



Executive Summary

The RYA seeks to ensure that accurate account is taken of recreational boating activity and associated concerns when planning fishing and aquaculture activity.

In the RYA's view, four key issues are critical in relation to navigational safety and recreational boating interests:

- The impact of fishing and aquaculture on navigational safety
- The location of fishing and aquaculture
- The end life of structures associated with fishing and aquaculture
- Consultation with the recreational boating sector

The RYA believes that the impact fishing and aquaculture activity has on recreational boating can be minimised provided that, when planning its scale and location, local boating activity, navigational hazards, collision risk and marking and lighting are considered.

Types of Fishing & Aquaculture

There are a number of common issues of relevance to boating when considering each type of fishing and aquaculture activity. The types of activity currently of most relevance to boating are as follows:

Finfish aquaculture

Finfish aquaculture, or fish farms, involve the use of cages in the sea. Provided these are adequately marked and do not block access to anchorages, there should not be a problem with this type of aquaculture. Interaction between recreational boaters and finfish farmers has resulted in an appreciation by both sides of the requirements of the other.

Shellfish cultivation

Shellfish cultivation is focussed on mussels and oysters. The lines of buoys from which mussel ropes are often suspended can be difficult to see, particularly at night, and if inappropriately planned, can cut off access to large areas of sailing water or lead to a risk of collision. Similar risks can apply to buoys deployed to mark farmed areas (particularly if the farming itself does not cause a navigational risk). Where mussels are seeded directly on the seabed, they are unlikely to cause a navigational hazard. Oysters can be grown in bags, cages, or on trestles raised off the seabed. These structures can cause a navigational hazard particularly when unmarked or in shallow areas. For all types of cultivation, there may be an impact on recreation due to increased vessel traffic associated with the activity.

Marine algae cultivation

Farms for the cultivation of marine algae are likely to be similar to mussel farms, with buoys connected together with ropes hanging beneath them. As these schemes would likely cover large areas of sea and may be located further offshore than mussel farms, they are potentially likely to pose significant hazards to recreational sailors.

Fishing Gear

For many years the RYA has been concerned by reports of boaters who have experienced fouled propellers and entanglement with other sea-fishing gear such as nets, pots and associated

markers, flags and lines. There is an existing law requiring fishing gear to be marked with the owner's details, but this law is often ignored. Self-evidently, it is almost impossible to take enforcement action against an absent owner who doesn't identify himself.

While fishing equipment cannot be charted, the RYA believes that it should be properly marked and lit so that it is visible by both day and night. This will avoid damage to small craft and the loss of fishing gear from the fisherman. There are a number of EU fisheries management requirements passed for the marking of gear. In England, responsibility for implementing EU fisheries legislation, and ensuring compliance with fisheries law, is divided between the Marine Management Organisation (MMO), with a national role, and Inshore Fisheries and Conservation Authorities (IFCAs) which have regional responsibilities within 6nm. In the devolved administrations, this activity is the responsibility of Marine Scotland, the Welsh Government, and the Northern Irish Department of Agriculture, Environment and Rural Affairs.

Navigational Safety

Prior to departure, mariners are required to plan their passage (SOLAS V, R34) based on assessments of weather, tides, limitations of the vessel and crew, and navigational dangers. Offshore and near shore developments, such as fish farms, become an additional potential navigational hazard to the mariner. If well designed, marked and maintained, fishing and aquaculture activities should not be a navigational hazard for recreational boating.

Collision risk

Any obstructions to navigation as a result of fishing or aquaculture activity, such as fish farms, anchor chains and ropes between mussel buoys or pots, trestles in shallow areas, or pipes for fish farm feeding floating at the surface, are of particular concern, especially in areas where navigation is already constrained, such as in lochs/loughs or estuaries. In these cases, it is important that the location and marking of any impediment to navigation is considered in order to minimise potential dangers. Provided that these kinds of hazards are well marked by day and night it should not pose a threat to navigation. These marks should be maintained for the lifetime of the use of the site. Navigating around static hazards is part of sailing, and only in rare situations, such as near narrow channels with strong tidal flows, do installations such as fish farms pose a threat.

Discussions with the Maritime and Coastguard Agency led them to re-issue their guidance leaflet on the marking of fishing gear¹ and some port authorities issuing notice to mariners reminding fishermen of any relevant byelaws in place.

In England, the Marine and Coastal Access Act 2009 gives IFCAs responsibility for marine fisheries and environmental management up to six miles offshore. As a regulator, IFCAs have duties to manage the exploitation of sea fisheries resources within the IFCA District and they have express powers to regulate the marking of fishing gear for fisheries management. However, IFCAs do not have powers to require the marking of fishing for the purpose of safety of navigation, as they are not the competent authority for safety of navigation.

The requirement to mark fishing gear can vary as it is enforced through each IFCA's byelaws. However, these byelaws are being reviewed under oversight by the MMO and marking requirements are being introduced in most regions. The RYA will ensure that it is consulted on new bylaw proposals and its position is taken into account.

The Marine Management Organisation (MMO) regulates fishing outside of 6nm and has also published guidance on marking of fishing gear².

¹ <https://www.gov.uk/government/publications/markings-of-fishing-gear-2008-advice-to-fishermen-and-yachtsmen>

² <https://www.gov.uk/guidance/markings-of-fishing-gear-retrieval-and-notification-of-lost-gear>

Where any infrastructure or fishing gear is not a hazard to navigation, such as where it is placed in deep water or it is of negligible height on the seabed, there may be no need for it to be marked as the marks themselves may cause more of a navigational risk.

Recent experience in the UK has shown that it is important that the coordinates of sites conform to the WGS-84 datum, as the use of another datum can lead to significant errors in the position marked on nautical charts.

The RYA believes that the threat to recreational boats can be minimised by consulting with stakeholders at an early stage and by following UKHO guidelines for charting static hazards and all hazards should be marked and lit in accordance with the General Lighthouse Authority requirements.

Risk management

Risk management provisions should be formulated from the results of a site-specific risk assessment that accounts for small craft of less than 24m LOA, recognising the significant differences between small and large vessels. This distinction is important when it comes to equipment and other requirements for small and large craft. Small recreational vessels will often navigate outside of shipping channels, particularly when racing. Furthermore, it must be understood that the total number of vessels is not necessarily the important factor during any traffic survey; it is the number in the area during adverse conditions that may have the predominant impact on hazard and risk.

For recreational craft, assessing navigational impacts should take into account the following parameters:

- The number, size and type of local vessels
- The number, size and type of national and international vessels
- Annual events that are not covered in a short term monitoring
- Wave height, swell and sea state conditions
- Seasonal variations including weather conditions
- Proximity to places of refuge
- A range of possible incidences

Risk assessment consists of an objective evaluation of concrete and potential hazards and subsequent evaluation of any associated risks, during the assessment, assumptions and uncertainties must be clearly considered and presented. Part of the difficulty in risk management is that measurement of both of the quantities in which risk assessment is concerned - potential loss and probability of occurrence - can be very difficult to measure and the chance of error in measuring these two concepts is large. Risk assessments should consider the worst case, i.e. a vessel under sail approaching a fish farm in stormy conditions at night. This might be, for example, a vessel seeking shelter.

The priority for a risk assessment is that it should be carried out by people with experience of the area and its sea conditions. This experience should be fed into any risk assessment to provide an accurate and realistic predicted level of risk and ensure a proportionate and practical set of measures to address dangers.

Weather

Fishing and aquaculture activities are generally located in sheltered inshore waters which also, by their nature, act as refuges for recreational craft in poor weather conditions. The local weather conditions should therefore be examined in the risk assessment and measures to reduce the effects of poor conditions, low visibility and fog should be included in the risk management plan. The key issue is the exact layout of the activity within the proposed area. Offshore activity will result in different and significant risks in adverse conditions.

Marking and lighting

Much work has been done to achieve consistency in marking and lighting marine aquaculture sites and guidance supported by the RYA is available from the Northern Lighthouse Board or Trinity House as appropriate. In the IALA Recommendation O-139 on *The Marking of Man-Made Offshore Structures*³, guidance is given to appropriate marking where an activity is considered a 'danger to navigation'.

The RYA believes that all such proposals should be considered as potential danger to navigation. We recognise that these are only guidelines but strongly encourage adherence to them. For example, lines of mussel buoys that lie low in the water can be particularly hazardous to small boats, and effective marking and lighting of the ends of the lines of buoys is essential.

Although fish farms are marked on charts, only the boundary of the active leased area is shown. It is difficult to keep the charts up to date as the actual location and extent of the farms may not match their charted positions, e.g. due to rotation of sites. It would therefore be more useful for information on 'as-laid' moorings to be made available, at least locally. We are aware that The Crown Estate encourages all farmers to do this on an informal basis and have also suggested to planning authorities that post-deployment notice of such equipment will be valuable to navigation and fishing interests. The RYA is supportive of this approach and would encourage its adoption more widely, including for other types of aquaculture. Furthermore, all active sites known to the relevant regulators in the UK; therefore there is therefore scope for disseminating this information more widely.

There is also the issue of farms that are being fallowed; these may still have cages in place but are not always clearly marked in terms of lighting at sea and as navigation marks on admiralty charts.

The RYA supports the guidance issued by the General Lighthouse Authorities on these issues and works with them to identify site specific issues that may occur.

Location

The location of future fishing and aquaculture activity can be critical for navigational safety. Whilst routes taken by recreational craft will vary, the RYA has collated them into the *UK Coastal Atlas of Recreational Boating*⁴, which is available under licence from the RYA and comprises spatial data including indicators of intensity of use, general boating areas, offshore routes, as well as the locations of clubs, training centres and marinas. The datasets are also available to view on the MMO Marine Information System⁵ and Marine Scotland National Marine Plan Interactive⁶ This data should be consulted when considering future activity and developments, including for the locations for the associated structures. This will particularly be the case when offshore fish farms are being planned.

The RYA is engaging constructively with the marine spatial planning process across the UK to ensure that policies are included to identify early in the development of a scheme where there may be conflicts. Engagement with stakeholders such as the RYA at an early stage can help speed up the consenting process.

Recreational routes, general sailing areas, racing grounds and anchorages must be considered when examining the impacts of aquaculture developments.

³ <http://www.iala-aism.org/product/markings-of-man-made-offshore-structures-o-139/>

⁴ <http://www.rya.org.uk/go/coastalatlantlas>

⁵ <http://mis.marinemanagement.org.uk>

⁶ <http://maps.marine.gov.scot>

Loss of cruising routes

Fishing and aquaculture activities are unlikely to impact on cruising routes, except where they are offshore or in narrow channels used for passage making. The data in the RYA UK Atlas of Recreational Boating can be used to identify cruising routes, along with local consultation and surveys. Recreational boating may be taking place outside of the marked shipping navigational channels. Some routes, typically those in narrow channels with strong tidal flows, may already be hazardous at times to navigate through and adding hazards in these areas may seriously affect navigational safety, particularly for sailors unfamiliar with the waters. Consideration should also be given to the impact of any increased vessel traffic associated with the fishing or aquaculture activity.

Loss of anchorages and ports of refuge

Along many stretches of coast, recreational craft may need to seek shelter in poor weather. Sheltered harbours and anchorages and routes to these places of refuge should be protected. Marinas and levels of boating activity can be identified using the Coastal Atlas. Anchorages are sheltered inshore areas, which provide either a refuge from bad weather or simply a secure stopping point for boats. However, we recognise that these sheltered areas may also provide good conditions for the fishing and aquaculture industry, but it is vital that the recreational boating community do not lose these protected areas through intensive development.

Although many anchorages have been used for centuries they may not be marked as such on nautical charts although they can be identified in the relevant sailing directions, nautical almanacs and through consultation with the local boating community. Anchorages need to be accessible and they should be able to be entered under sail (at least by experienced sailors), as well as engine power. It is important to note that boats at anchor will swing around their anchor under the influence of the tide and wind and need sufficient room to do so safely – the swinging radius can be calculated as up to 6 times the water depth.

Effect on general boating and racing areas

Most of the general boating areas (including areas used for racing) are close to the shore, in sheltered waters and sometimes outside of marked shipping channels. Recreational activity is important to the health and wellbeing of the community as well as providing economic support for the local coastal communities. Retaining the undisturbed remoteness of some waters will be important in terms of its wilderness and amenity value.

Interference created by fishing or aquaculture in an area routinely used by recreational boat users would create a significant negative impact on the area and diminish its appeal.

Where applicable, provision should be made during the development of proposals to ensure that moorings and/or racing marks can continue to be used in the areas proposed for fishing or aquaculture activity. Consideration should also be given to the impact that any increased vessel traffic associated with the fishing or aquaculture activity may have on racing or general boating activity.

Cumulative effects

Aquaculture activity is predicted to increase significantly and in some cases, such as for fish farming, there has been a trend towards fewer but larger farms. However, expansion into new areas is underway and shellfish cultivation may not follow the same trend as fish farms. The cumulative effects of the fishing and aquaculture on navigational routes, general boating areas, racing grounds and anchorages need to be taken into account. The space required for each fishing and aquaculture activity will have to be considered on a site-by-site basis, taking into consideration any other proposed developments within the area, such as wind, wave or tidal energy generation, to ensure there is still adequate provision for recreational boaters to safely access existing routes and places of refuge.

End of Life

Dereliction

Whilst we would hope that these installations remain economically viable for the lifetime of the structures, the RYA would like to ensure that prior to consents being given, appropriate measures are taken to secure the removal of the structures and any supporting infrastructure at end of life. This will ensure that if an aquaculture development were to become redundant for any reason, it would not become derelict and unmarked or unlit, and thus a hazard to vessels.

Decommissioning

Equally, any decommissioning plan needs to ensure that the structures associated with fishing or aquaculture activities are completely removed. Any parts of the installation remaining after the operation has ceased may pose a hazard to navigation and should be avoided. However, we recognise that secondary uses may be identified for some structures that would benefit recreational boating, such as jetties and pontoons. If structures remain in the water, navigational safety must be taken into account and structures should be appropriately marked and lit.

About the RYA

The RYA is the national body for all forms of recreational and competitive boating under sail or power. It represents dinghy and yacht racing, motor and sail cruising, RIBs and sportsboats, powerboat racing, windsurfing, inland cruising and personal watercraft. The RYA manages the British sailing team and Great Britain was the top sailing nation at each of the 2000, 2004, 2008 and 2016 Olympic Games and at the 2012 Paralympic Games.

The RYA is recognised by Government as being the primary consultative body for the activities it represents. The RYA currently has over 107,000 personal members, the majority of whom choose to go afloat for purely recreational non-competitive pleasure on coastal and inland waters. There are an estimated further 350,000 boat owners nationally who are members of over 1,400 RYA affiliated clubs and other organisations.

The RYA also sets and maintains an international standard for recreational boat training through a network of over 2,300 RYA Recognised Training Centres over 55 countries. On average, approximately 160,000 people per year complete RYA training courses. RYA training courses form the basis for the small craft training of lifeboat crews, police officers and the Royal Navy and are also adopted as a template for training in many other countries throughout the world.

Consultations

The RYA's Head Office in Hamble is the primary point of contact for matters concerning fishing and aquaculture and the recreational boating sector. To ensure a uniform approach across the UK, the RYA's Head Office works closely with RYA Scotland, RYA Cymru Wales and RYA Northern Ireland, who work directly with the relevant administrations.



RYA Head Office
Planning and Environmental Manager
RYA House, Ensign Way,
Hamble, Southampton SO31 4YA
Tel: 02380 604222
Email: environment@rya.org.uk

