

<b>Title:</b> <b>The Merchant Shipping (Vessel Traffic Monitoring and Reporting Requirements)(Amendment) Regulations 2011 (“the Regulations”)</b> <b>Lead department or agency:</b> Maritime and Coastguard Agency <b>Other departments or agencies:</b> Department for Transport	<b>Impact Assessment (IA)</b>
	<b>IA No:</b> DfT00085
	<b>Date:</b> 23/09/2011
	<b>Stage:</b> Final
	<b>Source of intervention:</b> EU
	<b>Type of measure:</b> Secondary legislation
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## Summary: Intervention and Options

### What is the problem under consideration? Why is government intervention necessary?

The problem is how to prevent accidents and pollution incidents at sea. Directive 2009/17/EC introduces new requirements intended to improve the monitoring of maritime traffic in EU waters. Intervention is necessary to implement the Directive via legislation in the UK, as the affected parties would have no reason to put in place the measures in the Directive unless compelled to by legislation. In particular, fishermen may not invest in the Automatic Identification System (AIS) units required by the Directive, and UK Ports would have no incentive to introduce costly upgrades to their systems. In addition, changes are required to a MCA computer system. Intervention would remove the risk of infraction proceedings being taken against the UK and criticism for non-cooperation.

### What are the policy objectives and the intended effects?

The policy objectives are to reduce the number of accidents and pollution incidents at sea by (a) improving knowledge of maritime traffic and (b) enhancing the carriage requirement for AIS.

Implementing the Directive in the UK would improve knowledge of maritime traffic by improving the collection and exchange of information (e.g. via SafeSeaNet) and ensuring all data transfers are properly electronic, and could help to reduce the risks of collisions involving fishing vessels by requiring onboard identification and position equipment to be installed. Implementing the Directive in the UK would ensure the cooperation of industry to enable the development of systems to access information and would also make it possible to enforce the enhanced carriage requirement for AIS.

### What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Doing nothing is not an option as the UK is required to implement EU Directives. Failure to do so would leave the UK open to criticism and scrutiny in the event of further collisions involving fishing vessels and see the UK fall out of step with Europe; vessel traffic monitoring is most efficient when member states are able to exchange information to create a bigger picture. The UK would also be at risk of infraction proceedings through failure to implement the full requirements of the Directive.

Option 1: Implement the Regulations and update a MCA computer system. This is the preferred option because: A) The EU believes the effectiveness of the Directive depends greatly on each country enforcing its implementation strictly; the Regulations introduce a system of sanctions to ensure that parties concerned comply with the reporting and equipment carrying requirements laid down by the Directive. B) Amending existing UK legislation and updating a MCA computer system is required to comply with the Directive.

**Will the policy be reviewed?** It will be reviewed. **If applicable, set review date:** 1/2016

**What is the basis for this review?** PIR. **If applicable, set sunset clause date:** Month/Year

<b>Are there arrangements in place that will allow a systematic collection of monitoring information for future policy review?</b>	Yes
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**Ministerial Sign-off** For final proposal stage Impact Assessments:

***I have read the Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) the benefits justify the costs.***

Signed by the responsible Minister:

Mike Penning

Date: 12/10/2011

# Summary: Analysis and Evidence

# Policy Option 1

## Description:

Implement the Regulations and update a MCA computer system

Price Base Year 2011	PV Base Year 2011	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -1.94	High: -4.26	Best Estimate: -3.00

COSTS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	0.53	2	0.16	<b>1.94</b>
High	0.55		0.41	<b>4.26</b>
Best Estimate	0.54		0.28	<b>3.00</b>

### Description and scale of key monetised costs by 'main affected groups'

1.) The total costs to UK registered fishing vessels of purchasing 'Class A' AIS transponders are estimated at around £1.0 to £3.3 million (Present Value), with a Best estimate of £2.1 million. 2.) It is estimated that the MCA will incur transition costs of around £384,000 and additional maintenance costs of around £48,000 per year associated with updating a computer system. 3.) The costs to ports of modifying their systems are estimated at around £0.2 million.

### Other key non-monetised costs by 'main affected groups'

1.) There will be some familiarisation costs for industry. 2.) There could potentially be other costs associated with fitting AIS on fishing vessels. 3.) Ports could potentially incur other costs. 4.) There could potentially be additional costs to vessel operators from the other reporting requirements.

BENEFITS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	NQ	N/A	NQ	<b>NQ</b>
High	NQ		NQ	<b>NQ</b>
Best Estimate	NQ		NQ	<b>NQ</b>

### Description and scale of key monetised benefits by 'main affected groups'

It has not been possible to monetise any of the benefits that have been identified in this impact assessment due to the limitations of the available evidence base.

### Other key non-monetised benefits by 'main affected groups'

1.) Option 1 could result in improved maritime safety, reduced risk of accidents and associated pollution incidents. However, due to the nature of accidents in the fishing sector and limitations of the available evidence base, the MCA consider that the benefits resulting from Option 1 cannot be estimated.

### Key assumptions/sensitivities/risks

Discount rate (%) 3.50

1.) Given the limitations of the available evidence base, it has not been possible to monetise some of the costs and all of the benefits that have been identified in this impact assessment. 2.) The estimates of the monetised costs presented in this impact assessment are sensitive to the assumptions that have been made and the data sources that have been used, and should therefore be treated as indicative orders of magnitude of these costs. For example, there is no evidence currently available on the number of vessels that already have 'Class A' AIS fitted, so an assumption has been made. 3.) The updates to the MCA computer system have already commenced, so some of these costs have already been incurred.

<b>Direct impact on business (Equivalent Annual) £m):</b>			<b>In scope of OIOO?</b>	<b>Measure qualifies as</b>
Costs: N/A	Benefits: N/A	Net: N/A	No	NA

## Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?	United Kingdom				
From what date will the policy be implemented?	30/10/2011				
Which organisation(s) will enforce the policy?	Maritime & Coastguard Agency (MCA)				
What is the annual change in enforcement cost (£m)?	£0				
Does enforcement comply with Hampton principles?	Yes				
Does implementation go beyond minimum EU requirements?	No				
What is the CO <sub>2</sub> equivalent change in greenhouse gas emissions? (Million tonnes CO <sub>2</sub> equivalent)	Traded: N/A		Non-traded: N/A		
Does the proposal have an impact on competition?	No				
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?	Costs: 0%		Benefits: 0%		
Distribution of annual cost (%) by organisation size (excl. Transition) (Constant Price)	Micro NQ	< 20 NQ	Small NQ	Medium NQ	Large NQ
Are any of these organisations exempt?	No	No	No	No	No

## Specific Impact Tests: Checklist

Set out in the table below where information on any SITs undertaken as part of the analysis of the policy options can be found in the evidence base. For guidance on how to complete each test, double-click on the link for the guidance provided by the relevant department.

Please note this checklist is not intended to list each and every statutory consideration that departments should take into account when deciding which policy option to follow. It is the responsibility of departments to make sure that their duties are complied with.

Does your policy option/proposal have an impact on...?	Impact	Page ref within IA
<b>Statutory equality duties<sup>1</sup></b> <a href="#">Statutory Equality Duties Impact Test guidance</a>	No	17
<b>Economic impacts</b>		
Competition <a href="#">Competition Assessment Impact Test guidance</a>	No	17
Small firms <a href="#">Small Firms Impact Test guidance</a>	Yes	18
<b>Environmental impacts</b>		
Greenhouse gas assessment <a href="#">Greenhouse Gas Assessment Impact Test guidance</a>	No	N/A
Wider environmental issues <a href="#">Wider Environmental Issues Impact Test guidance</a>	No	N/A
<b>Social impacts</b>		
Health and well-being <a href="#">Health and Well-being Impact Test guidance</a>	No	N/A
Human rights <a href="#">Human Rights Impact Test guidance</a>	No	N/A
Justice system <a href="#">Justice Impact Test guidance</a>	No	N/A
Rural proofing <a href="#">Rural Proofing Impact Test guidance</a>	No	N/A
<b>Sustainable development</b> <a href="#">Sustainable Development Impact Test guidance</a>	No	N/A

<sup>1</sup> Public bodies including Whitehall departments are required to consider the impact of their policies and measures on race, disability and gender. It is intended to extend this consideration requirement under the Equality Act 2010 to cover age, sexual orientation, religion or belief and gender reassignment from April 2011 (to Great Britain only). The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

## Evidence Base (for summary sheets) – Notes

Use this space to set out the relevant references, evidence, analysis and detailed narrative from which you have generated your policy options or proposal. Please fill in **References** section.

### References

Include the links to relevant legislation and publications, such as public impact assessments of earlier stages (e.g. Consultation, Final, Enactment) and those of the matching IN or OUTs measures.

No.	Legislation or publication
1	<a href="#"><u>The Merchant Shipping (Vessel Traffic Monitoring and Information Systems) Regulations 2004 (SI 2004/2110)</u></a>
2	<a href="#"><u>The Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997 (SI 1997/2367)</u></a>

### Evidence Base

Ensure that the information in this section provides clear evidence of the information provided in the summary pages of this form (recommended maximum of 30 pages). Complete the **Annual profile of monetised costs and benefits** (transition and recurring) below over the life of the preferred policy (use the spreadsheet attached if the period is longer than 10 years).

The spreadsheet also contains an emission changes table that you will need to fill in if your measure has an impact on greenhouse gas emissions.

#### Annual profile of monetised costs and benefits\* - (£m) constant prices

	Y <sub>0</sub>	Y <sub>1</sub>	Y <sub>2</sub>	Y <sub>3</sub>	Y <sub>4</sub>	Y <sub>5</sub>	Y <sub>6</sub>	Y <sub>7</sub>	Y <sub>8</sub>	Y <sub>9</sub>
<b>Transition costs</b>	0.35	0.19	0	0	0	0	0	0	0	0
<b>Annual recurring cost</b>	0.05	0.93	0.48	0.08	0.08	0.08	0.08	0.08	0.65	0.35
<b>Total annual costs</b>	0.40	1.12	0.48	0.08	0.08	0.08	0.08	0.08	0.65	0.35
<b>Transition benefits</b>	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ
<b>Annual recurring benefits</b>	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ
<b>Total annual benefits</b>	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ

\* For non-monetised benefits please see summary pages and main evidence base section

# Evidence Base (for summary sheets)

## 1. Background

### 1.1. Background on Vessel Traffic Monitoring in the European Union

Directive 2002/59/EC (Establishing a Community vessel traffic monitoring and information system) established a mandatory vessel traffic monitoring and information reporting system that helps prevent accidents and pollution at sea. The measures were designed to prevent accidents at sea and were implemented in response to the loss of the tanker MV ERIKA, which broke up in bad weather and sank 40 miles off the Brittany coast in December 1999.

Directive 2002/59/EC is implemented in UK law in the main by 'Merchant Shipping (Vessel Traffic Monitoring and Reporting Requirements) Regulations 2004 (SI 2004/2110)', although some measures are also covered by the 'Merchant Shipping (Safety of Navigation) Regulations 2002 (SI 2002/1473)', and the 'Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997 (SI 1997/2367)'.

Amending Directive 2009/17/EC updates the requirements of Directive 2002/59/EC. The changes introduced by this Directive that are being implemented in the UK by the 'The Merchant Shipping (Vessel Traffic Monitoring and Reporting Requirements)(Amendment) Regulations 2011' ("the Regulations") are listed below; these changes are explained in more detail in Section 5.2 of this impact assessment.

- Introducing a specific reporting mechanism (SafeSeaNet). This is simply naming the system set up in Europe to collect and hold the data sent to it from the various member states.
- Introducing measures in the event of risks posed by ice. This is a failsafe to stop ships encountering ice on their routes that they would not be able to break through.
- Widening the scope of the Directive to include fishing vessels between 15 and 45 metres in Overall Length and Bunkers on ships under 1000 Gross Tonnage (GT) instead of 5000 tonnes of bunkers. The Directive now applies to more ships and requires fishing vessels between 15 and 45 metres in Overall Length to fit Automatic Identification System (AIS) equipment.
- Introduce more rigorous requirements for information about the polluting goods onboard ships.
- Adding additional criteria for exemptions from reporting requirements. To be exempt from making some reports, ships now need to fulfil certain conditions.
- Amending the confidentiality requirements for data gathered in accordance with the Directive, so that confidential data must be used in accordance with the Directive.

The Directive also requires the Maritime and Coastguard Agency (MCA) to make a number of changes to the UK's data transfer system, which is known as the 'Consolidated European Reporting System (CERS)'. These changes will have impacts on those organisations that undertake system-to-system transfers with CERS. The changes that are being made to CERS are discussed further in Section 5.2 of this impact assessment.

This impact assessment assesses the costs and benefits of the introduction of the Regulations and the changes that the MCA is making to CERS as a result of the Directive.

In addition, the Directive introduced the concept of Long Range Identification and Tracking (LRIT) systems. This allows member states to track vessels much further offshore than when using standard AIS equipment. The requirements on LRIT mirror recent amendments to the International Convention for the Safety of Life at Sea (SOLAS). It is proposed that the LRIT requirements will be implemented in UK law by the proposed 'Merchant Shipping (Safety of Navigation) Regulations 2011' that would implement the amendments to SOLAS in UK law. Therefore, the costs and benefits of the requirements on LRIT are not considered in this impact assessment.

## **1.2. Background on the Automatic Identification System**

The AIS is a VHF-based radio transponder system that, as required by the original Directive, is fitted to commercial vessels of more than 300GT and which transmits the identity of the vessel including the Maritime Mobile Service Identity (MMSI) number that may be used for establishing communications using Digital Selective Calling (DSC). In addition, the position, course and speed, heading, and other voyage-related data are provided. Commercial vessels use the 'Class A' variant of AIS. A simpler 'Class B' version has been developed for leisure vessels and small commercial vessels not required to fit Class A.

Beside the Vessel transponders described above, Search and Rescue (SAR) Helicopters and aids to navigation also provide appropriate information. In addition, AIS technology is being used for SAR homing, and has benefits for establishing vessel location in SAR incidents that enhances the potential for life saving. In the medium term, it may be used as a distress alert system.

The MCA as the UK National Competent authority has an infrastructure to collect AIS data around the UK coastline, and this is provided to our Rescue Centres and Surveyors. It has proved to be very useful in SAR missions, and in the protection of the environment with regard to illegal or accidental discharges from ships.

## **2. Problem under consideration**

The problem is how to prevent accidents and pollution incidents. According to MCA Incident Statistics, there are an average of 600 commercial shipping accidents per year and over 1000 pollution incidents per year in UK waters.

The safety of shipping in European waters is of crucial importance as 90% of the European Union's trade with third party countries is seaborne.<sup>1</sup>

The risk of accidents due to the concentration of traffic in the main European seaways is particularly high in areas where the traffic converges, such as the Dover Strait. The more rigorous reporting requirements should help mitigate the risk of an accident occurring.

The environmental consequences from an accident at sea could be disastrous for the economy and the environment of all coastal EU Member States. For example, the clean up costs from a serious oil spill would run to many millions. Table 1 provides examples of serious historical oil spills and their cleanup costs. However, it is recognised that the cost of typical pollution incidents in UK waters is significantly lower.

**Table 1. Approximate Costs of Historical Oil Spill Incidents (IPOC)**

SHIP	YEAR	OIL (TONNES)	COST (£)	APPROXIMATE COST PER TONNE (£)
Amoco Cadiz	1978	223,000	£150 million	£700
Exxon Valdez	1989	37,000	£1.3 billion	£35,100
Braer	1993	84,000	£52 million	£600
Sea Empress	1996	73,000	£36.8 million	£500
Erika	1999	19,800	£165 million	£8,300
Prestige	2002	63,000	£962 million	£15,300
<b>AVERAGE COST PER TONNE (£):</b>				<b>£10,100</b>

Source: IOPC <http://www.iopcfund.org/publications.htm>

Introducing AIS to fishing vessels is an attempt to mitigate the risk of these vessels being involved in collisions with larger merchant navy ships. The MCA's own Vision Incident Management Database shows there have been 27 collisions involving fishing vessels in the last 5 years (2005 – 2010). There has been an average of 17 deaths per year for those involved in fishing, although only a small percentage of these are thought to be related to collisions that would be affected by the introduction of AIS.

<sup>1</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2000:0802:FIN:EN:PDF>

### **3. Rationale for intervention**

A key justification for Government intervention in the maritime sector is the existence of market failures. For example, there is a risk of certain costs arising as a result of maritime activities for which the industry does not take full responsibility; these costs are known as 'external costs'. In particular, a number of 'external costs' result from the impacts of the maritime sector on the environment, such as the 'external costs' that arise as a result of water pollution. These 'external costs' can arise in the course of normal activity in the maritime sector, as a result of accidents or due to illegal activity.<sup>2</sup>

The UK has been committed to attempting to improve safety through monitoring of shipping since the 1994 Report of Lord Donaldson's Inquiry into the prevention of pollution from merchant shipping – Safer Ships, Cleaner Seas.

Directive 2009/17/EC introduces new requirements that are intended to improve the monitoring of maritime traffic in EU waters. Monitoring of maritime traffic enables an improved response time to incidents and the ability to communicate with other member states regarding hazardous vessels ahead of their arrival. Government intervention is necessary to implement the Amending Directive in the UK, as the affected parties would have no reason to put in place the measures in the Amending Directive unless compelled to by legislation, and the MCA is required to make changes to CERS.

Commercial fishing has a wide range of pressures that can compromise safety considerations, leading to lack of prioritisation in investing in AIS systems. Hence, legislation is required to ensure a suitable level of investment in preventative measures. Equally, legislation is in place to ensure the carriage of AIS for other vessel types, so to ensure consistency, legislation should also be applied to fishing vessels.

In addition, without being required to do so, UK ports would have no incentive to (for example) introduce costly upgrades to their systems, which would limit the exchange of data between them and the CERS system, leading to an inefficient process.

Finally, only implementing the Amending Directive in the UK via legislation and making the necessary changes to CERS would remove the risk of the European Commission taking further steps in infraction proceedings against the UK, which could ultimately result in a fine, and would also minimise the risk of criticism for non-cooperation from the Commission and other Member States.

### **4. Policy Objectives**

The policy objectives are to reduce the number of accidents and pollution incidents at sea by (a) improving knowledge of maritime traffic and (b) enforcing the carriage requirement for AIS.

Implementing the Amending Directive in the UK would improve knowledge of maritime traffic by improving the collection and exchange of information (e.g. via SafeSeaNet) and ensuring all data transfers are properly electronic (through amending the Marine Shipping Notice to eliminate the option of providing phone/fax details), and could help to reduce the risks of collisions involving fishing vessels by requiring onboard identification and position equipment to be installed.

Implementing the Amending Directive in the UK would ensure the cooperation of industry to enable the development of systems to access information and would also make it possible to enforce the enhanced carriage requirement for AIS.

### **5. Policy Options**

#### **5.1. Do nothing.**

Doing nothing to implement the Directive is not an option. The UK is under an obligation to implement Directives. Failure either to give proper effect to a Directive or to do so on time risks infraction proceedings being taken against the UK which would result in a large financial penalty.

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<sup>2</sup> European Commission Joint Research Centre (2009) External costs of Transportation Case study: maritime transport. Available at <http://publications.jrc.ec.europa.eu/repository/handle/111111111/7577>.

Furthermore, without giving proper effect to Directive 2009/17/EC, the UK would lack powers to (for example) ensure that the shipping industry complies with the reporting and equipment carrying requirements in the Amending Directive.

## **5.2. Introduce the Regulations and make the necessary changes to CERS (Option 1).**

The only option considered in this impact assessment is to introduce the Regulations and make the necessary changes to CERS (Option 1) because any partial implementation of the Directive would still lead to infraction proceedings and would prove ineffectual in actually achieving the aims of the Directive (i.e. to reduce the number of accidents and pollution incidents at sea). In other words, Option 1 is the only way the Directive can be fully implemented in the UK. Hence, no other option was considered.

Introducing the Regulations is part of the preferred option for the following reasons. Firstly, it is the opinion of the EU that the effectiveness of the Directive depends greatly on each country enforcing its implementation strictly. Secondly, it is necessary to introduce a system of sanctions to ensure that the shipping industry complies with the reporting and equipment carrying requirements laid down by the Directive. Therefore, amending existing UK legislation is required to comply with the Directive.

The key changes that are introduced by the Regulations are as follows:

a.) The current Regulations apply to approximately 700 UK sea-going vessels or craft of 300 gross tonnage or more (but without a lower tonnage limit whenever vessels are carrying dangerous or polluting cargoes) and Recreational craft, Traditional ships and Fishing vessels of 45 metres and over. Under the Regulations, the requirements are extended to include fishing vessels above 15 metres as regards to the carriage of AIS in line with Directive 2009/17/EC. The requirement is to fit a 'Class A' AIS system, which has better reception, power and range than the 'Class B' AIS systems these vessel types might otherwise fit. The Regulations therefore apply to all fishing vessels having an overall length of more than 15 metres which—

- are operating in United Kingdom waters;
- are landing its catch at a port situated in the United Kingdom; or
- are registered in the United Kingdom.

b.) The original Directive placed "bunkers below 5,000 tons" outside the scope (bunkers being the fuel storage tanks of the ship). The only aspect of the original Directive that applies to bunkers is the mandatory reporting requirements under SOLAS V. The amending Directive introduces an alternative approach – the notification of bunker fuel on ships of 1,000 GT and above. As this size of ship is likely to need no more than 200 tons of bunkers, this has effectively widened the scope of the Directive to include bunkers between 200 and 4999 tons in the reporting requirements, above and beyond what is required in SOLAS V. However, this reporting requirement is only mandatory under the Directive if it is part of a *new* mandatory reporting system as proposed by a member state following implementation of the Directive. The bunker reporting requirement joins the list of information in Annex I(4) of 2002/59/EC, which is a list of the information that must be included in any proposal for a new 'mandatory ship reporting system' or amendment of an existing system. There may be costs if the UK were to implement a new system, but this is highly unlikely to happen in the foreseeable future as the UK is content with the current system and therefore has no need to submit proposals for change. Therefore, the MCA expect that the extension of scope here would have no impact in real terms, although it is reflected in the Regulations.

c.) The Regulations introduce measures regarding the presence of ice, which mean ships likely to encounter ice on their routes will be provided with information about the potential ice situation, ice breaking services and recommended routes by the MCA. They are unlikely to be needed in UK waters, but are required in the Regulations to fulfill our obligations under the Amending Directive.

d.) The Regulations introduce more rigorous requirements for information about the polluting goods onboard ship and the requirement for emergency numbers of people with in depth knowledge of such goods, which should enable quicker reaction to incidents by UK SAR services.

e.) The Regulations add additional criteria for exemptions from reporting requirements. To be exempt from making some reports, ships now need to fulfil certain additional conditions; the impact of this is considered to be minimal in practice since the ships in question would already have the information to fulfil the conditions.



f.) The Regulations amend the confidentiality requirements for data gathered in accordance with the Directive, so that confidential data must be used in accordance with the Directive. This is an administrative measure aimed at the MCA and other authorities that has no effect on the ships within the scope of the Regulations.

Finally, the new Marine Shipping Notice makes some changes to the format and methods of reporting to SafeSeaNet, to support the Regulatory stance of reporting electronically wherever possible.

In addition, the MCA are making changes to their CERS system, which in turn requires the Ports to make changes to their data transfer systems where they use system to system transfer. The changes to CERS are mainly technical in detail, but the aim is to ensure all data transfers are properly electronic (eliminating the option of providing phone/fax details), so the information can always be accessed when needed, and meet the more rigorous requirements for information about the polluting goods onboard ship.

## **6. Costs of Option 1**

For the purposes of this impact assessment, the costs of Option 1 have been monetised to the extent that is possible and take account of the evidence that was provided during the consultation. However, given the limitations of the available evidence base, it has not been possible to monetise some of the costs and all of the benefits of Option 1. Where it has not been possible to monetise a cost or benefit, a full qualitative description of the cost or benefit has been provided in this impact assessment. Furthermore, it should be noted that the estimates presented in this section are sensitive to the assumptions and data sources used, and should therefore be treated as indicative orders of magnitude of these costs.

### **6.1. Cost to fishing vessels of fitting and maintaining AIS technology**

The requirements in the Regulations for fishing vessels with an overall length of more than 15 metres to fit and maintain AIS technology could impact on UK businesses that own and / or operate a) fishing vessels that are operating in UK waters; b) fishing vessels that are landing catch at a port in UK; and c) fishing vessels that are registered in UK.

#### **6.1.1. Costs to the owners and operators of existing UK registered fishing vessels of purchasing AIS transponders [Monetised]**

According to data extracted from the MCA Fleet Management System (FMS) in 2011, there are 646 fishing vessels between 15 and 45 metres in Overall Length registered on the UK flag at this time.

As a robust forecast of the proportion of these vessels that will remain on the UK flag during the appraisal period is not currently available, it has been necessary to make assumptions. These assumptions have been informed by estimates of the number of fishing vessels between 15 and 45 metres in Overall Length that have left the UK flag between 1 January 2000 and 31 December 2010, which have been made on the basis of data extracted from the MCA FMS. On the basis of this data, it is estimated that approximately 61 fishing vessels between 15 and 45 metres in Overall Length left the UK flag per year on average between 1 January 2000 and 31 December 2010. However, it is estimated that there was significant annual variation over this period. This annual variation could be due to decommissioning exercises operated by UK fisheries administrations which took place throughout the period (e.g. in 2001-2002 and 2003)<sup>3</sup>.

**Table 2. Estimates of the number of fishing vessels between 15 and 45 metres in Overall Length that left the UK flag per year on the basis of data from the MCA FMS**

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
68	43	174	123	57	42	35	31	38	20	36

For the purpose of this impact assessment, three scenarios have been developed to take account of the uncertainty regarding the proportion of these vessels that will remain on the UK flag during the appraisal period.

<sup>3</sup> [http://www.marinemanagement.org.uk/fisheries/statistics/documents/ukseafish/2010/structure\\_activity.pdf](http://www.marinemanagement.org.uk/fisheries/statistics/documents/ukseafish/2010/structure_activity.pdf)

High	Low	Central
This scenario assumes that none of these vessels will leave the UK flag in future years in the appraisal period. This is intended to be a conservative approach as it is expected that a proportion of these vessels will leave the UK flag during this period.	This scenario assumes that the number of fishing vessels between 15 and 45 metres in Overall Length that will leave the UK flag each year in future years during the appraisal period will be equal to the annual average between 1 January 2000 and 31 December 2010.	This scenario assumes that the number of fishing vessels between 15 and 45 metres in Overall Length that will leave the UK flag each year in future years during the appraisal period will be equal to the annual average between 1 January 2006 and 31 December 2010 as this period is likely to be more representative of current trends.
Under this scenario, it is therefore estimated that 0 vessels would leave the UK flag per year from 2012.	Under this scenario, it is therefore estimated that 61 vessels would leave the UK flag per year from 2012.	Under this scenario, it is therefore estimated that 32 vessels would leave the UK flag per year from 2012.

Furthermore, there is no evidence currently available on the proportion of these vessels that already have 'Class A' AIS transponders fitted. Therefore, it has been necessary to make another assumption. For the purposes of this impact assessment, it has been assumed that all of these vessels will need to fit a new 'Class A' AIS transponder as a result of the Regulations, although it is recognised that some of these vessels probably have a 'Class A' AIS transponder fitted. Some sensitivity analysis of this assumption is included in Section 6.1.3 of this impact assessment below.

The prices charged by several online suppliers of AIS equipment when this impact assessment was being prepared indicate that the cost of purchasing a 'Class A' AIS transponder is around £1,900 to £2,250 (2011 prices), with a Best estimate of around £2,075 (2011 prices) (the mid-point of the range). As it is expected that the operators would seek the lowest prices on the market, these estimates correspond to the simplest category of equipment available to fulfil the IMO requirements; the Directive states that any AIS fitted must meet performance standards drawn up by the IMO. For the purposes of this impact assessment, these prices are assumed throughout the appraisal period as a robust forecast of the price of AIS transponders is not currently available (i.e. it has been assumed that these prices will not change in real terms during the appraisal period). Should fishing vessels fit higher quality AIS equipment, giving the possibility of traffic display, the cost of purchasing an AIS transponder would be higher. However, this assumption is supported by the consultation response from the Scottish Fisherman's Federation which stated that the cost a new AIS unit is around £2,000.

It should be noted that the additional costs to existing UK registered fishing vessels of purchasing AIS transponders as a result of the Regulations could potentially occur at any time between the Regulations coming into force and the compliance dates listed in Article 18 of the Directive (which is replicated in Annex 3 of this impact assessment). The deadlines for each category of vessel and MCA estimates of the proportion of total number of vessels affected by this requirement that are in each category on the basis of data from the MCA FMS are described below.

- 182 UK registered fishing vessels of Overall Length 24 metres and upwards but less than 45 metres will need to comply not later than 31 May 2012 (28% of the total);
- 251 UK registered fishing vessels of Overall Length 18 metres and upwards but less than 24 metres will need to comply not later than 31 May 2013 (39% of the total); and
- 213 UK registered fishing vessels of Overall Length exceeding 15 metres but less than 18 metres will need to comply not later than 31 May 2014 (33% of the total).

The timing of when existing UK registered fishing vessels would purchase AIS transponders is therefore uncertain. No evidence is available on this issue or was received during the consultation. Therefore, for the purposes of this impact assessment, it has been necessary to make assumptions. Three scenarios are included to take account of this uncertainty and illustrate the full range of potential outcomes.

<b>Low</b>	<b>Central</b>	<b>High</b>
This scenario assumes vessels would not purchase AIS transponders until the deadlines listed above. Under this scenario, it is estimated that 28% of vessels would do it in 2012, 39% would do it in 2013 and 33% would do it in 2014.	This scenario assumes vessels would purchase AIS transponders half way between the introduction of the Regulations and the deadlines listed above. Under this scenario, it is estimated that 67% of vessels would do it in 2012 and 33% would do it in 2013.	This scenario assumes vessels would purchase AIS transponders as soon as the Regulations are introduced. Under this scenario, 100% of vessels would fit AIS transponders in 2011.

On the basis of the above assumptions, the additional costs to existing UK registered fishing vessels of purchasing AIS transponders are estimated as follows. However, it should be noted that these estimates are sensitive to the assumptions that have been made and the data sources that have been used. For example, it is possible that the prices of 'Class A' AIS transponders may change in future, such as in response to the increased demand for AIS equipment arising from Directive 2009/17/EC.

	<b>Low</b>	<b>Central</b>	<b>High</b>
2011			£1.45 million
2012	£0.31 million	£0.85 million	
2013	£0.39 million	£0.40 million	
2014	£0.29 million		
Total (Undiscounted)	£0.99 million	£1.25 million	£1.45 million
Total (Present Value)	£0.92 million	£1.20 million	£1.45 million

It should also be noted that the costs to the owners and operators of existing UK registered fishing vessels between 15 metres and 45 metres in length would only represent a cost to the UK if they fall on UK entities (e.g. UK businesses or consumers). Evidence from the MCA FMS indicates that almost all of these vessels are UK owned. Therefore, for the purpose of this Impact Assessment, the estimated costs to UK registered fishing vessels are used as a proxy for the costs to the UK and presented on the 'Summary: Analysis and Evidence' sheet. However, it should be noted that it is possible that some of these vessels do not operate to and from UK ports, so it is possible that some of these costs may be passed on to non-UK businesses or consumers.

### **6.1.2. Costs to the owners and operators of existing UK registered fishing vessels of replacing AIS transponders [Monetised]**

The consultation response from the Scottish Fisherman's Federation indicated that AIS units would need to be replaced every 5 to 10 years, and the consultation response from the Royal Institute of Navigation indicated that AIS units would need to be replaced every 7 years. For the purposes of this impact assessment, it is therefore assumed that AIS transponders would need to be replaced every 5 to 10 years, with a Best estimate of 7 years.

Given the assumptions regarding when UK registered fishing vessels would purchase AIS transponders that are set out in Section 6.1.1 above, it is consequently assumed that the AIS transponders purchased by these vessels as a result of the Regulations would need to be replaced as follows during the appraisal period.

<b>Low</b>	<b>Central</b>	<b>High</b>
This scenario assumes AIS transponders would be replaced every 10 years.	This scenario assumes AIS transponders would be replaced every 7 years.	This scenario assumes AIS transponders would be replaced every 5 years.
Under this scenario, it is estimated that no UK registered fishing vessels would replace their AIS transponders during the 10 year appraisal period.	Under this scenario, it is estimated that 67% of UK registered fishing vessels would replace their AIS transponders in 2019 and 33% would replace them in 2020.	Under this scenario, it is estimated that 100% of UK registered fishing vessels would replace their AIS transponders in 2016.

In addition, the assumptions regarding the number of vessels that will leave the UK flag each year during the appraisal period and the price of AIS transponders are in line with Section 6.1.1.

On the basis of the above assumptions, the additional costs to existing UK registered fishing vessels of replacing the AIS transponders purchased by these vessels as a result of the Regulations are estimated as follows.

	Low	Central	High
2016	£0	£0	£1.45 million
2019	£0	£0.54 million	£0
2020	£0	£0.25 million	£0
Total (Undiscounted)	£0	£0.79 million	£1.45 million
Total (Present Value)	£0	£0.59 million	£1.22 million

As in Section 6.1.1 above, for the purpose of this Impact Assessment, the estimated costs to UK registered fishing vessels are used as a proxy for the costs to the UK and presented on the 'Summary: Analysis and Evidence' sheet.

### **6.1.3. Sensitivity Analysis of the costs to the owners and operators of existing UK registered fishing vessels of purchasing and replacing AIS transponders**

As noted in Section 6.1.1 above, for the purposes of this impact assessment, it is assumed that currently none of the vessels in question have installed a 'Class A' AIS transponder voluntarily. However, this is probably not the case. Although no robust data is currently available, anecdotal evidence from the fishing industry suggests that around 20% of fishing vessels may have already fitted AIS that complies with the Directive (i.e. a 'Class A' AIS transponder). Furthermore, the consultation response from the Scottish Fisherman's Federation stated that it had carried out 105 vessel audits in 2011 and every one had AIS fitted; however, it did not specify whether the AIS was 'Class A' or 'Class B', so it is uncertain whether these vessels are already complying with the requirements of Directive 2009/17/EC.

Any vessels that already have a 'Class A' AIS transponder installed would not need to purchase one as a result of the Regulations. Furthermore, it is assumed that any vessels that already have a 'Class A' AIS transponder installed would replace it when required under the Do Nothing scenario. As such, it is assumed that there would not be any additional costs to such vessels as a result of this requirement of the Regulations. To the extent that existing UK registered fishing vessels have already installed 'Class A' AIS transponders, the estimates presented in Section 6.1.1 and Section 6.1.2 of this impact assessment would therefore represent overestimates of the additional costs to existing UK registered fishing vessels as a result of the Regulations.

For example, if it is assumed that 20% of fishing vessels have already installed 'Class A' AIS transponders, it is therefore estimated that a) the present value of the additional costs to existing UK registered fishing vessels of purchasing AIS transponders as a result of the Regulations would be reduced to around £0.74 to £1.16 million, with a Best estimate of around £0.96 million (2011 prices) (i.e. 20% lower); and b) the present value of the additional costs to existing UK registered fishing vessels of replacing AIS transponders as a result of the Regulations would be reduced to around £0 to £0.98 million, with a Best estimate of around £0.47 million (2011 prices) (i.e. 20% lower).

### **6.1.4. Other costs to the owners and operators of existing UK registered fishing vessels of maintaining AIS technology [Non-Monetised]**

Under Option 1, there could also be some further costs resulting from the need for vessel operators to maintain AIS technology going forward in the future, although it should be noted that AIS devices tend to be small self-contained units that do not require regular servicing. However, this potential cost is very uncertain as no evidence is currently available on this impact (e.g. no evidence on this impact was submitted during the consultation). Therefore, it has not been possible to monetise this cost in this impact assessment.

### 6.1.5. Costs to the owners and operators of new UK registered fishing vessels of AIS technology [Monetised]

It is expected that there would be additional costs to some new fishing vessels between 15 metres and 45 metres in length that join the UK flag during the appraisal period. The likelihood that such vessels would incur additional costs is expected to vary between different types of vessels. For example, it is expected that new build fishing vessels that are registered on the UK flag would be more likely to incur additional costs than vessels that were previously registered on other EU flags; in particular, vessels that join the UK flag from another EU flag after the relevant compliance date should already be complying with this requirement.

A robust forecast of the number of new fishing vessels between 15 metres and 45 metres in length that will join the UK during the appraisal period and will need to purchase a 'Class A' transponder as a result of the Regulations is not currently available. Therefore, it has been necessary to make a number of additional assumptions to monetise these costs. These assumptions have been informed by estimates of the number of fishing vessels between 15 and 45 metres in Overall Length that have joined the UK flag between 1 January 2000 and 31 December 2010, which have been made on the basis of data extracted from the MCA FMS. On the basis of this data, it is estimated that approximately 14 fishing vessels between 15 and 45 metres in Overall Length joined the UK flag per year on average between 1 January 2000 and 31 December 2010. However, it is estimated that there was significant annual variation over this period.

**Table 3. Estimates of the number of fishing vessels between 15 and 45 metres in Overall Length that joined the UK flag per year on the basis of data from the MCA FMS**

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
26	24	10	20	10	13	5	12	18	10	11

For the purpose of this impact assessment, three scenarios have been developed to take account of the uncertainty regarding the number of new fishing vessels between 15 metres and 45 metres in length that will join the UK during the appraisal period.

High	Low	Central
This scenario assumes that the number of fishing vessels between 15 and 45 metres in Overall Length that will join the UK flag each year in future years in the appraisal period will be equal to highest annual estimate between 1 January 2000 and 31 December 2010.	This scenario assumes that the number of fishing vessels between 15 and 45 metres in Overall Length that will join the UK flag each year in future years in the appraisal period will be equal to lowest annual estimate between 1 January 2000 and 31 December 2010.	This scenario assumes that the number of fishing vessels between 15 and 45 metres in Overall Length that will join the UK flag each year in future years in the appraisal period will be equal to annual average between 1 January 2000 and 31 December 2010.
Under this scenario, it is therefore estimated that 26 vessels would join the UK flag per year from 2012.	Under this scenario, it is therefore estimated that 5 vessels would join the UK flag per year from 2012.	Under this scenario, it is therefore estimated that 14 vessels would join the UK flag per year from 2012.

For the purposes of this impact assessment, it is also assumed that a) all of these vessels will need to purchase a 'Class A' AIS transponder and that they will do so in the year that they join the UK flag; and b) these vessels will remain on the UK flag for the remainder of the appraisal period. Furthermore, the price of AIS transponders is assumed to be around £1,900 to £2,250 (2011 prices), with a Best estimate of around £2,075 (2011 prices), in line with Section 6.1.1; and it is assumed that AIS transponders would need to be replaced every 5 to 10 years, with a Best estimate of 7 years, in line with Section 6.1.2.

On the basis of these assumptions, the present value of additional costs to new UK registered fishing vessels of purchasing AIS transponders and replacing them when necessary are estimated to be approximately £0.07 to £0.63 million, with a Best estimate of approximately £0.26 million. However, it should be noted that these estimates are subject to a range of uncertainties. For example, should some vessels that join the UK flag already have 'Class A' AIS transponders installed, this would reduce these estimates accordingly.

Nonetheless, as in Section 6.1.1 above, for the purpose of this Impact Assessment, the estimated costs to UK registered fishing vessels are used as a proxy for the costs to the UK and presented on the 'Summary: Analysis and Evidence' sheet.

#### **6.1.6. Costs to the owners and operators of non-UK registered fishing vessels of AIS technology [Non-Monetised]**

As noted above, Option 1 would apply to all fishing vessels which have an overall length of more than 15 metres which—

- are operating in United Kingdom waters;
- are landing its catch at a port situated in the United Kingdom; or
- are registered in the United Kingdom.

Therefore, under Option 1, it is possible that there could be additional costs to the owners and operators of non-UK registered fishing vessels that operate in UK waters and / or land their catches at ports situated in the UK. However, the magnitude of the potential additional costs to the UK is very uncertain and no evidence on the scale of this impact is currently available (e.g. no evidence on this impact was submitted during the consultation). The following considerations apply. Firstly, such fishing vessels registered in other Member States should be required to comply with the requirement following the transposition of the Directive by other Member States. Secondly, such fishing vessels registered in countries outside the EU may also operate in the waters of other Member States or land their catches at ports situated in other Member States, so the proportion of the costs of complying with this requirement that should be attributed to Option 1 is uncertain. Thirdly, it should also be noted that these costs would only represent a cost to the UK if they fall on UK entities (e.g. UK businesses and UK consumers). Therefore, it has not been possible to monetise this potential cost in this impact assessment.

#### **6.2. Cost to the MCA of modifying the Consolidated European Reporting System (CERS)**

The MCA is required to modify CERS in order to comply with the Directive. This will result in additional costs to the MCA compared to the Do Nothing scenario. However, work to modify CERS is already ongoing. Therefore, it should be noted that some of these additional costs have already been incurred by the MCA.

The modification of CERS is required because its primary function, with respect to the Directive, is the interface with the SafeSeaNet (SSN) system maintained by the European Maritime Safety Agency (EMSA). EMSA have modified SSN in order for it to handle the additional data requirements of the new Port State Control (PSC) Directive (Directive 2009/16/EC) and the more rigorous requirements of Directive 2009/17/EC for information about the polluting goods onboard ship and the requirement for emergency numbers of people with in depth knowledge of such goods. In order for the UK to fulfil its obligations under the Directive 2009/17/EC (and by extension, the Regulations) for reporting information into SSN, the MCA has to modify CERS so that CERS can still interact with SSN.

On the basis of the project tender submitted by the company that is carrying out the modifications to CERS, it is estimated that the transitional costs to the MCA of modifying the CERS in order to be able to exchange the additional information required by Directive 2009/17/EC and the new PSC Directive would be £768,000<sup>4</sup>. The major modifications are expected to be complete by 2012.

Furthermore, again on the basis of the project tender, additional maintenance costs to the MCA as a result of modifying the CERS have been estimated at £480,000<sup>4</sup> over the course of five years. It is assumed that these additional maintenance costs will be likely to continue into the future. Therefore, for the purposes of this impact assessment, it is assumed that 1/5 of these costs (around £96,000) will be incurred in each year of the 10 year appraisal period.

There is currently no evidence available that would enable the total additional costs to the MCA to be accurately apportioned between the changes required to satisfy the UK's obligations under each of the Directives. For the purposes of the associated impact assessments, it has been assumed that the additional costs to the MCA should be apportioned equally between the two Directives. Therefore, for the purposes of this impact assessment, the transitional costs to the MCA have been assumed to be

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<sup>4</sup> As this cost is based on a fixed-price tender bid, it can be considered an actual cost to MCA in current prices.

around £384,000 under Option 1 (i.e. 50% of around £768,000) and the additional maintenance costs have been assumed to be around £48,000 per year under Option 1 (i.e. 50% of around £96,000). For the purposes of this Impact Assessment, it is assumed that the transitional costs will be divided equally between 2011 and 2012 [calendar years] as per the milestones in the 'CERS 2' Project Plan. The direction of bias as a result of this assumption is uncertain.

Whilst it should be noted that the share of these costs that should be apportioned to the UK's implementation of each of the Directives is uncertain, this approach ensures that the total additional costs to the MCA are captured across both of these impact assessments.

### **6.3. Costs to ports**

Potential costs to ports could include necessary re-writing of procedures and computer software, maintenance of telephone/data lines and in some cases, subscription to third-party data service providers, in order to be compatible with the changes being made to the SafeSeaNet and CERS systems. These one-off costs could arise due to a) the abolition of the reporting option to provide phone/fax details of where to get the information, which is considered a non-electronic method of providing information, and b) adapting systems to interact with the modified version of CERS.

Eleven port authorities and service providers currently support system to system transfer of reports due under Directive 2002/59/EC. It is considered that these organisations would need to adapt their systems to interact with the modified version of CERS in order to provide the information required under the Regulations under Option 1 and the proposed 'Merchant Shipping (Port State Control) Regulations 2011', which would implement the PSC Directive into UK law.

Consultation responses from the Port of London and the Port of Felixstowe indicate that the costs could be around the £27,000 to £30,000 per organisation. These figures are used as the Low and High estimates in this impact assessment respectively, and a Best estimate of £28,500 is used (the mid-point of this range). For the purposes of this impact assessment, it is assumed that the other organisations that support the system to system transfer of reports would incur similar costs as no other estimates are currently available (i.e. that a total of eleven port authorities and service providers would incur these costs). On the basis of this assumption, the total costs to these organisations are estimated at approximately £0.30 to £0.33 million, with a Best estimate of approximately £0.31 million (i.e. the mid point of the range). However, it should be noted that the costs to the other organisations are likely to differ. For example, the consultation response from Associated British Ports indicated that whilst their costs would be of a similar order to the estimates provided by the Port of London and the Port of Felixstowe, their costs would probably be somewhat higher due to (for example) the additional cost of rolling out the new system to 21 locations.

As noted above, the modifications to CERS are required to satisfy the UK's obligations under both Directive 2009/17/EC and the new PSC Directive. The MCA envisage that the estimates provided by these ports relate to the total cost of adapting their systems in response to the modifications to the CERS system. However, there is currently no evidence available on the share of these costs that should be apportioned to each set of regulations. For the purposes of the associated impact assessments, it has been assumed that 50% of the costs to ports should be apportioned to the Regulations, and 50% should be apportioned to the proposed 'Merchant Shipping (Port State Control) Regulations 2011'. Therefore, for the purposes of this impact assessment, the costs to the ports as a result of the Regulations (Option 1) have been estimated at approximately £0.15 to £0.17 million, with a Best estimate of approximately £0.16 million. The direction of bias as a result of this assumption is uncertain. Whilst it should be noted that the share of these costs that should be apportioned to each of the regulations is uncertain, this approach ensures that the total costs are captured across both of these impact assessments.

The MCA believe that other ports would not need to modify their systems under Option 1. However, it is possible that some other ports may experience additional costs due to (for example) the need to collect extra information if this is not already routinely collected by ports. However, no evidence on these costs is currently available (e.g. no evidence on these costs was submitted during the consultation), so it is not possible to monetise any other costs to ports in this impact assessment.

### **6.4. Summary of Monetised Costs of Option 1**

Table 4 presents the Best estimates of the monetised costs of Option 1. For the purposes of this impact

assessment, it is assumed that the recurring CERS maintenance costs would start to be incurred in 2011.

**Table 4. Monetised Costs of Option 1 (Best estimates) (£ Million)**

	PV	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Costs of fitting AIS to existing UK registered fishing vessels</b>	1.79	0	0.85	0.40	0	0	0	0	0	0.54	0.25
<b>Costs of fitting AIS to new UK registered fishing vessels</b>	0.26	0	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.06	0.06
<b>Costs to the MCA of modifying and maintaining CERS</b>	0.79	0.24	0.24	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
<b>Costs to ports</b>	0.16	0.16	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>3.00</b>	<b>0.40</b>	<b>1.12</b>	<b>0.48</b>	<b>0.08</b>	<b>0.08</b>	<b>0.08</b>	<b>0.08</b>	<b>0.08</b>	<b>0.65</b>	<b>0.35</b>

#### **6.4. Other non-monetised costs of Option 1**

Given the limitations of the available evidence base (e.g. no evidence on these impacts was submitted during the consultation), the following costs have not been monetised in this impact assessment.

##### **a) Costs of bunker fuel reporting requirements**

It has been noted that the bunker fuel reporting requirements are being extended to vessels with bunkers of approximately 200 to 4,999 tonnes, but that these requirements would only become mandatory when a new 'mandatory ship reporting system' or an amendment to an existing system is submitted for IMO adoption by the UK, meaning that the UK would have to submit a proposal to the IMO to introduce a new way of reporting and it would then have to include the extended bunker fuel requirements. It is highly unlikely the UK would make such a proposal in the foreseeable future, but if a proposal was put forward by the UK, there could potentially be some additional costs for vessels that came under the new reporting regime and ports in dealing with the additional reporting requirements, although it should be noted that no evidence on of these costs is currently available (e.g. no evidence on this impact was submitted during the consultation). It should be noted that only the UK can propose a new Mandatory Ship Reporting System in its own waters.

##### **b) Costs of measures to deal with the presence of ice**

The measures to deal with the presence of ice would simply involve the MCA supplying vessels with information before they set off on a voyage where they will encounter ice. This will be dealt with as part of regular duties with no additional cost expected.

##### **c) Costs associated with reporting requirements related to exemptions**

The additional exemption criteria mean that the routes granted exemptions from the reporting requirements cannot be longer than 12 hours duration and that exempted vessels must inform the MCA of any deviations to the estimated time of arrival (ETA) of more than 3 hours. There could potentially be some additional costs to vessel operators of reporting this information to the MCA (e.g. staff time). Although it is not expected these costs would be significant, it should be noted that no evidence on these costs is currently available (e.g. no evidence on this impact was submitted during the consultation).

##### **d) Familiarisation costs**

The MCA has published information about the proposed changes and liaised extensively with the Ports and other affected parties through multiple stakeholder groups. These actions will minimise the costs for ship-owners and seafarers of becoming familiar with the new requirements of the Regulations, the residual cost of which is not considered to be significant, although it should be noted that no evidence on this cost is currently available (e.g. no evidence on this impact was submitted during the consultation).



## **7. Benefits of Option 1**

Estimating the exact impacts of Option 1 on maritime safety in the UK is not possible because of the lack of an available evidence base and the fact that most of the introduced measures would be incremental and therefore the effects would only be seen over a long period of time. However, Option 1 should assist in enhancing the safety and efficiency of maritime traffic, improving the response of authorities to incidents, accidents or potentially dangerous situations at sea, and contributing to better prevention and detection of pollution by ships, due to the more rigorous requirements for information about the polluting goods onboard ship and the requirement for emergency numbers of people with in depth knowledge of such goods, enabling quicker reaction to the incident.

Table 1 illustrates the potentially significant costs associated with maritime oil pollution incidents. In addition, DfT WebTAG guidance<sup>5</sup> suggests an average value of avoiding a fatality of around £1.6 million in 2009 prices in the context of road users, which WebTAG suggests should be used in the appraisal of maritime interventions in the absence of other evidence. This evidence provides some context since it illustrates the potential for benefits to arise from interventions that make the marine environment safer and better controlled. However, the contribution of Option 1 is difficult to ascertain with any certainty, and it should be noted that no quantitative evidence is currently available on the impact of Option 1 on safety (e.g. no evidence on this impact was submitted during the consultation).

Any additional benefit deriving from mandating that fishing vessels between 15 metres and 45 metres in length install and use AIS is also difficult to quantify.

## **8. Risks to implementation**

There is a risk that the MCA 'CERS 2' system will not be ready by the implementation date. 'CERS 2' is the UK's interface with SafeSeaNet, and allows transfer of data to the EU to fulfil obligations within the Directive. While ports and ships would be complying with the new legal requirements, 'CERS 2' input would be compromised as the system, while already operational, would not be 'up to speed' with the new requirements, which would affect data collection by the European Commission.

## **9. Wider Impacts of Option 1**

### **9.1. Penalties**

The only new offence being introduced is for fishing vessels that do not carry AIS. The penalty for any contravention of the Regulations would be a fine not exceeding the statutory maximum and on conviction on indictment by imprisonment for a term not exceeding two years or a fine, or both. This is the same as the penalties in the original Regulations for non-carriage of AIS. Since the implementation of the original Directive, no enforcement action has taken place in relation to the Directive. As the new offence is relatively minor in the overall enforcement picture, no increase in the amount of enforcement action is therefore foreseen.

### **9.2. Equalities Assessment**

Option 1 would have no effect, positive or negative, on outcomes for persons in relation to their age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation. An equalities proforma is included at Annex 2 of this impact assessment.

### **9.3. Competition Assessment**

The Regulations apply equally to all ports throughout the UK and to ships calling in at UK ports. Issues would not arise in respect of competition with other European ports as the Directive is required to be implemented equally by all Member States.

Equally, all fishing vessels over 15 metres in length that operate in the EU would be required to carry AIS, regardless of the state in which they are registered, so there would be no competitive advantage for vessels of this size that are registered on a different flag. Whilst smaller fishing vessels would not be

<sup>5</sup> <http://www.dft.gov.uk/webtag/documents/expert/unit3.4.1.php>.

required to carry AIS, the installation of AIS is considered a small cost relative to the costs of operating a fishing vessel.

#### **9.4. Small Firms Impact Test**

The MCA, through stakeholder liaison with industry, have already made small firms (in this case small ports and fishing vessel operators) aware of the amendments to the Amending Directive that affect them.

In the case of fishing vessels, the MCA believes that some operators will have already installed AIS ahead of the legislative requirement. The installation of AIS is also considered a small cost relative to the costs of operating a fishing vessel. Consequently, it is anticipated that this amendment will have a limited impact.

#### **10. One In One Out**

This measure is not in scope of OIOO as it is from a European origin.

# Annexes

Annex 1 should be used to set out the Post Implementation Review Plan as detailed below. Further annexes may be added where the Specific Impact Tests yield information relevant to an overall understanding of policy options.

## Annex 1: Post Implementation Review (PIR) Plan

A PIR should be undertaken, usually three to five years after implementation of the policy, but exceptionally a longer period may be more appropriate. If the policy is subject to a sunset clause, the review should be carried out sufficiently early that any renewal or amendment to legislation can be enacted before the expiry date. A PIR should examine the extent to which the implemented regulations have achieved their objectives, assess their costs and benefits and identify whether they are having any unintended consequences. Please set out the PIR Plan as detailed below. If there is no plan to do a PIR please provide reasons below.

<p><b>Basis of the review:</b> [The basis of the review could be statutory (forming part of the legislation), i.e. a sunset clause or a duty to review, or there could be a political commitment to review (PIR)];</p> <p>There is likely to be a review by the European Commission following the implementation of the Directive to look at how closely the provisions have been transposed. In addition, we will conduct a review within five years after the completion of implementation to ascertain the impact of the changes in Regulation as per the duty to review in the SI.</p>
<p><b>Review objective:</b> [Is it intended as a proportionate check that regulation is operating as expected to tackle the problem of concern?; or as a wider exploration of the policy approach taken?; or as a link from policy objective to outcome?]</p> <p>Our review objective will be to check whether the Shipping Industry is complying with the new Regulations and also whether they are having the desired effect on improving safety as well as having regard to how other Member States are implementing the Amending Directive.</p>
<p><b>Review approach and rationale:</b> [e.g. describe here the review approach (in-depth evaluation, scope review of monitoring data, scan of stakeholder views, etc.) and the rationale that made choosing such an approach]</p> <p>The review will include running reports on the CERS system to check the extent of any gaps in reporting and to liaise with stakeholder groups/forums to gain views on whether the measures have had the desired effect.</p>
<p><b>Baseline:</b> [The current (baseline) position against which the change introduced by the legislation can be measured]</p> <p>Current gaps in reporting according to CERS data reports, current number of fishing vessels fitted with AIS.</p>
<p><b>Success criteria:</b> [Criteria showing achievement of the policy objectives as set out in the final impact assessment; criteria for modifying or replacing the policy if it does not achieve its objectives]</p> <p>Success will be based on a percentage of compliance with the measures laid out in the Regulations.</p>
<p><b>Monitoring information arrangements:</b> [Provide further details of the planned/existing arrangements in place that will allow a systematic collection of monitoring information for future policy review]</p> <p>CERS will collect the information needed to be able to review the effectiveness of the measures.</p>
<p><b>Reasons for not planning a review:</b> [If there is no plan to do a PIR please provide reasons here]</p> <p>N/A</p>

## Annex 2 – Statutory Equalities Impact Assessment

<p><b>Name of the function, policy or strategy:</b> Implementing the Vessel Traffic Monitoring Amending Directive into UK Domestic Law</p> <p><b>Proposed:</b> Regulation</p>							
<p><b>Person completing the assessment:</b> Mark Towl, Maritime and Coastguard Agency</p> <p><b>Date of assessment:</b> 15/12/10</p>							
<p><b>Purpose of the function, policy or strategy:</b> To amend SI 2004/2110 Merchant Shipping (Vessel Traffic Monitoring and information systems) Regulations and SI 1997/2367 (Dangerous Goods and marine Pollutants) Regulations, to incorporate the requirements of Directive 2009/17/EC.</p>							
<p>Questions - Indicate Yes, No or Not Known for each group</p>	Gender	Religion or Belief	Age	Disability	Ethnicity and Race	Sexual Orientation	Transgender
Is there any indication or evidence that different groups have different needs, experiences, issues or priorities in relation to the particular policy?	No	No	No	No	No	No	No
Is there potential for, or evidence that, this policy may adversely affect equality of opportunity for all and may harm good relations between different groups?	No	No	No	No	No	No	No
Is there any potential for, or evidence that, any part of the proposed policy could discriminate, directly or indirectly? (Consider those who implement it on a day to day basis)?	No	No	No	No	No	No	No
Is there any stakeholder (staff, public, unions) concern in the policy area about actual, perceived or potential discrimination against a particular group(s)?	No	No	No	No	No	No	No
Is there an opportunity to better promote equality of opportunity or better community relations by altering the policy or working with other government departments or the wider community?	No	No	No	No	No	No	No
Is there any evidence or indication of higher or lower uptake by different groups?	No	No	No	No	No	No	No
Do people have the same levels of access? Are there social or physical barriers to participation (e.g. language, format, physical access/proximity)?	No	No	No	No	No	No	No

## **Annex 3 – Article 18 of Directive 2009/17/EC**

Fishing vessels with a length of more than 15 metres overall are subject to the carrying requirement laid down in Article 6a according to the following timetable:

— fishing vessels of overall length 24 metres and upwards but less than 45 metres: not later than 31 May 2012,

— fishing vessels of overall length 18 metres and upwards but less than 24 metres: not later than 31 May 2013,

— fishing vessels of overall length exceeding 15 metres but less than 18 metres: not later than 31 May 2014.

New built fishing vessels of overall length exceeding 15 metres are subject to the carrying requirement laid down in Article 6a as from 30 November 2010.