Dept:	Maritime & Coastguard Agency	
Name of measure:	Sport or Pleasure Code	
RP Register ref:	[RPC to complete]	

1. Please provide evidence supporting the consideration and discounting alternatives for regulation

The preferred and chosen option will provide an overall benefit to the sector by creating a level playing field of safety standards across all certificated vessels through a unified code of practice, and provide robust legal powers within the regulations to facilitate vessel certification via the new statutory instrument. This method is the only feasible method to reliably achieving this outcome. Alternative approaches to the preferred option, such as the Option 0 'do nothing' scenario results in continued use of existing codes(s) that do not consider industry innovation over the last two decades, nor reflect established best practice safety requirements which makes this option unviable. Additionally, a considered method of voluntary adherence to a revised code of practice (Option 1) risks poor uptake by the sector which would not deliver any of the identified and needed benefits. Continuing with the existing statutory instrument in both these options also risks stifling innovation as there are no powers within to accept novel technologies such as hybrid and alternative fuel propulsions systems and this contributes to reasoning for discounting these options.

2. Please provide consideration of any relevant past evaluation (including PIRs)

The new code of practice and statutory instrument delivered through the chosen option reflects requested changes to the existing regulations and codes raised through the exemption request and interpretation requests mechanisms available through the life of a Code of Practice, this ensures that issues identified in the past are resolved within the new Code which will reduce administrative burden of exemption and interpretation requests on the same topics. The new Code and SI also provide new mechanisms to certification for vessels utilising innovative technologies (hybrid and alternative fuel technologies) around decarbonisation, and provides operational changes identified as required through industry stakeholder technical working groups.

3. Please provide an assessment (or estimate) of direct business impacts (EANDCB) justifying the application of de minimis

The estimated impact on business costs is below the threshold for the application of de minimis. As shown in table 6 the range of net direct costs to business are from £0.4m in the low scenario to £4.5m in the high scenario with a central estimate of £2.1m. Given these estimated values it is unlikely that total business costs would rise about £10m, therefore making the application of a de minimis assessment proportionate. In addition, this measure is not considered to be particularly controversial given it is assumed that many of those vessels impacted are already mostly, if not entirely, compliant with the incoming code.

4. Please provide a short qualitative summary of the wider impacts on the new regulatory scorecard

This policy will introduce costs to operators and businesses in the sector as they recertify vessels to the new Code or certify vessels to the Code for the first time but will provide both monetised benefits (through less prescriptive requirements in some areas), and unmonetized benefits through improved safety standards across the sector. The unity of the sector and acceptance of new vessel technologies may encourage business start-up in the sector. The policy will ultimately reduce administrative burden for the MCA, Certifying Authorities and vessel owner/operators as older codes of practice fall out of circulation.

Final stage De-Minimis Assessment

Title:			ipping (Vessels in Commercial Use for Sport or Pleasure) and the Sport or Pleasure Vessel Code
Туре	of measure	stat	utory Instrument & Code of Practice
Depar	tment or aç	gency:	Maritime and Coastguard Agency
DMA ı	number:	DfTDM	IA343d
RPC F	Register Re	eference	e:
Conta	ct for enqu	iries:	Christopher.green@mcga.gov.uk; codes@mcga.gov.uk
Date:	07/08/20	24	

Evidence base

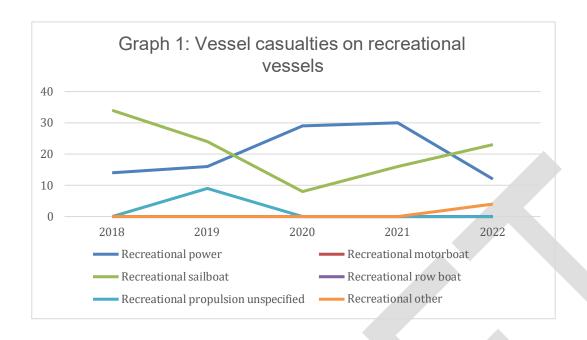
1 Problem under consideration, with business as usual, and rationale for intervention

1.1 Problem under consideration

- 1.1.1 The Merchant Shipping (Vessels in Commercial Use for Sport or Pleasure) Regulations 1998 (SI 1998/2771)¹ requires updating to better reflect the powers given in the Codes to grant/issue small commercial vessel certification, and to resolve potential for challenge against the enabling power in these regulations against the outgoing code for sport and pleasure, the MGN 280 vessel standard. This process ensures that amendments made in the forthcoming Sport or Pleasure Code are legally enforceable and will remove or resolve any inconsistencies with similar regulations for vessels in this sector powered by the Merchant Shipping (Small Workboats and Pilot Boats) Regulations 1998 (SI 1998/1609) and its replacement, The Merchant Shipping (Small Workboats and Pilot Boats) Regulations 2023.
- 1.1.2 Updates to the statutory instrument (SI) are needed to resolve inconsistencies between the powers of the SI and the current different Codes of Practice, and changes to the current Code of Practice are needed to update and introduce policies to the sector that aim to reduce safety risks to vessels and crew and facilitate innovation and development of the industry going forward. The government provides standards for sports and pleasure vessels as issues relating to safety or the environment can be subject to market failure due to negative consequences on third parties, such as damage to the environment or safety issues for seafarers or passengers. There can also be information asymmetry, as crew or passengers are less informed about the safety standards on the vessel than the sports and pleasure vessels owners are.
- 1.1.3 Updating and replacement of the colour codes and MGN 280 with a unified Sport or Pleasure Code and updates SI ensures that the code is enforceable, provides opportunity to implement requirements in line with modern regulation, and allows policies that are no longer supported, or reflective of current best practice to be updated through the new code of practice. The Sport or Pleasure Code, as a unified standard for all vessels within the Sport or Pleasure sector, intends that existing vessels (those currently certified to either the colour codes or MGN 280) are to certify under the new Code, as well as new vessels (newly constructed vessels and vessels that are not yet certified to a Code of Practice) which will reduce administrative burden for vessel owners and Certifying Authorities (who certify the vessels under delegated authority of the MCA) whilst ensuring that all vessels conform to one industry standard.
- 1.1.4 The unified Sport or Pleasure Code also seeks to provide more comprehensive guidance for sailing vessels engaged in racing activities, as well as to vessels acting as race support boats. Additionally, the implementation of a new Sport or Pleasure Code and SI concurrently provides mechanisms to future proof standards by introducing policy around the use of future fuels and propulsion technologies. Presently, the colour codes and MGN 280 only allow conventional sail powered or motor methods.
- 1.1.5 The Marine Accident Investigation Branch (MAIB) data² (Graph 1) shows that vessel casualties on recreational vessels do not have a clear trend.

¹ https://www.legislation.gov.uk/uksi/1998/2771/made

² This data is collated from MAIB annual reports: https://www.gov.uk/government/collections/maib-annual-reports



1.2 Rationale for intervention

- 1.2.1 The current guidance for sports and pleasure vessels can be considered in parts to be unclear, inconsistent or to provide incomplete information which may not produce appropriate standards for vessels. The issues identified could potentially result in varying standards being applied onboard these vessels, putting those vessels, passengers and crew onboard at higher safety risks in terms of incidents/accidents and potentially in fatalities or injuries.
- 1.2.2 Government intervention is necessary to address these issues. Intervention will be carried out through regulatory means via amending of the underlying SI to close out discrepancies between the intended powers of the SI and the implementation within the Code of Practice, and via publication of a set of standards within the Sport or Pleasure Code. This cannot be done through other means, so non-regulatory interventions were not considered.
- 1.2.3 The government provides standards for sports and pleasure vessels as issues relating to safety or the environment can be subject to market failure due to negative consequences on third parties, such as damage to the environment or safety issues for seafarers or passengers. There can also be information asymmetry, as crew or passengers are less informed about the safety standards on the vessel than the sports and pleasure vessels owners are.

1.3 Policy objective

- 1.3.1 The objective of this policy is to improve safety on vessels and to allow firms to make use of innovative technologies such as future fuels. This will be achieved through making a range of safety improvements to vessels and providing the appropriate powers to issue certifications for vessels.
- 1.3.2 This objective is specific as the Sport or Pleasure Code aims to provide clear and unified standards for vessels operating in commercial use for sport or pleasure, as well as for vessels racing or acting as race support boats. It aims to greatly reduce the administrative burden to owner/operators of operating and maintaining vessels by serving as a single reference point for all certified vessels, replacing the colour codes and MGN 280 in their entirety. It is the intent

that the Sport or Pleasure Code will facilitate the transition of vessels from previous codes through use of grandfathering arrangements that ensure that requirements for older vessels that would be prohibitively costly or non-beneficial are mitigated, or, for these specific existing vessels - functionally and practicably the same as the code from which the existing vessel transitions, e.g construction standards. The Sport or Pleasure Code also intends to reflect updates to related regulations and policy such as life-saving appliances and fire safety, to improve and maintain standards of safety across the sector, as well as ensure that requirements within the Code are reflective of best practice.

- 1.3.3 The replacement to the Merchant Shipping (Vessels in Commercial Use for Sport or Pleasure) Regulations 1998 (SI 1998/2771) as part of this work aims to support the new Sport or Pleasure Code with legally robust powers to enable the issue of certification to vessels, and resolve or remove discrepancies in legislation between vessels in commercial use for sport or pleasure, and commercially operating vessels <24 metres working in other, closely related sectors by aligning legal definitions between the SIs. This work also intends to correctly set out a position that enable any future amendments to the code to be legally enforceable as well as providing legal basis for the use of innovative technologies such as future fuels and hybrid propulsion within the Sport or Pleasure sector.
- 1.3.4 The success of the measures' objective is *measurable* through the reduction of safety incidents aboard sports and pleasure craft as well as reduced search and rescue times.
- 1.3.5 The Sport or Pleasure Code has been developed with the consultation of a Technical Working Group that aims to ensure that the requirements set within the code are beneficial and reasonable. Ensuring the objectives of this measure are *achievable* and *realistic*.
- 1.3.6 Some aspects of the Code are deregulatory or provide additional choice in how vessels conduct their operations. This is anticipated to provide a benefit for firms.
- 1.3.7 The objectives are this measure are *time-limited* in that the vessels required to meet the new code will need to be up to the new standard at the point of their next inspection which take place every few years.

2. Description of options considered

The following options have been considered as part of this impact assessment.

- Do nothing Retain SI 1998/2771 and the current version(s) of the Sport or Pleasure Code of Practice(s).
- Option 1 Retain the current SI 1998/2771 and encourage voluntary application to a replacement Sport or Pleasure Code of Practice.
- Option 2 (preferred option) Replace SI 1998/2771 and publish and enforce a revised Sport or Pleasure Code of Practice for new and currently certified vessels ("existing vessels").

2.1 **Option 0** - Do nothing

- 2.1.1 In this scenario, the current versions of the Sport or Pleasure Code of Practice would be used, without any changes to improve, clarify or consolidate the information. This approach would mean that vessels operating in industry may continue to do so to their existing code of practice, the administrative burden for Certifying Authorities and owner/operators of multiple vessels will remain complex due to differing certifying standards that could be applied across vessels. Additionally, Certifying Authority lead interpretation and equivalence requests made on behalf of vessel owner/operators to the MCA to simplify and improve understanding of certifying standards would not be reflected in a consolidated code of practice, which continues to add to this burden as the existing codes age further. Furthermore, without work being undertaken on the underpinning SI, the powers within the Code of Practice and the SI would remain as is, and discrepancies between the powers given in the SI and those needed for Certifying Authorities and owner/operators to effectively and efficiently operate would not be reflected.
- **2.2 Option 1 -** Retain the current SI 1998/2771 and encourage voluntary application to a replacement Sport or Pleasure Code of Practice.
- 2.2.1 In this scenario, the Code would be improved, clarified, and consolidated, however, the voluntary application would not be sufficient to ensure widespread take up needed to achieve the policy objectives. This approach would mean that vessels operating in industry would do so across multiple existing code of practice(s), the administrative burden for Certifying Authorities and owner/operators of multiple vessels will remain complex due to a number of differing certifying standards that could be applied across vessels. Additionally, without work being undertaken on the underpinning SI, the powers within the Code of Practice and the SI would remain as is, and discrepancies between the powers given in the SI and those needed for Certifying Authorities and owner/operators to operate effectively and efficiently would not be reflected.
- 2.2.2 As this option does not achieve the objectives, it has not been considered further in the analysis.
- **2.3 Option 2 (preferred option)** Replace SI 1998/2771 and publish and enforce a revised Sport or Pleasure Code of Practice for new and currently certified vessels ("existing vessels").
- 2.3.1 In this scenario, the Code would be improved, clarified, and consolidated. The consolidated code of practice will enable all vessels to migrate to one certifying standard which greatly eases administrative burden on Certifying Authorities and vessel owner/operators as there is only one standard to adhere to. This provides an improved level of safety to crew and passengers using these vessels in commercial settings through consistent application of standards across vessels. Administrative burden and safety are improved further as a new code of practice will incorporate Certifying Authority lead interpretation and equivalence requests made on behalf of vessel owner/operators to the MCA. These aim to simplify and improve understanding of certifying standards, by including within the Code items that have been deemed through this process to provide equivalent level of safety to those specifically

- permitted within the codes up to this point.
- 2.3.2 The underpinning SI to these regulations will be replaced by a new version so that the powers within the Code of Practice and the SI are consistent and provide the necessary delegated authority for Certifying Authorities and owner/operators to operate effectively, efficiently and within a robust legal framework.

3 Summary and preferred option with description of implementation plan

- 3.1 Updates to the statutory instrument (SI) are needed to resolve inconsistencies between the powers of the SI and the current Codes, and changes to the current Code of Practice are needed to update and introduce policies to the sector that aim to reduce safety risks to vessels and crew and facilitate innovation and development of the industry going forward.
- 3.2 Government intervention is the only means by which the statutory instrument and code of practice can be updated, and once implemented, these items will replace the current versions which will as vessels move the new code under their certification renewal cycles, ensure that all vessels operating in the industry operate under to uniform standard. Where all vessels operate to the same standard, this will result in an improved base level of safety standards within the industry, and ultimately a reduction in administrative burden as all vessels operate to the same codes.
- 3.3 The SI and new code of practice are planned to be implemented following public consultation in Q4 2024. This would likely mean an enforcement date of early 2025, though the point at which vessels move to the new standards will depend on their certification renewal cycles.
- 3.4 The ongoing operation and enforcement of the new operations will be the responsibility of the MCA and its delegated Certifying Authorities. Every vessel operated under the Code of Practice must undergo a compliance examination by an MCA authorised Certifying Authority prior to gaining certification, and each vessel then is subject to routine survey examinations to ensure continued compliance throughout the life cycle of its certificate.
- 3.5 There are no plans for experimentation, piloting or trialling the developments to the new SI and Code of Practice prior to implementation. The Code of Practice has been developed with a representative stakeholder group of technical experts, and is development of existing regulation as opposed to new policy for an unregulated area. The code makes use of various grandfathering provisions, and by nature of its implementation is phased in over a 5-year period. There is therefore no anticipated need or expectation to trial before full enforcement.

4 NPSV: monetised and non-monetised costs and benefits of each shortlist option (including administrative burden)

- 4.1 Option 0 Do nothing Retain SI 1998/2771 and the current version(s) of the Sport or Pleasure Code of Practice(s).
- 4.1.1 Under the "Do Nothing" option, retaining the current Sport or Pleasure Code and SI would maintain the current position of regulation in industry. Vessel owner/operators would not be subject to the costs associated with the updating of standards, training and equipment achieved

through the preferred method (Option 2), however the benefits of the improved vessel and training standards implemented by the preferred method would also not be capitalised by the industry which could result in indirect costs, both monetary and risk based as a result of stagnation of safety practices through inaction.

- 4.1.2. Costs associated with the administrative burden on Certifying Authorities to survey vessels across multiple different codes of practice would likely continue to be indirectly borne by vessel owner/operators through CA fees.
- 4.1.3 Additionally, the discrepancy in powers within the SI and those needed by Certifying Authorities to perform their roles effectively and efficiently could result in costly legal challenge where a scenario occurs in which the powers are deemed inadequate for an action performed by a CA which in turn could question the legal standing of a vessel's certificate.

4.2 Option 1 – Retain the current SI 1998/2771 and encourage voluntary application to a replacement Sport or Pleasure Code of Practice.

- 4.2.1 Under "Option 1" costs to vessel owner/operators associated with the updating of the standards, training, and equipment under the new code would be voluntarily borne by owner/operators' dependant on whether they choose to implement the requirements of the new Sport or Pleasure Code. This may result in a reduced cost to industry overall where owner/operators do not transition to the newer version of the Code. Where vessels do move to the new Code, though they would be subject to the costs associated with implementing the new standards, in meeting the standards they would also benefit from the simplified administrative processes, greater operating flexibility across multiple sections of the Code, and contribute to the overall improvement of safety standards within the industry which has benefits to the public, and public services, e.g. improved fire safety training may result in reduced accidents and injuries which in turn reduces burden on public health facilities.
- 4.2.2 The Costs associated with the administrative burden on CAs to survey vessels across multiple different codes of practice would likely increase, as an additional Code would now be in circulation, compounding the issues of over saturation of standards.
- 4.2.3. Additionally, where vessels are constructed, fitted, operated and maintained in accordance with the provision of the new code of practice, this may result in resale value of vessels operating to older codes decreasing as the second-hand market potentially favours vessels conforming to newer standards. This is particularly true where owner/operators are intending to purchase vessels for dual use, as the new Sport or Pleasure Code more closely aligns with the provisions of Workboat Code 3, facilitating an easier certification process for vessels that already meet the standards of the new Sport or Pleasure Code.
- 4.2.4 Under this scenario, the discrepancy in powers within the SI and those needed by Certifying Authorities to perform their roles effectively and efficiently persists and could result in costly legal challenge where a scenario occurs in which the powers are deemed inadequate for an action performed by a CA which in turn could question the legal standing of a vessel's certificate.

4.3 Option 2 (preferred option) – Replace SI 1998/2771 and publish and enforce a revised Sport or Pleasure Code of Practice for new and currently certified vessels ("existing vessels")

- 4.3.1 Under "Option 2", the preferred option, costs associated with the implementation of updating standard, equipment and training on vessels operating under the Code will be borne by all vessel owner/operators wishing to maintain certification, over a time period dependent on a vessel's certification renewal dates (five years) or a transitional period as may be specified within the Code. Though subject to costs outlined in this DMA, vessels would also benefit from the simplified administrative processes, greater operating flexibility across multiple sections of the Code, and contribute to the overall improvement of safety standards within the industry which has benefits to the public, and public services, e.g. improved fire safety training may result in reduced accidents and injuries which in turn reduces burden on public health facilities.
- 4.3.2 Costs associated with the administrative burden to CAs of surveying vessel under multiple different codes will lessen over a period of time as vessels transition to the new Code and older codes of practice eventually fall out of use. Vessel owner/operators will benefit from a succinct set of requirements and regulations to follow, which will reduce administrative burden for owner/operators of multiple vessels and the sector will benefit from unified standards in training which may reduce upfront costs for some personnel within industry intending to work within the workboat sector where training standards align between vessels (e.g. radar training).
- 4.3.3 Under this scenario, the discrepancy in powers within the SI and those needed by Certifying Authorities to perform their roles effectively and efficiently is resolved, which will mitigate against potential for costly legal challenge.

4.4 Summary of NPSV and business impact for each option

Option	NPSV	Net direct cost to business
Do nothing	£0	60
Option 1	£0	£0
Option 2 (preferred option)	-£17.9m	£2.1m

5 Costs and benefits to business calculations

5.1 There are 2,883 vessels on the Sport or Pleasure Code(s) as of 2023.³ The MCA data gives categories for 2,854 of these vessels, with 28 of unknown categories. Assuming these unknown vessels are distributed across the categories in the same proportion of the overall vessels, the number of vessels in each category is in the list below.

Table 1: Existing vessels, 2023, by Area Category of Operation (rounded)

Area Category of Operation	Vessels
0	53
1	37
2	1550
3	339

³ Data obtained from MCA database in 2023, not published.

-

4	696
5	39
6	168
Total	2,882

5.2 Using average number of new vessels between 2000 and 2022, on average 86 new vessels join the Code each year. Assuming the new vessels are made up of the same proportion of Category ships as the 2022 population, Table 2 shows the estimated number of ships joining the Code each year.

Table 2: New vessels, 2023, by Area Category of Operation (rounded)

Average new number of vessels	
Category 0	2
Category 1	1
Category 2	46
Category 3	10
Category 4	21
Category 5	1
Category 6	5
Total	86

5.3 The total number of vessels on the Code each year has been estimated by using growth assumptions based on the overall growth of non-merchant vessels. Data has been provided by the Department for Transport using IHS World Fleet, resulting in the growth estimates outlined in the table below.4

Table 3: Growth in the number of total vessels on the Code (rounded)

	Low	Central	High
% growth in the number of vessels on the Code	-3.0%	1.7%	5.9%

- 5.4 Within the Sport or Pleasure sector, most vessels are owner operated and many vessels are owned and operated by a different owner and/or business.
- 5.5 The costs to business/owner are dependent on the number of vessels operated by a business/owner, and by how many of the requirements of the Code need actioning for a

⁴ Estimated using flag data 2018 to 2022.

vessel to meet the standards. Some existing vessels may already meet the requirements of the new Code with no, or minimal expenditure. For the majority, the costs reflected in

- 5.6 Costs estimations include:
 - Familiarisation costs (direct cost to business)
 - Transition costs (direct cost to business)
 - Ongoing costs (direct cost to business)
 - Inspection costs (direct cost to business)

Familiarisation costs

- Out of the 2,883 vessels currently registered on the Sport or Pleasure Code, 2,612 have information of their ownership. Between these 2,612 vessels, there are 2,028 owners, the majority of which own only one vessel. For a conservative assumption, the 271 vessels without owner information are assumed to be owned by individual firms, making the total estimate for the number of firms in scope for familiarisation as 2,299. The hourly wage estimate is taken from the 2022 provisional Annual Survey of Hours and Earnings (ASHE) produced by the Office for National Statistics (ONS)⁵. This is the 25%, mean and 75% estimates for the category 'Managers in Logistics, Warehousing and Transport'. This has been adjusted to 2023 data using a 3.8% annual wage growth assumption in line with Office for Budget Responsibility estimates⁶. This wage cost has then been uplifted by 26.5% to account for non-wage labour costs, such as pension contributions and national insurance contributions, in line with guidance in the Transport Analysis Guide⁷, to give a labour cost estimate.
- 5.8 Assuming that it takes two minutes to read each page, and that the Sports and Pleasure Code will be between 250 and 300 pages, this is expected to take approximately 8 to 10 hours. These assumptions are consistent with the Workboat Code 3.0 analysis.
- 5.9 The assumptions and cost estimates are given in Table 4 (rounded).

Table 4: Familiarisation costs

	Low	Medium	High
Number of firms	2,299	2,299	2,299
Hours familiarising per firm	8.33	9.17	10.00
Hourly wage cost (2022 ASHE)	£13.08	£17.95	£20.83

⁵ Table 14.5a, 2022 provisional data,

https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/occupation4digitsoc2010ashetable e14

Office for Budget Responsibility (OBR) long term economic determinants, Table 4.2 on p132, https://obr.uk//docs/dlm_uploads/Fiscal_risks_and_sustainability_2022-1.pdf

⁷ P3, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1079016/tag-unit-A4.1-social-impact-appraisal.pdf

	£17.17	£23.57	£27.35
Hourly labour cost			
(2023 cost)			

5.10 The total cost estimate for familiarisation costs is between £329,044 to £628,805, with a central estimate of £496,710 across the appraisal period.

Inspection Costs

- 5.11 As the Sport or Pleasure Code imposes new requirements, it is assumed that each inspection will take slightly longer in the future. As changes to the inspection process are likely to be very minor, it is assumed that each inspection will take twelve minutes longer (based on 2.5% of an eight-hour inspection, as agreed with MCA colleagues). These costs are applied across the appraisal period, including to new vessels, with each vessel assumed to be inspected once every five years.
- 5.12 MCA inspector fees are set in nominal terms by the Merchant Shipping (Fees) Regulations 2018⁸, and do not change with inflation, at £147 per hour. Therefore, the nominal values have been adjusted to 2023 prices.
- 5.13 Assuming that 1/5 of the vessels in scope are inspected each year, this results in a total cost of between £116,793 and £154,433, with a central estimate of £148,217 across the appraisal period using a price base year of 2023 and a present value base year of 2024.

On-going Costs

- 5.14 The costs have been estimated in this impact assessment. Broad assumptions have been made as part of the analysis, for example on:
 - The number of components each vessel will need to obtain (for example, how many lifejackets are carried or how many windows are on the vessel).9
 - Rates of voluntary compliance.¹⁰
- 5.15 This is due to:
 - Some uncertain levels of voluntary compliance.
 - Limited data on existing vessel equipment.
 - Uncertain vessel numbers in scope due to exemptions based on features.
- 5.16 All costs and cost savings are detailed in Table A1 (Costs) and Table A2 (Benefits) in Annex 1. This table also details whether the costs are one off or ongoing, if they apply to new vessels only, any exemptions based on features, and an estimate for the cost per vessel in scope.

⁸ https://www.legislation.gov.uk/uksi/2018/1104/made

⁹ Assumptions have been made using MCA policy guidance.

¹⁰ These assumptions are compliant with the Workboat Code Edition 3.0 DMA.

- 5.17 Component costs have been estimated using industry sites to obtain a range of cost estimates. Where applicable, the costs applied are consistent with the analysis undertaken in the Workboat Code Edition 3 de minimis assessment (DMA) produced in 2023.¹¹
- 5.18 In some places, costs have not been monetised due to the monetisation being disproportionate due to the small and/or high levels of uncertainty around the costs involved. This is outlined in Annex 1 Table A1 and Table A2 below.
- 5.19 For most changes, it is thought that a significant proportion of vessels will already be compliant with the new requirement on a voluntary basis. There is no data on this, so high/central/low scenarios are constructed by assuming 90%, 60% and 25% of vessels in scope and with features already comply with new requirements. This means that the costs would apply to 10%, 40% and 75% of vessels in the low/central/high scenarios. This assumption is compliant with the Workboat Code 3.0 DMA.
- 5.20 For labour costs, we have used the ONS Annual Survey of Hours and Earnings (ASHE) 2022. For managerial tasks, we have used the category managers and directors in transport and logistics (see familiarisation section above). For all other tasks, we have used marine and waterways transport operatives in the low scenario, ship and hovercraft officers in the high scenario, and used the average of these two categories in the central scenario.
 - 5.21 In line with Transport Appraisal Guidance (unit 4.1 p3), labour costs are calculated by applying an uplift of 26.5% to wages, to account for overheads and non-wage costs. Labour costs are assumed to be constant in real terms. For consistency with the rest of the analysis, the 2022 ASHE figures have been uplifted to 2023 prices using a 3.8% wage growth assumption, taken from the Office for Budget Responsibility's Fiscal Sustainability Report 2020. Table 5 summarise labour costs.

Table 5: Operative labour costs

	Scenario	Wage rate 2022 (£/hr)	Labour cost 2023 (£/hr)
Mean wage (marine and waterways transport operatives)	Low	17.17	21.28
Average of two values	Central	23.57	26.17
Mean wage (ship and hovercraft officers)	High	27.35	31.05

Table 6: Summary of all costs to businesses of the measure under low, central and high scenarios

Costs of measure	Low	Central	High
NPSV	-£3.7m	-£17.9m	-£38.4m

¹¹ See DfTDMA300.

¹² Table 14.5a, 2022 provisional data,

https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/occupation4digitsoc2010ashetable14

Net direct costs to business	£0.4m	£2.1m	£4.5m
Net direct costs to households	£0.0m	£0.0m	£0.0m

6 Impact on small and micro businesses

- 6.1 Out of the 2,883 vessels currently registered on the Sport or Pleasure Code, 2,612 have information of their ownership. Between these 2,612 vessels, there are 2,028 owners, with 1,754 owners owning only one vessel. Only 25 (1.2%) owners own more than five vessels, and 3 (4.6%) of owners own more than two vessels.
- 6.2 Small and micro firms may be disproportionately impacted by some costs, such as having to purchase an AIS transmitter. However, costs are proportionate to the number of vessels owned and, to some extent, the number of passengers and crew the vessels can accommodate, which makes some elements of the costs more likely to scale with the sizes of the firms.
- 6.3 As over 90% of owners own only one or two vessels, we can conclude that almost all firms involved are likely to be micro businesses, with a small number of small or medium sized businesses potentially in scope.
- 6.4 Small and micro businesses could therefore be disproportionately likely to be impacted by these regulations. However, any exemptions would weaken the effectiveness of improving standards. Medium businesses are not expected to be disproportionately impacted. The overall costs are not anticipated to be large, and these firms are also disproportionately impacted by the benefits of the regulation.

7 Cost and benefits to households' calculations

7.1 Costs

- 7.1.1 This implementation of this policy is not considered to have an impact on households. As these policy measures apply only to commercially operating vessels within the Sport or Pleasure sector, the impact of these measures is on owner/operators of vessels using vessels commercially e.g. day trips with paying customers, commercial sport activities. Owners of vessels operated purely for their own sport or pleasure, are not in scope of this policy.
- 7.1.2 However, where a consumer is intending to book a trip on commercially operating vessel as a passenger, there may be a small additional cost to passengers or consumers if prices are increased to cover the increased costs of the policy measures to businesses or owner/operators. The costs however are not anticipated to be large for each vessel. The per vessel cost is likely to vary based on features, existing voluntary compliance, and the Area Category of Operation of the vessel. No further analysis has been produced due to lack of information about the use of sports and pleasure vessels.

7.1.3 These measures do not impact vessels operated solely for pleasure or sport of an owner, and thus households which own vessels that are not operating commercially under an MCA code of practice are not subject to the impacts of this policy. Furthermore, the revised code of practice does not bring additional vessels into scope of policy by virtue of their operations.

7.2 Benefits

- 7.2.1 The benefits of this measure have not been monetised. This is because due to the nature of the measure implementing safer working practices across the sports and pleasure fleet, therefore the core benefits are avoidance of costs. Specifically those relating to injuries and fatalities at sea as well as shorter search and rescue times. These are unquantified benefits.
- 7.2.2 Benefits have been described in Table A2 in Annex 1, in the same way as costs.
- 7.2.3 In some cases, the policy change will result in a saving for vessels, resulting in a benefit.
- 7.2.4 In several cases, the policy change allows vessels to operate their vessels more flexibly. In these cases, although there may be a cost associated with the change, an overall benefit is assumed as owners would only choose to enact these optional changes if it was a net benefit to their operations.

Further benefits

- 7.2.5 Safety benefits are largely non-tangible and difficult to quantify.
- 7.2.6 The "colour codes" contained unclear, inconsistent, and incomplete information. Amending the Code to clarify the text will reduce the varying standards being applied onboard workboats and during certification, reducing safety risks for vessels and crew onboard. Bringing as many vessels as possible onto a common code of practice will also improve clarity and consistency across the sector and reduce administrative burdens for the Maritime Coastguard Agency (MCA) and Certifying Authorities (CAs).
- 7.2.7 Adding sections on new and emerging technologies will help prepare the Code for the future and will smooth the introduction of technologies which will likely bring benefits to the sector. Because it is very difficult to predict the trajectory of these technologies, it is not possible to quantify this benefit.
- 7.2.8 Many of these changes are aimed to improve the safety to those on these vessels or to protect the marine environment. It is not possible to estimate the number of reduced incidents as a result of these measures and therefore not possible to monetise the benefits.
- 7.2.9 These benefits are likely to impact both crew and passengers, who will benefit from increased safety.

8 Business environment

8.1 The preferred option creates a uniform set of regulations and standards for all vessels and personnel operating commercially within the Sport or Pleasure sector. As vessels are mandated to transition to the new Code over their renewal cycles, the number of vessels

operating to the same standards within the sector will increase, and the number of differing standards in use will gradually reduce until older codes of practice ultimately fall out of use. The uniform set of standards that all operators adhere too will create a level playing field across operators, and an operator as a result will not gain unfair advantage or disadvantages from potential differences between older standards and newer standards of the Code

9 Trade implications

9.1 This policy does not have any impact to trade.

10 Environment: Natural capital impact and decarbonisation

• 10.1

Although this policy signposts the latest pollution prevention standards, this policy does not mandate additional requirements or requirements that would not already need to be adhered to by a commercial UK registered vessels and therefore does not have an impact on environmental or decarbonisation measures.

11 Other wider impacts (consider the impacts of your proposals)

Competition Assessment

11.1 As the Sport or Pleasure vessel sector is dominated by small and micro businesses (see evidence above), the market is believed to be competitive. The small costs imposed means this is not expected to change, or for there to be any decrease in supply. To the extent that having multiple codes available for vessels to certify under creates inconsistency, the proposal to migrate all vessels to the new Sports and Pleasure Code will improve competition by ensuring a "level playing field" for regulatory requirements.

12 Risks and assumptions

- 12.1 The risk of non-compliance is expected to be low. The Codes of Practice are already established, and sports and pleasure vessels need to meet these standards to be certified. Compliance inspections take place every five years, but because most of the changes involve installing or changing component that are part of the vessel, the risk of failure to comply in intervening years is considered very low (and mitigated further by intermediate checks which would pick up any obvious problems).
- 12.2 For many measures, many vessels are already thought to be compliant on a voluntary basis as the measures are considered to be best practice.
- 12.3 The aspects which are deregulatory are not anticipated to have any impact on safety.
- 12.4 Certifying Authorities (CAs) will enforce these measures during the inspections which come on a five-year cycle. For existing vessels, the changes will come into place during the first five years of the change in guidance. New vessels will be expected to comply before they are certified. All sports and pleasure vessels will have to be compliant with the changes by

the end of the fifth year after the policy comes into effect.

12.5 The data held on vessels is of poor quality in sections, meaning we have had to make assumptions in our analysis, and increasing scope for some unforeseen impact of the changes. The risk of costs being much higher than anticipated has been mitigated by making fairly conservative assumptions, and the fact that calculated costs are far below the de minimis threshold means it is very highly unlikely they could exceed the threshold.

13 Monitoring and evaluation of preferred option

- 13.2 There are no plans to conduct a PIR for this measure. This measure falls well below the threshold for a full impact assessment and is not a controversial measure. In addition, the monitoring of this measure formally via a PIR would be very difficult given that many vessels are already complying with this updated code making it difficult to measure the success of these changes.
- 13.3 In addition, this measures' implementation will be monitored as part of routine MCA surveying activities ensuring compliance with the new code. This along with regular stakeholder engagement between the MCA and affected parties will ensure that the measure is effective.
- 13.4 It is therefore considered proportionate to not require a PIR on this measure.

Annex 1: Costs and Benefits Table(s)

Table A1: Costs

Reference	Title	Categories	Change	Costing Note
3.1.3	Application	All	New text describing transitional arrangements for existing vessels.	This is an editorial change only, with no anticipated costs.
3.4.2	Equivalent Standards	All	New text, not a change brought about by this Code. Equivalent request process text, not previously stated.	This is an editorial change only, with no anticipated costs.
3.4.3	Equivalent Standards	All	New text, not a change brought about by this Code. Requirement for equivalences to be recorded on the Small Commercial Vessel code (SCV2) - this was previously unstated.	This is an editorial change only, with no anticipated costs.
3.5.3	Maintaining and Operating the Vessel	All	New text, not a change brought about by this Code. The text states requirements of ongoing maintenance and inspection regime.	This is an editorial change only, with no anticipated costs.
3.5.4	Maintaining and Operating the Vessel	All	New text, not a change brought about by this Code.	This is an editorial change only, with no anticipated costs.
3.7	Unique Identification Number	All	Unique Identification Number – requirement and guidance for CAs to follow a numbering convention when assigning UINs.	This is a small change which is disproportionate to monetise, as vessels are already certified under MGN 280.
3.8.3	Certification	All	Statement confirming that certificate validity will cease where examinations are not completed within the specified period of the Code.	This is an editorial change only, with no anticipated costs.
3.10.1	Area Category of Operation	4, 5,6	Change in definition of Area Category of Operation 5. Now restricted to 3 miles from land in favourable weather. MGN lists as 20 miles from a nominated departure point.	This does not bring requirements onto vessels that they were not already subject to, therefore no cost is anticipated.

3.10.2	Area Category of Operation	All	New text - area of operation guidance.	This is a clarification with no expected cost.
3.9.1	Area Category of Operation	All	Statement to clarify that vessels moving from one area category of operation to one that is more onerous, are required to comply with the requirements of that higher area category of operation.	This is a clarification with no expected cost.
Table 4.3.1	Examination Regime	All	Vessels now assigned into a grouping by area category of operation and maximum number of passengers.	This is an administrative change with no cost.
4.6.6.2.2	In-Water Intermediate Examinations	All	Requirements for use of certified diving operatives, companies, and experienced authorised persons for in-water examinations.	This is a clarification with no expected cost.
4.6.6.2	In-Water Intermediate Examinations	All	Guidance for owner/operators on what the diving company should do with their findings in order that it may satisfy the requirements of the inspection under the Code.	This is not monetised as it reflects existing industry guidance.
4.8.1	Emergency Examinations	All	Requirement for vessel owner/managing agent to report any unintentional incident that affects the safety of the vessel to the certifying authority before the vessel undergoes a further voyage.	This is a small change which is disproportionate to monetise.
4.8.2	Emergency Examinations	All	In receipt of a report under 4.8.1, certifying authority to determine whether the vessel is required to undergo examination and communicate the decision to the person that made the report.	This is a small change which is disproportionate to monetise.

4.8.3	Emergency Examinations	All	Option for vessel/owner operator to report incidents to certifying authority if they differ from the those listed in 4.8.4.	This is an editorial change only, with no anticipated costs.
4.8.4	Emergency Examinations	All	List of "Incidents" that owner/operators/managing agents are required to report.	This is an editorial change only, with no anticipated costs.
4.8.5	Emergency Examinations	All	Notification that in the event of an incident as per 4.8.4 - the vessel's certificate is invalid until a report has been submitted to the Certifying Authority and action taken as per 4.8.2.	This is an editorial change only, with no anticipated costs.
4.8.6	Emergency Examinations	All	Statement clarifying that submission of a report does not alleviate the owner/operator of responsibility to safely operate the vessel or its seaworthiness.	This is an editorial change only, with no anticipated costs.
4.8.7	Emergency Examinations	All	Clarification that it is the responsibility of the vessel owner/managing agent to inform any bareboat charterer to declare such an incident to the vessel/owner operator who will then follow the requirements of the section.	This is a small change which is disproportionate to monetise.
4.13.1	Vessels Other than UK Vessels Operating in UK Waters	All	Statement confirming that the Code applies to non-UK vessels operating from UK ports whilst in UK Waters. Any certificate issued should state "applicable within UK territorial waters only".	This is a clarification with no expected cost.
4.14.1	Letters/Statements of Compliance for Non-UK Vessels	All	Statement that vessels that are non-UK flagged and are not operating from UK ports or waters do not need to operate to the Code.	This is a clarification with no expected cost.

5.1.3	General Requirements	0-1	Requirement that vessels operating in Area Category of Operation 0 or 1 have a permanent accommodation space.	This will apply to new vessels only, for Area Categories 0 and 1. It is unlikely that many of these vessels do not already have an accommodation space if operating in this way, so costs are expected to be minimal.
5.1.5	General Requirements	All	Provision for vessels without substantial enclosures to be limited to area category of operation 4 and 6, though 3 and 5 if following 5.5.2.6 and 5.5.3.4 may be accepted.	The scenarios where this would apply to vessels are unlikely to occur and so this is disproportionate to cost.
5.5.2.2.2	Recesses	2, 5-6	Increases in effective drainage areas required for sailing vessels. This requirement now extends to vessels operating in Category 5 and 6 where previously it didn't apply. Additionally, there is a requirement uplift for vessels operating in area Category 2 from 10cm2 to 20cm2.	This may require vessels with drainage specifications not meeting those listed to either increase drainage areas or demonstrate compliance with 5.3.2.3.
5.5.2.4	Recesses	All	Vessels provided with lockers which give access to the interior of the hull are now no longer considered to be a vessel with a watertight weather deck.	This requirement provides a clarification in code but does not have a costing implication or wider impact in its application

5.7.3.3	Boats with a Buoyant Collar, Inflatable Boats and Rigid Inflatable Boats	5	Boats with buoyant collar or a rigid inflatable boat (RIB) shall only be considered for Category 5 nighttime operation if fitted with a substantial enclosure.	Vessels built for nighttime operations would be suitably equipped for this purpose. The intent of this requirement is to stop individuals using RIBs that are not designed to operate at night, or in categories where a substantial enclosure is required due to sea conditions and safety. It is very unlikely that vessel builds will be commissioned to include substantial enclosures where they previously did not. This is designed to prevent existing vessels certified to Category 6 upgrading to Category 5 or Category 4 upgrading to Category 5 or Category 3. Any vessel looking to operate in this way would already be buying a suitably equip vessel.
6.2.1.1	Accessways giving access to any compartment must be weathertight. Under MGN 280 it was previously accessways giving access to spaces below the weather deck only.	All	Accessways that give access to any interior compartment of the vessel will now need to be weatherproofed. This will incur a cost although variable depending on the method used to provide weathertightness (e.g. a coaming) if they are not already. In practice this is highly likely to be occurring to prevent ingress of water.	This is disproportionate to monetise.
5.7.3.5	Boats with a Buoyant Collar, Inflatable Boats and Rigid Inflatable Boats in Area Category of Operation 4, 5 or 6;	4,6	Inflatable boats only considered for operation in Area Category 4 or 6. Under MGN 280, inflatable boats were suitable for Area Category 5, however Area Category 5 under MGN 280 is restricted to daylight only and within 20 miles from nominated departure point, Category 4 under the new Code provides the same operational limit.	This requirement provides a clarification in code but does not have a costing implication or wider impact in its application.

6.2.5.1.2	Hatchways Open at Sea	All	Hatchways that are required to be opened at sea for lengthy periods must be aft facing.	This could theoretically necessitate minor changes to practice (procedures needing hatchways to be left open will need to be done from the back of the vessel). Any impacts would be hard to monetise and as impacts are expected to be very small it is not proportionate to attempt quantification.
6.3.5	Skylights, Windows, Portlight and Side Skuttles	All	Windows shall not be fitted in an engine space boundary unless otherwise permitted by the Code.	This is to maintain integrity of the boundary in terms of fire protection properties. This is considered to current industry best practice and is not anticipated to have an impact to existing vessels or those seeking certification as a new vessel.
6.3.9.2	Skylights, Windows, Portlight and Side Skuttles	All	Windows capable of being opened and located below the weather deck shall be marked "Not to be opened at Sea".	Windows that are not marked will need to be marked accordingly with stickers, signage, or engraved glass. These are dependent on each vessel's number of openable windows. The stickers are estimated to cost £0.75 each. The costing analysis assumes 4 windows are to be marked.
6.4.1.2	Valves and Associated Piping	All	Restriction on materials used with melting points below 1000°C.	This is writing into code best practice, as the outcomes of industry equivalence requests over the years. No impact is expected.
6.4.1.3	Valves and Associated Piping	All	Plastic/non-metallic piping, valves or other similar fittings only to be used where consideration to the use of the pipe has been given. Same provision exists in MGN 280 however this provides further guidance.	This is writing into code best practice, as the outcomes of industry equivalence requests over the years. No impact is expected. Grandfathering arrangements have been made for existing vessels.
6.4.1.4	Valves and Associated Piping	All	Plastic pipes not to be used in machinery spaces except in outlined scenarios.	This is a small change which is disproportionate to monetise. Existing vessels transitioning into this Code are exempted from requirement.

6.4.2.1	Sea Inlets and Discharges	All	Discharge lines below the weather deck to have a non-return valve, , unless installed with other means to prevent backflooding.	This will only apply to vessels without non-return valves already fitted. The cost of a non-return valve is between £15 to £20.
6.4.2.5	Sea Inlets and Discharges	All	Observation glasses fitted in sea water systems below the deepest anticipated waterlines shall be protected to minimise the risk of mechanical damage or failure.	This is a small change which is disproportionate to monetise.
6.5.3	Ventilators and Exhausts	All	This requirement introduces minimum criteria for consideration by the Certifying Authority as part of the approval process for vessels fitted with ventilators in hull side for machinery spaces where they do not satisfy the requirements of 6.4.2.1 and 6.3.2.2.	This is a small change which is disproportionate to monetise.
7.1.7	General Requirements	All	Provisions should be made to ensure that a self-contained wheelhouse has the ability to drain quickly in the event of wheelhouse window failure.	This is not proportionate to monetise as it impacts only a small number of vessels.
7.2.3.1	Requirements for Rigid Inflatable Boats, Inflatable Boats or Boats with a Buoyant Collar	All	Requirement for the draining ability of RIBs, inflatable boats or boats with a buoyant collar to be demonstrated. In practice, this is no change from the existing certifying authority survey process.	No costs are anticipated as a result of this measure.
8.2.2	Diesel Propulsion Systems	All	Requirement for Engine International Air Pollution Prevention (EIAPP) Certification for vessels with engines constructed after 1st January 2000, greater than 130 kW.	This is a clarification with no expected cost.
8.3.1	Hybrid Propulsion Systems	All	Requirement that vessels fitted with battery hybrid propulsion systems use one power source as a primary power with the other source used as secondary power source, boost or in an emergency.	There is no cost associated with this measure, as the no existing vessel is utilising this technology and new vessels can adapt the design without additional costs.

8.3.2	Hybrid Propulsion Systems	All	Hybrid propulsion systems to be designed, where practicable, so that it is not vulnerable to a single point of failure, so that the system is capable of providing power following failure of either the engine or electric motor.	There is no cost associated with this measure, as no existing vessel is utilising this technology and new vessels can adapt the design without additional costs.
8.3.3	Hybrid Propulsion Systems	All	Batteries used as power sources for propulsion may share a boundary with fuel tank(s) or accommodation spaces, where the boundary is steel or other equivalent material. y.	There is no cost associated with this measure, as the no existing vessel is utilising this technology and new vessels can adapt the design without additional costs.
8.6.3	Petrol Propulsion Systems	All	Fuel tank requirements for vessels with outboards.	There are no costs associated with this as this writes into code best practice. This is reflective of the position in existing codes of practice.
8.7.2	Alternative Propulsion Systems and Fuel Types	All	Requirement to demonstrate that vessels with alternative propulsion systems and fuel types have been installed in accordance with UK authorised classification society standards.	There are no costs associated with this, as existing vessels will be exempt ("grandfathered") into the requirement and there is no cost to change the installation for new vessels.
8.9.1	Manual Shutting Down of Machinery	All	All vessels shall have a means to manually override and shut down propulsion machinery in the event of emergency, risk to persons or mechanical failure.	There are no costs associated with this as it is already widely adopted as industry practice. The writing into Code makes this a requirement.
8.9.2.1	Automatic Shutting Down of Machinery	All	Inflatable boats, RIBs, boats fitted with a buoyant collar, or any vessels where there is a risk of the helmsperson falling overboard shall carry a spare kill cord and have a system that is capable of override or a spring-loaded throttle to return to idle in lieu of meeting the requirement.	There are no costs associated with this as it is already widely adapted as industry practice.

8.9.2.3	Automatic Shutting Down of Machinery	All	Vessels as per 8.9.2 must demonstrate ability to stop and restart the engines manually if required.	There is no significant change as a result of this policy and therefore costs are not anticipated.
8.10.2	Installation	All	Hazardous spaces to be continually ventilated.	There are no costs associated with this as it is already widely adapted as industry practice.
8.10.5	Installation	All	Vessels shall be fitted with a suitable receptacle to prevent spillage of fuel draining overboard when fuel handling.	This change clarifies wording and is expected to be met with a drip tray, but it is possible that a nozzle gaiter or rag could be used (very cheap components). It is thought that the vast majority of vessels will already be doing this (and vessels with fixed tanks are designed with drip trays), so the change is unlikely to affect many vessels. It has not been costed as this would be disproportionate.
8.11.4	Fuel Pipes	All	High pressure fuel pipes and associated fittings on a machinery system shall be designed and installed to reduce the risk of oil mist fires.	No impact - existing arrangements will be approved. More to prevent new vessels being constructed without this in mind.
8.11.6	Fuel Pipes	All	Minimum fuel ventilation pipe diameters imposed of 1.25 the diameter of the filling pipe.	There are no costs estimated for this policy as most vessel operators will be complying with this requirement already in order to save money by maximising efficiency
8.11.8	Fuel Pipes	All	Provision for small tanks filled from the shore fuel line to have a vent pipe diameter of 11mm if the filling pipe runs directly and near vertically to the top of the tank providing the fill pipe has a minimum inside diameter of at least 32mm (solid pipe) or 38mm (hose).	There may be some costs associated with this measure. However, as these costs apply to a very small number of vessels, it is not proportionate to monetise these costs.

8.11.9	Fuel Pipes	All	Fuel vent pipe openings to terminate at least 400mm from any opening into the interior of the vessel.	There are no costs associated with this, as existing vessels will be exempt ("grandfathered") into the requirement and there is no cost to change the instillation for new vessels.
8.12.1	Fuel Tanks	All	All fuel tanks must be constructed and installed to an appropriate standard.	There may be some costs associated with this measure. However, as these costs apply to a very small number of vessels, it is not proportionate to monetise these costs.
8.12.10	Fuel Tanks	All	Fuel tanks to be protected from damage, secured to the weather deck and capable of being released quickly.	There are no costs associated with this, as existing vessels will be exempt ("grandfathered") into the requirement and there is no cost to change the instillation for new vessels.
8.12.3	Fuel Tanks	All	Fuel tanks to be protected against the effect of fire in the machinery space. If a machinery space boundary is fitted, the fuel tank(s) shall be of the same fireresistant standard as the machinery space boundary.	There are no costs associated with this, as existing vessels will be exempt ("grandfathered") into the requirement via 8.12.5 and there is no cost to change the instillation for new vessels.
8.12.4	Fuel Tanks	All	Rigid aluminium fuel tanks shall not be fitted within a machinery space or form part of the boundary unless they comply with a suitable standard.	There are no costs associated with this, as existing vessels will be exempt ("grandfathered") into the requirement via 8.12.7 and there is no cost to change the installation for new vessels.
8.12.6	Fuel Tanks	All	A rigid, plastic, fuel tank shall not contribute to any additional fire risks, be fitted in the machinery space and shall not form part of a machinery space boundary.	There are no costs associated with this, as existing vessels will be exempt ("grandfathered") into the requirement and there is no cost to change the instillation for new vessels.

8.12.8	Fuel Tanks	All	Fuel tanks not to be fitted in areas with heating appliances. Where this is unavoidable, the installation should where possible mitigate against any additional fire risk and be approved to the satisfaction of the Certifying Authority.	There are no costs associated with this, as existing vessels will be exempt ("grandfathered") into the requirement and there is no cost to change the instillation for new vessels.
8.12.9	Fuel Tanks	All	Spaces containing fuel tanks are required to be ventilated, meeting the requirements of International Organization for Standardization (ISO) 11105.	There are no costs associated with this, as existing vessels will be exempt ("grandfathered") into the requirement and there is no cost to change the instillation for new vessels.
8.14.1	into or through Accommodation Spaces	All	Pipes carrying flammable liquids not to pass through accommodation spaces. Provisions for how to approve these arrangements given if unavoidable.	None - there is also an exemption possibility if existing vessels cannot meet the arrangement.
8.12.9	Fuel Tanks	All	Spaces containing fuel tanks are required to be ventilated, meeting the requirements of International Organization for Standardization (ISO) 11105.	There are no costs associated with this, as existing vessels will be exempt ("grandfathered") into the requirement and there is no cost to change the instillation for new vessels.
8.15.1	Noise and Vibrations	All	"The Noise Code" replaced by the "Merchant Shipping and Fishing (Control of Noise at Work) Regulations 2007".	This is a clarification with no expected cost.
8.15.2	Noise and Vibrations	All	Requirement for vessels to meet the requirements of the "Merchant Shipping and Fishing Vessel (Control of Vibration at Work) Regulations 2007.	This is a clarification with no expected cost.
9.2.2	Lighting	All	Consideration given to the placing and design of lighting on the vessel to ensure that the night vision of those keeping a navigational watch is preserved.	This is a small change which is disproportionate to monetise.

9.2.3	Lighting	All	Vessels carrying out deck operations at night must have an appropriate level of light provided to the areas affected.	This is a minor clarificatory change to strengthen wording. Certifying authorities already check for suitable lighting so this change is not expected to necessitate any changes to practice. It has not been costed as no costs are anticipated.
9.3.2.2	Battery Stowage	All	Ventilated batteries to be equipped with drip trays to collect any electrolyte spillage.	Vessels are unlikely not to already have drip trays. For those without drip trays, the cost is estimated to be a one-off cost of between £30 to £50.
9.5.2	Hazardous Spaces	All	Lighting in hazardous spaces to have two or more subcircuits	Certifying authorities already check lighting in hazard areas, so this is a clarificatory change unlikely to necessitate any change in practice. It has not been costed as no costs are anticipated.
9.5.3	Hazardous Spaces	All	Electrical cables passing through bulkheads or decks separating hazardous spaces from non-hazardous spaces must not compromise the integrity of the bulkhead.	This is a small change which is disproportionate to monetise.
9.7.2.1	Emergency Radio	All	Where an emergency power supply(s) to fixed radio equipment is installed, it shall be designed to supply power to the equipment for a minimum of 3 hours in the vent of failure of the main electrical supply	This is not monetised as it reflects existing industry guidance.

10.2.4	Steering System	Potentially vessels in 0,1,2,3	Vessels without emergency steering systems fitted shall be restricted to area category of operation 4,5 or 6 and have alternative safety measures in place to deal with steering failure.	This change may now mean that existing vessels that do not have a method of emergency steering will be restricted in their area category of operation. This could impact the operations of an existing vessel and/or prevent them moving to the new Sport or Pleasure Code. t is unlikely that vessels in higher category of operation will not have some form of backup,
10.3.2	Rudder System	All	The elements that constitute a "Rudder System" have now been defined.	This is a clarification with no expected cost.
11.1.2	Bilge Pumping System Requirements	All	Bilge suction lines to be fitted with strum boxes.	Strum boxes are one off purchases for all vessels in scope. The cost is estimated to be between £20 to £50.
11.1.3	Bilge Pumping System Requirements	All	Non-return valves to be fitted to bilge pump suction lines.	Non-return valves are one off purchases for all vessels in scope. The cost is estimated to be between £10 to £20.
11.1.5	Bilge Pumping System Requirements	All	Bilge pumps not to be connected to cockpit drains and shall not discharge into a closed cockpit.	Bilge pumps that connect to cockpit drains or discharge into a closed cockpit will need to be reconfigured. In practice, this is not a situation that occurs, and the impact is therefore considered preventative rather than changing.
11.1.7	Bilge Pumping System Requirements	All	All spaces where bilge water occurs should be drained up to a heel angle of 10 degrees. Now applicable to all vessels, not just motor vessels.	This previously only applied to motor vessels. Sailing vessels are now in scope of this requirement. Sailing vessels that cannot meet this requirement may need to relocate or install additional bilge pumps. The price of a bilge pump can vary from size and voltage, but a bilge pump is estimated to cost between £60 and £90. This is a one-off cost.

14.2.1.3	General Requirements for Life rafts.	All	Hydrostatic release units (HRU) for all life-raft, other than those that have a date limited life and are test fired prior to disposal, now must be serviced at annual intervals. Previously, this was only a requirement for HRUs used for inflatable life-raft.	This will apply only to vessels that are using HRUs for life rafts, who will now need to pay for servicing annually. In practice, service intervals will be in line with manufacturing requirements which may well be on annual basis. Additionally, a lot of owner and operators hire their life rafts rather than own and thus servicing would be included and scheduled as part of this process.
14.3.1.1	Lifebuoys	All	Inflatable lifebuoys are not permitted. These were not previously ruled out by MGN 280 so this would constitute a change.	Any vessels using inflatable lifebuoys will need to replace these with suitable alternatives. Any non-inflatable lifebuoy would be suitable provided they are appropriately marked. A suitable lifebuoy costs between £25 and £30. This is a one-off cost.
14.4.6	Lifejackets	0-1	Vessels in Cat 0-1 now need to carry rearming kits for lifejackets	This applies to vessels in Area Categories 0 to 1. Rearming kits are estimated to cost £18 to £35. This would be an ongoing cost to all vessels in scope, as the kits would have to be replaced after use. The costing analysis assumes 10 rearming kits, each replaced once over ten years.

14.4.7	Lifejackets	0-1	Vessels in Cat 0-1 need to carry spray hoods for lifejackets where lifejackets carried are compatible with their fitment.	This requires the purchase of life jacket spray hoods for every life jacket compatible with their fitment for vessels operating in specified categories. A universal fit sprayhood is estimated to cost £20-£30. This is a one-off replacement cost, as new vessels and future replacements would instead purchase lifejackets which have sprayhoods already installed as these lifejackets are not more expensive than those without spray hoods. The majority of jackets come with spray hoods, so the number of vessels this impacts is mitigated somewhat to those that have older lifejackets which do not have the sprayhood attachment. The costing analysis assumes 10 lifejackets.
14.4.11	Lifejackets	All	No more than two different types of lifejackets are permitted on the vessel. This was previously a recommendation.	Vessels equipped with lifejackets of multiple differing types will need to replace these to ensure that no more than two types are carried. This is likely to be part of a transitional arrangement.
14.4.12	Lifejackets	All	Requirement for donning instructions for the lifejackets carried to be prominently displayed on the vessel.	A poster is estimated to cost between £3 to £5. This is a one-off cost.
14.5.2	Thermal Protective Aids	6	Vessels operating in Cat 6 shall have TPAs for all on board if sea surface temperatures are less than 10C or when carrying a reversible life raft. Previously this was only required if operating between dates.	Vessels operating where sea surface temperatures are 10C or less or do not have canopied life raft will now need to carry TPAs at all times. Vessel numbers impacted are likely to be small and will only be Area Category 6 vessels. TPAs are estimated to cost £11 and £20, and this is a one-off cost. The costing analysis assumes 10 TPAs.

14.4.10	Lifejackets	All	Lifejacket servicing certification now required to be submitted to the Certifying Authority at compliance and renewal examinations. Though this was likely checked before, it did not form text in the Code.	This is a clarification with no expected cost.
14.4.8	Lifejackets	All	Lifejackets are not permitted if they are of the orally inflated type. These were starting to be phased out during the life of MGN 280 and this should therefore not present a significant change or a cost as the service life of these lifejackets are likely to already have expired.	This is a small change which is disproportionate to monetise, as these lifejackets were phased out.
14.5.3	Thermal Protective Aids	All	Thermal protective aids (TPAs) now required to be UK Conformity Assessed (UKCA) or MCA approved.	This is also only applicable at end of service life of the items. Existing vessels need only replace when they would be buying a new product anyway - items in UK market will meet this by default.
14.5.4	Thermal Protective Aids	All	TPAs are permitted to be stowed in a "grab bag".	This is a clarification with no expected cost.
14.10.1	Table of International Life- Saving Signals	All	Requirement to carry a Table of International Life- Saving Signals SOLAS 1 Poster or 2 x SOLAS posters, or the MCA Leaflet - "Life Saving Signals 2018".	Vessel owners and operators are to carry leaflets or posters that they may otherwise not have carried. The MCA leaflet is available on the gov.uk website free of charge to print and the price is estimated to cost £0.85 per A4 of colour printing. Posters are available to buy online for around £5. This is a one-off cost.
14.11.1	Search and Rescue Locating Devices	4,5	Requirement to carry a search light and signalling lamp extended to Category 5 - as under new codes of practice this is a night-time category.	All vessels operating in Area Category 5 are required to carry a signalling lamp (estimated £310) and search light (estimated £150). Vessels certificated to Category 5 under MGN280 are restricted to daylight only, but this allows them up

				to 20 miles from shore. Under the new codes of practice, Area Category 5 is restricted to 3 miles from land but does allow vessels to operate outside of daylight hours. Vessels certifying under the new code of practice that are intending to work up to 20 miles from shore will need to certify to Category 4 standard and, as they would be allowed to operate in Category 5 as a result, need to carry the appropriate equipment. This would be a one-off cost.
14.11.2	Search and Rescue Locating Devices	All	Vessels required to carry at least one search and rescue transponder (SART) if operating outside of SAR area.	Any vessels operating out of search and rescue asset range will need to carry a SART. Small numbers of vessels are likely to be impacted. A SART is estimated to cost between £500 and £600. This would be a one-off cost to all vessels in scope.
14.11.4	Search and Rescue Locating Devices	All	Vessels required to carry a second search and rescue transponder (SART) if the first does not have a 12.5mhz locator beacon.	This applies only to vessels which do not carry a 12.5mhz Emergency Position Indicating Radio Beacon (EPIRB). A SART is estimated to cost between £500 and £600. This would be a one-off cost to all vessels in scope.
15.2.4	Open Flame Appliances and Gas Installations	All	Change in minimum distances for location of combustible materials from an open flame appliance.	This may require the replacement or repositioning of materials without an appropriate surface spread of flame rating, although different vessels will be affected differently. This is not proportionate to cost.
15.2.6	Open Flame Appliances and Gas Installations	All	Items can be located in close proximity to an open flame appliance providing they are made of noncombustible material or have a Class 1 spread of flame rating.	This may require the replacement or repositioning of materials. This is not proportionate to cost.

15.2.7	Open Flame Appliances and Gas Installations	All	Open flame appliances required to be inspected by a Gas Safe Registered marine qualified technician (or an equivalently qualified technician or recognised body if outside the UK) following installation and on an annual basis thereafter.	This measure would only apply to vessels with the relevant facilities. A gas inspection is estimated to cost between £60 to £90.
15.3.5	Liquid Fuelled Appliances	All	All appliances shall be installed such that products of combustion pass through sealed ductwork terminating outside the vessel.	It is not expected that any vessels will need to change to comply because any vessels not already doing what the section requires would be venting harmful gases into the interior of the vessel, which poses safety risks that would be picked up in inspections. It has not been costed as no costs are anticipated.
15.4.3	Fire Safety	All	Requirement for all vessels to carry a receptacle to collect any spillage which occurs during the filing and draining of a fuel tank for portable equipment.	Vessels are unlikely not to already have a receptacle. For those without a drip tray, the cost is a one-off cost of between £30 to £50.
15.6.2.4	Detection	All	Machinery spaces to be fitted with a fire detector which detects smoke, heat, or flame. This was a requirement introduced in Workboat Code 2.	Machinery spaces if they do not already contain them will need to be fitted with fire detectors that can detect smoke, heat, and flame. This will only impact vessels who do not already have fire alarms with these capabilities and would be a one-off cost for existing vessels. Costs estimates for a ten-year battery alarm would cost between £20 and £100. This is similar in costs to a smoke or heat only alarm, and so no additional costs would be anticipated for new vessels.

15.6.3.1	CO Detection	All	Requirement for fitting of carbon monoxide (CO) detector when open flame gas appliances are installed in or adjacent to accommodation areas.	Vessels which are equipped with open flame, gas, or liquid fuel appliances installed close to accommodation areas will be required to purchase a (CO detector. This requirement would only impact vessels with substantial enclosures who have these appliances. A carbon monoxide alarm is estimated to cost between £15 and £40 and have a tenyear lifespan. This would therefore be a one-off cost.
15.6.3.2	CO Detection	All	CO detectors where fitted should be audible from the space concerned and control position in all anticipated weather and operational conditions.	This is a one-off cost. The cost is estimated to be between £15 to £30 for a carbon monoxide alarm.
15.6.3.3	CO Detection	All	Requirement for CO detectors in spaces where exhaust gases may accumulate in the event of an exhaust leak.	Owner and operators may be required to purchase CO detectors for affected spaces. This is likely to affect vessels with substantial enclosures only. A CO alarm is estimated to cost between £15 and £40 and have a ten-year lifespan. This would therefore be a one-off cost.
15.6.3.4	CO Detection	All	Requirement for carbon monoxide detectors in all accommodation spaces.	A carbon monoxide detector per accommodation space is now required. A carbon monoxide alarm is estimated to cost between £15 and £40 and have a ten-year lifespan. This would therefore be a one-off cost.
15.8.1	Fire Control and Safety Plan	All	Mandating of a Fire Control and Safety Plan for vessels with a Stability Information Booklet or power greater than 75kw.	This is estimated to have an initial cost of 4 hours, followed by an annual cost of 0.5 hours for each vessel. Over ten years, this is 8.5 hours of work. Assuming the work is done by a manager, the cost is therefore £200 over ten years.

15.8.3	Fire Control and Safety Plan	All	Guidance on the minimum requirements/covering aspects of a Fire Control and Safety Plan.	Those with Fire Control and Safety Plans that do not cover these items will need to amend accordingly. Those without Fire Control and Safety Plans will need to implement to this standard. However, this requirement is also covered by 15.8.1, so no additional cost is anticipated.
15.8.4	Fire Control and Safety Plan	All	Requirement for a Fire Control and Safety Plan to be kept up to date.	This is a time cost to update the Fire and Safety plan on an annual basis. This assumes 4 hours a year of a manager's time upfront, with an additional 0.5 hours a year, resulting in 9 hours of work over the appraisal period, at a cost of £155.
16.1.2.1	Fire Ports in Engine Boxes	All	Provision for fire ports to be used to allow dispensing of fire extinguishing medium without a person needing to enter the space. (This is new text to code but does not constitute a change as MGN 280 allowed use of portable extinguishers through a port to tackle engine space fires.)	This section is added for clarity and states that fire ports must be able to dispense extinguishers without a person entering the space. As this is standard functionality of a fire port, no requirements are imposed. It has not been costed as no costs are anticipated.
16.1.2.2	Fire Ports in Engine Boxes	All	Requirements and minimum standards for fire ports.	Fire ports are optional so not all vessels are in scope. The new section describes basic functions of a fire port, and it is very unlikely that any vessels will fail to meet the standards. Therefore, costs will be negligible and not proportionate to monetised.
16.3.1.5	Portable Fire Extinguisher	All	Where fire extinguishers are stored in lockers, the lockers must be appropriately marked to indicate that a fire extinguisher is contained within.	A fire extinguisher sticker is estimated to cost £1.50. This is a one-off cost. The costing analysis assumes 3 fire extinguishers per vessel.

16.4.1.2	Fixed Fire Extinguishing Systems – General Requirements.	All	Fixed fire extinguishers shall be serviced at a minimum of an annual interval (or as per manufacturers' instructions) whichever is the more frequent. Previously, MGN 280 stated only to manufacturers requirements - this change may increase maintenance expenditure for vessel owners if the manufacturers' servicing requirement is less frequent than annually.	Vessels with fixed fire extinguishing systems may be faced with increased costs to service. However, most fire extinguisher manufacturers recommend an annual service, so this is not likely to have any additional cost. A visit could cost between £80 and £130 per year.
16.4.1.4	Fixed Fire Extinguishing Systems - General Requirements.	All	Low expansion foam is no longer accepted as a suitable medium for fixed fire extinguishing medium.	No cost is anticipated for this, as marine requirements have stated low expansion foam is unsuitable for some time, and therefore it is unlikely to still be in use. Any vessels using a fixed fire system will swap to a medium or high expanding foam.
16.4.1.5	Fixed Fire Extinguishing Systems - General Requirements.	All	Activation of the fixed fire extinguishing system if it is automatic now requires either display of a visual alarm outside the machinery space and at the control position(s) during discharge of the medium, or a procedure to be put in place where there is risk of a person entering the machinery space during discharge.	The cost of this is a one-off cost of an LED light, costing between £3 to £7, alternatively cost to draft and following an operating procedure.
17.3.3	Radio Installation	All	Explicit requirement for vessel radio installations to be located to aid operational availability and be protected against damage. This has potential for Competent Authorities to rule that a radio installation is not suitably located.	This change is disproportionate to monetise, as the risk of Competent Authorities asking for the radio to be moved is very low.

17.3.6	Radio Installation	All	Minimum battery capacity should be achieved when charging within 10 hours, otherwise a backup battery shall be carried.	If vessels cannot reliably recharge their batteries to a minimum capacity within 10 hours, they will need to carry a second battery which may incur a cost. The cost varies by device, but a secondary battery for the device could cost between £25 to £50, with a vessel battery costing around £100.
17.4.1	Portable VHF Radio	All	At least one portable very high frequency (VHF) radio shall be equipped with Digital Selective Calling (DSC) facility. Under MGN 280 - only the fixed radio installation was required to have this functionality.	Owners and operators may need to purchase a new portable VHF radio if it is not fitted with DSC. VHF radios are estimated to cost between £200 to £300.
17.4.2	Requirement that Portable VHF radios shall be operable on Channel 16. (Note that MGN 280 requires carriage of Portable VHF radios but does not put into code requirements around their maintenance, carriage, storage etc).	All	Owners and/or operators may need to purchase a new portable VHF radio if it does not meet channel 16 requirements, but very unlikely that any VHF radio is unable to select this channel.	Owners and/or operators may need to purchase a new portable VHF radio if it does not meet Channel 16 requirements, but it is very unlikely that any VHF radio is unable to select this channel. Therefore, no cost is anticipated.
17.4.3	Portable VHF Radio	All	Portable very high frequency (VHF) radios required to have clear and concise operating instructions if not already printed on the casing.	This is a small change which is disproportionate to monetise.
17.4.4	Portable VHF Radio	All	Requirement that VHF radios shall have means to affix to clothing or be fitted with a lanyard with breaking safety chain.	This is a clarification with no expected cost. A lanyard with a safety breakaway, if required to be purchased, would be a one-off purchase of between £0.80 to £1.

17.4.5	Portable VHF Radio	All	Stipulated requirements relating to protection from water damage for the portable VHF radio (note that MGN 280 requires carriage of portable VHF radios but does not put into code requirements around their maintenance, carriage, storage etc).	This is a clarification with no expected cost.
17.4.6	Portable VHF Radio	All	Portable VHF radios and covers not to have any sharp protrusions that might damage a survival craft.	This is a clarification with no expected cost.
17.4.7	Portable VHF Radio	All	A vessel will now need to carry charging facilities or spare batteries to provide 8 hours of VHF radio operation. Not previously required. (Note that MGN 280 requires carriage of Portable VHF radios but does not put into code requirements around their maintenance, carriage, storage etc).	Any vessels carrying portable VHF radios that do not have sufficient operating time, charging facilities or spare batteries will need to be either replaced with a suitable alternative model, or have charging facilities bought and installed. This amounts to the cost of a charger (though this will be provided with the handset). A charger is estimated to cost £10.
17.4.8	Portable VHF Radio	All	Where a vessel is equipped with multiple liferaft. There shall be sufficient number of portable VHF radios for each life raft carried.	Where vessels do not carry sufficient number of portable VHF, they may be required to purchase additional handsets.
17.5.3	Emergency Position Indicating Radio Beacon	0	Vessels operating in Area Category of Operation 0 must carry a second EPIRB. MGN 280 required only one EPIRB to be carried.	Vessels operating in Category 0 will be required to purchase a second EPIRB if they do not already have one. Some vessels may comply with this voluntarily already. An EPIRB is estimated to cost £500 to £800.

17.6.1	Personal Emergency Radio Devices	0-4	Section 17.6 now states requirements for the carriage of personal locator beacons in area category of operation 0-4. Table 17.2 reiterates requirement. This was not previously required in MGN 280.	This applies to vessels in Area Categories 0 to 4. The cost of a locator beacon is between £200 to £300 and is a one-off cost.
17.7.1	Radio Watches	All	Guidance for requirement for vessels operating at sea to carry out a continuous radio watch.	This is a clarification with no expected cost.
17.8.1	Ships' Radio License	All	Statement of the requirement for vessels to be issued with a valid Ships' Radio License.	This is not a new requirement, and no costs are expected.
17.9.1	Ships' Radio Survey	All	Global Maritime Distress and Safety System (GMDSS) radios recommended to be serviced every 5 years.	This is not a new requirement, and no costs are expected.
17.7.1	Testing and Maintenance	All	Radio equipment to be tested prior to departure and maintained in accordance with the manufacturer's instructions (MGN 280 did not stipulate a requirement for radio installations to be tested or maintained).	This is not monetised as it reflects existing industry standards.
19.1.1	Compass	All	Requirement that all navigational equipment is to be routinely tested and maintained in accordance with the manufacturer's instructions. Not previously written into code.	This is not a new requirement, and no costs are expected.
19.2.4	Compass	All	Guidance on magnetic compass adjusting and in which scenarios it may be required.	There is no cost associated with this change as it is guidance.
19.2.6	Compass	All	Compass deviations records are now required to be maintained.	The cost is a compass deviation book, which is estimated at between £20 to £30, plus the time to record the deviations. This is estimated to be 1 hour in the initial year, and then 0.5

19.7.1.4	Additional Navigational Equipment Requirements for Vessels Certified to Operate in Area Category of Operation 0, 1 or 2	0-2	Requirement for vessels to carry a 3cm radar of an appropriate standard if operating in area category 0, 1 or 2.	every subsequent year. Over ten years, this is estimated to be 5.5 hours of work by a seafarer. This is therefore estimated to cost £155 over ten years per vessel. A radar is estimated to cost between £1,500 and £2,000. This is a one-off cost.
26.2.2	Additional Navigational Equipment Requirements for Sailing Vessels.	0-3	Monohull vessels shall also be required to carry an anemometer (previously limited to multi- hull vessels only).	This is not a new requirement, and no costs are expected.
19.7.1.3	Additional Navigational Equipment Requirements for Vessels Certified to Operate in Area Category of Operation 0, 1 or 2	0-2	Requirement for vessels operating in 0, 1 or 2 to be fitted with an Automatic Identification System (AIS) transceiver.	An AIS transmitter is estimated to cost between £1,000 to £2,000. This is a one-off cost.
20.2.3	Anchoring Systems	All	Removal of the ability for vessels to carry anchors that are not ready rigged for use in certain operations/operating patterns. Previously this was available to pilot boats and justifiable select operations.	All anchors are expected to be rigged and ready. This should not be a change for Sport or Pleasure vessels and is more of a hangover from when MGN 280 was attempting to cater to the workboat sector as well.
20.4.6	Cables	All	Bitter ends of anchor cables are now mandated to secure to the vessel's structure, releasable in an emergency irrespective of whether they incorporate a windlass.	This is not a new requirement, and no costs are expected.

22.2.8.2	Personal Clothing	0-2	Vessels operating in Area Cat 0 -2 and in waters with surface temp less than 10 degrees shall provide an immersion suit or dry suit for each person on board. The onus was previously on owner/operator to advise of their use, but not to provide them.	An immersion suit is estimated to cost between £125 to £210 per suit. This is a one-off cost. The costing analysis assumes 10 immersion suits per vessel.
24.1.1	Mother Vessels	All	Added definition of Mother Vessel for the purpose of carrying tenders under this Code.	This is a clarification with no expected cost.
24.1.2	Mother Vessels	All	Vessels to be fitted with lifting equipment for tenders that are capable of safely launching and recovering the tender in any sea or weather conditions anticipated in the tender's area of operation intended area of operation.	No cost is anticipated as adaption of use is possible.
24.1.3	Mother Vessels	All	Requirement for mother vessel to comply with the Lifting Operations and Lifting Equipment Regulations and Provision and Use of Work Equipment Regulations.	Introduced into UK law via Health and Safety Executive regulations and so the costs are already accounted for, and this is not a new requirement.
24.2.1.1	Daughter Craft	All	Provisions for vessels to operate as "daughter craft", distinct from "tender".	This is a clarification and editorial change, and no costs are anticipated.
24.2.2.1	Tenders	All	Clarification statement that a vessel is not required to be separately coded and should be considered as work equipment.	This is a clarification with no expected cost.

24.2.2.2	Tenders	All	Requirements tenders need to meet in order to operate as a tender operating under the code, including markings, weightings, inspection regime.	No impact - basic requirement that would be met by the nature of a safely operated vessel.
24.3.1	Vessels Launched and Recovered from Mother Vessels	All	Requirement that lifting points and structural integrity of tenders intending to be lifted onto the mother vessel or recovered via a ramp are suitable designed and constructed.	No impact - basic requirement that would be met by the nature of a safely operated vessel.
24.3.2	Vessels Launched and Recovered from Mother Vessels	All	Statement that requires owner/operators to consider whether any additional operational limitations should be considered in the event of personnel being on board the tender as it is recovered and launched.	There is no cost associated with this change as it is a recommendation.
25.4	Vessels Engaged in Diving Operations	All	Guidance and requirements for vessels engaged in diving operations has been included, covering operational procedures and seating arrangements.	These are included in the Code to formalise current industry practice and is not considered to have additional cost or impact on operators as a result.
25,5	Vessels Engaged in Towing Operations	All	Guidance and requirements for vessels engaged in Towing Operations has been included, covering operational procedures and risk assessments.	These are included in the Code to formalise current industry practice and is not considered to have additional cost or impact on operators as a result.
25.7.2	Vessels Engaged in High-Speed or Planing Mode	All	New requirement for a risk assessment to be conducted by the owner/operators of a vessel engaged in high-speed or planing mode, documented within the vessels SMS.	

28.8.1.1	Manning; Radar Training	0-2	Where a vessel operating in Area Category of Operation 0 – 2 is required to be equipped with a radar by section 19.7 of the Code, the Master and all crew responsible for a Navigational Watch shall complete an MCA approved or recognised radar training course listed in MIN YYYY unless grandfathered from the requirement.	Average cost of £425-450 per course)
28.9.1	Manning; Electronic Chart Systems (ECS) Training.	All	Masters and Crew working on board vessels using Electronic Chart Systems approved as meeting the standards of MGN 319 are required to complete the Electronic Chart Systems and Bridge Watchkeeping module of an MCA approved Small Ships Navigation and Radar course, or an MCA approved or recognised training course listed in MIN YYYY.	Average cost of £575 - 650 per course. Where a system of this type is installed.
28.10	Fire Safety	All	Where a vessel is equipped with fire pumps in 16.4.2.1, the Master and at least one Crew member shall complete an MCA approved one day firefighting course, or STCW Fire Fighting and Fire Prevention course, or the equivalent Royal Navy course, and complete onboard familiarisation with the specific equipment of the vessel.	Average cost of £160 per course.
29.3.1	Garbage	All	Vessels to comply with updated requirements of The Merchant Shipping (Prevention of Pollution by Garbage from Ships) Regulations 2020 (MARPOL ANNEX V), SI 2020/621.	Introduced into UK law via MARPOL and so the costs are already accounted for, and this is not a new requirement.

29.4.1	Anti Foul Systems	All	Vessels to comply with updated requirements of "The Merchant Shipping (Anti-Fouling Systems) Regulations 2009 (SI 2009 No.2796).	Introduced into UK law via International Convention for the Prevention of Pollution from Ships (MARPOL) and so the costs are already accounted for, and this is not a new requirement.
29.5.1	Air Pollution	All	Vessels to comply with air emissions regulations if diesel engine constructed after 1 January 2000 and with a power output of greater than 130kW	Introduced into UK law via MARPOL and so the costs are already accounted for, and this is not a new requirement.
29.5.2	Air Pollution	North Sea & Baltic	All vessels with diesel and hybrid propulsion systems installed after 1 January 2021 operating in Baltic and North Sea NOx emissions control areas to comply with "The Merchant Shipping (Prevention of Air Pollution from Ships) (Amendment) Regulations 2021 (SI 2021/1108)".	Introduced into UK law via MARPOL and so the costs are already accounted for, and this is not a new requirement.
29.5.3	Air Pollution	North Sea & Baltic	Vessels not meeting the requirement of 29.5.2 are not able to operate in Baltic and North Sea nitrogen oxides (NOx) emission control areas.	Introduced into UK law via MARPOL and so the costs are already accounted for, and this is not a new requirement.
29.5.4	Air Pollution	North Sea & Baltic	Statement that 29.5.2 and 29.5.3 do not apply to vessels designed and solely used for recreational purposes.	Introduced into UK law via MARPOL and so the costs are already accounted for, and this is not a new requirement.

29.5.5	Air Pollution	North Sea & Baltic	Vessels with propulsion power of less than 750 kW are not required to comply with the 29.5.2 or 29.5.3 if it can be demonstrated to the satisfaction of the Administration that the vessel cannot comply with the requirement of 29.5.2 because of a design or construction limitation of the vessel.	Introduced into UK law via MARPOL and so the costs are already accounted for, and this is not a new requirement.
30.1.1	General	All	Requirement for documentation of a Safety Management System and Cyber Security policies after a maximum of 3 years from date of entry into force of the code.	This is estimated to have an initial cost of 4 hours, followed by an annual cost of 0.5 hours for each vessel. Over ten years, this is 8.5 hours of work. Assuming the work is done by a manager, the cost is therefore £200 over ten years.
30.1.2	General	All	Requirement of general provisions of the Safety Management System.	This is estimated to have an initial cost of 8 hours, followed by an annual cost of 1 hour for each vessel. Over ten years, this is 17 hours of work. Assuming the work is done by a manager, the cost is therefore £401 over ten years.
30.2.2	Safety Management System	All	Clarification that vessels on bareboat charter or hire for commercial use are required to conform to/implement a SMS.	No additional costs from this measure are anticipated as costs are covered in 30.1.1.
30.2.3	Safety Management System	All	Clarification that vessels on skippered charter are required to conform to/implement a SMS system.	No additional costs from this measure are anticipated as costs are covered in 30.1.1.

Table A2: Benefits

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3.9.2	Area Category of Operation	All	Ability for vessels operating in lower areas of category than certificated to crew and equip to the lower area category of operation.	This is a clarification with no expected cost.
4.6.6.4	In-Water Intermediate Examinations	All	In-water intermediate examination permission to be conducted for ROV survey in exceptional circumstance.	This gives vessel operators and owners more flexibility over their vessels.
4.6.6	In-Water Intermediate Examinations	0-1 or vessels with 16 or more persons	Vessels now permitted to be examined in water at the intermediate examination in exceptional circumstances	This gives vessel operators and owners more flexibility over their vessels.
4.12.1	Interim Certificates	All	Certifying Authorities are permitted to issue interim certification whilst full certification is being prepared. Validity for up to 5 months from the date of issue.	This is a clarification with no expected cost.
4.12.2	Interim Certificates	All	Interim certificates may be issued to vessels pending the approval of its stability information booklet. The vessel may not undertake any activities that would require use of a stability booklet and must meet the minimum freeboard and stability requirements for vessels that are needing a stability information booklet.	This is a clarification with no expected cost.
4.12.3	Interim Certificates	All	Statement that interim certificates can only be replaced by the Full Certificate, subject to all outstanding exceptions from the compliance examination being completed to the satisfaction of the Certifying Authority	This is a clarification with no expected cost.

4.12.4	Interim Certificates	All	Statement that only one interim certificate can be issued within an examination cycle. No extensions beyond the maximum 5 months validity.	This is a clarification with no expected cost.
4.14.2	Letters/Statements of Compliance for Non-UK Vessels	All	Statement that owner/operators of non-UK vessels may request a letter/statement of compliance to confirm that they do not need to operate to the requirements of the code if outside of UK waters or ports.	This is a clarification with no expected cost.
5.4.1	Construction Materials	All	This is deregulatory and creates a provision for hull and superstructure to be constructed of high-density polyethylene.	This gives vessel operators and owners more flexibility over their vessels.
5.4.2	Construction Materials	All	Battery and battery hybrid vessels are not to be made of high-density polyethylene (HDPE), however case by case consideration may be given to vessels with fully self-contained battery electric outboards.	This gives vessel operators and owners more flexibility over their vessels.
5.4.3	Construction Materials	All	Proposals for use of other construction materials may now be submitted to the CA for approval.	This gives vessel operators and owners more flexibility over their vessels.

5.7.2.1	Boats with a Buoyant Collar, Inflatable Boats and Rigid Inflatable Boats in Area Category of Operation 2 or 3, and Boats with a Buoyant Collar, Inflatable Boats and Rigid Inflatable Boats over 8 Metres in Length.	2	Rigid Inflatable Boats, Boats with a Buoyant Collar or inflatable boats intending to operate in Area Category of Operation 2 shall now preferentially meet the requirements of ISO or can be accepted as meeting the requirements of Chapter III of the International Convention on the Safety of Life at Sea (SOLAS). Previously SOLAS was the preferred option. A change in stance but no impact to industry.	This gives vessel operators and owners more flexibility over their vessels.
5.7.2.2	Boats with a Buoyant Collar, Inflatable Boats and Rigid Inflatable Boats in Area Category of Operation 2 or 3, and Boats with a Buoyant Collar, Inflatable Boats and Rigid Inflatable Boats over 8 Metres in Length.	3	Boats with buoyant collars or RIBs operating independently in area category of operation 3 may now be accepted if build to Recreational Craft Directive or Recreational Craft Regulations Design Category B.	This is a new option but there is no new imposition to industry. This gives vessel operators and owners more flexibility over their vessels.
5.3.3	General Requirements	All	New provisions for hull certification standards.	Additional options and flexibility for construction standards that may allow vessels to certificate that previously couldn't. This gives vessel operators and owners more flexibility over their vessels.

5.6.3	Watertight	0-1	Vessels greater than	Existing vessels are
0.0.0	Bulkheads	0-1	15m waterline length and operating in Area Category of Operation 0, 1, shall have a watertight collision bulkhead fitted. This was previously not a requirement of vessels certificated under MGN 280.	grandfathered out of these requirements under 5.6.3.3 and 5.6.3.4. All new build vessels will be in compliance because this is the construction practice of modern vessels. Therefore, no costs are anticipated.
6.2.4.3	Hatchways and Companion Hatch Openings	All	This provision allows vessels with hatchways that have hinges located in locations other than the forward side of the hatch to present to a Certifying Authorities alternative means of securing the vessel's weathertight integrity other than by means of a blank or not opening at sea.	This gives vessel operators and owners more flexibility over their vessels.
6.4.1.6	Valves and Associated Piping	All	Provision to allow existing vessels to continue with their existing installations until they need replacing, at which point they shall be replaced with items meeting the requirements of the Code.	This provision ensures that when installations undergo replacement, they are replaced to a standard accepted by the Code. There are no anticipated additional costs to consider.
6.4.2.3	Sea Inlets and Discharges	All	Provision to allow existing vessels to continue with their existing installations until they need replacing, at which point they shall be replaced with items meeting the requirements of the Code.	This provision ensures that when installations undergo replacement, they are replaced to a standard accepted by the Code. There are no anticipated additional costs to consider.
8.1.5	General Requirements	All	New provision for vessels intending to operate using low flashpoint fuels to be accepted following submission to the Administration.	This gives vessel operators and owners more flexibility over their vessels.

8.4.2	Electric Propulsion	All	New provision for	There is no cost
	Systems		vessels intending to operate purely on electric power.	impact, as this allows for certification of electric propulsion crafts, which vessels would only adopt if it was an overall benefit to do so.
8.5.1	Hybrid or Electric Outboards	All	New provision allowing vessels to be fitted with a battery-hybrid or pure electric outboard.	There is no cost impact, as this allows for the use of battery-hybrid or pure electric outboards, which vessels would only adopt if it was an overall benefit to do so.
8.5.2	Hybrid or Electric Outboards	All	New provision that permits batteries used as a source of power for hybrid of electric outboards to be of the lithium-ion or other suitable marine type.	There is no cost impact, as this allows for the use of batteries, which vessels would only adopt if it was an overall benefit to do so.
8.6.1	Petrol Propulsion Systems	All	Vessels fitted with inboard petrol engines may now be considered on application to the Administration.	There are no costs associated with this as this provides additional options for vessels.
8.14.2	Pipes Carrying Flammable Liquids or Gases into or through Accommodation Spaces.	All	A provision has been added to allow existing vessels to continue with their installations until they require replacement.	This provision ensures that when installations undergo replacement, they are replaced to a standard accepted by the Code. There are no anticipated additional costs to consider.
9.3.1.4	Batteries; Battery System Requirements	All	Back-up batteries for vessels are to be fully charged prior to departure.	These provisions are aimed at autonomous vessels, which do not presently exist for commercial use. (As carrying a fully charged back-up battery is best practice, formalising the requirement is not likely to be seen as an additional burden.) It has not been costed as no costs are anticipated.

9.3.2.4	Battery Stowage	All	Added a provision that allows batteries fitted within a battery box that is at least as equivalent at containing electrolyte spillage as a drip tray in 9.3.2.2, exemption from the requirement to carry a drip tray.	Vessels with battery boxes will likely not need to purchase additional drip trays.
9.7.3.1	Navigational Supplies	All	Where installed, emergency power supplies for navigational lights and equipment shall be capable of supplying power for a minimum of 3 hours in the event of failure of the main electrical power supply.	Those that cannot meet the requirements are recommended to meet them in 3 years, but this is not to be enforced. There no costs are monetised.
11.1.4	Bilge Pumping System Requirements	All	A provision has been added to allow existing vessels not meeting the requirements of 11.1.2 and 11.1.3 to continue with their existing installations until the vessel's next renewal examination or three years after entry into force of the Code.	This reduces up front costs for vessels gaining certification under the Code.
11.1.6	Bilge Pumping System Requirements	All	Vessels are now permitted to be fitted with auto-start bilge pumps Where these are installed in spaces that contain potential pollutants, the auto-start pump needs to be fitted with a filtration system or periodically monitored.	No anticipated cost as this provision provides additional options to owner/operators.

11.1.8	Bilge Pumping System Requirements	All	MGN 280 permits dispensation from carriage of bilge pumps if there is no impact to vessel safety. This has been omitted from Sports and Pleasure Code, but 11.1.7 permits certifying authorities to approve	This is not a significant change though procedural difference, and it provides owners and operators with more flexibility over their vessels.
13.2.4.2	Rigid Inflatable	4-6	alternative means of providing efficient bilge pumping on submissions and approval of information to the certifying authorities. This is deregulatory.	This gives vessel
	Boats, Inflatable Boats and Boats Fitted with a Buoyant Collar		Vessels that do not meet the freeboard requirement at the transom may still be approved if they can demonstrate a substantial reserve of buoyancy and an ability to self-drain when moving ahead. This is now extended to include vessel operations in Category 4 and Category 5 as well as Category 6.	operators and owners more flexibility over their vessels.
15.1.3.1.7	Fire Safety	All	A provision has been added to ensure that existing vessels are permitted to retain their existing machinery space insulation materials if it was previously accepted under an older code of practice even in cases where this does not meet the standards of this Code. Where insulation reaches end of life, or the insulation is required to be altered, replaced or reconfigured, the replacement insulation must meet the requirements of the Code.	There is no anticipated cost of this addition, as this ensures older vessels can comply with the requirements of the Code without altering their installations.

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15.1.3.1.8	Fire Safety	All	A provision has ben added to ensure that existing vessels that were not required to be fitted with insulation materials in machinery spaces do not have to fit insulation materials to gain certification under the Code. However, where a machinery space is significantly modified from its original condition such that fitting of insulation materials is now possible, the CA may where deemed necessary require insulation materials meeting the requirements of the Code to be fitted.	This is a grandfathering provision for existing vessels which absolves existing vessels of upfront costs unless the vessel is substantially altered.
15.7.3	Means of Escape	All	An identified means of escape shall not endanger any persons using it. This is reflective of operating practice but not explicitly written in MGN 280. Certifying Authorities will need to ensure that a designated means of escape is fit for purpose otherwise they may be required to identify or create additional exit routes.	If a vessel's means of escape could be deemed to endanger its users, a Certifying Authority may require that a separate exit is designated as a means of escape.
15.7.7	Means of Escape	All	Exceptions to the rule of two means of escape are now permissible by Certifying Authorities discretion.	This gives vessel operators and owners more flexibility over their vessels. Vessels would only make these changes if they were anticipated to be a net benefit.
15.7.8	Means of Escape	All	Vessels built in accordance with the named construction standards may also be considered to meet the requirements of means of escape even where the provisions of the section are not fulfilled.	This provides an additional option to vessels which will increase rate of acceptance for vessels built to a particular standard. Without this provision, these vessels may not have

15.8.2	Fire Control and Safety Plan	All	Recommendation for vessels without Stability	met the requirements of this section. There is no cost associated with this
	,		Information Booklets, or installed propulsion power of 750kW to have a Fire Control and Safety Plan.	change as it is a recommendation.
Table 16.1.1.1	Protection of Machinery Space(s) and Outboard Engines	4,5,6	The Code now states in Table 16.1.1 that all open boats, inflatable boats, RIBs or boats with a buoyant collar which are up to 8 metres in length and are not fitted with a substantial enclosure or cooking appliance(s), shall be fitted with a minimum of two 34B fire extinguishers. However, under 15.2.2 of MGN 280, non-decked, or partially decked sailing vessels which do not have engines or cooking appliances fitted are not required to have any fire extinguishers - this would now mean that a small number of vessels will now need to purchase fire extinguishers where previously it was not needed. However, this will only impact sailing vessels less than 8	Vessels which are less than 8m in length could save on the number of fire extinguishers they need to purchase or replace in the future. This is a saving of between £20 to £50 per extinguisher. The costing analysis assumes 3 fire extinguishers per vessel.

17.1.3.1	The Global Maritime Distress and Safety System	4,5 or 6	Vessels operating in Area Category of Operation 4, 5 or 6 are not required to be able to receive MSI information via GMDSS providing they can obtain up to date weather and navigation information by other means.	This applies to vessels in Area Categories 4 to 6. This is deregulatory, as newly certified vessels in these areas may be able to purchase cheaper Global Maritime Distress Safety Systems without Maritime Safety Information functionality. This could potentially be a one-off saving, although GMDSS without MSI functionality are not widely available.
17.1.3.2	Vessels operating in Area Category of Operation 6 are not required to have a second means of transmitting shipto-shore distress alerts if an alternative effective means of distress alerting is available.	6	Newly certificated vessels in Area Category of Operation 6 will not need a second means of transmitting ship to shore distress alerts if they have an effective means of distress alerting already (subject to the approval a certifying authority).	Newly certificated vessels in Area Category of Operation 6 may possibly not need a second means of transmitting ship to shore distress alerts. This is a one-off saving to new vessels.
17.3.1	Radio Installation	All	Certifying Authorities are now able to approve radio aerial locations different from the highest point of the vessel providing maximum performance of the aerial is still possible.	This gives vessel operators and owners more flexibility over their vessels.
Table 18.4	Requirement for 12-20m vessels to carry a whistle and bell has been aligned to that of the Convention on the International Regulations for Preventing Collisions at Sea, namely that a bell is no longer required to be carried.	All	Vessels under 20m no longer need to carry a bell	New vessels will have a one-off saving from not needing to purchase a bell. Bells are estimated to cost between £70 to £200.

19.7.2	Additional Navigational Equipment Requirements for Vessels Certified to Operate in Area Category of Operation 0, 1 or 2	0-2	A provision has been added to grandfather the requirement for existing vessels to fit a radar when operating in area category of operation 0-2 if they were previously certified under an early code of practice without one.	Less cost of 19.7.1.4 for existing vessels.
20.1.4	General	All	Vessels are now permitted to use a dual anchoring system and carry reduced anchor sizes in cases where this system is used.	This gives vessel operators and owners more flexibility over their vessels. Reduced sizes of anchors are cheaper to purchase, offering a possible saving.
20.1.5	General	All	Vessels utilising a dual anchoring system shall carry a spare anchor of a reduced size permitted by the table in section 20.	This is a new provision written into code and carriage of such a spare will only impact any vessels that intend to utilise a dual anchoring system. Vessels who will utilise this option will only do so if there is likely to be a net benefit for them. The cost of a second anchor will vary by size but is estimated at £380. This is a one-off cost.
28.8.1.2 + 28.8.1.3	Manning; Radar Training	0-2	Alternative provisions to mandatory radar training for holders of certification or training before date of entry into force of the Code.	This is a grandfathering arrangement for existing personnel in industry which means existing experience and/or certification can fulfil the requirement to training under the Code. This will reduce training costs for existing personnel.

	Safety Management System	All	Exclusion from the requirements of a Safety Management System in cases of bare boat charter or hire as a pleasure vessel.	Vessels which are exempt from this requirement may make a saving of £401 over the ten-year appraisal period, assuming that the Safety Management Plan is estimated to have an initial cost of 8 hours, followed by an annual cost of 1 hour for each vessel, with the work done by a manager.
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