



Pacific Pilotage Authority

Report presented to the Board
of Directors

27 November 2008

Special Examination Report



Office of the Auditor General of Canada
Bureau du vérificateur général du Canada

All of the audit work in this report was conducted in accordance with the standards for assurance engagements set by The Canadian Institute of Chartered Accountants. While the Office adopts these standards as the minimum requirement for our audits, we also draw upon the standards and practices of other disciplines.

Ce document est également publié en français.



Office of the Auditor General of Canada
Bureau du vérificateur général du Canada

21 November 2008

To the Board of Directors of
Pacific Pilotage Authority

We have completed the special examination of the Pacific Pilotage Authority in accordance with the plan presented to the Audit Committee of the Board of Directors on 29 April 2008. As required by Section 139 of the *Financial Administration Act* (FAA), we are pleased to provide the attached final special examination report to the Board of Directors.

We will be pleased to respond to any comments or questions you may have concerning our report at your meeting on 27 November 2008.

I would like to take this opportunity to express my appreciation to the Board members, management, and the Authority's staff for the excellent co-operation and assistance offered to us during the examination.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'A. Lennox'.

Andrew Lennox, CMA, CGA
Assistant Auditor General

Attach.

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Pacific Pilotage Authority

Main Points

What we examined

The Pacific Pilotage Authority (the Authority) was created as a Crown corporation in 1972 under the *Pilotage Act*. It provides licensed marine pilots and pilot boats to assist ship masters and officers in transiting ports, harbours, and waterways in all Canadian waters in and around the province of British Columbia. The Authority establishes in what areas pilotage is compulsory, what ships are subject to it, and in what circumstances exemptions from pilotage are granted. The Authority also sets out the conditions for obtaining pilotage licences and certificates. The fees paid to it for pilotage services are required to be set at levels that permit it to fund its operations and to be financially self-sustaining.

We examined how the Authority designates compulsory pilotage areas; how it determines which ships are subject to compulsory pilotage; how it sets the pilotage tariffs to ensure its financial self-sufficiency; how it manages human resources; and how it undertakes strategic planning and governance.

Why it's important

Pilotage contributes to public safety by minimizing accidents and risks to the environment. It is important that the Pacific Pilotage Authority ensure that ships enter, leave, or transit within the Pacific region pilotage areas as safely as possible.

Under the *Pilotage Act*, the Authority has a monopoly on pilotage services in the Pacific region. It has a responsibility to deliver those services economically and efficiently. It is important that the rates it charges for pilotage services are fair and reasonable while providing the revenue needed to fund its operations.

What we found

In our opinion, the systems and practices we examined had no significant deficiencies. As noted below, we identified good practices as well as some areas where the Pacific Pilotage Authority would benefit from improving its practices.

- The Authority uses practices designed to establish pilotage charges that are fair and reasonable while ensuring financial self-sufficiency. It consults regularly with stakeholders to provide information on

the cost of supplying its services. In the last seven years, stakeholders have raised no objections to proposed tariff increases.

- The Authority's systems and practices for pilot boat construction, acquisition, and replacement planning are designed to meet Transport Canada's safety regulations and ensure that vessels are being constructed to address the Authority's operational requirements.
- The Canadian Transportation Authority recommended in 1999 that pilotage authorities develop and implement a fair and equitable system for assessing the competency of pilots and the quality of their services. The Authority has drafted a guideline that outlines the expected training, experience, and testing expected of apprentices and restricted pilots; it expects the guideline to be implemented over the next three years. While progress is being made, we found that the Authority still does not formally assess pilots' performance on an annual basis, although we recommended this practice in our 2003 special examination report.
- The Authority has a broad range of key performance indicators that are reported to the Board of Directors quarterly and are shared with the Chamber of Shipping of British Columbia, which shares the information with the industry. However, as noted in our 2003 special examination, the Authority does not publish planned and actual performance on a range of indicators in its annual report. This would provide better information to government and Parliament on how the Authority is performing.

The Authority has responded. The Pacific Pilotage Authority agrees with our recommendations. Their responses follow the recommendations in the report.

Special Examination Opinion

To the Board of Directors of the Pacific Pilotage Authority

1. Under Part X of the *Financial Administration Act* (FAA), the Pacific Pilotage Authority is required to maintain financial and management control and information systems and management practices that provide reasonable assurance that its assets are safeguarded and controlled; its financial, human, and physical resources are managed economically and efficiently; and its operations are carried out effectively.
2. The FAA also requires the Authority to have a special examination of these systems and practices carried out at least once every five years.
3. Our responsibility is to express an opinion on whether there is reasonable assurance that during the period covered by the examination—from February 2008 to August 2008—there were no significant deficiencies in the systems and practices we examined.
4. We based our examination plan on a survey and a risk analysis of the Authority's systems and practices. On 29 April 2008, we submitted the plan to the Audit Committee of the Board of Directors. The plan identified the systems and practices that we considered essential to providing the Authority with reasonable assurance that its assets are safeguarded and controlled, its resources managed economically and efficiently, and its operations carried out effectively. Those are the systems and practices that we selected for examination.
5. The plan included the criteria that we selected specifically for this examination in consultation with the Authority. The criteria were based on our experience with performance auditing and our knowledge of the subject matter. Our choice of criteria was also influenced by legislative and regulatory requirements, professional literature and standards, and practices followed by the Authority and other organizations. The criteria and the systems and practices we examined are listed in **About the Special Examination** at the end of this report.
6. We conducted our examination in accordance with our plan and with the standards for assurance engagements established by The Canadian Institute of Chartered Accountants. Accordingly, it included the tests and other procedures we considered necessary in the circumstances.

7. In our opinion, there is reasonable assurance that there were no significant deficiencies in the systems and practices we examined with respect to the criteria established for the examination.

8. The rest of this report provides an overview of the Authority and more detailed information on our examination observations and recommendations.

A handwritten signature in black ink, appearing to read 'ANDREW LENNOX', written in a cursive style.

Andrew Lennox, CMA, CGA

Assistant Auditor General
for the Auditor General of Canada
Vancouver, Canada
29 August 2008

Overview of the Pacific Pilotage Authority

Mandate, vision, and mission

Pilotage—A direct service to the marine transportation industry that also benefits the general public by reducing the risks of accidents, possible loss of life or property, and environmental damage by taking the safest route into a port of call.

Pilot—A professional licensed mariner whose role is to advise the captain of a ship on the safest route to be taken to bring a vessel into or out of its port of call. A marine pilot has five years of experience as a captain of a vessel on the British Columbia (BC) coast. This experience and extensive knowledge of the BC coast is needed to take written and oral examinations. Successful completion of the examinations leads to a 6 to 12 month apprenticeship program, which includes further hands-on training under the direction of senior pilots.

9. The Pacific Pilotage Authority (the Authority) was established in February 1972 under the *Pilotage Act*. It is a Crown corporation listed in Schedule III, Part I, of the *Financial Administration Act* (FAA).

10. The *Pilotage Act* grants a monopoly to the Authority to provide **pilotage** services in the waters of British Columbia. Its vision is to be the model for Canadian pilotage authorities. Its mission is to provide safe, efficient pilotage by working with **pilots** and the shipping industry to protect the interests of Canadians.

11. The *Pilotage Act* gives the Authority the power to make regulations, subject to the approval of the Governor in Council. The Authority is responsible for

- establishing compulsory pilotage areas,
- prescribing the ships or classes of ships that are subject to compulsory pilotage,
- prescribing the circumstances under which compulsory pilotage may be waived,
- prescribing the qualifications required to obtain a licence or pilotage certificate, and
- prescribing fair and reasonable tariffs that permit it to operate on a self-sustaining financial basis.

12. In its 2008–2012 Corporate Plan, the Authority set the following principal objectives:

- Provide safe, reliable, and efficient marine pilotage and related services in the coastal waters of British Columbia, including the Fraser River.
- Provide the services within a commercially oriented framework, directed toward maintaining self-sufficiency, through tariffs that are fair and reasonable.
- Promote effective use of the Authority’s facilities, equipment, and expertise, through the productive application of these resources in the interest of safe navigation.
- Promote sustainable practices within the Authority and contribute to government’s environmental, social, and economic policies as they apply to the marine industry on the Pacific coast.

Pilot launch—A vessel that is used to transport pilots to and from vessels entering or departing Canadian waters.

Background on operations

13. On 31 December 2007, the Authority employed 108 pilots (100 under contract from The British Columbia Coast Pilots Ltd. who work on the coastline and 8 on the Fraser River who are employees of the Authority); 26 **pilot launch** personnel at three sites, 11 dispatchers, and 12 administrative staff.

14. The British Columbia Coast Pilots Ltd. (BCCP), a privately incorporated company, has contracted its pilots to the Authority since 1972. The current contract was signed in early 2008 and expires on 31 December 2011. Under this agreement, BCCP receives about 80 percent of the billing rate for assignments involving its pilots. The total payout to BCCP for 2007 was \$33.6 million. Under the terms of the contract, the Authority is responsible for the training and remuneration of any apprentice pilots.

15. All non-government ships that are over 350 gross tons and travelling in Canadian waters in and around British Columbia must use the Authority's services.

16. During 2007, the Authority carried out 13,012 pilotage assignments, of which 1,191 were on the Fraser River. The Authority's safety record is very good, with 99.9 percent of its assignments being incident-free since 1998. Only seven incidents were reported in 2007. The Transportation Safety Board of Canada, which assesses the circumstances of all incidents to determine if an investigation is warranted, did not investigate any of the 2007 incidents involving the Authority. The Authority, however, investigated every incident itself, as is its practice.

17. The Authority's services involve piloting vessels in the region that are subject to compulsory pilotage or request such services. The Authority delivers pilots to the vessels using a combination of its own pilot launches and launches under contract. Pilots are available 24 hours a day for safety and efficiency.

18. Pilotage is only one of many factors affecting the cost, efficiency, scheduling, and safety of marine transportation. Shipping is a highly competitive international market. In the Pacific Northwest, ports compete aggressively to attract traffic, as shippers often have the option of using American ports. Traffic patterns react quickly to changing economic conditions, locally and internationally. Traffic also fluctuates during the year, with an increased demand for pilotage during the summer months due to extensive cruise ship traffic between

Vancouver and Alaska. The total number of assignments has remained fairly stable from year to year.

Focus of the special examination

19. We examined the Pacific Pilotage Authority's systems and practices in the areas of

- safe pilotage;
- economic and efficient pilotage;
- financial self-sufficiency;
- corporate governance; and
- strategic planning, risk management, and performance measurement and reporting.

20. Our objective was to determine whether those systems and practices provide the Pacific Pilotage Authority with reasonable assurance that its assets are safeguarded and controlled, its resources managed economically and efficiently, and its operations carried out effectively.

21. Further details on the audit objective, scope, criteria, and approach are provided in **About the Special Examination** at the end of the report.

Observations and Recommendations

Safe pilotage

Some progress has been made in assessing the performance of pilots, but performance evaluations still are not being carried out

22. In its 1999 report, the Canadian Transportation Agency recommended that pilotage authorities and stakeholders develop and implement a fair and equitable system for assessing the performance of pilots and the quality of their services. In our 2003 special examination report, we found that the Authority did not formally assess pilots' performance, even though individual performance assessments are an essential feature of human resources management. We expected formal annual performance appraisals to become part of the process for evaluating pilots. We encouraged management to record any training taken by pilots in the Pilot's Continued Proficiency Report.

23. We further expected the Authority to ensure that pilots or certificate holders responsible for the conduct of vessels subject to compulsory pilotage are competent and in good health.

24. The Authority has developed a training program and implemented a number of initiatives to maintain or improve its pilots' competence. The program ensures that every pilot attends training on advanced ship handling techniques for the full-mission Bridge Simulator once every five years. Pilots are also sent for training whenever there are technology upgrades—for example, training on Azipod Propulsion and Integrated Bridge Systems.

25. Apprentice training consists of a 6 to 12 month apprenticeship (depending on experience), a mentor program, a six-day Ship Model Course, and a five-day, full-mission Bridge Simulator Course. The mentor program involves a pilot member of the Pilot Training and Examination Committee observing the apprentice at work (ride-along) and completing a Coastal Apprentice Quality Performance Program checklist.

26. The Authority carries out a currency and training review for senior pilots every two years to inform them of regions not covered in the last five years. Also, since 2002, senior pilots have been going on familiarization trips/currency ride-alongs, where gaps in geographical knowledge have been identified. Since 2002, there have been 5 to 25 familiarization trips a year. In 2008, there were 9 senior pilots who took 15 such trips.

27. The Authority has drafted a Pilot Quality Assurance Guideline that will be introduced in the next three years. It outlines the expected training and experience for apprentices and restricted pilots. The intent is to carry out mandatory training and ride-alongs at the apprentice level and extend the Guideline to restricted pilots. The Guideline does not extend the same requirements to unrestricted pilots.

28. We found that an annual doctor's notification is kept on file for each pilot, indicating whether the pilot is fit or unfit for pilotage duties, with or without limitation.

29. The Authority has implemented various initiatives to maintain or improve its pilots' competence. However, it still does not formally assess pilots' performance on an annual basis, although we recommended this practice in our 2003 special examination report.

30. **Recommendation.** Management should introduce the draft Pilot Quality Assurance Guideline as soon as possible and combine it with an annual evaluation of pilot performance and a record of training taken and required.

The Authority's response. Agreed in principle. A Quality Assurance Program is presently in draft format and under discussion with both pilotage

groups. In addition, the 2009–2013 Strategic Plan calls for the creation of a Quality Service Program, which will be the next step in a number of initiatives already in place, such as the currency audit and training program for senior pilots.

No changes have been made to compulsory pilotage areas

31. With certain exceptions, the Authority obligates all foreign vessels and Canadian vessels that exceed 350 gross registered tons and travelling within its compulsory pilotage areas to require the services of a licensed pilot or a pilotage certificate holder. Those rules have not changed since 1972. The original designation of compulsory pilotage areas is based on the 1968 Report of the Royal Commission on Pilotage.

32. In our last special examination in 2003, we noted that the Canadian Transportation Agency's 1999 report recommended that pilotage authorities adopt a risk-based approach to designating compulsory pilotage areas and vessels subject to compulsory pilotage. The report recommended that the authorities review the factors and conditions for designation every five years and use a Pilotage Risk Management Methodology (PRMM) if navigation risks significantly change. As a result, Transport Canada and the four Canadian pilotage authorities developed the PRMM Model—a tool for risk assessment—and the PRMM manual. The PRMM was developed by adapting established and accepted risk management models to the operations of pilotage authorities.

33. We expected to see that the Authority had reviewed the factors and conditions for designation and that it uses a PRMM if navigation risks have significantly changed. The Authority received a letter dated 30 April 2004 from the Minister of Transport confirming that the Authority is required to review factors and circumstances related to the current designated compulsory areas every five years, with the first review to be completed no later than December 2005. The Minister indicated that the directive did not specifically request that a PRMM be used to conduct reviews. However, should a review find that factors and circumstances had changed such that the designation should be re-examined, the PRMM should be applied.

34. The Authority reviewed compulsory pilotage areas and presented the results to stakeholders. The final report, sent to the Minister in October 2005, concluded that neither a major change nor an increase to the present compulsory pilotage areas was justified.

35. Since our last special examination, the Authority has conducted one risk-based assessment using the PRMM. This assessment, completed in July 2008, compared the proposed Pine Island winter boarding option with four known and accepted alternatives. Among other things, the report recommended that the Authority enter into discussions with the Canadian Coast Guard for the provision of racons (radar transponders used to mark navigational hazards) to be installed on Pine Island and Davey Rock. It also recommended that, over the long term, the Authority

- explore, in consultation with The British Columbia Coast Pilots Ltd., alternative boarding locations on and around Pine Island; and
- develop a longer-term strategy for pilot boat service at the Pine Island Boarding Station.

36. The Authority is fulfilling its obligation to review changes in factors and circumstances related to compulsory pilotage areas. It is also using the PRMM to assess risks to shipping in specific cases.

All pilots must now wear safety equipment when boarding vessels

37. In our previous special examination, we noted that the Authority provided flotation devices for all pilots and launch crew, but contract pilots did not have to use them. The Authority acknowledged that a small number of pilots resisted this important safety practice. This has now changed so that all pilots must now wear a certified safety suit or flotation device when transferring between the pilot launch and the assigned vessel.

Economic and efficient pilotage

The Authority's services are meeting the needs of users

38. While the Pacific Pilotage Authority cannot control the number of vessels needing pilotage or the timing of their arrival, it must meet requests for service at any time and with minimal delay. We expected the Authority to have enough pilots available, at a reasonable cost, to handle traffic volume and to provide an acceptable level of service.

39. We found that the Authority's systems and practices provide reasonable assurance that the Authority offers efficient pilotage service that meets users' needs. Service may be considered efficient when it is of good quality and affordable.

40. Working with the industry, the Authority has reduced delays by assigning pilots on an overtime basis. During peak periods, it can serve

more ships by recalling pilots from leave. The collective agreement with Fraser River pilots states that the Authority must pay them the overtime rate for all callbacks during leave. The contract with The British Columbia Coast Pilots Ltd. (BCCP) also specifies that an additional rate will be paid for callbacks. The Authority has an objective of 99.7 percent for “on-time delivery of service.” Over the last several years, the Authority has consistently delivered its service at a rate of over 99.7 percent.

41. To improve the quality of service for users, the Authority meets regularly with stakeholders from the shipping industry. According to a client survey in 2006, the Authority’s customers returned a satisfactory rating of 4.2 out of 5.

42. Internal audit will review the new dispatch and billing system put in place in April 2008 to determine if it is operating as intended. The system was delivered on time at an on-budget cost of \$420,000.

43. We found that the scheduling of pilots meets the needs of users economically and efficiently.

The Authority has a strategy for replacing pilot launches

44. In the 2003 special examination, we found that the Authority did not have a long-term strategy for replacing pilot launches (the boats used to bring pilots to the assigned vessel), based on a formal needs assessment, a documented cost analysis, feasibility solutions, and timetables that take into account the Authority’s financial capability. We expected to find that the Authority’s systems and practices for acquiring, using, and replacing pilot launches meet operating needs and are based on the most cost-effective, full life-cycle cost. During our current examination, we found that the elements of a long-term replacement strategy were articulated in the 2004 Long-Term Pilot Launch Strategic Plan, the Corporate Plan, and the minutes of the Launch Replacement Committee of the Board of Directors.

45. The Authority hired a consultant to manage the construction of two pilot launches of the same design. The process included developing a design based on an assessment of user needs, preparing a comprehensive request for proposal, assessing the bids, and selecting inspectors to act on the Authority’s behalf. It also required that the Authority meet Transport Canada’s guidelines on the construction of pilot launches.

46. The budget for the construction of the two launches was \$8.6 million. As of 31 August 2008, actual costs were \$1.2 million

under budget, although this amount will increase when final billings are posted. No major outstanding items need to be rectified, and management expects total costs to remain under budget. The launches were delivered as planned between April and September 2008.

47. The Long-Term Pilot Launch Strategic Plan also calls for two older launches to be overhauled to extend their useful lives and serve as backups to further ensure timely requests for service.

48. We found that the Authority's system and practices for acquiring, using, and replacing pilot launches are in place to ensure that Transport Canada's safety regulations are being met and that launches are built to meet the Authority's operational requirements.

Pilot launches are maintained regularly

49. We expected to find that the Authority had developed a long-term maintenance plan for pilot launches. The Authority has developed such a plan for each pilot launch in operation that includes its repair history and planned maintenance over the next five years. The plan ensures that critical components are examined regularly and scheduled for regular replacement. As well, all launches are on a four-year Board of Steamship Inspection cycle. These two programs are designed to help reduce the number of unplanned repairs and provide assurance that the pilot launches will be available for the remainder of their estimated useful life.

The pool of potential pilots is being monitored

50. The population of working pilots is aging—the average age of the Authority's contract and employee pilots is 56. The Authority and BCCP have no mandatory retirement age for pilots, but the average age indicates that retirements are likely and imminent. According to its analysis of pilots' ages to 2025, the Authority will need to recruit an average of six pilots a year, with recruitment peaks in 2011, 2016, and 2018.

51. As the employer of most of the Authority's pilots, BCCP has the main responsibility for the recruitment and retention of pilots. The Authority does not consider recruitment to replace retiring pilots to be a problem at present; however, it recognizes that this could become a problem, given the rapid decline in the number of potential candidates. This decline can be attributed largely to a substantial reduction in the Canadian shipping industry (the main source of recruitment) and lower enrollment in maritime studies programs.

52. The Authority liaises with BCCP to ensure that the number of working pilots is not low enough to cause a large number of callbacks, which would strain the Authority's overtime budget.

53. The Authority is exploring the option of employing pilots with regional knowledge versus the current practice of requiring pilots to be familiar with the entire coast. It is also exploring the feasibility of training foreign pilots.

54. **Recommendation.** The Pacific Pilotage Authority should continue to regularly monitor and assess the risk of pilot shortages and work with The British Columbia Coast Pilots Ltd. (BCCP) to take appropriate action.

The Authority's response. Agreed. Both the BCCP and the Pacific Pilotage Authority have conducted recent studies on the requirements for marine pilots for the next 15 years and are actively engaged in addressing what is seen as a declining pool of candidates. This item is also addressed in the 2009–2013 Strategic Plan, with the goal of increasing the present pass rate by 20 percent while maintaining the present high standard.

Financial self-sufficiency

The Authority is self-sufficient and follows a reasonable process to set fees

55. The Pacific Pilotage Authority operates in a rate-regulated environment. Provisions under the *Pilotage Act* allow interested parties who believe that any proposed tariff increase is prejudicial to the public interest to appeal the increase to the Canadian Transportation Agency (CTA). The Authority is obligated to abide by the CTA's recommendations. We expected to find that management had established fees that are fair and reasonable and allow the Authority to be financially self-sufficient.

56. For a number of years, management has consulted annually with stakeholders on a port-by-port basis and with organizations representing the shipping industry to try to resolve issues before rate increases are submitted and published in the *Canada Gazette*. The consultation includes discussion of financial information on pilotage services delivered in the ports in the previous fiscal year, trends in traffic, an estimate of future traffic, and the potential impact on the cost of operations and rate changes. The Authority and stakeholders told us that this process has improved communication on the cost of providing services, the issues facing their ports, and the Authority's strategies to address those issues. Stakeholders have raised no objections to proposed tariff increases in the last seven years.

57. The Authority recorded a surplus in 2003, 2006, and 2007. This still holds true for 2003 and 2007 if the pilot launch replacement fee is not taken into account. As of 31 December 2007, the Authority had retained earnings of \$6.8 million.

58. In 2006, the Chamber of Shipping of British Columbia agreed to support a pilot launch replacement fee of \$180 every time the Authority uses a pilot launch. This fee is expected to remain until sometime in 2012, when all capital expenditure funds for the construction and refurbishment of launches have been recovered and the Authority has rebuilt its financial reserves to an appropriate level.

59. The Authority has systems and practices to ensure that it is self-sufficient and has systems and pilotage rates that are fair and reasonable to the stakeholders and ensure financial self-sustainability.

Corporate governance

Board composition provides the required knowledge but presents potential conflicts of interest

60. Governance involves the structures, systems, and practices used to monitor an organization's direction and management, enabling it to fulfill its mandate and achieve its objectives. Our examination of the Authority's governance practices focused on the clarity of the roles and responsibilities of governance and the quality of information available to the Board of Directors for decision making and reporting. We expected to find that the Authority had an effective corporate governance framework to ensure that the Authority fulfills its mandate in a manner consistent with its role in delivering pilotage services.

61. As a federal Crown corporation, the Authority is accountable to Parliament through the Minister of Transport. The Authority is governed by a Board of Directors, consisting of a part-time Chair appointed by the Governor in Council and up to six part-time members appointed by the Minister with the approval of the Governor in Council. Members are appointed for a term not exceeding four years. Since the creation of the Authority, the Board has consisted of two representatives each from The British Columbia Coast Pilots Ltd. (BCCP), users, and the public. This composition derives from custom rather than from any requirement of the *Pilotage Act*.

62. The Chair and three Board members are assigned to the Audit Committee. The main role of the Board is to advise management on strategic issues and to oversee the Authority's financial and operational performance. The President and Chief Executive Officer manages the Authority.

63. For the Board to be effective and to act in the best interest of the Authority, it must be independent and objective. As noted in our reports to other pilotage authorities, having employee and industry representatives on the Board as members creates a potential conflict of interest. Such situations could arise when the Board discusses and decides on matters where the interests of groups represented by members of the Board are at stake, such as amendments to the *Pacific Pilotage Regulations*, collective bargaining, and requests for tariff increases. In our view, the Board needs to be vigilant and ensure that its members declare any real or perceived conflicts of interest as they arise.

64. The Authority feels that the current size and structure of the Board provides strong governance and effective channels of communication and encourages a better understanding of the requirements of the major users. The Authority also notes that, unlike other pilotage authorities, coast pilots are not employees of the Authority or members of the Audit Committee.

Roles and responsibilities are clear, but individual performance of Board members needs to be assessed

65. We found that the Authority had an effective corporate governance framework to ensure that the Authority fulfills its mandate in a manner consistent with its role in delivering pilotage services. All new Board members have received background documentation on the Authority, such as policies, procedures, and the *Pilotage Act*. The Governance, Nominating and Human Resources Committee formally assesses the pilot and industry candidates for Board membership. All members perform a skills inventory/self-assessment to determine knowledge gaps.

66. To help guide its activities, the Board has established six committees:

- Audit;
- Governance, Nominating and Human Resources;
- Enterprise-Wide Risk Management and Emergency Preparedness;
- Pilot Training and Examination—Coast and Fraser River;
- Pilot Launch and Transportation Safety—Coast and Fraser River; and
- Safety and Operating Review.

67. The Board and its committees hold regular meetings, with minutes taken and nearly full attendance. All committees have clear terms of reference.

68. The Board has begun to assess its overall performance to determine how effectively it fulfills its governance responsibilities.

69. **Recommendation.** In addition to assessing the Board's overall performance, the Board should also assess the performance of individual members and the value of the skills and knowledge each one brings to the table.

The Authority's response. Agreed. The Board has been diligently working to address this issue. The skills set format has recently been re-worked as has the Board's self-assessments. The next step in this ongoing process of assessing Board performance is for the Chair to undertake a performance assessment of individual Board members.

Strategic planning

Strategic planning is adequate

70. Strategic planning guides what an organization is, what it does, and why it does it. It includes assessing and adjusting the organization's direction in response to a changing environment—an area where a board of directors plays an important role. An organization's corporate plan ultimately guides the setting of corporate objectives and the allocation of resources, whereas the annual report accounts for the results achieved. We expected to find that the Authority's planning process allows for overall direction to be identified.

71. We examined the Pacific Pilotage Authority's strategic planning systems to assess whether its direction and plans are realistic, take government priorities into account, and are based on financial and operational implications and appropriate analyses of the industry, the market, and risks.

72. The Board is responsible for approving the Authority's strategic direction and adopting specific measures to put it into action. In past years, directors and managers have attended an annual planning session to discuss strategic matters, risks, and other issues.

73. Our examination found that the Authority's planning process allows its overall direction to be identified—that is, directors and managers take stock of results, review the business environment and important issues, and act accordingly.

Risk management**Risk management and internal auditing are being addressed**

74. Among its responsibilities, the Board monitors how the main risks to the Authority are identified, managed, and taken into account in planning and decision making. It needs to know that management has identified those risks, and put in place systems and practices to manage them and measures to mitigate them. We expected the Authority to have effective risk management policies and practices at all levels of the Authority to support the realization of its mandate and corporate objectives. Risks should be identified, measured, mitigated, monitored, and reported in order to be kept within a level appropriate to the nature of the business to ensure that the assets are safeguarded.

75. Since our last special examination in 2003, the Authority has assessed key risks. It has contracted with a private accounting firm to provide internal audit services, as it is no longer exempt from this requirement of the *Financial Administration Act*. The Authority was not satisfied with its original risk analysis or with the accounting firm's first internal audit plan. Thus, the Authority and accounting firm carried out another risk analysis in August 2007 and submitted the report to the Board for discussion. The report identified 15 major risks and was used to update the corporate plan, strategic plan, and five-year internal audit plan to ensure that the assets are safeguarded. The report also identified existing controls in place to monitor and manage risk, along with a risk mitigation strategy and initiatives. The Enterprise-Wide Risk Management Committee will catalogue all risks identified and ensure that the mitigation is adequate and effective. The Committee will meet on a semi-annual basis, reporting the results to the Audit Committee and the Board.

**Performance measurement
and reporting****Performance indicators and targets need to be clearly reported**

76. We expected the Authority to have specific and measurable objectives consistent with its mandate and government priorities, and to monitor and report against those objectives to enable management, the Board of Directors, Parliament, and other stakeholders to meaningfully assess the Authority's performance. The Authority's Corporate Plan briefly describes its key objectives and the strategies for achieving them. We found that the objectives are linked to 8 performance indicators in the 2007–2011 Corporate Plan and 14 performance indicators in the 2008–2012 Corporate Plan, all of which have quantified targets. However, it is difficult to determine to what extent the targets have been met because the indicators do not correlate clearly with the results presented in the annual report, which

includes only 4 out of the 8 indicators in the 2007–2011 Corporate Plan (federal subsidies, annual surplus, results of customer surveys, and the percentage of the ships in pilotage that are involved in incidents).

77. A vital aspect of accountability is comparing actual results with expected results for a set of financial and non-financial performance indicators. We noted that management states monthly statistics on operations, such as the number of ships and delays, in the annual report. However, it does not compare the statistics with its targets.

78. In our 2003 special examination report, we suggested that the Authority expand its performance reporting by using indicators such as launches free of break-downs, and discussion of the nature, cause, and severity of incidents and the extent of their contribution to marine safety in the Pacific region. In the current special examination, we noted that the nature of incidents is now included in the annual report, and their severity and cause is reported on the Authority’s website. We found that the Authority has mapped out key performance indicators in a Management Performance Measurements report. The report lists 10 measurements of which 3 are from the 2008–2012 Corporate Plan. All 10 results are reported to the Board of Directors quarterly and shared with the Chamber of Shipping of British Columbia, which shares the information with industry.

79. Recommendation. The Pacific Pilotage Authority should report planned and actual results on a range of indicators in its annual report to enable stakeholders to assess the Authority’s performance.

The Authority’s response. Agreed. As we already share all of the key performance areas with the Chamber of Shipping of British Columbia and its members, we agree that reporting results in the annual report will ensure a much wider distribution.

Conclusion

80. Based on the criteria established for this special examination, in our opinion there is reasonable assurance that the systems and practices we examined have no significant deficiencies. However, we have made several recommendations and observations throughout this report to indicate measures that the Authority should take to improve the quality of these systems and practices. These measures would enable the Authority to continue providing safe pilotage services and to manage its operations economically and efficiently.

About the Special Examination

Objective

Under section 138 of the *Financial Administration Act* (FAA), federal Crown corporations are subject to a special examination once every five years. Special examinations of Crown corporations are a form of performance audit where the scope is set by the FAA to include the entire corporation. In special examinations, the Auditor General provides an opinion on the management of the corporation as a whole. The opinion for this special examination is found on page 3 of this report.

Special examinations answer the question: Do the Corporation's systems and practices provide reasonable assurance that assets are safeguarded and controlled, resources are managed economically and efficiently, and operations are carried out effectively?

Key systems and practices examined, criteria, and approach

At the start of this special examination, we presented the Authority's audit committee with an audit plan that identified the systems and practices, and related criteria, that we considered essential to providing the Authority with reasonable assurance that its assets are safeguarded and controlled, its resources managed economically and efficiently, and its operations carried out effectively. These are the systems and practices, and related criteria, that we used for examination.

Key systems and practices examined	Criteria
<p>Safe pilotage</p> <ul style="list-style-type: none"> • Issuance and monitoring of pilot licences • Pilot qualifications, hiring, contracting, training, and health • Granting waivers from compulsory pilotage • Incidents and accidents—reporting and investigation • Assessment of risks to navigation in compulsory pilotage areas 	<ul style="list-style-type: none"> • The Authority should ensure that pilots or certificate holders responsible for the conduct of vessels subject to compulsory pilotage are competent and in good health. • The Authority's designation of compulsory pilotage areas and vessels subject to pilotage should be based on an assessment of the navigational risks for safe movement of vessels in the British Columbia region.
<p>Economic and efficient pilotage</p> <ul style="list-style-type: none"> • Collective agreement and contract bargaining • Performance/ effectiveness measurement and reporting • Dispatching and scheduling • Granting of waivers from compulsory pilotage • Stakeholder communication and consultation • Capital asset management (pilot boats, telecommunications and computer equipment) 	<ul style="list-style-type: none"> • The Authority should employ or contract pilots based on expected traffic volume and reasonable utilization standards to provide high-quality pilotage services at a reasonable cost. • The Authority's pilot boat acquisition, utilization, replacement planning, and maintenance strategies should meet operating needs and be based on the most cost-effective, full life-cycle cost.
<p>Financial self-sufficiency</p> <ul style="list-style-type: none"> • Tariff rate-setting process 	<ul style="list-style-type: none"> • The Authority should establish pilotage charges that are fair and reasonable and ensure financial self-sustainability.

Key systems and practices examined	Criteria
<p>Corporate governance</p> <ul style="list-style-type: none"> • Appointment and functioning of the Board and its committees • Information for Board oversight • Internal audit • External relations • Corporate ethics 	<ul style="list-style-type: none"> • The Authority should have an effective corporate governance framework to ensure that the Authority fulfills its mandate in a manner consistent with its role in delivering pilotage services.
<p>Strategic planning and risk management</p> <ul style="list-style-type: none"> • Corporate planning process • Budgetary process • Risk control and mitigation • Risk identification and measurement • Risk monitoring and reporting 	<ul style="list-style-type: none"> • The Authority has clearly defined strategic directions and specific measurable goals and objectives to ensure that the Authority fulfills its mandate. Its strategic direction and goals should consider its environment, identified key risks and opportunities, government priorities, and the financial and operational implications. • The Authority should have effective risk management policies and practices at all levels of the Authority to support the realization of its mandate and corporate objectives. Risks should be identified, measured, mitigated, monitored, and reported in order to be kept within a level appropriate to the nature of the business to ensure that the assets are safeguarded.
<p>Performance measurement and reporting</p> <ul style="list-style-type: none"> • Performance measurement process with particular emphasis on key performance indicators • Reporting on performance achieved 	<ul style="list-style-type: none"> • The Authority should have specific and measurable objectives consistent with its mandate and government priorities, and monitor and report against those objectives to enable management, the Board of Directors, Parliament, and other stakeholders to meaningfully assess the Authority's performance.

Audit work completed

Audit work for this special examination was substantially completed on 29 August 2008.

Audit team

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Appendix List of recommendations

The following is a list of recommendations found in the Special Examination Report. The number in front of the recommendation indicates the paragraph where it appears in the report. The numbers in parentheses indicate the paragraphs where the topic is discussed.

Recommendation	Response
Safe pilotage	
<p>30. Management should introduce the draft Pilot Quality Assurance Guideline as soon as possible and combine it with an annual evaluation of pilot performance and a record of training taken and required. (22–29)</p>	<p>Agreed in principle. A Quality Assurance Program is presently in draft format and under discussion with both pilotage groups. In addition, the 2009–2013 Strategic Plan calls for the creation of a Quality Service Program, which will be the next step in a number of initiatives already in place, such as the currency audit and training program for senior pilots.</p>
Economic and efficient pilotage	
<p>54. The Pacific Pilotage Authority should continue to regularly monitor and assess the risk of pilot shortages and work with The British Columbia Coast Pilots Ltd. (BCCP) to take appropriate action. (50–53)</p>	<p>Agreed. Both the BCCP and the Pacific Pilotage Authority have conducted recent studies on the requirements for marine pilots for the next 15 years and are actively engaged in addressing what is seen as a declining pool of candidates. This item is also addressed in the 2009–2013 Strategic Plan, with the goal of increasing the present pass rate by 20 percent while maintaining the present high standard.</p>
Corporate governance	
<p>69. In addition to assessing the Board’s overall performance, the Board should also assess the performance of individual members and the value of the skills and knowledge each one brings to the table. (65–68)</p>	<p>Agreed. The Board has been diligently working to address this issue. The skills set format has recently been re-worked as has the Board’s self-assessments. The next step in this ongoing process of assessing Board performance is for the Chair to undertake a performance assessment of individual Board members.</p>
Performance measurement and reporting	
<p>79. The Pacific Pilotage Authority should report planned and actual results on a range of indicators in its annual report to enable stakeholders to assess the Authority’s performance. (76–78)</p>	<p>Agreed. As we already share all of the key performance areas with the Chamber of Shipping of British Columbia and its members, we agree that reporting results in the annual report will ensure a much wider distribution.</p>