessel traffic and its interaction with other users is an important consideration in determining AtoN provision.

4.2.3 Marine Leisure and Tourism

The proliferation of position, navigation, communication and safety platforms and systems available to the maritime leisure industry has increased significantly over recent years. As a result an ever greater number of relatively inexperienced users of the maritime space are provided with tools that allow them to navigate and operate in areas and ways not seen before. The widespread use of GNSS, including Smart Phone Apps, is encouraging mariners of all classes to navigate either closer inshore or closer to dangers, sometimes doing so in conditions of darkness and reduced visibility where they would not have previously ventured. Furthermore, notable collisions between leisure users and buoys have resulted in loss of life and consideration may be required about where it might be best not to place a navigation mark as much as it might be about where to best place them.

At the larger end of the leisure market, There is an increasing number of cruise vessels calling at ports, harbours, and anchorages around our coasts. Parallel to this increase in vessel numbers there has also been an increase in vessel size. Present indications are for cruise tourism around UK and Ireland to continue developing and diversifying. This diversification has already been seen with the arrival of exploration cruise tourism calling to more remote and previously unexplored ports, loughs and estuaries around our coast.

4.2.4 Oil, Gas and Carbon Capture Facilities

Oil and Gas rigs are increasingly being decommissioned or repurposed as Carbon Capture infrastructure. Removal of these rigs will require a reassessment of the provision of AtoN in certain areas; the reverse of the process of disestablishment of stations that occurred some 50 years or more ago when the oil fields were established.

The GLA are aware of projects which will require the establishment of offshore structures in this sector.

4.2.5 Offshore Renewable Energy Installations (OREIs)

There continues to be a proliferation of applications to develop offshore energy sites around our coasts. This trend is increasing as the Governments in UK and Ireland set higher targets for power generation from renewable sources. Many more fixed and floating windfarms are being established. These sites present a particular challenge to the GLA to ensure they can be marked effectively and hat they do not impede the safe navigation of vessels.

In addition, there are experimental wave and tidal energy devices with numerous applications for such sites. These sites are also challenging to mark, particularly wave generators that are often difficult to detect due to their low freeboard.

4.2.6 Routing Measures and Traffic Separation Schemes (TSS)

There are ten TSS adopted in the UK and Ireland. These are situated in the Approaches to The Humber, Dover Straits, the English Channel, Scilly Isles, Smalls, Anglesey, North Channel (Rathlin Island), Fastnet, Tuskar and The Little Minch. Associated with TSS there may also be Inshore Traffic Zones (ITZ). A Deep Water Route for tankers exists West of the Outer Hebrides. The routes are well established and well marked, although some changes are being proposed in the Dover Straights in this current review.

4.3 Technology Issues

4.3.1 Automatic Identification System (AIS)

Navigational safety can be enhanced using AIS as an AtoN. An AtoN transmitting AIS is capable of display on the bridge Electronic Chart Display and Information System (ECDIS) and Radar.

It is also possible to use both shore based and floating aids to provide meteorological and hydrological information.

The GLA are aware that the number of Mariners capable of seeing the AIS AtoN on an appropriate display is increasing, but that there remain a

significant number of users that are not required to carry AIS, including the leisure, fishing and smaller commercial vessels.

4.3.2 Virtual AIS AtoN

A virtual AIS AtoN is transmitted from an AIS base station to establish an aid to navigation that does not physically exist. A digital information object appears on navigational systems in a specified location. The AIS message will clearly identify the object as a Virtual AIS AtoN.

Virtual AtoN are particularly useful in time-critical situations and in marking/delineating dynamic areas where navigational conditions change frequently or in applications where the use of physical aids is not practical or possible. For example, it may be appropriate to create a virtual AtoN to mark hazards to navigation on a temporary basis until a more permanent AtoN can be established.

Given that not all users have access to AIS, the GLA policy remains that virtual AIS AtoN should not be generally used for permanently marking a feature where it is possible to deploy a physical AtoN. Virtual AtoN may nonetheless be considered for marking an object or feature where:

- It is physical difficult to mark e.g. deep water, harsh sea conditions.
- It is economically unreasonable.
- In cases where the seabed is highly mobile due to current or weather effects or where the object or feature is impossible to maintain as charted because of changes that occur over time.

4.3.3 Web Based AtoN

Some small harbours and marinas have entered into commercial contracts with system providers that display aids to navigation solely on web-based navigation systems for the use of their customers. These include versions of Virtual AIS AtoN licenced by OFCOM and showing correct MMSI numbers. The GLA are unable to monitor or verify these systems and will not be providing AtoN in this manner.

4.3.4 Power Sources (Green Energy)

The GLA are committed to continuing to invest in green energy solutions, including solar power, wind power and alternative fuel sources, for our AtoN.

4.4 Future Developments

4.4.1 Marine Automated Surface Ship (MASS)

Autonomy and automation will play a key role in the future maritime sector in the form of Marine Autonomous Surface Ships (MASS), Autonomous Underwater Vehicles (AUV), and more bespoke Marine Autonomous Systems (MAS). AtoN will continue to be central to safe navigation and the operation of MAS/S and AUV. Autonomous systems are currently being designed to leverage the existing mixture of physical and virtual AtoN and AtoN will need to be developed in future that have growing capability to interact with MASS.

5 Contacts

Any comments or observations on the Review may be sent to the appropriate GLA, as follows:

Comments in respect of Areas 1 - 8

Director of Operations

Northern Lighthouse Board

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Email: navigation@nlb.org.uk

Comments in respect of Areas 9 - 14

Director of Navigational Requirements

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Comments in respect of Areas 15 - 21

Director of Navigation, Maritime and Consenting

Commissioners of Irish Lights

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Ireland

Email: navigation@irishlights.ie

6 References

The following publications have been referred to during completion of the Review. The most recent version of each document has been used in each case.

- EU Directive for Maritime Spatial Planning.
- Admiralty Charts, UKHO.
- Admiralty List of Lights, Volume A, NP74, UKHO.
- Admiralty List of Radio Signals, Volume 2, NP282, UKHO.
- Admiralty Sailing Directions, UKHO.
- 2040 Navigating the Future, GLA, 2022.
- Joint Navigation Requirements Policy.
- Marine Navigation Plan 2040 GLA 2024.
- Corporate Plans of Irish Lights, Northern Lighthouse Board, Trinity House.
- Safe Seas – Connected Coasts, Irish Lights Strategy 2018-2023
- IALA Recommendations, Guidelines and Standards.
- IMO Circulars.

7 Abbreviations

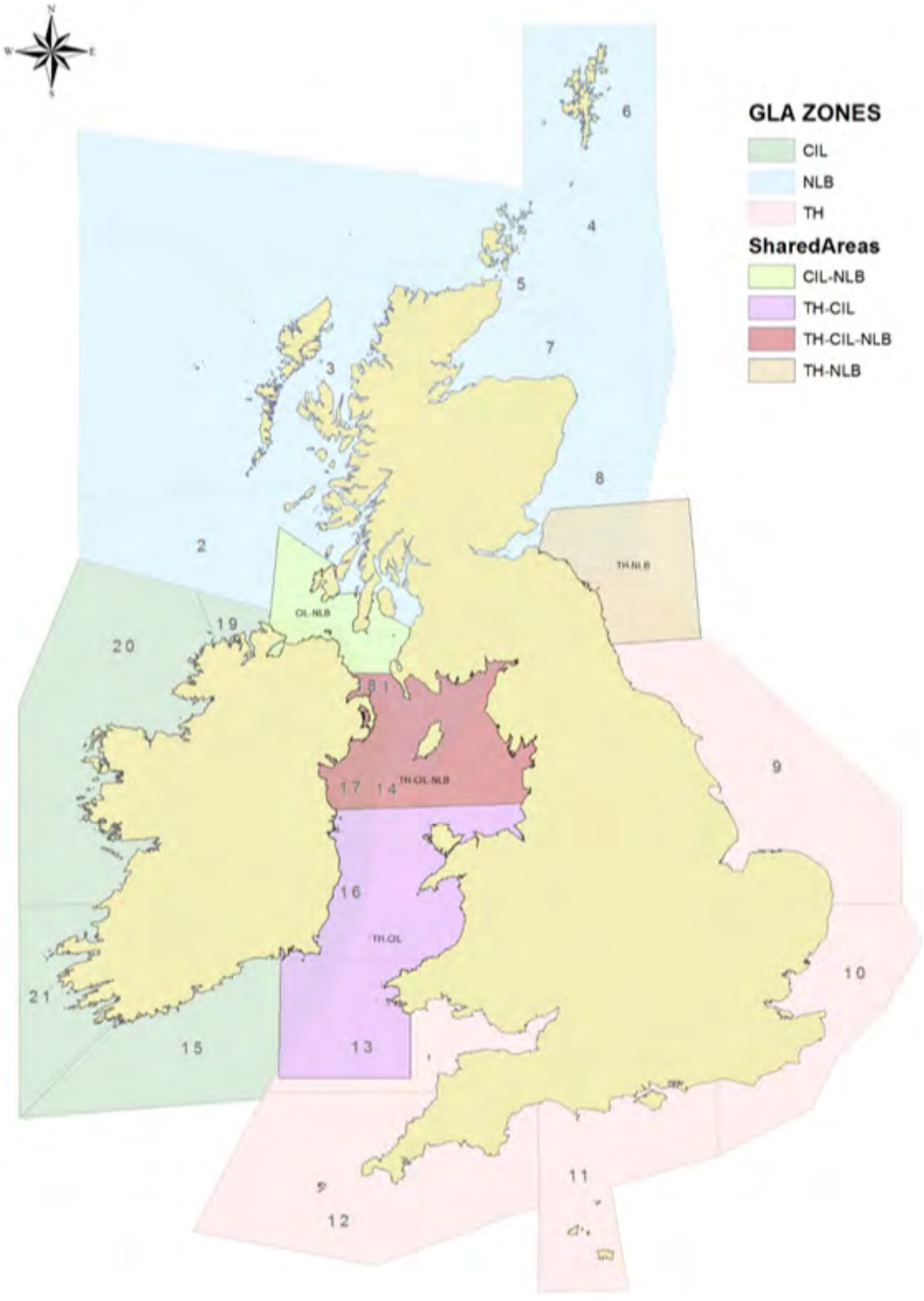
AIS	Automatic Identification System
AtoN	Aid(s) to Navigation
ECDIS	Electronic Chart Display and Information System
EPIRB	Emergency Position Indicating Radio Beacon
F	Fixed
Fl	Flashing
G	Green
GLA	General Lighthouse Authorities
GMDSS	Global Maritime Distress and Safety System
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
IMO	International Maritime Organization
Iso	Isophase
ITZ	Inshore Traffic Zone
L Fl	Long Flash
Ldg Lts	Leading Lights
LED	Light Emitting Diode
MAIB	Marine Accident Investigation Branch
nM	Nautical Mile
Occ	Occulting
OREI	Offshore Renewable Energy Installations
PDL	Precision Directional Light
PNT	Position, Navigation and Timing
Q	Quick Flashing
R	Red
Racon	Radar Beacon
SAR	Search and Rescue
SOLAS	Safety of Life at Sea (IMO Convention)
TSS	Traffic Separation Scheme
W	White

8 List of review areas

Area 1	Isle of Man, North Channel, Clyde
Area 2	Mull of Kintyre to Ardnamurchan
Area 3	Ardnamurchan to Barra Head; Cape Wrath to The Flannan Isles
Area 4	Scotland N. Coast, Orkney Is (exc. Pentland Firth)
Area 5	Pentland Firth
Area 6	Shetland Islands
Area 7	Noss Head to Rattray Head
Area 8	Rattray Head to St Abbs Head
Area 9	Berwick to Sizewell (Sub-divisions B1, B2, B3)
Area 10	Sizewell to Shoreham (Sub-divisions C1, C2, C3)
Area 11	Shoreham to Lyme Regis (Sub-divisions D1, D2)
Area 12	Lyme Regis to Bude (Sub-divisions E1, E2)
Area 13	Bude to Cardigan (Sub-divisions F1, F2, F3)
Area 14	Cardigan to Silloth (Sub-divisions G1, G2)
Area 15	Fastnet to Tuskar
Area 16	Tuskar to Baily
Area 17	Baily to St John's Point Down
Area 18	St John's Point Down to Rathlin Island
Area 19	Rathlin East to Tory Island
Area 20	Tory Island to Loop Head
Area 21	Loop Head to Fastnet

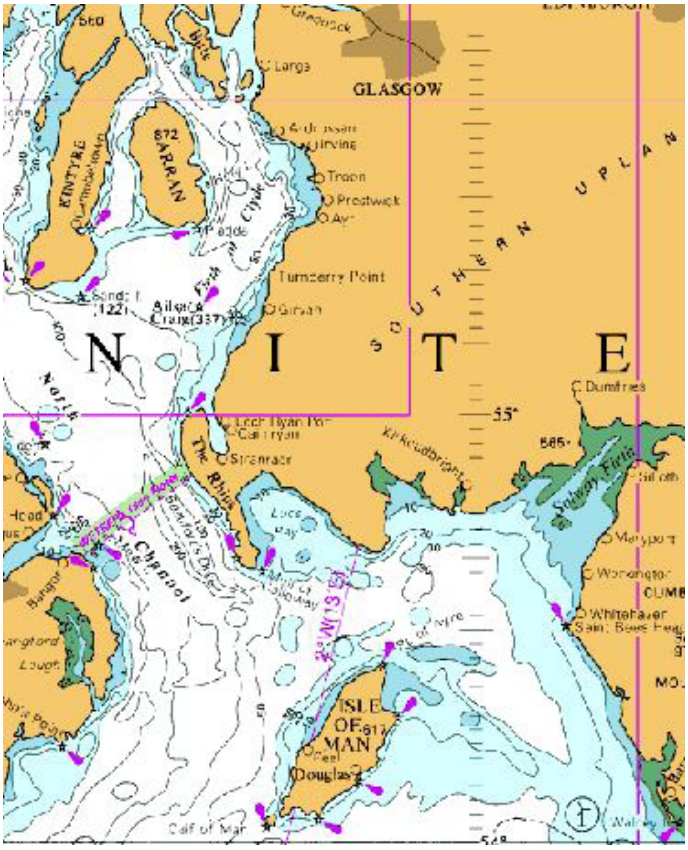
9 Inter-GLA Diagram covering Review Areas

Navigation Review Area with GLA Contiguous Zones



10 Review of Northern Lighthouse Board Areas (1-8)

Area 1: Isle of Man, North Channel and Clyde



OVERVIEW

The Isle of Man, lying mid-way between the coasts of Cumbria and Northern Ireland, mainly consists of hills with east-west valleys. The North of the island is low lying and flat with banks and shallows offshore whilst the southern end of the island is heavily indented by small bays with isolated offshore drying rocks.

The eastern part of the Solway Firth is low lying with shallow waters, numerous drying banks and shifting sands. As the coast runs west it becomes mainly bold and rocky, indented by bays rising to steep cliffs at the Mull of Galloway and along the Rhinns edging the North Channel, which is deep and unobstructed but experiences strong tidal flow. The Firth of Clyde, also deep and generally unobstructed, has a high and rocky coast and some sandy beaches on its eastern shore. The Firth has a number of rocky islands rising from its deep waters; Arran, Sanda and Pladda on its N and W edge and Ailsa Craig in the middle of an otherwise clear channel.

Douglas serves the needs of the Isle of Man with Ro-Ro and fast ferry, local fishing and coastal bulk cargoes. Kirkcudbright remains an important fishing port for shellfish. Loch Ryan Port and Cairnryan handle RoRo and HSC ferries for Northern Ireland whilst the Clyde ports handle container traffic, crude oil imports, petroleum product exports and bulk materials along with Cruise and MoD vessels. Campbeltown supports timber exports, fishing and small general cargo vessels, in addition to a NATO fuel jetty and a ferry service to Ardrossan. Smaller ports in the area serve the leisure industry, smaller fishing vessels and occasional coastal trade.

There is significant vehicle ferry traffic, linking Arran, Bute and Cumbrae to the mainland, and connecting the peninsulas of the Upper Firth of Clyde.

Traffic of all types (passenger, cargo, leisure and Government) and sizes in significant quantity operate throughout this area, either departing or arriving at local ports or as through traffic transiting the Irish sea, passing west of the Isle of Man and through the North Channel in both directions. Additionally, traffic proceeds to and from major Irish and English ports, passing south and north of the Isle of Man. Fishing occurs throughout the area. There are a substantial number of leisure users who sail in the Firth of Clyde, with smaller numbers in Loch Ryan, the Solway Firth and Isle of Man.

Future developments in the area that may affect AtoN provision include the potential siting of the Mooir Vannin windfarm to the East of the Isle of Man, cumulatively impacting the existing windfarms further South and East.

Marine Protected Areas (MPA) include Special Areas of Conservation (SAC) in the Solway Firth and Luce Bay; Special Protection Areas (SPA) at Ailsa Craig, the Inner Clyde Estuary, and the Upper Solway Flats and Marshes; and Nature Conservation MPAs (NCMPA) at the Clyde Sea Sill, South Arran, and Upper Loch Fyne and Loch Goil. In the Isle of Man there are five Fishery closed or restricted areas, and five Marine Nature Reserves around Ramsey.

TSS: There is no TSS or routing measures in this area.

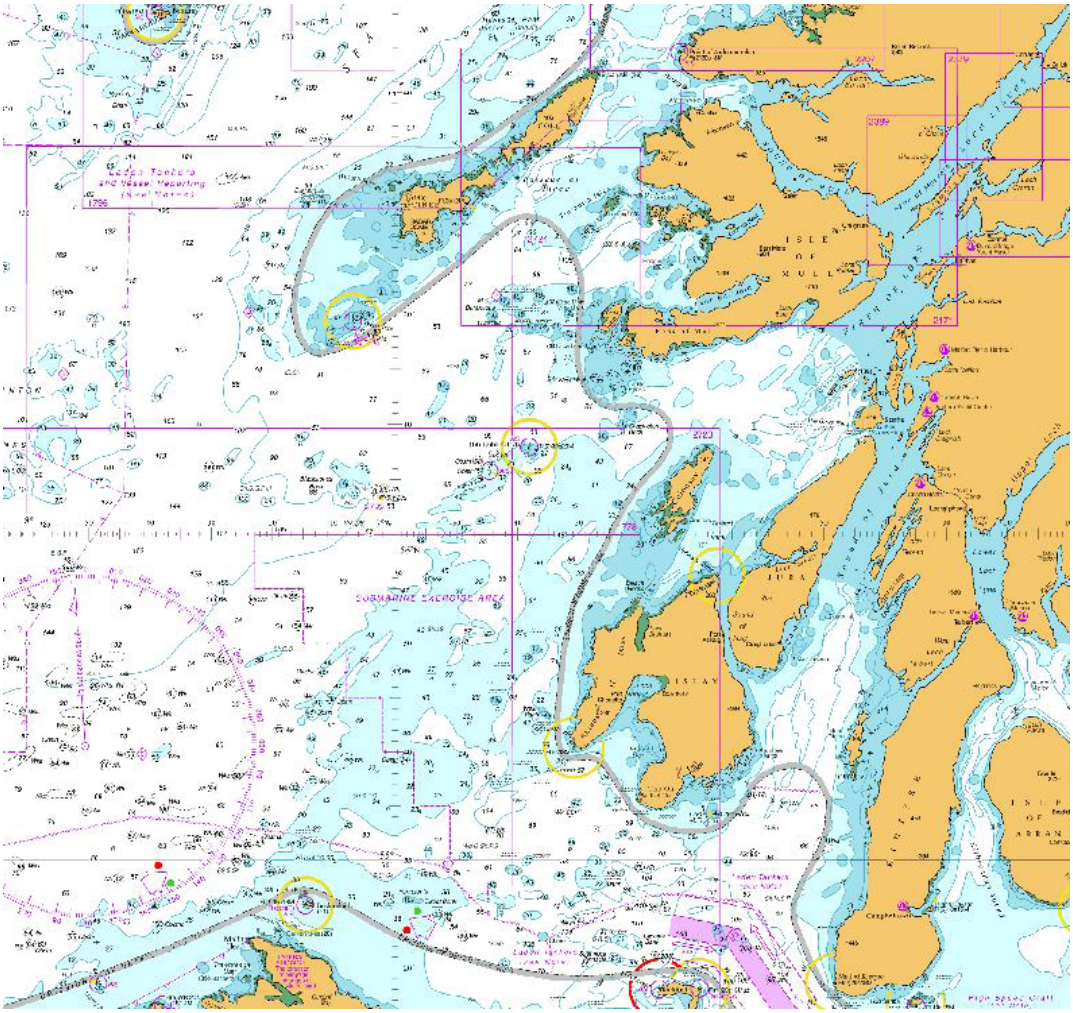
AtoN provided: 22 lights, 17 Buoys, 3 Racons, 3 unlit Beacons, 6 AIS.

PROPOSED CHANGES FOLLOWING 2025 REVIEW

Spit of Scaur buoy	Transfer to Stranraer Harbour Authority
Little Ross	Re-engineer with LED; increase flash length; improve synchronisation with beacon
AIS & Virtual AIS Capability	Add to Corsewall*

* carried forward from 2020 Review

Area 2: Mull of Kintyre to Ardnamurchan



OVERVIEW

The West of Scotland presents an almost uninterrupted succession of deep indentations, fronted by bold rocky cliffs and headlands forming islands, narrows and sea lochs. Drying rocks and reefs are plentiful quite often with deep navigable waters immediately adjacent. The Mull of Kintyre to Ardnamurchan coastline is no exception; exposed directly to the Atlantic Ocean and the full force of winter gales, the coast is frequently obscured by low cloud and driving rain. Strong tidal streams, and eddies can be experienced in narrows and inshore.

Principal ports in the area are Oban and Fort William (Corpach). The former provides a major ferry hub for routes to the islands, fishing, small numbers of general bulk cargo, fish farm support (feed and smolt) and frequent seasonal cruise vessel traffic along with a substantial number of leisure craft. Corpach handles bulk timber and quarry products while Fort William at the South end of the Caledonian Canal sees significant leisure traffic and some cruise vessel visits. Throughout the area, particularly on the islands, there are a number of smaller ferry and coaster berths, fishing harbours and leisure craft moorings & marinas. A quarry terminal at Glensanda operates large bulk carriers.

Local lifeline ferries operate Kennacraig to Port Ellen and Port Askaig; Oban to Colonsay, Port Askaig, Craignure, Lismore, Coll, Tiree & Barra; across the Sound of Mull and to Iona. Lismore and Gigha. There are further council operated ferries at Corran, Luing, Easdale, Fort William and Jura.

Traffic routes have not substantially changed since 2020, however there has been a significant increase

in vessels (ferries, leisure, cruise) visiting Oban Bay in particular. Traffic of all types: passenger ferry, cargo, leisure and Government in small but significant quantity operate throughout this area either departing or arriving at local ports providing essential transport for the economy of the area.

Through traffic falls into two types. Larger vessels remain within the TSS to/from the North Channel and keep to the SW of Skerryvore before turning north to the Minch or heading northwest for the deep water route or west. Smaller coastal vessels often choose to pass through the sound of Islay and to the east of Mull. Fishing occurs throughout the area. The area is popular with adventurous leisure sailors and marina developments have been implemented in Oban, Tobermory and Ulva (Mull).

Marine Protected Areas include SAC in the Firth of Lorn, SE Islay, Sunart, Tayvallich and Treshnish Isles; SPAs at Islay, Colonsay and Tiree; and NCMPA in Loch Creran, Loch Sunart and South to the Sound of Jura, and Loch Sween. There are Historic MPAs at Dartmouth, Duart Point and Iona.

TSS: A TSS lies between Rathlin Island and Mull of Kintyre for vessels approaching/exiting the North Channel.

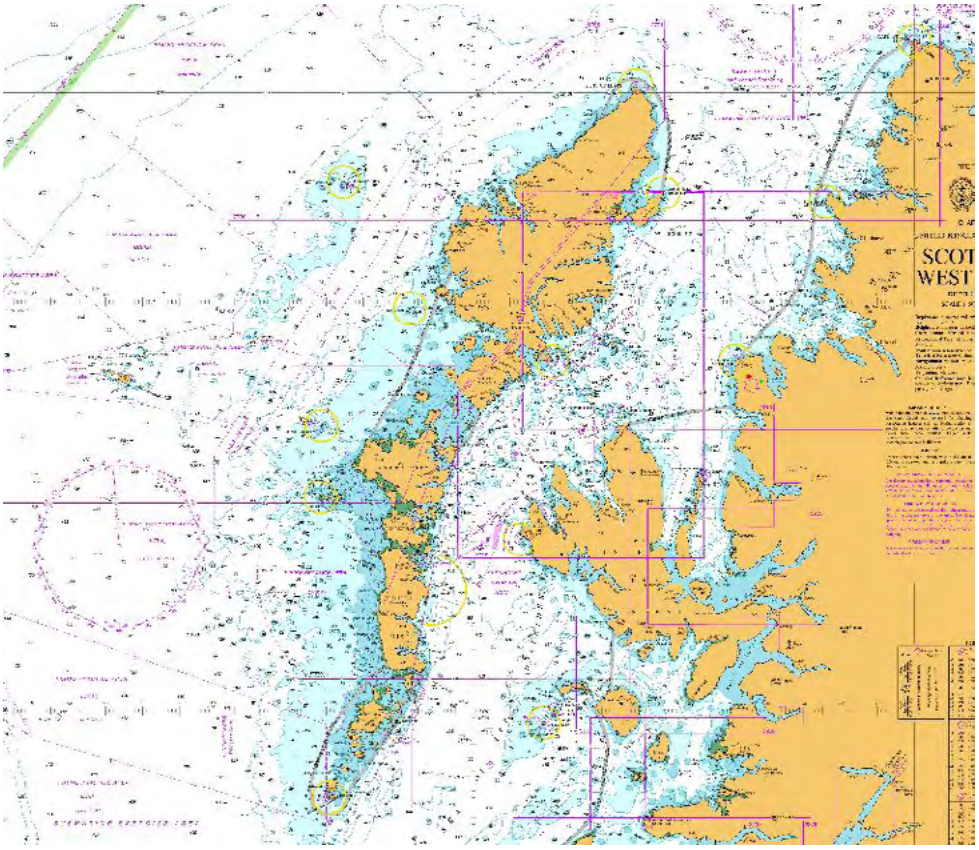
AtoN provided: 45 lights, 59 Buoys, 2 Racons, 2 unlit Beacons, 7 AIS.

PROPOSED CHANGES FOLLOWING 2025 REVIEW

Dubh Artach	Re-engineer with a minimum 18M range*
Skerryvore	Re-engineer with a minimum 18M range*
Loch Spelve	Reinstate (unlit) starboard hand beacon*
Fladda	Narrow the white light sector
Funaich Bheag (Sound of Luing)	Establish pole-mounted minor light
Carragh an t-Sruith	Re-engineer; maintain 8M light
Corran Narrows NE	Relocate lights to new breakwater

* carried forward from 2020 Review

Area 3: Ardnamurchan to Barra Head; Cape Wrath to the Flannan Isles



OVERVIEW

Between Ardnamurchan and Cape Wrath, the almost uninterrupted succession of deep indentations, fronted by bold rocky cliffs and headlands, forming islands, narrows and sea lochs continue. Strong tidal streams and eddies can be experienced in narrows and inshore.

A chain of about 30 islands known as the Hebrides lies parallel and a short distance from the mainland. These islands are in two groups, the Outer and Inner Hebrides, separated by the Sea of the Hebrides and the Minches. The outer islands are fully exposed to the Atlantic Ocean. To the west of the Outer Hebrides, which are generally low lying, the coastal bank extends up to l5 miles offshore and in places rock pinnacles extend beyond the bank. Outside of the charted deep water route, surveys are incomplete. The passage between the Inner and Outer Hebrides affords some shelter from the Atlantic but depths within the Little Minch are very irregular and several banks, some of which are extensive, lie across the NE entrance. Consequently, traffic routing and reporting measures are in place. The Little Minch in bad weather forms a dangerous sea area due to the wind, tidal streams and uneven nature of the bottom producing high and turbulent seas. The Sound of Harris provides a route from Little Minch to the Atlantic for coastal craft.

Throughout the area there are numerous small ports and harbours supporting the general local economy or specific operations where direct road access is poor. Collectively they provide for significant levels of trade. Ports such as Mallaig, Ullapool and Stornoway provide ferry terminals for routes to the islands, fishing, coastal general bulk cargo, fish farm support and frequent seasonal cruise vessel traffic. Kishorn supports aquaculture. Timber and substantial quarry traffic. Local lifeline ferries operate Mallaig to South Uist, Armadale, Eigg, Muck, Canna & Rhum; Ullapool to Stornaway; Uig to Tarbert and Lochmaddy; Berneray to Leverburgh; Oban to Castlebay and Barra to Eriskay. There are also local ferries operating in Loch Nevis and between Glenelg and Kylerhea (Skye).

Traffic patterns have not substantially changed since 2020 other than a rebound in cruise vessels visiting the area, and traffic associated with the aquaculture feed mill development at Kyleakin. Traffic of all types - passenger ferry, cargo, leisure and Government - in small but significant quantities operate throughout this area either departing or arriving at local ports providing essential transport for the economy of the area. Throughout the area but particularly in the southern half there is substantial seasonal leisure craft activity. Through traffic consists of large and smaller crude and product tankers, to and from North Sea and Flotta, Scapa and the Forth, support vessels repositioning to and from the North Sea, seasonal cruise ship traffic up to and including Queen Mary II, coaster trade to/from Orkney, Shetland or east coast ports, or Scandinavia. The routing measures for the Minch and west of the Hebrides largely govern through traffic patterns. Laden tankers over 35000 DWT use the deep water route west of the Hebrides but when in ballast often choose to navigate through the Minch north bound. All other traffic generally uses the Minch north and south bound, although smaller vessels may route through the more sheltered Kyles. Fishing occurs throughout the area.

A new port facility has been developed at Glumaig, Stornoway to attract large cruise vessels and renewable energy developments. The drydock facility at Kishorn has been redeveloped to attract oilrig refurbishment and demolition activities as well as renewables. Marina developments have been implemented in Castlebay, Lochboisdale, Lochmaddy, Stornoway and Kyle of Lochalsh.

Marine Protected Areas include SAC in Rum, Monach Isles, North Rona, Sound of Barra, South Uist, St Kilda, Loch Maddy, Loch Eport, the Sound of Arisaig, Loch Roag. Loch Laxford, Loch Moidart, Ascrib & Dunvegan, East Mingulay and the Inner Hebrides and Minches; SPAs at the Flannan Isles, St Kilda, the Shiant Isles, North Uist, South Uist, Mingulay & Berneray, Cape Wrath, Handa, Canna & Sanday and Rum; and NCMPA in Lochs Duich, Long & Alsh, the Monach Isles, the Small Isles, Wester Ross and Loch Carron. There are also Historic MPAs at Drumbeg, Mingary Point and Kinlochbervie.

TSS: There is a TSS at Neist Point to separate north and south bound traffic in the Little Minch. IMO approved routing measures are in place in the Little Minch and west of the Outer Hebrides.

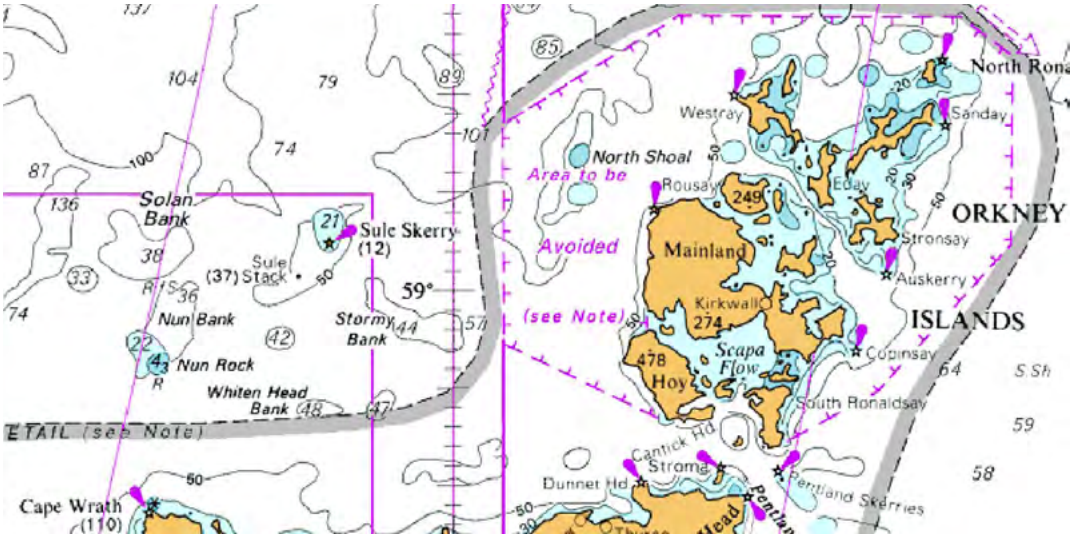
AtoN provided: 59 lights, 63 Buoys, 9 Racons, 12 unlit Beacons, 21 AIS.

PROPOSED CHANGES FOLLOWING 2025 REVIEW

Haskeir	Re-engineer with a minimum 18M range*
Hyskeir	Re-engineer with a minimum 18M range*
Ornsay	Re-engineer, maintain existing 12M range*
Whale Rock buoy	Replace with Virtual AIS AtoN broadcast from St Kilda/ Flannans/Haskeir*
Flannan Isles	Re-engineer; maintain 20M range
Glenelg	Install new sector light for southbound traffic
McCaskill Rock & Mile Sgeir (Sound of Harris)	Replace buoys with lit beacons
AIS & Virtual AIS Capability	Add to Neist Point and Eilean Glas*

* carried forward from 2020 Review

Area 4: Scotland North Coast; Orkney Islands (excluding Pentland Firth)



OVERVIEW

The North coast of Scotland from Cape Wrath to Dunnet Head is mainly heavily indented cliffs with a few off lying dangers inshore.

The Orkney Islands, a group of more than 50 islands separated from mainland Scotland by the Pentland Firth are mainly low lying except for Hoy. Their coasts are much indented and generally rocky but there are also extensive sandy beaches especially on the NE side of the group. On the SW side the coasts consist of steep cliffs in places reaching 300m. About midway between South and North Ronaldsay the Orkney Islands are divided into two parts by the Stronsay Firth and Westray Firth which together form a continuous passage running NW and SE linking the Atlantic to the North Sea. Scapa Flow, a large natural harbour, lies in the south part of the group with navigable entrances to the Atlantic and Pentland Firth.

All significant ports in the area are in Orkney. This includes ship to ship crude oil transfers which occur in Scapa Flow. The main ports are Kirkwall and Stromness, but throughout Orkney there are numerous small mixed use ports and harbours supporting the general local economy and the large number of inter-island ferry routes or specific operations. Fishing, coastal general bulk cargo, fish farm support and frequent seasonal cruise vessel visits along with oil field related vessels are all part of port activity. Local ferries outside of LLA waters operate Scrabster to Stromness, Aberdeen to Kirkwall and Stromness, and Gill's Bay to South Ronaldsay. Traffic patterns have not substantially changed since 2020.

Traffic of all types - passenger ferry, cargo, leisure and Government in small but significant quantity operate particularly around and to and from Orkney providing essential transport for the economy of the area; significant numbers of crude oil tankers enter Scapa Flow from the Pentland Firth. A through route from Pentland Firth via Scapa Flow to Stromness is utilised on occasion. Traffic along the north coast consists of large and smaller crude and product tankers, to and from the North Sea and Flotta, Scapa and the Forth; support vessels repositioning to and from the North Sea; seasonal cruise ship traffic up to and including Queen Mary II; Coaster trade to/from Orkney, Shetland, east coast ports or Scandinavia. Fishing occurs throughout the area.

Although the Flotta oil terminal is in decline, there are plans to build a Deep Water quay here to support decommissioning and renewables activities. Scapa Flow, as one of the few locations in UK waters that allow ship to ship transfer of crude oil and petroleum products, will remain an important location for the oil industry. Orkney Harbours have a Masterplan for the expansion of harbour facilities at Kirkwall, Hatston, Scapa, Stromness, Lyness and a Deep Water harbour facility within Scapa Flow.

Marine Protected Areas include SAC at Durness, Faraym and Solan Bank; SPAs at North Rona & Sula Sgeir, Westray, Copinsay, Sule Skerry & Sule Stack, Rousay, Calf of Eday, Marwick Head, and Sanday; and NCMPA in Papa Westray, Wyre & Rousay Sounds, and North–West Orkney.

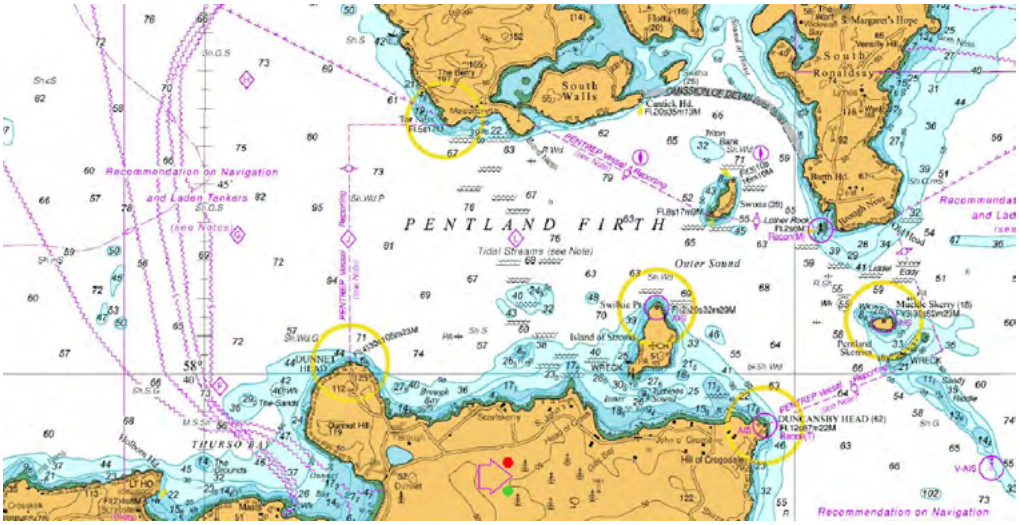
TSS: There are IMO routing measures in the Fair Isle Channel to the North of this area; an area to be avoided by laden tankers is in place around the Orkney Islands.

AtoN provided: 19 lights, 14 Buoys, 2 Racons, 2 unlit Beacons, 8 AIS (including three Virtual AtoN).

PROPOSED CHANGES FOLLOWING 2025 REVIEW

Rose Ness	Re-engineer, maintain existing 8M range

Area 5: Pentland Firth



OVERVIEW

The Pentland Firth is bordered by the rocky mainland coast to the south from Dunnet Head to Duncansby Head which is indented by numerous bays and coves. The Orkney Islands provide its northern boundary with similar rocky coast around Hoy, South Walls and South Ronaldsay. Within the Firth deep waters are interspersed with the islands of Stroma, Swona and Pentland Skerries. The latter, with the associated 10 mile long narrow bank substantially reducing depths results in a funnelling effect. Tidal streams within the firth are renowned and can reach up to 12 knots creating tidal races and eddies which can be dangerous particularly in combination with adverse weather. Substantial seas occur (wind against tide) in circumstances of strong westerly or SE winds. Consequently, reporting measures are in place and the Firth may be closed to some or all traffic by HMCG.

The principal port in the area outside Orkney is Scrabster which handles fish, has a Ro Ro facility for the ferry to Stromness and handles local coastal cargoes, including fuel, timber & rock salt. In addition, oil industry vessels utilise the lay by facility and seasonal cruise vessel visit numbers are growing. An HSC ferry operates between Gills Bay and St Margarets Hope. The Pentland Firth remains a key route for UK and international traffic.

Traffic patterns have not substantially changed since 2020. Traffic of all types - passenger ferry, cruise, cargo, and Government in small but significant quantities operate to and from the Orkneys and Scrabster via the Pentland Firth. Significant numbers of crude oil tankers enter/leave Scapa Flow via the Pentland Firth loaded and in Ballast.

Through traffic consists of large and smaller crude and product tankers, to and from the North Sea and Flotta, Scapa and the Forth, support vessels repositioning to and from the North Sea, seasonal cruise ship traffic, coaster trade to/from east coast ports, or Scandinavia.

Trawling does not occur within the Pentland Firth due to tidal conditions, but other fishing occurs around the islands, and it remains a key route for fishing vessels in transit and landing at Scrabster.

Following the establishment of the demonstrator Meygen turbine farm in the Inner Sound, larger scale tidal energy is proposed for areas of the Firth around Stroma, Duncansby Head and off South Ronaldsay.

There are designated Special Protection Areas at North Caithness, East Caithness, and Hoy.

TSS: There are no TSS or routing measures in the area; an area to be avoided by laden tankers is in place around the Orkney Islands. An IMO recognised reporting scheme has been established covering most of the area.

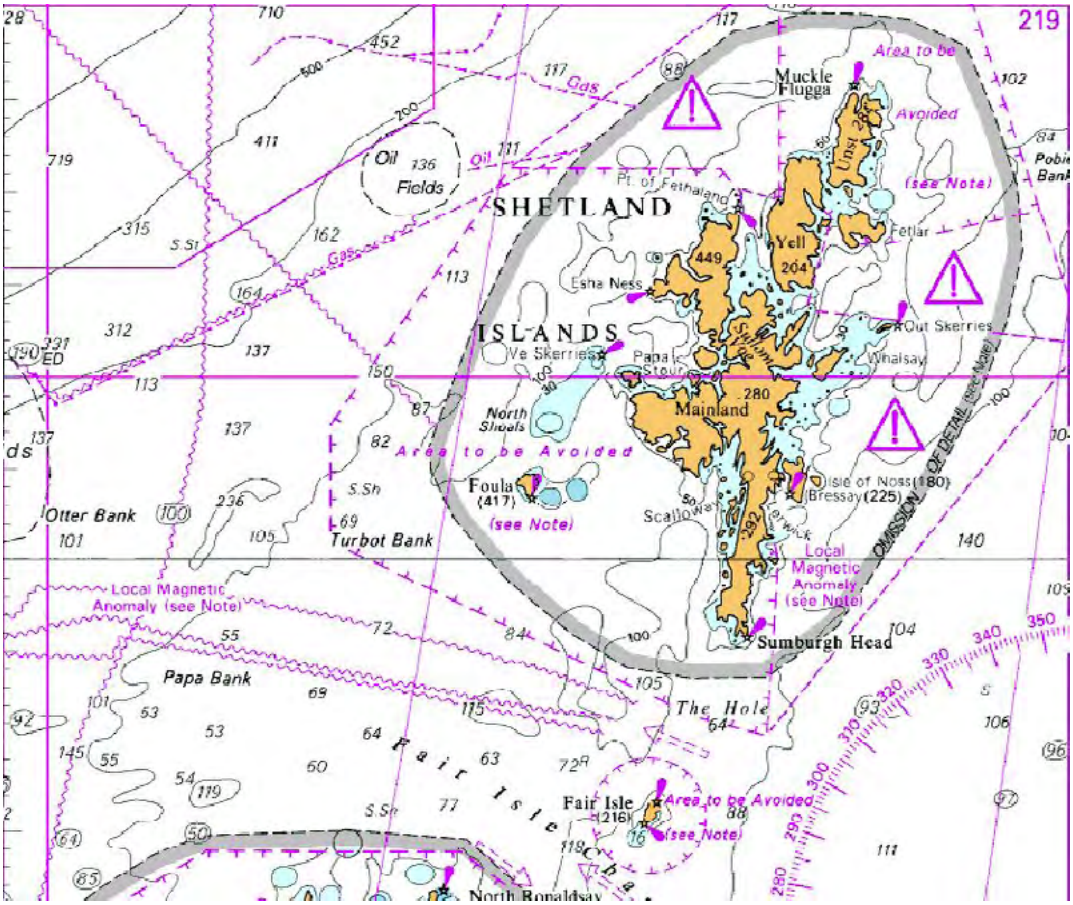
AtoN provided: 10 lights, 0 Buoys, 2 Racons, 1 unlit Beacon, 3 AIS (including one Virtual AtoN).

PROPOSED CHANGES FOLLOWING 2025 REVIEW

Pentland Skerries	Re-engineer, maintain existing 23M range*
Men of Mey Rocks	Establish VAtoN
Dunnet Head	Re-engineer; maintain 23M light
Lother Rock	Re-engineer with racon and minimum 6M light; Maintain large daymark
Cantick Head	Re-engineer; maintain 13M light
Duncansby Head/Dunnet Head	Add meteorological data transmission via AIS

* carried forward from 2020 Review

Area 6: Shetland Islands



OVERVIEW

The Shetland Islands, a group of more than 100 islands, holms and rocks, lie with Sumburgh Head as their southern extremity and stretch some 60 miles north to Muckle Flugga. The principal islands are Mainland, Yell and Unst. The Shetland Islands are for the most part relatively high, undulating, fringed by bold cliffs and separated by narrow sounds. Toward the North end of the group Yell and Bluemull Sounds, both navigable passages, run through the islands between Mainland and Yell, and Yell and Unst respectively. The high and rocky island of Fair Isle also forms part of the Shetlands dividing the otherwise deep unobstructed passage collectively known as Fair Isle Channel between Orkney and Shetland Islands.

Principal ports in the area are Sullom Voe oil terminal and Lerwick, an important mixed use port serving the needs of the Shetlands population and the oil industry. Lerwick is a major fishing harbour and also handles cruise traffic, Ro-Ro ferry, coastal tankers, pelagic trawlers, fish farm and oil industry support. Throughout Shetland there are numerous small mixed-use harbours such as Scalloway supporting the general local economy and the large number of inter-island ferry routes, fishing, leisure or specific operations. Ferries operate from Lerwick to Kirkwall and Aberdeen. Fishing and inshore fish farming occur extensively throughout the area. Oil industry decommissioning is a significant and growing activity in this area.

Traffic patterns changes have seen a significant reduction in oil traffic and an increase in cruise vessels visiting the area. Traffic of all types - ferry, cargo, leisure, fishing and fish farm and Government - in significant quantities operate throughout this area, inter island or either departing or arriving at local ports from Orkney, mainland Scotland or Scandinavia. There is significant, and growing, oil

industry traffic to the west of Shetland as well as the Northern North Sea with vessels transiting through the Shetlands and using its ports. There remains substantial tanker traffic to/from Sullom Voe.

The Fair Isle Channel remains an important route for Scandinavian trade bound for the Atlantic, and for tankers loaded and in ballast for Sullom Voe or in transit to/from the west.

Marine Protected Areas include SAC at Yell Sound, Mousa, Papa Stour, Hascosay, and Sullom Voe; SPAs at Foula, Fair Isle, Hermaness, Papa Stour, Noss, Fetlar, and Sumburgh Head; and NCMPA at Fetlar to Haroldswick, and Mousa. There is also a Historic MPA at Out Skerries.

TSS: There are no TSS in the area, IMO approved routing is in place in the Fair Isle channel. Areas to be avoided by laden tankers are in place around the Orkney Islands, Fair Isle and Shetland.

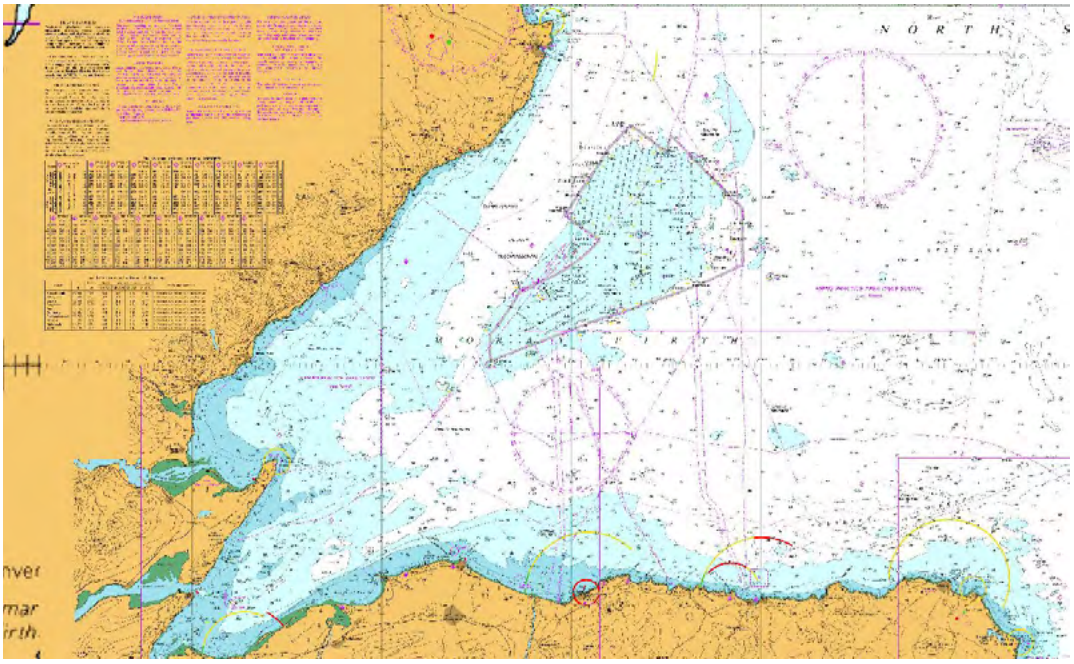
AtoN provided: 37 lights, 4 Buoys, 3 Racons, 1 unlit Beacon, 2 AIS.

PROPOSED CHANGES FOLLOWING 2025 REVIEW

Foula	Re-engineer and establish red sector to East (257° - 277°)*; maintain 17M range
Muckle Flugga	Re-engineer with minimum 18M range*
Out Skerries	Re-engineer with minimum 18M range*
Esha Ness	Re-engineer with minimum 18M range*
Fair Isle North	Re-engineer with minimum 18M range*
Hoo Stack	Re-engineer with LED sector light and discontinue Directional light*
Bullia Skerry	Reduce range from 5M to 3M*
Firths Voe	Replace with new tower and 10M LED light
Rova Head	Re-engineer with LED sector light; remove PEL
Gruney	Re-engineer as WR 7M light & racon
Skate of Marrister	Re-engineer; maintain 4M light

* carried forward from 2020 Review

Area 7: Noss Head to Rattray Head



OVERVIEW

From Noss Head the coast runs in a generally SSW direction, mainly composed of rocky cliffs fringed by drying rocks and boulders but generally clear of dangers beyond 2 cables from shore. Further South the coastline changes with cliffs reducing and receding into a large bight which forms the approach to the Dornoch Firth. At the Eastern end of this bight lies Tarbat Ness at the low lying extremity of the peninsula. Heading South from Tarbat Ness the coast again becomes rocky forming cliffs with hills behind which gradually increase in height to the SW with the entrance to Cromarty Firth forming a distinct cleft. At Rosemarkie these cliffs lead inshore, and the coastline becomes a low lying tongue of sand and shingle forming the North shore to the Inverness Firth. The southern seaward shore of the Inverness Firth leads East and is initially low lying and sandy with drying banks. From Scar Nose east rocky cliffs, fringed by drying reefs prevail with some sandy stretches to Rattray Head. The Beatrice oilfield and offshore wind farms lie within the Moray Firth to the NE of Tarbat Ness whilst numerous oil installations lie to the East of Rattray Head.

Principal ports: Cromarty Firth handles general bulk agricultural and timber cargoes. Oil industry support is provided and the Firth is a major semi-submersible rig layup and maintenance location. Windfarm construction is a major growth industry at Nigg and potentially Ardersier. Cruise vessels of all sizes are regular seasonal visitors. Inverness recently expanded as a mixed use port handling coastal fuel, timber, grain etc as well as an important east coast marina at the head of the Caledonian Canal. Wick provides similar facilities and is the Operations and Maintenance base for the Beatrice Offshore Windfarm in the Moray Firth. Buckie and Fraserburgh provide a similar function for Moray West and Moray East OWFs respectively. The coast to the east has a number of fishing harbours including Fraserburgh. Some of these harbours support limited other mixed use and marinas.

Fishing occurs extensively throughout this area.

There have been major changes to traffic patterns since 2020, mostly associated with the offshore wind industry. Construction activity at the Beatrice and Moray East wind farms is now complete. There is also potential for floating wind farm sites in this area. The Beatrice/Jacky oil field is now at end of life, with decommissioning planned to take place during the next 5 years.

Cargo, leisure & fishing vessels in significant quantity operate throughout this area either departing or arriving at local ports from other mainland Scotland ports, Europe or Scandinavia. Tankers loaded and in ballast, cruise vessels and oil support vessels for the Cromarty Firth arrive depart to/from the East or Pentland Firth. Shuttle tankers and other oil support craft anchor along the Moray coast, sheltered from the prevailing weather. Through traffic of all types and sizes to /from the Pentland Firth crosses the area on a NW/SE heading from Rattray Head to Duncansby Head. There is significant oil industry traffic to the East of Rattray Head serving the numerous oil installations in the North Sea.

Marine Protected Areas include SAC at the Dornoch Firth and Moray Firth; SPAs at the Dornoch Firth, Cromarty Firth, Inner Moray Firth, Moray & Nairn Coast, and Troup, Pennan & Lion's Heads; and an NCMPA at Noss Head.

TSS: There are no TSS or routing measures in this area.

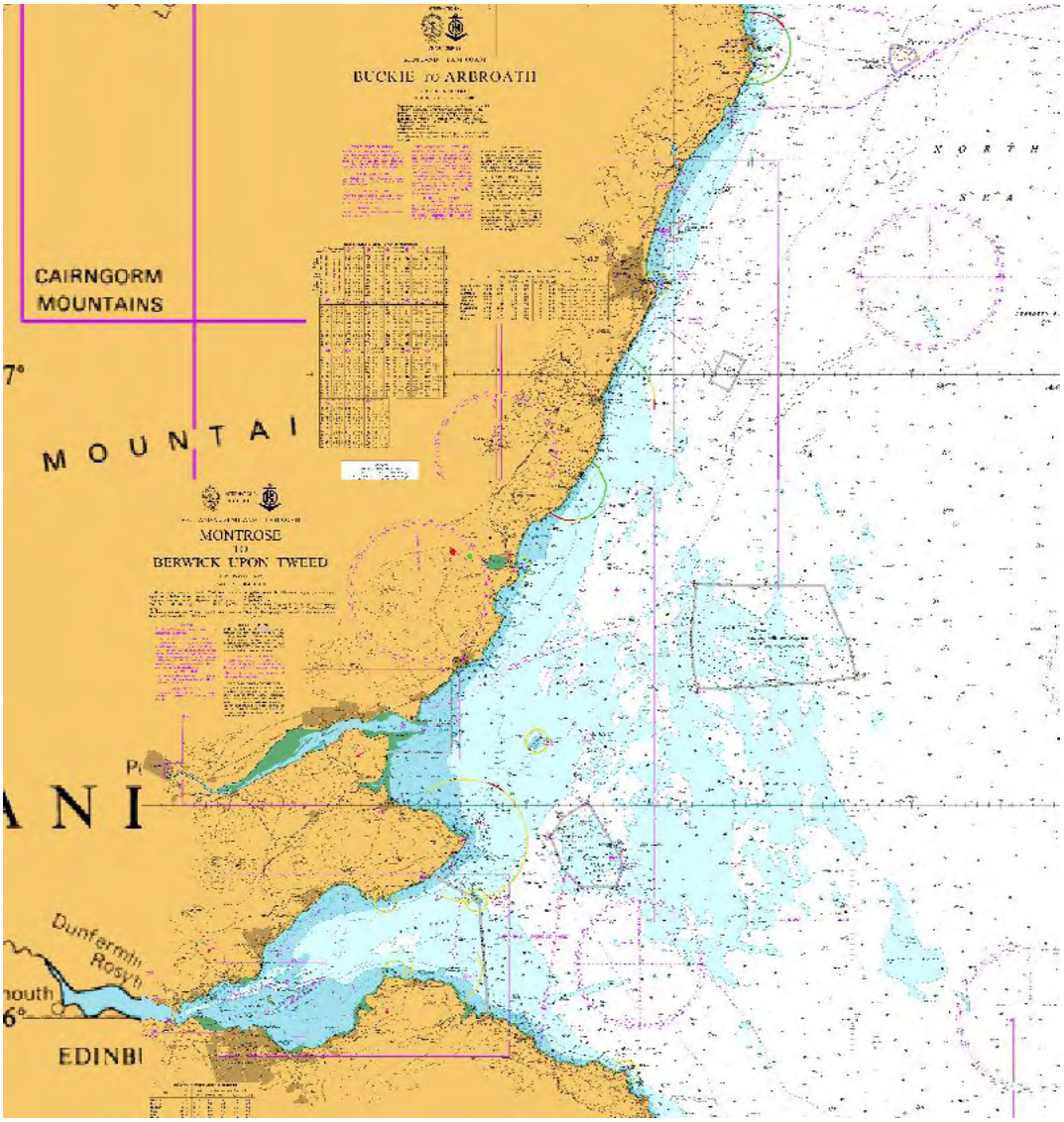
AtoN provided: 7 lights, 14 Buoys, 2 Racons, 1 unlit Beacon, 1 AIS.

PROPOSED CHANGES FOLLOWING 2025 REVIEW

Halliman Skerries	Replace racon with AIS
Cairnbulg	Re-engineer with 10M LED light, maintain daymark, add AIS
Riff Bank South	Re-establish to West
Chanonry	Re-engineer, maintain 12M range
Longman Point	Re-engineer as WR 5M light
Craigton Point	Reduce range from 11/7M to 5M; alter sectors
AIS & Virtual AIS Capability	Add to Kinnaird Head*

* carried forward from 2020 Review

Area 8: Rattray Head to St Abb's Head



OVERVIEW

From Rattray Head the coast runs in a generally SSW direction to Fife Ness. The Isle of May lies toward the centre of the approach to the Firth of Forth. The coast north of the Forth is mainly composed of rocky cliffs, fringed by drying reefs. There are several sandy stretches from Rattray Head to Peterhead, north of Aberdeen and north of Montrose as well as the Mouth of the Tay. There are a number of outlying banks and deeps along the coast most notably Bell Rock lying 9.5 miles SE of Whiting Ness.

The Island of Fidra lies to the SW of the Isle of May from where the coast runs ESE to St Abb's Head.

From Fidra south, the coast is a mixture of rocky cliffs fringed with reefs and sandy bays.

There are a number of offshore installations further to the east. This stretch of coast is home to a number of significant ports: Peterhead, the UK's largest fishing port, a major oil industry support base and small marina; Aberdeen, with its extended harbour facility in Nigg Bay, is the UK primary oil industry support facility, as well as a ferry port and general bulk cargo port, growing renewables support and cruise activities; Montrose provides mixed general bulk and oil industry support facilities: Dundee has similar but larger facilities and acts as a support base for offshore maintenance decommissioning activities.

The Firth of Forth provides a number of ports and terminals. The Forth is a major petroleum port exporting crude oil in up to VLCC size vessels as well as handling products and gas shipments. Large numbers of feeder container vessels visit whilst general bulk facilities are at several locations dealing with timber, coal, aggregates etc Cruise vessels of all sizes visit the river. Oil industry support vessels are handled. Small scale fishing is undertaken from some of the Fife coast ports and there are significant numbers of leisure users based in several marinas within the port authority area. Further South, Eyemouth is being developed a renewables support hub.

A small wind farm is located close to shore at Aberdeen, and the world's first floating offshore windfarms are located off Peterhead (Hywind) and Stonehaven (Kincardine). A number of larger windfarm developments off the Firths of Tay and Forth are either complete or under construction.

Dominant traffic patterns are for vessels of all sizes and types to approach/depart the Forth/Tay to the SE for the European ports and Dover Straits staying quite close to the coast to St Abb's Head, to head ENE/WSW for the Skagerrak and Scandinavian ports or NNE/SSW along the coast to/from Rattray Head. Traffic not for Scottish East coast ports navigating the UK coast stays off shore to/from Rattray Head. Aberdeen and Peterhead traffic is dominated by oil and fishing traffic heading east and NE to the oil platforms and fishing areas.

Ferries operating in this area are the Aberdeen to Orkney/Shetland.

There is a significant fishing offshore throughout this area.

Marine Protected Areas include SAC In Berwickshire, at the Isle of May, and the Firth of Tay & Eden estuary; SPAs in the Firth of Forth, at Buchan Ness, the Ythan estuary, Fowlsheugh, the Forth Islands, Montrose Basin, the Firth of Tay & Eden estuary, and St Abbs Head to Fastcastle; and NCMPA at the Firth of Forth Banks. There is a Historic MPA at HMS Campania.

TSS: There are no TSS or routing measures in this area.

AtoN provided: 9 lights, 3 Buoys, 6 Racons, 3 unlit Beacons, 4 AIS.

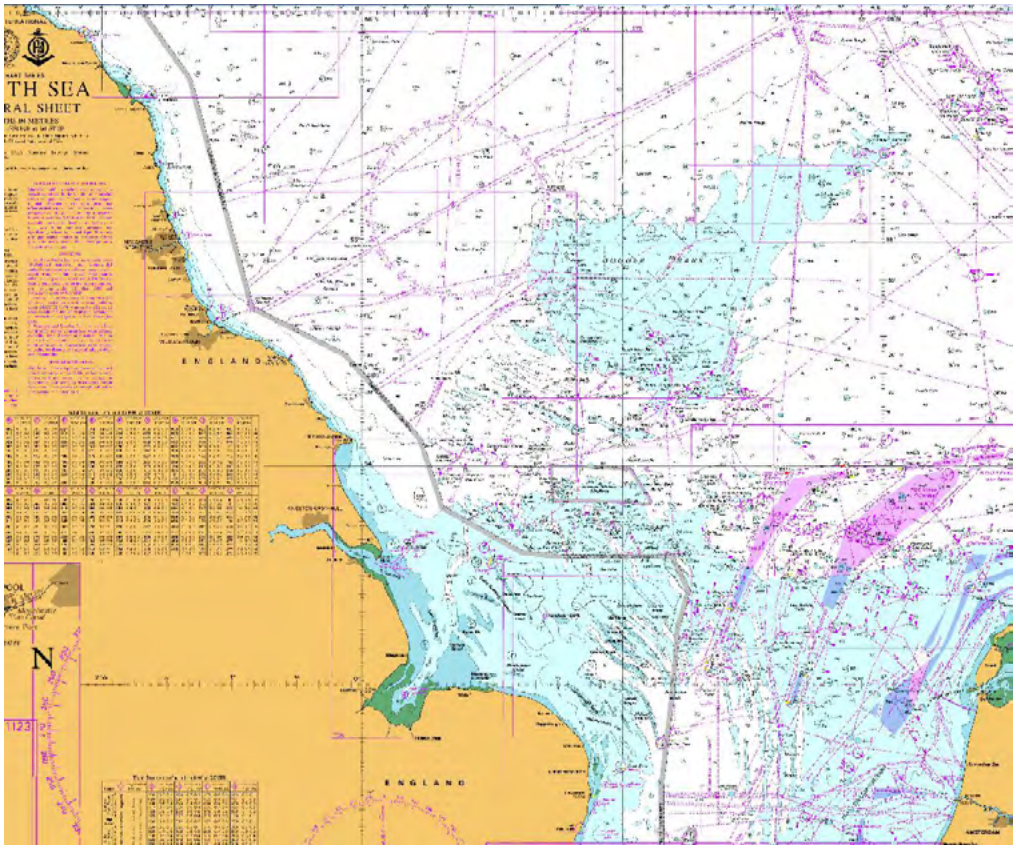
PROPOSED CHANGES FOLLOWING 2025 REVIEW

Bell Rock	Re-engineer, maintain 18M range*
Bass Rock	Re-engineer, maintain 10M range
South Carr	Discontinue buoy station; investigate options for VAtoN at this station
AIS & Virtual AIS Capability	Add to Buchan Ness and Fife Ness*

* carried forward from 2020 Review

11 Review of Trinity House Areas (9-14)

Area 9: Berwick to Sizewell



OVERVIEW

The area covers three sub-areas, the NE Coast; the Wash, which includes the Humber; and Yarmouth which covers the East Coast of Norfolk and Suffolk Coast.

Developments of Offshore Wind Farms will continue to affect AtoN provision in the area. There will also be increased construction activity and traffic associated with offshore renewable energy sites. The AIS analysis of traffic patterns in the area has shown changes due to the siting and increasing size of the Offshore Wind Farms, however there is no apparent appetite for the larger vessels to transit existing sites, preferring to route around the areas. The proposed Outer Dowsing Windfarm and the Sheringham and Dudgeon Windfarm Extensions will change traffic patterns in the area.

Aquaculture sites in the area are being planned and these could affect traffic routes close inshore on the Northeast Coast and significantly in the Wash area.

The NE Coast area from Berwick to Spurn Head is one in which there are numerous dangers, in the form of off-lying Islands and isolated rocks. These, together with some off-lying banks, are mainly encountered within the 20m-depth contour. The most prominent coastal feature is the headland to the north of Bridlington, marked by Flamborough Head Lighthouse. Offshore, tidal streams are regular and rarely exceed 1 knot at springs. The major commercial ports of Berwick; Blyth; Tyne; Sunderland; Seaham; Tees & Hartlepool lie within this region, together with numerous fishing and leisure ports/harbours.

The Wash area from Spurn to Cromer has two major outlets, the Humber and Wash into which numerous rivers drain. The estuaries are both bordered by large flats. South of the Humber, the navigable channels are restricted by numerous off-lying shoals and the coastline is low lying. Tidal streams are stronger and the tidal range at springs in the Wash increases to 6m. Traffic volumes partly due to wind farm construction vessels and work boats have increased in this area; the shallow waters with numerous sandbanks and mobile areas of the seabed require regular surveys and therefore subject to regular review. A number of commercial ports lie on the River Humber and on the rivers flowing into the Wash, in addition, in the southern part of the area there are a number of small fishing ports/harbours. Within this sub-area offshore production platforms and drilling rigs are encountered.

The Yarmouth area is dominated by constantly changing sandbanks and shoals close offshore and a low-lying featureless coastline. The banks are subject to frequent surveys and buoyage marking the navigable channels is subject to regular review. Depths are shallower, over the off-lying banks in the vicinity of Great Yarmouth and Lowestoft. Tidal ranges and rates are less than those encountered in the Wash.

TSS: There is an IMO-recognised TSS in the approaches to the River Humber.

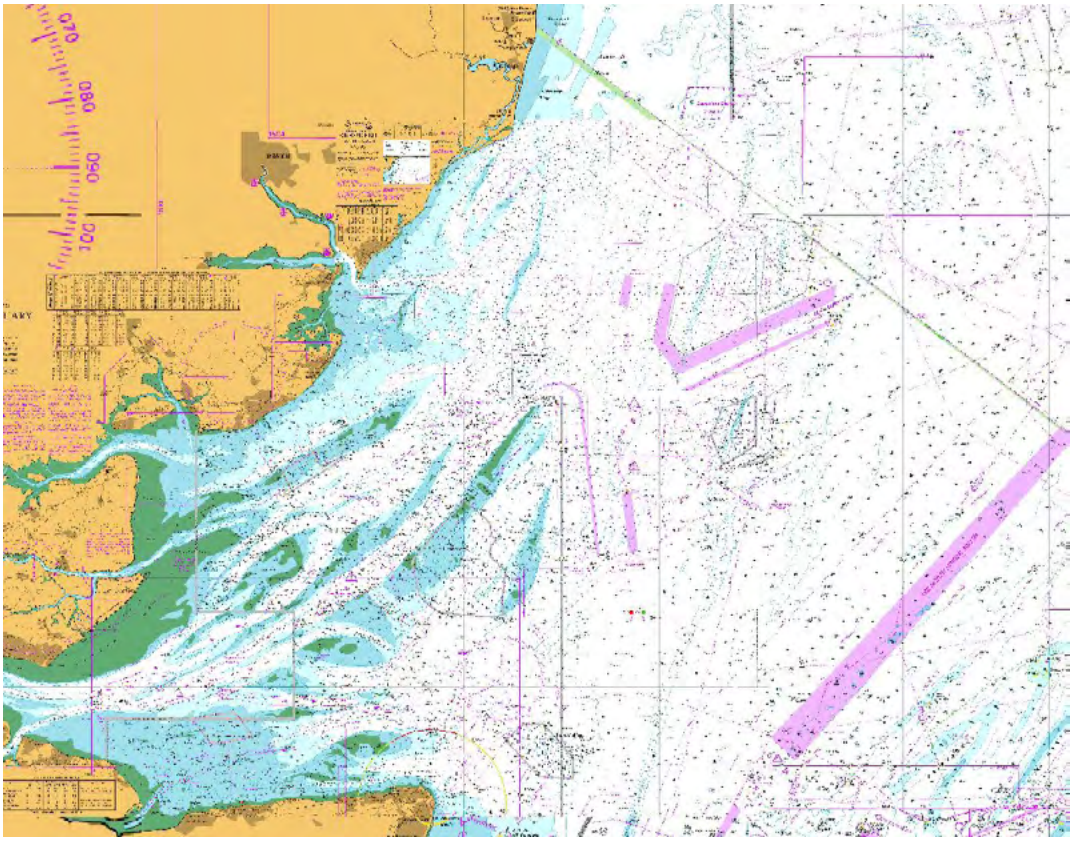
Environmental Concerns: This area now contains a Highly Protected Marine Area (HPMA) North East of Farnes Deep, and buoy deployment in this area needs to fully assess any other impacts. It is likely that buoy deployment in the HPMA would only be Emergency Wreck Marking Buoys in the case of a serious maritime incident.

AtoN provided: 11 Lights; 77 Buoys; 3 beacons; 10 Racons; and 6 AIS.

PROPOSED CHANGES AND OBSERVATIONS FOLLOWING 2025 REVIEW

Cockle Buoy	Change proposed in 2020 review cancelled
Coquet Lighthouse	Range reduction reaffirmed and sector range reduction. Temporary marking scheme for engineering works to consist of 4 buoys and a 9nm white light.
Bamburgh Lighthouse	Change to Nighttime only as per 2010 review
Inger Nielson Buoy	Survey and discontinue if bathymetry as charted
Significant discussion was held on AtoN provision for the shipping routes between the banks as the oil and gas infrastructure is decommissioned and removed. The provision of AtoN between Broken Bank and Well Bank may be required in future years and the use of AIS AtoN in this area could be a solution. This area will be routinely reassessed over the coming years	
Trinity House will also be monitoring the traffic patterns on the approaches to the Humber and around the proposed windfarms as they get established. It is likely that buoyage in the Outer Dowsing Channel will change significantly if the windfarms are built	

Area 10: Sizewell to Shoreham



OVERVIEW

The area covers three distinctive sub-areas, Harwich, Estuary and Dover.

Developments of Offshore Wind Farms will continue to affect AtoN provision in the area.

The Harwich area coastline is generally low lying and featureless with outflows from several major rivers. Offshore there are numerous shoals many of which have less than 5 metres over them, with narrow navigable channels between. Tidal streams generally follow the direction of the coast and overfalls may be encountered. There is a high level of leisure craft activity based in the Harwich/ Ipswich area; the River Deben; Orford Haven, River Colne and the Blackwater's. Commercial traffic for the ports of Felixstowe, Ipswich and Harwich, includes ferries and cruise vessels using Harwich International Port.

The Estuary area is dominated by outflows from the Thames, Medway and The Swale as well as by numerous off-lying shoals with narrow navigable channels between, some of which are subject to constant change. Consequently, they are surveyed at frequent intervals and the buoyage marking the navigable channels is subject to regular review. The main channels are marked to 10 or 12 metres, where depths permit.

The continuous migration of the Long Sand Bank in the Estuary will mean further changes in the buoyage and possibly two way route in future years. TH have recently added an additional buoy at the Long Sand Head and are engaging with all parties reviewing the routeing measures.

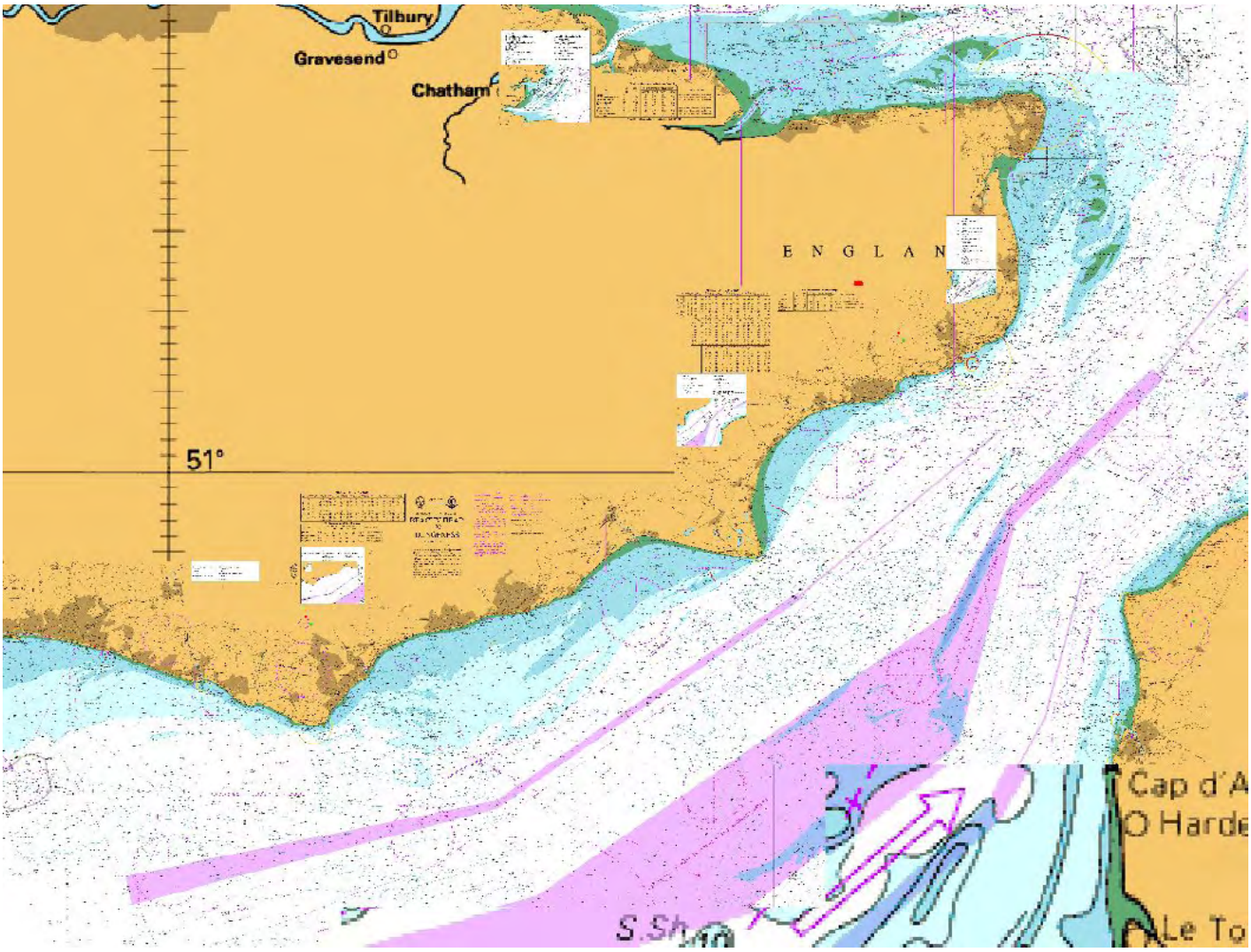
The Dover Strait is characterized by shallow water with dangerous offshore banks, shoals, and numerous wrecks which restrict vessels navigating through the area. The area comprises of three major headlands, except for Dungeness, these headlands are bounded by steep cliff features of rock or chalk cliffs. The water is generally shallow to the extent that certain large vessels cannot proceed through the Strait at their maximum draft. Tidal stream rates reach a maximum of 3.7 Knots off the Goodwin's and are generally in the direction of the off lying

shoals and banks, the area is also one of high fishing and leisure craft activity.

Due to the high volume of traffic, the constriction of the through traffic, caused by the banks and shoals, coupled with the high volume of crossing ferry traffic, between the Channel ports and the Continental ports, the area is one of high collision risk. The bulk of the deep-sea vessels trading to North European ports from other ports of the world traverse through the Dover Strait.
The major commercial ports of Ramsgate; Dover; Newhaven and Shoreham lie within this region, together with fishing and leisure ports / harbours.

TSS: There are IMO recognized TSS in the Sunk area and northern approaches to the Thames Estuary and in the Straits of Dover and adjacent waters. Within these schemes Deep Draft Routes have been established. An Inshore Traffic Zone (ITZ) lies to the landward of the TSS through the Dover Straits.

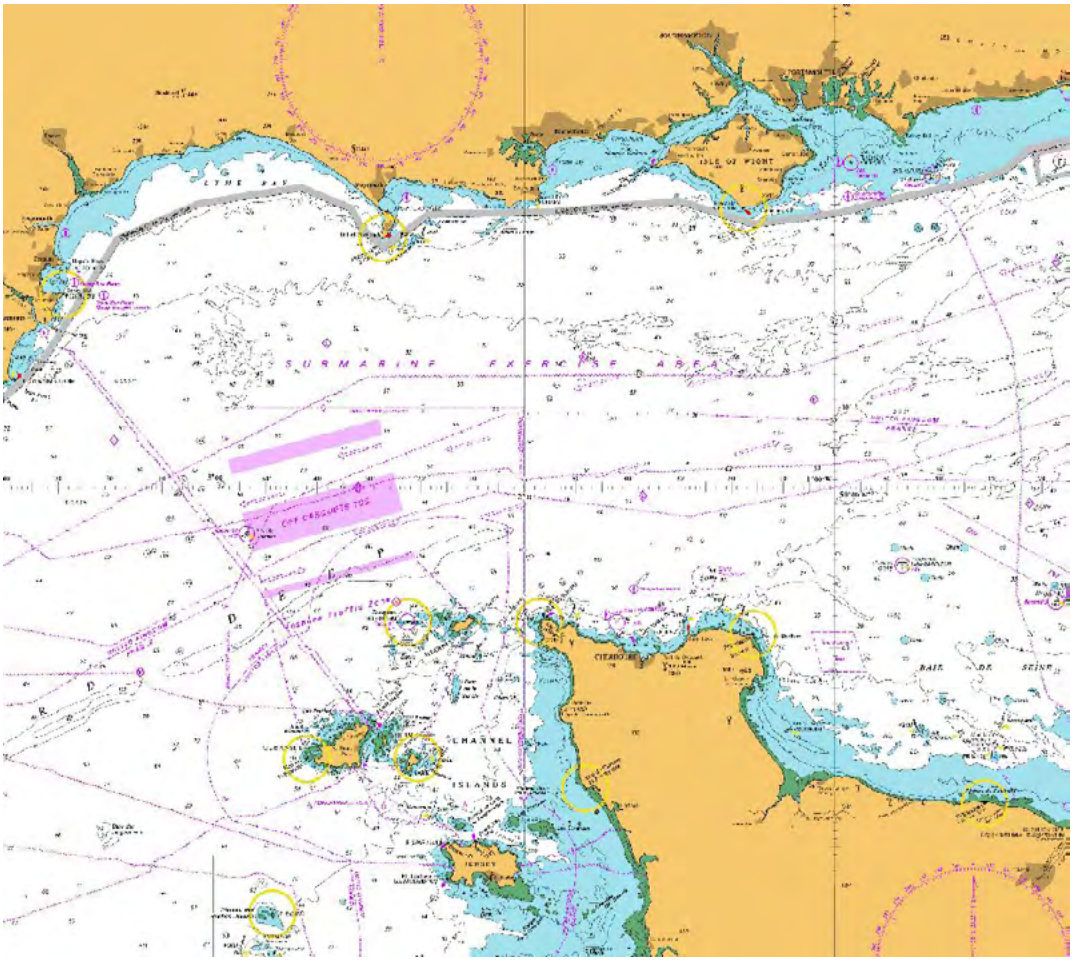
AtoN provided: 3 Lights; 206 Buoys; 17 Racons; 5 Lightvessels; 1 Lightfloat and 14 AIS.



PROPOSED CHANGES FOLLOWING 2025 REVIEW

East Goodwin Lightvessel	Discontinue and upgrade East Goodwin buoy to Type 1S9
Greenwich Lightvessel	Change to Type 1S9 Safe Water Mark
Rye Fairway Buoy	Consult on discontinuation.
South Shipwash Duplicate Buoy	Discontinue. Further to stakeholder feedback the decision is to retain and increase nominal range of light.
South Shipwash Buoy	Change to Type 1S9 and add AIS AtoN. Further to stakeholder feedback the decision is to retain as currently provided.
North Inner Gabbard Buoy	Discontinue
East Maplin Buoy	Change to Type3 Port Lateral
South Knock	Change to Type 2 with 5nm Range light
Kentish Knock	Change to Type 2 with 5nm Range Light

Area 11: Shoreham to Lyme Regis



OVERVIEW

The area is divided into two sub-areas, Wight and Channel.

Developments of Offshore Wind Farms will continue to affect AtoN provision in the area. There will also be increased construction activity and traffic associated with offshore renewable energy sites. The AIS analysis of traffic patterns in the area has shown changes due to the siting and increasing size of the Offshore Wind Farms, however there is no apparent appetite for the larger vessels to transit existing site, preferring to route around the area.

Aquaculture developments are becoming more prominent in the area especially in Lyme Bay. These are affecting Local AtoN provision and require monitoring for their effects on TH AtoN.

The Wight area has three major headlands, Portland Bill, Durlston Head and St Catherine's Point, two bays and marked channels to the West and East of The Solent and Southampton Water. The coastline is distinctive and radar conspicuous, the Shambles bank is a danger to vessels navigating in the vicinity of Weymouth Bay; The Needles Channel affords a particularly narrow entrance to the Western Solent for commercial vessels, with outcrops of isolated rocks off The Needles to the east and the Shingles Bank to the West which is subject to movement at its southern extremity.

The tidal streams are greater in strength in this sub-area; off St Catherine's they can reach 3.8kts. Tidal ranges are greater towards the French coast than on the English coast, for example, at the NW Minquiers Lighted Buoy these are in the region of 9.75m. Tidal streams are very strong off Portland Bill, up to 7kts, and may cause heavy seas. Strong winds in the opposite direction to the tidal streams can lead to steep seas.

Crossing traffic between the English and French ports can lead to increased risk of collision with traffic bound to and from the Dover Strait TSS. Principal ferry routes run between Weymouth; Poole and the Solent to the Channel Islands, Cherbourg and Northern Spain. The area also has a very high level of small craft activity, including fishing and leisure.

The Channel area includes the Channel Islands and the Minquiers Plateau. These are surrounded by numerous rocks and shoals, which present dangers to all classes of mariner. The tidal streams in the Channel Islands are strong, and tidal ranges increase towards the French Coast. As is the case with the Wight sub-area, crossing traffic between the ports on the south coast of England, the Channel Islands and the French Ports can lead to the increased risk of collision. High Speed Craft operate on these routes and between ports in the Channel Islands.

The major commercial ports of Littlehampton; Portsmouth; Southampton; Cowes and Poole lie within this region, together with fishing and leisure ports/harbours.

TSS: There is an IMO recognized TSS off Casquets.

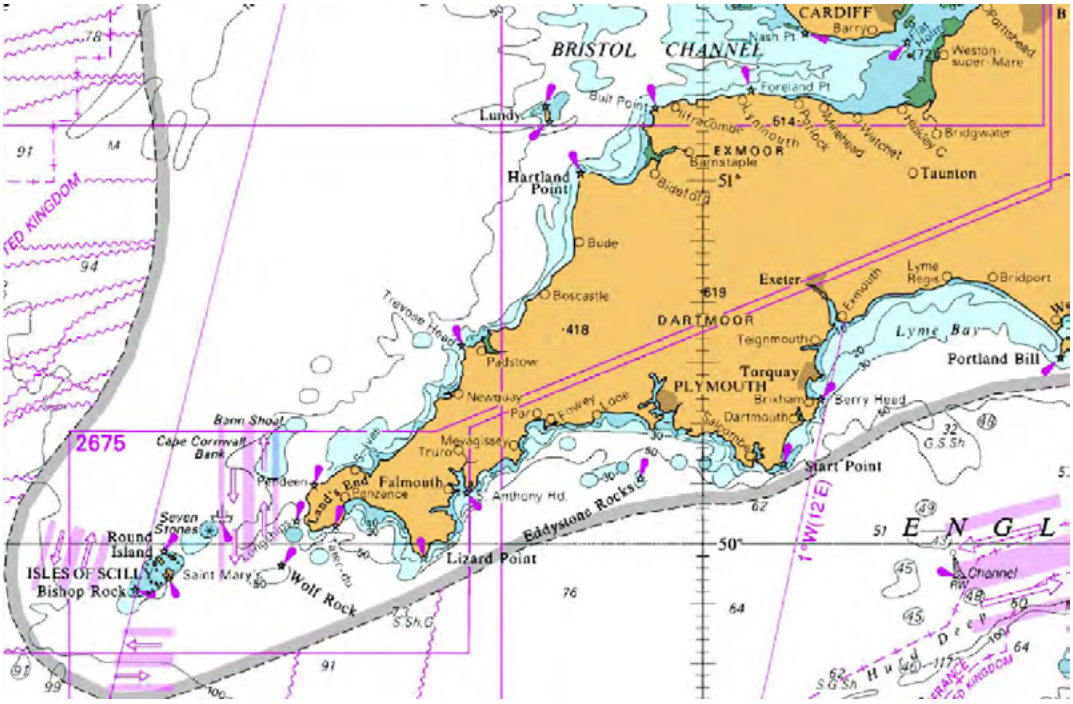
Environmental Concerns: This area now contains a Highly Protected Marine Area (HPMA) called Dolphin Head, and buoy deployment in this area needs to fully assess any other impacts. It is likely that buoy deployment in the HPMA would only be Emergency Wreck Marking Buoys in the case of a serious maritime incident.

AtoN provided: 10 Lights; 1 Lightvessel; 41 Buoys; 1 beacon; 5 Racons & 3 AIS

PROPOSED CHANGES FOLLOWING 2025 REVIEW

There are no changes proposed to AtoN in this area

Area 12: Lyme Regis to Bude



OVERVIEW

The area is divided into two sub-areas. Penzance which covers the Western part of the English Channel and the second sub-area named Land's End which encompasses the major landfall of Bishop Rock in the Isles of Scilly and Land's End.

The area to the north off the traffic separation schemes will be heavily developed with floating wind technology. The major shipping routes have been identified as area which cannot be developed but it is extremely likely these routes will pass between developments.

Aquaculture developments are becoming very prominent in the area especially close to Fowey, in Lyme Bay and along the North Devon coastline. These are affecting Local AtoN provision and require monitoring for their effects on TH AtoN.

The Penzance area coastline presents a distinctive radar target at the rock headlands of the Lizard and Start Point, with isolated rocks encountered in the bays of Penzance, Lyme Bay and Tor Bay. Tidal streams off The Lizard are reasonably strong. There are numerous ports and anchorages where shelter can be sought on this part of the coast. However, apart from Dartmouth and Tor Bay, there is little shelter during strong SW Winds Eastward of Start Point where in conditions of strong offshore winds and ground swell, entering some of the harbours in Mounts Bay is not recommended. From Penzance Bay to Lyme Bay there are a number of commercial ports, as well as small tidal harbours. Fishing and leisure craft activity is also encountered within the harbours to varying degrees.

The Land's End area also presents a distinctive radar target, having similar features to the Penzance sub-area, such as bold headlands and rocky cliffs, which are steep too. From St. Ives the coastline is lower and recedes around St Ives Bay to Godrevy Point.

The south-western most danger of the Isles of Scilly is marked by Bishop Rock Lighthouse, which provides a major landfall for vessels approaching the British Isles. The tidal streams around the Isles of Scilly are not that strong, however, they do increase in strength off the main promontories. Within the Islands the traffic mainly comprises fishing and leisure craft. Commercial traffic is limited to the island ferries, although cruise liners are now using St Mary's as a port of call.

The commercial ports in the area are Teignmouth; Plymouth; Fowey and Falmouth together with

numerous fishing and leisure ports/harbours.

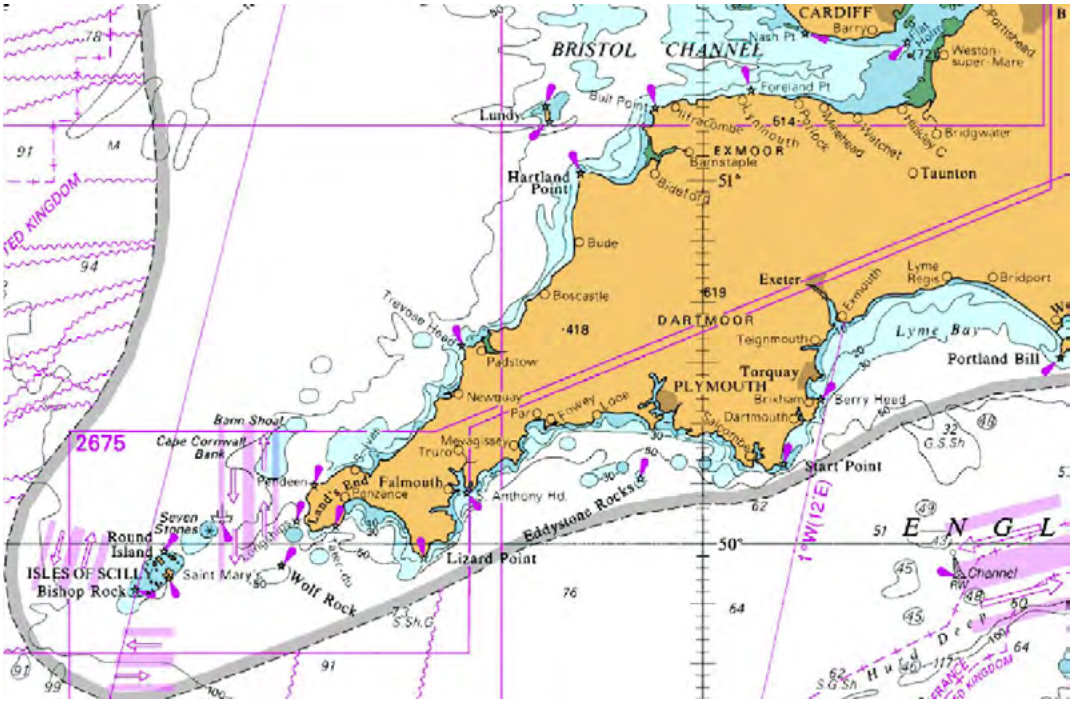
TSS: There are three IMO recognized TSS: off Land's End between Seven Stones and Longships; to the South of the Scilly Islands; and to the West of the Scilly Islands.

AtoN provided: 15 Lights; 1 Lightvessel; 26 Buoys; 11 beacons; 5 Racons & 5 AIS

PROPOSED CHANGES FOLLOWING 2025 REVIEW

Wolf Rock Lighthouse	Reduce light nominal range to 14nm and HWS to 1nm

Area 13: Bude to Cardigan



OVERVIEW

This area is divided into three sub-areas, Swansea, Cardiff and Milford. The latter area borders onto Irish Lights jurisdiction, and therefore has been the subject of joint discussions.

The development of floating offshore windfarms in the Celtic Sea will have a major impact on marine traffic patterns in the area. Most of the area identified by The Crown Estate for development is to the west of Lundy and has identified the major shipping routes to Milford Haven and between the traffic separation schemes as areas which cannot be developed. The cumulative effect of the planned UK and Irish renewable energy infrastructure is unknown at this time and AtoN will be constantly reviewed as these developments progress and come to fruition.

The Swansea area covers the Bristol Channel from just West of Hartland Point to Worms Head eastwards to a line drawn between Barry and Watchet. It includes the major headlands of Hartland Point, Bull Point, Nash Point and Worms Head. Swansea and Barnstaple Bays, together with the headlands provide a radar conspicuous coastline. Swansea Bay has extensive shoals, extending west from its east side, parallel to the main shipping route.

Ground Swell from the Atlantic may be encountered, except when easterly winds have prevailed, the effects of this swell are felt mainly on the North shore as far East as Swansea Bay. Tidal stream rates and ranges increase as one proceeds up the Bristol Channel. Typical speeds off Morte Point are 3.2 knots with tidal ranges of 7.8m compared with a speed of 4.4 knots and a range of 10.2m off the Breaksea Buoy.

The Cardiff area covers the eastern part of the Bristol Channel and the Severn Estuary. The coastline decreases in height east of Nash Point, and east of Hurlstone Point. In general, the coastline is low lying; however, there are areas of higher coastline with cliffs. It is indented to the south by Bridgewater Bay.

Flat Holm and Steep Holm Islands lie in the approaches to the Severn Estuary, a number of banks and shoals are encountered, together with mud flats. The Bristol Channel in this sub-area narrows from approximately 10 miles wide at the Western end to 2 miles at the commencement of the River Severn. Tidal stream rates are high, reaching a maximum of 8 knots. And tidal ranges increase considerably as one proceeds eastward,

reading a maximum of some 12m at the Elbow and N W Elbow buoy stations. The area also has a very high level of small craft activity, including fishing and leisure.

The Milford area encompasses the Welsh Coast from the Burry Inlet round to Cardigan and includes the major headlands of St Govan's Head, St Ann's Head, St David's Head and Strumble Head. The coastline is radar conspicuous, consisting of moderately high cliffs, indented by several bays and inlets, including the Barry Inlet, Carmarthen Bay, Milford Haven, St Brides Bay, and Fishguard Bay. This is an area of numerous off-lying islands and rocks, including Caldey Island, The Smalls, Skokholm, Grassholm, The Bishops and Clerks and Ramsey Island. Shifting sands are encountered over much of the Burry Inlet and depths are therefore subject to frequent change. The harbours of Burry Port and Llanelli, Tenby and Saundersfoot are mainly used by fishing and leisure craft, as are the Afon Taf and Tywi.

Safe water anchorages are available off Caldey Island and subject to suitable weather conditions in Rhossili Bay. Milford Haven provides good shelter and a harbour of refuge. The Helwick Sands should be given a wide birth, as Westerly winds against the tide cause heavy seas and the East going tidal stream sets NE towards the sands. An area to be avoided has been established enclosing The Smalls and Grassholm. In addition laden tankers over 10000GRT should not use the channel between Grassholm and Skomer Island unless moving between St. Brides Bay and Milford Haven. In the vicinity of The Smalls, tidal stream rates vary from 3kts to 5kts. Due to the exposed nature of the coast, tidal races and constricted channels are encountered around Skokholm, Skomer, and Grassholm and between The Bishops and Clerks and Ramsey Island. Tiderips, dangerous to small craft, are also encountered near shoals and banks south of Milford Haven and amongst some of the aforementioned Islands.

Further to the continuing changing bathymetry in the channel to Bristol a meeting has been held with the Port of Bristol and buoy positional changes are being considered.

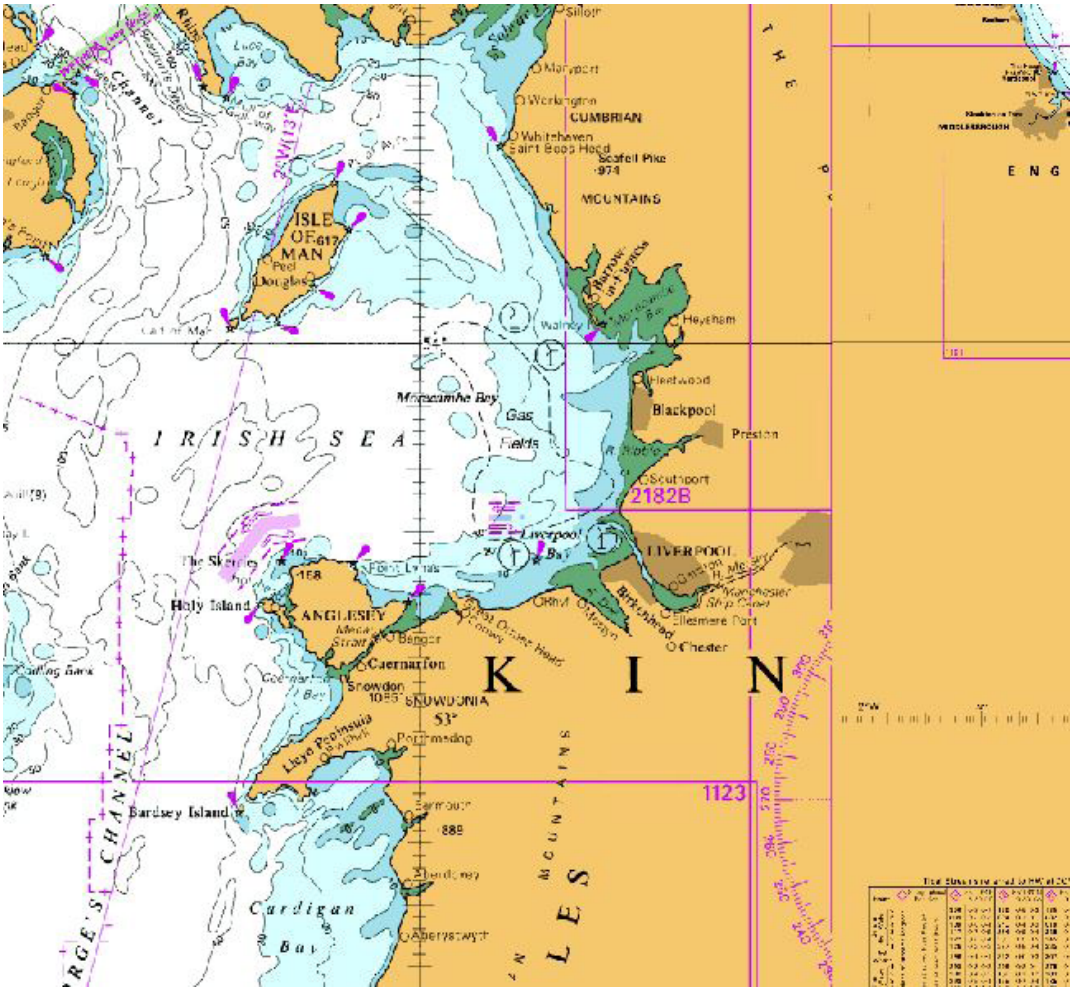
TSS: There is an IMO recognized TSS off the Smalls

AtoN provided: 18 Lights; 57 Buoys; 2 Beacons; 4 AIS & 8 Racons

PROPOSED CHANGES FOLLOWING 2025 REVIEW

Lundy South Lighthouse	Prior to reengineering Examiners to consider changing main light to Red lantern
Crow Point Lighthouse	Prior to reengineering requirement of lighthouse to be reviewed with possible replacement by buoyage considered

Area 14: Cardigan to Silloth



OVERVIEW

The southern half of this area borders Irish Lights jurisdiction and therefore has been the subject of joint discussions, the northern part is a joint area involving all three GLAs. The area is divided into two sub-areas, Holyhead and the Irish Sea.

The continuing developments of Offshore Wind Farms and tidal energy sites will continue to affect AtoN provision in the area. With the proposed Mona, Morgan and Morecambe offshore windfarms there will be increased construction activity and traffic associated with offshore renewable energy sites. These developments are likely to affect the traffic patterns between the UK and the Isle of Man which will mean current AtoN in the area become more critical for marking shallower areas. The AIS analysis of traffic patterns in the area has shown changes due to the siting and increasing size of the Offshore Wind Farms, however there is no apparent appetite for the larger vessels to transit existing sites, preferring to route around the areas.

Future consented tidal energy developments close to Anglesey could affect the provision of AtoN in the area. Currently the activity in this area is around data collection with developers placing scientific instruments where required. It is likely devices will start getting installed in 2026.

Gas platforms and infrastructure are being considered for repurposing for carbon storage and these discussions are ongoing.

Aquaculture sites, excluding the mussel farms in the Menai Straits, are currently at a fairly low level with some starting to be developed off of the North Wales coast

The Holyhead area lies between Cardigan and the Isle of Anglesey, where the northern seaward border adjoins the jurisdiction of Irish Lights and

NLB. Cardigan Bay forms a major feature with numerous smaller bays within, the area affords good radar returns. Tide races and tide rips are evident in Cardigan Bay which has numerous small craft harbours. Between Aberystwyth and Bardsey Island the Coastline consists of low-lying ground interspersed with rocky cliffs, dangerous shoals extend offshore. The prominent headland, formed by the Lleyn Peninsula, lies to the north, again a number of small craft harbours lie in the region principally used as yachting centres. The Menai Strait separates the Isle of Anglesey from the mainland. Tidal rates are strongest off the main headlands, with races and tide rips. The port of Holyhead operates cargo and passenger service to Ireland. Harbours and ports in the Menai Strait provide commercial, as well as fishing and leisure craft, facilities.

The Irish Sea area comprises a number of bays, affording suitable shelter for small coasters, fishing and leisure craft. The area is dominated by Liverpool Bay and Morecambe Bay, into each of which flow a number of rivers. The area from Great Ormes Head to the Point of Ayr comprises a combination of low-lying coastline, backed by high land on the North Wales Coast. The oil and gas platforms in the area are a mixture of operational and stored units. There is also planned removal of some of the platforms over the next few years. Discussions are underway between developers, operators and regulators over the repurposing of platforms and gas wells for the use in carbon capture and storage activity. A number of shoals and banks are encountered in the approaches to the Dee Estuary and the River Mersey. Liverpool Bay, the Ribble Estuary and Morecambe Bay all feature low lying coastlines, with considerable areas of drying sands. North of St Bees Head the coastline is deeply indented by several bays, which are wide and separated by bold headlands. A large proportion of the Solway Firth has continually shifting drying sandbanks with channels in-between. Tidal stream rates off the entrance to the Solway Firth are up to 2kts. These rates increase to 4kts as the Firth is approached.

The main commercial ports are Holyhead; Mostyn; Liverpool; Garston; Manchester; Fleetwood; Lancaster; Heysham Barrow; Workington and Silloth. Some of this is ferry traffic to and from Northern Ireland and the Isle of Man. A number of other smaller ports/harbours in the sub-area are principally used by fishing and leisure craft.

TSS: There are two IMO recognized TSS in the area: off Skerries and in Liverpool Bay.

Environmental Concerns: This area now contains a Highly Protected Marine Area (HPMA) at Allonby Bay and buoy deployment in this area needs to fully assess any other impacts. It is likely that buoy deployment in the HPMA would only be Emergency Wreck Marking Buoys in the case of a serious maritime incident.

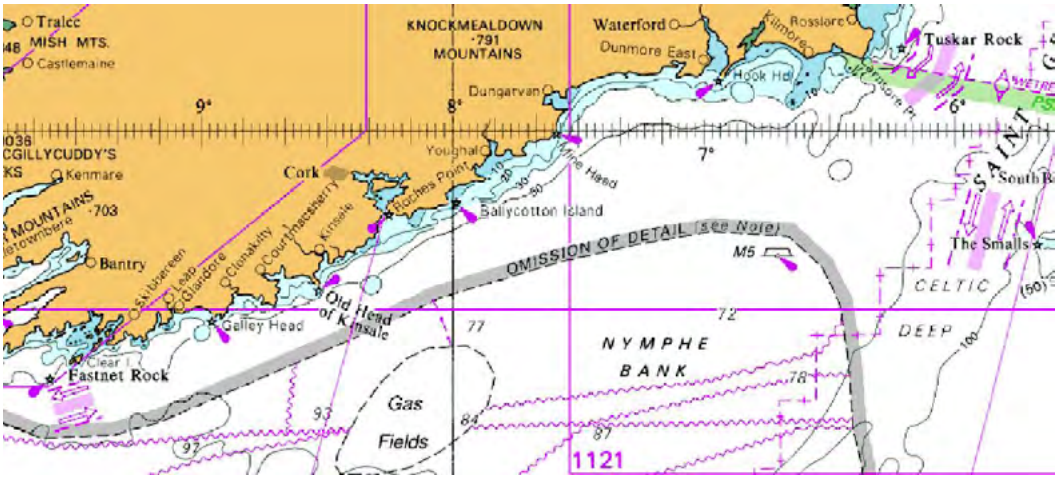
AtoN provided: 8 Lights; 38 Buoys; 3 beacons; 3 Racons & 2 AIS

PROPOSED CHANGES FOLLOWING 2025 REVIEW

King William Bank Buoy	Fit AIS and monitor for position
Jordan's Spit Buoy	Fit AIS and monitor for position
Morecambe Buoy	Fit AIS and monitor for position

12 Review of Irish Lights Areas (15-21)

Area 15: Fastnet to Tuskar



OVERVIEW

The Fastnet to Tuskar coastline particularly in the west of the region, is high and rocky with bold cliffs and headlands. The eastern area has the Coningbeg rocks and Saltee Islands projecting off the coast.

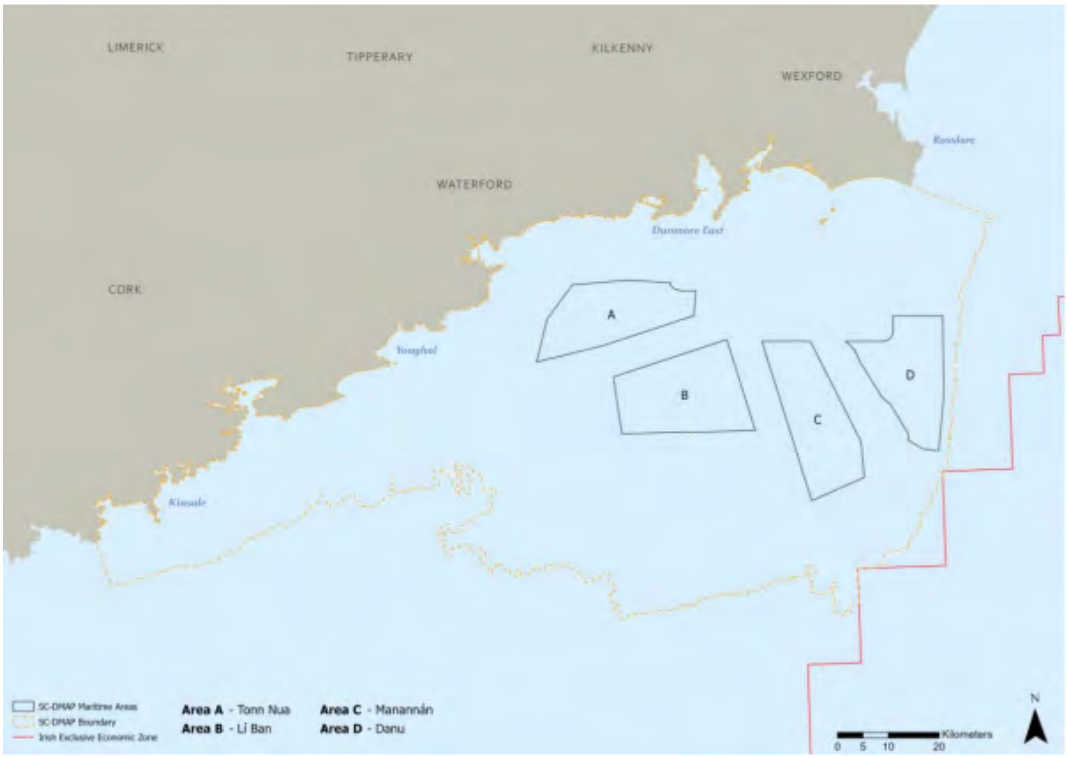
The main commercial ports in the area are Cork, Waterford and New Ross within the Waterford River estuary. The approaches to these ports are comparatively straightforward. However, the approaches to smaller leisure and fishing ports, anchorages and bays can be difficult, often with dangerous rocks and reefs. The main fishing ports are at Schull, Baltimore, Union Hall, Cork, Ballycotton, Dungarvan, Youghal, Dunmore East, and Kilmore Quay. There is an increasing mix of commercial fishing and commercial/leisure angling. The main leisure craft centres are at Crookhaven, Schull, Baltimore, Union Hall, Cork, Kinsale, Ballycotton, Dungarvan, Youghal, Dunmore East, Waterford and Kilmore Quay.

The Fastnet Rock is a common waypoint for transatlantic traffic eastbound for the Irish Sea or Bristol Channel ports or for westbound traffic to North America. Both Kinsale Head Gas production platforms were decommissioned in 2022 and razed to the seabed in 2023.

TSS: There are two IMO recognised Traffic Separation Schemes in force – one off Fastnet and one off Tuskar. The Offshore route between these schemes covers a distance of 140 NM taking vessels clear of all headlands and the Coningbeg Buoy.

OREI:
The South Coast Designated Maritime Area Plan for Offshore Renewable Energy (SC-DMAP) is Ireland's first forward spatial plan for offshore renewable energy. As part of a plan-led approach to offshore renewable energy adopted by Government in 2023, all post Phase One offshore wind projects in Ireland will be located within maritime areas identified for this purpose by Government through the establishment of DMAPs. The draft South Coast DMAP proposes that the first Phase Two offshore wind project with a capacity of approximately 900MW will take place in Tonn Nua, in the vicinity of the Nymphe Bank off the coast of County Waterford and will aim for deployment by 2030. It further proposes that, over the next decade, further offshore wind projects will be developed in the areas of Lí Ban, also off the coast of County Waterford, and Manannán and Danu, both off the south coast of County Wexford.

AtoN provided: 10 Lights, 19 Buoys, 4 beacons, 4 Racons, 18 AIS.



PROPOSED CHANGES FOLLOWING 2025 REVIEW

Helvick buoy	Position move and addition of AIS

Area 16: Tuskar to Baily

OVERVIEW

The Tuskar to Baily region features a series of shallow sandbanks. The coastline, with the exception of some prominent headlands, is low lying. This, combined with the distance offshore of the dangerous banks, necessitates a reliance on floating aids.

The sandbanks extend up to nine miles off the coast with some drying out at low water. These banks are subject to movement following southerly or easterly gales and are gradually changing, requiring ongoing survey in order to ensure the buoyage is in the optimum position.

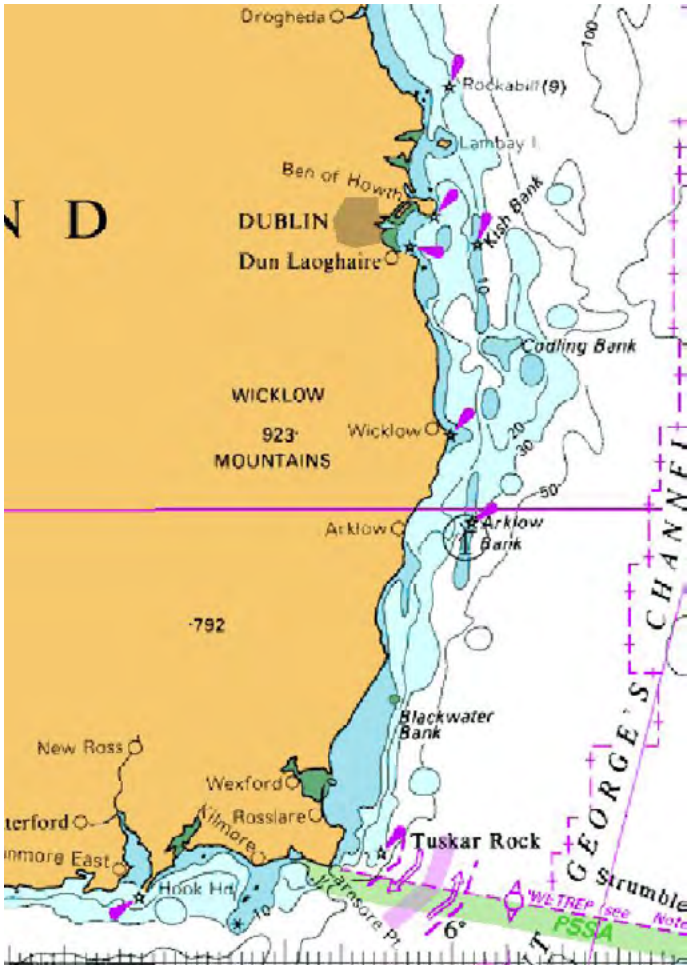
Due to the prevailing south-westerly winds in this area, the preferred channel for smaller or lower powered vessels on coastal passage is to seek the shelter of the land. Therefore the majority of local traffic passes well inside most of the off-lying sandbanks. The main commercial ports in the area are Rosslare Europort and Dublin. There are smaller ports at Arklow and Wicklow. The approaches to all these ports are through channels between sandbanks. Changes in navigation may emerge in the period 2025-30 due to developments in the ORE sector. Anticipated changes to existing AtoN are set out below.

The main commercial port in the area is Rosslare Europort which since Brexit has seen a more than six-fold increase in direct European sailings to avoid the previous land-bridge via the UK. A separate 2021 post-Brexit review of AtoN provision on the approaches to Rosslare found that the current mix is adequate with no changes required. A local one-way system has been introduced for the channel at South Shear, which has improved safety. The main fishing ports are at Rosslare Wexford, Arklow and Wicklow. There is also a significant mix of commercial fishing and sea angling in this area. .

The main leisure centres are at Wexford, Courtown, Arklow, Wicklow, Greystones, Bray and Dun Laoghaire.

The principal shipping routes through the region are:

- A through route for vessels bound for the North Channel or Ports on the West Coast of the UK.
- An offshore route to Dublin Bay.



- A coastal route to Dublin Bay and Ports between Rosslare and Dublin.
- The East/West corridors through the Banks.

Within the coastal route are a number of internal channels, the North and South Shears, the Rusk Channel, and channels between the Codling, India and Arklow Banks and the Blackwater and Lucifer Banks.

TSS: There is an IMO designated Traffic Separation Scheme at Tuskar Rock. There is a non-IMO designated TSS in Dublin Bay.

OREI: A wind farm exists at Arklow Bank which is planned to be expanded in the coming years. There are also proposals in place for wind farms at Codling, Bray and Kish banks.

AtoN provided: 4 lights, 34 Buoys, 5 Racons, 20 AIS.

PROPOSED CHANGES FOLLOWING 2025 REVIEW

East Codling	Disestablish based on turbine layout if ORE site proceeds
East Kish	Disestablish based on turbine layout if ORE site proceeds
North Arklow	Disestablish based on turbine layout if ORE site proceeds
South Arklow	Disestablish based on turbine layout if ORE site proceeds
South Codling	Disestablish based on turbine layout if ORE site proceeds
Glassgorman No 2	Survey required of bank to consider reposition*
* carried forward from 2020 Review	

Area 17: Baily to St John's Point Down

OVERVIEW

The coastline from Dublin Bay to Dundalk Bay is low-lying and featureless. Between Carlingford Lough and Dundrum Bay lie the Mourne Mountains sloping down to low cliffs. Through-traffic in the Irish Sea, on passage between the Codling Buoy, or Kish Tower, and the South Rock Buoy, transits well to the East of the coast.

However, there are many harbours and ports in the area, which generate considerable coastal traffic, including commercial, fishing and leisure craft.

The principal commercial ports are Drogheda, Dundalk, Greenore, and Warrenpoint.

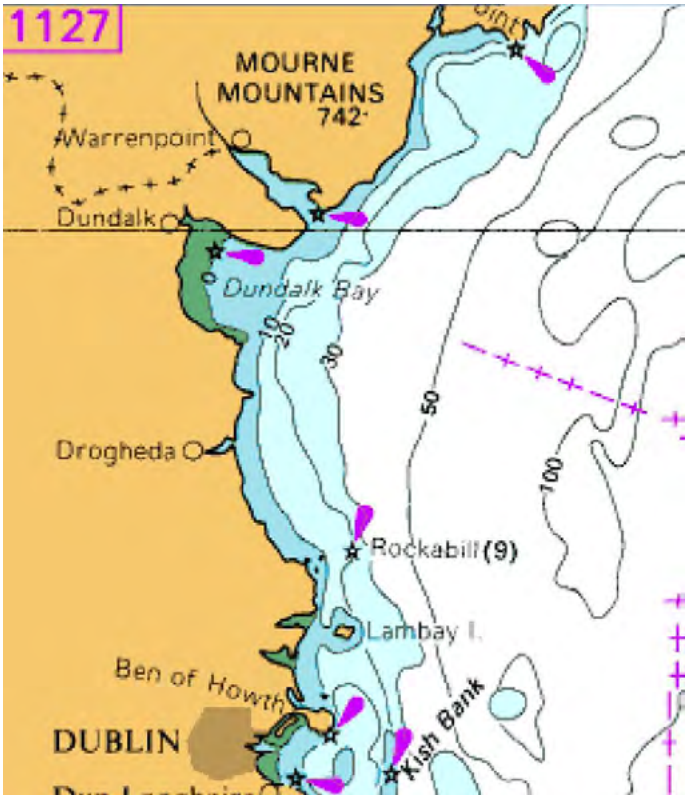
In 2023, Drogheda Port announced plans to develop a new deepwater port at Bremore, on the coast adjacent to Rockabill. The planning date for entering operation is cited as 2028-30, however no planning application has been made and delays are expected.

The principal fishing harbours are Howth, Rush, Skerries, Balbriggan, Port Oriel (Clogher Head), Kilkeel and Annalong.

The principal leisure boat harbours are Howth, Malahide, Rush, Skerries, Balbriggan, Carlingford Lough, Kilkeel and Annalong.

Most of the ports in this region have tidal limitations or restrictions, as the foreshore throughout its length is shelving and shallow, consisting mainly of sand and gravel but with some off-lying rocks in the vicinity of the south Down coast and the Skerries/ Loughshinny area of the north County Dublin coast.

With the exception of Carlingford Lough, there are no safe anchorage for vessels seeking shelter from strong on-shore winds in this region.



TSS: There are no Traffic Separation Schemes in this area.

OREI: North Irish Sea Array (located in the region of Clogherhead to Lambay Isl) is seeking development permission from An Bord Pleanála. In addition, the Oriel wind farm project area is located in the Irish Sea off the coast of County Louth, to the East of Dundalk Bay and is also seeking development permission.

AtoN provided: 5 lights, 7 Buoys, 2 Beacons, 1 Racon, 8 AIS.

PROPOSED CHANGES FOLLOWING 2025 REVIEW

South Rowan	Change to longer flash character and subsequent transfer buoy to LLA
Howth Buoy	Change to more conspicuous flash character
Imogene	Reposition buoy if ORE site proceeds

Area 18: St John's Point Down To Rathlin Island

OVERVIEW

St. John's Point, Co. Down to Rathlin Island forms the west side of the North Channel, which carries seaborne traffic through a relatively narrow seaway.

This coastal area can be divided roughly in two for the purpose of describing the natural features of its terrain.

With the exceptions of the Maidens Rocks and Hunter Rock, both of which are marked, the coast from Fair Head to Black Head, at the north-eastern entrance to Belfast Lough, is quite steep-to, with deep water off, and no navigational hazards to speak of.

However, on passing South of Belfast Lough, the coast from Mew Island to the entrance to Strangford Lough is low-lying with offshore reefs and hazards. There are no inshore channels, as all craft keep well east of the major waypoint of the South Rock buoy.

In the case of Donaghadee Sound, this buoyed passage has a number of shoal patches. It is not generally suitable for large vessels but does attract a considerable amount of Belfast traffic, which would otherwise be obliged to pass East and North of Mew Island.

Belfast and Strangford Loughs are the only two inlets, which offer shelter to vessels seeking refuge. Belfast Lough is open to the East and is of limited use.

There are two commercial ports, Belfast and Larne. There are additional commercial berths inside Belfast lough such as that at Kilroot power station and there are now plans to reinstate a berth at Cloghan Point Oil Jetty. In recent years a number of cruise vessels have anchored in Belfast Lough and operated a tender boat service into Bangor.

The Fishing ports are Kilkeel, Killough, Portaferry and Portavogie.

The main Leisure ports are Ardglass, Strangford, Portaferry, Ballywalter, Portavogie, Donaghadee, Bangor and Carrickfergus, Ballycastle.

TSS: There is a Traffic Separation Scheme off Rathlin Island.

OREI: There are no OREIs in this region at this time. North Channel Wind is a project between the East Coast of Northern Ireland and the Isle of Man, which is currently in the early stages of planning with no development expected during the review period.

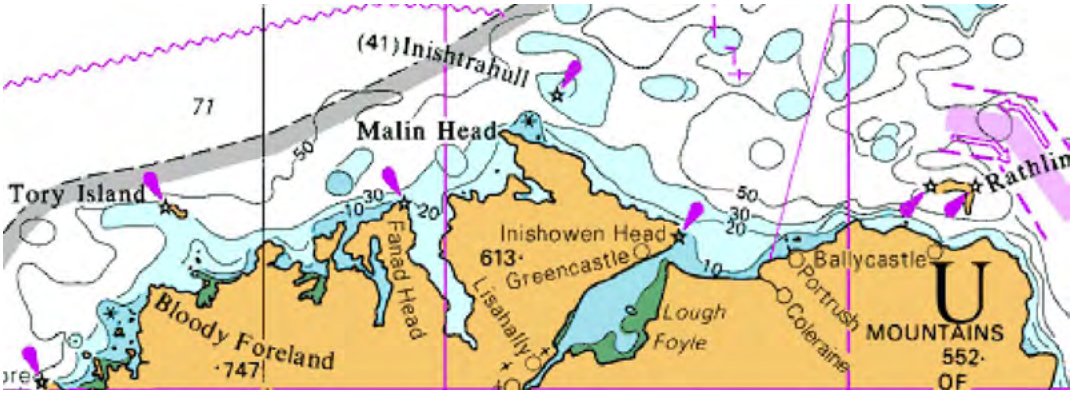
AtoN provided: 5 lights, 12 Buoys, 8 Beacons, 3 Racons, 11 AIS, and 1 Virtual AtoN.

PROPOSED CHANGES FOLLOWING 2025 REVIEW

Butter Pladdy	Survey required of bank to consider reposition *

* carried forward from 2020 Review

Area 19: Rathlin East to Tory Island



OVERVIEW

The North Irish coast between Rathlin East Lighthouse and Tory Island is relatively clear of hazards to navigation.

The three principal islands which lie off this coast, Rathlin, Inishtrahull and Tory, are each provided with sufficient AtoN, to guide the deeper draught, North Atlantic traffic, bound in or out of the North Channel, well North of any inshore hazards which lie along the coast.

As far as the needs of inshore traffic is concerned the mainland coast can be described as a series of prominent headlands jutting out into comparatively deep water, with few exceptions. There are a number of very deep navigable inlets, the principal ones being Lough Foyle, Lough Swilly, Mulroy Bay and Sheephaven.

On the eastern section of the coast, Rathlin Sound is an important passage for shipping, which is well served by the lighthouses at Rathlin West and Rue Point. The tidal streams and overfalls in this area can be strong and turbulent and these two AtoN, at either end of the sound, can greatly assist the safe transit of inshore traffic.

Inshore navigation between Inishtrahull Sound and Rathlin Island does not pose any particular problems. Any identifiable hazards are minor and so close to the mainland that they do not call for attention beyond that which is already provided.

Fanad Head and Malin Head are also relatively free of immediate dangers except for the Limeburner shoal. However, Inishtrahull Sound, which lies close East of Malin Head can be a treacherous sea passage for smaller vessels in certain weather and tidal conditions, and the unlighted Garvan Isles which lie on the landward side of the Sound are a danger to be particularly avoided. The powerful light and Racon on Inishtrahull are considered adequate for the guidance of vessels transiting the Sound or taking the offshore route.

Horn Head is quite clear of off-lying dangers, and the shoals on either side of the entrance to Mulroy Bay are sufficiently inshore as not to constitute a serious danger. The isolated Limeburner Rock, with only 2 metres of water over it, is adequately marked by a type 2 lighted buoy with AIS fitted, which also serves as a useful waypoint for offshore traffic.

Tory Sound is deep and navigable, delineated by night by the sectored local authority light on Bloody Foreland, as well as the major light on Tory Island.

The principal commercial port in the area is Foyle Port formerly known as Londonderry Port. The principal fishing harbours are Greencastle and Rathmullan. The principal leisure boat harbours are Rathlin Harbour, Ballycastle, Coleraine, Portrush, Portstewart, Foyle Marina, Lough Swilly and Mulroy Bay.

TSS: In the east of this region, the Rathlin Traffic Separation Scheme and Tanker exclusion zones require particular attention.

OREI: There are no OREI in this region at this time.

AtoN provided: 8 lights, 13 Buoys, 1 Beacon, 3 Racons, 10 AIS

PROPOSED CHANGES FOLLOWING 2025 REVIEW

Nil

Area 20: Tory Island to Loop Head

OVERVIEW

The Tory Island to Loop Head region is one of the most exposed areas in Northwest Europe, as it takes the full brunt of the prevailing winds and North Atlantic storms. There is limited all weather shelter for any large vessel seeking refuge.

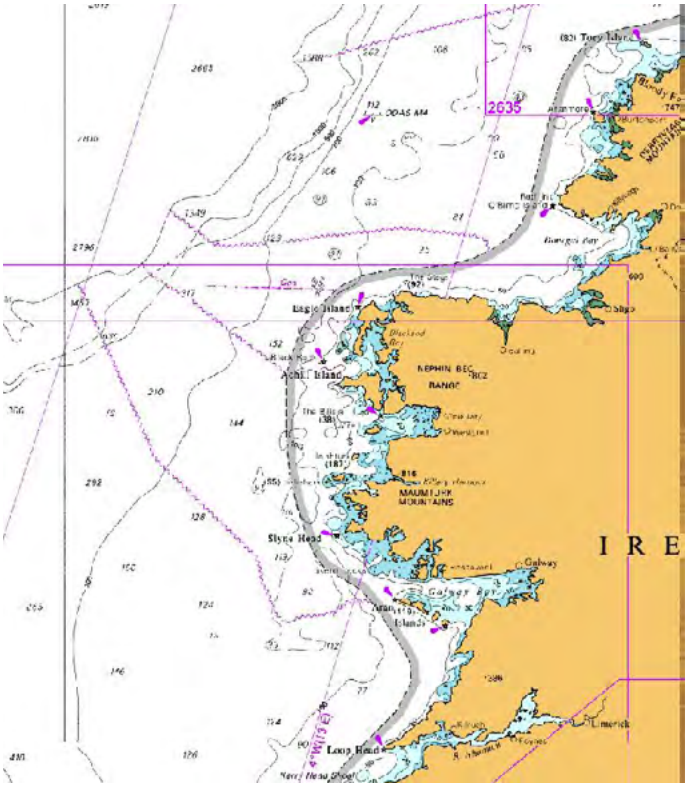
The geographical features of this coastline vary considerably along its whole length from fractured coastlines in Donegal and Mayo to high sheer cliffs in Clare.

The coast from Tory Island to Donegal Bay, within which is the fishing port of Killybegs, is characterised by the highest sea cliffs on the island of Ireland. The physical nature of the coastline changes dramatically between Eagle Island and the Aran Islands. The shoaled and rock strewn coasts of Mayo and Galway protrude out into the North Atlantic and present a formidable number of hazards for the inshore mariner. Blacksod Bay, Clew Bay and Killary Harbour have limited protection as places of refuge.

Galway Bay is, in general, well served by the natural protection it receives from the Aran Islands. The Bay has adequate provision of Aids to Navigation but offers limited shelter.

The main commercial ports in the area are Sligo and Galway. The main fishing ports in the area is Killybegs and Rossaveel. The main leisure/tourist ports are Buncranna, Rossaveel and Killeany Bay.

TSS: There are no Traffic Separation Schemes in this area.



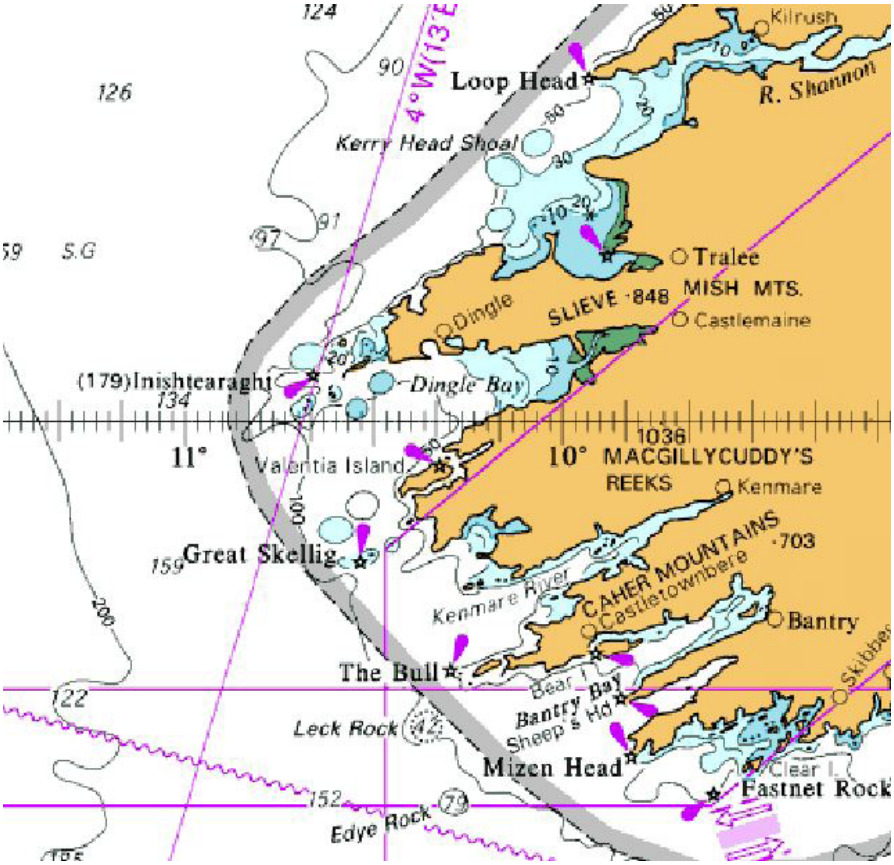
OREI: There are offshore renewable energy test sites located off Spiddal in Galway Bay and off Annagh Head. One of the Phase One projects scheduled to proceed before 2030 subject to planning permission is Sceirde Rocks located between Slyne Head and Aran Islands, off Galway.

AtoN provided: 19 lights, 15 Buoys, 2 Beacons, 4 Racons, 20 AIS.

PROPOSED CHANGES FOLLOWING 2025 REVIEW

Ballagh Rocks	Add synthetic AIS to Beacon
Middle Rock buoy	Handover to LLA *
Gola Spit buoy	Handover to LLA *
Slyne Head	If/when technology allows amend sectors: Reduce White to 18nm and Red to 15nm *
Cannon Rock	Handover to LLA +
* carried forward from 2020 Review	
+ carried forward from 2010 Review	

Area 21: Loop Head to Fastnet



OVERVIEW

The Coast in this area is characterised by high cliffs and headlands and deep bays. There are many offshore islands. Approaches to ports and harbours are invariably hazardous due to the rocky nature of the area.

Severe weather conditions in this zone can force vessels to seek shelter in the numerous bays in the area. The Shannon Estuary and Bantry Bay in particular are the main ports of refuge for large vessels.

Through traffic will normally follow the offshore route outside the major islands. Coastal traffic and vessels bound for ports within the zone mainly use the inshore passages, particularly during adverse weather conditions.

There is a busy fishing trade in the area ranging from small inshore boats to large offshore trawlers and deep-sea longliners.

The principal commercial ports are Foynes, Limerick Docks, Aughinish and Bantry Terminal.

The principal fishing harbours are Fenit, Ventry, Dingle, Valentia and Castletownbearhaven.

The principal leisure boat harbours are Kilrush, Fenit, Ventry, Dingle Marina, Cahersiveen, Knightstown, Sneem and Bantry Bay.

AtoN provided: 14 lights, 16 Buoys, 3 Beacons, 3 Racons, 18 AIS,

TSS: There is a TSS in operation at Fastnet.

OREI: There are no OREIs in this region at this time.

PROPOSED CHANGES FOLLOWING 2025 REVIEW

Maiden Rock Buoy	Handover to LLA
Colt Rock Beacon	Handover to LLA

13 GLA Navigational Risk Assessment

Definition of Impact levels

Failure to provide this service may potentially result in one or more of the following:

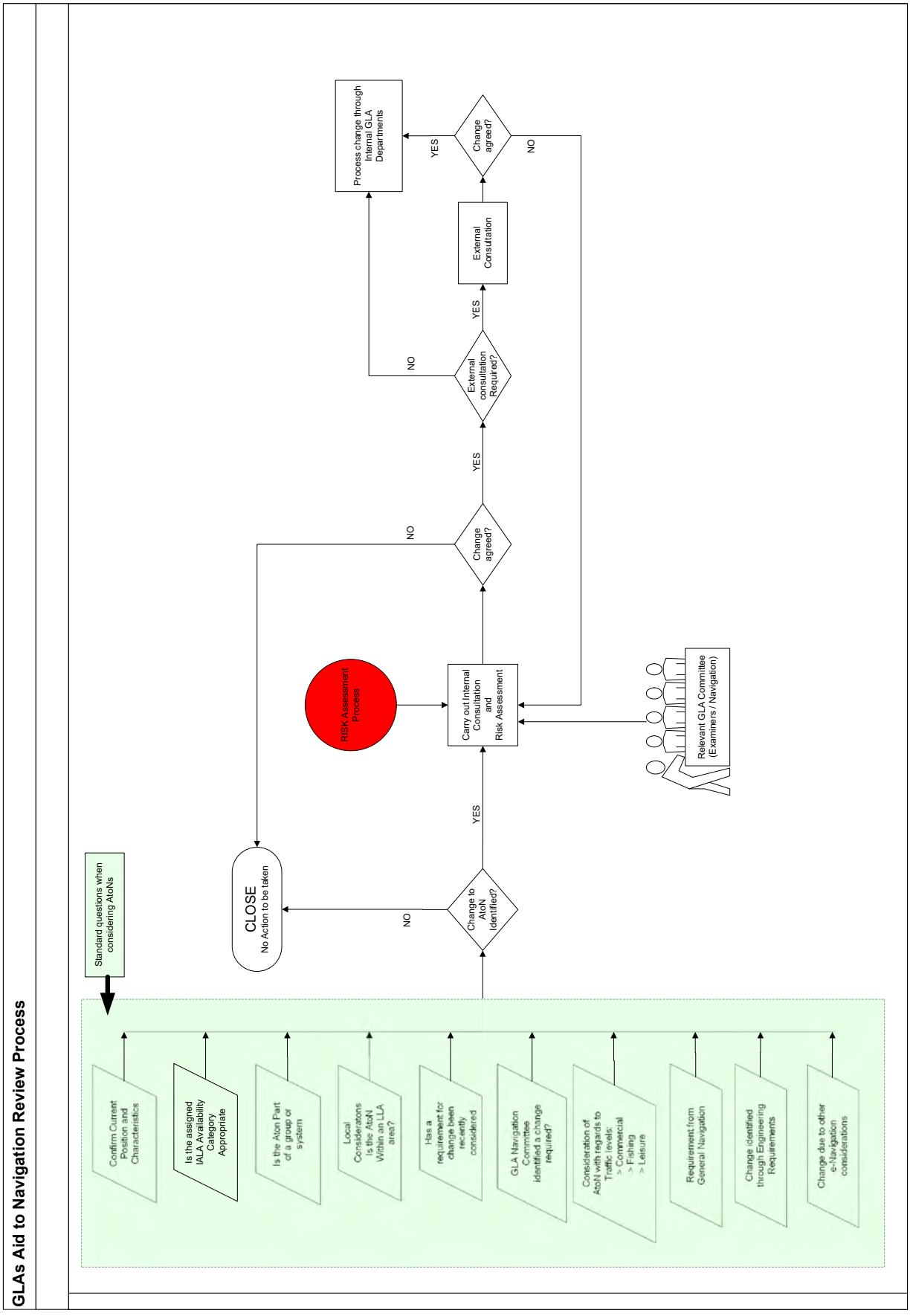
	Safety	Environmental	Finance
Severe (3)	Multiple loss of life	Major pollution incident	Loss or damage of significant vessel Cost > £10M
Moderate (2)	Possible loss of life on a limited scale	Limited pollution incident	Major damage to large vessel/probable loss of small vessel
Minor (1)	Unlikely to result in loss of life	Little or no pollution	Minor damage to large vessel/possible loss of small vessel Cost <£500k

Definition of Likelihood levels

Noting current and predicted traffic patterns, the probability of an incident of this impact is assessed as:

High (3)	This type of incident has occurred in the past and may be repeated, or it is assessed as likely
Medium (2)	Possible
Low (1)	A remotely possible occurrence

14 Flow Diagrams and Risk Assessment Forms



AID TO NAVIGATION RISK ASSESSMENT – *To be completed for each Aid Changed*			
Name of Aid to Navigation		**Items Considered**	
Location			
Date Considered			

IMPACT				
	Severe 3	3	6	9
	Moderate 2	2	4	6
	Minor 1	1	2	3
		LOW 1	MEDIUM 2	HIGH 3
		LIKELIHOOD		

	Unacceptable level of risk
	Acceptable level of risk with caution
	Acceptable level of risk

Process: Make an assessment of all the risks involved, considering at least the items in the adjacent table and assessing both before and after the proposed change. Having made your assessment enter the appropriate number against Impact and Likelihood. Use the table above to determine the consequential overall risk level.

Title	Name /Signature	Date
INTERNAL		
Director / Navigation Manager		
GLA APPROVAL		
TH		
CIL		
NLB		

Overall Impact and Likelihood Assessment

Considerations will include but not be limited to the following:			Considered	Record of amplifying comments against consideration number – if required:
1	Is the AtoN a significant part of a group of Aids which will be affected by the change?			
2	Assessment of local bathymetry against the proposed change			
3	Frequency and accuracy of hydrographic surveys			
4	Traffic Density, type, size, draft and speed.			
5	Traffic patterns to be considered in relation to conflict between routes and types of vessel			
6	Existing Obstructions and developments			
7	Planned new obstructions or developments			
8	IMO international and Local Charted Traffic routing measures			
9	Port and Local Information Systems	VTS		
		Information Service		
		Sailing Directions and Local notices to Mariners		
10	Local knowledge of users including the availability of Pilotage			
11	Requirement in prevailing weather conditions including luminous range, sea conditions and background lighting.			
12	Accident or Incident History recorded for this station			
13	Any other considerations:			

Risk Assessment	Before Change	After Change	**DECISION**
IMPACT			
LIKELIHOOD			
ASSESSED RISK			

15 Appendix: Tables

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
1	MAUGHOLD HEAD	LIGHT	54°17.734'N	004°18.585'W	Fl(3) 30s	15				No change considered necessary
1	BAHAMA	BUOY	54°20.029'N	004°08.571'W	VQ(6)+LFl 10s	4		2	AIS	No change considered necessary
1	DOUGLAS HEAD	LIGHT	54°08.599'N	004°27.947'W	Fl 10s	15				No change considered necessary
1	LANGNESS	LIGHT	54°03.294'N	004°37.509'W	Fl(2) 30s	12				No change considered necessary
1	CHICKEN ROCK	LIGHT	54°02.271'N	004°50.315'W	Fl 5s	18			RACON	No change considered necessary
1	THOUSLA ROCK	LIGHT	54°03.728'N	004°48.042'W	Fl R 3s	4				No change considered necessary
1	BALLACASH BANK	BUOY	54°26.500'N	004°16.700'W	VQ(9) 10s	5		2		No change considered necessary
1	POINT OF AYRE	LIGHT	54°24.959'N	004°22.111'W	Fl(4)W 20s	19			RACON/AIS	Re-engineer with minimum 18M range
1	WHITESTONE BANK	BUOY	54°24.599'N	004°20.375'W	Q(9) 15s	5		2		No change considered necessary
1	HESTAN ISLAND	LIGHT	54°49.973'N	003°48.581'W	Fl(2) 10s	9				No change considered necessary
1	LITTLE ROSS. Rear	LIGHT	54°45.944'N	004°05.096'W	Fl 5s	12				Re-engineer with 10M LED and improve synchronisation with beacon
1	LITTLE ROSS. Front	LEADING LIGHT	54°46.064'N	004°05.020'W	Fl(2) 5s	5				Improve synchronisation with rear light
1	MULBERRY WRECK	BUOY	54°46.346'N	004°21.076'W	Q(3) 10s	3		3		No change considered necessary
1	MULL OF GALLOWAY	LIGHT	54°38.113'N	004°51.447'W	Fl 20s	18				No change considered necessary
1	CRAMMAG HEAD	LIGHT	54°39.910'N	004°57.903'W	Fl 10s	18				No change considered necessary
1	CRAIG LAGGAN	BEACON	54°58.573'N	005°11.432'W						No change considered necessary
1	CORSEWALL	LIGHT	55°00.429'N	005°09.564'W	Fl(5) 30s	18			AIS	Add VAtoN capability
1	SPIT OF SCAUR	BUOY	54°57.104'N	005°01.461'W	Fl G 6s	3		4		Transfer to LLA
1	LOCH RYAN	LIGHT	54°58.467'N	005°01.845'W	Fl(2) R 10s	12				No change considered necessary
1	LOCH RYAN WEST	BUOY	54°59.228'N	005°03.230'W	Q G	4		2		No change considered necessary
1	FORBES SHOAL	BUOY	54°59.536'N	005°02.955'W	Fl(2) 5s	4		2		No change considered necessary
1	MILLEUR POINT	BUOY	55°01.288'N	005°05.656'W	Q	4		2	AIS	No change considered necessary
1	LOCH RYAN FAIRWAY	BUOY	54°59.770'N	005°03.811'W	Iso 4s	5		2		No change considered necessary
1	AILSA CRAIG	LIGHT	55°15.126'N	005°06.523'W	Fl W 4s	17				No change considered necessary
1	BREST ROCKS	BEACON	55°18.247'N	004°51.190'W						No change considered necessary
1	TURNBERRY	LIGHT	55°19.572'N	004°50.655'W	Fl W 15s	12				No change considered necessary
1	LADY ISLE	LIGHT	55°31.632'N	004°44.047'W	Fl 2s	11			RACON	No change considered necessary
1	LAPPOCK ROCK	BEACON	55°34.624'N	004°41.720'W						No change considered necessary
1	HAMILTON ROCK	BUOY	55°32.627'N	005°04.898'W	Fl R 6s	3		3		No change considered necessary
1	FULLARTON ROCK	BUOY	55°30.643'N	005°04.572'W	Fl(2) R 12s	3		3		No change considered necessary
1	HOLY ISLAND (INNER)	LIGHT	55°30.736'N	005°04.211'W	Fl G 3s	6				No change considered necessary
1	HOLY ISLAND (OUTER)	LIGHT	55°31.042'N	005°03.653'W	Fl(2) 20s	18				No change considered necessary
1	PLADDA	LIGHT	55°25.512'N	005°07.113'W	Fl(3) 30s	17				Re-engineer; maintain 17nM range
1	IRON ROCK LEDGES	BUOY	55°26.828'N	005°18.875'W	Fl G 6s	4		2		No change considered necessary
1	CRUBON ROCK	BUOY	55°34.473'N	005°27.092'W	Fl(2) R 12s	4		2		No change considered necessary
1	OTTERARD	BUOY	55°27.062'N	005°31.108'W	Q(3) 10s	4		2		No change considered necessary
1	DAVAAR	LIGHT	55°25.688'N	005°32.428'W	Fl(2) 10s	15				No change considered necessary
1	ARRANMAN'S BARRELS	BUOY	55°19.411'N	005°32.870'W	Fl(2) R 12s	4		2		No change considered necessary
1	MACOSH ROCK	BUOY	55°17.941'N	005°36.992'W	Fl R 6s	4		2		No change considered necessary
1	PATERSONS ROCK	BUOY	55°16.912'N	005°32.477'W	Fl(3) R 18s	4		2	AIS	No change considered necessary
1	SANDA	LIGHT	55°16.508'N	005°34.980'W	Fl 10s	15			AIS	No change considered necessary
1	MULL OF KINTYRE	LIGHT	55°18.626'N	005°48.208'W	Fl(2) 20s	18				No change considered necessary
2	SGEIR GIGALUM	BUOY	55°39.965'N	005°42.667'W	Fl G 6s	2		2		No change considered necessary
2	GIGALUM ROCKS	BUOY	55°39.193'N	005°43.691'W	Q(9) 15s	4		2		No change considered necessary
2	BHANARACH ROCKS	BUOY	55°40.700'N	005°43.325'W	Q(3) 10s	4		2		No change considered necessary
2	SGEIR NUADH	BUOY	55°41.779'N	005°42.058'W	Fl R 6s	4		2		No change considered necessary
2	BADH ROCK	BUOY	55°42.295'N	005°41.220'W	Fl(2) G 12s	4		2		No change considered necessary
2	GAMHNA GIGHA	LIGHT	55°43.778'N	005°41.075'W	Fl(2)W 6s	5				No change considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
2	CATHSGEIR	BUOY	55°39.662'N	005°47.495'W	Q(9) 15s	4		2		No change considered necessary
2	RHINNS OF ISLAY	LIGHT	55°40.402'N	006°30.804'W	Fl W 5s	18				No change considered necessary
2	LOCH INDAAL	SECTOR LIGHT	55°44.690'N	006°22.344'W	Fl(2) WR 7s	11				No change considered necessary
2	OTTER ROCK	BUOY	55°33.862'N	006°07.913'W	Q(6)+L.Fl 15s	4		2		No change considered necessary
2	PORT ELLEN	BUOY	55°37.000'N	006°12.267'W	Q G	4		2		No change considered necessary
2	OTTER GANDER	BUOY	55°36.600'N	006°12.340'W	VQ(3) 5s	3		3		No change considered necessary
2	PORT ELLEN	SECTOR LIGHT	55°37.218'N	006°12.707'W	Fl WRG 3s	8				No change considered necessary
2	EILEAN A CHUIRN	LIGHT	55°40.129'N	006°01.210'W	Fl(3) 18s	8				No change considered necessary
2	MCARTHUR'S HEAD	SECTOR LIGHT	55°45.831'N	006°02.865'W	Fl(2) WR 10s	13				No change considered necessary
2	BLACK ROCKS	BUOY	55°47.503'N	006°04.082'W	Fl G 6s	4		2		No change considered necessary
2	CARRAGH MHOR	SECTOR LIGHT	55°50.423'N	006°06.109'W	Fl(2)WR 6s	8				No change considered necessary
2	CARRAGH AN T'SRUITH	LIGHT	55°52.309'N	006°05.770'W	Fl 3s	9				Re-engineer; maintain 9M light
2	RUVAAL	LIGHT	55°56.181'N	006°07.409'W	Fl(3)W 15s	19				No change considered necessary
2	NA CUILTEAN	LIGHT	55°48.642'N	005°54.891'W	Fl W 10s	9				No change considered necessary
2	SMALL ISLES	LIGHT	55°49.977'N	005°56.428'W	Fl R 6s	5				No change considered necessary
2	GOAT ROCK	BUOY	55°50.123'N	005°55.670'W	VQ(3) 5s	4		2		No change considered necessary
2	EILEAN NAN GABHAR	LIGHT	55°50.039'N	005°56.242'W	Fl W 5s	8				No change considered necessary
2	NINE FEET ROCK	BUOY	55°52.463'N	005°52.950'W	Q(3) 10s	4		2		No change considered necessary
2	SKERVUILE	LIGHT	55°52.457'N	005°49.849'W	Fl W 15s	9				No change considered necessary
2	BOW OF KNAP	BUOY	55°53.050'N	005°41.957'W	Q(9) 15s	4		2		No change considered necessary
2	RUADH SGEIR	LIGHT	56°04.321'N	005°39.778'W	Fl W 6s	9				No change considered necessary
2	REISA AN T-STRUITH	LIGHT	56°07.776'N	005°38.907'W	Fl(2)W 12s	7				Re-engineer; maintain 9M light
2	ARDLUING	BUOY	56°11.000'N	005°38.500'W	Q(6)+LFl 15s	3		3		No change considered necessary
2	SCALASAIG	SECTOR LIGHT	56°04.007'N	006°10.897'W	Fl(2)WR 10s	8				No change considered necessary
2	THE GARVELLACHS	LIGHT	56°13.040'N	005°49.056'W	Fl W 6s	9				No change considered necessary
2	BOGHA ANT SAGART	BUOY	56°13.030'N	005°45.260'W	Q(9) 15s	4		2		No change considered necessary
2	DUBH SGEIR (LUING)	SECTOR LIGHT	56°14.772'N	005°40.184'W	Fl WRG 6s	6			RACON	No change considered necessary
2	FLADDA	SECTOR LIGHT	56°14.897'N	005°40.830'W	Fl(2)WRG 9s	11				Narrow southerly white sector from 12° to 7°
2	FUNAICH BHEAG	LiIGHT	56°14.014'N	005°40.111'W						Establish short range Starboard lateral light
2	BOGHA GHAIR	BUOY	56°16.490'N	005°40.500'W	Q(3) 10s	4		2		No change considered necessary
2	BONO ROCK	BUOY	56°16.204'N	005°41.276'W	Q(9) 15s	4		2		No change considered necessary
2	CLEIT ROCK	BEACON	56°15.769'N	005°37.426'W						No change considered necessary
2	BOGHA NUADH	BUOY	56°21.690'N	005°37.874'W	Q(6)+L.Fl 15s	4		2	AIS	No change considered necessary
2	LOCH SPELVE	BEACON	56°23.230'N	005°42.012'W						Reinstate (unlit) starboard hand beacon
2	SGEIR AN FHEURAIN	BUOY	56°22.795'N	005°31.944'W	Fl G 3s	2		2		No change considered necessary
2	DUBH SGEIR (KERRERA)	LIGHT	56°22.814'N	005°32.264'W	Fl(2)W 12s	5				No change considered necessary
2	LITTLE HORSESHOE	BUOY	56°23.219'N	005°31.828'W	Fl(4) R 12s	4		2		No change considered necessary
2	HEATHER ISLAND	LIGHT	56°24.414'N	005°30.243'W	Fl R 2.5s	2				No change considered necessary
2	KERRERA	BUOY	56°24.145'N	005°30.813'W	Q R	2		3		No change considered necessary
2	FERRY ROCKS NW	BUOY	56°24.109'N	005°30.697'W	Q G	4		2		No change considered necessary
2	FERRY ROCKS SE	BUOY	56°23.996'N	005°30.529'W	Q(3) 10s	5		2		No change considered necessary
2	ARDBHAN	BUOY	56°24.184'N	005°30.384'W	Fl G 5s	3		3		No change considered necessary
2	SGEIR RATHAID SOUTH	BUOY	56°24.744'N	005°29.365'W	Q(6)+L.Fl 15s	4		2		No change considered necessary
2	SGEIR RATHAID NORTH	BUOY	56°24.916'N	005°29.232'W	Q	4		2		No change considered necessary
2	OBAN NLB PIER	LIGHT	56°24.708'N	005°28.910'W	2 FG vert)	4				No change considered necessary
2	RUBH' A' CHRUIDH	LIGHT	56°25.322'N	005°29.291'W	Q R	4				No change considered necessary
2	OBAN. NORTH CHANNEL 9	BUOY	56°25.101'N	005°28.950'W	Fl G 2s (Sync)	2		4		No change considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
2	OBAN. NORTH CHANNEL 7	BUOY	56°25.160'N	005°29.060'W	Fl G 2s (Sync)	2		4		No change considered necessary
2	OBAN. NORTH CHANNEL 5	BUOY	56°25.219'N	005°29.092'W	Fl G 2s (Sync)	2		4		No change considered necessary
2	OBAN. NORTH CHANNEL 4	BUOY	56°25.267'N	005°29.251'W	Fl R 2s (Sync)	2		4		No change considered necessary
2	OBAN. NORTH CHANNEL 3	BUOY	56°25.275'N	005°29.078'W	Fl G 2s (Sync)	2		4		No change considered necessary
2	OBAN. NORTH CHANNEL 2	BUOY	56°25.347'N	005°29.248'W	Fl R 2s (Sync)	2		4		No change considered necessary
2	OBAN. NORTH CHANNEL 1	BUOY	56°25.329'N	005°29.082'W	Fl G 2s (Sync)	2		4		No change considered necessary
2	DUNOLLIE	SECTOR LIGHT	56°25.374'N	005°29.045'W	Fl(2)WRG 6s	8				No change considered necessary
2	NORTH SPIT OF KERRERA	LIGHT	56°25.489'N	005°29.561'W	Fl R 3s	5				No change considered necessary
2	DUART POINT	SECTOR LIGHT	56°26.835'N	005°38.767'W	Fl(3)WR 18s	5				No change considered necessary
2	LADY ROCK	LIGHT	56°26.908'N	005°37.040'W	Fl 6s	5			AIS	No change considered necessary
2	LISMORE	LIGHT	56°27.333'N	005°36.449'W	Fl 10s	17				No change considered necessary
2	BRANRA ROCK	LIGHT	56°32.022'N	005°26.598'W	Fl(2) W 10s	5				No change considered necessary
2	APPIN POINT	BUOY	56°32.691'N	005°25.968'W	Fl G 6s	4		2		No change considered necessary
2	SGEIR BHUIDHE	SECTOR LIGHT	56°33.646'N	005°24.648'W	Fl(2) WR 7s	9				No change considered necessary
2	CULCHENNA SPIT	BUOY	56°41.170'N	005°15.722'W	Fl G 6s	4		2		No change considered necessary
2	RUBHA CUIL-CHEANNA	LIGHT	56°42.327'N	005°14.837'W	Fl(2)G 8s & WRG 2s	4				No change considered necessary
2	GEARASDAN	BUOY	56°50.250'N	005°07.020'W	Fl(2) 5s	3		3		No change considered necessary
2	EILEAN NA CREICHE	BUOY	56°50.395'N	005°07.378'W	Fl R 3s	4		2		No change considered necessary
2	MACLEAN ROCK	BUOY	56°49.803'N	005°07.037'W	Fl(2) R 12s	4		2		No change considered necessary
2	CORPACH	BUOY	56°50.225'N	005°07.124'W	Fl R 6s	4		2		No change considered necessary
2	LOCHY FLAT SOUTH	BUOY	56°49.537'N	005°07.022'W	Q G	4		2		No change considered necessary
2	CORRAN NARROWS NE	LIGHT	56°43.616'N	005°13.900'W	Fl W 5s & WRG 2s	4				Relocate to new breakwater
2	CORRAN SHOAL	BUOY	56°43.687'N	005°14.384'W	Q R	4		2		No change considered necessary
2	CORRAN POINT	SECTOR LIGHT	56°43.253'N	005°14.539'W	Iso WRG 4s	10				No change considered necessary
2	CORRAN FLAT	BUOY	56°42.858'N	005°14.930'W	Fl(4) R 10s	3		3		No change considered necessary
2	CLOVULLIN FLAT	BUOY	56°42.288'N	005°15.556'W	Fl(2) R 15s	4		2		No change considered necessary
2	SALLACHAN POINT	BEACON	56°42.047'N	005°17.007'W						No change considered necessary
2	GREY ROCKS	LIGHT	56°29.790'N	005°42.828'W	Fl W 3s	6				No change considered necessary
2	INNINMORE BAY	BUOY	56°30.365'N	005°43.471'W	Q	4		2	AIS	No change considered necessary
2	YULE ROCK	BUOY	56°30.023'N	005°43.958'W	Fl R 15s	3		3		No change considered necessary
2	ARDTORNISH	SECTOR LIGHT	56°31.092'N	005°45.214'W	Fl (2)WRG 10s	8				No change considered necessary
2	AVON ROCK	BUOY	56°30.787'N	005°46.793'W	Fl(4) R 10s	4		2		No change considered necessary
2	FIUNARY SPIT	BUOY	56°32.651'N	005°53.156'W	Fl G 6s	4		2		No change considered necessary
2	GREEN ISLAND	LIGHT	56°32.261'N	005°54.790'W	Fl W 6s	8				No change considered necessary
2	HISPANIA WRECK	BUOY	56°34.953'N	005°59.110'W	Fl(2) R 10s	4		2		No change considered necessary
2	BOGHA BHUILG	BUOY	56°36.131'N	005°59.123'W	Fl G 5s	4		2		No change considered necessary
2	RUBHA NAN GALL	LIGHT	56°38.232'N	006°03.969'W	Fl W 3s	10				No change considered necessary
2	NEW ROCKS	BUOY	56°39.070'N	006°03.550'W	Q(9) 15s	4		2	AIS	No change considered necessary
2	LITTLE STIRK	BUOY	56°38.496'N	006°01.503'W	Q(6)+LFl 15s	4		2		No change considered necessary
2	ARDMORE	LIGHT	56°39.370'N	006°07.698'W	Fl(2) 10s	13				No change considered necessary
2	BUNESSAN	SECTOR LIGHT	56°20.566'N	006°16.377'W	Fl WR 6s	8				No change considered necessary
2	BOGHA HUN A CHUHOIL	BUOY	56°16.568'N	006°24.864'W	Q(6)+LFl 15s	4		2		No change considered necessary
2	IONA BANK SOUTH	BUOY	56°19.442'N	006°23.117'W	Q(6)+L.Fl 15s	4		3		No change considered necessary
2	BO NA SLIGANACH	BUOY	56°19.338'N	006°22.952'W	Fl(2) G 6s	3		3		No change considered necessary
2	BOGHA CHOILTA	BUOY	56°18.581'N	006°23.424'W	Fl G 5s	3		3		No change considered necessary
2	BOGHA NAN RAMFHEAR	BUOY	56°15.705'N	006°20.360'W	Q	4		2		No change considered necessary
2	DUBH ARTACH	LIGHT	56°07.954'N	006°38.079'W	Fl(2) 30s	20			AIS	Re-engineer with minimum 18nM range
2	SKERRYVORE	LIGHT	56°19.366'N	007°06.882'W	Fl W 10s	23			RACON/AIS	Re-engineer with minimum 18nM range

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
2	SCARINISH	LIGHT	56°30.015'N	006°48.266'W	Fl W 3s	12				No change considered necessary
2	PLACAID BO	BUOY	56°33.229'N	006°43.986'W	Fl G 4s	4		2		No change considered necessary
2	ROAN BOGHA	BUOY	56°32.247'N	006°40.153'W	Q(6)+LFl 15s	5		2		No change considered necessary
2	CAIRN NA BURGH MORE	LIGHT	56°31.046'N	006°22.956'W	Fl(3) W 15s	8				No change considered necessary
2	CHIEFTAIN ROCK	BUOY	56°36.646'N	006°30.897'W	Fl G 6s	4		2		No change considered necessary
2	CAIRN OF COLL	LIGHT	56°42.264'N	006°26.729'W	Fl 12s	10				No change considered necessary
2	ARDNAMURCHAN	LIGHT	56°43.619'N	006°13.555'W	Fl(2) 20s	18			AIS	No change considered necessary
3	BO FASKADALE	BUOY	56°48.181'N	006°06.381'W	Fl(3) G 18s	4		2	AIS	No change considered necessary
3	EIGG	LIGHT	56°52.261'N	006°07.289'W	Fl W 6s	8				No change considered necessary
3	HYSKEIR	LIGHT	56°58.157'N	006°40.835'W	Fl(3) 30s	24			RACON/AIS	Re-engineer with minimum 18nM range
3	HUMLA	BUOY	57°00.443'N	006°37.397'W	Fl G 6s	4		2	AIS	No change considered necessary
3	CANNA	LIGHT	57°02.819'N	006°28.002'W	Fl 10s	9				No change considered necessary
3	ARDTRECK	LIGHT	57°20.384'N	006°25.859'W	Fl 6s	9				No change considered necessary
3	NEIST POINT	LIGHT	57°25.390'N	006°47.330'W	Fl 5s	16			AIS	Add VAtoN capability
3	BO NA FAMACHD	BUOY	57°26.791'N	006°35.850'W	Fl G 5s	3		3		No change considered necessary
3	DUNVEGAN	SECTOR LIGHT	57°26.826'N	006°36.594'W	Fl WRG 3s	7				No change considered necessary
3	VATERNISH	LIGHT	57°36.484'N	006°38.049'W	Fl 20s	8				No change considered necessary
3	EILEAN TRODDAY	SECTOR LIGHT	57°43.627'N	006°17.919'W	Fl(2) WRG 10s	12			AIS	No change considered necessary
3	COMET ROCK	BUOY	57°44.575'N	006°20.596'W	Fl R 6s	4		2	AIS	No change considered necessary
3	EUGENIE ROCK	BUOY	57°46.468'N	006°27.284'W	Q(6)+L.Fl 15s	4		2		No change considered necessary
3	SGEIR NAM MAOL	BEACON	57°44.863'N	006°22.760'W						No change considered necessary
3	AN T-IASGAIR	LIGHT	57°41.112'N	006°26.009'W	Fl W 6s	9				No change considered necessary
3	ST KILDA AIS	AIS	57°49.162'N	008°35.019'W					AIS	No change considered necessary
3	GASKER	LIGHT	57°59.053'N	007°17.224'W	Fl(3)10s	12				No change considered necessary
3	WHALE ROCK	BUOY	57°54.373'N	007°59.983'W	Q(3) 10s	5		2	RACON/AIS	Replace with VAtoN broadcast from St Kilda/Flannans/Haskeir
3	FLANNAN ISLANDS	LIGHT	58°17.294'N	007°35.394'W	Fl(2)30s	20			AIS	Re-engineer; maintain 20M light
3	MONACH ISLES	LIGHT	57°31.549'N	007°41.763'W	Fl(2)15s	18				No change considered necessary
3	HASKEIR	LIGHT	57°41.957'N	007°41.314'W	Fl 20s	22			RACON/AIS	Re-engineer with minimum 18M range
3	FIARAY BEACON (W)	BEACON	57°04.036'N	007°26.571'W						No change considered necessary
3	FIARAY BEACON (E)	BEACON	57°04.029'N	007°26.339'W						No change considered necessary
3	BARRA HEAD	LIGHT	56°47.131'N	007°39.215'W	Fl 15s	18			AIS	No change considered necessary
3	SGEIR NA TREANNE	BUOY	56°56.502'N	007°29.671'W	Fl R 3s	4		2		No change considered necessary
3	CASTLEBAY INNER	BUOY	56°56.527'N	007°29.349'W	Fl G 3s	4		2		No change considered necessary
3	CASTLEBAY SOUTH	BUOY	56°56.090'N	007°27.209'W	Fl(2) R 8s	4		2	RACON	No change considered necessary
3	SGEIR A SCAPE	BUOY	56°56.243'N	007°27.260'W	Fl(2) G 8s	4		2		No change considered necessary
3	BO VICH CHUAN	BUOY	56°56.151'N	007°23.296'W	Q(6)+L.Fl 15s	4		2	RACON	No change considered necessary
3	RUBH GLAS REAR	LEADING LIGHT	56°56.875'N	007°31.048'W	F Bu	6				No change considered necessary
3	RUBH GLAS FRONT	LEADING LIGHT	56°56.770'N	007°30.636'W	F Bu	6				No change considered necessary
3	SGEIR LIATH	BEACON	56°56.638'N	007°30.769'W						No change considered necessary
3	CHANNEL ROCK	SECTOR LIGHT	56°56.238'N	007°28.925'W	Fl WR 6s	6				No change considered necessary
3	DUBH SGEIR (CASTLEBAY)	LIGHT	56°56.409'N	007°28.920'W	Q(3)G 6s	5				No change considered necessary
3	CURACHAN	BUOY	56°58.587'N	007°20.510'W	Q(3) 10s	4		2		No change considered necessary
3	GRIANAMUL	BUOY	57°01.567'N	007°23.332'W	Q(9) 15s	3		3		No change considered necessary
3	SGEIR MEALL NA HOE	BUOY	57°02.029'N	007°22.106'W	VQ(3) 5s	3		3		No change considered necessary
3	BO TANNA	BUOY	57°03.075'N	007°20.035'W	Q(3) 10s	4		2		No change considered necessary
3	DROVER ROCK	BUOY	57°04.047'N	007°23.656'W	Q(6)+LFl 15s	3		3		No change considered necessary
3	BINCH ROCK	BUOY	57°01.582'N	007°17.180'W	Q(6)+L.Fl 15s	4		2		No change considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
3	SGOR ROCK	BUOY	57°09.085'N	007°17.755'W	Fl G 3s	4		2		No change considered necessary
3	GASAY ISLAND	SECTOR LIGHT	57°08.929'N	007°17.387'W	Fl WR 5s	7				No change considered necessary
3	CALVAY	SECTOR LIGHT	57°08.536'N	007°15.392'W	Fl(2)WRG 10s	7			AIS	No change considered necessary
3	MCKENZIE ROCK	BUOY	57°08.250'N	007°13.708'W	Fl(3) R 15s	4		2	AIS	No change considered necessary
3	USHENISH	SECTOR LIGHT	57°17.900'N	007°11.580'W	Fl W 20s	19				No change considered necessary
3	WEAVERS POINT	LIGHT	57°36.493'N	007°06.001'W	Fl 3s	7				No change considered necessary
3	GROCIS SGEIR	BEACON	57°44.190'N	007°01.630'W						No change considered necessary
3	SLEICHAM SPIT	BEACON	57°45.090'N	007°02.967'W						No change considered necessary
3	CODDEM EAST	BEACON	57°44.937'N	007°03.708'W						No change considered necessary
3	CODDEM WEST	BEACON	57°44.909'N	007°03.820'W						No change considered necessary
3	BERNERAY SPIT	BUOY	57°42.027'N	007°10.372'W	Fl R 3s	3		3		No change considered necessary
3	DROWNING ROCK	LIGHT	57°42.490'N	007°09.325'W	Fl(2) G 8s	2				No change considered necessary
3	McCASKILL ROCK	BUOY	57°42.299'N	007°09.380'W	Fl R 5s	2		4		Replace buoy with lit beacon
3	TRENCH	BUOY	57°41.899'N	007°09.016'W	Q(3) G 10s	3		3		No change considered necessary
3	CEANN NA DIGE	BUOY	57°41.767'N	007°08.476'W	Q R	2		4		No change considered necessary
3	PORTAIN	LIGHT	57°41.712'N	007°08.309'W	Fl G 3s	2		4		No change considered necessary
3	NF5	BUOY	57°41.531'N	007°07.575'W	Fl(2) G 8s	3		3		No change considered necessary
3	NF6	BUOY	57°41.555'N	007°07.934'W	Fl R 5s	3		3		No change considered necessary
3	NF1	BUOY	57°41.606'N	007°04.522'W	Fl(2)G 4s	3		3		No change considered necessary
3	NF2	BUOY	57°41.422'N	007°06.801'W	Fl R 10s	3		3		No change considered necessary
3	BHRUSDA	BUOY	57°41.438'N	007°05.627'W	Fl R 2s	3		3		No change considered necessary
3	SGEIR AN IARUINN	BUOY	57°41.462'N	007°05.010'W	Fl G 5s	3		3		No change considered necessary
3	NARSTAY	LIGHT	57°41.370'N	007°04.779'W	Fl(2)R 8s	3				No change considered necessary
3	SUILVEN	BUOY	57°41.679'N	007°04.364'W	Fl(3) R 10S	3		3		No change considered necessary
3	CABBAGE SOUTH	LIGHT	57°41.856'N	007°04.240'W	Fl R 3s	2				No change considered necessary
3	CABBAGE NORTH	LIGHT	57°41.996'N	007°04.317'W	Fl W 5s	3				No change considered necessary
3	CABBAGE	BUOY	57°42.129'N	007°03.956'W	Fl(2)R 6s	4		2	RACON	No change considered necessary
3	L1	BUOY	57°42.622'N	007°03.245'W	Fl(2)G 5s	3		3		No change considered necessary
3	SGEIR CHRUAIDH	LIGHT	57°42.709'N	007°02.873'W	Fl R 5s	2				No change considered necessary
3	L2	LIGHT	57°42.672'N	007°02.265'W	Fl(2)R 10s	3				No change considered necessary
3	L4	BUOY	57°43.678'N	007°01.592'W	Fl R 2s	3		3		No change considered necessary
3	L2A	LIGHT	57°42.882'N	007°02.246'W	Fl R 8s	2				No change considered necessary
3	GROCIS NORTH	BUOY	57°44.288'N	007°01.435'W	Fl R 8s	3		3		No change considered necessary
3	MILE SGEIR	BUOY	57°43.968'N	007°01.579'W	Fl G 5s	2		4		Replace buoy with lit beacon
3	COPE PASSAGE 4	BUOY	57°41.761'N	007°03.604'W	Fl R 5s	3		3		No change considered necessary
3	COPE PASSAGE 3	BUOY	57°41.861'N	007°03.436'W	Fl G 5s	3		3		No change considered necessary
3	COPE PASSAGE 2	BUOY	57°41.375'N	007°03.006'W	Q R	3		3		No change considered necessary
3	COPE PASSAGE 1	BUOY	57°41.200'N	007°02.667'W	Q G	4		2		No change considered necessary
3	COLASGEIR	BUOY	57°47.283'N	007°06.057'W	Fl(2) R 8s	4		2		No change considered necessary
3	SGEIR VOLINISH BUOY	BUOY	57°46.680'N	007°03.585'W	Q	4		2		No change considered necessary
3	LEVERBURGH. Rear.	LEADING LIGHT	57°46.265'N	007°02.024'W	Oc W 3s	4				No change considered necessary
3	LEVERBURGH. Front.	LEADING LIGHT	57°46.236'N	007°02.040'W	Q W	4				No change considered necessary
3	HEB BEACON	BEACON	57°46.170'N	007°01.899'W						No change considered necessary
3	RED ROCK	SECTOR LIGHT	57°46.953'N	007°04.479'W	Fl WRG 6s	6				No change considered necessary
3	JANES TOWER	LIGHT	57°45.763'N	007°02.117'W	Q(2)G 5s	4				No change considered necessary
3	BOGHA LEATHACH CAOLAIS	BUOY	57°46.632'N	007°04.199'W	Fl R 3s	4		2		No change considered necessary
3	BO QUIDAM	BUOY	57°46.304'N	007°03.740'W	Fl G 3s	4		2		No change considered necessary
3	HORSE ROCK	BUOY	57°46.002'N	007°03.359'W	Q G	4		2		No change considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
3	BO STAINAN	BUOY	57°45.757'N	007°02.400'W	VQ(6)+LFl 10s	4		2		No change considered necessary
3	DUBH SGEIR (LEVERBURGH)	LIGHT	57°45.503'N	007°02.620'W	Q(2)W 5s	6				No change considered necessary
3	STUMBLES ROCK	BUOY	57°45.128'N	007°01.786'W	Fl(2) R 10s	4		2	AIS	No change considered necessary
3	NW RODEL ROCKS	BUOY	57°43.202'N	007°02.035'W	Fl G 8s	3		3		No change considered necessary
3	SGEIR GRIADACH	BUOY	57°50.358'N	006°41.363'W	Q(6)+LFl 15s	5		2		No change considered necessary
3	SGEIR INOE	BUOY	57°50.935'N	006°33.910'W	Fl G 6s	2		2	RACON	No change considered necessary
3	EILEAN GLAS	LIGHT	57°51.413'N	006°38.515'W	Fl(3) W 20s	18			RACON/AIS	Add VAtoN capability
3	SHIANTS	BUOY	57°54.577'N	006°25.703'W	Q G	4		2	AIS	No change considered necessary
3	RUBH UISENIS	LIGHT	57°56.263'N	006°28.344'W	Fl W 5s	11				No change considered necessary
3	MILAID POINT	LIGHT	58°01.091'N	006°22.019'W	Fl W 15s	10				No change considered necessary
3	HEN AND CHICKENS	BEACON	58°10.647'N	006°15.599'W						No change considered necessary
3	SGEIR NA CIRCE	BUOY	58°10.560'N	006°15.613'W	Q(6)+L.Fl 15s	4		2		No change considered necessary
3	TIUMPAN HEAD	LIGHT	58°15.677'N	006°08.271'W	Fl(2)W 15s	18				No change considered necessary
3	BUTT OF LEWIS	LIGHT	58°30.923'N	006°15.717'W	Fl W 5s	25			AIS	No change considered necessary
3	SLEAT POINT	LIGHT	57°01.094'N	006°01.084'W	Fl W 3s	9				No change considered necessary
3	ORNSAY	LIGHT	57°08.602'N	005°46.869'W	Oc W 8s	12				Re-engineer; maintain 12nM range
3	ORNSAY BEACON	LIGHT	57°09.087'N	005°46.944'W	Fl R 6s	4				No change considered necessary
3	SGEIR ULIBHE	BEACON	57°08.254'N	005°40.580'W						No change considered necessary
3	SANDAIG	LIGHT	57°10.051'N	005°42.288'W	Fl W 6s	8				No change considered necessary
3	GLENELG	LIGHT	57°11.924'N	005°38.457'W	Fl WRG					Establish new sector light
3	KYLE RHEA	SECTOR LIGHT	57°14.225'N	005°39.929'W	Fl WRG 3s	8				No change considered necessary
3	SGEIR GOLACH	LIGHT	57°21.202'N	005°39.010'W	Fl W 10s	3				No change considered necessary
3	BOGHA DUBH SGEIR	LIGHT	57°20.924'N	005°37.853'W	Fl(2) R 6s	2				No change considered necessary
3	SGEIR-NA-CAILLEACH	LIGHT	57°15.599'N	005°38.891'W	Fl(2) R 6s	4				No change considered necessary
3	SLIOCH	BUOY	57°16.235'N	005°34.693'W	Fl (3) G 6s	3		3		No change considered necessary
3	RACOON ROCK	BUOY	57°16.152'N	005°35.198'W	Fl G 5s	3		3		No change considered necessary
3	EIGHT METRE ROCK	LIGHT	57°16.599'N	005°42.689'W	Fl G 6s	4				No change considered necessary
3	EILEANAN DUBHA	LIGHT	57°16.559'N	005°42.321'W	Fl(2)W 10s	8				No change considered necessary
3	STRING ROCK	BUOY	57°16.488'N	005°42.885'W	Fl R 6s	4		2		No change considered necessary
3	BOW ROCK	BUOY	57°16.763'N	005°45.920'W	Fl(2) R 12s	4		2	AIS	No change considered necessary
3	FORK ROCKS	BUOY	57°16.836'N	005°44.935'W	Fl G 6s	4		2		No change considered necessary
3	BLACK EYE	BUOY	57°16.706'N	005°45.305'W	Fl R 6s	4		2		No change considered necessary
3	CARRACH ROCK	BUOY	57°17.180'N	005°45.356'W	Fl(2) G 12s	4		2	RACON	No change considered necessary
3	SGEIR GHOBHLACH	LIGHT	57°15.693'N	005°52.254'W	Fl(3) W 10s	3				No change considered necessary
3	CROWLIN	LIGHT	57°21.216'N	005°51.388'W	Fl W 6s	6				No change considered necessary
3	GULNARE	BUOY	57°19.148'N	005°55.856'W	Fl G 5s	4		2		No change considered necessary
3	MACMILLAN ROCK	BUOY	57°21.114'N	006°06.300'W	Fl(2) G 12s	4		2		No change considered necessary
3	SGEIR THRAID	LIGHT	57°19.822'N	005°56.509'W	Q W	3				No change considered necessary
3	EYRE POINT	SECTOR LIGHT	57°20.010'N	006°01.294'W	Fl WR 3s	8				No change considered necessary
3	JACKAL ROCK	BUOY	57°20.340'N	006°04.758'W	Fl G 5s	3		3		No change considered necessary
3	PENFOLD ROCK	BUOY	57°20.630'N	006°05.530'W	Fl R 5s	4		2		No change considered necessary
3	RONA	LIGHT	57°34.686'N	005°57.544'W	Fl W 12s	12			AIS	No change considered necessary
3	NA GAMHNACHAIN	BUOY	57°35.890'N	005°57.714'W	Q	4		2		No change considered necessary
3	RUBH REIDH	LIGHT	57°51.527'N	005°48.713'W	Fl(4) 15s	18			AIS	No change considered necessary
3	CAILLEACH HEAD	LIGHT	57°55.819'N	005°24.224'W	Fl(2) 12s	9				No change considered necessary
3	BO CAOLAS	BEACON	58°08.787'N	005°18.211'W						No change considered necessary
3	STOER HEAD	LIGHT	58°14.405'N	005°24.161'W	Fl W 15s	18				No change considered necessary
3	CAPE WRATH	LIGHT	58°37.531'N	004°59.967'W	Fl(4) 30s	18			AIS	No change considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
4	NUN ROCK VATON	AIS	58°52.650'N	004°58.300'W						No change considered necessary
4	LOCH ERIBOLL	SECTOR LIGHT	58°31.008'N	004°38.907'W	Fl WR 10s	13				No change considered necessary
4	SULA SGEIR	LIGHT	59°05.614'N	006°09.567'W	Fl W 15s	11				No change considered necessary
4	NORTH RONA	LIGHT	59°07.276'N	005°48.902'W	Fl(3)W 20s	22			AIS	No change considered necessary
4	SULE STACK VATON	AIS	59°01.450'N	004°30.400'W						No change considered necessary
4	SULE SKERRY	LIGHT	59°05.110'N	004°24.397'W	Fl(2)W 15s	18			RACON/AIS	No change considered necessary
4	NOUP HEAD	LIGHT	59°19.865'N	003°04.235'W	Fl 30s	20				No change considered necessary
4	EDAY GRUNA	BUOY	59°08.386'N	002°43.846'W	Q	4		2		No change considered necessary
4	CALF OF EDAY	SECTOR LIGHT	59°14.214'N	002°45.820'W	Fl(3) WRG 10s	8				No change considered necessary
4	NORTH RONALDSAY	LIGHT	59°23.359'N	002°22.890'W	Fl W 10s	24			RACON	No change considered necessary
4	RIV BEACON	BEACON	59°19.217'N	002°34.023'W						No change considered necessary
4	OTTERSWICK	BUOY	59°17.922'N	002°29.993'W	Fl G 5s	4		2		No change considered necessary
4	START POINT	LIGHT	59°16.638'N	002°22.577'W	Fl(2) 20s	18				No change considered necessary
4	PAPA STRONSAY	LIGHT	59°09.349'N	002°34.915'W	Fl (4) 20s	9				No change considered necessary
4	QUAI BOW	BUOY	59°09.828'N	002°36.289'W	Fl(2) G 12s	4		2		No change considered necessary
4	NORTH SHOAL VATON	AIS	59°13.494'N	003°34.831'W						No change considered necessary
4	BROUGH OF BIRSAY	LIGHT	59°08.214'N	003°20.363'W	Fl(3) W 25s	18			AIS	No change considered necessary
4	SEAL SKERRY	LIGHT	59°04.002'N	002°59.289'W	Fl R 3s	3				No change considered necessary
4	LINGA SKERRY	BUOY	59°02.395'N	002°57.557'W	Q(3) 10s	4		2		No change considered necessary
4	EGILSAY GRAAND	BUOY	59°06.868'N	002°54.547'W	Q(6)+L.Fl 15s	4		2		No change considered necessary
4	GALT SKERRY	BUOY	59°05.225'N	002°54.182'W	Q	4		2		No change considered necessary
4	SKERTOURS	BUOY	59°04.118'N	002°56.704'W	Q	5		2		No change considered necessary
4	BORAY SKERRIES	BUOY	59°03.659'N	002°57.643'W	Q(6)+LFl 15s	5		2		No change considered necessary
4	VASA SKERRY	BEACON	59°02.993'N	002°55.816'W						No change considered necessary
4	AUSKERRY	LIGHT	59°01.557'N	002°34.367'W	Fl W 20s	20				No change considered necessary
4	COPINSAY	LIGHT	58°53.792'N	002°40.349'W	Fl(5)W 30s	14				No change considered necessary
4	PETER SKERRY	BUOY	58°55.259'N	003°13.515'W	Fl G 6s	4		2		No change considered necessary
4	RIDDOCK SHOAL	BUOY	58°55.889'N	003°14.998'W	Fl(2) R 12s	4		2		No change considered necessary
4	SAND EEL	BUOY	58°56.417'N	003°15.342'W	Q(3) 10s	4		2		No change considered necessary
4	BARR ROCK	BUOY	58°56.607'N	003°17.003'W	Q	4		2	AIS	No change considered necessary
4	SKERRY OF NESS	LIGHT	58°56.960'N	003°17.830'W	Fl 4s	7				No change considered necessary
4	HOY SOUND (HIGH)	SECTOR LIGHT	58°56.137'N	003°16.400'W	Oc WR 8s	19				No change considered necessary
4	HOY SOUND (LOW)	LIGHT	58°56.421'N	003°18.605'W	Iso W 3s	12				No change considered necessary
4	CAVA	SECTOR LIGHT	58°53.231'N	003°10.683'W	Fl WR 3s	9				No change considered necessary
4	BARREL OF BUTTER	LIGHT	58°53.427'N	003°07.583'W	Fl(2) W 10s	7				No change considered necessary
4	ROYAL OAK WRECK	BUOY	58°55.746'N	002°59.186'W	Fl(3) G 20s	4		2		No change considered necessary
4	ROSENESS	LIGHT	58°52.357'N	002°49.932'W	Fl W 6s	8				Re-engineer; maintain 8M range
4	FLOTTA GRINDS	BUOY	58°50.973'N	003°00.783'W	Fl(2) R 10s	4		2	AIS	No change considered necessary
5	HOXA HEAD	SECTOR LIGHT	58°49.315'N	003°02.085'W	Fl WR 3s	9				No change considered necessary
5	LOTHER ROCK	LIGHT	58°43.796'N	002°58.692'W	Fl W 2s	6			RACON	Re-engineer; maintain 6M range light with racon and large daymark
5	SWONA	LIGHT	58°44.256'N	003°04.235'W	Fl 8s	9				No change considered necessary
5	RUFF REEF	LIGHT	58°47.433'N	003°07.805'W	Fl W 10s	6				No change considered necessary
5	CANTICK HEAD	LIGHT	58°47.229'N	003°07.890'W	Fl 20s	13				Re-engineer; maintain 13M range
5	TOR NESS	LIGHT	58°46.704'N	003°17.792'W	Fl 5s	17				No change considered necessary
5	DUNNET HEAD	LIGHT	58°40.287'N	003°22.594'W	Fl(4) 30s	23				Re-engineer; maintain 23M range
5	MEN OF MEY	AIS	58°40.000'N	003°11.400'W						Establish Virtual AtoN (North Cardinal)
5	STROMA SKERRIES	BEACON	58°39.842'N	003°08.219'W						AIS in discusion with Meygen

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
5	STROMA	LIGHT	58°41.754'N	003°07.014'W	Fl(2) 20s	20			AIS	No change considered necessary
5	PENTLAND SKERRIES	LIGHT	58°41.408'N	002°55.484'W	Fl(3) 30s	23			AIS	Re-engineer; maintain 23nM range
5	DUNCANSBY HEAD	LIGHT	58°38.646'N	003°01.526'W	Fl W 12s	21			RACON/AIS	No change considered necessary
5	SANDY RIDDLE VATON	AIS	58°37.750'N	002°50.000'W						No change considered necessary
6	FOULA	LIGHT	60°06.757'N	002°03.875'W	Fl(3)W 15s	17				Re-engineer with red sector (257-277)
6	BULLIA SKERRY	LIGHT	60°06.664'N	001°21.569'W	Fl W 5s	5				Reduce to 3nM range
6	FUGLA NESS	SECTOR LIGHT	60°06.381'N	001°20.845'W	Fl(2)WRG 10s	10				No change considered necessary
6	HILDASAY	BUOY	60°09.040'N	001°19.922'W	Q(6)+L.Fl 15s	4		2		No change considered necessary
6	VE SKERRIES	LIGHT	60°22.372'N	001°48.799'W	Fl(2)W 20s	11			RACON	No change considered necessary
6	MUCKLE ROE	SECTOR LIGHT	60°20.978'N	001°27.061'W	Fl WR 3s	9				No change considered necessary
6	HILLSWICK	SECTOR LIGHT	60°27.213'N	001°29.797'W	Fl(4)WR 15s	9				No change considered necessary
6	ESHA NESS	LIGHT	60°29.350'N	001°37.680'W	Fl W 12s	25				Re-engineer with minimum 18nM range
6	HOLM OF SKAW	LIGHT	60°49.871'N	000°46.317'W	Fl 5s	8				No change considered necessary
6	MUCKLE FLUGGA	LIGHT	60°51.326'N	000°53.146'W	Fl(2) 20s	22				Re-engineer with minimum 18nM range
6	HEAD OF MULA	SECTOR LIGHT	60°40.760'N	000°57.580'W	Fl WRG 5s	10				No change considered necessary
6	UYEA SOUND	LIGHT	60°41.149'N	000°55.474'W	Fl(2) 8s	7				No change considered necessary
6	BALTA SOUND	SECTOR LIGHT	60°44.452'N	000°47.676'W	Fl WR 10s	10				No change considered necessary
6	WHITEHILL	SECTOR LIGHT	60°34.798'N	001°00.223'W	Fl WR 3s	9				No change considered necessary
6	OUTER SKERRY	LIGHT	60°33.034'N	001°18.311'W	Fl W 6s	8				No change considered necessary
6	LITTLE HOLM	LIGHT	60°33.417'N	001°15.885'W	Iso W 4s	6				No change considered necessary
6	MUCKLE HOLM	LIGHT	60°34.832'N	001°16.006'W	Fl(4)W 10s	10				No change considered necessary
6	POINT OF FETHALAND	SECTOR LIGHT	60°38.054'N	001°18.697'W	Fl(3)WR 15s	19				No change considered necessary
6	GRUNEY	SECTOR LIGHT	60°39.153'N	001°18.175'W	Fl WR 5s	8			RACON	Re-engineer with WR 7M light and racon
6	BAGI STACK	LIGHT	60°43.521'N	001°07.540'W	Fl (4) 20s	10				No change considered necessary
6	BROTHER ISLE	SECTOR LIGHT	60°30.946'N	001°14.109'W	Dir Fl(4)WRG 8s	10				No change considered necessary
6	NESS OF SOUND	SECTOR LIGHT	60°31.347'N	001°11.278'W	Fl(3)WRG 12s	9				No change considered necessary
6	RUMBLE ROCK	LIGHT	60°28.171'N	001°07.265'W	Fl W 10s	4			RACON	No change considered necessary
6	FIRTHS VOE	SECTOR LIGHT	60°27.215'N	001°10.625'W	Oc WRG 8s	15				Replace tower; install 10M LED sector light; discontinue PEL
6	LUNNA HOLM	SECTOR LIGHT	60°27.344'N	001°02.512'W	Fl(3) WRG 15s	10				No change considered necessary
6	MUCKLE SKERRY	SECTOR LIGHT	60°26.371'N	000°51.827'W	Fl(2)WRG 10s	7				No change considered necessary
6	OUT SKERRIES	LIGHT	60°25.469'N	000°43.683'W	Fl W 20s	20				Re-engineer with minimum 18nM range
6	WETHER HOLM	LIGHT	60°22.345'N	001°01.334'W	Fl W 5s	9				No change considered necessary
6	SUTHER NESS	SECTOR LIGHT	60°22.122'N	001°00.202'W	Fl WRG 3s	10				No change considered necessary
6	SKATE OF MARRISTER	LIGHT	60°21.358'N	001°01.390'W	Fl G 6s	4				Re-engineer; maintain 4M light
6	SYMBISTER NESS	SECTOR LIGHT	60°20.429'N	001°02.286'W	Fl(2)WG 12s	8				No change considered necessary
6	INNER VODER BEACON	BEACON	60°16.459'N	001°04.928'W						No change considered necessary
6	INNER VODER	BUOY	60°16.435'N	001°05.122'W	Q(9) 15s	4		2	AIS	No change considered necessary
6	MULL OF ESWICK	SECTOR LIGHT	60°15.743'N	001°05.885'W	Fl WRG 3s	9				No change considered necessary
6	HOO STACK	SECTOR LIGHT	60°14.967'N	001°05.370'W	Fl(4)WRG 12s	7				Re-engineer with LED Sector Light; discontinue PEL
6	UNICORN ROCK	BUOY	60°13.513'N	001°08.464'W	VQ(3) 5s	5		2		No change considered necessary
6	SOLDIAN ROCK	BUOY	60°12.508'N	001°04.726'W	Q(6)+LFl 15s	5		2		No change considered necessary
6	ROVA HEAD	SECTOR LIGHT	60°11.458'N	001°08.598'W	Fl WRG 4s	12				Re-engineer with 10M LED sector light; discontinue PEL
6	MOUSA	LIGHT	59°59.854'N	001°09.506'W	Fl 3s	10				No change considered necessary
6	SUMBURGH HEAD	LIGHT	59°51.231'N	001°16.515'W	Fl(3) 30s	23			AIS	No change considered necessary
6	FAIR ISLE (NORTH)	LIGHT	59°33.122'N	001°36.531'W	Fl(2) 30s	18				Re-engineer with minimum 18M range
6	FAIR ISLE (SOUTH)	LIGHT	59°30.858'N	001°39.206'W	Fl(4) 30s	22				No change considered necessary
7	NOSS HEAD	LIGHT	58°28.761'N	003°03.085'W	Fl W 20s	18				No change considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
7	TARBAT NESS	LIGHT	57°51.908'N	003°46.600'W	Fl(4)W 30s	18			RACON	No change considered necessary
7	THREE KINGS	BUOY	57°43.730'N	003°54.243'W	Q(3) 10s	4		2		No change considered necessary
7	CRAIGTON POINT	SECTOR LIGHT	57°30.053'N	004°14.086'W	Fl WRG 4s	11				Reduce to 5M range; reduce white sector to West
7	LONGMAN POINT	SECTOR LIGHT	57°29.995'N	004°13.308'W	Fl WR 2s	5				Re-engineer as WR 5M light
7	MEIKLE MEE	BUOY	57°30.260'N	004°12.010'W	Fl G 3s	4		2		No change considered necessary
7	PETTY BANK	BUOY	57°31.615'N	004°08.941'W	Fl R 5s	4		2		No change considered necessary
7	MUNLOCHY SHOAL	BUOY	57°32.922'N	004°07.645'W	L Fl 10s	4		2		No change considered necessary
7	SKATE BANK NORTH EAST	BUOY	57°34.290'N	004°06.074'W	Fl R 5s	3		3		No change considered necessary
7	SKATE BANK NORTH WEST	BUOY	57°34.416'N	004°06.676'W	Fl(4) R 10s	3		3		No change considered necessary
7	CHANONRY	LIGHT	57°34.441'N	004°05.567'W	Oc W 6s	12				Re-engineer; maintain 12M light
7	CRAIGMEE	BUOY	57°35.298'N	004°04.981'W	Fl R 6s	4		2		No change considered necessary
7	RIFF BANK WEST	BUOY	57°35.690'N	004°04.395'W	Fl Y 5s	5		2		No change considered necessary
7	RIFF BANK NORTH WEST	BUOY	57°36.580'N	004°03.590'W	Fl R 3s	4		3		No change considered necessary
7	RIFF BANK SOUTH	BUOY	57°36.726'N	004°00.954'W	Q(6)+LFl 15s	5		2		Re-establish 2 cables to West
7	RIFF BANK NORTH	BUOY	57°37.229'N	004°02.740'W	Fl(2) R 12s	4		2		No change considered necessary
7	NAVITY BANK	BUOY	57°38.167'N	004°01.167'W	Fl(3) G 15s	4		2		No change considered necessary
7	RIFF BANK EAST	BUOY	57°38.383'N	003°58.158'W	Fl Y 10s	5		2	AIS	No change considered necessary
7	HALLIMAN BEACON	BEACON	57°44.001'N	003°19.307'W						No change considered necessary
7	HALLIMAN	BUOY	57°44.334'N	003°18.567'W	Q	9		2	RACON	Replace racon with AIS
7	KINNAIRD HEAD	LIGHT	57°41.875'N	002°00.265'W	Fl W 5s	22				Add VAtoN capability
7	CAIRNBULG BRIGGS	LIGHT	57°41.105'N	001°56.461'W	Fl W 10s	10				Re-engineer with 10M LED light; maintain large daymark; add AIS AtoN
8	RATTRAY HEAD	LIGHT	57°36.615'N	001°49.006'W	Fl(3)W 30s	18			RACON	No change considered necessary
8	BUCHAN NESS	LIGHT	57°28.227'N	001°46.474'W	Fl 5s	18			RACON	Add VAtoN capability
8	CRUDEN SCAURS	BUOY	57°23.173'N	001°50.368'W	Fl R 10s	4		2	AIS	No change considered necessary
8	GIRDLE NESS	LIGHT	57°08.339'N	002°02.916'W	Fl(2)W 20s	22			RACON	No change considered necessary
8	SCURDIE NESS	LIGHT	56°42.106'N	002°26.238'W	Fl(3)W 20s	20			RACON	No change considered necessary
8	BELL ROCK	LIGHT	56°26.065'N	002°23.230'W	Fl W 5s	18			RACON	Re-engineer; maintain 18M range
8	NORTH CARR	BUOY	56°18.064'N	002°32.945'W	Q(3) 10s	4		2	AIS	No change considered necessary
8	NORTH CARR BEACON	BEACON	56°17.702'N	002°34.352'W						No change considered necessary
8	FIFE NESS	SECTOR LIGHT	56°16.747'N	002°35.196'W	Iso WR 10s	15			AIS	Add VAtoN capability
8	ISLE OF MAY	LIGHT	56°11.139'N	002°33.457'W	Fl(2)W 15s	18				No change considered necessary
8	EAST VOWS	BEACON	56°10.840'N	002°50.154'W						No change considered necessary
8	BASS ROCK	LIGHT	56°04.603'N	002°38.463'W	Fl (3) 20s	10				Re-engineer; maintain 10M range
8	SOUTH CARR	BEACON	56°03.443'N	002°37.699'W						No change considered necessary
8	SOUTH CARR BUOY	BUOY	56°03.600'N	002°37.650'W	Q	4		2		Discontinue buoy; investigate AIS AtoN
8	ST ABBS HEAD	LIGHT	55°54.979'N	002°08.286'W	Fl 10s	18			RACON/AIS	No change considered necessary
9	BARLEY	BUOY	52° 38.760' N	001° 52.900' E	VQ (6) + LFl 15s	5		2		No changes considered necessary
9	BAMBURGH	LIGHTHOUSE	55° 36.993' N	001° 43.452' W	Oc (2) WRG 8s	14				Change to Nighttime only on lightsource upgrade.
9	CANADA & GEORGIOS	BUOY	53° 42.347' N	000° 07.116' E	VQ (3) 5s	5		2		No changes considered necessary
9	COQUET	LIGHTHOUSE	55° 20.033' N	001° 32.387' W	Fl (3) WR 20s	19	Horn (1) 30s			Examiners 10/22 Reduce Range to 18nm and 12nm Red sector
9	EMMANUEL HEAD	BEACON	55° 41.148' N	001° 46.801' W						No changes considered necessary
9	INNER FARNE	LIGHTHOUSE	55° 36.921' N	001° 39.346' W	Fl (2) WR 15s	8				No changes considered necessary
9	FILEY BRIG	BUOY	54° 12.743' N	000° 14.584' W	Q (3) 10s	5	Bell	2		No changes considered necessary
9	FLAMBOROUGH HEAD	LIGHTHOUSE	54° 06.980' N	000° 04.962' W	Fl (4) 15s	18	Horn (1) 30s			No changes considered necessary
9	GOLDSTONE	BUOY	55° 40.240' N	001° 43.950' W	QG	3		3		No changes considered necessary
9	GUILE POINT	LIGHTHOUSE	55° 39.493' N	001° 47.590' W	Oc WRG 6s	4				No changes considered necessary
9	HEUGH	LIGHTHOUSE	55° 40.093' N	001° 47.978' W	Oc WRG 6s	5				No changes considered necessary
9	INGER NIELSON	BUOY	54° 30.905' N	002° 36.325' E	VQ (3) 5s	5		2		Survey and discontinue if bathymetry as charted

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
9	LONGSTONE	LIGHTHOUSE	55° 38.623' N	001° 36.653' W	Fl 20s	18			AIS	No changes considered necessary
9	NEWTON	BUOY	55° 32.171' N	001° 35.848' W	Fl R 5s	4		3		No changes considered necessary
9	PLOUGH ROCK	BUOY	55° 40.240' N	001° 45.996' W	Q (9) 15s	3		3		No changes considered necessary
9	PLOUGH SEAT	BUOY	55° 40.370' N	001° 44.967' W	QR	3		3		No changes considered necessary
9	RIDGE	BUOY	55° 39.700' N	001° 45.966' W	Q (3) 10s	3		3		No changes considered necessary
9	SALTSCAR	BUOY	54° 38.133' N	001° 00.081' W	VQ	5	Bell	2		No changes considered necessary
9	SHORESTON	BUOY	55° 35.880' N	001° 39.317' W	QR	3		3		No changes considered necessary
9	NORTH SMITHIC	BUOY	54° 06.214' N	000° 03.905' W	VQ	5	Bell	2		No changes considered necessary
9	SOUTH WEST SMITHIC	BUOY	54° 02.414' N	000° 09.204' W	Q (9) 15s	5		2		No changes considered necessary
9	NORTH SUNDERLAND	BUOY	55° 34.621' N	001° 37.117' W	Fl R 2.5s	3		3		No changes considered necessary
9	SWEDMAN	BUOY	55° 37.650' N	001° 41.617' W	Fl G 2.5s	3		3		No changes considered necessary
9	TRITON	BUOY	55° 39.585' N	001° 46.816' W	QG	3		3		No changes considered necessary
9	WHITBY	LIGHTHOUSE	54° 28.667' N	000° 34.094' W	Fl WR 5s	18				No changes considered necessary
9	BLAKENEY OVERFALLS	BUOY	53° 03.021' N	001° 01.392' E	Fl (2) R 5s	5	Bell	2		No changes considered necessary
9	BRIDGIRDLE	BUOY	53° 01.742' N	000° 43.994' E	Fl R 2.5s	3		3		No changes considered necessary
9	BURNHAM FLATS	BUOY	53° 07.520' N	000° 34.894' E	Q (9) 15s	5	Bell	2		No changes considered necessary
9	EAST DOCKING	BUOY	53° 09.820' N	000° 50.392' E	Fl R 2.5s	5		2		No changes considered necessary
9	NORTH DOCKING	BUOY	53° 14.819' N	000° 41.493' E	Q	5		2		No changes considered necessary
9	INNER DOWSING	BUOY	53° 19.100' N	000° 34.800' E	Q (3) 10s	7		1	RACON	No changes considered necessary
9	MIDDLE OUTER DOWSING	BUOY	53° 24.819' N	001° 07.790' E	Fl (3) G 10s	5		2		No changes considered necessary
9	NORTH OUTER DOWSING	BUOY	53° 33.517' N	000° 59.590' E	Q	9		1	RACON/AIS	No changes considered necessary
9	SOUTH INNER DOWSING	BUOY	53° 12.119' N	000° 33.694' E	Q (6) + LFl 15s	5	Bell	2		No changes considered necessary
9	DUDGEON	BUOY	53° 16.620' N	001° 16.889' E	Q (9) 15s	7		1	RACON	No changes considered necessary
9	EAST DUDGEON	BUOY	53° 19.719' N	000° 58.691' E	Q (3) 10s	5		2		No changes considered necessary
9	HJORDIS (Beacon)	BEACON	52° 59.018' N	000° 58.144' E	Fl (2) 5s	5				No changes considered necessary
9	LYNN KNOCK	BUOY	53° 04.422' N	000° 27.206' E	QG	4		2		No changes considered necessary
9	PROTECTOR	BUOY	53° 24.848' N	000° 25.145' E	Fl R 2.5s	5		2		No changes considered necessary
9	NORTH RACE	BUOY	53° 14.989' N	000° 43.893' E	Fl G 5s	5	Bell	2		No changes considered necessary
9	SOUTH RACE	BUOY	53° 07.810' N	000° 57.342' E	Q (6) + LFl 15s	5	Bell	2		No changes considered necessary
9	WEST RIDGE	BUOY	53° 19.069' N	000° 44.493' E	Q (9) 15s	5		2		No changes considered necessary
9	OUTER SAND	BUOY	53° 36.412' N	000° 29.394' E	Q (3) 10s	7		1	RACON/AIS	No changes considered necessary
9	SOUTH SAND	BUOY	53° 34.620' N	000° 25.200' E	Q (6) + LFl 15s	5		1		No changes considered necessary
9	SCOTT PATCH	BUOY	53° 11.120' N	000° 36.394' E	VQ (3) 5s	5		2		No changes considered necessary
9	EAST SHERINGHAM	BUOY	53° 02.221' N	001° 14.890' E	Q (3) 10s	5		2		No changes considered necessary
9	WEST SHERINGHAM	BUOY	53° 02.951' N	001° 06.761' E	Q (9) 15s	5		2		No changes considered necessary
9	VINA	BEACON	52° 59.082' N	000° 39.235' E						No changes considered necessary
9	NORTH WELL	BUOY	53° 03.022' N	000° 27.896' E	LFl 10s	5	Whistle	1	RACON	No changes considered necessary
9	WOOLPACK	BUOY	53° 02.672' N	000° 31.445' E	Fl R 10s	5		2		No changes considered necessary
9	EAST BARNARD	BUOY	52° 25.138' N	001° 46.390' E	Q (3) 10s	5		2		No changes considered necessary
9	MIDDLE CAISTER	BUOY	52° 38.986' N	001° 45.659' E	Fl (2) R 5s	5	Bell	2		No changes considered necessary
9	NORTH CAISTER	BUOY	52° 40.760' N	001° 45.800' E	Fl (3) R 10s	5		2		No changes considered necessary
9	COCKLE	BUOY	52° 44.026' N	001° 43.589' E	VQ (3) 5s	5		2		No Change necessary. To remain in this position Examiner 2023
9	MIDDLE CORTON	BUOY	52° 33.660' N	001° 47.890' E	Fl G 2.5s	5		2		No changes considered necessary
9	SOUTH CORTON	BUOY	52° 33.450' N	001° 48.270' E	Q (6) + LFl 15s	5	Bell	2		No changes considered necessary
9	WEST CORTON	BUOY	52° 34.160' N	001° 47.320' E	Fl (3) G 10s	4		2		No changes considered necessary
9	CROMER	LIGHTHOUSE	52° 55.482' N	001° 18.990' E	Fl 5s	18			RACON	No changes considered necessary
9	CROSS SAND	BUOY	52° 37.025' N	001° 59.136' E	LFl 10s	5		1	RACON	No changes considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
9	EAST CROSS SAND	BUOY	52° 40.293' N	001° 53.737' E	Fl (4) R 15s	5		2		No changes considered necessary
9	NORTH EAST CROSS SAND	BUOY	52° 44.220' N	001° 53.800' E	VQ (3) 5s	5		1	AIS	No changes considered necessary
9	DR 1	BUOY	53° 06.700' N	002° 40.700' E	LFl 10s	5		1		No changes considered necessary
9	MIDDLE HAISBRO	BUOY	52° 54.223' N	001° 41.587' E	Fl (2) G 5s	5		2		No changes considered necessary
9	NORTH HAISBRO	BUOY	53° 00.222' N	001° 32.288' E	Q	5		1	RACON/AIS	No changes considered necessary
9	SOUTH HAISBRO	BUOY	52° 50.823' N	001° 48.287' E	Q (6) + LFl 15s	5	Bell	1		No changes considered necessary
9	HAMMOND KNOLL	BUOY	52° 49.744' N	001° 57.586' E	Q (9) 15s	5		2		No changes considered necessary
9	EAST HAMMOND KNOLL	BUOY	52° 52.323' N	001° 58.635' E	Q (3) 10s	5		2		No changes considered necessary
9	HEMSBY	BUOY	52° 41.800' N	001° 46.180' E	Fl R 2.5s	5		2		No changes considered necessary
9	HOLM APPROACH	BUOY	52° 30.880' N	001° 50.220' E	Q (3) 10s	7		1		No changes considered necessary
9	NORTH HOLM	BUOY	52° 33.760' N	001° 47.540' E	Q	5		2		No changes considered necessary
9	NORTH EAST HOLM	BUOY	52° 33.190' N	0014° 84.500' E	Fl R 2.5s	5		2		No changes considered necessary
9	NORTH WEST HOLM	BUOY	52° 30.510' N	001° 46.400' E	Fl (4) G 15s	5		2		No changes considered necessary
9	SOUTH HOLM	BUOY	52° 26.630' N	001° 47.250' E	VQ (6) + LFl 10s	5		2		No changes considered necessary
9	HOLM SAND	BUOY	52° 33.283' N	001° 46.621' E	Q (9) 15s	5		2		No changes considered necessary
9	SOUTH WEST HOLM	BUOY	52° 27.870' N	001° 46.990' E	Fl (2) G 5s	5		2		No changes considered necessary
9	WEST HOLM	BUOY	52° 29.440' N	001° 46.890' E	Fl (3) G 10s	5		2		No changes considered necessary
9	EAST JACOBA	BUOY	53° 03.830' N	002° 42.199' E	Q (3) 10s	5		2		No changes considered necessary
9	WEST JACOBA	BUOY	53° 03.830' N	002° 41.930' E	Q (9) 15s	5		2	RACON	No changes considered necessary
9	LOWESTOFT	LIGHTHOUSE	52° 29.223' N	001° 45.353' E	Fl 15s	23				2015 Reduce to 18nm on reengineering
9	NEWARP									Discontinued
9	EAST NEWCOME	BUOY	52° 28.508' N	001° 49.209' E	Fl (2) R 5s	5		2		No changes considered necessary
9	NORTH NEWCOME	BUOY	52° 28.390' N	001° 46.370' E	Fl (4) R 15s	5		2		No changes considered necessary
9	NEWCOME SAND	BUOY	52° 26.334' N	001° 47.164' E	QR	5		2		No changes considered necessary
9	SCROBY ELBOW	BUOY	52° 36.555' N	001° 46.260' E	Fl (2) G 5s	5	Bell	2		No changes considered necessary
9	NORTH SCROBY	BUOY	52° 41.560' N	001° 46.530' E	VQ	5		2		No changes considered necessary
9	NORTH WEST SCROBY	BUOY	52° 40.344' N	001° 46.329' E	Fl (3) G 10s	5		2		No changes considered necessary
9	SOUTH WEST SCROBY	BUOY	52° 35.135' N	001° 46.695' E	Fl G 2.5s	5	Bell	2		No changes considered necessary
9	SMITHS KNOLL	BUOY	52° 43.525' N	002° 17.884' E	Q (6) + LFl 15s	7		1	RACON	No changes considered necessary
9	SOUTHWOLD	LIGHTHOUSE	52° 19.632' N	001° 40.886' E	Fl W 10s	24			AIS	No changes considered necessary
9	STANFORD	BUOY	52° 27.358' N	001° 46.670' E	Fl R 2.5s	5		2		No changes considered necessary
9	WHITE SWAN	BUOY	52° 33.399' N	001° 44.237' E				4		No changes considered necessary
9	SOUTH WINTERTON RIDGE	BUOY	52° 47.224' N	002° 03.485' E	Q (6) + LFl 15s	5		2		No changes considered necessary
10	ALICE	BUOY	51° 32.332' N	001° 04.218' E	Fl (2) 5s	5		2		No changes considered necessary
10	SOUTH MARGATE	BUOY	51° 23.833' N	001° 16.646' E	Fl G 2.5s	3		3		No changes considered necessary
10	ALDEBURGH RIDGE	BUOY	52° 06.490' N	001° 36.950' E	QR	3		3		No changes considered necessary
10	MIDDLE BAWDSEY	BUOY	51° 58.880' N	001° 33.593' E	Fl (3) G 10s	5		2		No changes considered necessary
10	NORTH EAST BAWDSEY	BUOY	52° 01.730' N	001° 36.092' E	Fl G 10s	5		2		No changes considered necessary
10	SOUTH BAWDSEY	BUOY	51° 57.226' N	001° 30.215' E	Q (6) + LFl 15s	5	Bell	1		No changes considered necessary
10	BENCH HEAD	BUOY	51° 44.557' N	001° 01.186' E	Fl (3) G 10s	3		3		No changes considered necessary
10	BLACK DEEP	BUOY	51° 48.315' N	001° 36.955' E	QR	4		2		No changes considered necessary
10	COLNE BAR	BUOY	51° 44.611' N	001° 02.567' E	Fl (2) G 5s	3		3		No changes considered necessary
10	SOUTH CORK	BUOY	51° 51.331' N	001° 24.094' E	Q (6) + LFl 15s	3		3		No changes considered necessary
10	CUTLER	BUOY	51° 58.530' N	001° 27.500' E	QG	3		3		No changes considered necessary
10	DEBEN	BUOY	51° 58.911' N	001° 23.577' E				4		No changes considered necessary
10	EAGLE	BUOY	51° 44.109' N	001° 03.630' E	QG	4		3		No changes considered necessary
10	NORTH EAGLE	BUOY	51° 44.711' N	001° 04.317' E	Q	3		3		No changes considered necessary
10	NORTH INNER GABBARD	BUOY	51° 59.129' N	001° 55.988' E	Q	5		2		Discontinue

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
10	SOUTH INNER GABBARD	BUOY	51° 49.922' N	001° 51.892' E	Q (6) + LFl 15s	5		2		No changes considered necessary
10	WEST INNER GABBARD	BUOY	51° 52.061' N	001° 49.368' E	Fl (3) Y 10s	5		2		No changes considered necessary
10	NORTH GALLOPER	BUOY	51° 49.837' N	001° 59.993' E	Q	5		2		No changes considered necessary
10	SOUTH GALLOPER	BUOY	51° 43.981' N	001° 56.389' E	Q (6) + LFl 15s	5		1	RACON	Review for discontinuance when/if NF consented
10	NORTH EAST GUNFLEET	BUOY	51° 49.931' N	001° 27.794' E	Q (3) 10s	5		2		No changes considered necessary
10	GUNFLEET SPIT	BUOY	51° 45.331' N	001° 21.695' E	Q (6) + LFl 15s	5	Bell	2		No changes considered necessary
10	HARWICH APPROACHES	BUOY	51° 56.756' N	001° 30.665' E	Iso 5s	5		1		No changes considered necessary
10	EAST MAPLIN	BUOY	51° 38.290' N	001° 08.862' E	Fl R 5s	3		4		Change to Type 3 Buoy
10	KNOLL SPIT	BUOY	51° 58.946' N	001° 23.528' E				4		No changes considered necessary
10	KENTISH KNOCK	BUOY	51° 38.085' N	001° 40.429' E	Q (3) 10s	7		1		Change to Type 2 5nm nominal range
10	KNOLL	BUOY	51° 43.881' N	001° 05.067' E	Q	5		2		No changes considered necessary
10	NORTH WEST KNOLL	BUOY	51° 44.292' N	001° 02.137' E	Fl (2) R 5s	4		3		No changes considered necessary
10	MIDDLE KNOLLS	BUOY	51° 58.645' N	001° 23.780' E				4		No changes considered necessary
10	WEST KNOLLS	BUOY	51° 58.790' N	001° 23.690' E				4		No changes considered necessary
10	LONGSAND HEAD	BUOY	51° 48.366' N	001° 38.160' E	VQ	5	Bell	1		No changes considered necessary
10	LONGSAND HEAD EAST	BUOY	51° 48.123' N	001° 39.394' E	Q (3) 10s	5			AIS	New Buoy Eastablished 2024
10	MAPLIN MIDDLE	BUOY	51° 36.776' N	001° 05.501' E	Fl G 5s	4	Bell	2		No changes considered necessary
10	MEDUSA	BUOY	51° 51.230' N	001° 20.355' E	Fl G 5s	3		3		No changes considered necessary
10	NORTH MIDDLE	BUOY	51° 41.347' N	001° 12.612' E	Q	4		3		No changes considered necessary
10	NOORD HINDER ROUTE SOUTH	BUOY	51° 49.530' N	002° 25.950' E	Fl Y 10s	5		2		No changes considered necessary
10	ORFORD HAVEN	BUOY	52° 02.000' N	001° 28.200' E	LFl 10s	1	Bell	2		No changes considered necessary
10	OXLEY	BUOY	52° 02.070' N	001° 27.700' E				4		No changes considered necessary
10	ROUGH	BUOY	51° 55.190' N	001° 31.003' E	VQ	5		2		No changes considered necessary
10	EAST SHIPWASH	BUOY	51° 57.079' N	001° 37.890' E	VQ (3) 5s	5		2		No changes considered necessary
10	NORTH SHIPWASH	BUOY	52° 01.730' N	001° 38.272' E	Q	7	Bell	1	RACON /AIS	No changes considered necessary
10	NORTH WEST SHIPWASH	BUOY	51° 58.980' N	001° 37.012' E	Fl R 5s	5		2		No changes considered necessary
10	SOUTH SHIPWASH	BUOY	51° 52.713' N	001° 33.972' E	Q (6) + LFl 15s	5		2		No changes considered necessary
10	SOUTH SHIPWASH DUPLICATE	BUOY	51° 52.760' N	001° 34.070' E	Q (6) + LFl 15s	1		2		Increase range to 3nm
10	SOUTH WEST SHIPWASH	BUOY	51° 54.750' N	001° 34.213' E	Fl Y 2.5s	5		2		No changes considered necessary
10	STORM	BUOY	51° 52.410' N	001° 38.225' E	VQ (6) + LFl 10s	5		2		No changes considered necessary
10	SUNK CENTRE	BUOY	51° 50.100' N	001° 46.020' E	Mo (A) 15s	9			RACON /AIS	Lightvessel replaced by buoy
10	EAST SUNK 1	BUOY	51° 51.062' N	001° 59.993' E	Iso 5s	5		2		No changes considered necessary
10	EAST SUNK 2	BUOY	51° 48.686' N	001° 51.875' E	LFl 10s	5		2		No changes considered necessary
10	SUNK INNER	LIGHT FLOAT	51° 51.170' N	001° 34.400' E	ISO 3S	12	Horn (1) 30s		RACON /AIS	No changes considered necessary
10	NORTH SUNK 1	BUOY	51° 56.113' N	001° 46.927' E	Iso 5s	5		2		No changes considered necessary
10	NORTH SUNK 2	BUOY	51° 54.289' N	001° 46.340' E	LFl 10s	5		2		No changes considered necessary
10	SOUTH SUNK 1	BUOY	51° 38.572' N	001° 47.363' E	Iso 5s	5		2		No changes considered necessary
10	SOUTH SUNK 2	BUOY	51° 42.403' N	001° 46.669' E	LFl 10s	5		2		No changes considered necessary
10	SOUTH WEST SUNK	BUOY	51° 38.318' N	001° 43.745' E	FL (2) Y 10S	5		2		No changes considered necessary
10	WEST SUNK 1	BUOY	51° 52.606' N	001° 41.119' E	Fl (4) Y 10s	5		2		No changes considered necessary
10	WEST SUNK 2	BUOY	51° 49.275' N	001° 40.722' E	Fl Y 2.5s	5		2		No changes considered necessary
10	EAST SUNK	BUOY	51° 53.230' N	002° 07.506' E	ISO 2.5S	9		1	RACON	No changes considered necessary
10	SWIN SPITWAY	BUOY	51° 41.951' N	001° 08.347' E	Iso 10s	5	Bell	2		No changes considered necessary
10	TRINITY	BUOY	51° 49.030' N	001° 36.391' E	Q (6) + LFl 15s	5		1		No changes considered necessary
10	WALKER	BUOY	51° 53.791' N	001° 33.903' E	Q (9) 15s	7		1		No changes considered necessary
10	WALLET 2	BUOY	51° 48.881' N	001° 22.994' E	Fl R 5s	5		2		No changes considered necessary
10	WALLET 3	BUOY	51° 45.031' N	001° 11.292' E	Fl (3) G 15s	5		2		No changes considered necessary
10	WALLET 4	BUOY	51° 46.531' N	001° 17.225' E	Fl (4) R 10s	5		2		No changes considered necessary
10	WALLET 6	BUOY	51° 44.431' N	001° 11.846' E	Fl (2) R 5s	5		2		No changes considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
10	WALLET SPITWAY	BUOY	51° 42.861' N	001° 07.317' E	LFl 10s	5	Bell	2		No changes considered necessary
10	WEIR	BUOY	52° 02.244' N	001° 27.570' E				4		No changes considered necessary
10	WHITAKER	BUOY	51° 41.431' N	001° 10.506' E	Q (3) 10s	5	Bell	2		No changes considered necessary
10	MAPLIN APPROACH	BUOY	51° 39.536' N	001° 09.393' E	Fl (2) G 10s	3		3		No changes considered necessary
10	WHITING HOOK	BUOY	52° 02.980' N	001° 31.823' E	Fl R 10s	3		3		No changes considered necessary
10	ARGUS	BUOY	51° 29.297' N	000° 58.715' E	Fl Y 2.5s	5		2		No changes considered necessary
10	BARROW 10	BUOY	51° 33.802' N	001° 07.859' E	Fl (3) R 10s	5		2		No changes considered necessary
10	BARROW 11	BUOY	51° 34.082' N	001° 06.697' E	Fl (3) G 10s	5		2		No changes considered necessary
10	BARROW 12	BUOY	51° 33.244' N	001° 05.944' E	Fl (2) R 5s	5		2		No changes considered necessary
10	BARROW 13	BUOY	51° 32.822' N	001° 03.067' E	Fl (2) G 5s	4		2		No changes considered necessary
10	BARROW 14	BUOY	51° 31.832' N	001° 00.428' E	Fl R 2.5s	5		2		No changes considered necessary
10	BARROW 2	BUOY	51° 41.981' N	001° 22.893' E	Fl (2) R 5s	5		2		No changes considered necessary
10	BARROW 3	BUOY	51° 42.021' N	001° 20.243' E	Q (3) 10s	5		2	RACON	No changes considered necessary
10	BARROW 4	BUOY	51° 39.881' N	001° 17.494' E	VQ (9) 10s	5		2		No changes considered necessary
10	BARROW 5	BUOY	51° 40.031' N	001° 16.206' E	Fl G 10s	5		2		No changes considered necessary
10	BARROW 6	BUOY	51° 37.301' N	001° 14.684' E	Fl (4) R 15s	5		2		No changes considered necessary
10	BARROW 7	BUOY	51° 37.487' N	001° 13.471' E	Fl G 2.5s	4		2		No changes considered necessary
10	BARROW 8	BUOY	51° 35.051' N	001° 11.366' E	Fl (2) R 5s	5		2		No changes considered necessary
10	BARROW 9	BUOY	51° 35.342' N	001° 10.297' E	VQ (3) 5s	5		2		No changes considered necessary
10	BEACHY HEAD	LIGHTHOUSE	50° 44.025' N	000° 14.488' E	Fl (2) 20s	16				No changes considered necessary
10	BLACK DEEP 1	BUOY	51° 44.031' N	001° 28.092' E	Fl G 5s	5		2		No changes considered necessary
10	BLACK DEEP 10	BUOY	51° 34.732' N	001° 15.596' E	Fl (3) R 10s	5		2		No changes considered necessary
10	BLACK DEEP 11	BUOY	51° 34.250' N	001° 13.475' E	Fl (3) G 10s	5		2		No changes considered necessary
10	BLACK DEEP 12	BUOY	51° 33.931' N	001° 13.511' E	Fl (4) R 15s	5		2		No changes considered necessary
10	BLACK DEEP 2	BUOY	51° 45.662' N	001° 32.222' E	Fl (4) R 15s	5		2		No changes considered necessary
10	BLACK DEEP 3	BUOY	51° 42.393' N	001° 26.655' E	Fl (3) G 15s	4		2		No changes considered necessary
10	BLACK DEEP 4	BUOY	51° 41.421' N	001° 28.482' E	Fl (2) R 5s	5		2		No changes considered necessary
10	BLACK DEEP 5	BUOY	51° 39.531' N	001° 22.993' E	VQ (3) 5s	5		2		No changes considered necessary
10	BLACK DEEP 6	BUOY	51° 38.521' N	001° 24.403' E	Fl R 2.5s	5		2		No changes considered necessary
10	BLACK DEEP 7	BUOY	51° 37.081' N	001° 17.694' E	QG	5		2		No changes considered necessary
10	BLACK DEEP 8	BUOY	51° 36.358' N	001° 20.426' E	Q (9) 15s	5		2		No changes considered necessary
10	BLACK DEEP 9	BUOY	51° 35.131' N	001° 15.094' E	Q (6) + LFl 15s	5		2		No changes considered necessary
10	BLACK DEEP MIDDLE 1	BUOY	51° 41.960' N	001° 27.590' E	Fl Y 2.5s	5		2		No changes considered necessary
10	BLACK DEEP MIDDLE 2	BUOY	51° 37.370' N	001° 20.040' E	Fl Y 2.5s	5		2		No changes considered necessary
10	BLACKTAIL SPIT	BUOY	51° 31.482' N	000° 56.748' E	Fl (3) G 10s	5		2		No changes considered necessary
10	BRAKE	BUOY	51° 16.984' N	001° 28.195' E	Fl (4) R 15s	5		2		No changes considered necessary
10	BROADSTAIRS KNOLL	BUOY	51° 20.884' N	001° 29.475' E	Fl R 2.5s	5		2		No changes considered necessary
10	BULLOCK BANK	BUOY	50° 46.937' N	001° 07.597' E	VQ	5		1		No changes considered necessary
10	COLUMBINE	BUOY	51° 24.263' N	001° 01.348' E	Fl G 2s	4		3		No changes considered necessary
10	COLUMBINE SPIT	BUOY	51° 23.863' N	001° 00.028' E	Fl (3) G 10s	3		3		No changes considered necessary
10	COPPERAS	BUOY	51° 23.762' N	001° 11.179' E	QG	3		3		No changes considered necessary
10	CS 1	BUOY	50° 33.707' N	000° 03.925' W	Fl Y 2.5s	5		1		No changes considered necessary
10	CS 2	BUOY	50° 39.137' N	000° 32.601' E	Fl Y 5s	10		1		No changes considered necessary
10	CS 3	BUOY	50° 52.036' N	001° 02.200' E	Fl Y 10s	5		2		No changes considered necessary
10	CS 4	BUOY	51° 08.668' N	001° 34.020' E	Fl (4) Y 15s	5		1		No changes considered necessary
10	DEAL BANK	BUOY	51° 12.935' N	001° 25.566' E	QR	5		2		No changes considered necessary
10	DOWNS	BUOY	51° 14.505' N	001° 26.226' E	Fl (2) R 5s	5	Bell	2		No changes considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
10	DRILLSTONE	BUOY	51° 25.833' N	001° 42.891' E	Q (3) 10s	5		1		No changes considered necessary
10	DUNGENESS	LIGHTHOUSE	50° 54.806' N	000° 58.560' E	Fl 10s	21	Horn (1) 30s			No changes considered necessary
10	DYNAMO	BUOY	51° 50.060' N	001° 33.880' E	Fl Y 2.5s	5		2		No changes considered necessary
10	EAST CANT	BUOY	51° 28.532' N	000° 55.598' E	QR	5		2		No changes considered necessary
10	EAST GOODWIN	BUOY	51° 15.675' N	001° 35.695' E	Q (3) 10s	5		2		Change to Type 1S9 when E Goodwin LV discontinued
10	EAST MARGATE	BUOY	51° 27.033' N	001° 26.395' E	Fl R 2.5s	5		2		No changes considered necessary
10	EAST VARNE	BUOY	50° 58.236' N	001° 20.895' E	VQ (3) 5s	5		2		No changes considered necessary
10	ELBOW	BUOY	51° 23.234' N	001° 31.594' E	Q	5		2		No changes considered necessary
10	F1	BUOY	51° 11.235' N	001° 44.922' E	Fl (4) Y 15s	5		1		No changes considered necessary
10	F2	BUOY	51° 20.414' N	001° 56.190' E	Fl (4) Y 15s	5		1		No changes considered necessary
10	FALLS HEAD	BUOY	51° 28.233' N	001° 49.890' E	Q	5		2		No changes considered necessary
10	FISHERMAN 1	BUOY	51° 34.500' N	001° 23.520' E	Fl G 2.5s	5		2		No changes considered necessary
10	FISHERMAN 2	BUOY	51° 34.296' N	001° 23.500' E	Fl R 2.5s	5		2		No changes considered necessary
10	FISHERMAN 3	BUOY	51° 34.780' N	001° 22.650' E	Fl G 5s	5		2		No changes considered necessary
10	FISHERMAN 4	BUOY	51° 34.770' N	001° 22.080' E	Fl (2) R 5s	5		2		No changes considered necessary
10	FISHERMAN 5	BUOY	51° 35.250' N	001° 21.840' E	Fl (2) G 5s	5		2		No changes considered necessary
10	FISHERMAN 6	BUOY	51° 35.080' N	001° 21.560' E	Fl (3) R 10s	5		2		No changes considered necessary
10	FOXTROT 3	LIGHT VESSEL	51° 24.150' N	002° 00.377' E	Fl 10s	15	Horn (1) 10s		RACON /AIS	No changes considered necessary
10	GOODWIN EAST	LIGHT VESSEL	51° 13.264' N	001° 36.373' E	Fl 15s	15	Horn (1) 30s		RACON /AIS	Discontinue
10	GOODWIN FORK	BUOY	51° 14.379' N	001° 26.697' E	Q (6) + LFl 15s	5	Bell	2		No changes considered necessary
10	GOODWIN KNOLL	BUOY	51° 19.584' N	001° 32.194' E	Fl (2) G 5s	4		2		No changes considered necessary
10	GREENWICH	LIGHT VESSEL	50° 24.538' N	000° 00.095' W	Fl 5s	15	Horn (1) 30s		RACON /AIS	Replace with Safe Water Mark Buoy
10	GULL	BUOY	51° 19.584' N	001° 31.295' E	VQ (3) 5s	5		2		No changes considered necessary
10	GULL STREAM	BUOY	51° 18.284' N	001° 29.695' E	QR	5		2		No changes considered necessary
10	HAM GAT	BUOY	51° 23.083' N	000° 58.318' E	QG	3		3		No changes considered necessary
10	INNER FISHERMAN	BUOY	51° 36.145' N	001° 20.079' E	QR	5		2		No changes considered necessary
10	INNER LONG SAND	BUOY	51° 38.775' N	001° 25.435' E	Iso 2s	5		2		No changes considered necessary
10	INNER PRINCES	BUOY	51° 29.597' N	001° 03.470' E	Fl Y 2.5s	5		2		No changes considered necessary
10	INTER BANK	BUOY	51° 16.484' N	001° 52.221' E	Fl Y 5s	5		1	RACON	No changes considered necessary
10	KNOB	BUOY	51° 30.692' N	001° 04.277' E	Iso 5s	5	Bell	1		No changes considered necessary
10	KNOCK JOHN	BUOY	51° 33.661' N	001° 11.357' E	Fl (2) R 5s	5		2		No changes considered necessary
10	KNOCK JOHN 1	BUOY	51° 33.717' N	001° 10.833' E	Q (6) + LFl 15s	5		2		No changes considered necessary
10	KNOCK JOHN 2	BUOY	51° 33.112' N	001° 09.847' E	Fl R 5s	5		2		No changes considered necessary
10	KNOCK JOHN 3	BUOY	51° 33.278' N	001° 09.692' E	Fl G 5s	5		2		No changes considered necessary
10	KNOCK JOHN 4	BUOY	51° 32.323' N	001° 07.906' E	Fl (3) R 10s	5		2		No changes considered necessary
10	KNOCK JOHN 5	BUOY	51° 32.490' N	001° 07.750' E	Fl (3) G 10s	5		2		No changes considered necessary
10	KNOCK JOHN 7	BUOY	51° 31.956' N	001° 06.406' E	Fl (4) G 15s	5		2		No changes considered necessary
10	LONGNOSE	BUOY	51° 24.153' N	001° 26.075' E				4		No changes considered necessary
10	MAPLIN	BUOY	51° 33.661' N	001° 01.593' E	QG	5	Bell	2		No changes considered necessary
10	MAPLIN BANK	BUOY	51° 35.502' N	001° 04.697' E	Fl (3) R 10s	3		3		No changes considered necessary
10	MAPLIN EDGE	BUOY	51° 35.332' N	001° 03.647' E	Fl G 2.5s	4		4		No changes considered necessary
10	MIDDLE FALLS	BUOY	51° 18.634' N	001° 46.991' E	Fl (3) R 10s	5		2		No changes considered necessary
10	MIDDLE PRINCES	BUOY	51° 29.195' N	001° 09.000' E	Fl Y 5s	5		2		No changes considered necessary
10	MIDDLE VARNE	BUOY	50° 58.936' N	001° 19.897' E	VQ (9) 10s	5		2		No changes considered necessary
10	MPC	BUOY	51° 06.125' N	001° 38.253' E	Fl Y 2.5s	5		1	RACON /AIS	No changes considered necessary
10	NORTH EAST GOODWIN	BUOY	51° 20.314' N	001° 34.164' E	Q (3) 10s	7		1	RACON	No changes considered necessary
10	NORTH EAST SPIT	BUOY	51° 27.933' N	001° 29.894' E	VQ (3) 5s	5		1	RACON /AIS	No changes considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
10	NORTH EAST VARNE	BUOY	50° 59.800' N	001° 22.700' E	Q (3) 10s	5		2		No changes considered necessary
10	NORTH EAST WHITING	BUOY	52° 03.610' N	001° 33.322' E	Q (3) 10s	3		3		No changes considered necessary
10	NORTH FORELAND	LIGHTHOUSE	51° 22.494' N	001° 26.705' E	Fl (5) WR 20s	19			AIS	Intens Red Sector can be reduced
10	NORTH GOODWIN	BUOY	51° 18.120' N	001° 30.350' E	Fl G 2.5s	5		2		No changes considered necessary
10	NORTH OAZE	BUOY	51° 30.032' N	000° 57.648' E	QR	5		2		No changes considered necessary
10	NORTH PRINCES	BUOY	51° 29.248' N	001° 18.346' E	QG	5		2		No changes considered necessary
10	NORTH RED SAND TOWERS	BUOY	51° 28.732' N	000° 59.318' E	Fl (3) R 10s	5	Bell	2		No changes considered necessary
10	NORTH SHIVERING SAND TOWER	BUOY	51° 30.012' N	001° 04.757' E	Q	5		2		No changes considered necessary
10	NORTH WEST GOODWIN	BUOY	51° 16.740' N	001° 28.400' E	Q (9) 15s	5		2		No changes considered necessary
10	NORTH WEST VARNE	BUOY	51° 00.800' N	001° 22.700' E	Q	5		2		No changes considered necessary
10	OAZE	BUOY	51° 28.977' N	000° 56.917' E	Fl (4) Y 10s	5		2		No changes considered necessary
10	OAZE BANK	BUOY	51° 29.179' N	000° 56.771' E	QG	4		2		No changes considered necessary
10	OAZE DEEP	BUOY	51° 30.000' N	001° 00.000' E	Fl (2) G 5s	4		2		No changes considered necessary
10	OUTER FISHERMAN	BUOY	51° 34.020' N	001° 25.100' E	Q (3) 10s	5		2		No changes considered necessary
10	OUTER LONG SAND	BUOY	51° 34.610' N	001° 28.338' E	Iso 2s	5		2		No changes considered necessary
10	OUTER PRINCES	BUOY	51° 28.790' N	001° 19.870' E	VQ (6) + LFl 10s	5		2		No changes considered necessary
10	POLLARD SPIT	BUOY	51° 22.983' N	000° 58.568' E	QR	3		3		No changes considered necessary
10	PRINCES 1	BUOY	51° 29.233' N	001° 16.016' E	Fl (4) G 15s	5		2		No changes considered necessary
10	PRINCES 2	BUOY	51° 28.813' N	001° 13.076' E	Fl (2) R 5s	5		2		No changes considered necessary
10	PRINCES 3	BUOY	51° 29.332' N	001° 13.096' E	Fl (2) G 5s	5		2		No changes considered necessary
10	PRINCES 4	BUOY	51° 28.832' N	001° 09.897' E	Fl (3) R 10s	4		2		No changes considered necessary
10	PRINCES 5	BUOY	51° 29.389' N	001° 10.000' E	Fl (3) G 10s	4		2		No changes considered necessary
10	PRINCES 6	BUOY	51° 29.180' N	001° 06.580' E	Fl (4) R 15s	5		2		No changes considered necessary
10	PRINCES 7	BUOY	51° 29.593' N	001° 07.110' E	Q (9) 15s	5	Bell	2		No changes considered necessary
10	PRINCES 8	BUOY	51° 29.140' N	001° 03.000' E	Fl (2) R 5s	5		2		No changes considered necessary
10	RECULVER	BUOY	51° 23.630' N	001° 12.560' E	QR	3		3		No changes considered necessary
10	ROYAL SOVEREIGN	LIGHTHOUSE								Demolished
10	RS NORTH	BUOY	50° 43.560' N	000° 26.100' E	Q	5	Bell	2		Temporary New Buoy Eastablished 2023 Discontinue on completion of Work
10	RS EAST	BUOY	50° 43.450' N	000° 26.250' E	VQ (3) 5s	5		2		Temporary New Buoy Eastablished 2023 Discontinue on completion of Work
10	RS SOUTH	BUOY	50° 43.340' N	000° 26.100' E	Q (6) + LFl 15s	5		2	RACON/AIS	Temporary New Buoy Eastablished 2023 Rename and make permanent on completion of work
10	RS WEST	BUOY	50° 43.450' N	000° 25.900' E	Q (9) 15s	5		2		Temporary New Buoy Eastablished 2023 Discontinue on completion of Work
10	ROYAL SOVEREIGN BUOY	BUOY	50° 44.216' N	000° 25.834' E	QR	5		2		No changes considered necessary
10	RYE FAIRWAY	BUOY	50° 54.020' N	000° 48.050' E	LFl 10s	5		2		Consult for discontinuance
10	SANDETTIE	LIGHT VESSEL	51° 09.355' N	001° 47.122' E	Fl 5s	15	Horn (1) 30s		RACON /AIS	No changes considered necessary
10	SOUTH BRAKE	BUOY	51° 15.794' N	001° 26.845' E	Fl (3) R 10s	5		2		No changes considered necessary
10	SOUTH EAST GOODWIN	BUOY	51° 12.985' N	001° 34.445' E	Fl (3) R 10s	5		2		No changes considered necessary
10	SOUTH EAST MARGATE	BUOY	51° 24.053' N	001° 20.396' E	Q (3) 10s	3		3		No changes considered necessary
10	SOUTH EAST MOUSE	BUOY	51° 31.190' N	001° 04.070' E	QG	5		2		No changes considered necessary
10	SOUTH FALLS	BUOY	51° 13.834' N	001° 43.922' E	Q (6) + LFl 15s	5		1		No changes considered necessary
10	SOUTH GOODWIN	BUOY	51° 10.605' N	001° 32.265' E	Fl (4) R 15s	5		2		No changes considered necessary
10	SOUTH KNOCK	BUOY	51° 34.132' N	001° 34.292' E	Q (6) + LFl 15s	5	Bell	1		Change to Type 2 5nm nominal range
10	SOUTH PRINCES	BUOY	51° 28.740' N	001° 18.260' E	QR	5		2		No changes considered necessary
10	SOUTH SHIVERING SAND TOWER	BUOY	51° 29.751' N	001° 04.828' E	Q (6) + LFl 15s	5	Bell	2		No changes considered necessary
10	SOUTH VARNE	BUOY	50° 55.636' N	001° 17.296' E	Q (6) + LFl 15s	5		1		No changes considered necessary

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10	SOUTH WEST BARROW	BUOY	51° 31.950' N	000° 59.900' E	Q (9) 15s	5		2		No changes considered necessary
10	SOUTH WEST GOODWIN	BUOY	51° 08.500' N	001° 28.880' E	Q (6) + LFl 15s	9		1	AIS	No changes considered necessary
10	SOUTH WEST SANDETTIE	BUOY	51° 09.775' N	001° 45.662' E	Q (9) 15s	5		2		No changes considered necessary
10	SOUTH WEST WHITING	BUOY	52° 00.960' N	001° 30.693' E	Q (6) + LFl 15s	3		3		No changes considered necessary
10	SPILE	BUOY	51° 26.432' N	000° 55.698' E	Fl G 2.5s	3		3		No changes considered necessary
10	SUNK HEAD MIDDLE	BUOY	51° 46.050' N	001° 31.540' E	Fl Y 2.5s	5		2	RACON	No changes considered necessary
10	VARNE	LIGHT VESSEL	51° 01.286' N	001° 23.897' E	Fl R 5s	15	Horn (1) 30s		RACON /AIS	No changes considered necessary
10	WEST GOODWIN	BUOY	51° 15.614' N	001° 27.375' E	Fl G 5s	5		2		No changes considered necessary
10	WEST OAZE	BUOY	51° 28.975' N	000° 55.413' E	Iso 5s	5		2		No changes considered necessary
10	WEST SOUTH-WEST SANDETTIE	BUOY	51° 12.355' N	001° 51.121' E	Fl G 5s	5		2		No changes considered necessary
10	WEST SUNK	BUOY	51° 44.331' N	001° 25.792' E	Q (9) 15s	5		2		No changes considered necessary
10	WEST SWIN	BUOY	51° 33.402' N	001° 01.968' E	QR	5		3		No changes considered necessary
10	WHITSTABLE STREET	BUOY	51° 24.000' N	001° 01.540' E	Fl R 2s	3		3		No changes considered necessary
10	WOODBRIDGE HAVEN	BUOY	51° 58.244' N	001° 23.855' E	Mo (A) 15s	1		2		No changes considered necessary
11	ALDERNEY	LIGHTHOUSE	49° 43.748' N	002° 09.858' W	Fl (4) 15s	12				Review 24hr on reengineering
11	ANVIL POINT	LIGHTHOUSE	50° 35.514' N	001° 57.600' W	Fl 10s	9				No changes considered necessary
11	BLANCHARD	BUOY	49° 25.373' N	002° 17.414' W	Q (3) 10s	5	Bell	2		No changes considered necessary
11	BOULDER	BUOY	50° 41.565' N	000° 49.089' W	Fl G 2.5s	5		2		No changes considered necessary
11	BRIDGE	BUOY	50° 39.625' N	001° 36.884' W	VQ (9) 10s	5		1	RACON	No changes considered necessary
11	CASQUETS	LIGHTHOUSE	49° 43.321' N	002° 22.622' W	Fl (5) 30s	18			RACON /AIS	No changes considered necessary
11	CHANNEL	BUOY	49° 54.459' N	002° 53.744' W	LFl 10s	9			RACON /AIS	Lightvessel replaced by buoy
11	EAST LEPE	BUOY	50° 45.930' N	001° 21.070' W	Fl (2) R 5s	5	Bell	2		No changes considered necessary
11	EAST SHAMBLES	BUOY	50° 31.260' N	002° 20.080' W	Q (3) 10s	5	Bell	2		No changes considered necessary
11	EASTBOROUGH HEAD	BUOY	50° 41.535' N	000° 39.090' W	Q (3) 10s	5	Bell	2		No changes considered necessary
11	FAIRWAY	BUOY	50° 38.235' N	001° 38.984' W	LFl 10s	5	Bell	1		No changes considered necessary
11	GURNARD	BUOY	50° 46.200' N	001° 18.840' W	Q	5		2		No changes considered necessary
11	GURNARD LEDGE	BUOY	50° 45.514' N	001° 20.586' W	Fl (4) G 15s	5		2		No changes considered necessary
11	HAMSTEAD LEDGE	BUOY	50° 43.864' N	001° 26.185' W	Fl (2) G 5s	5		2		No changes considered necessary
11	HANOIS	LIGHTHOUSE	49° 26.100' N	002° 42.143' W	Fl (2) 13 s	20	Horn (2) 60s			2015 reduce to 18nm on reengineering
11	HURST POINT	LIGHTHOUSE	50° 42.478' N	001° 33.023' W	Fl (4) WRW (intens) 15s	13				No changes considered necessary
11	LEPE SPIT	BUOY	50° 46.784' N	001° 20.636' W	Q (6) + LFl 15s	3		3		No changes considered necessary
11	LYMINGTON BANK	BUOY	50° 43.100' N	001° 30.850' W	Fl (2) R 5s	5	Bell	2		No changes considered necessary
11	MIDDLE SHINGLES	BUOY	50° 41.214' N	001° 34.664' W	Fl (3) R 10s	5		2		No changes considered necessary
11	MIXON	BEACON	50° 42.382' N	000° 46.318' W	Q (6) + LFl 15s	2				No changes considered necessary
11	N1	BUOY	50° 41.260' N	000° 56.520' W	FL (2+1) Y 6S	7		1		No changes considered necessary
11	N2	BUOY	50° 41.030' N	000° 56.740' W	FL (2+1) Y 6S	7		1		No changes considered necessary
11	N3	BUOY	50° 41.628' N	000° 56.742' W	Fl (3) Y 15s	5		2		No changes considered necessary
11	N4	BUOY	50° 41.861' N	000° 57.242' W	Fl Y 7.5s	5		2		No changes considered necessary
11	N5	BUOY	50° 41.991' N	000° 56.969' W	Fl Y 5s	4		2		No changes considered necessary
11	N7	BUOY	50° 42.354' N	000° 57.196' W	Fl Y 2.5s	4		2		No changes considered necessary
11	NAB TOWER	LIGHTHOUSE	50° 40.075' N	000° 57.155' W	Fl 10s	12	Horn (1) 30s		RACON /AIS	No changes considered necessary
11	NEEDLES	LIGHTHOUSE	50° 39.734' N	001° 35.500' W	Oc (2) WRG 20s	16	Horn (1) 30s			No changes considered necessary
11	NEW GROUNDS	BUOY	50° 41.841' N	000° 58.490' W	VQ (3) 5s	5		2		No changes considered necessary
11	NORTH EAST SHINGLES	BUOY	50° 41.964' N	001° 33.404' W	Q (3) 10s	5		2		No changes considered necessary
11	NORTH HEAD	BUOY	50° 42.684' N	001° 35.514' W	Fl (3) G 10s	3		4		No changes considered necessary
11	NORTH WEST MINQUIERS	BUOY	48° 59.642' N	002° 20.583' W	Q	5	Bell	1		No changes considered necessary
11	OUTER NAB 1	BUOY	50° 38.180' N	000° 56.880' W	VQ (9) 10s	5		1		No changes considered necessary
11	OUTER NAB 2	BUOY	50° 38.430' N	000° 57.700' W	VQ (3) 5s	5		1		No changes considered necessary

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11	OWERS	BUOY	50° 38.590' N	000° 41.090' W	Q (6) + LFl 15s	7	Bell	1	RACON	No changes considered necessary
11	PEVERIL LEDGE	BUOY	50° 36.415' N	001° 56.102' W	QR	4		3		No changes considered necessary
11	PORTLAND BILL	LIGHTHOUSE	50° 30.848' N	002° 27.384' W	Fl (4) 20s	18	Horn (1) 30s			No changes considered necessary
11	PRINCE CONSORT	BUOY	50° 46.414' N	001° 17.556' W	VQ	5		2		No changes considered necessary
11	PULLAR	BUOY	50° 40.485' N	000° 50.089' W	Q (9) 15s	3		3		No changes considered necessary
11	SALT MEAD	BUOY	50° 44.514' N	001° 23.036' W	Fl (3) G 10s	5		2		No changes considered necessary
11	SARK	LIGHTHOUSE	49° 26.186' N	002° 20.735' W	Fl 15s	18	Horn (1) 30s			No changes considered necessary
11	SCONCE	BUOY	50° 42.534' N	001° 31.435' W	Q	5	Bell	2		No changes considered necessary
11	SHINGLES ELBOW	BUOY	50° 40.374' N	001° 36.054' W	Fl (2) R 5s	5		2		No changes considered necessary
11	SOLENT BANK	BUOY	50° 44.230' N	001° 27.370' W	Fl (3) R 10s	5		2		No changes considered necessary
11	SOUTH PULLAR	BUOY	50° 38.835' N	000° 49.289' W	VQ (6) + LFl 10s	5		2		No changes considered necessary
11	SOUTH WEST MINQUIERS	BUOY	48° 54.342' N	002° 19.382' W	Q (9) 15s	5	Bell	1		No changes considered necessary
11	SOUTH WEST SHINGLES	BUOY	50° 39.293' N	001° 37.522' W	Fl R 2.5s	5		2		No changes considered necessary
11	ST CATHERINES	LIGHTHOUSE	50° 34.539' N	001° 17.873' W	Fl 5s	18				No changes considered necessary
11	STREET	BUOY	50° 41.685' N	000° 48.889' W	QR	3		3		No changes considered necessary
11	WARDEN	BUOY	50° 41.484' N	001° 33.554' W	Fl G 2.5s	5	Bell	2		No changes considered necessary
11	WEST LEPE	BUOY	50° 45.234' N	001° 24.085' W	Fl R 5s	5		2		No changes considered necessary
11	WEST SHAMBLES	BUOY	50° 29.831' N	002° 24.467' W	Q (9) 15s	5	Bell	2		No changes considered necessary
12	WOOLPACK	BEACON	49° 54.399' N	006° 19.371' W	Q (6) + LFl 15s	2				No changes considered necessary
12	BANN SHOAL	BUOY	50° 20.030' N	005° 51.110' W	Fl G 2.5s	7		1	RACON /AIS	No changes considered necessary
12	BARTHOLOMEW LEDGES	BEACON	49° 54.364' N	006° 19.889' W	QR	1				No changes considered necessary
12	BERRY HEAD	LIGHTHOUSE	50° 23.974' N	003° 29.006' W	Fl (2) 15s	18				No changes considered necessary
12	BISHOP ROCK	LIGHTHOUSE	49° 52.371' N	006° 26.734' W	Fl (2) 15s	20			RACON /AIS	Reduce to 18NM
12	CANNIS ROCK	BUOY	50° 18.384' N	004° 39.945' W	Q (6) + LFl 15s	5	Bell	2		No changes considered necessary
12	CARN BASE	BUOY	50° 01.480' N	005° 46.180' W	Q (9) 15s	5		1		No changes considered necessary
12	CRESSAR	BEACON	50° 07.236' N	005° 31.130' W						No changes considered necessary
12	CROW ROCK	BEACON	49° 56.263' N	006° 18.491' W	Fl (2) 10s	2				No changes considered necessary
12	EDDYSTONE	LIGHTHOUSE	50° 10.843' N	004° 15.936' W	Fl (2) 10s	17	Horn (1) 30s		RACON /AIS	No changes considered necessary
12	EUROPA POINT	LIGHTHOUSE	36° 06.580' N	005° 20.690' W	Iso W 10s	18				No changes considered necessary
12	GEAR ROCK	BEACON	50° 06.620' N	005° 31.617' W	Fl (2) 10s	1				No changes considered necessary
12	GODREVY	LIGHTHOUSE	50° 14.549' N	005° 24.015' W	Fl WR 10s	8				No changes considered necessary
12	GUNNER	BUOY	49° 53.636' N	006° 25.075' W				2		No changes considered necessary
12	GWINEAS	BUOY	50° 14.505' N	004° 45.365' W	Q (3) 10s	5	Bell	2		No changes considered necessary
12	HATS	BUOY	49° 56.206' N	006° 17.136' W	VQ (6) + LFl 10s	4		3		No changes considered necessary
12	HOMESTONE	BUOY	50° 19.615' N	003° 33.552' W	QR	3		3		No changes considered necessary
12	JAMES EAGAN LAYNE	BUOY	50° 19.550' N	004° 15.250' W	QR	3		3		No changes considered necessary
12	LIZARD	LIGHTHOUSE	49° 57.612' N	005° 12.128' W	Fl 3s	26	Horn (1) 30s			No changes considered necessary
12	LONGSHIPS	LIGHTHOUSE	50° 04.012' N	005° 44.812' W	Fl (2) WR 10s	15	Horn (1) 10s			Awaiting Reengineering standardise HWS
12	LOW LEE	BUOY	50° 05.556' N	005° 31.380' W	Q (3) 10s	5		2		No changes considered necessary
12	MANACLE	BUOY	50° 02.806' N	005° 01.913' W	Q (3) 10s	5	Bell	2		No changes considered necessary
12	MEW STONE	BUOY	50° 19.920' N	003° 31.890' W	VQ (6) + LFl 10s	5		2		No changes considered necessary
12	MOUNTAMOPUS	BUOY	50° 04.636' N	005° 26.261' W	Q (6) + LFl 15s	5		2		No changes considered necessary
12	NORTH BARTHOLOMEW	BUOY	49° 54.496' N	006° 19.985' W	Fl R 5s	5		2		No changes considered necessary
12	NORTH EMSSTROM	BUOY	50° 28.167' N	003° 24.860' W	Q	5		2		No changes considered necessary
12	OLD WRECK	BUOY	49° 54.246' N	006° 22.806' W	VQ	5		2		No changes considered necessary
12	PENDEEN	LIGHTHOUSE	50° 09.899' N	005° 40.295' W	Fl (4) 15s	16				2020 Examiner 18nm acceptable
12	PENINNIS	LIGHTHOUSE	49° 54.273' N	006° 18.221' W	Fl 20s	9				No changes considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
12	RANNEYS	BUOY	50° 19.860' N	004° 26.370' W	Q (6) + LFl 15s	5		2		No changes considered necessary
12	ROUND ISLAND	LIGHTHOUSE	49° 58.739' N	006° 19.387' W	Fl 10s	18	Horn (4) 60s			Awaiting Reengineering Standardise HWS
12	ROUND ROCK	BUOY	49° 53.096' N	006° 25.185' W				2		No changes considered necessary
12	RUNNELSTONE	BUOY	50° 01.186' N	005° 40.359' W	Q (6) + LFl 15s	5	Bell	1		No changes considered necessary
12	RUNNELSTONE HIGH	BEACON	50° 02.243' N	005° 40.605' W						No changes considered necessary
12	RUNNELSTONE LOW	BEACON	50° 02.208' N	005° 40.599' W						No changes considered necessary
12	RYEMAN (RAYMOND)	BEACON	50° 07.236' N	005° 30.327' W						No changes considered necessary
12	SEVEN STONES	LIGHT VESSEL	50° 03.616' N	006° 04.337' W	Fl (3) 30s	15	Horn (1) 30s		RACON /AIS	No changes considered necessary
12	SKERRIES BANK	BUOY	50° 16.315' N	003° 33.771' W	Fl R 5s	5		2		No changes considered necessary
12	SOUTH EMSSTROM	BUOY	50° 28.033' N	003° 24.860' W	Q (6) + LFl 15s	5		2		No changes considered necessary
12	SPANISH LEDGE	BUOY	49° 53.936' N	006° 18.856' W	Q (3) 10s	5	Bell	2		No changes considered necessary
12	SPENCERS LEDGE	BUOY	49° 54.780' N	006° 22.060' W	Q (6) + LFl 15s	5		2		No changes considered necessary
12	ST AGNES	BEACON	49° 53.562' N	006° 20.725' W						No changes considered necessary
12	ST ANTHONY	LIGHTHOUSE	50° 08.469' N	005° 00.964' W	Iso WR 15s	12	Horn (1) 30s			2020 Review requirement for Light
12	ST MARTINS DAYMARK	BEACON	49° 57.990' N	006° 15.971' W						No changes considered necessary
12	START POINT	LIGHTHOUSE	50° 13.344' N	003° 38.539' W	Fl (3) 10s	18	Horn (1) 30s			No changes considered necessary
12	STEEPLE ROCK	BUOY	49° 55.460' N	006° 24.240' W	Q (9) 15s	5		2		No changes considered necessary
12	STONES	BUOY	50° 15.635' N	005° 25.461' W	Q	5	Bell	1		No changes considered necessary
12	TATER DU	LIGHTHOUSE	50° 03.143' N	005° 34.647' W	Fl (3) 15s	12				No changes considered necessary
12	TINS WALBERT	BEACON	49° 53.841' N	006° 21.323' W						No changes considered necessary
12	TREVOSE HEAD	LIGHTHOUSE	50° 32.954' N	005° 02.113' W	Fl 7.5s	18				No changes considered necessary
12	UDDER ROCK	BUOY	50° 18.934' N	004° 33.846' W	VQ (6) + LFl 10s	5	Bell	2		No changes considered necessary
12	WEST ROCK	BUOY	50° 19.860' N	003° 32.470' W	Q (6) + LFl 15s	5		2		No changes considered necessary
12	WOLF ROCK	LIGHTHOUSE	49° 56.719' N	005° 48.550' W	Fl 15s	16	Horn (1) 30s		RACON /AIS	No changes considered necessary
13	BREAKSEA	BUOY	51° 19.879' N	003° 19.075' W	Fl 10s	9		1	RACON/AIS	No changes considered necessary
13	ENGLISH AND WELSH GROUNDS	BUOY	51° 27.129' N	002° 59.937' W	LFl 10s	7	Bell	1	RACON	No changes considered necessary
13	ANTHORN	BEACON	54° 54.673' N	003° 17.237' W					LORAN	No changes considered necessary
13	AVON	BUOY	51° 27.929' N	002° 51.728' W	Fl G 2.5s	5		2		No changes considered necessary
13	BAGGY LEAP	BUOY	51° 08.930' N	004° 16.969' W	Fl (2) G 10s	5		2		No changes considered necessary
13	BIDEFORD BAR	BUOY	51° 04.890' N	004° 14.620' W	QG	1		NS		No changes considered necessary
13	BIDEFORD FAIRWAY	BUOY	51° 05.260' N	004° 16.239' W	LFl 10s	5	Bell	2		No changes considered necessary
13	BULL POINT	LIGHTHOUSE	51° 11.946' N	004° 12.074' W	Fl (3) 10s	18				Examiners 01/21 18nm acceptable
13	CALDEY ISLAND	LIGHTHOUSE	51° 37.895' N	004° 41.058' W	Fl (3) WR 20s	13				No changes considered necessary
13	CARDIFF SPIT	BUOY	51° 24.575' N	003° 07.125' W	QR	5		2		No changes considered necessary
13	CLEVEDON	BUOY	51° 27.389' N	002° 54.917' W	VQ	5		2		No changes considered necessary
13	COPPERAS ROCK	BUOY	51° 13.799' N	004° 00.570' W	Fl G 2.5s	5		2		No changes considered necessary
13	CROW POINT	LIGHTHOUSE	51° 03.974' N	004° 11.382' W	Fl WR 2.5s	6				No changes considered necessary
13	EAST CULVER	BUOY	51° 17.979' N	003° 15.395' W	Q (3) 10s	5		2		No changes considered necessary
13	EAST HELWICK	BUOY	51° 31.797' N	004° 12.670' W	VQ (3) 5s	5	Bell	2		No changes considered necessary
13	EAST MIDDLE GROUNDS	BUOY	51° 27.750' N	002° 54.985' W	Fl R 5s	5		2		No changes considered necessary
13	EAST NASH	BUOY	51° 24.059' N	003° 34.103' W	Q (3) 10s	5	Bell	2		No changes considered necessary
13	EAST SCARWEATHER	BUOY	51° 27.978' N	003° 46.770' W	Q (3) 10s	5	Bell	2		No changes considered necessary
13	EEL POINT	BUOY	51° 38.856' N	004° 42.237' W	Fl G 2.5s	3		3		No changes considered necessary
13	FAIRY	BUOY	51° 27.858' N	003° 42.073' W	Q (9) 15s	5	Bell	2		No changes considered necessary
13	FLATHOLM	LIGHTHOUSE	51° 22.540' N	003° 07.122' W	Fl (3) WR 10s	15				No changes considered necessary
13	GILTAR	BUOY	51° 39.026' N	004° 42.117' W	Fl R 2.5s	3		4		No changes considered necessary
13	GREY SAND HILL	BUOY	51° 03.653' N	004° 12.156' W	QR	1		4		No changes considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
13	GROUNDS									Transferred to ABP as Local AtoN 2024
13	HARTLAND POINT	LIGHTHOUSE	51° 01.326' N	004° 31.530' W	Fl (6) 15s	8				No changes considered necessary
13	HOPE	BUOY	51° 24.849' N	003° 02.677' W	Q (3) 10s	5		2		No changes considered necessary
13	HORSESHOE	BUOY	51° 15.029' N	004° 12.919' W	Q	5		2	AIS	No changes considered necessary
13	HUGO	BUOY	51° 28.550' N	003° 48.030' W	QR	4		3		Temp Withdrawn
13	INSTOW FRONT	LIGHTHOUSE	51° 03.620' N	004° 10.664' W	Oc 6s	15				No changes considered necessary
13	INSTOW REAR	LIGHTHOUSE	51° 03.518' N	004° 10.356' W	Oc 10s	15				No changes considered necessary
13	KENFIG	BUOY	51° 29.440' N	003° 46.060' W	VQ (3) 5s	5		2		No changes considered necessary
13	LAVERNOCK SPIT	BUOY	51° 23.019' N	003° 10.816' W	VQ (6) + LFl 10s	5		2		No changes considered necessary
13	LEDGE									Transferred to ABP as Local AtoN 2024
13	LUNDY NORTH	LIGHTHOUSE	51° 12.104' N	004° 40.640' W	Fl 15s	18				Range Enhanced 03/2021
13	LUNDY SOUTH	LIGHTHOUSE	51° 09.723' N	004° 39.351' W	Fl 5s	15				No changes considered necessary
13	LYNMOUTH FORELAND	LIGHTHOUSE	51° 14.731' N	003° 47.201' W	Fl (4) 15s	18				No changes considered necessary
13	MACKENZIE	BUOY	51° 21.749' N	003° 08.226' W	QR	5		2		No changes considered necessary
13	MERKUR	BUOY	51° 21.879' N	003° 15.945' W	QR	5	Bell	2		No changes considered necessary
13	MIDDLE HOLM	BUOY	51° 21.719' N	003° 06.716' W	Fl G 2.5s	5		2		No changes considered necessary
13	MIDDLE NASH	BUOY	51° 24.828' N	003° 39.413' W	Q (6) + LFl 15s	5	Bell	2		No changes considered necessary
13	MIDDLE RIDGE	BUOY	51° 04.625' N	004° 13.804' W	Fl G 5s	3		4		No changes considered necessary
13	MIXON	BUOY	51° 33.127' N	003° 58.771' W	Fl (2) R 5s	5	Bell	2		No changes considered necessary
13	MONKSTONE	LIGHTHOUSE	51° 24.886' N	003° 06.008' W	Fl 5s	12				No changes considered necessary
13	MORTE STONE	BUOY	51° 11.329' N	004° 14.919' W	Fl G 5s	5		2		No changes considered necessary
13	MUMBLES	LIGHTHOUSE	51° 34.009' N	003° 58.268' W	Fl (4) 20s	15	Horn (1) 30s			No changes considered necessary
13	NASH POINT	LIGHTHOUSE	51° 24.050' N	003° 33.131' W	Fl (2) WR 15s	19				No changes considered necessary
13	NEWCOME	BUOY	51° 30.008' N	002° 46.708' W	Fl (3) R 10s	4		2		No changes considered necessary
13	NEWPORT DEEP	BUOY	51° 29.358' N	002° 59.107' W	Fl (3) G 10s	5	Bell	2		No changes considered necessary
13	NORTH BRISTOL CHANNEL	BUOY	51° 19.688' N	003° 29.913' W	Q	5		2	RACON	No changes considered necessary
13	NORTH CARDIFF	BUOY	51° 26.529' N	003° 07.176' W	QG	5		2		No changes considered necessary
13	NORTH ELBOW	BUOY	51° 26.969' N	002° 58.647' W	QG	4	Bell	2		No changes considered necessary
13	NORTH HIGHCLIFF	BUOY	51° 39.376' N	004° 40.767' W	Q	3		3		No changes considered necessary
13	NORTH ONE FATHOM	BUOY	51° 20.837' N	003° 13.126' W	Q	5		2		No changes considered necessary
13	NORTH WEST ELBOW	BUOY	51° 26.279' N	002° 59.927' W	VQ (9) 10s	5	Bell	2		No changes considered necessary
13	OUTER PULLEY	BUOY	51° 04.338' N	004° 12.920' W	Fl G 2.5s	4		4		No changes considered necessary
13	PULLEY	BUOY	51° 04.080' N	004° 12.700' W	Fl G 10s	4		4		No changes considered necessary
13	SAND RIDGE	BUOY	51° 15.009' N	003° 49.772' W	QG	3		3		No changes considered necessary
13	SKOKHOLM	LIGHTHOUSE	51° 41.634' N	005° 17.218' W	Fl WR 10s	8				No changes considered necessary
13	SMALLS	LIGHTHOUSE	51° 43.276' N	005° 40.192' W	Fl (3) 15s	18	Horn (2) 60s		RACON /AIS	Awaiting Reengineering standardise HWS
13	SOUTH BISHOP	LIGHTHOUSE	51° 51.162' N	005° 24.718' W	Fl 5s	16	Horn (3) 45s		RACON	Awaiting Reengineering standardise HWS
13	SOUTH CROW POINT	BUOY	51° 03.582' N	004° 11.566' W	Fl (3) R 10s	1		4		No changes considered necessary
13	SOUTH MIDDLE GROUNDS	BUOY	51° 27.629' N	002° 58.677' W	VQ (6) + LFl 10s	5		2		No changes considered necessary
13	SOUTH SCARWEATHER	BUOY	51° 27.608' N	003° 51.572' W	Q (6) + LFl 15s	5		2		No changes considered necessary
13	SOUTH WEST INNER GREEN	BUOY	51° 34.210' N	003° 57.124' W	Q (3) 10s	5	Bell	2		No changes considered necessary
13	SPANIEL	BUOY	51° 38.057' N	004° 39.737' W	Q (3) 10s	3		3		No changes considered necessary
13	ST ANNS HEAD	LIGHTHOUSE	51° 40.876' N	005° 10.422' W	Fl WR 5s	18	Horn (2) 60s			Awaiting Reengineering standardise HWS Examiners 11/21 reduce range to 17nm
13	ST GOWAN	BUOY	51° 31.927' N	004° 59.765' W	Q (6) + LFl 15s	7		1	RACON /AIS	No changes considered necessary
13	STRUMBLE HEAD	LIGHTHOUSE	52° 01.788' N	005° 04.424' W	Fl (4) 15s	26				No changes considered necessary
13	TAIL PATCH	BUOY	51° 23.529' N	003° 03.666' W	QG	5		2		No changes considered necessary
13	TUSKER	BUOY	51° 26.848' N	003° 40.743' W	Fl (2) R 5s	5	Bell	2		No changes considered necessary
13	WELSH HOOK	BUOY	51° 28.518' N	002° 51.858' W	Q (6) + LFl 15s	5		2		No changes considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
13	WEST CULVER	BUOY	51° 17.470' N	003° 19.000' W	VQ (9) 10s	5		2		No changes considered necessary
13	WEST HELWICK	BUOY	51° 31.397' N	004° 23.649' W	Q (9) 15s	7		1	RACON	No changes considered necessary
13	WEST NASH	BUOY	51° 25.978' N	003° 45.952' W	VQ (9) 10s	5	Bell	2		No changes considered necessary
13	WEST SCARWEATHER	BUOY	51° 28.308' N	003° 55.571' W	Q (9) 15s	7	Bell	1	RACON	No changes considered necessary
13	WESTON	BUOY	51° 22.609' N	003° 05.736' W	Fl (2) R 5s	5		2		No changes considered necessary
13	WOLVES	BUOY	51° 23.129' N	003° 08.876' W	VQ	5		2		No changes considered necessary
13	WOOLHOUSE	BUOY	51° 39.346' N	004° 39.687' W	Q (6) + LFl 15s	3		3		No changes considered necessary
13	WORMLEIGHTON	BEACON	52° 11.890' N	001° 21.845' W						No changes considered necessary
14	ARCHDEACON	BUOY	53° 26.714' N	004° 30.870' W	Q	5		2		No changes considered necessary
14	BARDSEY ISLAND	LIGHTHOUSE	52° 44.997' N	004° 47.984' W	Fl R 10s	18				No changes considered necessary
14	BOLIVAR	BUOY	53° 21.515' N	004° 35.299' W	Fl G 2.5s	5		2		No changes considered necessary
14	BWCH	BUOY	52° 34.821' N	004° 13.571' W	VQ (9) 10s	5		2		No changes considered necessary
14	CARREG-Y-TRAI	BUOY	52° 48.139' N	004° 26.700' W	Fl R 2.5s	3		3		No changes considered necessary
14	CAUSEWAY	BUOY	52° 41.190' N	004° 25.320' W	Q (9) 15s	5	Bell	2		No changes considered necessary
14	CHERYL LOUISE	BUOY	54° 24.628' N	003° 33.689' W	Q (9) 15s	5		2		No changes considered necessary
14	CHWISLEN ROCK	BEACON	52° 56.985' N	004° 33.504' W	Fl (2) 10s	2				No changes considered necessary
14	COAL ROCK	BUOY	53° 25.915' N	004° 32.790' W	Q (6) + LFl 15s	1		2		No changes considered necessary
14	CONSTABLE W	BUOY	53° 23.145' N	003° 49.245' W	Q (9) 15s	5		2	RACON	No changes considered necessary
14	DANGER PATCH	BUOY	53° 57.362' N	003° 05.681' W	Fl (3) R 10s	5		2		No changes considered necessary
14	DINMOR	BUOY	53° 19.346' N	004° 03.273' W	QG	3		3		No changes considered necessary
14	EAST HOYLE SPIT	BUOY	53° 22.374' N	003° 18.606' W	Fl G 5s	3		3		No changes considered necessary
14	ETHEL ROCK	BUOY	53° 26.644' N	004° 33.670' W	VQ	5		2		No changes considered necessary
14	FISHER BANK	BUOY	53° 56.210' N	003° 09.700' W	Fl R 2.5s	5		2		No changes considered necessary
14	FURLONG	BUOY	53° 25.415' N	004° 30.470' W	Fl G 2.5s	5		2		No changes considered necessary
14	GUT	BUOY	53° 41.764' N	003° 08.980' W	LFl 10s	5		2		No changes considered necessary
14	HE1	BUOY	53° 26.325' N	003° 18.079' W	Q (9) 15s	5		2		No changes considered necessary
14	HE2	BUOY	53° 24.899' N	003° 12.883' W	Fl G 2.5s	3		3		No changes considered necessary
14	HE3	BUOY	53° 24.511' N	003° 12.689' W	QG	3		3		No changes considered necessary
14	HILBRE ISLAND	LIGHTHOUSE	53° 23.000' N	003° 13.710' W	Fl R 3s	5				No changes considered necessary
14	HOYLE	BUOY	53° 23.300' N	003° 21.500' W	QR	3		3		No changes considered necessary
14	JORDANS SPIT	BUOY	53° 35.764' N	003° 19.279' W	Q (9) 15s	5		2	AIS	AIS Fitted 09/2024
14	KIMYA	BUOY	53° 09.416' N	004° 27.270' W				3		No changes considered necessary
14	KING SCAR	BUOY	53° 57.051' N	003° 04.740' W	Fl (2) G 5s	5		2		No changes considered necessary
14	KING WILLIAM BANK	BUOY	54° 26.007' N	004° 00.075' W	Q (3) 10s	5		2	AIS	AIS Fitted 09/2024
14	LANGDON	BUOY	53° 22.755' N	004° 38.649' W	Q (9) 15s	5		2		No changes considered necessary
14	LIGHTNING KNOLL									Discontinued
14	LUNE DEEP	BUOY	53° 56.070' N	003° 12.900' W	Q (6) + LFl 15s	5		1	RACON /AIS	No changes considered necessary
14	MIDDLE HOYLE	BUOY	53° 22.816' N	003° 19.187' W	Fl R 5s	3		3		No changes considered necessary
14	MORECAMBE	BUOY	53° 52.000' N	003° 22.000' W	Q (9) 15s	5		1		Fit AIS and monitoring
14	NORTH WEST HOYLE	BUOY	53° 23.316' N	003° 23.878' W	Fl R 2.5s	3		3		No changes considered necessary
14	NORTH WORKINGTON	BUOY	54° 40.106' N	003° 38.179' W	Q	5		2		No changes considered necessary
14	PATCHES	BUOY	52° 25.822' N	004° 16.370' W	Q (9) 15s	5		2		No changes considered necessary
14	PERCH ROCK	BEACON	53° 18.750' N	004° 02.155' W	Fl R 5s	1				No changes considered necessary
14	POINT LYNAS	LIGHTHOUSE	53° 24.976' N	004° 17.352' W	Oc 10s	18				No changes considered necessary
14	RHOSNEIGR	BUOY	53° 19.066' N	003° 43.975' W				4		No changes considered necessary
14	RIVER LUNE	BUOY	53° 58.631' N	003° 00.032' W	Q (9) 15s	5		2		No changes considered necessary
14	SELKER	BUOY	54° 16.139' N	003° 29.579' W	Fl (3) G 10s	5	Bell	2		No changes considered necessary
14	SHELL WHARF	BUOY	53° 55.462' N	003° 08.960' W	Fl G 2.5s	5		2		No changes considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
14	SKERRIES	LIGHTHOUSE	53° 25.274' N	004° 36.502' W	Fl (2) 15s	20	Horn (2) 60s		RACON /AIS	Examiners 07/22 Standardise HWS Reduce Range 18nm Red sector must be 10nm
14	SOUTH STACK	LIGHTHOUSE	53° 18.403' N	004° 41.973' W	Fl 10s	24	Horn (1) 30s			No changes considered necessary
14	SOUTH WORKINGTON	BUOY	54° 37.006' N	003° 38.579' W	VQ (6) + LFl 10s	5	Bell	2		No changes considered necessary
14	ST BEES	LIGHTHOUSE	54° 30.818' N	003° 38.205' W	Fl (2) 20s	18				No changes considered necessary
14	ST TUDWALS	LIGHTHOUSE	52° 47.912' N	004° 28.275' W	Fl WR 15s	14				2015 reduce to 10nm
14	TEN FEET BANK	BUOY	53° 19.466' N	004° 02.823' W	QR	3		3		No changes considered necessary
14	TRWYN DU	LIGHTHOUSE	53° 18.777' N	004° 02.440' W	Fl 5s	9	Horn (1) 30s			No changes considered necessary
14	VICTORIA BANK	BUOY	53° 25.615' N	004° 31.370' W	VQ	5		2		No changes considered necessary
14	WEST MOUSE	BEACON	53° 25.056' N	004° 33.267' W						No changes considered necessary
14	ZEALANDIA	BUOY	53° 40.014' N	003° 06.420' W	VQ (9) 10s	3		3		No changes considered necessary
15	AMELIA	Buoy (Lighted)	51°29.979'N	009°31.461'W	Fl G 3s	5		3	AIS	No change considered necessary
15	BALLINACOURTY POINT	Lighthouse	52°04.688'N	007°33.182'W	Fl (2) WRG 10s	10				No change considered necessary
15	BALLYCOTTON	Lighthouse	51°49.522'N	007°59.169'W	Fl WR 10s (Red. Vis.)	18			AIS	No change considered necessary
15	BALTIMORE	Beacon (Unlighted)	51°28.417'N	009°23.272'W						No change considered necessary
15	BAR ROCKS	Buoy (Lighted)	51°54.855'N	007°50.053'W	Q (6) + LFl 15s	4		3		No change considered necessary
15	BARRELS	Buoy (Lighted)	52°08.363'N	006°22.108'W	Q (3) 10s	6		1	AIS	No change considered necessary
15	BLACK TOM	Buoy (Lighted)	51°36.408'N	008°37.959'W	Fl G 5s	5			AIS	No change considered necessary
15	BLACKBALL	Buoy (Lighted)	51°55.334'N	007°48.529'W	Q (3) 10s	4		3		No change considered necessary
15	BORE ROCKS	Buoy (Lighted)	52°06.074'N	006°31.871'W	Q(3) 10S	6		2	AIS	No change considered necessary
15	BULL ROCK BEACON	Beacon (Lighted)	51°30.758'N	009°32.205'W	Fl (2) R 6s 0.5	4				No change considered necessary
15	BULMAN	Buoy (Lighted)	51°40.136'N	008°29.739'W	Q (6) + LFl 15s	6		3	AIS	No change considered necessary
15	CAPEL ISLAND	Beacon (Unlighted)	51°52.927'N	007°51.131'W						No change considered necessary
15	CONINGBEG	Buoy (Lighted)	52°03.198'N	006°38.567'W	Q(6) + L fl 15s	9			AIS, Racon	No change considered necessary
15	COPPER POINT	Lighthouse	51°30.250'N	009°32.063'W	Q(3) 10s 0.5	8				No change considered necessary
15	CORK	Buoy (Lighted)	51°42.935'N	008°15.601'W	LFl 10s	6		1	AIS	No change considered necessary
15	COURTMACSHERRY	Buoy (Lighted)	51°38.287'N	008°40.897'W	Fl G 3s	4		3		No change considered necessary
15	DAUNT	Buoy (Lighted)	51°43.531'N	008°17.503'W	Fl (2) R 6s	4		1	AIS	No change considered necessary
15	DUNMORE EAST	Lighthouse	52°08.935'N	006°59.337'W	Fl WR 8s	16				No change considered necessary
15	FASTNET	Lighthouse	51°23.358'N	009°36.178'W	Fl W 5s	18			AIS, Racon	No change considered necessary
15	FUNDALE	Buoy (Lighted)	52°11.044'N	006°19.775'W	Fl (2) R 10s	4		2		No change considered necessary
15	GALLEY HEAD	Lighthouse	51°31.798'N	008°57.210'W	Fl (5) W 20s	23				No change considered necessary
15	HELVICK	Buoy (Lighted)	52°03.611'N	007°32.251'W	Q (3) 10s	6		2		Position move and addition of AIS
15	HOOK HEAD	Lighthouse	52°07.424'N	006°55.770'W	Fl W 3s	18			AIS, Racon	No change considered necessary
15	KOWLOON BRIDGE	Buoy (Lighted)	51°27.580'N	009°13.761'W	Q (6) + LFl 15s	5		2	AIS	No change considered necessary
15	LITTLE GOAT ISLAND	Beacon (Unlighted)	51°29.031'N	009°36.169'W						No change considered necessary
15	LOO	Buoy (Lighted)	51°28.438'N	009°23.458'W	Fl G 3s	3		3	AIS	No change considered necessary
15	MINE HEAD	Lighthouse	51°59.556'N	007°35.225'W	Fl (4) W 30s	12			AIS	No change considered necessary
15	OLD HEAD OF KINSALE	Lighthouse	51°36.287'N	008°32.018'W	Fl (2) W 10s	20			AIS	No change considered necessary
15	POWER	Buoy (Lighted)	51°45.595'N	008°06.679'W	Q (6) + LFl 15s	6		2	AIS	No change considered necessary
15	RED BANK	Buoy (Lighted)	52°04.999'N	006°41.652'W	VQ(9) 10s	6		2	AIS	No change considered necessary
15	ROCHES POINT	Lighthouse	51°47.586'N	008°15.287'W	Fl WR 3s (Red. Vis.)	18			AIS	No change considered necessary
15	SMITHS	Buoy (Lighted)	51°48.430'N	008°00.670'W	Fl (3) R 10s	4		1		No change considered necessary
15	SOUTH ROCK BUOY (WEXFORD)	Buoy (Lighted)	52°10.810'N	006°12.848'W	Q (6) + LFl 15s	6		1	AIS	No change considered necessary
16	BAILY	Lighthouse	53°21.691'N	006°03.158'W	Fl W 15s	18			AIS	No change considered necessary
16	BENNET BANK	Buoy (Lighted)	53°20.172'N	005°55.130'W	Q (6) + LFl 15s	5		2	AIS	No change considered necessary
16	BREACHES	Buoy (Lighted)	53°05.721'N	005°59.856'W	Fl (2) R 6s	4		2		No change considered necessary
16	CALMINES	Buoy (Lighted)	52°14.997'N	006°17.781'W	Fl R 3s (Sync and Seq+1)	4		2		No change considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
16	CODLING BUOY	Buoy (Lighted)	53°03.020'N	005°40.815'W	Q (3) 10s	9		1	AIS, Racon	No change considered necessary
16	EAST CODLING	Buoy (Lighted)	53°08.560'N	005°46.130'W	Fl (4) R 10s	4		2	AIS	Disestablish based on turbine layout if ORE site proceeds
16	EAST KISH	Buoy (Lighted)	53°14.349'N	005°53.618'W	Fl (2) R 10s	4		2	AIS	Disestablish based on turbine layout if ORE site proceeds
16	GLASSGORMAN NO. 1	Buoy (Lighted)	52°37.689'N	006°07.459'W	Fl (2) R 6s	5		1		No change considered necessary
16	GLASSGORMAN NO. 2	Buoy (Lighted)	52°45.348'N	006°05.343'W	Fl (4) R 10	4		2	AIS	Survey Required of Bank to consider reposition (Carry over from 2020)
16	HORSESHOE	Buoy (Lighted)	52°56.835'N	005°58.466'W	Fl R 3s	4		2	AIS	No change considered necessary
16	KISH BANK	Lighthouse	53°18.650'N	005°55.542'W	Fl (2) W 20s (24hr)	21			AIS, Racon	No change considered necessary
16	LUCIFER	Buoy (Lighted)	52°17.035'N	006°12.671'W	VQ (3) 5s	5			AIS	No change considered necessary
16	MOULDITCH	Buoy (Lighted)	53°08.430'N	006°01.230'W	Fl R 10s	6		2	AIS	No change considered necessary
16	MUGLINS	Lighthouse	53°16.524'N	006°04.579'W	Fl R 5s	11				No change considered necessary
16	NORTH ARKLOW	Buoy (Lighted)	52°53.862'N	005°55.263'W	Q	6		1	AIS	Disestablish based on turbine layout if ORE site proceeds
16	NORTH BLACKWATER	Buoy (Lighted)	52°32.225'N	006°09.520'W	Q	5		2	AIS	No change considered necessary
16	NORTH BURFORD	Buoy (Lighted)	53°20.507'N	006°01.493'W	Q	6		2	AIS	No change considered necessary
16	NORTH INDIA	Buoy (Lighted)	53°03.173'N	005°53.473'W	VQ	6		2		No change considered necessary
16	NORTH KISH	Buoy (Lighted)	53°18.549'N	005°56.432'W	VQ	6				No change considered necessary
16	NORTH LONG	Buoy (Lighted)	52°21.432'N	006°16.967'W	Q	6		2		No change considered necessary
16	RUSK NO. 1	Buoy (Lighted)	52°28.539'N	006°11.799'W	Fl (2) G 5s SYNC	5		3	AIS	No change considered necessary
16	RUSK NO. 2	Buoy (Lighted)	52°28.638'N	006°12.613'W	Fl (2) R 5s SYNC	4				No change considered necessary
16	RUSK NO. 4	Buoy (Lighted)	52°31.089'N	006°10.841'W	Fl (3) R 6s	4.5		3		No change considered necessary
16	RUSK NO. 6	Buoy (Lighted)	52°32.666'N	006°10.425'W	Fl R 3s	4		3		No change considered necessary
16	SOUTH ARKLOW	Buoy (Lighted)	52°40.196'N	005°58.886'W	Q(6) + LFl 15s	7			AIS, Racon	Disestablish based on turbine layout if ORE site proceeds
16	SOUTH BLACKWATER	Buoy (Lighted)	52°22.757'N	006°12.866'W	Q (6) + LFl 15s	5		2		No change considered necessary
16	SOUTH BURFORD	Buoy (Lighted)	53°18.060'N	006°01.298'W	VQ (6) + LFl 10s	6		2	AIS	No change considered necessary
16	SOUTH CODLING	Buoy (Lighted)	53°04.730'N	005°49.784'W	VQ (6) + LFl 10s	6		1		Disestablish based on turbine layout if ORE site proceeds
16	SOUTH HOLDENS	Buoy (Lighted)	52°15.146'N	006°17.249'W	Fl G 3s (Sync) (Seq+1)	4				No change considered necessary
16	SOUTH INDIA	Buoy (Lighted)	53°00.349'N	005°53.346'W	Q (6) + LFl 15s	6		2	AIS	No change considered necessary
16	SOUTH LONG	Buoy (Lighted)	52°14.740'N	006°15.800'W	Fl G 6s (Sync and Seq)	6		2		No change considered necessary
16	SOUTHEAST BLACKWATER	Buoy (Lighted)	52°25.644'N	006°08.420'W	Q(3) 10S	5		2	AIS, Racon	No change considered necessary
16	SPLAUGH	Buoy (Lighted)	52°14.363'N	006°16.784'W	Fl R 6s (Sync and Seq)	6			AIS	No change considered necessary
16	TUSKAR	Lighthouse	52°12.175'N	006°12.445'W	Q(2) W 7.5s (24hr)	24			AIS, Racon	No change considered necessary
16	WEST BLACKWATER	Buoy (Lighted)	52°25.865'N	006°13.572'W	Fl G 6s	4		2		No change considered necessary
16	WEST CODLING	Buoy (Lighted)	53°06.962'N	005°54.558'W	Fl G 10s	5				No change considered necessary
16	WEST HOLDENS	Buoy (Lighted)	52°15.763'N	006°18.747'W	Fl (3) G 9s (Seq+2)	5		2		No change considered necessary
16	WEST LONG	Buoy (Lighted)	52°18.130'N	006°17.971'W	Q G	4.5		1		No change considered necessary
16	WICKLOW HEAD	Lighthouse	52°57.947'N	005°59.889'W	Fl (3) W 15s	18			AIS, Racon	No change considered necessary
17	BURREN ROCK	Beacon (Lighted)	53°29.353'N	006°02.460'W	Fl G 5s 0.3	5				No change considered necessary
17	CARDY ROCKS	Beacon (Unlighted)	53°37.912'N	006°10.859'W						No change considered necessary
17	DUNANY	Buoy (Lighted)	53°53.530'N	006°09.502'W	Fl R 3s 0.4	4		2	AIS	No change considered necessary
17	GREEN ISLAND	Lighthouse	54°01.959'N	006°05.754'W	Oc W 3s	11			AIS	No change considered necessary
17	HAULBOWLINE	Lighthouse	54°01.196'N	006°04.740'W	Fl (3) 10s - (fl0.5 ,ecl1.0)x2, fl0.5,ecl 6.5)	10			AIS	No change considered necessary
17	HELLYHUNTER	Buoy (Lighted)	54°00.351'N	006°02.052'W	Q (6) + LFl 15s	6		2	AIS, Racon	No change considered necessary
17	HOWTH BUOY	Buoy (Lighted)	53°23.727'N	006°03.593'W	Fl G 5s	4		3	AIS	Change to more conspicuous flash character
17	IMOGENE	Buoy (Lighted)	53°57.415'N	006°07.042'W	Fl (2) R 10s	4		1	AIS	Reposition buoy if ORE site proceeds
17	ROCKABILL	Lighthouse	53°35.811'N	006°00.297'W	Fl WR 12s	17			AIS	No change considered necessary
17	ROWAN ROCKS	Buoy (Lighted)	53°23.877'N	006°03.269'W	Q (3) 10s	4		3		No change considered necessary
17	SOUTH ROWAN	Buoy (Lighted)	53°23.790'N	006°03.941'W	Q G	4		3		Change to longer flash character and subsequent transfer buoy to LLA

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
17	TAYLOR ROCK	Buoy (Lighted)	53°30.222'N	006°01.871'W	Q	4		3		No change considered necessary
17	VIDAL BANK	Lighthouse	54°01.799'N	006°05.433'W	Oc W 3s	11			AIS	No change considered necessary
18	BAR PLADDY	Buoy (Lighted)	54°19.344'N	005°30.501'W	Q (6) + LFl 15s	5		3	AIS	No change considered necessary
18	BLACK HEAD (ANTRIM)	Lighthouse	54°46.016'N	005°41.338'W	Fl W 3s	27			AIS	No change considered necessary
18	BRIGGS	Buoy (Lighted)	54°41.182'N	005°35.732'W	Q Fl	5		1	AIS	No change considered necessary
18	BUTTER PLADDY	Buoy (Lighted)	54°22.453'N	005°25.741'W	Q (3) 10s 0.3 0.7	5		3		Survey Required of Bank to consider reposition (Carry over 2020)
18	CARN	Buoy (Lighted)	54°39.845'N	005°32.240'W	Fl(2).G. 6s SYNC	5		3		No change considered necessary
18	DEPUTY	Buoy (Lighted)	54°39.513'N	005°31.944'W	Fl G 3s 0.3 SYNC	4		3		No change considered necessary
18	DONAGHADEE	Lighthouse	54°38.707'N	005°31.860'W	Iso WR 4s	17				No change considered necessary
18	EAST MAIDEN	Lighthouse	54°55.748'N	005°43.669'W	Fl (3) 15s	18			AIS, Racon	No change considered necessary
18	FORELAND	Buoy (Lighted)	54°39.640'N	005°32.307'W	Fl (2) R 6s SYNC	5		3		No change considered necessary
18	FORELAND ROCK	Beacon (Unlighted)	54°39.390'N	005°32.393'W						No change considered necessary
18	GOVERNOR	Buoy (Lighted)	54°39.360'N	005°31.991'W	Fl R 3s 0.3 SYNC	4		3	AIS	No change considered necessary
18	GUNS ISLAND	Beacon (Unlighted)	54°17.499'N	005°32.750'W						No change considered necessary
18	HIGHLANDMAN (HIGHLAND ROCK)	Beacon (Unlighted)	54°57.286'N	005°43.935'W						No change considered necessary
18	MEW ISLAND	Lighthouse	54°41.923'N	005°30.824'W	FFl(4) W 30s (Red. Vis.)	18			AIS, Racon	No change considered necessary
18	NORTH HUNTER	Buoy (Lighted)	54°53.046'N	005°45.114'W	Q	6		2		No change considered necessary
18	NORTH ROCK	Beacon (Unlighted)	54°25.638'N	005°24.970'W						No change considered necessary
18	RIGG BANK	Virtual AtoN	54°38.630'N	005°27.100'W						No change considered necessary
18	SKULMARTIN	Buoy (Lighted)	54°31.848'N	005°24.910'W	Fl (2) R 6s	5		2	AIS	No change considered necessary
18	SKULMARTIN BEACON	Beacon (Unlighted)	54°32.327'N	005°27.154'W						No change considered necessary
18	SOUTH HUNTER	Buoy (Lighted)	54°52.691'N	005°45.284'W	VQ (6) + LFl 10s	6		2	AIS	No change considered necessary
18	SOUTH ROCK (DOWN)	Buoy (Lighted)	54°24.478'N	005°21.993'W	Fl(3)R 30s	9		1	AIS, Racon	No change considered necessary
18	SOUTH ROCK BEACON	Beacon (Unlighted)	54°23.948'N	005°25.148'W						No change considered necessary
18	ST JOHN'S POINT (DOWN)	Lighthouse	54°13.605'N	005°39.611'W	Q(2) 7.5s (Red. Vis.)	25			AIS	No change considered necessary
18	ST. PATRICK'S ROCKS	Beacon (Unlighted)	54°18.584'N	005°30.937'W						No change considered necessary
18	STRANGFORD	Buoy (Lighted)	54°18.626'N	005°28.689'W	LFl 10s	6		2	AIS	No change considered necessary
18	WATER ROCKS	Beacon (Unlighted)	54°14.441'N	005°37.696'W						No change considered necessary
19	BLUICK ROCK	Beacon (Unlighted)	55°13.017'N	006°56.322'W						No change considered necessary
19	BUNCRANA	Lighthouse	55°07.604'N	007°27.881'W	Iso WR 4s	13				No change considered necessary
19	COLPAGH	Buoy (Lighted)	55°10.343'N	007°31.573'W	Fl R 6s 0.6	4.5		3		No change considered necessary
19	DRAKE WRECK	Buoy (Lighted)	55°17.073'N	006°12.438'W	Q (6) + LFl 15s	5		3		No change considered necessary
19	DUNREE	Lighthouse	55°11.888'N	007°33.250'W	Fl (2) WR 5s	12			AIS	No change considered necessary
19	FANAD HEAD	Lighthouse	55°16.575'N	007°37.921'W	Fl (5) WR 20s	18			AIS	No change considered necessary
19	FOYLE	Buoy (Lighted)	55°15.322'N	006°52.616'W	LFl 10s	7		2	AIS, Racon	No change considered necessary
19	INCH FLAT	Buoy (Lighted)	55°05.684'N	007°30.758'W	Fl (2) R 6s	4		3		No change considered necessary
19	INCH SPIT	Buoy (Lighted)	55°06.832'N	007°29.616'W	Fl R 3s 0.3	4		3		No change considered necessary
19	INISHOWEN	Lighthouse	55°13.556'N	006°55.749'W	Fl (2) WRG 10s (Red. Vis.)	18				No change considered necessary
19	INISHTRAHULL	Lighthouse	55°25.864'N	007°14.628'W	Fl (3) W 15s (Red. Vis.)	18			AIS, Racon	No change considered necessary
19	KINNEGAR	Buoy (Lighted)	55°06.743'N	007°30.723'W	Fl G 10s	3				No change considered necessary
19	LIMEBURNER	Buoy (Lighted)	55°18.551'N	007°48.428'W	Q 1s 0.3	6			AIS	No change considered necessary
19	RATHLIN EAST (ALTACARRY HEAD)	Lighthouse	55°18.111'N	006°10.313'W	Fl (4)W 20s (24hr)-(fl0.2,ec2.3)x3, fl0.2 ec 12.3 =20s	26			AIS, Racon	No change considered necessary
19	RATHLIN WEST	Lighthouse	55°18.052'N	006°16.815'W	Fl R 5s (Red. Vis.)	22			AIS	No change considered necessary
19	RUE POINT	Lighthouse	55°15.533'N	006°11.474'W	Fl (2) W 5s	14			AIS	No change considered necessary
19	SALTPANS	Buoy (Lighted)	55°07.717'N	007°29.842'W	Q (3) 10s	5.5		3		No change considered necessary
19	SKERRIES BUOY	Buoy (Lighted)	55°13.900'N	006°36.900'W	Fl.R.5s (0.3)	5		1	AIS	No change considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
19	STORK ROCK BUOY (TEMP)	Buoy (Lighted)	55°13.345'N	006°35.408'W	Q	5		3		No change considered necessary
19	SWILLYMORE	Buoy (Lighted)	55°15.116'N	007°35.792'W	Fl G 3s 0.4	5			AIS	No change considered necessary
19	TUNS	Buoy (Lighted)	55°14.004'N	006°53.440'W	Fl R 3s	5		2	AIS	No change considered necessary
19	WHITE STRAND	Buoy (Lighted)	55°09.059'N	007°29.935'W	Fl R 10s	3		3		No change considered necessary
20	ACHILLBEG	Lighthouse	53°51.509'N	009°56.835'W	Fl WR 5s fl 1.0+ ecl 4.0 =5.0	18			AIS	No change considered necessary
20	ARANMORE	Lighthouse	55°00.903'N	008°33.666'W	Fl (2) W 20s	18			AIS	No change considered necessary
20	BALLAGH ROCKS	Lighthouse	54°59.963'N	008°28.839'W	Fl W 2.5s	5				Add synthetic AIS to beacon
20	BLACK HEAD (CLARE)	Lighthouse	53°09.253'N	009°15.839'W	Fl WR 5s	11			AIS	No change considered necessary
20	BLACK ROCK (MAYO)	Lighthouse	54°04.055'N	010°19.230'W	Fl WR 12s	18			AIS	No change considered necessary
20	BLACK ROCK (SLIGO)	Lighthouse	54°18.460'N	008°37.059'W	Fl WR 5s	10			AIS	No change considered necessary
20	BLACKROCK BUOY (GALWAY)	Buoy (Lighted)	53°14.003'N	009°06.562'W	Fl R 3s (Sync)	4		1		No change considered necessary
20	BLACKSOD	Lighthouse	54°05.923'N	010°03.628'W	Fl (2) WR 7.5s	12			AIS	No change considered necessary
20	BLACKSOD BUOY	Buoy (Lighted)	54°05.884'N	010°02.977'W	Q (3) 10s	3		3		No change considered necessary
20	BROADHAVEN	Lighthouse	54°16.065'N	009°53.330'W	Iso WR 4s	17				No change considered necessary
20	BULLOCKMORE	Buoy (Lighted)	54°33.987'N	008°30.145'W	Q (9) 15s	5		2	AIS	No change considered necessary
20	CANNON ROCK	Buoy (Lighted)	53°14.078'N	009°34.352'W	Fl G 5s	5		1	AIS	Transfer to LLA (Carry Over 2010)
20	CARRICKBEALATROHA	Beacon (Unlighted)	54°59.185'N	008°28.744'W						No change considered necessary
20	CARRICKPATRICK	Buoy (Lighted)	54°15.557'N	009°09.141'W	Q (3) 10s	5.5		2		No change considered necessary
20	CASHLA BAY	Lighthouse	53°15.834'N	009°33.982'W	Dir Iso WRG 5s (24hr)	8				No change considered necessary
20	CLOUGHCORMICK	Buoy (Lighted)	53°50.560'N	009°43.184'W	Q (9) 15s 0.3	4		3		No change considered necessary
20	DILLISK ROCKS	Buoy (Lighted)	53°48.330'N	009°43.180'W	Fl G 5s	4		2		No change considered necessary
20	DORINISH	Buoy (Lighted)	53°49.479'N	009°40.483'W	Fl G 3s 0.3	3		3		No change considered necessary
20	EAGLE ISLAND	Lighthouse	54°17.022'N	010°05.564'W	Fl (3) W15s	18			AIS	No change considered necessary
20	EERAGH	Lighthouse	53°08.909'N	009°51.402'W	Fl W 15s	18			AIS	No change considered necessary
20	FINNIS	Buoy (Lighted)	53°02.812'N	009°29.126'W	Q (3) 10s	5		2	AIS	No change considered necessary
20	GOLA SPIT	Buoy (Lighted)	55°04.915'N	008°20.396'W	Fl R 3s	4		3		Hand over to LLA (Carry over 2020)
20	INISHEER	Lighthouse	53°02.797'N	009°31.613'W	Iso WR 12s	18			AIS, Racon	No change considered necessary
20	INISHGORT	Lighthouse	53°49.594'N	009°40.259'W	LFl W 10s	10			AIS	No change considered necessary
20	KILLALA	Buoy (Lighted)	54°14.881'N	009°09.725'W	Fl G 6s	5		3		No change considered necessary
20	KILLEANEY	Buoy (Lighted)	53°07.329'N	009°38.366'W	Fl G 3s	5		3	AIS	No change considered necessary
20	LACKMORRIS	Beacon (Unlighted)	54°58.946'N	008°28.581'W						No change considered necessary
20	MARGARETTA	Buoy (Lighted)	53°13.683'N	009°05.996'W	Fl G 3s (Sync)	5.5			AIS	No change considered necessary
20	MIDDLE ROCK	Buoy (Lighted)	55°04.505'N	008°21.029'W	Fl (2) R 6s	3		3		Hand over to LLA (Carry over 2020)
20	RATHLIN O'BIRNE	Lighthouse	54°39.816'N	008°49.951'W	Fl WR 15s	12			AIS, Racon	No change considered necessary
20	ROTTEN ISLAND	Lighthouse	54°36.879'N	008°26.435'W	Fl WR 4s	15				No change considered necessary
20	SLYNE HEAD	Lighthouse	53°23.997'N	010°14.051'W	Fl (2) W 15s	19			AIS, Racon	If/when technology allows, amend sectors. Reduce White to 18nm and Red to 15nm (Carry Over 2020)
20	ST JOHN'S POINT (DONEGAL)	Lighthouse	54°34.162'N	008°27.657'W	Fl W 6s	14			AIS	No change considered necessary
20	STRAW ISLAND	Lighthouse	53°07.065'N	009°37.840'W	Fl (2) W 5s	12			AIS	No change considered necessary
20	TORY ISLAND	Lighthouse	55°16.357'N	008°14.964'W	Fl (4) W 30s (24hr)	18			AIS, Racon	No change considered necessary
20	WHEAT ROCK	Buoy (Lighted)	54°18.843'N	008°39.099'W	Q (6) + LFl 15s	6		2	AIS	No change considered necessary
21	ARDNAKINNA POINT	Lighthouse	51°37.104'N	009°55.092'W	Fl (2) WR 10s	14			AIS	No change considered necessary
21	ASDEE	Buoy (Lighted)	52°35.093'N	009°34.545'W	Fl R 3s	4		2		No change considered necessary
21	BALLYBUNNION	Buoy (Lighted)	52°32.528'N	009°46.944'W	Q	6		2	AIS, Racon	No change considered necessary
21	BEAL BAR	Buoy (Lighted)	52°35.175'N	009°39.052'W	Fl.G.3s (Sync)	5		1		No change considered necessary
21	BEAL SPIT	Buoy (Lighted)	52°34.820'N	009°39.972'W	Fl (2) G 6s (Sync)	4		2		No change considered necessary
21	BLACKHORSE ROCKS	Beacon (Lighted)	51°28.437'N	009°41.683'W	Q 1s 0.2	5				No change considered necessary
21	BULL ROCK	Lighthouse	51°35.521'N	010°18.073'W	Fl W 15s	18			AIS, Racon	No change considered necessary

Area	Name	Type	Latitude (WGS84)	Longitude (WGS84)	Character	Range	HWS	Inter-GLA Buoy Type	Radio Aids	Comment
21	CARRIGAHOLT	Buoy (Lighted)	52°34.921'N	009°40.504'W	Fl (2) R 6s (Sync)	4		2		No change considered necessary
21	CARRIGAVADDRA BUOY	Buoy (Lighted)	51°38.757'N	009°45.989'W	VQ (3) 5s	4		2		No change considered necessary
21	COLT ROCK	Beacon (Lighted)	51°38.068'N	009°55.087'W	Fl (2) R 10s 0.5 1.5	5				Transfer to LLA
21	CORLIS POINT FRONT	Lighthouse	52°37.100'N	009°36.363'W	Iso W. 4 secs (fl2, ec3)	10			AIS	No change considered necessary
21	CORLIS POINT REAR (QUERRIN QUAY)	Lighthouse	52°37.693'N	009°35.336'W	Iso W. 4secs (fl2, ec2)	10				No change considered necessary
21	CROMWELL POINT (FORT)	Lighthouse	51°56.022'N	010°19.280'W	Fl WR 2s	17			AIS	No change considered necessary
21	CROOKHAVEN	Lighthouse	51°28.593'N	009°42.273'W	LFl WR 8s	13			AIS	No change considered necessary
21	DINISH ISLAND DIRECTIONAL LIGHT	Lighthouse	51°38.779'N	009°54.315'W	Dir Oc WRG 5s - 24 Hrs	15			AIS	In process of handing over to LLA (carry over 2020)
21	DOONAHA	Buoy (Lighted)	52°35.545'N	009°39.014'W	Fl R 3S (Sync)	4		1	AIS	No change considered necessary
21	FOOT	Buoy (Lighted)	51°55.733'N	010°17.062'W	VQ (3) 5s	4		3	AIS	No change considered necessary
21	GEORGE	Buoy (Lighted)	51°39.024'N	009°49.695'W	Fl (2) 10s	4.5		3		No change considered necessary
21	HARBOUR ROCK	Beacon (Lighted)	51°55.813'N	010°18.937'W	Q (3) W 10s	5				No change considered necessary
21	HORNET	Buoy (Lighted)	51°38.859'N	009°52.171'W	VQ (6) + LFl 10s	4		3		No change considered necessary
21	INISHTEARAGHT	Lighthouse	52°04.541'N	010°39.677'W	Fl (2) W 20s	18			AIS, Racon	No change considered necessary
21	KILCREDAUN	Buoy (Lighted)	52°34.440'N	009°41.196'W	QR (Sync)	4		2		No change considered necessary
21	KILSTIFFIN	Buoy (Lighted)	52°33.801'N	009°43.843'W	Fl R 3s	6		1	AIS	No change considered necessary
21	LETTER POINT	Buoy (Lighted)	52°35.440'N	009°35.884'W	Fl R 7s	4		2		No change considered necessary
21	LOOP HEAD	Lighthouse	52°33.672'N	009°55.938'W	Fl (4) W 20s	23			AIS	No change considered necessary
21	MAIDEN ROCK	Buoy (Lighted)	51°49.023'N	009°48.034'W	Fl G 5s	3		3	AIS	Transfer to LLA
21	MIZEN HEAD	Lighthouse	51°26.991'N	009°49.225'W	Iso W 4s	12			AIS	No change considered necessary
21	ROANCARRIGMORE	Lighthouse	51°39.183'N	009°44.823'W	Fl WR 5s	11			AIS	No change considered necessary
21	SHEEP'S HEAD	Lighthouse	51°32.591'N	009°50.923'W	Fl (3) WR 15s	15			AIS	No change considered necessary
21	SKELLIGS ROCK	Lighthouse	51°46.108'N	010°32.519'W	Fl (3) W 15s	12			AIS	No change considered necessary
21	TAIL OF BEAL	Buoy (Lighted)	52°34.393'N	009°40.746'W	QG (Sync)	5		2	AIS	No change considered necessary
21	VALENTIA DIRECTIONAL LIGHT PEL	Lighthouse	51°55.514'N	010°18.416'W	Oc WRG 4s - 24 Hrs	11				No change considered necessary
21	WALTER SCOTT	Buoy (Lighted)	51°38.541'N	009°54.234'W	Q (6) + LFl 15s	4		3	AIS	No change considered necessary

Aids to Navigation Review 2025-30

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