

The Auditor-General
Audit Report No.49 2002–03
Performance Audit

Management of the Navigation Aids Network

Australian Maritime Safety Authority

Australian National Audit Office

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of Australia 2003

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Canberra ACT
17 June 2003

Dear Mr President
Dear Mr Speaker

The Australian National Audit Office has undertaken a performance audit in the Australian Maritime Safety Authority in accordance with the authority contained in the *Auditor-General Act 1997*. I present the report of this audit, and the accompanying brochure, to the Parliament. The report is titled *Management of the Navigation Aids Network*.

Following its presentation and receipt, the report will be placed on the Australian National Audit Office's Homepage—<http://www.anao.gov.au>.

Yours sincerely

A handwritten signature in black ink, which appears to read 'P. J. Barrett', is positioned above the printed name.

P. J. Barrett
Auditor-General

The Honourable the President of the Senate
The Honourable the Speaker of the House of Representatives
Parliament House
Canberra ACT

AUDITING FOR AUSTRALIA

The Auditor-General is head of the Australian National Audit Office. The ANAO assists the Auditor-General to carry out his duties under the *Auditor-General Act 1997* to undertake performance audits and financial statement audits of Commonwealth public sector bodies and to provide independent reports and advice for the Parliament, the Government and the community. The aim is to improve Commonwealth public sector administration and accountability.

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Abbreviations/Glossary

ABARE	Australian Bureau of Agricultural Research and Economics
AMSA	Australian Maritime Safety Authority
AMS Ltd	Australian Maritime Systems Ltd, the network maintenance contractor
AIS	Automatic Identification Systems
ATSB	Australian Transport Safety Bureau
BTRE	Bureau of Transport and Regional Economics (formally known as Bureau of Transport Economics (BTE))
DGPS	Differential Global Positioning System (is more accurate than GPS)
ECDIS	Electronic Chart Display and Information Systems
GBRMPA	Great Barrier Reef Marine Park Authority
IMO	International Maritime Organization
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
Levy, the	The Marine Navigation Levy, applied to sea-going ships based on ships' tonnage
MAXIMO	The business information system used by AMSA to schedule and track maintenance work
NSAC	Navigational Services Advisory Committee
NSSM	Navigational Services and SAR Maintenance Section
PBS	Portfolio Budget Statements
POBI	The Program of Business Improvement
P&O Ltd	P&O Maritime Services Pty Ltd, the shipping support contractor
Racon	Radar transponder beacons
REEFREP	A reporting system used to track ships in the Great Barrier Reef
Strategic Plan	ASMA's <i>Strategic Plan for Navigational Systems in Australian Waters</i> , January 2001
SOLAS	International Convention for the Safety of Life at Sea, 1974

SRS	Ship Reporting System (radar used for tracking ships' position)
WAN	Wide Area Network

Summary and Recommendations

Summary

Background

1. Australia, as an island continent and a major trading nation, relies heavily on shipping. Although the Australian trading fleet is small by international standards, many foreign registered ships use Australian waters.
2. The cost of any marine incidents are potentially significant since they are likely to impact on trade, tourism and the environment. The Great Barrier Reef and Torres Strait are two ecologically sensitive areas requiring particular protection while also including important shipping routes for Australian trade. In 1990, the Great Barrier Reef was one of the first areas to be declared a Particularly Sensitive Sea Area by the International Maritime Organization (IMO), which included endorsement for the introduction of a suite of special protection measures.
3. The Commonwealth regulatory agency responsible for shipping safety is the Australian Maritime Safety Authority (AMSA). AMSA was established as a statutory authority under the *Australian Maritime Safety Authority Act 1990* (the Act). It is largely self-funded through levies on the commercial shipping industry and has an overall budget of \$72.7 million for 2002–2003.
4. A key element of shipping safety is the navigational aids network. At the time of the audit there were 438 navigational aids managed by AMSA, spread over some 376 locations around Australia's coastline. The relevant State government or port authority manages navigation aids within harbours and ports.
5. AMSA's responsibilities include the maintenance and ongoing management of the navigation aids network, as well as any enhancements to the network via a capital works program.
6. In 2000 and 2001, AMSA progressively outsourced the support ship that provided transport to remote navigation aid sites and the engineering function associated with the maintenance of the navigation aids network. The responsibility for the strategic planning and the capital works program of the navigation aids network remains with AMSA.

Audit objectives, scope and methodology

7. The objectives of the limited scope audit were to determine whether AMSA's management of the navigation aids network provides for the strategic

needs of marine navigation in Australian waters, and whether AMSA efficiently and effectively manages the navigation aids network. This included the capital works program for new aids and the ongoing maintenance of the network.

8. The audit focused on:

- AMSA's strategic planning for navigation aids;
- the management of revenue and expenditure to support the navigation aids network, including the Marine Navigation Levy;
- the on-going management and maintenance of the navigation aids network in an outsourced environment; and
- AMSA's accountability and performance reporting arrangements.

9. The audit methodology included consultations with AMSA staff, the prime contractors and some other stakeholders, as well as examination of key related documents.

Overall conclusions

10. The ANAO found that AMSA demonstrated elements of better practice in each of the areas examined during the audit. AMSA demonstrated a sound and comprehensive approach to strategic planning that has yielded clear objectives and a range of suitable strategies for their achievement. The strategic planning effort has provided AMSA with an effective platform from which to deliver quality outcomes.

11. AMSA's forecasting of the Marine Navigation Levy revenue was found to be effective. AMSA manages the budgets for the current and future needs of the network within the levy revenue, and has worked steadily to deliver a progressive reduction in the levy over time.

12. The ANAO found scope for improvement in AMSA's methodology for establishing the benchmark cost and the desired quantum of savings to be achieved when it considered outsourcing through a competitive tender process. AMSA would also benefit from more regular monitoring and reporting of the cost savings delivered by its outsourced functions.

13. The ANAO concluded that AMSA's management of the navigation aids network was sound and rigorous, and that its contract management was closely aligned with the better practices outlined in the ANAO Better Practice Guide on *Contract Management*. The ANAO found some minor areas for improvement that included a more strategic focus in reporting its contractors' performance and achievements against the objectives of outsourcing.

14. AMSA's accountability and its internal and external reporting mechanisms were also sound. Its consultation with industry was firmly established and the stakeholders consulted during the audit provided positive feedback in this regard. The AMSA Board is actively engaged in the work and policies of the agency, and the reports submitted to it were generally timely and comprehensive. A minor area for improvement is the need for AMSA to take care that reporting against the Key Performance Indicators (KPIs) is consistent across years, as well as the potential for a more strategic focus in reporting the effectiveness of the navigation aids network.

15. The ANAO made some suggestions for improvement to AMSA's administration, but did not make any recommendations.

Strategic Planning (Chapter 2)

16. AMSA's navigation aids strategy is articulated in the *Strategic Plan for Navigational Systems in Australian Waters*, January 2001. This plan outlines the strategies in the shorter term for the maintenance of the existing navigational systems and, in the longer term, the strategies for developing systems to sustain and enhance performance into the future.

17. The ANAO considers that, overall, AMSA's approach to strategic planning was soundly based, comprehensive and clearly articulated. AMSA had followed each of the steps required to deliver an effective plan. For example, AMSA:

- assessed the business context;
- identified short and long term objectives and identified the risks;
- ensured that adequate resources were available and that responsibilities were clearly assigned; and
- periodically reviewed its plans to ensure their continued relevance.

18. The Strategic Plan provided AMSA with clear objectives and strategies for the management of the network. It is supported by a cascading series of operational and business plans that have resulted in AMSA's day-to-day management of the network being clearly focused on both the short and long term objectives. All changes to the network are based on risk and needs analyses and take into account the most durable, cost effective and technologically appropriate ways to implement them.

19. The ANAO found that AMSA's planning was focused on continually enhancing the effectiveness and efficiency of the network, as well as on manoeuvring itself into a position where it has improved the market contestability for the future provision of services.

20. AMSA's success is evident from the following factors: no shipping accidents have been proven to be attributed to any failure in the navigation aids network; it consults regularly with the shipping industry and its members provide positive feedback; the network makes good use of current technologies; it is consistent with international obligations; and the network's performance meets international standards.

Revenue and Expenditure Management (Chapter 3)

21. The navigation aids network is funded by the Marine Navigation Levy, which is applied to sea-going ships, based on the particular ship's tonnage. AMSA forecasts levy revenue based on Australian Bureau of Agricultural Research Economics (ABARE) data. The Australian Customs Service collects the levy on AMSA's behalf.

22. The ANAO concluded that AMSA's forecasting of the Marine Navigation Levy, based on ABARE data, is effective. In addition, the budgeting process has been effective in matching expenditure with the levy revenue, alternating between small deficits and small surpluses over the past three years.

23. The annual levy revenue collected fell from \$40 million in 1991–1992 to \$22.5 million in 1999–2000. AMSA has continued to show cost savings since the outsourcing of the network, with the levy reducing by a further \$3.2 million to an estimated \$19.3 million in 2002–2003. A further levy reduction of 10 per cent is expected to be introduced from July 2003.

24. The ANAO also concluded that AMSA successfully balances its expenditure with the operational and capital needs of the navigation aids network and the levy revenue raised for this purpose. AMSA has successfully reduced the costs of the network without jeopardising its integrity, while also improving its effectiveness.

25. The ANAO found scope for improvement in the methodology AMSA used to set a clear benchmark cost when the shipping support services and engineering functions were outsourced. Although there have been savings from the outsourcing, the ANAO considers there is more that AMSA could do to better quantify, monitor and report on these savings. It will be important for AMSA to be able to report in a timely and efficient manner on the cost of maintaining the network to inform future considerations of the levy required. Accurate cost benchmarks will also be important in the next tender round for outsourced services, scheduled for 2005.

On-going Management and Maintenance (Chapter 4)

26. The ANAO examined the effectiveness of AMSA's on-going management of the network and, due to the significant outsourcing involved, its contract management practices. These were compared to the principles outlined in the ANAO Better Practice Guide on *Contract Management*.

27. AMSA divided the network management into:

- shipping support—contracted to P&O Maritime Services Pty Ltd;
- maintenance work—contracted to Australian Maritime Systems (AMS) Ltd and;
- capital works projects—tendered on a project-by-project basis.

28. The ANAO found that AMSA had adopted a proactive approach for each of the three phases of contracting (transition, on-going management and succession planning) that closely aligned with the better practices outlined in the above guide. AMSA assessed the potential risks in each phase and implemented a range of treatments to ensure the continued efficient and effective delivery of quality services.

29. The ANAO examined AMSA's progress against the objectives to be achieved by outsourcing. We generally found that the desired outcomes were being achieved, or that AMSA was well on track to achieve them in the near future.

30. In the ANAO's view, AMSA responded well to the changes brought about by outsourcing the network functions. It outsourced the tasks and functions, but not the final responsibility. AMSA adopted the role of an informed purchaser of services and demonstrated a focused and sound monitoring approach for both contracts. Not satisfied with a replacement service, it 'raised the bar' by requiring an increase in the quality of service required. By doing so, it has substantially achieved the best-fit solution and improved outcomes referred to in the Foreword to the ANAO Better Practice Guide.

Accountability (Chapter 5)

31. Overall, the ANAO considers that AMSA demonstrated firmly established and effective consultative mechanisms with its various stakeholders and robust accountability frameworks. AMSA consults regularly with members of the shipping industry. As part of the audit process, the ANAO sought the views of a number of stakeholders. The feedback was positive. Stakeholders indicated that, in their view, AMSA's consultation was appropriate and adequate.

32. AMSA has an active and engaged Board. The ANAO found that, overall, AMSA's internal reporting appeared to be robust. The Board was informed of operational issues in a timely manner and the reports presented appeared to cover the issues adequately. However, the ANAO found that AMSA could take the opportunity to further assist the Board by also providing more strategic reports that relate to AMSA's broader objectives. Such reporting is also important for accountability purposes.

33. Although AMSA's proactive monitoring of the contracts demonstrates better practice, AMSA could better report on the overall effectiveness of the outsourced functions, both internally and to its stakeholders. Although regular reports were provided on the operation and functionality of the network, some of the more strategic elements had been overlooked, such as how these are contributing to the longer term efficiency and effectiveness of the navigation aids network and, hence, shipping safety.

34. The ANAO suggested that AMSA take the opportunity to report on the AMS Ltd contract more comprehensively at the end of each contract year, when the contractor's overall performance is assessed to determine the value of the 'at risk' performance payment to be made. With respect to the contract with P&O Maritime Services Pty Ltd, the ANAO noted this would be more difficult in the absence of high level contract performance measures.

35. AMSA has tabled an annual report in Parliament each year since it was established in 1990. The ANAO found that the performance measures specified in the Portfolio Budget Statements matched the measures reported in the related Annual Reports. AMSA is cited as a better practice example for its well-defined and measurable performance measures in the ANAO Better Practice Guide on *Performance Information in Portfolio Budget Statements*.

36. The ANAO also noted there is scope for enhancing the consistency of AMSA's external reporting against its performance measures to facilitate analysis of trends over time. There is also an opportunity for AMSA to better report on its successes with respect to the navigation aids network and to keep its stakeholders better informed about how AMSA's vision to achieve world's best practice in maritime safety is being achieved.

AMSA's response

37. AMSA welcomed the proposals in the report that will strengthen its delivery of services related to the national aids to navigation network, in line with its policy of continuous improvement.

Audit Findings and Conclusions

1. Introduction

AMSA's role

1.1 AMSA was established as a Commonwealth statutory authority under the *Australian Maritime Safety Authority Act 1990* (the Act). It is largely self-funded through levies on the commercial shipping industry and has an overall budget of \$72.7 million for 2002–2003.

1.2 AMSA's vision is 'to achieve world's best practice in providing services to Australia in maritime safety, aviation and marine search and rescue and protection of the marine environment from ship sourced pollution.'¹

1.3 AMSA reports to the Minister of Transport and Regional Services and is governed by a board. The day-to-day operations are managed by a Chief Executive Officer, who oversees three separate divisions: Maritime Safety and Environmental Strategy, Maritime Operations, and Australian Search and Rescue. These are supported by a Corporate business unit.

1.4 Under the 2002–2003 Portfolio Budget Statements (PBS), AMSA contributes to the Transport and Regional Services portfolio outcome of a better transport system for Australia. AMSA has two direct outcomes: minimising the risk of shipping incidents and pollution in Australian waters and maximising the number of people saved from maritime and aviation incidents.

1.5 The navigation aids network contributes directly to the first outcome and is identified as Output 1.4 'Systems that aid safe marine navigation.'

1.6 The responsibility for the navigation aids network rests with Navigational Services and SAR Maintenance Section (NSSM) within the Maritime Safety and Environmental Strategy Division.

The importance of the navigation aids network

1.7 Australia, as an island continent and a major trading nation, relies heavily on shipping. Although the Australian trading fleet is small by international standards, many foreign registered ships use Australian waters.

1.8 The cost of any marine incidents are potentially significant since they are likely to impact on trade, tourism and the environment. The cost of the *Exxon Valdez* incident is reported to have cost US \$2 billion. Media reports suggested

¹ Australian Maritime Safety Authority, *Twelfth Annual Report 2001–2002*, AMSA, Canberra, September 2002, p. i.

that the damage resulting from the sinking of the *Prestige* off the coast of Northern Spain in November 2002 is likely to cost a similar amount.

1.9 The Great Barrier Reef and Torres Strait are two ecologically sensitive areas requiring particular protection while also including important shipping routes for Australian trade. In 1990, the Great Barrier Reef was one of the first areas to be declared a 'Particularly Sensitive Sea Area' by the International Maritime Organization (IMO). The IMO also endorsed related protective measures, including compulsory pilotage in certain navigationally hazardous areas.

1.10 Australia's commitment as a signatory to the International Convention for the Safety of Life at Sea (SOLAS), 1974, is to:

arrange for the establishment and maintenance of such aids to navigation as, in their [sic] opinion, the volume of traffic justifies and degree of risk requires, and to arrange for information relating to these aids to be made available to all concerned.²

1.11 According to the *Strategic Plan for Navigational Systems in Australian Waters* (the Strategic Plan), AMSA fulfils Australia's SOLAS commitment through the following arrangements:

- Positioning systems that include lights, beacons and buoys, radar transponder beacons (RACONS) and a Differential Global Positioning System (DGPS) network.
- Inputs into reference systems such as civilian charting requirements and Electronic Chart Display & Information Systems (ECDIS) standards.
- Information services such as the 'REEFREP' Ship Reporting System (SRS), trials of Automatic Identification Systems (AIS) equipment and a local network of broadcasting tide gauges.³

1.12 In other words, AMSA's role in achieving safe navigation in Australia's waters is delivered by managing the combination of a network of navigation aids that mark shipping routes and potential hazards and the ship reporting system (SRS) that keeps track of, and reports, the location of ships. AMSA also participates in the implementation of leading edge technologies, such as satellite tracking in the Great Barrier Reef.

1.13 The navigational aids Strategic Plan is underpinned by an Operational Plan that describes how the network is to be managed in an outsourced environment. The Operational Plan is supported by annual Business Plans, which describe how the objectives are to be achieved.

² International Maritime Organization, *International Convention for Safety of Life at Sea (SOLAS)*, IMO, London, 1974, Chapter V, regulation 14.

³ Australian Maritime Safety Authority, *Strategic Plan for Navigational Systems in Australian Waters*, AMSA, Canberra, January 2001, p. 4.

1.14 The NSSM Business Plan for 2001–2003 states that:

The general philosophy applied to achieve a safe and efficient maritime transport regime is to provide navigational services comparable in standard and style to those of Australia's principal trading partners. This recognises the high component of foreign owned vessels engaged in Australia's import and export trade and also influences AMSA's participation in international forums including the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) and the IMO.⁴

1.15 The Strategic Plan states that, to date, based on an analysis of the Australian Transport Safety Bureau (ATSB) reports into shipping incidents, 'there are no proven incidents that show any inadequacy in the navigation aids network.'⁵ This was confirmed by an ANAO analysis of the ATSB reports.

1.16 Table 1 shows the composition of the navigation aids network at the time of the audit in 2002 and describes the various aids.

Table 1

The composition of the network at the time of the audit

Type of navigational aid	Number	Description
Lights on fixed structures	316	Traditional lighthouses and beacons with lights.
Lit buoys	44	Anchored buoys that mark shoals, channels and other potential hazards. A lit buoy is a floating hull with a tower on which a light is mounted.
Unlit beacons	9	A marker fixed on shore or in relatively shallow water, commonly referred to as a day beacon or day mark.
Racons	45	Radar transponders – a receiver/transmitter device, usually fixed, that when triggered by a radar pulse from a ship returns a distinctive signal.
DGPS (Differential Global Positioning System)	16	A supplementary local service to the global satellite based radio navigational system (GPS) that provides real time position to ships. AMSA DGPS stations use a land based MF transmitter to broadcast correction messages to compatible GPS receivers. The DGPS correction messages conform to internationally defined requirements and provide users with greater positional integrity and accuracy than the GPS within the broadcast coverage area.
Ship Reporting System (SRS) radars	4	A joint Commonwealth and Queensland Government traffic management system called REEFREP that collects and distributes information on the position and movements of vessels in the Great Barrier Reef to enhance the safety of ship operations.
Broadcasting Tide Gauges	4	Solar powered gauges used in the Torres Strait to broadcast real time tide heights to assist ships to negotiate this shallow waterway.
Total number of aids	438	

Source: ANAO based on AMSA data.

⁴ Australian Maritime Safety Authority, *NSSM Business Plan 2001–2003*, AMSA, Canberra, 2002, p. 3.

⁵ Australian Maritime Safety Authority, *Strategic Plan for Navigational Systems in Australian Waters*, AMSA, Canberra, January, 2001, p. 4.



Stagg Patches Buoy
Source: AMSA

1.17 These navigational aids, which are managed by AMSA, are spread over some 376 locations around Australia's coastline. The relevant State government or port authority manages navigation aids within harbours and ports. Under the Australian Constitution, the Commonwealth has responsibility for lighthouses while the States have responsibility for ports and harbours. In 1934, the Commonwealth and States agreed that the Commonwealth would provide aids to navigation to assist the safe passage of ocean going vessels, while the States would provide the aids required for the navigation of fishing vessels and recreational craft.

1.18 AMSA's responsibilities include the maintenance and ongoing management of the network, as well as any enhancements to the network via the capital works program, including the introduction of new technology.

1.19 AMSA's Output 1.4, which covers aids to navigation, includes the safety information service. This was not included in the audit as it is provided by a different area, AMSA's Emergency Response Unit.

1.20 The navigation aids network was valued at \$38.6 million in the 2001–2002 Annual Report. The operational and capital budget for the management of the network in 2002–2003 is \$19.2 million, representing just over a quarter of AMSA's overall budget. The network is funded entirely by the Marine Navigation Levy.⁶

⁶ The Marine Navigation Levy is applied to sea-going ships, based on the particular ship's tonnage.

Objectives and scope of the ANAO audit

1.21 The objectives of the limited scope audit were to determine whether AMSA's management of the navigation aids network provides for the strategic needs of marine navigation in Australian waters. The audit examined whether AMSA efficiently and effectively manages the navigation aids network, including the capital works program for new aids and the ongoing maintenance of the network.

Scope

1.22 The audit focused on:

- AMSA's strategic planning for navigation aids;
- the management of revenue and expenditure to support the navigation aids network, including the Marine Navigation Levy;
- the on-going management and maintenance of the navigation aids network in an outsourced environment; and
- AMSA's accountability and performance reporting arrangements.

Audit methodology

1.23 The audit methodology included:

- consultations with AMSA's Central Office in Canberra;
- examination of related key documents;
- meetings with the two key service providers;
- discussions with AMSA's Brisbane Regional Office (which has operational responsibility for the navigation aids network);
- overview of the Marine Navigation Levy collection and management procedures;
- seeking the views of some other key stakeholders on AMSA's performance and the effectiveness of the navigation aids network;
- examination of the performance data available, which included MAXIMO, the maintenance database for the navigation aids network; and
- examination of the Portfolio Budget Statements and AMSA's Annual Reports.

1.24 The audit was conducted in accordance with ANAO Auditing Standards, with the fieldwork undertaken between November 2002 and February 2003. The total cost of the audit was \$152 000.

Context of the navigation aids network

1.25 When AMSA was established in 1990, it was part of an on-going reform process aimed at enhancing efficiency and containing costs in the delivery of safety and other services to the Australian shipping industry. AMSA took over the marine regulatory and operational functions of the then Department of Transport and Communications.

1.26 The objective of establishing AMSA was to improve performance and accountability through the structure of a statutory authority with an appropriate commercial charter. It was expected that AMSA would reduce costs to industry while ensuring that internationally agreed standards of safety and marine environmental protection were maintained.⁷

1.27 In December 1999, following on from the Government's competitive neutrality and contestability policy, AMSA assessed all of its functions and selected some for market testing. Identified for market testing in this review, known as the Program of Business Improvement, were the services associated with the maintenance of the navigation aids network.

1.28 The engineering function associated with the maintenance of the navigation aids network, and the support ship that provided transport to remote navigation aid sites, were outsourced as a result of the review.

1.29 In June 2000, the ship, the *Cape Grafton*, was sold to P&O Maritime Services Pty Ltd, and was renamed the *Southern Supporter*. P&O Maritime Services Pty Ltd also won the contract for the provision of shipping support services to AMSA from July 2000 until June 2005.

1.30 The business unit, Engineering and Maintenance Operations (EMO), was disbanded and the engineering and maintenance services were contracted to Australian Maritime Systems Ltd (AMS Ltd), from April 2001, for three years with two possible extensions of one year.

1.31 Capital works for new navigation aids are tendered on a project-by-project basis.

1.32 The outsourcing of these major functions resulted in a staff reduction from 113 people in 1999–2000 to 12 people in 2002–2003.

⁷ Australian Maritime Safety Authority, *AMSA The First Decade*, AMSA, Canberra, January 2001, p. 6.

1.33 Although the maintenance and shipping support services have been outsourced, the responsibility for the strategic planning and the capital works program of the navigation aids network remains with the authority.



The shipping support vessel, the *Cape Grafton* renamed *Southern Supporter*
Source: AMSA

2. Strategic Planning

This chapter looks at the efficiency and effectiveness of AMSA's strategic planning for the navigation aids network. To form an opinion, the ANAO examined AMSA's practices against the following steps:

- *assessing the business context;*
- *identifying the short and long term objectives and addressing risks;*
- *developing suitable strategies to achieve the objectives;*
- *ensuring adequate resources are available and responsibilities are clearly assigned; and*
- *monitoring and reviewing the continued relevance of the plan and its strategies.*

AMSA's strategy

2.1 AMSA's strategy is articulated in the navigational aids Strategic Plan. This plan outlines the strategies in the shorter term for the maintenance of the existing navigational systems and, in the longer term, the strategies for developing systems to sustain and improve performance into the future. The efficient and effective use of resources underpins both the short and long term strategies.

2.2 The ANAO found that AMSA had followed each of the steps required to ensure a sound and comprehensive strategic approach. The steps AMSA followed are detailed below.

Assessing the business context

2.3 AMSA thoroughly assessed its current and future business environment through a detailed internal and external analysis of key factors and through industry consultation.

2.4 The Strategic Plan is underpinned by:

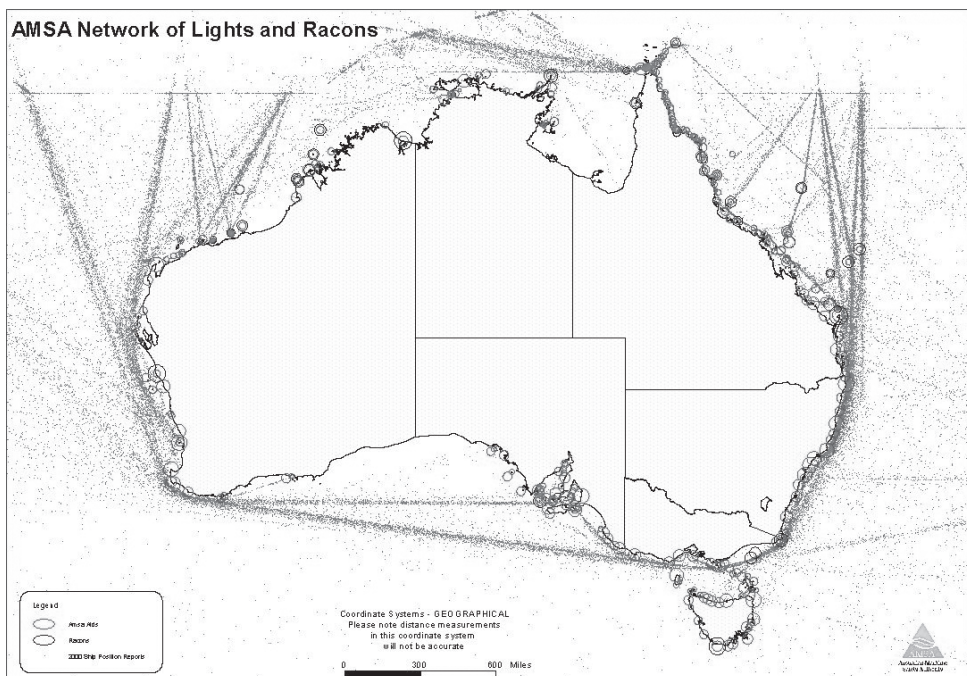
- Bureau of Transport Economics (BTE)⁸ and Australian Bureau of Agriculture and Resource Economics (ABARE) projections of future shipping trends over the next 10 years;
- an AMSA review of shipping traffic in Australian waters in relation to the current positioning of navigation aids using Ship Reporting System data (see figure 1 below);

⁸ The BTE is now known as the Bureau of Transport and Regional Economics (BTRE).

- consultation with the shipping industry, the Royal Australian Navy Hydrographic Office and the Australian Marine Pilots Association, through the Navigational Services Advisory Committee (NSAC);
- analysis of likely developments in technology and their application to Australian conditions, as well as international trends in uptake; and
- examination of current and likely future requirements of the IMO and IALA.

Figure 1

AMSA Network of Lights and Racons, showing the shipping usage patterns as at early 2001



Source: AMSA, based on its analysis of shipping patterns over a 12 month period.

2.5 The Strategic Plan states that:

AMSA is of the firm belief that the current system is adequate to meet current needs because:

- the aids to navigation infrastructure provides services to assist all classes of vessels operating under SOLAS;
- industry and stakeholder feedback is positive; and
- based on an analysis of ATSB reports, there are no proven incidences that show any inadequacy in the aids to navigation system.⁹

⁹ Australian Maritime Safety Authority, *The Strategic Plan for Navigational Systems in Australian Waters*, AMSA, Canberra, January 2001, pp. 3–4.

2.6 As part of the audit, the ANAO consulted with a range of stakeholders from the shipping industry¹⁰, the Queensland Department of Transport, and the Great Barrier Reef Marine Park Authority (GBRMPA). These stakeholders all confirmed that the network met their needs and advised that they were generally satisfied with AMSA's management of it.

Identifying the short and long term objectives

2.7 The Strategic Plan articulates both short and long term objectives. The Strategic Plan has a '10 year outlook as a framework for decision making for the development, enhancement and maintenance of the requirements of the network over the next five years.'¹¹ The Operational Plan expresses how AMSA will implement the strategic plan over the five years, 2000–2005. This is supported by annual business plans.

Long term

2.8 The Strategic Plan addresses whether the right aids are in the right place and are cost effectively maintained. In order to determine this, AMSA assesses changes in shipping patterns, technology and industry expectations. This is an iterative process where aids are either decommissioned, replaced, or new aids are constructed, depending on needs. Decisions regarding changes to the network are made after a risk assessment has been conducted.

2.9 The Strategic Plan takes into consideration S2A (c) of the Act, which is 'to promote the efficient provision of services by the Authority.' To achieve this outcome in the longer term, AMSA aims to maintain the network through using aids that last longer; have greater maintenance intervals; and have maximum effectiveness.

2.10 When AMSA decides to upgrade the network via its capital works program, it considers the most durable, cost effective and technologically appropriate way to do so. This was evident in discussions with AMSA staff and in the sample of project documentation examined by the ANAO.

Short term

2.11 In the short term, maintenance objectives are identified and these dovetail into the longer term objectives. For example, the Operational Plan refers to continuing refinements that:

includes the application of:

- low maintenance aids to navigation equipment and systems;
- renewable energy power systems;

¹⁰ The majority of these are members of the Navigational Services Advisory Committee (NSAC).

¹¹ op. cit. p. 2.

- increased maintenance intervals;
- cost effective major repairs and maintenance projects that aim to achieve a 10 to twenty year life extension;
- innovative maintenance and construction techniques where practicable; and
- revised maintenance and construction transport arrangements, where practicable.¹²

2.12 The Operational Plan outlines how the day-to-day maintenance of the network will be achieved in an outsourced environment. It also provides the timeframes for the proposed changes to the network.

Addressing risks

2.13 AMSA's approach to managing the network encompasses comprehensive risk analyses and treatments. There is a risk management plan for the network. AMSA was included in the ANAO cross-portfolio audit *The Management of Risk and Insurance*, to be tabled in July 2003, and was rated highly for its risk management practices.

2.14 The ANAO considers AMSA's strategic objectives to be well-defined and soundly based on risk management practices. The strategic and operational plans are active plans that are routinely evidenced in AMSA's day-to-day management of the network.

Developing strategies to achieve the objectives

2.15 Strategic plans work best if the agency also clearly describes how the objectives will be achieved and allocates appropriate and clear responsibilities and resources. The Strategic Plan and Operational Plan are supported by maintenance and capital works budgets. Together, these plans and associated budgets provide the blueprint for the management of the navigation aids network. They set a clear suite of strategies to achieve the identified objectives. The strategies are discussed below.

Cost reduction

2.16 One of the major means AMSA has adopted to reduce costs and to improve the effectiveness of the services provided was to outsource the shipping support services and the on-going maintenance of the network. As noted earlier, the functions are conducted under two contracts with two separate companies.

¹² Australian Maritime Safety Authority, *The NSSM Operational Plan*, AMSA, Canberra, 2002, p. 8.

2.17 The contracts are fixed in price and the shipping support contract has built in a reducing number of service days, dropping from 160 days in the first year to 80 days in the final year. Currently, AMSA provides the shipping support to AMS Ltd to carry out its maintenance work, where a vessel is required. One of AMSA's longer term goals for achieving further efficiencies is to combine the two contracts when they come up for re-tendering in 2005. Under this future arrangement, the maintenance contractor would be responsible for providing its own transport.

2.18 AMSA makes changes to the network based on its assessment of traffic densities, the navigation risks and environmental sensitivity. Over the past decade a number of lighthouses have been returned to the ownership or control of respective State Governments because they were no longer necessary for commercial shipping. However, the lighthouses might still be useful for the safety of fishing and recreational shipping, which is a State and Northern Territory responsibility. AMSA advised that a reduction in the number of navigation aids in the national network will contribute to further cost reduction, while not reducing the safety of navigation for commercial ships.

Technology

2.19 Enhancing existing technology is another means that AMSA uses to increase the efficiency of the network. For example, AMSA recently completed installing 16 DGPS stations around Australia, which will assist ships to pinpoint their position with greater accuracy. Solar power, which was first introduced to the network in 1981, is now used for eighty per cent of the powered aids.

2.20 In addition, the contract with AMS Ltd, which is responsible for maintaining the network, requires the contractor to look for ways to enhance the network by introducing new technologies in its maintenance work. By way of example, AMS Ltd suggested a new method for mooring buoys in a region subject to rough seas and undertook the research and analysis required.

2.21 AMSA is also investigating remote monitoring technology as a way of reducing the number of maintenance visits to navigation aids.

Lowering the market barriers

2.22 It is important that agencies have strategies to continue to contain costs and to ensure that options for purchasing services remain available. AMSA is manoeuvring itself so that other potential service providers will be able to bid for its business. This is being achieved by the overall simplification of the components of the navigation aids network and alternative access provisions.

2.23 In 2001, there were 107 navigation aid sites (about one third of the network) that were designated as primarily accessible by ship. AMSA has been reviewing these sites and also considering the most cost effective way to access the site when it develops and constructs new navigation aids. Where possible, helipads are built to reduce the reliance on shipping support.

2.24 At the time of the audit there were 167 sites primarily accessible by helicopter and 83 sites accessible by road. The number of sites accessible by ship had not decreased at that stage, mainly due to the construction of a number of temporary buoys in the Fairway Channel (in the Great Barrier Reef). However, the majority of new sites are accessible by alternative means. In the long term, this approach should allow increased competition and, potentially, reduced costs.

Ensuring adequate resources and assigning responsibilities

Human resources

2.25 At the outset, AMSA decided to assume the role of an informed purchaser. AMSA identified the tasks and skills that it needed to ensure a continuing level of capability, regardless of how network maintenance is delivered.

Assigning responsibilities

2.26 AMSA prepared an interrelationship matrix that describes and assigns the various tasks and expertise required to manage the network in an outsourced environment. This ensures that the skilled staff necessary to effectively oversee the management of the network are available, and that all staff understand their respective roles and responsibilities.

Financial resources

2.27 The Marine Navigation Levy funds the navigation aid network, including the capital works. AMSA manages within the expected projections for levy revenue and monitors its budgets on a monthly basis. The ANAO found no evidence that any capital works projects were delayed due to a lack of funds.

Reviewing plans to ensure continued relevance

2.28 It is important that agencies assess their strategic plans from time to time to make sure they are still pertinent to the business needs of the agency and the environment within which it operates.

2.29 The ANAO noted that, as a result of the data analysis of actual shipping paths for the Strategic Plan, South Australia was identified as an area with some excess, or under utilised, navigation aids, due to changes in the shipping routes used over time. This demonstrates how AMSA continues to analyse its

environment. Some 13 navigational aids are due to be returned to the South Australian Government during 2003.

2.30 To ensure that the network is optimised, AMSA intends to continue its review of the use of navigation aids along the Australian coastline.

2.31 The ANAO noted that there was no formal timetable to review the Strategic Plan and suggested to AMSA that such a timetable would be beneficial. AMSA agreed, and subsequently advised that it is planning to introduce a cycle of formal reviews of the plan.

Conclusion

2.32 The ANAO considers that, overall, AMSA's approach to strategic planning is soundly based, comprehensive and well articulated. The analysis supporting the plan was thorough and gave the ANAO confidence that AMSA was well positioned to provide strategic and appropriate aids to navigation, and that AMSA has the expertise and management systems in place to maintain the network at the required standards.

2.33 The indicators of success are that no shipping incidences have been proven to be attributed to any failure in the navigation aids network; the major stakeholders gave positive feedback; the network makes good use of current technologies; and the network's performance is consistent with international obligations.

2.34 The ANAO found that AMSA has adhered to the key steps of risk assessment and strategic planning and, by doing so, has established an effective foundation for the management of the network from which to deliver quality outcomes.

3. Revenue and Expenditure Management

This chapter examines AMSA's management of the Marine Navigation Levy to determine whether AMSA collects and expends sufficient monies to maintain the integrity of the network. The ANAO also looked at how AMSA had estimated and monitored the cost savings to be achieved through the Program of Business Improvement.

Revenue forecasting and collection

3.1 AMSA forecasts levy revenue using Australian Bureau of Agriculture Research and Economics (ABARE) data on expected shipping activity in Australian waters. There are few changes to shipping levels anticipated over the next 10 years, suggesting the levy revenue will remain relatively constant in the absence of any unforeseen major economic and trade fluctuations or changes in Government policy affecting the levy system.

3.2 The Australian Customs Service collects the levy on behalf of AMSA. The levy revenue, which is a tax, is paid into the Consolidated Revenue Fund and appropriated to AMSA under the relevant Appropriation Act. The monies transferred into AMSA's bank account are recorded by AMSA through journal entries that bring the levy to account. AMSA has documented this process in a management system procedure.

3.3 The ANAO considers that AMSA has adequate corporate mechanisms to collect the levy. AMSA's management of the levy collection was included in the ANAO cross-portfolio Audit Report No.32 1999–2000 *Management of Commonwealth Non-Primary Industry Levies*. The report did not contain any adverse findings about AMSA's practices, nor any recommendations directed specifically at AMSA.

Budgeting

3.4 AMSA prepares an annual operational budget covering the anticipated needs for the administration, maintenance and major repairs of the navigation aids network. Since a significant portion of the budget is the outsourced maintenance services and the support services contracts, which have a fixed price, AMSA is able to predict its costs reasonably accurately.

3.5 AMSA prepares a separate capital works program, which covers the next five to 10 years of anticipated works, for either the development of new navigation aids or the replacement of old aids. From this, AMSA derives an

annual capital works budget. Individual capital works can take over two years to plan and complete. Sometimes, new capital projects may be added in, and other projects postponed or brought forward, depending on the nature of the project.

3.6 The navigation aids network is an asset in AMSA's balance sheet. In AMSA's Annual Report 2001–2002, the network was valued at \$38.6 million, net of depreciation. Each year an amount is expensed that reflects the depreciation of the network as an asset. AMSA uses this amount to fund the annual capital works, to the value of around \$7–8 million per year. The capital works program is submitted to the Board for discussion and approval.

3.7 The combined administrative, maintenance and capital works budgets for the network are set within the expected projections for the Marine Navigation Levy revenue. So far, the budgeting process has been effective in matching expenditure with the revenue, alternating between small deficits and small surpluses over the past three years. The projected surplus for 2002–2003 is \$0.8 million.

Balance between the levy and the needs of the network

3.8 The ANAO examined whether the revenue generated by the levy was sufficient to meet the capital and maintenance needs of the network. In considering the maintenance and capital works programs, the ANAO found:

- there are no apparent gaps in the integrity of the network or the maintenance of it;
- no evidence of any capital works projects being delayed due to a lack of funds;
- there have been no major over or under recovery of costs, as noted above; and
- industry and stakeholders appear satisfied with the level of service.

3.9 Further, in order to validate the appropriateness of the levy revenue it raises, AMSA commissions periodic independent reviews, and the latest of these were conducted in 1997 and 2002.

3.10 The ANAO concluded that AMSA successfully balances its expenditure with the needs of the navigation aids network and the levy revenue raised for this purpose.

Trends in the Marine Navigation Levy

3.11 AMSA has a policy of continuous improvement in its management of the network's maintenance, administration and capital projects, which has contributed to a continuing downward trend in levy rates.

3.12 As part of this policy, AMSA reviewed its business needs during the Program of Business Improvement. One of the drivers was AMSA's decision to focus on its core business as a safety and regulatory agency. At the time, the *Cape Grafton* and the engineering services area competed for, and won, commercial contracts that generated revenue. However, this placed AMSA in direct competition with the shipping industry it regulated and served.

3.13 As a result of the review, AMSA identified financial and quality benefits from selling its ship, the *Cape Grafton*, as well as outsourcing the shipping support service and, subsequently, the remainder of EMO's engineering and project management functions.

3.14 The ship was sold in June 2000 and AMSA decided to engage in a competitive tender for the provision of maintenance services.

3.15 The AMSA Board then recommended to the Minister for Transport and Regional Services that the anticipated efficiency gains from outsourcing these sections of AMSA's business should be reflected in levy reductions to the shipping industry. There was a resulting levy reduction of 10 per cent, effective from 1 July 2000. Additionally, the proceeds received from the sale of the ship were returned as an equity repayment to the Commonwealth Government.

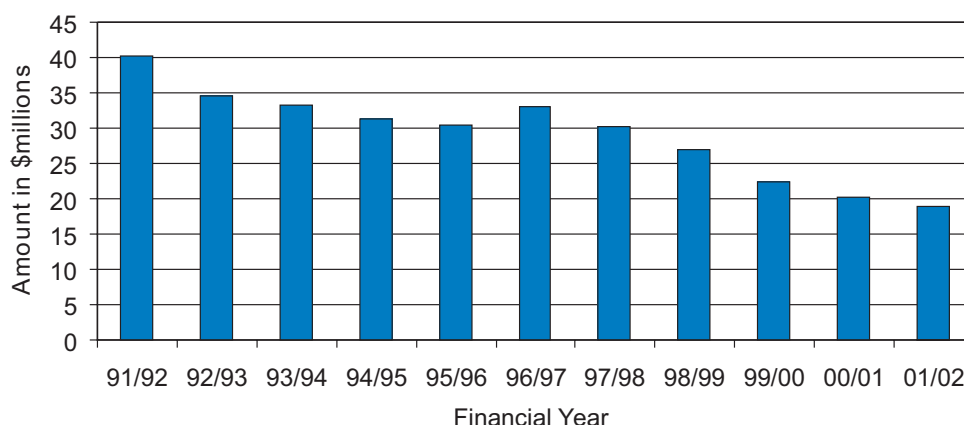
3.16 In a similar way, as efficiencies have continued to accrue from the outsourcing, the AMSA Board recently recommended a further 10 per cent reduction in the Marine Navigation Levy to be effected from July 2003. This has been approved in principle by the Minister for Transport and Regional Services.

3.17 Figure 2 plots the levy collected over the last 10 years. The annual levy revenue collected shows a sustained reduction from \$40 million in 1991–1992 to \$22.5 million in 1999–2000. AMSA has continued to achieve cost savings since the outsourcing of the network, with the levy reducing by a further \$3.2 million to an estimated \$19.3 million in 2002–2003. AMSA has successfully reduced the costs of the network without jeopardising its integrity, while also improving its effectiveness.

Figure 2

Marine Navigation Levy revenue from 1991–1992 to 2001–2002

Ten Years of Marine Navigation Levy



Source: AMSA Annual Reports 1991–1992 through to 2001–2002.

Cost-savings from outsourcing

Establishing the benchmark costs

3.18 AMSA had a number of criteria for market testing its functions, cost savings being one of these. In order for an agency to determine whether the decision to outsource represents value for money, it is important that a suitable and accurate benchmark cost is established. The benchmark is also important in determining the appropriate contract price and for providing a sound basis from which to monitor actual savings achieved.

Sale of the ship and outsourcing of shipping support

3.19 AMSA did not establish a cost benchmark for the sale of the *Cape Grafton* and associated shipping support services because it had decided to disengage from the provision of those services.

3.20 The sale of the ship brought about a capital inflow of \$9.45 million. In addition, savings were derived from the reduced ongoing and future ship maintenance and running costs, including the need for crew. Although this did not initially offset the revenue that the ship had generated, the manner in which AMSA contracted in the shipping support services, with a reducing number of days over the life of the contract, means it is set to achieve savings in the longer term.

Outsourcing of maintenance

3.21 With respect to outsourcing the maintenance services, AMSA undertook a number of financial analyses to establish a benchmark cost. The former EMO contained: engineering and maintenance services; the shipping services; capital projects; and the navigation standards staff. These business components were integrated to a substantial degree, requiring certain assumptions to distinguish them in order to quantify the then current costs.

3.22 However, the ANAO was unable to validate the benchmark cost that AMSA provided as the basis for the maintenance services contract because some of the assumptions that underpinned that benchmark were not well documented. As well, some of the calculations appeared inconsistent. AMSA should adopt a more rigorous process when it next tenders for these services, to achieve best value for money and for audit purposes. This should be more easily accomplished now that these services have been segregated and the costs are clearly identifiable.

3.23 AMSA agreed that the nature of the business activity was complex and that it was difficult to trace and isolate each component. AMSA also stated it is satisfied that the initial benchmark costs were as clear and accurate as the circumstances permitted. However, AMSA agrees that the cost savings comparisons will be better in the next tender round now that the outsourced functions have been clearly defined.

Monitoring cost savings achieved

3.24 The ANAO examined the extent to which AMSA had monitored the savings it was achieving from the outsourcing. In the AMSA Board meeting of February 2001, the minutes note that the Board 'agreed that management provide regular progress reports on the transition arrangements and hand over to Australian Maritime Systems Ltd, including the monitoring of transition costs and achievement of promised savings.'

3.25 AMSA commenced reporting to the Board in September 2001, after the contract transition was complete. Aside from a report prepared on the progress of the Program of Business Improvement presented to the Board in April 2001, the ANAO found no evidence of regular monitoring and reporting on cost savings achieved. AMSA provided operational reports that included budget expenditure. However, these reports did not track the cost savings from outsourcing specifically.

3.26 According to AMSA, an important part of the success of the outsourcing arose from the early involvement of the Board. AMSA advised the ANAO that it had been careful to keep the Board updated as the program progressed and that it provides each Board meeting with a report on the performance of the

outsourced contract. AMSA further commented that the monitoring of ongoing cost savings is seen as a management function and that, while the Board reports do not contain details on cost savings, the Board is fully apprised of the overall financial outcome of the program. The recent reduction in the Marine Navigation Levy reflects the improved efficiency in service delivery.

Estimated savings

3.27 In the absence of reported cost savings figures, the ANAO examined the overall levy, network budget and expenditure trends to ascertain whether savings were being achieved. As shown in Figure 2, the levy collected had dropped to \$22.5 million in 1999–2000. In 2002–2003, it will further decrease to an estimated \$19.3 million. As noted earlier, the AMSA Board has recommended a further reduction from July 2003 and AMSA is expecting additional savings in the future, especially from 2005 when the re-tendering of the contracts will provide further such opportunities.

3.28 The ANAO concludes that there have been savings from the outsourcing, but there is more that AMSA could do to better quantify, monitor and report on these savings. It will be important for AMSA to be able to report in a timely and efficient manner on the cost of maintaining the network to accurately inform the future determination of levy amounts.

Conclusion

3.29 The ANAO concluded that the monies collected and expended by AMSA on the network are appropriate to maintain the integrity of the current network. They appear adequate to sustain its performance via the capital works program and technological enhancements.

3.30 The ANAO concluded that AMSA's forecasting of the Marine Navigation Levy, based on ABARE data, is effective. In addition, the budgeting process has been effective in matching expenditure with the revenue, alternating between small deficits and small surpluses over the past three years.

3.31 It is apparent that the overall costs of the navigation aids network have reduced over time, contributing to the reduction in to the levy. The ANAO concluded that AMSA successfully balances its expenditure with the operational and capital needs of the navigation aids network and the levy revenue raised for this purpose.

3.32 Although savings have been achieved from the outsourcing, the ANAO found scope for improvement in AMSA's methodology for setting a clear benchmark cost against which to set tender prices. As well, there is more AMSA

could do to monitor and report on the quantum of costs actually saved since the outsourcing of its services.

4. On-going Management and Maintenance

This chapter discusses AMSA's on-going management of the network and, given the significant outsourcing involved, its contract management practices. These were compared to the ANAO's Better Practice Guide on Contract Management. The overall monitoring and reporting of achievement against the objectives of outsourcing is also discussed.

4.1 Effective management requires sound planning and risk assessment; the allocation of adequate resources; a proactive approach supported by clear procedures; regular monitoring; and comprehensive reporting and analysis to measure achievement against the stated objectives.

4.2 AMSA's effectiveness in planning, risk assessment and resource management were discussed in Chapters Two and Three. In a similar way, the ANAO found that AMSA continued to adhere to better practice in its day-to-day management of the network and its contractors. Accordingly, the manner in which AMSA manages the network is directly focused on achieving the objectives outlined in the Strategic Plan.

AMSA's management approach

4.3 As noted earlier, in order to manage the navigation aids network AMSA divided the functions into three main areas. Each has been outsourced differently:

- **Shipping support services**—is contracted to P&O Maritime Services Pty Ltd, who bought the *Cape Grafton* (renamed the *Southern Supporter*) and tendered for the provision of shipping support services. This is a five-year fixed price contract based on the number of days the vessel is chartered.
- **The maintenance of the existing network**—is contracted to AMS Ltd, a company made up largely of ex-AMSA employees with other corporate backing. This is a three-year fixed price contract with an at-risk performance component and the option for two one-year extensions.
- **The construction of new navigation aids**—is tendered on a project-by-project basis. One project may consist of multiple contracts.

4.4 A central contract manager oversees the shipping support services and the maintenance contract. A project team within AMSA manages the capital works projects.

AMSA's contract management

4.5 In the Foreword to the ANAO Better Practice Guide on *Contract Management*, (the ANAO guide) the Auditor-General commented that government agencies tend to be proficient in the tendering of business, but are 'less successful in seeking innovative solutions to the achievement of business outcomes from tenderers.' He continues on to observe that:

If parties enter into a contract with a good understanding of the other's objectives, needs, goals and risks, it is possible that a best-fit solution will be found for the service delivery and opportunities for improved outcomes can be maximised for all concerned. This is what contract management should be about.¹³

4.6 As discussed below, the ANAO found that AMSA, through its adherence to better practice, has achieved a good understanding with its contractors which, combined with the focus on innovation, has led to better outcomes for all parties concerned.

4.7 The ANAO guide uses the Australia/New Zealand risk management standard AS/NZ 4360:1999 and applies it to the three phases of contracting, which are:

- transition;
- on-going management; and
- succession planning.

4.8 The guide recommends adherence to the following risk management steps in each of these phases:

- establishing the context;
- assessing the risks;
- implementing treatments; and
- monitoring and reviewing.

4.9 With the help of contracted-in expertise, AMSA used the same AS/NZ standard to underpin the outsourcing of EMO Services and the three phases of contracting. Accordingly, the ANAO found a high degree of correlation between AMSA's approach and the better practice outlined in the guide. AMSA's approach for each of the three phases of contracting is discussed below.

¹³ Australian National Audit Office, ANAO Better Practice Guide *Contract Management*, ANAO, Canberra, February 2001, p. 3.

Contract transition phase

Establishing the context and assessing risks

4.10 The analysis and consultation that AMSA undertook to formulate the Strategic Plan gave it a sound foundation for establishing the operating context and identifying any business risks. AMSA also directed considerable effort into identifying and minimising the potential risks associated with the contracting out of a significant proportion of its business. This covered both the contract and the business risks. For example, in recognition of AMS Ltd's relative newness as a start up company, AMSA sought both performance and financial guarantees.

Implementing treatments and reviewing

4.11 AMSA devised and implemented treatments to cover the transition phase effectively, adhering to each of the ANAO better practice principles, even though AMS Ltd is largely comprised of ex-AMSA staff.

4.12 Despite the extensive experience of these ex-employees, the treatments to the AMS Ltd contract for the provision of maintenance services included a transition plan; regular transition meetings; a final meeting and sign off; and a post transition review. AMSA ensured that any 'grey areas' relating to the contract and the expected standards were discussed and a common understanding reached about the roles and responsibilities of all parties.

4.13 For the shipping support contract, AMSA ensured that the ship charter was specific to AMSA's needs and was set out in terms that were familiar to the industry. Transition meetings were also held prior to the first charter of the vessel, again, to ensure a common understanding of the expected standard of service.

4.14 For both contracts, fixed pricing contains the costs. There are also penalties for non-delivery or for failing to achieve the required standards.

4.15 Figure 3 compares AMSA's approach with the better practice processes for the contract transition phase in the ANAO's better practice guide.

Figure 3**Contract transition phase—comparison of AMSA's processes to the practices in the ANAO Guide**

Better Practice Guide	AMSA's approach
<p>Step 1—Establishing the context</p> <ul style="list-style-type: none"> Announce decision to stakeholders and brief unsuccessful tenderers. Prepare for new service delivery arrangements with successful tenderer. 	<ul style="list-style-type: none"> AMSA's CEO briefed staff on the Program of Business Improvement and key achievements. Unsuccessful tenderers were briefed and the AMSA Board was kept informed throughout the tender process. AMSA's market testing approach included the application of AS/NZ 4360:1999. AMSA had a purchaser/provider relationship existing prior to transition, which gave them a good basis for managing the outsourced maintenance services and establishing appropriate KPIs.
<p>Step 2—Assess risks</p> <ul style="list-style-type: none"> Does the tenderer understand the requirements? Will the implementation be delayed? What relationship will evolve? Have sufficient resources been allocated? Is the fee structure appropriate? 	<ul style="list-style-type: none"> Information sessions, a data room and comprehensive RFT briefings were available to tenderers for both contracts. The maintenance services RFT required the tenderers to have ISO 9000 and ISO 14000 (Environment) accreditation to enhance common understanding through similar management systems. The successful tenderers were both highly experienced in the type of service provision. The contracts were implemented according to AMSA's schedule. AMSA assessed the risks to the navigation aids network and incorporated treatments into the contract and relationship styles, including financial and performance guarantees. Post-outsourcing, the AMSA internal environment was assessed, and roles, responsibilities and tasks were assigned using an interrelationship matrix. The contract with AMS Ltd is fixed price with an 'at risk' performance component. The aim was to contain costs. The contract with P&O Maritime Services Pty Ltd is also fixed price with a built-in cost reduction over time.
<p>Step 3—Implement treatments</p> <ul style="list-style-type: none"> Implementation strategy, including purpose of contract. Transition plan. Establishing workable relationship. Use appropriate legal advice. 	<ul style="list-style-type: none"> Maintenance services tenderers were required to submit proposed transition arrangements in their RFT response. For AMS Ltd - a transition project plan was prepared. For both contracts - transition meetings were held and 'grey areas' identified and resolved. For both contracts, expert assistance was contracted in, and AMSA used its legal and contract units.
<p>Step 4—Monitor and review</p> <ul style="list-style-type: none"> Ensure success of the transition in phase. 	<ul style="list-style-type: none"> AMS Ltd - final transition meeting held and documented and all 'grey' areas were identified and resolved. A review was conducted in April 2001 to report on the effectiveness of the hand over period.

Source: ANAO.

Contract management phase

Establishing the context and assessing risks

4.16 AMSA ensured that the standards of service required are thoroughly defined in both contracts. The contract with AMS Ltd has clear objectives complemented by measurable and defined KPIs. The P&O Maritime Services Pty Ltd contract contains the ship's charter that is detailed and unambiguous in its requirements. AMSA aimed to ensure that they were delivered the right ship, with appropriate and qualified crew, with the right equipment, at the right place and at the right time.

Implementing treatments and reviewing

4.17 AMSA has adopted a pro-active and informed approach to its on-going management of the two contractors.

4.18 In managing the AMS Ltd contract, AMSA's procedures include:

- formalising procedures to manage the contract, (available on AMSA's intranet);
- monitoring results against the key performance indicators (monthly, quarterly and annually);
- holding monthly contract management meetings and quarterly meetings with senior staff;
- conducting audits of navigation aid sites (by AMSA staff)—planned and random, totalling approximately 10 per cent of sites in a year;
- aligning the business information systems—both AMSA and AMS Ltd use MAXIMO to schedule and monitor maintenance work; and
- using a performance payment, which is an 'at risk' payment to the contractors.

4.19 In commenting on contract management it has been noted:

...that government contracts generally contain penalties for poor performance, but rarely include incentives and/or rewards for high level performance. More even handed treatment in the latter regard would enhance contractual relationships in areas where 'real' partnerships, depending on confident and robust relationships, are necessary to achieve required outputs and outcomes.¹⁴

¹⁴ Barrett, PJ AM, *Some Issues in Contract Management in the Public Sector*, Paper presented to Australian Corporate Lawyers Association and Australian Institute of Administrative Law, Outsourcing Conference, Canberra, July 2000.

4.20 AMSA's practices are consistent with this better practice approach, whereby it rewards not only high-level performance but also continuous improvement. AMSA expected AMS Ltd to be responsive to the changing needs to AMSA's business environment; to provide efficiency gains; and to introduce and adopt more innovative approaches. To further strengthen the focus on continuous improvement, AMSA adjusts the KPIs at the commencement of each new contract year.

4.21 With respect to the contract with P&O Maritime Services Pty Ltd, AMSA manages the contract by:

- ensuring that all parties using the vessel understand AMSA's requirements by holding meetings before, during and after the period of hire;
- managing potential logistical, relationship and safety issues by holding daily meetings with the crew during the hire;
- monitoring the condition of the vessel and associated equipment by on-hire and off-hire surveys and reports;
- ensuring the accuracy of costing and billing for technical aspects, such as fuel usage, by conducting detailed surveys of fuel holdings pre and post hire; and
- conducting annual contract management meetings with senior staff.

4.22 As AMSA is a safety regulator, the contract with P&O Maritime Services Pty Ltd has a particular focus on the safety issues associated with running a ship and performing work at sea on navigation aids. One of the measures AMSA uses to gauge the success of the contract performance is the absence of injury and accidents.

4.23 AMSA's robust approach to managing both the shipping support services and maintenance contracts has demonstrated significant elements of better practice. These have yielded successful results, as outlined later.

4.24 AMSA's approach has also been of benefit to the contractors. The ANAO consulted with senior staff from AMS Ltd, who commented that AMSA had set a high standard in contract performance and reporting. Moreover, they acknowledged that, because of this action, they have established a sound reputation in the industry and that this is assisting them to win other contracts. By using better practice, a real partnership has developed and a quality outcome has been achieved, for both AMSA and the contractor.

4.25 The ANAO also consulted with P&O Maritime Services Pty Ltd who considered that AMSA demonstrated best practice in contract management and was complimentary about AMSA's role as an informed purchaser. They also

commented that AMSA's expertise had made a complex contract run smoothly, thereby saving resources and leading to a good contract relationship.

Minor improvements

4.26 At the time of the audit, AMSA had a joint contract manager located in Canberra and a team of operational contract management staff located in Brisbane. The latter had the benefit of co-location with AMS Ltd in Brisbane. In a further effort to reduce costs, AMSA will relocate these staff from Brisbane to Canberra by September 2003. AMSA will need to ensure that the geographical distance from the prime contractor does not impact adversely upon its effective contract management.

4.27 An area for improvement is the documentation of decisions made in contract-related meetings. These were of varying standards, with some better practice models evident in relation to the shipping support contract. To date, AMSA has had continuity in its contract managers. Adequate documentation of decisions and viewpoints can become important when there are changes in key personnel. The documentation of decisions is also important for accountability purposes. Sound record-keeping practices assist in these aspects.

4.28 The shipping support contract with P&O Maritime Services Pty Ltd does not have the same elements of continuous improvement and performance reporting that the contract with AMS Ltd does. The lack of KPIs against which to assess the overall performance of the contract makes it more difficult for AMSA to report on the effectiveness of the outsourced service. The ANAO acknowledges, however, that AMSA closely monitors the delivery and safety of the ship and its crew using a detailed shipping charter that conforms to industry standards.

4.29 Figure 4 shows AMSA's on-going contract management processes and compares them to the ANAO guide.

Figure 4**Contract management phase—comparison of AMSA's processes to the practices in the ANAO Guide**

Better Practice Guide	AMSA's approach
<p>Step 1—Establish the context</p> <ul style="list-style-type: none"> • Ensure that performance meets specified standards of delivery, eg. key result areas and outcomes. • Seek opportunities to improve outcomes. 	<ul style="list-style-type: none"> • Contract with AMS Ltd has objectives and KPIs that are aligned with AMSA's strategic direction. • The P&O ship charter specifies the standards required. • AMSA and its prime contractor, AMS Ltd, are ISO9000 accredited, which is underpinned by a continuous improvement framework. • Contract includes financial incentives for AMS Ltd to contribute to enhancing the network and its own processes. • The P&O contract has a reducing number of days service over the life span, encouraging less reliance on the use of the ship.
<p>Step 2—Assess risks</p> <ul style="list-style-type: none"> • Cultural change, eg. where service was previously provided in-house or by another provider. • Contract management skills. • Delivery failure (time, cost, quality and quantity). • Management information not adequate. 	<ul style="list-style-type: none"> • AMSA achieved a cultural change - they now manage the contracts rather than providing the services. • For both contracts, staff have existing and/or, acquired contract management skills and experience, as well as expertise in the contracted services. • For AMS Ltd, the risks of service failure were assessed and are linked to the KPIs. • The P&O contract has penalties and a termination clause for non-performance. • AMS Ltd contract has defect analysis reporting, which helps to identify trends in equipment failure. • The quality and/or loss of information on the network was considered a risk - AMSA has improved the quality and quantity of its information since outsourcing (see below).
<p>Step 3—Implement treatments</p> <ul style="list-style-type: none"> • Document management strategy. • Delivery plan. • Set targets. • Monitor, manage and report. • Benchmark performances. 	<ul style="list-style-type: none"> • Strategic, operational and business plans are in place. Contract management procedures are documented and adhered to. • AMSA approves and monitors the AMS Ltd maintenance delivery plan via the MAXIMO information system. • For AMS Ltd, the targets are set clearly in many of the KPIs and these are monitored quarterly and annually. • For P&O, on-hire and off-hire surveys of the vessel and an annual contract management meeting are held. • Navigation sites are audited for compliance with AMSA's policy. • AMS Ltd – the navigation aid performance indicators are specific and are based on / benchmarked with international standards. • For the P&O contract, there are no specified performance indicators as KPIs.
<p>Step 4—Monitor and review</p> <ul style="list-style-type: none"> • Both parties should test the adequacy of performance measures during the life of the contract. 	<ul style="list-style-type: none"> • The AMS Ltd KPIs are re-examined every year and increase in rigour in line with AMSA's service delivery and strategic needs. • For the P&O contract, the lack of KPIs makes this trend reporting difficult.

Source: ANAO.

Contract succession phase

4.30 The ANAO found that AMSA had directed considerable thought to the potential risks and issues associated with the contract succession phase.

Establishing the context and assessing risks

4.31 AMSA had considered the potential risks to the network were there to be a lack of continuity between service providers. These risks were addressed through the requirement for the AMS Ltd contract to submit a disengagement plan and to continue to provide maintenance services for 90 days post contract termination. In this way, AMSA has given itself a safety period in case there is a time gap between the engagement of contractors.

Implementing treatments and reviewing

4.32 The ANAO found that AMSA had adequately considered both the issue of contract succession planning and how the next tender phase could be used to further achieve the underlying objectives of outsourcing the services. This was evidenced by:

- developing longer term objectives in the strategic and operational plans to move to one contract for the maintenance of the network, whereby the transport arrangements become the responsibility of the contractor—and preparing for this by increasing the flexibility of access to new sites;
- including a reducing number of days in the shipping support contract, which means that the current maintenance contractor relies less and less on the free shipping support but has the ability to, and is encouraged to, find its own means to access the navigation aid sites (by helicopter, launch or road);
- collecting enhanced data on navigation aids sites (to prevent ‘capture’ by any current contractor);
- deciding to re-acquire the management of the IT support network for the navigational network, thus separating it from the current AMS Ltd contract as a means of retaining control of key management information; and
- retaining the ownership of key technical equipment, and the monitoring of the stock levels used by AMS Ltd in maintaining the network. This was in response to AMSA’s analysis of another country’s experience in outsourcing the maintenance of their network, where, at the change of contract providers, the lack of readily available technical equipment led to difficulties in ensuring a seamless maintenance program for that network.

4.33 The ANAO considers that AMSA has positioned itself well for an informed and controlled transition to a new provider, should this be the outcome in the next tender round that is scheduled to commence in 2005.

4.34 AMSA's approach to contract succession is described in Figure 5, where it is compared to the better practices in the ANAO guide.

Figure 5

Contract succession phase—comparison of AMSA's processes to the practices in the ANAO Guide

Better Practice Guide	AMSA's approach
Step 1—Establish the context <ul style="list-style-type: none"> Undertake review of the contract and service delivery to identify possible areas for improvement. 	<ul style="list-style-type: none"> AMSA is constantly reviewing the AMS Ltd contract to improve service. AMSA has amended the AMS Ltd contract to bring back the underlying IT support component. AMSA has started planning for the next tender round and plans to merge the shipping support and maintenance contracts.
Step 2—Assess risks <ul style="list-style-type: none"> Timeliness of review. New organisation priorities and objectives not considered. Has the market been adequately tested? Has the opportunity to improve the relationship or pricing structure been considered? 	<ul style="list-style-type: none"> AMSA has a strong risk management process with regular reviews. AMSA is focused on its strategic goals for the network. New priorities are addressed by the project management team. AMSA is working to simplify the navigation aids network to lower the barriers to entry and to increase market competition. The relationships between AMSA and the contractors are well developed. Pricing may improve when the contracts are merged.
Step 3—Implement treatments <ul style="list-style-type: none"> Succession strategy. Ongoing reviews of the market. Independent performance review panel. Use of industry network groups. 	<ul style="list-style-type: none"> RFT required tenderers to submit a disengagement plan. Contractor must provide the service for 90 days if the contract is terminated. Financial and performance guarantees are in place with AMS Ltd to ensure service delivery. Reducing number of days in the P&O contract means that AMS Ltd relies less and less on the free shipping support and has the ability to, and is encouraged to, find its own transport. AMSA is an informed purchaser and is in a position to review performance. AMSA consults regularly with the shipping industry.
Step 4—Monitor and review <ul style="list-style-type: none"> Evaluate performance. Review previous succession exercises and apply 'lessons learned' to achieve better practice. 	<ul style="list-style-type: none"> An annual assessment is undertaken and the AMS Ltd contract KPIs are re-examined every year. Performance against KPIs is linked to an 'at risk' payment. Contractor is rewarded for excellent performance. AMSA project management staff use any 'lessons learned' to evolve their processes. AMSA will apply the lessons learned from the management of the shipping support contract to establish some parameters to maintain the transport standards in the merged contract in 2005.

Source: ANAO.

Conclusion

4.35 AMSA has adopted a proactive approach for each of the three phases of contracting that is closely aligned with the better practices outlined in the ANAO better practice guide. AMSA assessed the potential risks in each phase and implemented a range of effective treatments to ensure the continued delivery of quality services. AMSA has demonstrated a focused and sound monitoring approach for both contracts. By doing so, it has substantially achieved the best-fit solution and improved outcomes that can result from outsourcing.

4.36 The desired outcomes of the outsourcing of the services are closely aligned to AMSA's strategic plan for the navigation aids network. AMSA has clearly considered how the longer term needs of the network and further efficiencies might be best attained in the next tender round in 2005. As well, the organisation has positioned, and continues to position, itself well to achieve them.

Achievements against objectives

4.37 As part of the audit, the ANAO examined the extent to which AMSA's objectives for outsourcing, as detailed in the maintenance and shipping support contracts and Program of Business Improvement documentation, have been achieved. This is important given that the two contracts comprise the major proportion of the work of the navigation aids area within AMSA. The objectives and results are described below for the two contracts.

Maintenance contract—objectives and results

4.38 In accordance with better practice, AMSA detailed the required objectives in the introductory section of the contract with AMS Ltd. The results for the maintenance contract, based on material examined during the audit, are presented in Table 2.

Table 2**AMS Ltd contract—objectives and results**

Objectives stated in contract	Result
'improve the quality, timeliness and responsiveness of the Navaid Maintenance...'	AMSA has improved the quality of maintenance to include conditional (appearance and safety) maintenance as well as functional maintenance (see the case study). AMSA influences the timeliness of repairs to the network, especially emergency repairs, via KPIs with penalties attached for failure to achieve them.
'increase flexibility'	AMSA relies upon AMS Ltd to acquire the resources necessary to maintain the network.
'fulfil AMSA's accountability requirements as a responsive regulator'	AMSA has improved the quality of the information it holds about the network. AMSA has improved its accountability as a responsive regulator via strict KPIs, including international IALA standards, that are reported regularly and contain continuous improvement elements.
'access specialist skills and experience'	AMSA contracts in specialist skills and experience through its contract with AMS Ltd.
'improve cost effectiveness in Navaid Maintenance and attain and exceed quality levels required by AMSA'	The navigation aids availability has continued to improve since outsourcing and exceeded targets set by AMSA (see Table 3.)
'reduce the cost of Navaid Maintenance'	AMSA has continued to reduce the costs through a competitive tender and a fixed price contract.

Source: ANAO.

4.39 Table 3 details AMSA's performance for the last three financial years and shows a continuing improvement in navigation aid availability since outsourcing as measured against the target of international availability standards set by the IALA.

Table 3**Reported navigation aid availability—percentage targets**

Category of aid	1999–2000	2000–2001	2001–2002
1 (target 99.8)	99.8	99.84	99.95
2 (target 99.0)	99.7	99.85	99.93
3 (target 97.0)	99.4	99.45	99.99

Source: AMSA Annual Reports 1999–2000, 2000–2001 and 2001–2002.

Case Study

4.40 The following case study illustrates how AMSA has achieved tangible improvements to the quality of maintenance of the navigation aids network.

4.41 In 2001, AMSA introduced a program of audits of navigation aid sites. In a letter to the contractor, AMSA advised that the purpose of the audits was to

verify compliance with the contract, including compliance with all relevant Australian Standards, AMSA's policies, guidelines and technical specifications in the contract. The letter also advised, among other things, that AMSA would: assess the condition of the assets; verify that the workmanship was of the highest quality; and ensure that best practices were used.

4.42 In September 2001, AMSA conducted an audit of Point Cartwright. This was intended to train AMSA audit staff to enhance the consistency in their approach as well as to assist the contractor to understand the required standard of service.

Point Cartwright

Point Cartwright, near Brisbane, is a 32 metre high concrete lighthouse with a flashing light. Maintenance work includes: inspection and cleaning of lenses; replacement of spent lamps; inspection and replacement of batteries and wiring; and ensuring that the equipment is functioning.

In addition to confirming the standard of the functional maintenance during the audit, AMSA also focused on the conditional maintenance. This is where the tidiness, cleanliness and general condition of the site is examined with an emphasis on the safety of workers and visitors. Untidiness of the grounds can hide and attract vermin, and can be a trip hazard or a fire risk.

As part of routine maintenance reporting, AMSA requires the contractor to provide photographic evidence of work undertaken, showing before and after shots. During the audits of navigation aid sites, AMSA takes photos to demonstrate the findings to the contractor.

The training audit found numerous aspects of the lighthouse that needed attention, including overgrown grass and vegetation, doors and screens in disrepair, concrete deterioration and general untidiness.

The audit served as a good basis from which to agree the standard of maintenance. Subsequent audits of Point Cartwright have found a high standard of functional and conditional maintenance.

ANAO Comment

The model that AMSA applied has resulted in an increase in the quality of service provided and ensured that both staff and the contractor have a common understanding of AMSA's service requirements.

Shipping support services contract—objectives and results

4.43 The contract with P&O Maritime Services Pty Ltd does not specify overall contract objectives and does not contain performance indicators that could be used to measure the overall success or shortcomings in the contractor's performance. AMSA advised that it uses overall indicators as quasi performance measures of the relative success of the contract, such as the number of injuries or safety incidents, or whether the ship is delivered on time.

4.44 However, it should be noted that the contract itself is soundly managed. AMSA used specialist industry expertise when establishing the tender and contract. As a result, the ship's charter reflects industry better practice and is couched in terms familiar to the industry to reduce the risk of any misunderstanding about the requirements.

4.45 The lack of specified contract objectives and overall performance indicators makes it more difficult to assess the success of the contract. However, AMSA clearly had objectives in mind that were expressed in the Program of Business Improvement documents.

4.46 The sale of the *Cape Grafton* and the purchasing of shipping support services were intended to:

- reduce the costs associated with the running and maintenance of a vessel;
- reduce the number of support days required to help service the maintenance of the network; and
- eventually, to open up the market for the provision of maintenance services by reducing the reliance upon shipping support to access sites.

4.47 Overall, it appears that this contract has also largely achieved the desired outcomes. The ANAO found no evidence of incidences where the ship had been delivered late or in poor condition. AMSA has successfully adhered to the reducing number of service days designated for each year of the contract. Accordingly, the fixed price for each contract year is also reducing in line with the objectives set.

4.48 To complement these results, AMSA has managed a focus on greater use of alternative forms of transport to access navigation aid sites, such as helicopters or smaller launches. It is, therefore, in a good position to proceed with an open tender in 2005.

Conclusion

4.49 AMSA has responded well to the changes brought about by outsourcing a major component of its functions. It has efficiently and effectively managed

the outsourced day-to-day tasks and functions, but retained the overall responsibility for strategic direction and management oversight. Not satisfied with a replacement service, AMSA 'raised the bar' by also requiring an increase in the quality of service required.

5. Accountability

This chapter examines AMSA's accountability and reporting arrangements to ensure that stakeholders are provided with consistent, accurate and timely information about the operation and management of the navigation aids network.

AMSA's accountability arrangements

5.1 AMSA's primary accountability requirements are set out in the *Commonwealth Authorities and Companies Act, 1997* and the *Australian Maritime Safety Authority Act, 1990* (the Act), and in various other Commonwealth legislation and policy guidelines. Section 12 of the Act requires AMSA to 'consult with government, commercial, industrial, consumer and other relevant bodies and organisations,' in the performance of its functions.

5.2 AMSA has a board that meets regularly; sets policy direction; and determines the internal accountability arrangements. In 2000–2001, the Board met seven times. The Chairman of the Board writes to the Minister for Transport and Regional Services after each Board meeting and provides a summary of major issues considered by the Board. AMSA also provides specific briefings to the Minister on major maritime issues.

5.3 In addition to the Annual Report to Parliament, AMSA provides regular reports to industry, principally through the AMSA Advisory Committee, the Navigational Services Advisory Committee, and other specialist consultative committees.

5.4 AMSA reports to its Board on financial and operational management. There was evidence in the Board minutes that the Board was interested in both corporate governance and in AMSA specific issues. For example, the Board discussed the ANAO Better Practice Guide on *Corporate Governance in CAC Agencies*,¹⁵ and its applicability to AMSA. There was also extensive consideration of the Program of Business Improvement as well as active interest in the progress of the two contract tenders.

5.5 The ANAO considers that, on the whole, AMSA has established strong accountability frameworks and consultative mechanisms.

¹⁵ Australian National Audit Office, ANAO Better Practice Guide *Corporate Governance in CAC Agencies*, ANAO, Canberra, June 1999.

Timeliness and adequacy of internal reporting

5.6 At each Board meeting, AMSA reports on a range of activities. These include: finances, search and rescue statistics, legal issues, navigational services operations, and a CEO's report. The Board also receives reports from the sub-committees it establishes to oversee items warranting closer attention. The ANAO found that, overall, the Board was informed of operational issues in a timely manner. As well, the materials presented appeared to cover the issues adequately. The ANAO did not audit the accuracy of the material presented.

5.7 The Board minutes demonstrated that the Board considered pertinent issues and took appropriate action during the restructure and outsourcing of some of AMSA's functions. The Board called for further information on the Program of Business Improvement and asked for explanations on government policy and then gave direction to AMSA as necessary. The ANAO viewed Board minutes where the Board had requested, and received, detailed information regarding the tender process and the analysis used to distinguish between the tenderers.

Reporting of achievements against strategic objectives

5.8 Ideally, in addition to monitoring the contracts against the required standards of service delivery, AMSA should also monitor and report against progress in achieving the broader outcomes expected from outsourcing.

5.9 The ANAO found that the current reports produced by AMSA tend to present data on the day-to-day operations of the network, but do not provide information about the overall progress of the outsourced functions, nor about how well the strategic objectives of outsourcing are being achieved. In the ANAO's view, AMSA's internal reporting mechanisms could be enhanced, in the case of the navigational aids network, by the addition of reports to the Board with a greater strategic focus.

5.10 While clearly a matter for the Board to decide, it seems there is a good opportunity to report to the Board at the end of each contract year with AMS Ltd, when the contract is assessed against the KPIs to determine the amount of the 'at risk' performance payment

5.11 This broader, more strategic report could also be used to inform stakeholders and the public about the overall progress of the network. AMSA may also wish to consider this approach for other major contracts.

5.12 In response to this suggestion, AMSA advised that the Board reports do not include strategic analysis as the Board has already approved the broad strategic objectives of the outsourcing and are aware that these are being

achieved. In AMSA's view, the Board members have extensive experience in business and government and their consideration of these reports is not confined to the operational aspects of the outsourced contracts, but also covers high-level strategic issues.

5.13 While accepting the latter view, it seems reasonable to suggest that a Board who is clearly interested in strategic issues would be assisted by more strategically focused reports. An annual strategically focused report would give AMSA the opportunity to advise the Board of the overall contract performance; to discuss the proposed changes to the KPIs for the coming contract year; and to involve the Board in reviewing AMSA's progress in achieving the longer-term objectives of the outsourcing, and, hence, the navigational aids network Strategic Plan.

5.14 With respect to keeping stakeholders informed, AMSA advised that it considers its stakeholders in the shipping industry have the requisite experience to appreciate the impact on the efficiency and safety of their shipping services resulting from improved operation and functionality of the aids to navigation system. Regular feedback is provided to industry through the Navigational Services Advisory Committee forum on the achievement of outsourcing objectives. The main focus of the shipping industry is the delivery of a high performance network and continuing efficient use of the Marine Navigation Levy.

5.15 Again, while accepting the AMSA contention, it also seems reasonable to suggest that the shipping industry would be interested in any identified strategic issues that have the potential to impact upon them in the future. For example, industry is likely to benefit from projections regarding the Marine Navigation Levy. This would assist the industry to set prices in the short, medium and long term, and thus to maintain their international market competitiveness.

Timeliness and adequacy of external reporting

Industry consultation

5.16 AMSA has a number of specialised consultative committees of relevant stakeholders, with two primarily concerned with the aids to navigation network. These are the AMSA Advisory Committee, which meets three times each year, and the Navigational Services Advisory Committee, which meets twice a year. The latter committee is specific to the navigation aids network and is formed by representatives from the shipping industry, marine pilots, the Royal Australian Navy Hydrographer's Office and AMSA.

5.17 The ANAO sought the views of a number of stakeholders as part of the audit. The feedback was positive. The stakeholders indicated that, in their view, AMSA's consultation was appropriate and adequate.

5.18 The ANAO concluded that AMSA's industry consultation mechanisms were comprehensive and well implemented.

Reporting to Parliament and stakeholders

5.19 External accountability includes the completeness and correctness of information reported to Parliament and the responsible Minister. An annual report should be timely and comprehensive. It should acknowledge an agency's lack of achievement as well as its successes; and it should identify challenges and priorities for the future.

5.20 The ANAO Better Practice Guide on *Performance Information in Portfolio Budget Statements*, cites the Senate Finance Committee and Public Legislation Committee Third Report on *The Format of the Portfolio Budget Statements*, as saying: '... performance information should provide agency staff with feedback and, from the external perspective, assist stakeholders and management to draw well informed conclusions of performance.'¹⁶

5.21 AMSA has tabled an annual report in Parliament each year since it was established in 1990. AMSA reports on a variety of aspects of the navigation aids network in its Portfolio Budget Statements and Annual Reports. One of the essential performance measures is the navigation aid availability, which is calculated based on the IALA standards. In the Annual Reports the ANAO examined, AMSA had met, or exceeded, all of the IALA requirements.

Consistency

5.22 The ANAO found that the performance measures specified in the Portfolio Budget Statements matched the measures reported in the related Annual Reports. AMSA is cited as a better practice example for its well-defined and measurable performance measures in the ANAO Better Practice Guide on *Performance Information in Portfolio Budget Statements*.¹⁷

5.23 However, the Better Practice Guide also states that data quality is important. This is measured by relevance, accuracy, timeliness, accessibility, interpretability and coherence. More specifically, the guide states:

¹⁶ Australian National Audit Office, ANAO Better Practice Guide *Performance Information in Portfolio Budget Statements*, ANAO, Canberra, May 2002, p. 17.

¹⁷ *ibid.* pp. 9, 14, 18 and 25.

A particular facet of interpretability that must be considered is data continuity as stakeholders need information over a number of years if they are to analyse trends over time. When data are being reviewed, agencies should balance the need for change against the loss of trend information.¹⁸

5.24 The audit found some variance in the measures AMSA used across the years to report on the outcomes of the navigation aids network. Some were related to contemporary issues or challenges for that year, for example, the process of outsourcing and the production and delivery of the Strategic Plan.

5.25 For other measures, the reason for the variation was less clear. A notable example is the 'average cost of maintenance per navigational aid'. Whereas this is a sound indicator in itself, changes to the way this indicator is measured could be misleading in terms of performance. An example follows.

5.26 In the 2000–2001 Annual Report, the target was \$22 700 per aid and the actual reported was \$24 500. In the 2001–2002 Annual Report, the target increased to \$53 500. The actual reported was \$47 076. The difference in costs between the years is due to the change in measure from 'cost per navigation aid' to 'cost per navigation aid site', as a site may contain multiple aids.

5.27 While the increase can be explained by the change in definition or calculation, to the uninformed or busy reader it appears that the cost of servicing the navigation aids has *increased* since outsourcing. As this has the potential to be misleading, and conflicts with other data reported, it would seem advisable for AMSA to either align its performance measures to ensure accuracy of interpretation, or to explain more clearly any variations to facilitate trend analysis over time.

5.28 AMSA advised that it reviews its performance indicators each year to ensure they are relevant and robust to its strategic objectives. However, AMSA appreciates the change to the basis of one indicator from cost per navigation aid to cost per location may be confusing to a lay-person without highlighting that this is a more comprehensive indicator of performance.

5.29 In a similar manner to the finding in relation to AMSA's internal reporting, the ANAO found AMSA's external reporting on the navigation aids network adequately covered its operation and functionality, but was brief in relation to its overall achievements.

5.30 The ANAO found that, although the annual reports mentioned changes to the network, such as the installation of DGPS stations, there was no reporting on the transition to the outsourced environment, nor of some of the challenges encountered (and overcome) during this process. The ANAO considers there is

¹⁸ *ibid.* p. 31.

scope for expansion on the reporting by this area of AMSA, particularly as their adherence to better practice has provided a solid foundation from which it has delivered quality outcomes.

5.31 AMSA advised that, in adopting the outcomes and outputs model for its annual report, it has tended to focus reporting on the achievement of outcomes that benefit stakeholders and less on the processes of management used in arriving at that objective. Stakeholders expect that AMSA will be following best practice management and administration in all its operations.

5.32 While accepting the logic of AMSA's primary focus, the ANAO considers that, given AMSA's stated vision 'to achieve world best practice in providing services to Australia in maritime safety, aviation and marine search and rescue, and protection of the marine environment from ship sourced pollution'¹⁹, stakeholders would be better informed if they also had some understanding of how this vision is being achieved and its results measured.

Conclusion

5.33 Overall, the ANAO considers that AMSA demonstrated well established and effective consultative mechanisms and a robust accountability framework.

5.34 The ANAO noted there is scope for enhancing the consistency of AMSA's external reporting against its performance measures to facilitate analysis of trends over time, as well as scope for AMSA to take the opportunity to better report on some of its successes with respect to the navigation aids network.

5.35 AMSA has followed better practice by linking its objectives from outsourcing with its Strategic Plan for navigational aids. The ANAO considers there is scope for AMSA to better monitor and report its progress and achievements from outsourcing and to articulate how these are contributing to the longer term efficiency and effectiveness of the navigation aids network and, hence, shipping safety. In this way, AMSA's stakeholders can be better informed about how the over-arching vision is being achieved.

¹⁹ Australian Maritime Safety Authority, *Twelfth Annual Report 2001-2002*, AMSA, Canberra, September 2002, p. i.



Lighthouse at Crowdy Head

Canberra ACT
17 June 2003

A handwritten signature in black ink, which appears to read 'P. J. Barrett'.

P. J. Barrett
Auditor-General

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