Australian Government

Australian Maritime Safety Authority

Survey under the National System for Domestic Commercial Vessel Safety

Decision Regulation Impact Statement

April 2017

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Executive summary

On 1 July 2013, the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012* (National Law) took effect and the National System for Domestic Commercial Vessel Safety (national system) began. The national system brought eight sets of rules together into one national scheme and is based on nationally-agreed standards for commercial vessels.

One of the standards which is applied under the National Law is the National Standard for the Administration of Marine Safety, Section 4, Surveys of Vessels (NSAMS 4). NSAMS 4 sets out the survey requirements (including survey frequency and depth) for vessels in survey, and also identifies those vessels which are not subject to survey.

Vessel survey is a process whereby a qualified person confirms that a vessel is built and maintained to the required design, construction and equipment standard. A vessel that is built and maintained to the required standard is less likely to be involved in an incident and, where an incident does occur, it is less likely to result in a serious or fatal injury.[1] By supporting safety in the Australian domestic commercial vessel fleet, vessel surveys provide considerable indirect benefits to the maritime industry and the Australian economy.

For both the national regulator (the Australian Maritime Safety Authority [AMSA]) and the operator, survey is a risk mitigation tool. However, survey is also a compliance cost to the operator and, where survey is subsidised by governments, a cost to the government. It is therefore important to ensure that regulated survey obligations match the risk of the vessel and the operation, account for modern technology and are flexible enough to allow operators to minimise the cost of complying by aligning survey with other maintenance activities. For more information on survey and the current survey requirements of the national system, see the following webpages and fact sheets:

- Certificates of survey
- Guidance notice: certificates of survey and vessels exempt from survey
- Guidance notice: Initial survey

In 2014, a ‘streamlining review’ of the national system was undertaken. This review recognised that the national system was an amalgamation of the eight previous state, Northern Territory and Commonwealth regimes and needed to be reviewed in order to ensure that the regulatory arrangements were efficient and effective. The streamlining review determined that:

- there would be considerable benefits for industry and the national regulator (AMSA) in re-aligning survey activities with risk
- simplifying the regulations and rules would lead to more consistency in the application and interpretation of the requirements.

Government action is needed in order to implement the outcomes of the streamlining review and improve safety, remove unnecessary red tape and improve administrative efficiency and fairness by accounting for the risks of individual operators.

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[1] The design, construction and equipment standards to which domestic commercial vessels are subject have been developed on a risk basis. See the AMSA website for more information.

Three options are considered by this Council of Australian Governments (COAG) Regulation Impact Statement (RIS) for achieving the objectives: maintaining the current survey regime without amendment (option 1); no regulated minimum survey requirements (option 2); and amending the survey regime (option 3). Option 3 includes four sub-options, covering different elements of the survey regime including:

A. the periodic survey regime

B. the survey 'modifiers' ('high risk' operations and vessel attributes that change the survey requirements which would otherwise apply to the vessel)

C. national system survey limits (the point at which a vessel must be in classification society survey. A classification society is a non-governmental organisation that establishes and maintains technical standards for the construction and operation of commercial ships. Ship 'classification' verifies the structural strength and integrity of a vessel and its systems. For more information on classification societies under the national system see the AMSA website.

D. survey arrangements and depth (who carries out the survey and what aspects of the vessel must be surveyed).

The impact of each sub-option has been separately analysed in this RIS.

The draft instrument implementing option 3 (including all four sub-options), *Marine Order 503 (Certificates of survey – National Law) 2013* (Marine Order 503), together with this RIS and the regulatory costing, were subject to public consultation from 17 August 2015 to 12 October 2015. Comments from stakeholders were invited on the details of the sub-options as well as on alternative options for amending the survey regime in order to achieve the objectives. Fourteen submissions were received. These were generally supportive of the proposed reforms and focused on the details of the sub-options of option 3, which were amended in light of the comments.

Option 1 would retain the current regulatory arrangements. This means that the current survey arrangements would continue, which are not fully aligned with risk. This option would not address the problem or achieve the objectives of the national regulator. As such, option 1 is not preferred.

Option 2 involves removing the regulated minimum survey requirements. This option does not allow survey requirements to be matched to the risk of the vessel, operation and operator. A higher survey frequency would not apply to high risk vessels, such as ferries, potentially posing a risk to safety. Option 2 is not considered to be preferable due to the safety and economic implications of no regulated minimum survey requirements.

Option 3, amending the survey regime, would simplify the regulations and better align survey requirements with risk, so that safety is maintained but compliance costs are reduced. This option, if all sub-options are implemented, will address the problem and achieve the objectives. It represents an estimated $97 million in quantified net benefits to the community as a whole compared to option 1 over a 10-year period (from 2018 to 2028) in 2017 dollars, if all four sub-options are implemented. This does not include numerous unquantified benefits, such as the ability to adjust survey requirements on an individual vessel basis, providing greater flexibility to reduce out-of-water surveys where risks are mitigated through other measures, and allowing

surveys to be more easily aligned with other vessel maintenance activities. This RIS identifies option 3 (including the four sub-options) as the preferred option with the greatest net benefit.

1. Introduction

This chapter provides an introduction to the national system and outlines the requirements of current survey regulations, the RIS requirements and the structure of this RIS.

1.1 The National System for Domestic Commercial Vessel Safety

The National Law came into force on 1 July 2013. The regulatory arrangements of the national system were developed collaboratively with the states, Northern Territory and the Commonwealth.

The regulations covering survey are contained in Marine Order 503 (Certificates of Survey) which applies NSAMS 4. Authority for making and amending the survey regime is granted under sections 38, 159, 163, and 164 of the National Law.

1.2 The Regulation Impact Statement requirements

Any changes to survey arrangements will be implemented through amendments to Commonwealth regulations, which are subject to the oversight of the COAG Transport and Infrastructure Council, comprising Commonwealth and state and territory ministers with responsibility for the maritime sector. As such, this RIS has been prepared to meet the requirements of the Office of Best Practice Regulation (OBPR) *COAG Best Practice Regulation - A Guide for Ministerial Councils and National Standard Setting Bodies,* October 2007 (COAG Best Practice Regulation Guide).

The COAG Best Practice Regulation Guide applies to decisions of COAG, Ministerial Councils and intergovernmental standard setting bodies that are implemented through regulation or through codes and advisory instruments for which there is a reasonable expectation of widespread compliance. The OBPR approves RISs for both public consultation and decision making. This RIS has been reviewed and approved by the OBPR.

1.3 The decision-maker

This RIS considers proposed changes to the arrangements provided by a domestic commercial vessel marine safety standard—NSAMS 4—including the repeal of the current NSAMS 4 and the incorporation of the survey standard into Marine Order 503 and other documents.

In 2015, the COAG Transport and Infrastructure Council delegated the power to approve marine safety standards for domestic commercial vessels to AMSA as the national regulator. AMSA also has authority under the National Law to develop and maintain subordinate legislation, including Marine Order 503. As a result, the Chief Executive Officer of AMSA is the relevant decision-maker for this RIS.

1.4 The structure of this Regulation Impact Statement

In accordance with the COAG Best Practice Regulation Guide, this RIS includes:

- a statement of the problem sought to be addressed (chapter 2)

- a statement of the objectives sought to be achieved (chapter 3)
- identification of options by which the objectives can be achieved (chapter 4)
- impact analysis of the options, including an assessment of the costs and benefits of each alternative option (chapter 5)
- a statement of the stakeholder consultation undertaken (chapter 6)
- an evaluation of the alternative options, and the conclusion as to which option involves the greatest net benefit for or the least net cost to the community (chapter 7)
- information on how the preferred option will be implemented and reviewed (chapter 8).

Appendix A lists the assumptions used to estimate quantifiable costs and benefits in this RIS. **Appendix B** provides a regulatory costing for the preferred option in this RIS. Information on two complementary reforms to the proposal in this RIS is provided at **appendix C**. Stakeholder comments from the streamlining review relevant to the proposal is provided in **appendix D**.

2. The need for government action

This chapter outlines the underlying problems identified by stakeholders and the need for government action to address these.

Individuals and organisations were invited to comment on the problems outlined here, including their impacts and scope, and to suggest other problems not already identified here. The comments received from stakeholders on the need for government action, together with a response to these, are provided in chapter 6 of this RIS.

2.1 Current survey arrangements

Survey requirements

The current regulations (Marine Order 503) require a new vessel to be surveyed (also referred to as being 'in survey') if it will be:

- greater than or equal to 7.5 m in length
- carrying passengers
- operating beyond sheltered waters
- otherwise high risk.

For existing vessels involved in commercial activity in the two years prior to the commencement of the national system (ie before 1 July 2013), the regulations permit the vessel to continue to comply with the survey regime that applied to the vessel prior to 1 July 2013. In other words, the pre-existing survey requirements are grandfathered. This grandfathering arrangement applies indefinitely, unless a vessel is modified, changes its area of operations or changes the nature of its operations in way that increases risk.

For new vessels, and other vessels which are subject to NSAMS 4[2], NSAMS 4 requires these vessels to undergo initial and then periodic surveys. The frequency of periodic survey depends on the vessel, and ranges from annual to five-yearly surveys, or an initial survey only for some vessels.

Overview of the survey process

Where a survey is required, the vessel owner must complete an Application for a certificate of survey for a domestic commercial vessel and submit it along with supporting material (including the vessels' plan) to a state or territory marine safety agency who will process the application on AMSA's behalf. The vessel owner must also pay an application fee set by the state or territory marine safety agency.

Operators must ensure that vessels are surveyed by an accredited surveyor, which may be a government or private surveyor. Surveyors must be accredited under the National Law (as

[2] Many existing vessels were subject to NSAMS 4 prior to 1 July 2013, in which case it continues to apply. In addition, existing vessels may elect to be treated as a new vessel.

accreditation is a new concept in many jurisdictions, transitional arrangements are in place for current surveyors—see the Accredited marine surveyors page on AMSA's website.

The accredited surveyor must then carry out the survey in accordance with the survey schedules provided in NSAMS 4, which identify what aspects of the vessel are reviewed at each survey. Survey reports must be provided to the national regulator (or its delegates). The following information on the vessel survey process is extracted from the previous Regulation Impact Statement on NSAMS 4, which was completed in 2007.

The initial survey process[3]

The initial survey process is designed to ensure that the vessel plans are checked to ensure that they comply with these standards and adequately address these risks. The construction of the vessel is overseen to ensure that the vessel is built to the standards detailed in the plans. The vessel also undergoes trials to ensure that the completed vessel conforms to the plans and that the machinery onboard is adequate to the task of ensuring the safe operation of the vessel.

NSAMS 4 divides the initial survey of a vessel into three phases:

- Design phase: the verification of the processes and outcomes of activities that define the overall concept and detailed design of a vessel prior to the actual physical execution of construction for compliance with requirements specified in applicable legislation and applicable standards. Design phase surveys may include, but are not limited to, the review of plans, design calculations and building specifications.
- Construction phase: the verification of the processes and outcomes of activities undertaken during the course of construction for compliance with requirements specified in applicable legislation and applicable standards. Construction phase surveys may include, but are not limited to, verification that the vessel is built in accordance with design documentation, quality of workmanship, quality of materials.
- Commissioning phase: the verification of safety outcomes for compliance with requirements specified in applicable legislation and applicable standards prior to the vessel being allowed to operate. Commissioning phase surveys may include, but are not limited to, trials and tests of the vessel (including stability) and systems essential to safety, and verifying the quantity, type and availability of safety equipment and safety information.

There are a large range of vessels that are built in a production process. Requiring every vessel to go through an individual survey process would duplicate effort and be unnecessarily expensive. NSAMS 4 makes provision for production vessels to go through streamlined survey processes, subject to checks that are intended to identify potential failures in maintaining safety standards. NSAMS 4 also allows for designs to be 'type approved', which means that design approval is not required for each individual vessel.

The periodic survey process[4]

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3 Regulation Impact Statement, National Standard for the Administration of Marine Safety, Section 4, 2007

4 Regulation Impact Statement, National Standard for the Administration of Marine Safety, Section 4, 2007

Once a vessel has passed initial survey it then enters service. Once it begins operations the risk of being involved in a marine incident is affected by a number of factors, including:

- age of vessel
- construction material
- number of passengers
- area of operation
- vessel complexity.

The various ways in which vessels may become involved in marine incidents leads in turn to a series of risks inherent in vessel design, construction and maintenance that need to be addressed through the periodic survey process.

Not every item on board a vessel needs to be inspected every year. This would be unnecessary to ensure the safety of the vessel and crew and would be expensive and time consuming.

NSAMS 4 outlines the intended periodic survey regime for commercial vessels. A periodic survey is carried out to ensure that the vessel is maintained and that the vessel and its operators are able to address the various safety issues.

Upon completion of the periodic survey, a surveyor would make a statement of compliance, conditional compliance or non-compliance. A statement of non-compliance would include a list of deficiencies identified during the survey process. A statement of conditional compliance would list a program of actions to correct current or future deficiencies identified or may set limits on the vessel's use.

Vessels 35 metres and longer

Under the national system, new vessels 35 metres and longer in measured length are currently required to be in 'class'. This means they are subject to survey by a classification society, not by a national system accredited surveyor.

2.2 Survey and safety

How survey supports safety

As shown by the process described above, survey helps to ensure that a vessel meets the necessary standards for construction, stability and safety equipment. Vessels must undergo an initial survey, which includes design approval, inspection during construction of the vessel, stability approval and operational trials to confirm the vessel's safe handling and the performance of its machinery and equipment. Once in operation, vessels are also surveyed periodically to make sure the vessel and its equipment (including safety, radio, machinery and navigational equipment) are well maintained and continue to perform to the required standard.

A survey regime contributes to safety by ensuring that vessels meet the required design, construction and equipment standard, are fit for purpose and are well equipped and maintained. A vessel that is built and maintained to the required standard is less likely to be involved in an incident, and, where an incident does occur, the incident is less likely to result in death or serious

injury. [5] This is because the standards for stability, watertight integrity, fire safety, safety equipment and other key systems on the vessel are designed to prevent incidents, and to protect persons on board the vessel where an incident does occur. Ensuring that the key aspects and systems of the vessel meet the required standards and are in good working order protects those on board the vessel and the marine environment.

Incident data

While there is only limited research or other data available to measure the impact of survey on vessel safety, the National Marine Safety Committee's 2009 report, *Commercial Vessel Incidents in Australia 2005-2008*, found that material factors (such as hull failure, equipment failure and lack of maintenance) contributed to 18 per cent of the reported 2760 reported marine incidents involving domestic commercial vessels. These risk factors are directly addressed by a vessel survey regime. Without mandated minimum survey requirements, AMSA considers the number of incidents caused by material factors would be likely to significantly increase.

Higher risk vessels (such as passenger carrying vessels, vessels operating a long way offshore and vessels carrying dangerous goods) are subject to a more onerous initial survey process and more frequent periodic surveys to reflect the potential safety risks they pose to people on board the vessel and the marine environment. Lower risk vessels (such as human-powered vessels, sail craft and small passenger vessels) are subject to less onerous survey requirements, with many not subject to survey at all, reflecting the low safety risks they pose.

Economic benefits of survey

By supporting safety in the Australian domestic commercial vessel fleet, vessel surveys provide considerable indirect benefits to the maritime industry and the Australian economy. For example, a poor safety record or significant safety incident could reduce demand for domestic commercial vessel operations in Australia. This may affect the livelihoods of those operating or employed in the industry and impact on the efficiency and competitiveness of the broader economy.

It is important to note that survey requirements do not drive the need for operators to update equipment and maintain vessels. Design, construction, equipment and maintenance standards (such as the National Standard for Commercial Vessels and the Uniform Shipping Laws Code) require vessels to be built, equipped and maintained to a certain standard. The survey regulations do not impose costs in terms of updating equipment or maintaining the vessel. The purpose of survey is to confirm compliance to the design, construction, equipment and maintenance standards, and the costs of survey are limited to the survey process (and associated administrative, operational, delay, travel and time costs).

2.3 Costs of survey

A survey regime also entails costs. As detailed in chapters 5 and 6 of this RIS, a survey by a national system accredited surveyor costs (on average) between $500 and $17,000, depending on the size of the vessel and type of survey. There are also administrative, operational, delay,

[5] Survey confirms that a vessel meets the required standard. The safety benefits of complying with a commercial vessel standard has been previously identified in past Regulation Impact Statements for amendments to various sections of the National Standard for Commercial Vessels.

travel and time costs associated with survey. Unnecessarily high compliance costs can reduce the competitiveness of operators and flow through to higher costs for other sectors of the economy.

As survey is administered and often subsidised by state and territory governments, including through the use of government employed surveyors, there is also a cost to government and ultimately the taxpayer. Unnecessary government subsidies can increase the tax burden and divert scarce public sector funds from other important activities elsewhere in the economy.

Overall, survey can be seen as a risk mitigation tool for operators and for the national regulator. However, survey is also a compliance cost to the operator and government. It is therefore important to ensure that regulated survey obligations match the risk of the vessel and the operation, while minimising the compliance burden to those affected by them.

2.4 Initial review

In 2014, a 'streamlining review' of the national system was undertaken with agreement from national transport ministers. This review recognised that the national system was an amalgamation of the eight previous state, Northern Territory and Commonwealth regimes and needed to be reviewed in order to ensure that the regulatory arrangements were efficient and effective, and were achieving safety and economic returns.

As part of the review, stakeholders were asked to identify inefficiencies, safety gaps and other concerns they had with the regulatory arrangements of the national system, including the current survey arrangements.

Face-to-face consultations were undertaken around Australia, including at 24 open consultation sessions attended by approximately 800 stakeholders, one round table discussion with key industry representatives and presentations at industry association meetings. A total of 79 written submissions were received from stakeholders in response to the streamlining review, with many providing comments on current survey arrangements. These comments are discussed in this RIS.

A risk analysis of the current fleet and the current regulatory arrangements was also undertaken as part of the streamlining review. This found that risks may be more effectively controlled through a greater emphasis on holistic safety management than through vessel survey and certification in some circumstances.

Documents released as part of the streamlining review, including a full report on the consultation undertaken and the feedback received from stakeholders on current survey arrangements, are available on the AMSA website.

2.5 Identifying the problem

The outcomes of the streamlining review and risk analysis identified a range of problems with current survey arrangements. The problems identified by stakeholders were particularly important as they were drawn from the experience and insights of those subject to the current survey regulations.

The problems identified can be summarised as follows:

1. **Survey requirements are not well aligned with risks**

Survey requirements for lower risk vessels

Stakeholders submitted that there is a need to better match mandated survey requirements to the risks of the individual operator, vessel and operation. Lower risk vessels in particular, such as human powered vessels, sail craft, vessels in sheltered waters, in inland waters, operating close to shore, in aquaculture operations, and small passenger vessels, were seen as being subject to far too onerous survey obligations under the current regulations. A mismatch between survey requirements and safety risks can impose unnecessary compliance costs on operators and make them less competitive.

Creating a safety culture

They also felt that the current arrangements did not support the implementation of strong maintenance practices as they did not provide an incentive for operators to maintain the vessel to the required standard through, for example, reduced survey requirements. Stakeholders felt that a greater focus on proactive safety management by operators, including through safety management systems, would also allow for a reduction in minimum legislated survey requirements. Where the survey regime does not take into account complimentary mechanisms to address safety risk, it can impose unnecessary compliance costs on operators and make them less competitive.

In addition, stakeholders saw that the current survey regulations created incentives for holding onto older vessels due to their grandfathered survey status. As set out above, vessels in operation prior to 1 July 2013 can continue to comply with their pre-national system survey regime. Where these ‘grandfathered’ survey requirements are less onerous than the national system arrangements, there is an incentive for operators to hold onto older vessels with grandfathered status, rather than to upgrade to new, modern vessels which would be required to meet the current survey regulations. Older vessels subject to a less onerous survey regime can pose a safety risk to people onboard the vessel and the marine environment.

Complicated regulations

Stakeholders also submitted that the regulations and rules for vessel survey were unnecessarily difficult to access, identify and apply, which lead to inconsistency in the application and interpretation of the requirements. They felt that the complexity of the current survey regulations did not support consistent survey advice from marine safety agencies and accredited surveyors. This can distort the market by imposing unnecessary compliance costs on some operators, while providing a competitive advantage to others. There may also be potential safety risks where survey requirements are not being applied as intended.

Extent of the problem

The lack of alignment of the current survey regulations with the risks of a vessel and its operation, the lack of incentive created for operators to proactively manage risks, and the complexity of the current survey regulations, potentially affect all 13,900 vessels currently in survey under the national system and the approximately 1000 new vessels which enter the fleet each year that would be in survey under the current arrangements. However, it is not possible to identify the exact number of vessels impacted by these problems, or the

likely costs they may impose, without making assumptions about what the solution should be.

In addition, the complexities of the current survey regulations have broad industry impacts by making it more difficult to identify, apply and/or comply with the survey requirements. This problem affects all operators, boat builders and designers, the national regulator and its delegates, public and private surveyors and classification societies. For example, boat builders have to understand and comply with the initial survey requirements when constructing a commercial vessel (as the vessel is generally reviewed during both the design phase and the construction phase).

Extent of the safety impact

It is emphasised that the problem is not predominantly about safety. The current survey regime is seen by AMSA and stakeholders as supporting a strong level of safety in the domestic commercial fleet. The question raised by stakeholders, and through the risk analysis undertaken as part of the streamlining review, is whether the same level of safety can be achieved with a reduced regulatory burden.

However, stakeholders did identify some safety gaps in the current arrangements that should be addressed, in particular the safety implications of the grandfathering arrangements. Although the safety impact of the current survey arrangements is considered to be low at this point, as the fleet ages, the incentives created by the current survey regulations to hold onto older vessels with grandfathered survey status will create a more significant safety issue.

Older vessels are subject to older standards which do not provide the same level of safety as the current design and construction standards. With the exception of equipment standards, modern design and construction standards are generally not retrospectively applied to older vessels, as the cost of compliance would be prohibitive. In addition, as vessels age, their systems are more likely to experience problems and incidents are more likely to occur. As such, creating strong incentives to hold onto older vessels could lead to more incidents, injuries, serious injuries and deaths in the domestic commercial vessel fleet.

There are 6000 vessels in Queensland that are potentially operating under grandfathered survey exemption arrangements, which would not apply to the equivalent new vessel entering the fleet in Queensland. This issue is most significant in Queensland, as the other states and the Northern Territory had survey regimes prior to 1 July 2013 that were similar to the current survey regulations of the national system. As such, this problem is estimated to affect around 6000 vessels nationally. The problem will become more significant (in terms of safety outcomes) over time as the grandfathered fleet ages.

Summary

Overall, this problem is a result of the current survey regime and cannot be addressed by the market or other regulations. If left unaddressed, it will continue to impose unnecessary compliance costs and (in some cases) safety risks, particularly in future years as the fleet ages. Government action is needed to address this problem.

2. The survey modifiers for high-risk vessels and operations require review

The 'high risk' list

Stakeholders submitted that there is a need to review the list of 'high risk' vessel attributes, in particular to reconsider the lifting or slewing potential criteria, the three tonne cut-off for cranes, the treatment of barges and the definition of fast craft. Stakeholders felt that the current 'high risk' list does not capture some very risky operations, and yet does capture some relatively low risk operations.

The 'high risk' list is used to subject vessels with certain 'high risk' attributes, such as carrying dangerous goods, being able to operate at high speeds or having a large deckload, to more onerous survey requirements than those which would otherwise apply to the vessel. This increased oversight reflects the likelihood of injuries or damage to property and the marine environment as a result of the risks associated with the attribute of the vessel or operation.

Implications of an inaccurate 'high risk' list

The 'high risk' list is fundamental to ensuring that the survey regulations are risk-based, and that the survey obligations reflect the level of risk of a vessel and its operations. An inaccurate 'high risk' list can impose unnecessary compliance costs on some operators, where vessels that are not high risk are captured. These vessels would be subject to unnecessary and costly survey requirements, which may reduce their competitiveness or be passed on as higher costs to consumers.

In addition, an inaccurate list can create a 'safety gap' where some high-risk vessels are not captured by the list, and as a result are not subject to adequate survey requirements. If the survey requirements are not adequate, there is a higher chance that the vessel will not meet the applicable design, construction, equipment or maintenance standards. This places the vessel at greater risk of an incident, creating a risk to crew and passengers and of damage to property or to the marine environment.

Extent of the problem

Data limitations do not allow for an accurate indication of the proportion of the fleet that is captured by the current 'high risk' list. However, it is likely to be only a very small proportion of the 13,000 vessels currently in survey under the national system. In addition, many vessels currently captured by the 'high risk' list would not be affected by the proposed changes, as they will continue to be captured as high risk vessels and continue to be subject to higher survey requirements. Hence, this problem only affects a small proportion of the fleet. However, a large number of stakeholders, including state and Northern Territory marine safety agencies, requested an urgent review of the high risk list, which indicates that there is a problem which needs to be addressed.

This problem is a result of the current survey regime and cannot be addressed by the market or other regulations. If left unaddressed, it will continue to impose unnecessary compliance costs and likely safety risks. Government action is needed to address this problem.

3. 'Cut-off' points for national system survey are not risk based and create perverse incentives and costs for operators

The cut-off points

Currently under the national system, new vessels 35 metres and longer in measured length are required to be in 'class'. This means they are subject to survey by classification societies, not by national system accredited surveyors.

Stakeholders submitted that, due to the financial implications of requiring vessels to be constructed and surveyed in accordance with the rules of a classification society, the current 35-metre cut-off should be reviewed. It was considered to not align with the risks of many larger vessels, particularly those operating close to shore, and to create perverse incentives for vessels to be built to 34.9 metres, which may not be 'fit-for-purpose'.

Implications of a low cut-off point

Building and operating vessels that are not 'fit-for-purpose' has economic and safety implications. The full economic potential of the vessel may not be realised, as the optimum number of passengers or trading load may not be able to be held. In addition, the design of the vessel may not optimise the conditions for the crew and/or the passengers, which may lead to more safety incidents on-board. The National Marine Safety Committee's 2009 report, *Commercial Vessel Incidents in Australia 2005-2008*, found that falls within a vessel, other onboard incidents and persons overboard accounted for 13 per cent of marine incidents.

Classification societies survey larger vessels to ensure they are built and maintained to a level which can handle the risks involved with some voyages—such as international voyages. For the majority of the domestic fleet, the risks of the vessel and its operation do not justify the costs of classification society survey (which can exceed $260,000 in class fees alone for initial survey—as detailed in chapter 5 of this RIS). However, due to the complexity of larger vessels, classification society survey is considered to be necessary for some vessels to ensure that their design, construction and ongoing maintenance meet the required standard.

Extent of the problem

There are around 500 vessels 35 metres and longer currently operating in the national system. A large number of these existing vessels have grandfathered survey arrangements and are not affected by the class requirements. In addition, many currently in class will elect to continue to remain in class due to the commercial benefits of doing so. For example, vessels in class have a higher resale value and also have greater flexibility to operate internationally (as all vessels which operate internationally must certified by a classification society). However, a small proportion of the existing 35 metres and longer fleet would choose to move out of class, if the regulations were changed, given the cost savings associated with doing so. As such, it is not possible to accurately identify the number of existing vessels that would be affected by this problem.

More importantly, the fleet grows at a rate of around 3.5 per cent per year, and turns over (ie older vessels are replaced by new vessels) at a rate of around 3.5 per cent per year.[6] Previous RISs on standards applied by the national system have applied a growth rate of between 2 and 7 per cent. A 5 per cent growth rate was applied in the draft RIS, based on the increase in vessels surveyed from 2007 to 2014. However, stakeholder comments indicated that 5 per cent was too high a growth rate, and the number of vessels identified as being subject to survey may have increased for other reasons (such as changes in regulatory requirements). As such, a 3.5 per cent growth rate, and 3.5 per cent turnover rate has been applied. Reducing the growth and turnover rate reduces the total benefits identified in the RIS, as new vessels entering the system benefit the most from the proposed changes. This means that approximately 35 new vessels 35 metres and longer enter the fleet each year. It is these 35 new vessels that are expected to be most affected by the class requirement.

Class fees for initial survey can exceed $260,000. However, the total cost of this problem cannot be accurately estimated without making assumptions about what changes to the regulations should be made. Chapter 5 outlines the cost savings associated with increasing the national system survey allowances.

Overall, this problem is a result of the current survey regime and cannot be addressed by the market or other regulations. If left unaddressed, it will continue to impose unnecessary compliance costs and potential safety risks. Government action is needed to address this problem.

4. Survey requirements do not accommodate new technology and operational needs or align with related regulations

Periodic survey timing

Stakeholders submitted that there was a need for greater flexibility in the timing of surveys. They felt that the current arrangements, whereby periodic surveys must be completed by a specified date, did not provide sufficient flexibility and may prevent operators from aligning survey with other maintenance activities. In addition, where slip facilities are not available, operators incur costs due to the need to obtain an exemption to allow the vessel to continue to operate or to seek out alternative slip facilities. Inflexibility in the survey regime can unnecessarily increase compliance costs to operators and reduce their competitiveness.

Using modern technology

[6] The 2007 Regulation Impact Statement on the National Standard for the Administration of Marine Safety Section 4, developed by the National Marine Safety Committee (NMSC), applied a 2% – 7% expected annual growth rate, depending on the jurisdiction. In 2007, there were 9,000 vessels in survey. In 2014-15, there were 13,000 vessels. This equates to an average annual growth rate of 5% between 2007 and 2014-15. In addition, when new vessels are purchased and older vessels retired, the new vessel must meet the current requirements. NMSC RISs since 2007 have assumed that 1,300 new vessels will enter the fleet each year (see, for example, the RIS on NMSC, Final RIS NSCV Part C Section 6B, Buoyancy and Stability After Flooding). This includes both fleet growth and replacement vessels, and is based on a total potential fleet in survey of 13,000 vessels (including Queensland vessels that were survey exempt). Assuming a 5% growth rate, this equates to a 5% assumed vessel turnover each year. However, based on comments received on the draft RIS regarding fleet growth rates, a 3.5% growth and 3.5% turnover rate has been applied in the final RIS.

Stakeholders also submitted that there was a need to review the survey requirements and schedules in line with current technology. They felt that the current schedules did not adequately account for modern paint systems and ultrasonic testing of the hull. As a result, some of the current hull inspection requirements may impose further unnecessary compliance costs on operators.

Extent of the problem

The lack of flexibility in survey timing, and the lack of consideration for modern technology in the survey schedules, potentially affect all 13,900 vessels currently in survey under the national system. It is not possible to identify the exact number of vessels impacted by these problems without conducting surveys of operators. However, the large number of submissions received on these issues from the streamlining review indicates there is a problem that needs to be addressed.

In addition, the national regulator is concerned that the current survey regulations contained in Marine Order 503 and NSAMS 4 do not align fully with the new accredited surveyor arrangements under the National Law. NSAMS 4 was written in the context of state and territory marine safety agencies undertaking the majority of vessel surveys. As an example of the lack of alignment, the current regulations do not adequately provide for survey reports being given to the national regulator at various stages of the survey process.

Although this is not currently a significant problem on the ground, as most surveys continue to be carried out by state and territory marine safety agencies, it may become a problem as the number and role of private accredited surveyors grow. It could prevent the national regulator from being able to affectively administer the survey system and maintain oversight of the survey process.

Overall, these problems are a result of the current survey regulations and cannot be addressed by the market or other regulations. If left unaddressed, they will continue to impose unnecessary compliance costs. Government action is needed to address this problem.

2.6 Scope of the problem

Combined, these problems are expected to affect all of the approximately 13,900 vessels currently in survey under the national system. With a fleet turnover rate of around 3.5 per cent each year, and a growth rate of around 3.5 per cent per year[7] they are also expected to affect all of the approximately 1000 new vessels that enter the fleet each year that would be in survey under the current arrangements. There are approximately 6000 Queensland vessels that would also be affected, but these have had their current arrangements grandfathered.

As set out above, some aspects of the problem affect only a sub-set of the surveyed fleet, such as the 500 vessels 35 metres and longer, the 6000 vessels with grandfathered survey exemptions, or those vessels with a ‘high risk’ attribute. Other aspects of the problem, such as

[7] See page 15 of the RIS for a discussion of the fleet growth rate.

the complexity of the current survey regulations, also affect boat builders and designers, the national regulator and its delegates, public and private surveyors and classification societies.

2.7 Conclusion

Overall, it is the view of stakeholders and AMSA that the problems identified are having a significant impact on the domestic commercial vessel fleet. It is not possible to accurately estimate the costs of the problem without making assumptions about the solution—see chapter 5 of this RIS for more details. However, both industry and the national regulator consider that the problems identified impose unnecessary and significant compliance costs. There are also potential safety risks and gaps in the current system, which will become more apparent over time. These problems cannot be addressed by the market or other regulations. As such, government action is needed to address these.

3. The objectives of government action

This chapter outlines the objectives of government action in response to the problems identified in this RIS.

Individuals and organisations were invited to comment on the objectives of government action outlined below and to suggest other objectives not already identified here. No comments were received from stakeholders on the objectives of government action.

3.1 Objectives of the national regulator

The broad objectives of the national regulator are:

- operational application of the Australian Government's policy objectives to ensure safety and marine environment protection in Australian waters
- to develop, maintain, monitor and enforce the national standards and marine orders in consultation with state and territory marine safety agencies, as per the COAG Inter-Governmental Agreement of 19 August 2011 (the COAG IGA) and the National Law
- to deliver effective and efficient regulation consistent with Australian Government policy and to meet the needs of industry.

3.2 Objectives of government action

In line with the problems identified in chapter 2, the objectives of government action are to:

- align vessel survey requirements with vessel and operational risk
- reduce compliance costs to industry while maintaining overall safety outcomes
- encourage operators to take a holistic approach to safety management, including vessel maintenance and survey
- make survey requirements more accessible and easier to identify and apply
- provide greater flexibility in the timing of surveys to allow operators to align surveys with other maintenance activities
- account for modern technology in the survey schedules and survey requirements
- align survey regulations with other related regulations and survey arrangements.

4. The options

This chapter identifies a range of viable alternative options for addressing the problems identified in this RIS. An analysis of the costs and benefits of these options, including how they address the identified problems, is discussed in the next chapter.

Individuals and organisations were invited to comment on the options identified and to suggest other options not already considered here. The comments received from stakeholders, together with a response to these, are provided in chapter 6 of this RIS.

4.1 The options identified

The following viable options have been identified and are considered by this RIS:

1. maintaining the current survey regime without amendment
2. no regulated minimum survey requirements
3. amending the survey regime.

Option 3 includes four sub-options, all of which are complimentary and specifically address the four problems identified in chapter 2. Stakeholder suggestions to improve specific elements of the current survey regime that were submitted during the streamlining review, and during consultation on this RIS, are identified in option 3 and further discussed in the analysis contained in chapter 5.

4.2 Option 1: Maintaining the current survey regime without amendment

Option 1 involves maintaining the current survey regime without amendment. This is the 'status quo' or 'base case' option, against which the proposals in this RIS are compared. The COAG Best Practice Regulation Guide requires the status quo to be considered as an option for meeting the objectives.

The current survey regime for new vessels

For vessels which entered the national system on or after 1 July 2013, the periodic survey schedule is contained in NSAMS 4 and applied under Marine Order 503. It is also shown in table 1 below. To provide clarity to the proposal under option 3, and its impact on the current regime, option 1 is also described in detail in tables 2, 4, 5 and 6, and figures 1 and 3 below.

Under the current regime:

- 20 per cent of the fleet is subject to five-yearly survey
- 8.5 per cent of the fleet is subject to two in five yearly survey
- 35 per cent of the fleet is subject to annual survey.

As outlined in chapter 1, there are approximately 13,900 vessels in survey, however many of these will have grandfathered survey arrangements. This figure does not include the 6000 existing vessels in Queensland which have had survey exemptions grandfathered.

For more background information on survey and the current survey requirements of the national system, see the AMSA website.

The grandfathering arrangements

Vessels in operation within the two years prior to 1 July 2013 had their pre-existing survey regime grandfathered. The grandfathering arrangements of the national system allowed pre-national system operators to continue to operate in the same manner as they had prior to 1 July 2013. These arrangements aim to ensure that existing operators were not disadvantaged by the reform.

'Grandfathering' means that existing approvals, requirements or conditions are automatically recognised under new laws. The grandfathering arrangements of the national system apply indefinitely, unless subsequent incident data dictates the need to adopt an alternate approach.

The grandfathering arrangements allow a vessel that was registered, held a certificate of survey or otherwise operated commercially in the 24 months prior to 1 July 2013 which:

- does not change its operations in a way that increases risk (an 'increased level of risk' may arise from an upgrade in service category, an increase in propulsion power, an increase in displacement, commencing overnight operations or an increase in passenger numbers)
- is not significantly structurally modified
- continues to operate in the same geographic area as it did prior to 1 July 2013—to continue to meet the design and construction, survey and crewing requirements which applied to the vessel on 30 June 2013.
- new equipment, identification and operating standards may apply to the vessel after transitional periods.

New vessels 35 metres and longer

The design and construction standards applied under Marine Order 503—the National Standard for Commercial Vessels (NSCV)—require new vessels ≥35 metres to be designed, constructed and maintained in accordance with the rules of a classification society that is a recognised organisation as defined by the *Navigation Act 2012* (Navigation Act).

The streamlining review

A number of stakeholders supported the retention of the current survey regime during the streamlining review. These stakeholders saw significant value in frequent surveys, as they prevented operators becoming complacent in maintaining their vessel to the required standard. These stakeholders raised the following concerns with changing the current survey regime:

- electrical problems, found during annual surveys, would not be picked up
- reduced survey requirements would result in industry spending more money to demonstrate to third parties (such as insurers) that a vessel continues to meet the national standard
- if survey frequency was reduced, safety equipment which expires on an annual basis—such as life rafts and fire-fighting equipment—would be unlikely to be maintained.

Table 1 — Current periodic survey regime

Category	Vessels	Survey requirements					
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Full initial and periodic survey (Survey Level 1)	All class 1 vessels All high risk vessels 2A 2B 2C ≥7.5 m 3A 3B 3C ≥7.5 m	Initial survey	In-water survey	In-water survey	In-and-out-of-water survey	In-water survey	In-and-out-of-water survey
Initial survey and partial periodic (Survey Level 2)	2C <7.5 m which carry passengers 2D which carry passengers 2E which carry passengers All overnight class 4 4C	Initial survey	None	None	In-and-out-of-water survey	None	In-and-out-of-water survey
Initial survey only (Survey Level 3)	2C <7. 5m which do not carry passengers and are not high risk 2D ≥7.5 m which do not carry passengers and are not high risk 2E ≥7.5 m which do not carry passengers and are not high risk 3C <7.5 m not high risk 3D ≥7.5 m not high risk 3E ≥7.5 m not high risk 4D ≥7.5 m not overnight 4E ≥7.5 m not overnight	Initial survey	None	None	None	None	None or renewal survey, depending on the vessel and jurisdiction

4.3 Option 2: No regulated minimum survey requirements

This option involves the repeal of the current national system survey arrangements contained in Marine Order 503 and NSAMS 4, with no regulated minimum survey requirements implemented in its place.

Under this option, the requirements of the National Law would continue to apply, under which all vessels must obtain a certificate of survey. However, there would no minimum mandated survey regime.

Operators would be subject to their general safety duty under the National Law to maintain the vessel so that the vessel is safe, so far as is reasonably practicable. They would need to determine a survey and maintenance regime for their vessel which ensures that this obligation is met, under a self-regulatory approach.

Co-regulatory arrangements could also be implemented under this option. For example, industry associations could establish codes of practice which identify appropriate minimum survey schedules for the sector.

4.4 Option 3: Amending the survey regime

Based on the submissions received on the streamlining review, the risk analysis undertaken as part of the streamlining review, and ongoing consultation with state and Northern Territory marine safety agencies, a proposed new periodic survey regime has been developed. The proposed amendments to the current survey regime involve four sub-options (3A – 3D).

The proposal has been designed to address the problems identified in chapter 2, and aims to minimise regulatory and administrative burden as much as possible, while maintaining safety levels. This proposal has no impact on consistency with international obligations, as the relevant international conventions do not extend to survey requirements for vessels which only operate domestically.

4.4.1 Sub-option 3A: Proposed new periodic survey regime

The first sub-option involves amending the periodic survey requirements of the national system. This sub-option addresses problem 1 identified in chapter 2.

Based on the risk analysis and consultation undertaken as part of the streamlining review, the survey regime set out in tables 2 and 3 below has been proposed. Note that the final proposal is detailed in this section, including changes made as a result of consultation on the draft instrument and this RIS. Note also that there was a typographical error in table 3 in the draft RIS—'unpowered barges' should have been included in the low survey frequency category, not 'powered barges'. Powered barges are proposed to be subject to the general survey requirements.

The proposed new periodic survey schedules are designed to reduce the differences between the grandfathered survey (and survey exemption) arrangements that apply to existing vessels, and the survey requirements which would apply to new vessels entering the fleet. This aims to remove (or reduce) the incentive for operators to hold onto older vessels.

As described in table 2 below, this option also aims to reduce the complexity of the current regulatory arrangements by moving the survey requirements into Marine Order 503. This would reduce the number of instruments stakeholders would need to access in order to understand the periodic survey requirements. The way in which the requirements are expressed would also be simplified as part of this change.

Table 2 — The proposed periodic survey regime

Current regulatory arrangements	Proposed regulatory arrangements
The current periodic survey schedule for new vessels is shown in the table 1 above. Under the current regime, a significant proportion of the fleet is subject to annual survey. Vessels in operation within the two years prior to 1 July 2013 had their pre-existing survey regime grandfathered. The periodic survey schedule is contained in NSAMS 4 and applied under Marine Order 503.	The proposed periodic survey schedule is shown in table 3 below. Under the proposed regime, a significant proportion of the fleet will be subject to 2 surveys in 5 years. The proposed survey schedule includes SMS assessments, the primary purpose of which is to increase the focus on holistic safety management by checking that the SMS exists and is relevant to the vessel and its intended operation(s), gaining an understanding of the knowledge of the owner, master and crew as to the contents of the SMS and reporting this information to the national regulator. Vessels which perform poorly during a survey or other compliance activity will be moved into a higher survey frequency level. This includes moving high survey frequency vessels into an annual survey schedule where required. If the vessel meets the required standard over a few surveys, it will be eligible to move back to its original survey frequency level. Vessels which perform well during periodic surveys, audits and other compliance activities, can move to a lower survey frequency level. The new survey regime will apply to vessels that were in operation within the two years prior to 1 July 2013. However, vessels which have had their ‘non-survey’ status grandfathered will not be affected, unless they perform poorly during an inspection, audit or other compliance activity. The periodic survey schedule will be contained in Marine Order 503.

Table 3 — Proposed periodic survey regime

Category	Vessels	Survey schedule					
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
High survey frequency	a) All class 1 vessels b) 2A and 2B, which carry passengers c) Vessels with steam propulsion d) Submersibles, wing in ground craft, novel vessels and high speed thrill rides	Initial survey	In-water survey & SMS assessment	Out-of-water survey	In-water survey	SMS assessment & owner self-declaration	Out-of-water renewal survey
Medium survey frequency	a) 2C ≥12 m which carry passengers b) 2A, 2B, 2C ≥12 m, which do not carry passengers c) 2D, 2E, 2C <12 m, which are described in the modifiers (are higher risk) d) 2D and 2E, which are ≥12 m and carry passengers e) 3A, 3B, 3C ≥12 m f) 3D, 3E and 3C, which are described in the modifiers (are higher risk) g) 4C, 4D and 4E, which are ≥12 m h) 4C, 4D and 4E, which are described in the modifiers (are higher risk)	Initial survey	Owner self-declaration	In-water survey & SMS assessment	Owner self-declaration	Owner self-declaration	Out-of-water renewal survey
Low survey frequency	a) 2D and 2E, which are ≥12 m, do not carry passengers and are not in the medium or high survey categories b) 2C, 2D and 2E, which are <12 m and are not in the non-survey, medium or high survey categories c) 3D and 3E which are ≥12 m and are not in the medium survey category d) 3C <12 m, which are not in the medium survey category e) 4C <12 m, which are not in the medium or high survey categories f) All ferry-in-chains, permanently moored vessels, unpowered barges, heritage vessels and volunteer marine rescue vessels	Initial survey	Owner self-declaration	Owner self-declaration	Owner self-declaration	Owner self-declaration	Out-of-water renewal survey & SMS assessment

4.4.2 Sub-option 3B: Proposed new survey 'modifiers' (the 'high risk' list)

The second sub-option involves amending the list of 'high risk' operations and attributes that, under the national system, change the survey requirements which would otherwise apply to the vessel. This sub-option addresses problem 2 identified in chapter 2.

Based on the risk analysis and consultation undertaken as part of the streamlining review, the new 'modifiers' (new 'high risk' list) set out in table 4 below have been proposed. Note that the final proposal is detailed in this section, including changes made as a result of consultation on the draft instrument and this RIS.

Table 4 — The proposed new survey 'modifiers' (new 'high risk' list)

Current regulatory arrangements	Proposed regulatory arrangements
A 'high risk' vessel may be subject to a higher frequency survey regime than other vessels (see table 1 above). High risk vessels are: ▪ a powered barge that is: - used to carry dangerous goods, including bulk petroleum or gas products - used for living or entertainment - used to operate a pile frame - equipped with a crane or davit exceeding 3 tonne capacity - equipped with dredging machinery having a total brake power of 500kW - a landing barge - primarily used for towage ▪ a dredge with a total brake power of >500kW or that is >24 m measured length ▪ a vessel primarily used for towage ▪ a vessel used for carrying dangerous goods, including bulk petroleum or gas products ▪ a vessel with a crane or davit exceeding 3 tonne capacity ▪ a support vessel in the offshore oil industry ▪ a vessel operating more than 5 nautical miles off the mainland ▪ overnight hire and drive ▪ Class 4 personal watercraft.	A vessel with a 'modifier' may be subject to a higher frequency survey regime than other vessels (see table 3 above). The proposed modifiers are: ▪ a landing barge that is of a design or for a use that the national regulator has determined is likely to adversely affect its stability ▪ a net reel, deck load, crane or lifting device the use of which the national regulator has determined will have a detrimental effect on the stability or watertight integrity of the vessel ▪ vessels intended for towage operations as their primary operation ▪ carriage of dangerous goods, other than petroleum or gas products intended for use on the vessel or fireworks carried on the vessel only for use on the vessel for a fireworks display ▪ support vessel in the offshore oil and gas industry ▪ an inboard petrol engine (except for personal watercraft) ▪ fast craft, being a class 2 vessel operating in A, B or C waters ≥35 m long and operating ≥25 knots ▪ overnight hire and drive vessels.

4.4.3 Sub-option 3C: Proposed new national system survey limits

The third sub-option involves increasing the allowance for vessels to be in national system survey (survey by a national system accredited surveyor), rather than surveyed in accordance with the rules of a classification society. This sub-option addresses problem 3 identified in chapter 2.

Current arrangements

All Australian commercial vessels that travel internationally are subject to the Navigation Act and classification society rules and survey requirements. These vessels tend to be larger and face higher risks, being further from a safe haven and subject to more variant weather. Classification societies ensure such vessels are built and maintained to handle the risks of international voyages.

For most domestic vessels, the risks of the vessel and its operation do not justify classification society survey costs. However, vessels 35 metres and longer in measured length are required to be in class, unless other arrangements have been 'grandfathered' for a pre-national system vessel.

The proposal

Based on streamlining review consultation, it is proposed to increase the length limit for initial national system survey from <35 metres to <45 metres (see table 5 below). The <45-metre limit is based on state and territory marine safety agency understanding of vessel lengths that national system accredited surveyors have the capability to conduct an initial survey. Often, longer vessels have more complex technical construction and operation, and a higher level of insurance is required to resolve surveyor errors where they occur.

In addition, it is proposed that vessels <65 metres are permitted to move into national system survey, provided that they have undergone an initial survey (and certification) by a classification society. The <65-metre limit is based on an understanding of vessel lengths that national system accredited surveyors have the capability to conduct a periodic survey.

However, vessels ≥35 metres which carry dangerous goods or which are Category 1 Fast Craft ≥500GT, must be built to class and remain in class survey.

As the national system surveyor accreditation scheme was introduced in 2015, it is proposed that the changes to the initial survey allowances (allowing vessel 35 metres to <45 metres to be in national system initial survey) will be implemented in mid-2020. Further consideration will need to be given to insurance and training requirements for surveyors conducting initial surveys of larger vessels, and changes to the surveyor accreditation regulations may be required. In addition, the NSCV will need to be amended so that all relevant sections can apply to vessels <45 metres in length. It is expected that the necessary changes will have been made to the NSCV, and to the surveyor accreditation scheme (including the regulations), by 2020.

The proposal to permit vessels <65 metres to move into national system survey, provided that they have undergone an initial survey (and certification) by a classification society, would be implemented earlier than 2020. Proposed commencement dates for option 3 are discussed in more detail in chapter 8 of this RIS. Further consideration will be given to training and experience

requirements for surveyors undertaking periodic surveys of vessels 35 metres – <65 metres prior to the implementation of this proposal.

The proposed changes to the classification society survey requirements for larger vessels are designed to ensure that classification society survey costs are imposed only where justified on a risk basis and to allow more vessels to be built 'fit for purpose'.

Table 5 — National system survey limits

Current regulatory arrangements	Proposed regulatory arrangements
The 'limits' on national system survey (survey undertaken by national system surveyors) are currently contained in NSCV Part C Sections 3 and 5A, which require vessels ≥35 metres to be designed, constructed and maintained in accordance with the rules of a classification society that is a recognised organisation as defined by the *Navigation Act 2012* (Navigation Act).	New 'upper limits' on national system survey will be set through Marine Order 503. It is proposed that vessels <45 metres are not required to be built, constructed and maintained in class. These vessels will be subject to the NSCV and may be surveyed by a national system surveyor. This change is proposed to commence in mid-2020. It is proposed that vessels <65 metres are permitted to move into national system survey, provided they have undergone an initial survey (and certification) by a classification society that is a recognised organisation under the Navigation Act. Vessels that are currently in class can move into national system survey, however any grandfathered crewing arrangements would no longer apply to the vessel. Vessels ≥35 metres which carry dangerous goods or which are Category 1 Fast Craft ≥500 GT, must be built to class and remain in class survey. Amendments to NSCV Sections C3 and C5A will allow the NSCV to apply to vessels <45 metres in length (from mid–2020). All vessels can elect to be classed—any vessel designed, constructed and maintained in accordance with the rules of a classification society is deemed-to-satisfy the design, construction and survey requirements of the national system.

4.4.4 Sub-option 3D: Proposed new survey arrangements and depth

The fourth and final sub-option involves amending the detail of the current survey schedules and arrangements. As described in table 6 below, this includes aligning the survey arrangements with the new accredited surveyor regulations, reviewing the survey schedules to allow for new technologies, and introducing new flexibility into the period during which a periodic survey can be undertaken. This sub-option addresses problem 4 identified in chapter 2.

Note that the final proposal is detailed in this section, including changes made as a result of consultation on the draft instrument and this RIS.

Table 6 — Survey arrangements and depth

Current regulatory arrangements	Proposed regulatory arrangements
Surveys can be undertaken by private or government surveyors, provided they are accredited under the National Law. Transitional arrangements allow current surveyors to operate until they become accredited. Surveys must be undertaken into accordance with NSAMS 4 and the surveyor manual. NSAMS 4 specifies what must be surveyed during an initial, in-water, in-and-out-of-water and a renewal survey. Surveys must be completed and submitted to the national regulator by a specified date.	Surveys will be able to be undertaken by private or government surveyors, provided they are accredited under the National Law. Transitional arrangements will continue to allow current surveyors to operate until they become accredited. Surveys must be undertaken in accordance with the surveyor manual, which will include new survey schedules (what must be surveyed during an initial, in-water, out-of-water and renewal survey) which account for current technology such as ultrasonic testing and paint systems. Survey reports must be provided to the national regulator. Periodic surveys may take place up to three months prior to, and three months after, the date the survey is due (which is the anniversary date of the certificate of survey, in the year the survey is due). The only exception to this is renewal surveys, which must take place within the three months prior to the expiry of the certificate of survey. Regardless as to when a periodic survey is undertaken, the date of the next survey remains the anniversary date of the certificate of survey (in the year the survey is due), unless an earlier date is nominated by the operator as the preferred anniversary date for periodic surveys to be undertaken.

4.4.5 Overview of option 3

An overview of the current regulatory regime (option 1) and that proposed under option 3 (including all four sub-options) is shown in the following figures. Figure 2 also includes two complementary reforms that are further described in chapter 6 and **appendix C**. Note that some vessels must also be on a certificate of operation and must be covered by a safety management system. Further information on the certificate of operation and safety management system requirements is available on the AMSA website.

Figure 1: Overview of the current vessel regulatory regime (option 1)

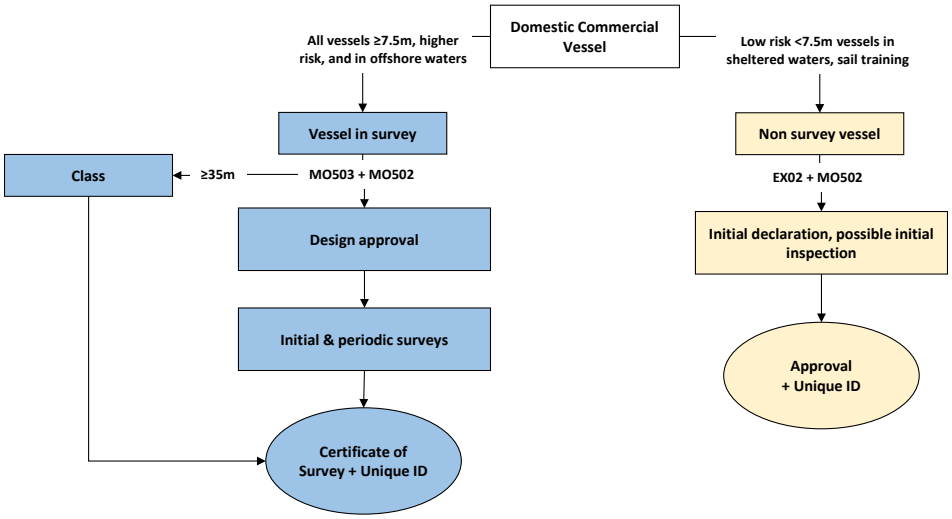
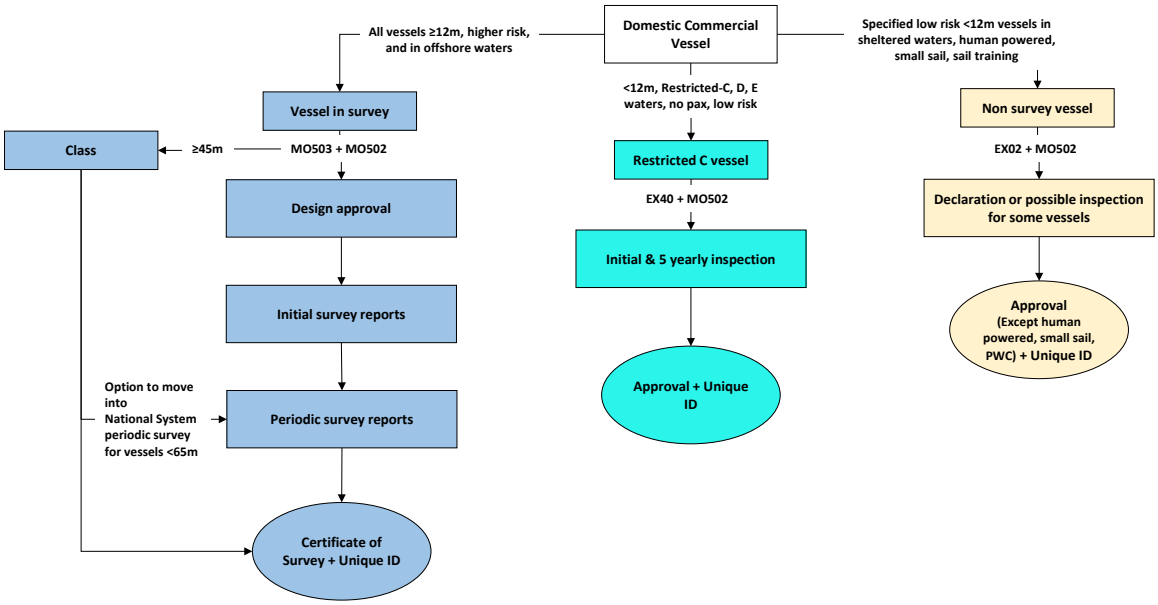


Figure 2: Overview of the proposed vessel regulatory regime (option 3)



Figures 3 and 4 show the impact of sub-option 3A on the vessel survey regime. Figure 4 includes the two complementary reforms. The figures show there would be greater reliance on 'medium' level survey (two surveys in five years—green) and less reliance on 'high' level survey (currently annual survey, and four surveys in five years under the proposal—blue). Note that a vessel's survey level could change depending on its survey performance and other compliance activities.

Figure 3: Overview of the current vessel survey regime (option 1)

Category	<7.5m	≥7.5m
Class 1	High survey frequency	High survey frequency
2A with passengers	High survey frequency	High survey frequency
2B with passengers	High survey frequency	High survey frequency
2C with passengers	Medium survey frequency	High survey frequency
2D with passengers	Medium survey frequency	Medium survey frequency
2E with passengers	Medium survey frequency	Medium survey frequency
2A no passengers	High survey frequency	High survey frequency
2B no passengers	High survey frequency	High survey frequency
2C no passengers	Low survey frequency	High survey frequency
2D no passengers	Non survey	Low survey frequency
2E no passengers	Non survey	Low survey frequency
2A with modifier	High survey frequency	High survey frequency
2B with modifier	High survey frequency	High survey frequency
2C with modifier	High survey frequency	High survey frequency
2D with modifier	High survey frequency	High survey frequency
2E with modifier	High survey frequency	High survey frequency
3A	High survey frequency	High survey frequency
3B	High survey frequency	High survey frequency
3C	Low survey frequency	High survey frequency
3D	Non survey	Low survey frequency
3E	Non survey	Low survey frequency
Class 3 with modifier	High survey frequency	High survey frequency
4C	Low survey frequency	Medium survey frequency
4D	Non survey	Low survey frequency
4E	Non survey	Low survey frequency
Class 4 with modifier	Medium survey frequency	Medium survey frequency

Figure 4: Overview of the proposed vessel survey regime (option 3)

Category	<12m	≥12m
Class 1	High survey frequency	High survey frequency
2A with passengers	High survey frequency	High survey frequency
2B with passengers	High survey frequency	High survey frequency
2C with passengers	Low survey frequency	Medium survey frequency
2D with passengers	Non-survey (≤ passenger) / Low (>4 passenger)	Medium survey frequency
2E with passengers	Non-survey (≤ passenger) / Low (>4 passenger)	Medium survey frequency
2A no passengers	Medium survey frequency	Medium survey frequency
2B no passengers	Medium survey frequency	Medium survey frequency
2C no passengers	Low survey frequency	Medium survey frequency
Restricted C	Inspection	N/A
2D no passengers	Non-survey	Low survey frequency
2E no passengers	Non-survey	Low survey frequency
2A with modifier	Medium (no passenger) or high (passenger)	Medium (no passenger) or high (passenger)
2B with modifier	Medium (no passenger) or high (passenger)	Medium (no passenger) or high (passenger)
2C with modifier	Medium survey frequency	Medium (no passenger) or high (passenger)
2D with modifier	Medium survey frequency	Medium survey frequency
2E with modifier	Medium survey frequency	Medium survey frequency
3A	Medium survey frequency	Medium survey frequency
3B	Medium survey frequency	Medium survey frequency
3C	Low survey frequency	Medium survey frequency
Restricted C	Inspection	N/A
3D	Non-survey	Low survey frequency
3E	Non-survey	Low survey frequency
Class 3 with modifier	Medium survey frequency	Medium survey frequency
4C	Low survey frequency	Medium survey frequency
4D	Non-survey	Medium survey frequency
4E	Non-survey	Medium survey frequency
Class 4 with modifier	Medium survey frequency	Medium survey frequency

5. Impact analysis

This chapter discusses the impact of each of the three options outlined in chapter 4, including:

- the costs and benefits
- impacts on affected stakeholders
- effects on safety
- an analysis of the extent to which each option will address the problems identified.

Option 3, amending the survey regime, is considered first and includes discussion of those additional stakeholder suggestions from the streamlining review which have not been incorporated into the sub-options. A summary of the impact of each option is provided in chapter 7.

5.1 Scope of impact

The following parties are likely to be directly affected by changes to the current vessel survey regime:

- all persons and businesses operating domestic commercial vessels. In particular, the operators of the 13,900 vessels currently in survey under the national system, and the operators of new vessels which will enter the fleet over the coming years and which would be in survey under the current regime
- marine safety agencies, including AMSA and all state and territory marine safety agencies
- private and government surveyors, including classification societies, and operators of slip facilities.

Where the specific costs and benefits of the option are identified in this chapter, their impact on particular affected groups has been noted in the text below.

In addition, the flow-on effects of the proposed reforms could impact the following parties:

- all persons and vessels in or on navigable waters in Australia, including recreational vessels, Regulated Australian Vessels and foreign vessels
- compliance officers, including Water Police.

5.2 Methodology

Only the incremental impacts of each option—the impacts of the option as compared to the base case—are relevant. Option 1 (Maintaining the current survey regime without amendment) is the 'base case' for the purpose of this RIS. It is the 'status quo' option.

Where costs and benefits can be quantified, they have been estimated over a 10-year period, in accordance with OBPR requirements.[8] The 10-year period also aligns with the period for which

[8] *Cost Benefit Analysis Guidance Note, Office of Best Practice Regulation*, 2014.

the new Marine Order 503 would be valid. Commonwealth regulations are automatically repealed 10 years after commencement, and Marine Order 503 would be subject to a review before the end of the 10-year period.

A discount rate of 7 per cent per year has been applied in order to identify the 2017 cost or benefit.[9] An annual CPI increase in the costs of goods and services of 2.5 per cent has been applied.

The draft RIS was based on a cost-benefit analysis period of 2015–2025, and calculated the 2015 costs and benefits. This was because it was envisaged that the proposals would commence in 2015 or soon after. However, it is now envisaged that the majority of the proposals will commence in 2018, when AMSA assumes responsibility for service delivery under the national system. As a result, the benefits and costs identified in this final RIS are calculated using 2016–17 fees and charges, and are based on a benefit cost analysis period of 2018–2028. As noted above, the discount rate has been applied to identify the 2017 costs and benefits.

A table of the assumptions used to estimate costs and benefits (where they could be quantified) is contained at **appendix A**.

Importantly, this RIS is not assessing the National Law itself. It can only consider the costs and benefits that result from the alternative options presented in this RIS.

5.3 Option 3: Amending the survey regime

There are several reform components to this option. The costs and benefits of each are identified below.

A regulatory costing for option 3, completed in accordance with the government's Regulatory Burden Measurement framework and reviewed by the OBPR, is presented in **appendix B**. The proposed draft of Marine Order 503, which implements option 3, is also provided with this RIS.

5.3.1 Sub-option 3A: Proposed new periodic survey regime

Sub-option 3A is designed to address problem 1 as outlined in chapter 2 of this RIS. This includes the concerns regarding the current periodic survey regime raised by stakeholders during the streamlining review, and the recommendations of the risk analysis undertaken as part of the Streamlining Review. It is also designed to address objectives 1–4 of government action, outlined in chapter 3 of this RIS.

Impact on vessel operators

The initial survey and design and construction requirements are the same under the existing arrangements and the proposal, for vessels in survey.

Under the proposal, vessels which perform poorly during a survey, audit or other compliance activity may be moved into a higher survey frequency level. Once the vessel meets the required standard over a few surveys, it will be eligible to move back to its original survey frequency level.

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[9] *Cost Benefit Analysis Guidance Note, Office of Best Practice Regulation*, 2014.

Vessels which perform well during periodic surveys, audits and other compliance activities, can move to a lower survey frequency level.

The new survey regime will apply to vessels that were in operation within the two years prior to 1 July 2013. However, vessels which have had their 'non-survey' status grandfathered will not be affected, unless they perform poorly during an inspection, audit or other compliance activity.

Under the proposal, the periodic survey schedule (survey frequency) will be contained in Marine Order 503. The survey schedules (what is surveyed at each periodic survey) will be contained in the surveyor manual, and NSAMS 4 will no longer apply.

Number of vessels subject to survey

Vessels 'in survey' (those which are required to hold a certificate of survey under the National Law) are currently subject to:

- for vessels which operated in the two years prior 1 July 2013, either their grandfathered survey regime (that which applied on 30 June 2013) or NSAMS 4
- for new vessels and vessels which entered the system after 1 July 2013, NSAMS 4.

The current periodic survey schedule under NSAMS 4 is shown in table 1 above. Under the current regime:

- 19 per cent of the fleet is subject to five yearly survey
- 10 per cent of the fleet is subject to two in five yearly survey
- 32 per cent of the fleet is subject to annual survey.

The proposed periodic survey schedule is shown in the table 3 above. Under the proposal:

- 23 per cent of the fleet is subject to five yearly survey
- 19 per cent of the fleet is subject to two in five yearly survey
- 10.5 per cent of the fleet is subject to annual survey.

Note that non-survey vessels and 'Restricted C' vessels are excluded from the current and/or the proposed survey arrangements. Hence, only around 61 per cent of the fleet are subject to survey under the current arrangements, and 52.5 per cent will be subject to survey in the future. It should also be noted that these percentages do not take into account grandfathered survey arrangements, so the actual proportion of the fleet in survey may be higher or lower than these percentages suggest. These percentages also do not include any vessels in Queensland, the majority of which are subject to a different survey regime, or no survey regime, as a result of the grandfathering arrangements for vessels in operation prior to the commencement of the national system on 1 July 2013.

The impact on survey costs

The average length of vessels moving from high to medium survey frequency under the proposal is estimated to be 25.25 metres based on an analysis of the current fleet. These vessels will have two less in-water surveys and one less in-and-out-of-water survey in a five-year survey cycle.

The average length of vessels moving from medium to low survey frequency under the proposal is estimated to be 5.68 metres. These vessels will have one less in-and-out-of-water survey in a five-year survey cycle.

The average length of vessels moving from high to low survey frequency under the proposal is estimated to be 9.75 metres. These vessels will have three less in-water surveys and one less in-and-out-of-water survey in a five-year survey cycle.

In addition:

- under the proposal, all high survey frequency vessels will have one less in-water survey, one out-of-water survey instead of an in-and-out-of-water survey and one additional SMS assessment.[10] The average length of a high survey frequency vessel under the proposed arrangements is 18.36 metres based on an analysis of the current fleet
- under the proposal, all medium survey frequency vessels will have one in-water survey instead of one in-and-out-of-water survey during a five-year cycle. The average length of a medium survey frequency vessel under the proposed arrangements is 24 metres, based on an analysis of the current fleet.

Average survey costs for vessels of these lengths are shown in table 7. Where hourly rates apply, it has been assumed that:[11]

- an in-water survey takes:
  - two hours for a low frequency survey vessel
  - three hours for a medium frequency survey vessel
  - three hours for a high frequency survey vessel
- an out-of-water survey takes:
  - three hours for a low frequency survey vessel
  - four hours for a medium frequency survey vessel
  - four hours for a high frequency survey vessel
- an in-and-out-of-water survey takes:
  - four hours for a low frequency survey vessel
  - five hours for a medium frequency survey vessel
  - five hours for a high frequency survey vessel.

Average survey fees

Surveys may be undertaken by either private or government surveyors, provided the surveyor is accredited under the National Law. The fees set out in table 7 below are for government surveyors, as these fees are publicly available. Different fees may apply to surveys undertaken by private surveyors. However, as shown in the table, the fee arrangements for surveys vary significantly between jurisdictions. They vary considerably even where marine safety agencies conduct surveys on a cost-recovery basis—such as in Western Australia and Tasmania. As such,

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[10] For estimation purposes, $400 and 1 hour has been allowed for an SMS assessment without survey. This includes surveyor travel costs of $200.

[11] These time allowances are based on feedback from surveyors. It was noted that the time taken to undertake design approval and the surveys varied significantly depending on the vessel and the comprehensiveness of the documentation provided to the surveyor. The allowances are considered to be conservative figures for the purposes of cost estimation.

it is likely that fees for private surveyors will also vary widely (by jurisdiction and within jurisdictions), so the fees shown in the table are likely to cover the potential range of private survey fees.

Where different fees are applied to different vessel classes, a medium fee is reflected in the table.[12] Fees are generally charged on either a vessel length (per metre) basis, or on an hourly basis. The time allowances set out above for each vessel and survey type have been used in order to estimate fees. Note that travel time costs for the surveyor apply on top of these fees —as shown in the table, $200 has been allowed for travel time and expenses. However, this will vary significantly depending on where the survey takes place.

The 'weighted average' is the average survey fee per vessel, based on the number of vessels in each jurisdiction.

Estimated savings

In order to estimate the savings associated with the proposal, it is also assumed that the fleet grows at a rate of 3.5 per cent per year.[13]

In addition, it is assumed that no vessels in Queensland are currently in survey—as many Queensland vessels are subject to a form of periodic survey, the estimated savings are considered to be conservative. New Queensland vessels, those which will enter the fleet from 2017 and which would be subject to survey, have been included in the savings calculations.

Based on the above assumptions, it is estimated that sub-option 3A will save industry (vessel operators) a total of $56,540,315 in compliance costs over the 10-year period 2018–2028 in 2017 dollars. This represents an average saving of:

- $213 per class 1 vessel in survey, per year
- $449 per class 2 vessel in survey, per year
- $592 per class 3 vessel in survey, per year.

As the survey requirements have shifted up and down for class 4 vessels, the impact is neutral (less than $1 yearly saving on average) across the class 4 fleet (for class 4 vessels which are in survey).

Sub-option 3A reduces the number of interactions vessel operators have with the national regulator by reducing the overall number of surveys undertaken. As such, sub-option 3A will reduce the overall compliance burden, including administrative, operational and delay costs. The business compliance costs and regulatory costing discussed in section 5.3.5 include estimates of the savings to businesses as result of the proposed changes.

[12] This applies only in a small number of jurisdictions, and the difference between the fees scales is small, so this is a close approximation to the average.

[13] See page 15 for a discussion on the fleet growth rate.

Table 7 — Survey fees at 1 December 2016

	5.68 m			9.75 m			18.36 m			24 m			25.25 m		
	In-water	Out-of-water	In-and-out-of-water	In-water	Out-of-water	In-and-out-of-water	In-water	Out-of-water	In-and-out-of-water	In-water	Out-of-water	In-and-out-of-water	In-water	Out-of-water	In-and-out-of-water
NSW	$301.04	$301.04	$301.04	$760.50	$760.50	$760.50	$1725.84	$1725.84	$1725.84	$2256	$2256	$2256	$2374	$2374	$2374
NT	$232.88	$232.88	$232.88	$399.75	$399.75	$399.75	$752.76	$752.76	$752.76	$984	$984	$984	$1035.25	$1035.25	$1035.25
QLD	$127.80 per hour Total: $255.60	$127.80 per hour Total: $383.40	$127.80 per hour Total: $511.20	$127.80 per hour Total: $255.60	$127.80 per hour Total: $383.40	$127.80 per hour Total: $511.20	$127.80 per hour Total: $383.40	$127.80 per hour Total: $511.20	$127.80 per hour Total: $639	$127.80 per hour Total: $383.40	$127.80 per hour Total: $511.20	$127.80 per hour Total: $639	$127.80 per hour Total: $383.40	$127.80 per hour Total: $511.20	$127.80 per hour Total: $639
SA	$441	$490	$676	$773	$857	$1164	$1571	$1735	$2332	$2126	$2343	$3142	$2219	$2447	$3279
TAS	$66.60	$200.99	$200.99	$93.62	$377.50	$377.50	$117.78	$456.02	$456.02	$167.61	$765.57	$765.57	$167.61	$765.57	$765.57
VIC	$337.70	$337.70	$337.70	$337.70	$337.70	$337.70	$411.23	$411.23	$411.23	$558.30	$558.30	$558.30	$558.30	$558.30	$558.30
WA	$377	$565	$848	$567	$849	$1,273	$1109	$1664	$2495	$1632	$2448	$3671	$1724	$2586	$3879
Weighted average	**$311.76**	**$377.18**	**$481.84**	**$465.11**	**$579.42**	**$718.21**	**$905.85**	**$1076.40**	**$1308.55**	**$1185.12**	**$1421.07**	**$1736.42**	**$1237.85**	**$1482.46**	**$1812.40**
Including surveyor travel time / costs	**$511.76**	**$577.18**	**$681.84**	**$665.11**	**$779.42**	**$918.21**	**$1105.85**	**$1276.40**	**$1508.55**	**$1385.12**	**$1621.07**	**$1936.42**	**$1437.85**	**$1682.46**	**$2012.40**

Impact on governments

As the survey function is currently subsidised by state and territory governments, there will also be savings to government associated with the proposal. The cost recovery arrangements for government survey vary significantly around Australia. Assuming an average cost recovery rate of 70 per cent per vessel survey,14 the savings to government (state and territory marine safety agencies) over the 10-year period 2018-2028 associated with sub-option 3A are $20,122,018 in 2017 dollars.

Impact on private accredited surveyors

As noted above, private surveyors who are accredited under the National Law also carry out periodic surveys on vessels, including those surveyors accredited to operate in Queensland under the pre-existing Queensland laws. As the accredited surveyor regulations commenced in late 2014, a large percentage of surveys continue to be carried out by government surveyors (except in Queensland, which has a long history of private surveyors, and in South Australia, which has moved to a private surveyor model).

Although the total number of surveys carried out around Australia will reduce under the proposal, the share of surveys undertaken by private accredited surveyors is expected to increase significantly over the next 10 years. The existing surveyor accreditation regulations allow compliance surveys to be completed by private accredited surveyors around Australia, and thereby allow for the significant growth of the private surveyor industry. As a result, the overall reduction in vessel surveys resulting from sub-option 3A is not expected to reduce the total number of surveys being undertaken by private surveyors. Further, this proposal will not change the current role or requirements of private accredited surveyors, who will continue to perform vessel surveys as they do now. As such, no impact on private accredited surveyors has been quantified for the purposes of this RIS.

Impact on other parties

As a result of the reduction in the total number of surveys undertaken, there may be some impact on third parties involved in the survey process, such as providers of slip facilities. These impacts are difficult to measure (the costs of slip facilities were not included in the quantified benefits of this sub-option), but are expected to be offset by reduced costs to vessel operators. As such, no impact on these parties has been quantified for the purposes of this RIS.

Impact on safety

Survey is a risk mitigation tool, by ensuring that a vessel is maintained to the standard required by law—see chapter 2 for the discussion on the links between vessel survey and safety outcomes. As a result, there may be safety costs associated with reducing the periodic survey requirements.

While the safety implications of sub-option 3A are unable to be quantified, the consultation undertaken with stakeholders and the risk analysis completed as part of the streamlining review suggests these costs are not substantial. In addition, AMSA expects any safety costs resulting

[14] This estimation is based on figures derived through discussions with jurisdictions on the cost recovery rates of all their marine safety functions.

from the overall reduction in surveys under the sub-option 3A will be offset by the following aspects of the reform that will improve safety:

- the large number of owners with existing vessels that have grandfathered survey status will be encouraged to upgrade to new vessels by reducing the compliance costs associated with this
- the national regulator will have new powers to move vessels into higher survey levels where the vessels perform poorly during a survey, audit or other compliance activity. This also applies to vessels which have had their current survey regimes grandfathered
- the focus on safety management systems (SMS) and a more holistic approach to safety will be increased. Under the proposed new survey schedule outlined in table 3 above, the SMS will be assessed by an accredited surveyor on a periodic basis. Where the accredited surveyor identifies potential flaws in the SMS, the national regulator will conduct a more thorough review of the SMS
- new ways to identify high-risk operations requiring greater regulatory oversight will be introduced. See 5.3.2 (sub-option 3B) below for more discussion on this proposed change.

Addressing the problem

Sub-option 3A addresses problem 1 (survey requirements are not well aligned with risks) set out in chapter 2 of this RIS by**:**

- aligning mandated survey requirements to the risk of the individual operator, vessel and operation. Sub-option 3A reduces survey requirements for many lower-risk vessels and also allows survey requirements to be modified on an individual-vessel basis
- supporting the implementation of strong maintenance practices by the operator. By allowing survey requirements to be modified on an individual-vessel basis, sub-option 3A provides an incentive for operators to maintain the vessel to the required standard
- implementing a greater focus on proactive safety management by operators. By including a review of safety management systems in the periodic survey schedule, sub-option 3A increases the emphasis on proactive safety management including through safety management systems
- removing or reducing incentives for holding onto older vessels due to their grandfathered survey status. By reducing the gap between the grandfathered survey arrangements which apply to existing vessels and the survey requirements which apply to new vessels, sub-option 3A reduces the incentive for operators to hold onto older vessels with grandfathered status
- increasing the accessibility and transparency of the survey requirements. By moving the periodic survey regime into Marine Order 503 and simplifying the presentation of the requirements, sub-option 3A will make the survey requirements easier to access, identify and apply.

5.3.2 Sub-option 3B: Proposed new survey 'modifiers' (new 'high risk' list)

Sub-option 3B is designed to address problem 2, raised by stakeholders and outlined in chapter 2 of this RIS. It is also designed to address objective 1 of government action, outlined in chapter 3 of this RIS.

Impact on vessel operators

In order to manage the risks of some types of vessels and operations, vessels with certain attributes are currently subject to higher regulatory oversight. These vessels are not eligible for non-survey status and may be subject to a higher frequency periodic survey schedule than a vessel of an equivalent size and operational area category.

The current modifiers are based on NSAMS 4 and are:

- a powered barge that is:
  - used to carry dangerous goods, including bulk petroleum or gas products
  - used for living or entertainment
  - used to operate a pile frame
  - equipped with a crane or davit exceeding 3 tonne capacity
  - equipped with dredging machinery having a total brake power of 500kW
  - a landing barge
  - primarily used for towage
- a dredge with a total brake power of >500 kW or that is >24 metres measured length
- a vessel primarily used for towage
- a vessel used for carrying dangerous goods, including bulk petroleum or gas products
- a vessel with a crane or davit exceeding 3 tonne capacity
- a support vessel in the offshore oil industry
- a vessel operating more than 5 nautical miles off the mainland
- overnight hire and drive
- class 4 personal watercraft.

The proposed new modifiers are:

- a landing barge that is of a design or for a use that the national regulator has determined is likely to adversely affect its stability
- a net reel, deck load, crane or lifting device the use of which the national regulator has determined will have a detrimental effect on the stability or watertight integrity of the vessel
- vessels intended for towage operations as their primary operation
- carriage of dangerous goods, other than petroleum or gas products intended for use on the vessel or fireworks carried on the vessel only for use on the vessel for a fireworks display
- support vessel in the offshore oil and gas industry
- an inboard petrol engine (except for personal watercraft)

- fast craft, being a class 2 vessel operating in A, B or C waters ≥35 metres long and operating ≥25 knots
- overnight hire and drive vessels.

The proposed changes are twofold. Firstly, the list of modifiers has been simplified to remove duplication. Secondly and more importantly, regulatory gaps have been removed, with greater flexibility for the national regulator to identify circumstances in which an attribute of a vessel or operation will have an impact on safety that needs to be managed through greater regulatory oversight.

In particular, rather than specifying a size of crane that will cause a vessel to be subject to greater controls, guidelines will be released which specify those reels, loads, cranes and lifting devices that actually have a detrimental effect on the stability or watertight integrity of the vessel. A large crane on a large vessel may have no impact on stability, while a relatively small crane on a small vessel may have an impact.

This change will also close the current loophole in the requirements which allows operators to choose equipment that is not captured in the high risk list but which is equivalent to a crane and which has a detrimental impact on the stability of the vessel.

Sub-option 3B is likely to affect a small 'high risk' proportion of the existing fleet. A similarly small number of new vessels will also be affected by these changes. The proposal will remove unnecessary compliance costs for vessels that should not be considered to be high risk. A large vessel with a small crane, for example, would have reduced compliance costs through the removal or reduction of survey requirements. However, the proposal will impose compliance costs on vessels which should be considered to be high risk, through new or additional survey requirements.

Due to data limitations, the compliance costs and benefits of this element of the reform have not been quantified in this RIS. Given the small number of vessels involved, the impact in terms of compliance costs is expected to be conservative.

In addition, the impact of this sub-proposal on other business compliance costs (including administrative, operational and delay costs) cannot be determined without knowing the number of vessels affected and the extent to which they are impacted.

Impact on other stakeholders

There are no identifiable impacts on governments, accredited surveyors or other parties as a result of the changes proposed in this sub-option.

Impact on safety

This change will provide safety benefits by ensuring that high risk vessels are subject to adequate survey requirements. If the survey requirements are not adequate, there is a higher chance that the vessel will not meet the applicable design, construction, equipment or maintenance standards, which in turn places the vessel at greater risk of an incident and creates a risk to crew and passengers, other vessels and the marine environment.

Due to data limitations, these safety benefits have not been quantified. However, a number of recent incidents have highlighted the gaps in the current survey regime which this proposed change will remove. For example, a Queensland Coroner found that a 2013 fatality was caused in

part by the modification of a fishing dory (a fishing tender vessel) to include a fish tank, which impacted on the stability of the vessel and caused it to more easily overturn.[15] Under the proposed new high risk list, a vessel with a high deck load, including a small fishing vessel with a fish tank, would be subject to survey, even if the vessel was otherwise low risk.

Addressing the problem

Sub-option 3B addresses problem 2 (survey modifiers for high-risk vessels and operations require review) set out in chapter 2 of this RIS by**:**

- amending the current 'high risk' list to align requirements with safety risks, focussing on (in particular) the lifting or slewing potential criteria, the three tonne cut-off for cranes, the treatment of barges and the definition of fast craft.

5.3.3 Sub-option 3C: Proposed new national system survey limits

Sub-option 3C is designed to address problem 3, raised by stakeholders and outlined in chapter 2 of this RIS. It is also designed to address objectives 1 and 2 of government action, outlined in chapter 3 of this RIS.

Under the current arrangements, for new vessels ≥35 metres and existing vessels ≥35 metres constructed to the NSCV, the deemed-to-satisfy solution under part C of the NSCV is design, construction and maintenance in accordance with the rules of a classification society.

This means that vessels ≥35 metres must be in class, unless an equivalent solution or grandfathering arrangement applies.

The proposed change involves permitting vessels <45 metres to be in initial survey under the National Law from mid-2020. In addition, all vessels <65 metres may move into national system survey, provided they have undergone an initial survey by a classification society that is a recognised organisation under the Navigation Act.

All vessels 35 metres and over which carry dangerous goods or which are category 1 fast craft over 500GT would continue to be required to be classed. An operator could also elect to have their vessel built to class standards and surveyed by a class society. To support the proposed arrangement, the NSCV would include design and construction standards for vessels less than 45 metres in length.

Impact on vessel operators

Based on an analysis of the current fleet, it is estimated that there are 207 vessels 35 metres to <65 metres that are currently operating in the national system. A number of these vessels will not be in class as they will have had their pre-national system survey arrangements grandfathered.[16] Under the proposal, those vessels that are in class will have the option of moving out of class and into national system survey.

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[15] Inquest into the death of Glenn Anthony Wilson, Findings, Cairns Coroners Court, 24 May 2016

[16] Prior to 1 July 2013, State and Territory jurisdictions applied different 'cut-off' points to the class requirement. As such, some vessels between 35 and 45 metres in operation prior to 1 July 2013 will not be in class as their previous survey arrangements are recognised and grandfathered under the national system.

In addition, the 14 or so new vessels 35 metres to <65 metres entering the national system each year could undergo an initial survey process by a classification society, and then move into national system survey for periodic surveys.

From mid-2020, the 8 or so new vessels between 35 metres and <45 metres in length entering the national system each year will also have the lower-cost option of initial survey by a national system accredited surveyor.

National system survey fees are generally charged on a vessel length (per metre) basis, or on an hourly basis. In the following table, initial survey fees have been identified based on a 40 metre vessel,[17] and periodic survey fees have been identified based on a 45 metre vessel.[18] 14 hours has been allowed for each of the design approval, initial survey and periodic survey phases.[19] The 'weighted average' is the average fee per vessel, based on the number of vessels in each jurisdiction.

Table 8 — Survey fees at 1 December 2016 for a 40 metre and 45 metre vessel

Jurisdiction	Initial survey fees – 40 metre vessel	Periodic survey fees – 45 metre vessel
NSW	$12,920	$4230
NT	$8160	$1845
QLD	$143 plus $170.40 per hour design approval and $127.80 per hours initial survey fees Total: $4,317.80	$127.80 per hour Total: $1789.20
SA	$7783 initial survey plus $186 per hour plan approval Total: $10,387	$4582
TAS	$199.32 per hour for design approval and initial survey $5580.96	$906
VIC	$5528.60	$779.25
WA	$72,815	$6126
Weighted average	**$17,269.86**	**$3155.50**

[17] The median vessel length of 40 metres has been chosen for estimation purposes for initial survey, as the proposed change affects vessels 35 metres – <45 metres.

[18] The median vessel length of 45 metres has been chosen for estimation purposes for periodic survey, as the proposed change affects vessels 35 metres – 65 metres.

[19] The 14 hour figure is based on feedback from surveyors. It was noted that the time taken to undertake design approval and the surveys varied significantly depending on the vessel and the comprehensiveness of the documentation provided to the surveyor. 14 hours is considered to be a conservative figure for the purposes of cost estimation.

In order to estimate the impact of this proposal, it is assumed that:

- 70 per cent (145) of existing vessels 35 metres to <65 metres are currently in class survey, and 50 per cent (73) of these would move into national system survey[20]
- 50per cent (7) of new vessels 35 metres to <65 metres entering the national system each year would undergo classification society initial survey processes and then move into national system survey
- 80 per cent (6) of new vessels between 35 metres and <45 metres entering the national system each year would elect to enter into national system initial and periodic survey from mid-2020
- it costs $263,000 to build a vessel to class in class society fees and $15,800 per year to maintain a vessel in class[21]
- it costs $17,269.86 to build a 40-metre vessel under national system survey in survey fees and $3,155.50 per year to maintain a 45-metre vessel in national system survey (as shown in table 8 above).

It is also assumed that the fleet grows at 3.5 per cent a year and turns over at 3.5 per cent a year.[22]

Based on these assumptions, it is estimated that sub-option 3C will save industry (vessel operators) a total of $21,531,083 in compliance costs over a 10-year period in 2017 dollars. This does not include time savings or on-costs associated with class requirements.

For a new 40-metre class 1, 2 or 3 vessel entering the fleet in 2021, which elects to be in national system initial and periodic survey, this represents an average saving of $205,000 in initial survey fees and, from 2022, $10,000 in periodic survey fees per year in 2017 dollars.

Sub-option 3C may reduce further business compliance costs where it is less costly for operators to deal with national system surveyors than with classification societies when undertaking vessel surveys. However, the impact of the proposal on administrative, operational and delay costs for businesses is unknown and is not calculated in this RIS.

Impact on government

If these vessels were surveyed by government accredited surveyors (as opposed to private accredited surveyors), and government agencies recover on average 70 per cent of costs per vessel survey, the additional costs to government (marine safety agencies) over a 10-year period associated with sub-option 3C are $1,483,567 in 2017 dollars. These estimated costs should be seen as the maximum amount, as this figure would be reduced where private accredited surveyors undertake the survey.

Impact on private accredited surveyors and classification societies

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[20] It is assumed that a significant proportion of vessels in class would elect to maintain class certification due to the resale value of the vessel and other factors. However, the significantly lower compliance costs associated with national system survey will see a significant proportion move out of class. Hence, the 30 per cent figure has been applied.

[21] The costs of classification society construction and survey are based on industry feedback during the streamlining consultation.

[22] See page 15 for a discussion on the fleet growth rate.

This reform will potentially reduce income from surveys of domestic commercial vessels for classification societies. However, as noted above, this impact will be partially offset by the potential increased demand for other private surveyors accredited under the National Law. These impacts could not be measured are not calculated in this RIS.

Impact on safety

Classification societies have structures in place to manage the complexities of larger vessels and to ensure that vessels are built and maintained to a high level. As such, there may be safety implications associated with changing the class requirements for larger vessels. However, as a result of the consultation with stakeholders and the risk analysis, these costs are not considered to be substantial. In addition, any safety costs resulting from the reduction in surveys undertaken by classification societies will be managed through the surveyor accreditation arrangements and accredited surveyor insurance requirements.

A transitional implementation period of around three years has been identified as necessary for the proposed change to the initial survey requirements. This will allow the appropriate changes to the surveyor accreditation scheme to be made, so that the change does not impact negatively on safety outcomes. These changes could include training, experience and insurance requirements for national system surveyors to be accredited to undertake the initial survey of vessels 35 - <45 metres in length.

For vessels 45 metres in length and longer, initial survey and certification by a classification society will continue to be required. This will ensure that the current high level of scrutiny over the initial construction of these larger vessels will continue. Further consideration will be given to training and experience requirements for surveyors undertaking periodic surveys of vessels 35 – <65 metres prior to the implementation of this proposal.

Further, under the current arrangements, there is a strong incentive for vessels to be built to 34.9 metres, rather than being built to the ideal size for its intended purpose. The proposed reform will encourage more vessels to be built ‘fit-for-purpose’, which has positive safety implications from an occupational health and safety and marine safety perspective. Given that a new length limit is proposed (45 metres) it is acknowledged that there will be new incentives for vessels to be built to 44.9 metres. However, increasing the length limit will result in more vessels being built fit-for-purpose overall as the number of vessels with longer lengths is smaller. In addition, the ability to move a vessel <65 metres into national system periodic survey after initial survey by a classification society decreases the incentive for vessels to be built to 44.9 metres. This safety benefit will also assist to off-set the potential safety implications of changing the class requirements.

While the safety implications of sub-option 3C are unable to be quantified, AMSA expects that any safety costs associated with reducing classification survey requirements would be offset by other aspects of the proposal. No comments were received on the potential safety implications and costs of this sub-option during consultation with stakeholders on the proposed instrument and this RIS.

Addressing the problem

Sub-option 3C addresses problem 3 (‘cut-off’ points for national system survey are not risk based and create perverse incentives and costs for operators) set out in chapter 2 of this RIS by**:**

- aligning the national system survey cut-offs with the risks of larger vessels
- allowing more vessels to be built 'fit-for-purpose'.

5.3.4 Sub-option 3D: Proposed new survey arrangements and depth

Sub-option 3D is designed to address problem 4 raised by stakeholders and outlined in chapter 2 of this RIS, as well as to align the survey arrangements with the accredited surveyor regulations. It is also designed to address objectives 5, 6 and 7 of government action, outlined in chapter 3 of this RIS.

Impact on stakeholders

The current survey regulations contained in Marine Order 503 and NSAMS 4 do not align fully with the new accredited surveyor arrangements under the National Law. For example, the current regulations do not adequately provide for survey reports being provided to the national regulator at various stages of the survey process.

The proposed changes ensure that Marine Order 503 aligns with the accredited surveyor regulations. In doing so, they allow the national regulator to rely on the advice of private accredited surveyors when issuing and renewing certificates of survey and facilitate the development of a private marine surveyor industry around Australia. A private accredited surveyor industry will increase competition and provide operators with more options on how they meet their vessel survey obligations under the National Law.

The current survey schedules contained in NSAMS 4 do not adequately account for new technologies, such as ultrasonic testing and paint systems. The proposed changes provide greater flexibility to reduce out-of-water surveys where risks are mitigated through other measures, such as ultrasonic testing and paint systems, which will reduce costs and vessel down time. This change will potentially benefit a large number of operators.

The current survey arrangements also do not provide sufficient flexibility in survey timing – surveys generally must be completed by the date identified on the certificate of survey. The proposed new survey arrangements allow surveys to take up to 3 months prior to and 3 months after the date the survey is due (which is the anniversary date of the certificate of survey, in the year the survey is due, unless an earlier date is nominated by the operator as the preferred anniversary date for periodic surveys to be undertaken). The only exception to this is renewal surveys, which must take place within the 3 months prior to the expiry of the certificate of survey (unless an earlier date is nominated by the operator).

Regardless of when a periodic survey is undertaken, the date of the next survey remains the anniversary date of the certificate of survey (in the year the survey is due) unless an earlier date is nominated by the operator as the preferred anniversary date for periodic surveys to be undertaken. This arrangement allows the surveys to be more readily aligned to other maintenance activities and with the availability of slip facilities and surveyors, and reduce down-time costs. This change will benefit all operators of vessels in survey.

Quantifying these proposed changes is challenging as it will depend on the circumstances of each vessel and operator. However, as part of the streamlining review of the national system, one stakeholder submitted that out-of-water surveys on his vessels had cost $300,000 over 10 years, as they did not align with the vessels' anti-fouling paint regimes.

This sub-option is not expected to have any impact on business administrative, operational or delays costs, except as set out above.

Impact on other stakeholders

There are no identifiable impacts on governments, accredited surveyors or other parties as a result of the changes proposed in this sub-option.

Impact on safety

This sub-option is not expected to have any safety benefits or costs, as it does not impact on the number of surveys undertaken. Rather, the proposal creates more flexibility in the exact timing of each survey and allows for the use of current technology when a survey is undertaken.

Addressing the problem

Sub-option 3D addresses problem 4 (survey requirements do not accommodate new technology and operational needs or align with related regulations) set out in chapter 2 of this RIS by**:**

- allowing for greater flexibility in the timing of surveys, so that operators can align survey with other maintenance activities and work around the availability of slip facilities
- ensuring that the survey requirements and schedules take modern technology, including paint systems and ultrasonic testing of the hull, in account
- ensuring that the survey regulations contained align fully with the new accredited surveyor arrangements under the National Law.

5.3.5 Business compliance costs

The COAG best practice regulation guide requires consideration be given to the compliance burden imposed on business as a result of proposed regulatory change. These are the additional (incremental) costs incurred by business when complying with regulations.

Details of the expected compliance costs associated with option 3 (including all four sub-options) are provided in the regulatory costing at **appendix B**. This costing is consistent with the requirements of the Australian Government Regulatory Burden Measurement framework and has been reviewed by the OBPR. It shows each compliance cost item covered by the framework and explains the cost calculations and assumptions used. A summary table showing the outcomes of this costing is provided in table 9 below.

Stakeholder comments were invited on the outcomes of the regulatory costing and the underlying data and assumptions used in these calculations. No comments were received, however, changes have been made to the costing as a result of changes to the assumptions underpinning the impact analysis set out in chapter 5. For example, as a result of the reduction in the assumed fleet growth and turnover rates (from 5% to 3.5%), the estimated annual regulatory cost savings reduced, but that reduction was offset by the change in the proposed commencement date for the proposals (which impacted the number of vessels affected and fee levels). See chapter 6 for all comments received on the assumptions, and all changes made to the assumptions.

For further details about the Regulatory Burden Measurement framework and costing methodology.

Table 9 — Regulatory burden and cost offset estimate table

Average annual regulatory costs (from business as usual)				
Change in costs ($ million)	Business	Community organisations	Individuals	Total change in costs
Total, by sector	-$14.31	$0	$0	-$14.31
Cost offset ($ million)	Business	Community organisations	Individuals	Total, by source
Agency	$0	$0	$0	$0
Are all new costs offset? **□ Yes, costs are offset □ No, costs are not offset ☑ Deregulatory—no offsets required**				
Total (Change in costs – Cost offset) ($ million) = -$14.31				

5.3.6 Competition effects

The COAG Best Practice Regulation Guide requires the competition effects of any proposal to be considered as part of an evaluation of the effectiveness of the proposal relative to the alternatives.

By reducing the incentives for holding onto older, grandfathered vessels, the proposed survey regime helps to ensure competitive neutrality between businesses, regardless of where they operate, and between new and pre-national system operators. Under current arrangements, some pre-national system operators may have a competitive advantage due to the different survey arrangements that apply to these vessels.

In addition, sub-option 3A would reduce the costs of survey over a five year period for the majority of the fleet, so it would have a positive effect on the overall cost structure of individual organisations who operate commercial vessels. Although businesses will continue to incur the routine costs associated with survey, these ongoing costs are unlikely to be higher than under the current arrangements or to restrict market competition, market entry or product and service innovation.

It is highly unlikely that the requirements will be unsustainable for existing small businesses or act as a barrier for businesses planning to expand or to enter the maritime industry. While it is difficult to determine the exact portion of the fleet that is likely to be operated by small businesses, they are expected to operate a large number of the vessels affected by option 3, including at the smaller end of the fleet. The proposed survey arrangements are not expected to unfairly disadvantage small businesses, as they reduce costs across the fleet. In fact, the proposed changes to survey requirements may particularly benefit small businesses, as survey costs are

likely to comprise a larger share of their overall operating costs as compared to larger businesses.

It should be noted that competition effects relating to the provision of surveys by either private or government surveyors are not dealt with here. These effects are a result of the introduction of National Surveyor Accreditation Scheme and are not related to the proposals outlined in this RIS.

5.4 Option 1: Maintaining the current survey regime without amendment

Option 1 involves maintaining the current survey regime without amendment. The current survey requirements were a compromise on state and territory requirements in place prior to national system commencement and are not based on a thorough risk assessment. Option 1 also means that the current complicated, out-dated and inconsistent regulatory structure will continue, along with current difficulties in the consistent application and interpretation of the requirements.

Impact on stakeholders

Under this option, the benefits and costs of amending the survey regime identified above would not be realised. The costs of option 1 include:

- Continued high survey costs to operators. The changes to periodic survey in sub-option 3A would save $56,540,315 to industry and $20,122,018 to government. Not implementing these changes will cost industry and government $76,662,332 over the 10 year period 2018–2028 in 2017 dollars.
- No ability to modify survey requirements on a risk basis for individual vessels. This means the national regulator has no ability to address the risks of individual vessels which perform poorly during surveys or compliance activities through the implementation of more onerous survey requirements. Conversely, it is also has no ability to provide an incentive for sound safety management by rewarding good operators with reduced survey frequency where the vessel performs well during surveys and compliance activities.
- Continuation of the current ‘gaps’ in the definition of higher risk vessels and activities that require greater regulatory oversight. These create a safety gap in some cases and impose unnecessary compliance costs in others.
- Continued high compliance costs for operators of vessels ≤35 metres in length. The changes to classification society requirements contained in sub-option 3C would save $20,047,515 over the 10–year period 2018-2028 in 2017 dollars (including $21,531,083 in savings to industry and $1,483,567 in costs to government). Not implementing these changes would cost $20,047,515 over the 10–year period 2018-2028 in 2017 dollars, not including unquantified time and compliance costs associated with class requirements.
- Continuation of the current inflexible arrangements for survey timing, and no allowance for reducing in and out-of-water surveys where risks are mitigated through other measures, such as ultrasonic testing and paint systems.

Impact on safety

There are safety benefits associated with frequent vessels surveys under the current arrangements—see chapter 2 for a discussion on the link between survey and safety outcomes.

However, the high cost of frequent surveys has also created an incentive for operators to retain older, grandfathered vessels rather than purchasing new, safer vessels. This is due to the differences in costs between the previous state and territory grandfathered arrangements and the requirements of the national system for new vessels. Where the previous state and territory requirements are lower than the national system requirements, the grandfathering arrangements create a strong incentive for holding on to older vessels.

In addition, the current 7.5 metre 'cut-off' points for survey frequency levels has created an incentive for operators to purchase smaller vessels which are less safe and not 'fit-for-purpose'. Allowing some larger vessels to be subject to less frequent survey helps ensure that the appropriate vessel for the operation is purchased and deployed.

Finally, the problems with the current 'high risk' list – which captures some high risk vessels and operations, but not others – creates a risk of incidents where vessels fall through the 'gaps'.

The safety benefits of the frequent surveys required under the current arrangements are considered to be off-set by the safety implications of these arrangements. As such, the safety benefits of the current survey regime have not been quantified for the purposes of this RIS.

As this option is the 'status quo' it will have no impact on current business compliance costs, including administrative, operational and delay costs.

Addressing the problem

Option 1 does not address any of the problems set out in chapter 2 of this RIS.

5.5 Option 2: No regulated minimum survey requirements

Under option 2, the requirements of the National Law would continue to apply. This would mean that all vessels would need to obtain a certificate of survey.

Impact on stakeholders

Operators would be subject to their general safety duty to maintain the vessel so that the vessel is safe, so far as reasonably practicable, but no mandated survey regime would apply. Operators would need to determine a survey and maintenance regime for their vessel which ensures that their general safety duty is met, under a self-regulatory approach.

Co-regulatory arrangements could also be implemented under this option. For example, industry associations could establish codes of practice to identify appropriate minimum survey schedules. Such arrangements have been and are being implemented for lower-risk sectors with clear governing bodies. For example, the complementary non-survey reforms (see chapter 6 and **appendix C**) include arrangements for vessels affiliated with Yachting Australia, Surf Lifesaving Australia, the Australian Waterski Federation and similar organisations in inshore waters.

This option could significantly reduce the compliance burden for businesses, including administrative, operational and delay costs, by removing survey transactions with the national regulator. However, the businesses may face other costs if they seek third party assurance that a vessel meets the required standard, as part of their risk management or for insurance purposes.

Impact on safety

Neither the self-regulatory or co-regulatory approach under this option allow the national regulator to mandate a minimum survey regime for any segments of the fleet. The survey requirements applied through Marine Order 503 aim to mitigate the risks of an incident involving a commercial vessel, and in doing so protect crew and passengers on board the vessel. See chapter 2 for a more detailed discussion on the link between survey and safety outcomes

Not all operators have sufficient knowledge to determine a minimum survey regime that would ensure that the vessel continues to meet an appropriate standard. In addition, commercial and other pressures can conflict with an operator's desire to ensure that their vessels remain safe. The National Marine Safety Committee's 2009 report, *Commercial Vessel Incidents in Australia 2005-2008*, found that material factors (such as hull failure, equipment failure and lack of maintenance) contributed to 18 per cent of incidents involving domestic commercial vessels. These risk factors are directly addressed by a vessel survey regime. Without mandated minimum survey requirements, the number of incidents caused by material factors would be likely to significantly increase.

The full safety implications of this option are not known but could be substantial. Although the minimum design, construction, equipment and maintenance standards would remain in place, the compliance of a vessel with these standards would not be required to be confirmed initially or on a periodic basis. The standards are highly technical and third party review by an accredited surveyor assists all operators to comply and to ensure that a vessel is safe.

There are also community expectations that governments will oversee the safety practices of operations passenger carrying transport, which would not be met through either self-regulatory or co-regulatory arrangements. An incident involving significant loss of life may cast doubt over the safety of the domestic fleet and cause economic damage to Australia's maritime industry.

Due to the safety risks associated with some segments of the fleet, and the absence of compliance incentives that a mandatory survey regime provides, option 2 is not considered preferable.

Addressing the problem

Option 2 does not address any of the problems set out in chapter 2 of this RIS.

6. Consultation

This chapter outlines the initial review and further consultation undertaken for this RIS. The outcomes of the initial review and consultations are also provided.

Individuals and organisations were invited to comment on the outcomes of the consultation conducted to date and to provide other suggested outcomes not already considered here.

6.1 The streamlining review

Consultation on the streamlining review occurred from May to July 2014. The objective of this consultation was to ensure that the national system achieved significant safety and economic returns, by identifying inefficiencies and areas in which the regulatory settings could be improved.

Stakeholders were asked:

- whether they had identified inefficiencies in the system that should be reviewed
- whether there was anything in the rules that applied to them that did not make sense, particularly in terms of achieving safety outcomes
- if there were any major safety failings that needed to be addressed
- how they would like to see commercial vessel regulation change.

Face-to-face consultations were undertaken around Australia, including at 24 open consultation sessions attended by around 800 stakeholders, a round table discussion with key industry representatives and presentations at industry association meetings. A total of 79 submissions were received.

Through this consultation, stakeholders raised the following issues with the current survey system:

- the need to include personal watercraft, water-powered jet packs and human powered vessels in the non-survey category
- the need to apply a light regulatory touch to vessels in sheltered, particularly inland, waters
- the need to consider the complexity of larger vessels when determining the survey arrangements
- concerns with the ability of recreational boat builders to build to the required standard
- the option of undertaking an initial inspection of some non-survey vessels to confirm compliance
- concerns with self-assessments of compliance to the required standard
- the need to reconsider the treatment of vessels in C (restricted offshore) waters, given the high compliance costs associated with the current arrangements
- the need to introduce a light regulatory touch for some small passenger vessels
- the need to review the current survey requirements on a risk basis
- the need for greater flexibility in the timing of surveys
- the need to adjust survey requirements on a vessel or operator basis

- concerns with the standard of segments of the fleet—particularly the fishing fleet—and the need to ensure adequate survey arrangements are in place
- the importance of an effective SMS in addressing safety issues
- the need to review the 'modifiers', in particular to reconsider the lifting or slewing potential criteria, three tonne cut-off for cranes, treatment of barges and the definition of fast craft
- the financial implications of requiring vessels to be in class, and the arbitrary nature of the 35 metre cut-off which leads to vessels being built to 34.9 metres and creates an incentive to hold on to older grandfathered vessels
- the need to consider the complexity in technical construction and operation of vessels over 35 metres, and the insurance arrangements for surveyors of these vessels
- the need for additional monitoring to address any risks associated with reducing survey requirements
- the need to review the frequency of shaft and hull inspection requirements, and equipment survey requirements, in light of new technologies including ultrasonic testing and paint systems
- the need to improve the consistency of surveys and advice from marine safety agencies.

These concerns, and risk analysis undertaken as part of the streamlining review, provided the basis upon which the proposed changes to survey arrangements under option 3 were developed. Specific comments relevant to the four sub-options under option 3 are provided in **appendix D**.

Stakeholders who made submissions as part of the streamlining review included government agencies, marine safety agencies, fishery agencies, fishing and aquaculture industry bodies, universities, water corporations, commercial vessel operators, surveyors, tourism operators, boat builders, yacht clubs, unions, ferry companies, naval architects, boat designers, museums, hire and drive industry groups and training organisations.

6.2 Early outcomes of the streamlining review

The following complementary reforms have been, or will soon be, implemented in response to the outcomes of the streamlining review. They are not part of the regulatory impact assessment in this RIS, but have been included here for information purposes as they complement the proposed arrangements under option 3.They are:

- Complementary reform #1: Non-survey vessels
- Complementary reform #2: Restricted C class.

See **appendix C** for a detailed description of these complementary reforms and their impact.

6.3 Consultation on this RIS

Public consultation on the proposed survey regime occurred from 17 August 2015 to 12 October 2015. Consultation documentation included:

- the consultation RIS as approved by the OBPR
- the draft revised Marine Order 503, which included the proposed changes

- the draft regulatory costing showing estimated business compliance costs (see section 5.3.5 and appendix B of this RIS for further details).

The objective of this consultation was to obtain stakeholder feedback on the proposed survey regime changes, and on alternative options to these. Information was also sought from stakeholders on data and other gaps in the draft RIS, and on the cost implications of the options.

Notification of the consultation was provided in the following ways:

- publication of the proposed survey regime and draft RIS on the AMSA website
- publication of the draft RIS on the OBPR website
- inclusion in AMSA's annual regulatory plan
- an invitation to comment on the proposal and draft RIS sent to key stakeholders
- an invitation to comment on the proposed survey regime and draft RIS was included in the AMSA publication, *Domestic Vessels e-News*, emailed to approximately 28,000 stakeholders.

Individuals and organisations were invited to comment on any aspects of this RIS, including the four sub-options under option 3 and any other options which would address the problems and meet the objectives outlined in chapters 2 and 3.

Fourteen written submissions on the RIS were received during the consultation period. All issues raised in the submissions, together with a response to the issue, are described below.

6.3.1 General comments on the options

Two industry stakeholders (one vessel operator and one industry association) provided comment on the three alternative options put forward. Both of these stakeholders strongly supported option 3 (amending the survey regime) and did not support options 1 or 2.

Another vessel operator commented that aspects of the maritime industry, such as charter vessels, were over-regulated and would continue to be over-regulated under option 3. AMSA considers that the proposed changes to survey represent a realignment of risk with safety outcomes. Further reductions in survey requirements for passenger carrying vessels (including charter vessels) are considered to pose too high a risk to safety.

6.3.2 Comments on sub-option 3A: proposed new periodic survey regime

The majority of submissions received commented on the detail of the new periodic survey regime proposed under sub-option 3A. These comments are summarised in the following table, together with any changes made to the proposal as a result of the comment.

Table 10 — Comments on the proposed new periodic survey regime (sub-option 3A)

Comment	Stakeholder category	Response / Changes to proposal
A reduction of survey frequency of one year in five for a class 1C vessel is not enough of a reduction. Safety gear and boat condition do not deteriorate in 12 months, and survey cycle years 3 and 4 should both be self-declaration years in lieu of a survey. This would align more closely with the New Zealand requirements.	Vessel operator	No changes made to the proposal. While a well maintained vessel would not see a deterioration in safety gear and boat condition, the survey requirements will pick up any vessels that are not being maintained to the required standard. Where a vessel is well-maintained and continues to perform well during periodic surveys and other compliance monitoring activities, it may be moved into the medium survey frequency category and be subject to a 2-in-5 year survey requirement.
A passenger carrying 2C vessel <12 m (in low survey frequency under the proposal) has a similar operational risk as a passenger carrying 2C vessels 12m and longer (in high survey frequency under the proposal). The survey regime for these vessels should be the same, as the risks are the same.	Vessel operator	Proposal amended. The National Marine Safety Committee's 2009 report, *Commercial Vessel Incidents in Australia 2005-2008*, found that vessels with longer lengths (>12m) were more likely to be involved in an incident and in a serious injury incident. In addition, larger vessels are more complicated and more likely to benefit from frequent surveys. However, the difference in survey requirements for a 14 m passenger carrying vessel as opposed to a 11.9 m passenger carrying vessel under the proposal were significant (high as opposed to low). The proposal has been amended so that 2C vessels ≥12 m which carry passengers are in medium survey frequency, rather than high survey frequency. In addition, the new arrangements include the power to move a vessel into a lower or higher survey frequency category depending on how the vessel performs during surveys and other compliance monitoring activities. Once the regime has been in effect for a short period of time, it is likely that many 2C vessels <12 m and 2C vessels 12 m and longer will be subject to the same survey frequency.
2C vessels ≥12 m which carry passengers should not be in high level survey when 2C vessels <12 m carrying passengers are in low level survey. 2C vessels ≥12 m which carry passengers should not be considered to be high risk.	Marine safety agency	The proposal has been amended so that 2C vessels ≥12m which carry passengers are in medium survey frequency.
Why are 4C vessels <12 m in low survey frequency when 2C vessels are in medium or high survey	Vessel operator	Proposal amended 4C vessels <12 m are in low survey frequency, while 4C vessels ≥12 m are in medium survey

Comment	Stakeholder category	Response / Changes to proposal
frequency? These vessels carry a similar number of persons and the 2C vessel is operated by a qualified operator – therefore, the 2C vessel's operational risk should be lower than the 4C vessel.		frequency. 2C vessels <12 m which carry passengers are in low survey frequency. As outlined above, the proposal has been amended so that 2C vessels ≥12 m which carry passengers are in medium survey frequency. The same survey categories apply to 2C vessels which do not carry passengers, except for those under the Restricted C arrangements. In other words, the same survey requirements will apply to 2C and 4C vessels, until or unless the survey requirements are adjusted on an individual vessel basis. Under the proposal, the survey regime will be modified on an individual vessel basis, depending on how the vessel performs during survey and other compliance monitoring activities. In addition, the risk level of a 2C vessel is not considered to be lower than that of a 4C vessel. Passengers who pay a fare to board a vessel, assume that the vessel is safe. As a result, they do not consider the safety of the vessel or its operation. Participants on a class 4 leisure craft operation will generally be more aware of the limited experience of the operator. As a result, the class 4 operation is based on a different set of parameters, including expectations of vessel safety and voluntary assumption of risk by participants, compared with the parameters applying to a passenger on board a charter vessel operated by qualified crew. Leisure craft are also likely to be used less frequently than a class 2 passenger carrying vessel.
2C vessels <7.5 m operating in the Great Barrier Reef and Torres Strait should not be subject to survey. Small research vessels have been operating safely for many years in Queensland, without survey obligations.	Vessel operator	No changes made to the proposal. Queensland legislation required these vessels to have certificates of compliance or statements of positive flotation prior to registration. This earlier Queensland system is not equivalent to the non-survey category under the National Law. The Restricted C vessel arrangements were designed to manage the operation of smaller, lower risk operations in some C waters.
Large 2B and 3B fishing vessels are only proposed to be in the medium category. This industry is rated by the insurers as the most dangerous in the world, and should be subject to higher survey requirements.	Vessel operator	No changes made to the proposal. Under the proposal, vessels 45 m and over in length will be subject to initial survey by a classification society, which ensures that the vessel is built to the appropriate standard.

Comment	Stakeholder category	Response / Changes to proposal
All class 1 vessels should be in annual survey. Self-declarations have been proven to not be an effective method of maintaining the safety of a vessel.	Marine safety agency	Proposal amended. The proposal has been amended to include the option of moving vessels into an annual survey schedule where they perform poorly during surveys or other compliance monitoring activities. This will be achieved through the survey mobility policy.
Self-inspection (self-declaration) and SMS review requirements should not replace a visual inspection by an experienced qualified surveyor.	Vessel operator	Proposal amended. Under the proposal, the self-declaration requirements are new and additional requirements, and do not replace surveys except in one instance. For high survey frequency vessels, an SMS assessment combined with a self-declaration of compliance replaces one periodic survey in the five year survey schedule. For these vessels, a periodic survey is required the year prior to and the year after the self-declaration. Once the proposed new survey regime has been implemented, the standard of these vessels at the 5th year (renewal) survey will be monitored to determine whether or not the replacement of the 4th year survey is having an impact on compliance outcomes. In addition, the proposal has been amended to include the option of moving vessels into an annual survey schedule where they perform poorly during surveys or other compliance monitoring activities. This will be achieved through the survey mobility policy.
Will there be guidelines to assist with the owner self-declaration requirement?	Vessel operator	No changes made to the proposal. Guidelines will be developed to support the self-declaration requirements.
What does self-declaration entail and how will it be audited?	Vessel operator and marine safety agency	No changes made to the proposal. Guidelines will be developed to support the self-declaration requirements. Self-declarations will be monitored as part of compliance monitoring activities by Marine Safety Inspectors. They would also form part of the SMS assessment included in the proposed new survey schedule. In the future, self-declarations may move to an online portal, which would allow the national regulator to be notified if one was not completed.
The five year gap between in-water surveys for medium survey frequency vessels is too long. Consideration	Marine safety agency	No changes made to the proposal. What aspects of the vessel must be reviewed

Comment	Stakeholder category	Response / Changes to proposal
should be given to an in-and-out-of-water renewal survey for these vessels, rather than an out-of-water renewal survey only.		during a renewal survey will be considered as part of the development of the Surveyor Manual on survey.
Tasmania has a number of permanently moored barges in the aquaculture industry. Permanently moored barges <24 m in sheltered waters are required to undergo an initial survey, but only in-water renewal surveys are required. The proposal negatively impacts on the aquaculture industry.	Marine safety agency	No changes made to the proposal. These barges can apply for an equivalent solution on the out-of-water renewal survey requirements. Alternatives to five yearly out-of-water surveys would be considered on application, but vessels would need to undergo an out-of-water survey at least every 10 years. The potential financial impact on permanently moored vessel operators are considered to be low given the 10-year timeframe between out-of-water surveys.
The requirements need to delineate between powered and propelled barges.	Marine safety agency	Proposal amended. The inclusion of ‘powered barges’ in the low survey frequency category was an error—it was intended that ‘unpowered barges’ be included in the low survey frequency category. Powered barges are subject to the general survey requirements. An unpowered barge is a vessel that, unless making a short field move, is navigated by a powered vessel that moves it by pushing or towing and is not propelled by mechanical means other than a means of propulsion that may assist the vessel to: • maintain a relatively fixed position in the water when the vessel is at a work location • make a short field move (for example, a bucket dredge manoeuvring around a dredging location using its anchor lines or the bucket) • provide assistance while being towed to or from a work location.
What are the requirements for barges with machinery?	Marine safety agency	Proposal amended. The requirements for barges with machinery will depend on whether the barge is powered or unpowered. As above, unpowered barges are in the low survey frequency category. Powered barges are subject to the general survey requirements. An unpowered barge is a vessel that, unless making a short field move, is navigated by a powered vessel that moves it by pushing or towing and is not propelled by mechanical

Comment	Stakeholder category	Response / Changes to proposal
		means other than a means of propulsion that may assist the vessel to: • maintain a relatively fixed position in the water when the vessel is at a work location • make a short field move (for example, a bucket dredge manoeuvring around a dredging location using its anchor lines or the bucket) • provide assistance while being towed to or from a work location.
There should be a delineation between powered and propelled to ensure that dredges and barges with large power plants are included in the modifiers.	Marine safety agency	Proposal amended. As above, unpowered barges are in the low survey frequency category. Powered barges are subject to the general survey requirements. An unpowered barge is a vessel that, unless making a short field move, is navigated by a powered vessel that moves it by pushing or towing and is not propelled by mechanical means other than a means of propulsion that may assist the vessel to: • maintain a relatively fixed position in the water when the vessel is at a work location • make a short field move (for example, a bucket dredge manoeuvring around a dredging location using its anchor lines or the bucket) • provide assistance while being towed to or from a work location.
Is there a difference between a renewal survey and in-water survey?	Marine safety agency	No changes made to the proposal. A renewal survey under the proposal is an out-of-water survey. What aspects of the vessel must be reviewed during a renewal survey will be considered as part of the development of the Surveyor Manual on survey.
Consideration should be given to increasing survey frequency requirements for older vessels.	Marine safety agency	No changes made to the proposal. The age of the vessel will be taken into account as part of the ‘survey mobility policy’. This policy will govern when a vessel can move into higher or lower survey frequency.

Comment	Stakeholder category	Response / Changes to proposal
The survey mobility policy need to be developed in advance so industry can understand the impact of the arrangements. Transparency around the proposal is critical given the differing approaches to enforcement of survey requirements between privately accredited and government surveyors.	Private marine surveyor	No changes made to the proposal. The survey mobility policy is currently being developed. Consideration will be given to releasing the policy publicly – there are advantages and disadvantages to this approach. For example, releasing the policy publicly creates a risk that pressure will be placed on surveyors in order for vessels to move into a lower survey frequency category.
How would SMS audit outcomes impact on the survey mobility policy?	Private marine surveyor	No changes made to the proposal. The role of SMS audits in the survey mobility process is under consideration. The type of deficiency and number of deficiencies could impact on survey mobility.
The survey mobility policy should make it clear when vessels currently exempt from survey under the grandfathering arrangements will be moved into survey where the requirements of Part E are not met.	Private marine surveyor	No changes made to the proposal. The survey mobility policy is currently being developed and consideration the circumstances under which a vessel found to be non-compliant through a compliance monitoring activity should be moved into survey.
The timeframes for SMS audits in the ISM Code are at different intervals to the Marine Order 503 SMS review requirements. This will make it more cumbersome for a business operating multiple vessels.	Private marine surveyor	Proposal amended. Where a vessel undergoes audits in line with the ISM Code, these will meet the requirements for SMS reviews under the proposal. Similarly, if an operator has opted into an industry scheme such as ‘Clean Green’, audits undertaken as part of that regime will meet the SMS review requirements.
SMS should be treated as mutually exclusive to survey and not included in a periodic survey schedule. Otherwise, clarification should be provided as to what elements of the SMS are verified, and SMS verification should occur at each periodic survey. The SMS assessments proposed are also out of step with operational risk. For example, a low survey frequency vessel (for example, an abalone vessel) is only subject to one SMS assessment at year 5 of the survey cycle. These types of operations would also be categorised as high operational safety risk. This highlights why SMS should not be tied to	Marine safety agency	No changes made to the proposal. The surveyor manual will be revised to include guidance on what elements of the SMS are reviewed during an SMS assessment. The primary purpose of the surveyors’ check of a SMS will be to ensure it exists for the operation; that it is relevant to the vessel and its intended operation(s); to gain an understanding of the knowledge of the Owner, Master and crew as to the contents of the SMS; and to accurately report this information to the national regulator.

Comment	Stakeholder category	Response / Changes to proposal
surveys.		
What does verification of SMS mean? Is it an audit with a fee?	Industry association	No changes made to the proposal. The primary purpose of the surveyors' check of a SMS will be to ensure it exists for the operation; that it is relevant to the vessel and its intended operation(s); to gain an understanding of the knowledge of the Owner, Master and crew as to the contents of the SMS; and to accurately report this information to the national regulator. As noted in section 5.3.1 of this RIS, $400 was allowed for an SMS assessment where no survey is undertaken. This was factored into the costs and benefits of Sub-option 3A estimated in the RIS. Where verification of SMS is carried out as part of a survey, it is not expected to impact on the cost of the survey, as it will not significantly lengthen the time spent on the survey.
There needs to be an increase in focus on the SMS and its requirements. Having a vessel operate for five years before a person looks at the SMS is risky and places the demand on the Regulator to enforce the SMS requirements through compliance monitoring. The initial audit of the SMS should be moved to Year 1 of the survey regime for all vessels.	Marine safety agency	No changes made to the proposal. Additional and parallel compliance and enforcement activities will take place, on a risk basis. Where operators are not effectively managing their own risks, the survey mobility policy will enable greater regulatory oversight of the vessel. Operators already have an obligation under the National Law to implement and maintain an SMS. The national regulator is working with operators to ensure they meet these obligations.
The reduction in survey oversight should be balanced by an increase in compliance monitoring of operator performance. Targeted audits of SMS should be implemented. It is unrealistic to expect industry to effectively manage their own safety through an obligation to have a SMS.	Marine safety agency	No changes made to the proposal. Additional and parallel compliance and enforcement activities will take place, on a risk basis. Where operators are not effectively managing their own risks, the survey mobility policy will enable greater regulatory oversight of the vessel.
The SMS audit conducted by a surveyor through the 5 year cycle must be more in depth than a check of the presence of an SMS. The surveyor accreditation scheme should include a category for auditing safety management systems. There are a variety of auditing courses that are available to set a minimum level of	Marine safety agency	No changes made to the proposal. The primary purpose of the surveyors' check of a SMS will be to ensure it exists for the operation; that it is relevant to the vessel and its intended operation(s); to gain an understanding of the knowledge of the owner, master and crew as to the contents of the SMS; and to accurately report this information to the national regulator.

Comment	Stakeholder category	Response / Changes to proposal
competence for SMS auditing.		Additional and parallel compliance and enforcement activities relevant to SMS will take place, on a risk basis.
If a vessel's survey regime has been 'grandfathered', will it move to the new survey arrangements, or will their current regime continue to be grandfathered?	Industry association	No changes made to the proposal. The proposal includes moving all existing vessels in survey into the new survey regime. Vessels which have had their non-survey status grandfathered would not be moved into the new arrangements.
How would the new arrangements be implemented—at what point in a survey schedule would a vessel move over to the new regime?	Industry association	No changes made to the proposal. As outlined in chapter 8 of this RIS, the changes outlined in option 3 are proposed to take effect in 2017–18, to allow time for a smooth transition for delivery of the new arrangements. At the commencement date, vessels would move directly across to the new regime, and the next survey will be that required by the new Marine Order 503. For example, a vessel which is in year 3 of the current NSAMS survey schedule in 2018, will move directly into year 3 of the new survey regime.
Any change to the survey scheduling introduces complexity that the industry stakeholders will have difficulty understanding.	Marine safety agency	No changes made to the proposal. As noted above, at the commencement date, vessels would move directly across to the new regime, and the next survey will be that required by the new Marine Order 503. For example, a vessel which is in year 3 of the current NSAMS survey schedule in 2018, will move directly into year 3 of the new survey regime.
There needs to be a definition of passengers. Pilots should be considered to be 'special personnel' not passengers.	Private marine surveyor	Proposal amended. Marine Order 503 will be amended to clarify that Pilots are not 'passengers'.

6.3.3 **Comments on** sub-option 3B: **proposed new survey 'modifiers'**

Two industry association stakeholders expressed support for the proposed new survey modifiers, while another industry association questioned the value of a generic high risk list, given the diversity of the fleet.

As set out in chapter 4, AMSA believes there is significant value in the use of 'modifiers' to subject vessels with higher risk attributes, or in higher risk operations, to increased survey requirements than would otherwise apply to the vessel. The increased oversight reflects the increased likelihood of injuries or damage to property and the marine environment as a result of the risks associated with the attribute of the vessel or operation.

Without a 'generic' list, administering the survey system would be resource intensive and costly to both government and operators. A generic list also improves transparency and consistency in administration of the system. In addition, as set in chapters 4 and 5 of this RIS, the proposed changes to the current high risk list improve the flexibility of some of the high risk categories.

Other comments on the proposed new survey modifiers are detailed in the table below.

Table 11 — Comments on the proposed new survey 'modifiers' (Sub-option 3B)

Comment	Stakeholder category	Response / Changes to proposal
Net reels, deck loads, cranes and lifting devices and not matters relevant to survey requirements, except in relation to the initial survey. Once the vessel has been assessed as fit for the load it should not be subject to higher survey requirements than would otherwise apply.	Marine safety agency	No changes made to the proposal. Modification of these vessels after the initial survey is common. As a result, a level of ongoing oversight of these vessels is considered appropriate, particularly given the high risk nature of these vessel attributes.
Replace: • a net reel, deck load, crane or lifting device the use of which the national regulator has determined will have a detrimental effect on the stability or watertight integrity of the vessel, with: • any vessel that requires comprehensive stability assessment under NSCV Part C Section 6 or any vessel fitted with a one tonne metre and above capacity crane.	Marine safety agency	No changes made to the proposal. The application of the NSCV Part C Section 6 comprehensive stability criteria is unlikely to pick up all the high risk vessel arrangements that should be addressed through survey processes.
Piling frames of barges relying on spuds should be captured in the modifiers.	Marine safety agency	No changes made to the proposal. Piling barges intended to be used without the spuds down are likely to be captured as 'high risk' as part of the national regulator determination on high risk landing barges.
Replace: • support vessel in the offshore oil and gas industry, which are not used primarily for recreational use, with: • support vessel in the	Marine safety agency	The proposal has been amended in line with the comment.

Comment	Stakeholder category	Response / Changes to proposal
offshore oil and gas industry.		
Delete class 1 fast craft from the list, as class 1 vessels are already high risk.	Marine safety agency	Proposal amended. Class 1 fast craft have been removed from the high risk list contained in this RIS. However, Marine Order 503 may refer to the definition of fast craft contained in the NSCV Part B. This is not considered to be a problem, as the outcome will be the same.

6.3.4 Comments on sub-option 3C: proposed new national system survey limits

A number of stakeholders expressed support for the new 45-metre limit. One did not support an increase beyond 45 metres, while another supported allowing vessels beyond 45 metres to be in national system survey. Other comments on this sub-option are outlined in the table below.

Table 12 — Comments on the proposed new national system survey limits (sub-option 3C)

Comment	Stakeholder category	Response / Changes to proposal
The type of vessel and its complexity should drive the class requirement, rather than arbitrary length limits.	Vessel operator	No changes made to the proposal. Applying length-based rules creates transparency and simplicity.
Load line length should be used instead of measured length.	Vessel operator	No changes made to the proposal. The NSCV and National Law are based on measured length, and applying load line length is not considered to be feasible in light of the arrangements in the NSCV and National Law.
Vessels 45m – <60 m load line length should be required to obtain plan approval from a classification society, but all other surveys of the vessel should be able to be undertaken by an accredited surveyor.	Vessel operator	Proposal amended. All vessels <65 m will be permitted to undergo initial survey by a classification society, and then move into national system periodic survey.
A vessel 35 m or over should not be required to be in class just because it carried dangerous goods. Some medical equipment, for example, could be dangerous goods. The costs of this requirement have not been considered in the RIS.	Private marine surveyor	No changes made to the proposal. To be a dangerous good, significant quantities of the medical equipment would likely need to be carried.

6.3.5 Comments on Sub-option 3D: Proposed new survey arrangements and depth

Comments received on sub-option 3D are outlined in the table below.

Table 13 — Comments on the proposed new survey arrangements and depth (sub-option 3D)

Comment	Stakeholder category	Response / Changes to proposal
The proposed six month window between surveys is too long and should be reduced to three months to mirror class requirements. A six month survey window could result in a vessel potentially not being inspected for 24 months.	Marine safety agency and industry association	The proposed 'six month window' allows a survey to be conducted three months prior to and three months after the date for completion. However, the proposal has been amended to clarify that the next survey remains due on the anniversary date of the certificate of survey, unless an earlier anniversary date is nominated by the operator. This means, for a vessel in annual survey, the longest period between surveys could be 18 months—and where that occurs, only 12 months (at most) could elapse before the next survey.
A 12-month window should be permitted for each survey.	Vessel operator	No changes made to the proposal. As outlined above, it is proposed that a 6-month window is permitted for surveys. This aligns with international arrangements, and the approach of classification societies.
Allowing a renewal survey to take place three months after the five yearly survey is due will mean that the survey does not take place until after the certificate of survey expires. The renewal survey should take place before the certificate of survey expires.	Private marine surveyor	Proposal amended. The proposal has been amended to clarify that the renewal survey must take place in the three months prior to the expiry date of the certificate of survey.
What will in-water and renewal surveys require? The marine order should include a definition of these surveys.	Marine safety agency	No changes made to the proposal. As outlined above, the survey schedule in NSAMS 4 is currently being revised in line with the outcomes of this RIS and will be released in coming months. The new requirements will identify the scope and depth of each survey (initial, in-water, out-of-water and renewal).
What will the required time interval between shaft surveys be?	Vessel operator	No changes made to the proposal. The survey schedule (which includes shaft survey requirements) is currently included in NSAMS 4. This is being revised in line with the outcomes of this RIS and will be released for public comment when completed.
There are limitations on the accuracy of ultrasonic testing for propeller shafts. The limitations of the GES should be amplified to ensure that it is being applied	Marine safety agency	No changes made to the proposal. As outlined above, the survey schedule in NSAMS 4 is currently being revised in line with the outcomes of this RIS and will be released

Comment	Stakeholder category	Response / Changes to proposal
consistently and that there are not issues being missed in the shafts being tested.		for public comment when completed.
NSAMS 4 contained a rolling schedule of five year inspections for items such as internal voids, fuel tanks and fastenings in timber vessels. Will this be maintained?	Marine safety agency	No changes made to the proposal. As outlined above, the survey schedule in NSAMS 4 is currently being revised in line with the outcomes of this RIS and will be released for public comment when completed.

6.3.6 Comments on the impact analysis

A number of comments were received on the assumptions underpinning the impact analysis contained in chapter 5 of the RIS.

Table 14 — Comments on the impact analysis

Comment	Stakeholder category	Response
The statement in the RIS that option 3 would reduce the differences in the survey arrangements between new and grandfathered vessels does not apply in Tasmania. The bulk of the Tasmania fleet is in annual survey—as a result, the proposed survey arrangements would be lower than those which apply to grandfathered vessels. There is no evidence in Tasmania to suggest that the grandfathering of survey arrangements provides an incentive for holding onto older vessels. There is also no evidence in Tasmania of older vessels with grandfathered status creating a safety issue. Over 50% of the rock lobster fleet in Tasmania is over 30 years old. Safety within a well maintained, well operated 100 year old vessel is as good as or better than safety standards within a poorly maintained, poorly operated vessel.	Marine safety agency and industry association	No changes made to the analysis. As noted in chapter 2 of this RIS, the size of the grandfathered fleet with lesser survey requirements than those which currently apply under NSAMS 4 is estimated to include at least 6000 vessels in Queensland. This figure does not include any Tasmanian vessels, or any vessels from any other jurisdiction, and is considered to be conservative. As the fleet is estimated to include 29,000 vessels, the current survey arrangements provide an incentive to hold onto grandfathered vessels for a significant proportion (over 20%) of the fleet. Older vessels which are not subject to survey requirements may be more likely to raise safety concerns – the data on these vessels is limited as they operate outside the survey system.
Fees shown in the impact analysis are based on government surveys and are not reflective of the fees to be charged by private surveyors. As private surveyors will be cost driven, the fees will be higher and the savings have been over-estimated.	Marine safety agency	No changes made to the analysis. Higher fees for survey would **increase** the benefits estimated in the RIS. This is because the impact analysis compares the future costs under the current regulations (NSAMS 4) and under the proposed survey regulations. Under both scenarios, the use of private surveyors will increase. The higher the assumed survey costs, the greater the cost savings under the proposal

Comment	Stakeholder category	Response
		as the total number of surveys decrease. As the surveyor accreditation regulations have already been implemented, this RIS is not considering the cost of moving to the accredited surveyor arrangements. By using the current survey fees, the benefits estimated in the RIS are considered to be conservative.
Table 7 treats all jurisdictions' survey costs on an equal basis. However, table 11 identifies that some jurisdictions include costs of issuing a certificate of survey in the periodic survey costs yet others keep these items separate. Table 7 does not compensate for these differences.	Marine safety agency	No changes made to the analysis. Table 7 is only considering periodic surveys. As such, the fee for issuing a certificate of survey has not been captured. Only renewal surveys would entail a fee for issuing a certificate of survey (and only in some jurisdictions). As the renewal requirements are not changed under the proposal, the fee for renewing a certificate of survey would remain the same under the current arrangements and the proposal. As such, factoring in these costs would not impact on the savings identified.
Sub-option 3A assumes a reduction in delay costs. The Tasmanian fleet does not currently experience delays but with the introduction of private accredited surveyors, delays will be likely, particularly given the dispersed location of the fleet and the potential for market failure with the reduced number of surveys to be undertaken.	Marine safety agency and industry association	No changes made to the analysis. No delay costs have been factored into the savings identified under option 3 of the RIS. The surveyor accreditation regulations have already been implemented and this RIS is not considering the costs and benefits of moving to the accredited surveyor arrangements.
Survey fee estimates and figures provided in the RIS do not cover all vessel safety requirements. For example, radio, incident investigation, marine markers and so on are provided by local marine safety agencies and are not covered by the survey fees.	Industry association	No changes made to the analysis. State and local government services and fees are not impacted by the proposed changes to the survey requirements of the National Law.
Surveyor travel costs under a private surveyor model could be significant in Tasmania, with some areas being 5 or more hours travel each way.	Industry association	No changes made to the analysis. The RIS allows for $200 in surveyor travel costs on average. Although this will be significantly less than actual travel costs for some vessels, many vessels will experience lower travel costs. If the surveyor travel costs have been underestimated, this means that the benefits of the proposal have also been underestimated. This is because the total number of surveys is reduced under the proposal. As a result, any increase in survey

Comment	Stakeholder category	Response
		costs (including travel costs) would increase the savings estimated under the proposal.
The growth rates predicted in the RIS are too high. They have not accounted for the significant changes in regulatory scope since the introduction of the national system which has led to more vessels being in survey.	Marine safety agency and industry association	Analysis amended. Growth rates are difficult to determine as a result of the movement from State and Territory databases to a national database, and from state and territory laws to a national law. Growth rates applied in the RIS have been adjusted to 3.5% growth and 3.5% fleet turnover—see chapter 2 of the RIS for more information.
The total number of vessels is overestimated in the RIS.	Marine safety agency and industry association	No changes made to the analysis. Vessel numbers in the RIS are based on figures provided by jurisdictional Marine Safety Agencies to AMSA. There may some duplication of vessels between jurisdictions, however this is considered unlikely to significantly impact on vessel numbers.
The fleet size in the costs does not represent the true size of the DCV fleet in Australia. A figure of 48,000 would be more accurate.	Marine safety agency	No changes made to the analysis. The estimations in the RIS cover only vessels in survey under the current arrangements and under the proposal. As noted in appendix 2 of this RIS, the actual size of the non-survey category may be significantly larger than the figure provided in the RIS, as some existing vessels are not required to be listed on a certificate of operation until 1 July 2016, and as such are not yet ‘known’ to the national regulator. However, these additional ‘unknown’ vessels should not significantly impact on the costs and benefits identified in the RIS, as they are unlikely to be of a type that would be required to be in survey.
The data limitations for the number of vessels with high risk attributes puts into question the estimated overall benefits of the changes.	Marine safety agency	No changes made to the analysis. If the number of vessels with high risk attributes were known, the total estimated benefit of the proposal would likely increase as vessels with a high risk attribute are, under the proposal, moving from survey level high to survey level medium. This would likely outweigh any costs of vessels with a high risk attribute being inaccurately classed as low survey frequency or non-survey in the cost-benefit analysis.
Would the SMS assessment be an SMS audit or a verification? If an audit is proposed, the potential cost of this has	Marine safety agency and industry	No changes made to the proposal. The surveyor manual will include guidance on what elements of the SMS are reviewed

Comment	Stakeholder category	Response
not been factored in.	association	during an SMS Assessment. The role of surveyors is not to audit, in any qualitative sense, the SMS. The surveyors' check of a SMS will be to ensure it exists for the operation; that it is relevant to the vessel and its intended operation(s); to gain an understanding of the knowledge of the owner, master and crew as to the contents of the SMS; and to accurately report this information to the national regulator. As noted in section 5.3.1 of this RIS, $400 was allowed for an SMS assessment where no survey is undertaken. This was factored into the costs and benefits of Sub-option 3A estimated in the RIS.
The RIS does not consider the impact that a reduction in safety has on the taxpayer and the maritime industry. I refer to the Thompson Clark report December 2000 where it was found in Victoria that the removal of vessel surveys brought about a decline in the vessel fleet and an increase in incidents. Many vessel operators would not maintain their vessel to a standard if surveys were not undertaken. For example how will compliance of life rafts and fire systems be monitored?	Marine safety agency	No changes made to the analysis. The Thompson Clark report is not publicly available and has not been made available to AMSA. See 5.3.1 of this RIS for a discussion of the potential impact on safety of the proposal. The RIS considers that any impact on safety associated with reducing survey requirements will be offset by other aspects of the proposal.
In 2000, the Marine Board of Victoria commission Thompson Clarke Shipping to conduct a review of the Victorian survey arrangements. A major weakness of the then system was found to be the reliance on owners to declare their own compliance. This was phased out in Victoria as a result of the review. Upfront verification of the vessel is essential to maintaining safety.	Marine safety agency	No changes made to the analysis. The Thompson Clark report is not publicly available and has not been made available to AMSA. See 5.3.1 of this RIS for a discussion of the potential impact on safety of the proposal. The RIS considers that any impact on safety associated with reducing survey requirements will be offset by other aspects of the proposal.
The RIS states that vessels in aquaculture operations are lower risk. This is not always the case—for example, a small vessel with a 1 tonne crane is high risk.	Industry association	No changes made to the analysis. Aquaculture operations are provided in the RIS as an example of where lower risk vessels can be used in lower risk operations. Not all vessels in aquaculture operations would be treated as low risk under the proposal – a small aquaculture vessel with a large crane would be in medium survey frequency under the proposal (as a result of the new survey modifiers contained in option 3B), with the power to move the vessel into high survey frequency if required.

Comment	Stakeholder category	Response
The same level of safety could be achieved with a reduced burden, however this would come at significant cost to operators. The reduction in regulatory burden will be replaced by individual compliance and self-assessment burdens. For example, operators are likely to pay a consultant to produce the SMS which would ultimate contribute to a more costly safety system.	Industry association	No changes made to the analysis. The operator (the person who has overall general control and management of the vessel) is in the best position to identify and control the risks of their operation. They are responsible under the law for making sure that those risks are being managed effectively. The national regulator will support risk management by the operator through effective performance-based regulation and by providing accessible information and support, making it simpler for operators to maintain safe vessels and operations, and verifying that the operator is managing risks where appropriate. Minimum survey requirements under the law aim to verify that risks are being managed. However, operators are ultimately responsible for ensuring that a vessel and its operations are safe.

7. Evaluation and conclusion

This chapter summarises the impact of each option, identifies the preferred option, and considers the preferred option against the requirements of the COAG Best Practice Regulation Guide.

Individuals and organisations were invited to comment on the conclusions reached in this RIS and to suggest other conclusions not already considered here. The comments received from stakeholders, together with a response to these, is provided in chapter 6 of this RIS.

7.1 Option 3: Amending the survey regime

The following table provides a summary of the impact of each sub-option under option 3.

Table 15 — Summary of the impact of amending the survey regime

	Benefits	Costs
Sub-option 3A: Proposed new periodic survey regime	$56,540,315 savings to industry over the 10-year period 2018–2028 in 2017 dollars, associated with reduced survey costs. This represents an average saving of: • $213 per class 1 vessel in survey, per year • $449 per class 2 vessel in survey, per year • $592 per class 3 vessel in survey, per year. As the survey requirements have shifted up and down for class 4 vessels, the impact is neutral (less than $1 yearly saving on average) across the class 4 fleet (for class 4 vessels which are in survey). $20,122,018 savings to government over the 10-year period 2018–2028 in 2017 dollars, associated with reduced survey costs. Ability to modify survey requirements on a risk basis for individual vessels.	No costs quantified. Potential safety costs identified can be managed by elements of the proposed changes.
Sub-option 3B: Proposed new survey modifiers	No benefits quantified. Removal of regulatory gaps and greater flexibility for the national regulator to identify high risk vessels and operations that require greater oversight.	No costs quantified.
Sub-option 3C: Proposed new National System survey limits	$21,531,083 savings to industry over the 10-year period 2018–2028 in 2017 dollars, associated with reduced survey costs. For a new 40-metre class 1, 2 or 3 vessel entering the fleet in 2021, which elects to be in national system initial and periodic survey, this represents an average saving of $205,000 in initial survey fees and, from 2022, $10,000 in periodic survey fees per year in 2017 dollars. Additional, unquantified time and compliance cost	$1,483,567 in increased costs to government over the 10-year period 2018–2028 in 2017 dollars, associated with unrecovered survey costs. Potential safety costs identified can be managed by elements of the proposed changes.

	Benefits	Costs
	savings associated with class requirements.	
Sub-option 3D: Proposed new survey arrangements and depth	Aligning survey schedules with current technology, allowing for a reduction in out-of-water surveys where risks are mitigated through other measures, such as ultrasonic testing and paint systems.	No costs quantified.

Option 3, including all four sub-options, provides an estimated total of $96,709,848 in quantified net benefits over the 10 year period 2018-2028 in 2017 dollars.

There are also unquantified benefits associated with:

- the ability to apply survey requirements, and modify survey requirements, on a risk basis to individual vessels. This allows survey arrangements to be individualised, taking into account an operator's maintenance practices
- removing regulatory gaps to ensure that higher risk vessels and operations are subject to greater regulatory oversight
- providing greater flexibility for the national regulator to identify high risk vessels and operations that require greater oversight
- aligning survey schedules with current technology and allowing for a reduction in out-of-water surveys where risks are mitigated through other measures, such as ultrasonic testing and paint systems
- providing greater flexibility in survey timing to allow surveys to be aligned the other maintenance activities and the availability of slip facilities and surveyors
- simplifying the regulatory arrangements, making it easier to identify and apply the requirements, and ensuring that the regulations are performance-based.

Survey is a risk mitigation tool, by ensuring that a vessel is maintained to the standard required by law. As a result, there may be safety costs associated with reducing the periodic survey requirements. However, in light of the consultation undertaken with stakeholders and the risk analysis completed as part of the streamlining review, these costs are considered to be small and offset by the safety benefits of the proposal, including the reduced incentive to hold onto older vessels. As a result, the safety impact is expected to be cost neutral (ie no net impact).

Option 3 directly addresses the problems identified by stakeholders and meets the objectives of government action, as identified in chapters 2 and 3 above.

7.2 Option 1: Maintaining the current survey regime without amendment

Under this option, the estimated $97 million in net benefits of amending the survey regime identified above would not be realised.

Option 1 is not supported because it does not provide the greatest net benefit at the least net cost to the community. Option 1 also does not address the problems or achieve all of the objectives of the government action.

7.3 Option 2: No regulated minimum survey requirements

Option 2 is not supported because it does not allow minimum survey requirements to be implemented which are matched to the risk of the vessel, its operation and its operator.

This option is not considered to be preferable due to the safety implications of not mandating a high survey frequency for some segments of the fleet. These would include large passenger vessels such as ferries, and high risk vessels such as those carrying dangerous goods, for which a high level of regulatory oversight is desired due to the potential consequences of an incident.

Option 2 also fails to address the problems or discharge any of the objectives of government action.

7.4 COAG Best Practice Regulation Guide

In order for the proposals to be implemented, the anticipated benefits to the community from amending the survey regime must outweigh the anticipated costs to the community.

In addition, as compared to the range of alternative options available and considered, the proposed survey regime must involve the greatest net benefit or the least net cost to the community.

Without considering the unquantified benefits, the net benefit of the proposed survey regime in option 3, including all four sub-options, is estimated at $97 million over the ten year period 2018–2028, in 2017 dollars. In other words, the benefits of the proposed survey regime outweigh its costs by an estimated $97 million over the ten year period.

By comparison, the costs of option 1 outweigh its benefits by an estimated $97 million – not accounting for the significant unquantified costs associated with option 1.

Option 2 is not considered to be a preferable option. ‘No regulated minimum survey requirements’ would have a significant safety impact, and would not achieve the objectives of government action.

As such, amending the survey regime as proposed by option 3 (including all four sub-options) meets the requirements of the COAG Best Practice Regulation Guide and is the preferred option in this RIS.

8. Implementation and review

This chapter provides information on how the preferred option outlined in this RIS would be implemented, monitored and reviewed.

Individuals and organisations were invited to comment on the implementation, monitoring and review approaches outlined here and to suggest other options not already considered. A number of questions were raised by stakeholders regarding how and when the new survey arrangements would be implemented. The issues raised are addressed below and in chapter 6 above.

8.1 Implementation

The majority of the changes outlined in option 3 are proposed to take effect in 2018, to allow for a smooth transition to the new arrangements. They would be implemented through amendments to *Marine Order 503 (Certificates of survey — National Law) 2013* and the repeal of NSAMS 4. It is envisaged that vessels will move across to the new survey regime immediately on commencement of the new Marine Order 503. This means that the vessel's next survey after the commencement date would be that required by the new Marine Order 503. For example, a vessel which is in year 3 of the current NSAMS survey schedule in 2018, will move directly into year 3 of the new survey regime.

As noted in chapter 4, it is proposed that one aspect of sub-option 3C—the new allowance for vessels 35 metres to <45 metres to be in national system initial survey—would be implemented in mid-2020. Further consideration will need to be given to insurance and training requirements for surveyors conducting initial surveys of larger vessels, and changes to the surveyor accreditation regulations may be required. In addition, the NSCV will need to be amended so that all relevant sections can apply to vessels <45 metres in length. It is expected that the necessary changes will have been made to the NSCV, and to the surveyor accreditation scheme (including the regulations), by 2020.

In addition, AMSA will identify measures that can commence in 2017. This could include permitting vessels 35 metres to 65 metres to move into national system survey provided they have undergone an initial survey by a classification society (also part of sub-option 3C). The increased flexibility for the timing of periodic surveys could also be introduced in 2017 (part of sub-option 3D).

Additional documents will also need to be developed or updated to support the proposed changes:

- a survey mobility policy will identify when a vessel would be eligible to move to a lower survey frequency category or would be required to meet more onerous survey requirements.
- revising the survey schedules (what aspects of the vessel must be surveyed when) to account for modern technology (as per option 3D). The current survey schedules are contained in Annex E to NSAMS 4. It is envisaged the new schedules will form part of the surveyor manual.

8.2 Review and monitoring

The proposed survey regime would be incorporated into Marine Order 503, which is subject to automatic repeal in accordance with the 10 year sun-setting arrangements under the *Legislation Act 2003*. The proposed survey regime would be reviewed prior to this time.

In addition, the safety implications of the survey arrangements will be subject to ongoing review. AMSA completes statistical analysis of incidents involving domestic commercial vessels each year, the outcomes of which may result in the development of proposals to amend the survey regime. In addition, Coroner's recommendations and submissions to AMSA by marine safety agencies and other stakeholders, would be considered and reforms proposed if appropriate.

Appendix A: Summary of assumptions

The following table outlines the assumptions used to estimate the quantifiable costs and benefits identified in this RIS.

Table 16 — Summary of assumptions

Proposed change	Assumptions
Sub-option 3A: Proposed new periodic survey regime	• The average length of vessel moving from high to medium survey frequency under the proposal is 25.25 m. • The average length of vessel moving from medium to low survey frequency under the proposal is 5.68 m. • The average length of vessel moving from high to low survey frequency under the proposal is 9.75 m. • The average length of a high survey frequency vessel under the proposed arrangements is 18.36 m. • The average length of a medium survey frequency vessel under the proposed arrangements is 24 m. • An in-water survey takes: - two hours for a low frequency survey vessel - three hours for a medium frequency survey vessel - three hours for a high frequency survey vessel • An out-of-water survey takes: - three hours for a low frequency survey vessel - four hours for a medium frequency survey vessel - four hours for a high frequency survey vessel • An in-and-out-of-water survey takes: - four hours for a low frequency survey vessel - five hours for a medium frequency survey vessel - five hours for a high frequency survey vessel • An SMS assessment without survey costs $200 plus $200 in travel costs, and takes one hour
Sub-option 3C: Proposed new National System survey limits	• 70% (145) of existing vessels 35 m to <65 m are currently in class survey, and 50% (73) of these would move into national system survey • 50% (7) of new vessels 35 m to <65 m entering the national system each year would undergo classification society initial survey processes and then move into national system survey • 80% (6) new vessels between 35 m and <45 m entering the national system each year would elect to enter into national system initial and periodic survey from mid-2020 • It costs $263,000 to build a vessel to class in class society fees and $15,800 per year to maintain a vessel in class • It costs $17,269.86 to build a 40-metre vessel under national system survey in survey fees and $3,155.50 per year to maintain a 45-metre

Proposed change	Assumptions
	vessel in national system survey (as shown in table 8 above)

Appendix B: Business compliance costs – regulatory costing

The regulatory costing provided together with this RIS and has been completed for option 3 in accordance with the Australian Government Regulatory Burden Measurement framework. The costing has also been reviewed by the OBPR.

Individuals and organisations were invited to comment on the regulatory costing as part of the stakeholder consultation undertaken for this RIS. The comments received from stakeholders, together with a response to these, is provided in chapter 6 of this RIS.

For the purposes of the regulatory costing, it was assumed that the average business owns 1.8 domestic commercial vessels. This means that the total number of vessels impacted by a proposal was converted to the total number of businesses impacted by dividing the vessel number by 1.8. Further details of the assumptions and data used to measure business compliance costs is provided in the regulatory costing.

See the Regulatory Burden Measurement Framework, for more information, including the costing methodology.

Appendix C: Complementary reforms

Complementary reform #1: non-survey vessels

The complementary reform to the non-survey vessel category is described in the following table.

Table 17 — Non-survey vessels

Previous regulatory arrangements	Complementary reform
Non-survey vessels are subject to the National Standard for Commercial Vessels (NSCV) Part G, the National Standard for General Safety Requirements for Vessels (GSR Standard). Although no survey requirements apply to the vessel, the vessel may be subject to an initial inspection. Non-survey vessels are: • class 2, 3 and 4 vessels which are <7.5 m, operate in sheltered (D or E) waters, do not carry passengers and are not 'high risk' (see table 4 above for the high risk list) • recreational training vessels <24 m in inshore waters. In addition, vessels in operation within the two years prior to 1 July 2013 had their pre-existing survey regime grandfathered, including where the vessels were not subject to survey.	Non-survey vessels are subject to the National Standard for Commercial Vessels (NSCV) Part G, the National Standard for General Safety Requirements for Vessels (GSR Standard). No survey requirements will apply to the vessel, however the vessel may be subject to an initial inspection. Non-survey vessels are: ▪ class 2, 3 and 4 vessels which are <12 m, operate in sheltered (D or E) waters, do not carry passengers and do not have a 'modifier' (are not high risk) (see **table 4** above for the modifiers – however, for non-survey vessels, 'fast craft' is not included in the modifiers) ▪ class 2 vessels which are <7.5 m, operate in sheltered (D or E) waters, carry up to 4 passengers and do not have a 'modifier' (are not high risk)* ▪ human powered vessels* ▪ sail craft <7.5 m with no auxiliary engine or an auxiliary engine ≤3.5 kw* ▪ personal watercraft* ▪ recreational training vessels <24 m in inshore waters ▪ vessels affiliated with Yachting Australia, Surf Lifesaving Australia, the Australian Waterski Federation and similar organisations in inshore waters. Vessels which perform poorly during an inspection, audit or other compliance activity may be moved into survey. Vessels in operation within the two years prior to 1 July 2013 will continue to have their pre-existing 'non-survey' status grandfathered, unless the vessel performs poorly during an inspection, audit or other compliance activity. Non-survey vessels will also be subject to risk-based inspections and SMS verification as part of the national regulator's compliance monitoring activities.

As shown in table 16 above, the changes involve expanding the non-survey category to include more low risk vessels. This would reduce compliance costs both as result of the removal of the

survey obligation and because new non-survey vessels are required to comply with a simpler design and construction standard.

Table 17 below sets out the costs associated with obtaining a certificate of survey on a jurisdictional basis.[23] Given that the non-survey changes mainly affect vessels 7.5 metres to <12 metres in length, the fees have been identified for a 9.75 metre vessel. Three hours has been allowed for each of the design approval, initial survey and periodic survey processes.[24] The 'weighted average' is the average fee per vessel, based on the number of vessels in each jurisdiction.

On top of the direct costs of survey, there are also costs to industry resulting from the delays inherent in the survey process. When a vessel is built in survey, the builder must wait for approval from a surveyor before being allowed to move to the next stage of construction.

Table 18 — Survey fees at 1 December 2016 for a 9.75m vessel

Jurisdiction	Initial survey fees	Periodic survey fee	Certificate of survey fee
NSW	$3149.25	$760.50	Included in survey fees
NT	$1989	$399.75	Included in survey fees
QLD	$143 plus $170.40 per hour design approval and $127.80 per hours initial survey fees Total: $1,037.60 *Note that fees for private surveyor reports may apply in addition to these fees*	$127.80 per hour Total: $383.40	$389.55
SA	$1572 initial survey plus $189 per hour plan approval Total: $2,139	$857	$137
TAS	$199.32 per hour for design approval and initial survey $1,195.92	$377.50	$77.01
VIC	$1284.40	$337.70	$21.47
WA	$8780	$849	$240

[23] The fees are for government surveyors, as these fees are publicly available. Different fees may apply to surveys undertaken by private surveyors. However, as outlined in chapter 5, jurisdiction survey fees are considered to cover the potential range of private survey fees.

[24] The three-hour figure is based on feedback from surveyors. It was noted that the time taken to undertake design approval and the surveys varied significantly depending on the vessel and the comprehensiveness of the documentation provided to the surveyor. Three hours is considered to be a conservative figure for the purposes of cost estimation.

Jurisdiction	Initial survey fees	Periodic survey fee	Certificate of survey fee
Weighted average	**$3154.15 (including issuing the certificate of survey)**	**$751.17 (including reissuing the certificate of survey)**	**Included in the average weighted initial and periodic fees**
Including surveyor travel time / costs	**$3354.15**	**$951.17**	**Included in the average weighted initial and periodic fees**

The non-survey category currently includes at least 7407 vessels, not including vessels in Queensland. The actual size of the non-survey category may be significantly larger than this figure, as some existing vessels are not required to be listed on a certificate of operation until 1 July 2016, and as such are not yet 'known' to the national regulator.[25]

As a result of the changes, 1935 existing vessels will be eligible to move into non-survey. This includes only vessels in Queensland which entered into commercial service after the commencement of the national system (1 July 2013). As many pre-1 July 2013 Queensland vessels are subject to a form of periodic survey, the savings estimated in this RIS are considered to be conservative. All of the existing vessels included in the savings calculation are currently subject to a five yearly survey regime. It is assumed that:

- 80 per cent of these existing vessels will elect to move into non-survey[26]
- the proposal will save $951.17 every five years per vessel in periodic survey and certificate of survey renewal fees (as per table 11 above), and three hours of time during which the vessel could otherwise be productive.[27]

It is assumed that the same proportion of new vessels will, as a result of the changes, be in non-survey as compared to under the current regime. New vessels (those entering the fleet after 2018) in Queensland have been included in the figures, as these vessels would be subject to survey under the current arrangements.

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[25] This number does not take into account grandfathered survey arrangements, where the grandfathered vessel is of a type that would be in survey if it had entered the system as a new vessel after 1 July 2013. As such, the actual proportion of the fleet in non-survey is higher than these percentages suggest. However, vessels which have had their non-survey arrangements grandfathered are not affected by the changes. If they were included in the non-survey category for estimation purposes, this would artificially inflate the savings.

[26] Operators may elect to comply with the certificate of survey requirements, and not take advantage of the arrangements under EX02, as part of their management of the risks of their operation. However, it is assumed that a large proportion of eligible vessels will elect to move out of survey, due to the cost savings associated with this option.

[27] It is assumed that a vessel makes $1000 revenue per 7.5 hour working day, or $133.33 per hour. This is a conservative figure which includes costs associated with crew wages during vessel survey.

In order to estimate the savings for these new vessels, it is assumed that:

- new non-survey vessels face 25 per cent lower design and construction costs, as compared to vessels in survey which are subject to part C of the NSCV[28]
- the average new vessel 7.5-12 metres in length costs $115,000[29]
- the changes will save $3354.15 per vessel in initial survey and certificate of survey fees (as per table 11 above), and six hours of time during which the vessel could otherwise be productive. However, $525 and two hours of time has been allowed for applying for the non-survey status and potential inspection requirements (which includes a $200 component for travel time for the person undertaking the inspection)
- the changes will save $951.17 every five years per vessel in periodic survey and certificate of survey renewal fees (see table 11 above), and three hours of time during which the vessel could otherwise be productive.

Based on these assumptions, it is estimated that the changes to the non-survey arrangements will save industry (vessel operators) $35,908,660 in compliance costs over a 10 year period from 2018–2028 in 2017 dollars.

As the survey function is currently subsidised by state and territory governments, there will also be savings to government associated with these changes. The cost recovery arrangements vary significantly around Australia. Assuming an average cost recovery rate of 70 per cent per vessel survey,[30] the savings to government (marine safety agencies) over a 10 year period associated with the changes to the non-survey arrangements is $2,464,835 in 2015 dollars.

There may be safety costs associated with increasing the number of vessels in non-survey. However, these are considered to be offset by:

- the large number of existing vessels with grandfathered survey status. The changes will encourage operators to upgrade to new vessels by reducing the compliance costs associated with doing so
- removing the incentive for operators to purchase smaller vessels, which may not be fit-for-purpose
- a new power for the national regulator to move vessels into survey where they perform poorly during an inspection, audit or other compliance activity
- introducing new ways to identify high risk operations requiring greater regulatory oversight. These high risk vessels are not eligible for the non-survey category. See 5.3.2 of this RIS for more discussion on this proposed change.

Complementary reform #2: restricted C class

Prior to the introduction of the national system, a number of state jurisdictions had arrangements for vessels operating in gulfs, bays, close to shore, ‘off-the-beach’ and in shallow waters in

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[28] Regulation Impact Statement on the National Standard for General Safety Requirements for Vessels, 2012, National Marine Safety Committee. The GSR RIS considered the cost impact of the non-survey standard and the removal of survey requirements for certain vessels.

[29] This estimate was borne out by research on vessel costs, including through vessel trading sites such as aquamarine.com.au and confirmed with AMSA marine surveyors.

[30] This estimation is based on figures derived through discussions with jurisdictions on the cost recovery rates of all their marine safety functions.

aquaculture operations. These vessels were not required to meet the full design and construction standards and survey regulations that applied to class C vessels, despite operating in C waters.

These arrangements did not form part of the national system, except in relation to existing vessels for which the pre-existing design, construction, survey and crewing requirements were grandfathered.

The change involves introducing a new 'restricted C class', encompassing non-passenger carrying vessels in 'restricted C' operational areas. It is described in the following table.

Table 19 — restricted C class

Previous regulatory arrangements	Complementary reform
All new C class vessels are subject to survey and to the National Standard for Commercial Vessels (NSCV). The survey, design and construction and crewing standards for existing C class vessels are grandfathered, provided the vessel continues to operate in the same manner.	A new 'Restricted C class', encompassing non-passenger carrying vessels in 'Restricted C' operational areas, will be provided in the NSCV Part B. This will allow industry to operate new vessels in restricted operations, without having to meet significantly higher design, construction and survey costs than under the previous State and Territory arrangements. The Restricted C operational area will be explained on the AMSA website. In many parts of Australia, it is 15nm from the shore. However, lesser distances are specified in certain areas due to the nature of the coastline and the local sea and weather conditions. Class 2 and 3 vessels, which do not carry passengers and are <12 m, are eligible for the Restricted C class, provided they: • carry no more than 3 persons (crew or special personnel) • do not have a modifier (are not high risk) (see **table 4 above** for the modifiers) • do not have berthed accommodation • do not carry sail as their primary means of propulsion. Restricted C vessels must meet specified design and construction requirements, which are similar to the standards that apply to non-survey vessels, and must undergo an initial and then five yearly inspections. The deemed-to-satisfy design, construction and equipment requirements for Restricted C vessels have been released as a guideline. Restricted C vessels will also be subject to risk-based inspections and SMS audits as part of the national regulator's compliance monitoring activities.

It is estimated that 10% of new non-passenger class 2C and class 3C vessels less than 12 metres in length will enter the system as a restricted C vessel.[31] It is assumed that there will be no impact on existing vessels, as these will continue to operate under grandfathered arrangements. Only new vessels in Queensland (those entering the fleet after 2015) have been included in the figures. As many existing Queensland vessels are subject to a form of periodic survey, the savings estimated in this RIS are considered to be conservative.

Note that as the restricted C arrangements commenced in 2015, the benefits and costs have been estimated based on 2015 fees and charges and a 2015–2025 benefit-cost analysis period.

Table 20 — Survey fees at 1 July 2015 for a 9.75 metre vessel

Jurisdiction	Initial survey fees	Periodic survey fee	Certificate of survey fee
NSW	$3090.75	$750.75	Included in survey fees
NT	$1989	$399.75	Included in survey fees
QLD	$138.15 plus $164.65 per hour design approval and $123.50 per hours initial survey fees Total: $1002.60 *Note that fees for private surveyor reports may apply in addition to these fees*	$123.50 per hour Total: $370.50	$376.40
SA	$1546 initial survey plus $186 per hour plan approval Total: $2,104	$843	Included in survey fees
TAS	$195.36 per hour for design approval and initial survey $1172.16	$370	$75.48
VIC	$1253.07	$329.46	$20.39
WA	$6754	$653	$184
Weighted average	**$2771.37 (including issuing the certificate of survey)**	**$696.24 (including reissuing the certificate of survey)**	**Included in the average weighted initial and periodic fees**
Including surveyor travel time / costs	**$2971.37**	**$896.24**	**Included in the average weighted initial and periodic fees**

[31] The 10% figure is based on discussions with marine safety agencies, industry and a high level analysis of the class C fleet. It is considered to be a conservative figure for the purposes of estimation – given the allowance contained in the Restricted C arrangements, a higher proportion of new vessels may elect to comply with the Restricted C arrangements.

To estimate the savings associated with the introduction of a restricted C class, it is also assumed:

- the average restricted C vessel is 9.75 metres in length
- the initial and ongoing inspection costs for these vessels will be 50 per cent less than the survey and certification costs would be under the current regulatory arrangements (see table 19 for average survey costs for these vessels), and the vessel will spend 50 per cent less time meeting the inspection/survey obligations.[32] Note that the travel costs for the surveyor remain the same for a restricted C vessel, and as such travel costs are not included in the savings
- new restricted C vessels face 25 per cent lower design and construction costs compared to class C vessels as restricted C vessel standards are similar to those for non-survey vessels[33]
- the average new vessel less than 12 metres in length cost $100,000 in 2015.[34]

Based on these assumptions, it is estimated that the change will save industry (vessel operators) $8,210,630.54 in compliance costs over a 10-year period in 2015 dollars.

As the survey function is currently subsidised by state and territory governments, there will also be savings to government. Assuming an average cost recovery rate of 70 per cent per vessel survey, the saving to government (marine safety agencies) over a 10 year period associated with the introduction of a restricted C class is $257,357.11 in 2015 dollars.

There may be safety costs associated with introducing the restricted C category due to the simpler construction standard and lesser survey requirements. However, these are considered to be offset by:

- the large number of existing vessels with grandfathered survey status. The restricted C class encourages operators to upgrade to new vessels by reducing compliance costs;
- removing incentives for operators to purchase smaller vessels that may not be fit-for-purpose
- the new power for the national regulator to move vessels into survey where they perform poorly during an inspection, audit or other compliance activity
- introducing new ways to identify high risk operations requiring greater regulatory oversight. Such high risk vessels are not eligible for the restricted C category (see 5.3.2 for more details).

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[32] The 50% cost figure is based on removal of design approval for these vessels. These are ‘fit for purpose’ inspections rather than full initial and periodic surveys. Detailed surveyor guidance has been developed for Restricted C inspections.

[33] Regulation Impact Statement on the National Standard for General Safety Requirements for Vessels, 2012, NMSC. The RIS considered the cost impact of the non-survey standard and the removal of survey requirements for certain vessels.

[34] This estimate was borne out by research on vessel costs, including through vessel trading sites such as aquamarine.com.au and confirmed with AMSA marine surveyors.

Appendix D: Streamlining Review comments relevant to option 3

Streamlining review comments relevant to sub-option 3A

During the streamlining review, stakeholders made a number of suggested changes to the current periodic survey regime which have been incorporated into sub-option 3A. Two alternative proposals were put forward by stakeholders which are not reflected in sub-option 3A. These were:

- maintain the current periodic survey regime, and reduce survey frequency based on the history of the operator and vessel only
- reduce survey frequency to 10-yearly surveys for some vessel types.

Maintaining the current periodic survey regime and reducing survey frequency based on the history of the operator and vessel only is not considered to adequately realign vessel survey frequency with risks across the fleet, and as such does not address objectives 1 and 2 of government action. In addition, this option would take significant time (both of the national regulator and of the operator) to implement, as it requires consideration of each individual vessel and operator, which may further reduce its overall benefits.

Reducing survey frequency to 10-yearly surveys for some vessel types is also not considered to align survey requirements with risk. 10 years between surveys is too long for the survey to play a role in ensuring compliance and maintaining safety. Where the vessel is of such low risk that 10 yearly surveys would be appropriate, the vessel should not be required to obtain and maintain a certificate of survey.

A number of stakeholders supported the retention of the current survey regime during the streamlining review. They saw significant value in frequent surveys, as they prevented operators becoming complacent in maintaining their vessel to the required standard. However, as set out in the analysis on option 3 contained in chapter 5 of this RIS, AMSA believes that the same safety outcomes can be achieved with reduced compliance costs to operators.

During the streamlining review, stakeholders were also concerned that changing the current survey regime might mean that electrical problems, found during annual surveys, would not be picked up. However, under the National Law, operators must have a safety management system in place which ensures that electrical and other concerns with the vessel are picked up on a day-to-day basis, not just at a periodic survey. Under option 3, vessels which fail to meet the required standard at a periodic survey could be moved into a high frequency survey regime, so that they are checked by an accredited surveyor more often.

Stakeholders also felt that reduced survey requirements would result in industry spending more money to demonstrate to third parties (such as insurers) that a vessel continues to meet the national standard. However, during consultation, many stakeholders submitted that insurance surveys were separate to the regulated survey process and were driven by insurance company requirements. As such, AMSA did not consider this to be sufficient justification for retaining the current regime. In addition, under option 3, operators could elect to undertake more frequent surveys than the minimum required—including maintaining the current survey regime.

Stakeholders also suggested that, if survey frequency was reduced, safety equipment which expires on an annual basis—such as life rafts and fire-fighting equipment—would be unlikely to be maintained. However, under the National Law, operators must have a safety management

system in place which ensures that safety equipment is serviced and replaced at the intervals required. Under option 3, operators who do not identify or implement an appropriate maintenance schedule through their safety management system could be moved into a high frequency survey regime, so that they are checked by an accredited surveyor more often.

Streamlining review comments relevant to sub-option 3B

During the streamlining review, stakeholders made a number of suggested changes to the current 'high risk' list. All of these submissions are reflected in the proposal.

Streamlining review comments relevant to sub-option 3C

During the streamlining review, stakeholders demonstrated significant support for increasing the survey limits for national system surveyors. A number of alternative proposals were put forward by stakeholders during the streamlining review which are not reflected in sub-option 3C. These were:

- vessels less than 70 metres in length should be permitted to be in national system survey, as the return on investment associated with class does not exist for vessels less than 70 metres in length
- vessels less than 80 metres in length should be permitted to be in national system survey, as this would promote more Australian vessel registration and divert money from foreign owned classification societies
- vessels less than 80 metres in length should be permitted to be in national system survey, where the vessel will operate only in sheltered waters. The sheltered waters limitation would reduce the risks associated with these vessels and remove the need for class survey
- vessels less than 60 metres in load waterline length should be permitted to be in national system survey, to align with the requirements in Fiji, Samoa, Papua New Guinea and Tonga
- the type of vessel and its complexity should drive the class requirement, rather than using arbitrary length limits
- gross tonnage cut-offs be used, rather than length.

As vessel length and size increases, calculations regarding the hull and other aspects of the vessel become increasingly complicated. Based on stakeholder consultation, it is considered that 45 metres is an appropriate length at which to engage classification society expertise.

Using an alternative means for applying the cut-off, such as tonnage, would add complication and remove transparency from the requirements.

For these reasons, the stakeholder suggestions set out above were not included in the proposal.

Streamlining review comments relevant to sub-option 3D

During the streamlining review, stakeholders made a number of suggested changes to the current survey schedules. All of these submissions are reflected in the proposal.