

ALASKA STATE LEGISLATURE

LEGISLATIVE BUDGET AND AUDIT COMMITTEE



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SUMMARY OF: A Special Report on the Department of Transportation and Public Facilities, Alaska Marine Highway System, Vessel Maintenance and Repair Procurement

PURPOSE OF THE REPORT

In accordance with Title 24 of the Alaska Statutes and a special request by the Legislative Budget and Audit Committee, we conducted an audit of the vessel maintenance and repair procurements administered by the Alaska Marine Highway System (AMHS). Our objectives were:

- to evaluate AMHS' compliance with the applicable state and federal procurement statutes and regulations, which includes, when appropriate, the application of the interport differential;
- to evaluate the current state statutes and regulations to assess whether their application results in fair and unbiased contract awards; and
- to identify prior and ongoing federal, state, and local government subsidies and incentives received by shipyards used by AMHS for vessel maintenance and repairs.

REPORT CONCLUSIONS

Our review found that AMHS adheres to state and federal procurement laws and regulations when contracting for vessel maintenance and repairs, including the correct application of the interport differential when appropriate. Currently, Alaska Statutes provide for the maximum use of in-state shipyards, and AMHS complies with this mandate by contracting with either the Ketchikan or Seward shipyard for overhaul projects. Overhauls are typically performed at the shipyard in the vessel's base port whenever possible. This reduces the chance of extended disruption of ferry schedules due to the additional transportation time created by sending a ferry out-of-region for overhaul. AMHS also believes, not unreasonably, that this practice ensures the safety of the vessel and crew while avoiding the risk of additional costs for possible damages when transporting vessels from southeast Alaska to Seward during bad weather and rough seas.

As a longstanding matter of public policy, shipyards often receive government subsidies. Subsidies to shipyards are provided as incentives by local, state, or federal governments. Such incentives are designed to: (1) promote the industry; (2) entice an enterprise to move to, or stay in, a given community; or (3) in the case of federal government, assist in the interest of national security and defense. Subsidies may take the form of direct grants, low-interest loans, tax deferral, property tax exemption/reduction, lower utility rates, or acquisition of capital assets from the government entity at less than fair market value.

At the end of World War II, the United States had a vast complex of shipyards that were used to support its wartime program of naval and merchant ship construction. The complex included nine government-owned and operated shipyards and approximately 132 privately owned shipyards. The government invested over a billion dollars in this complex.

Since then, the U.S. government has had a number of subsidy programs, some of which still exist today.

In Ketchikan and Seward there are government-owned and privately operated shipyards. The State built the Ketchikan shipyard at a cost of \$38 million. The Ketchikan Gateway Borough granted the shipyard's operator property tax relief and cash incentives totaling \$800,000 from calendar years 1999 through 2001. Additionally, Ketchikan Public Utilities charged the shipyard a lower industrial rate for electricity.

The federal government also awarded two grants for the Ketchikan shipyard. In 2001, the Federal Highway Administration (FHWA) provided funds to the Department of Transportation and Public Facilities for a \$2.6 million shipyard improvement project. The U.S. Department of Commerce, Economic Development Administration awarded a \$5 million grant, with a corresponding \$5 million total match from both the borough and the State, for the purchase of a vertical lift.

Construction of Seward's marine industrial complex, which includes the shipyard facilities, was also partially funded by the State. In 1981, the legislature appropriated \$13.7 million to the City of Seward to construct the complex. Another \$4 million was appropriated to Seward by the legislature in 1982 as a grant for the industrial park associated with the complex. In 1986, the legislature appropriated just over \$1 million for cradle and rails, and in 2001 an additional \$1 million was appropriated for portable work stations at the shipyard. (See Appendix D for further details)

July 7, 2005

Members of the Legislative Budget
and Audit Committee:

In accordance with the provisions of Title 24 of the Alaska Statutes, the attached report is submitted for your review.

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
ALASKA MARINE HIGHWAY SYSTEM
VESSEL MAINTENANCE AND REPAIR PROCUREMENT

March 31, 2005

Audit Control Number

25-30034-05

We found the Department of Transportation and Public Facilities is adhering to state and federal procurement laws and regulations in awarding contracts for Alaska Marine Highway System's (AMHS) vessel maintenance and repair. The Ketchikan shipyard performs most of the in-state overhauls on AMHS vessels. Additionally, the report addresses governmental subsidies received by the in-state shipyards used by AMHS.

The audit was conducted in accordance with generally accepted government auditing standards. Fieldwork procedures utilized in the course of developing the findings and discussion presented in this report are discussed in the Objectives, Scope, and Methodology section.

Pat Davidson, CPA
Legislative Auditor

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OBJECTIVES, SCOPE, AND METHODOLOGY

In accordance with Title 24 of the Alaska Statutes and a special request by the Legislative Budget and Audit Committee, we conducted a review of the Department of Transportation and Public Facilities (DOTPF) Alaska Marine Highway System (AMHS) procurement practices for state ferry maintenance and repair.

Objectives

This review has three objectives relating to AMHS' state ferry maintenance and repair procurement practices. The specific objectives are:

- to evaluate AMHS' compliance with the applicable state and federal procurement statutes and regulations, which includes, when appropriate, the application of the interport differential;
- to evaluate the current state statutes and regulations to assess whether their application results in fair and unbiased contract awards; and
- to identify prior and ongoing federal, state, and local government subsidies and incentives received by shipyards being used by AMHS for vessel maintenance and repairs.

Scope

Our review of AMHS' vessel maintenance and repair procurement practices is for the period from July 1998 through March 2005. Applicable state and federal statutes and regulations did not change significantly during this period. The governing laws are found in Alaska Statute (AS) 36.90.049 *Maintenance of state marine vessels*.

Our identification of governmental subsidies was limited to information available to the public and other information made available to us by the shipyards. We do not have the authority to specifically audit books and records of the shipyards, nor are there publicly available, audited financial statements for these shipyards. Therefore, we cannot confirm the completeness in the amount of governmental subsidies included in this report.

Methodology

Our evaluation involved the review of the following documents:

- State and federal procurement codes relative to repair, maintenance, and overhaul of AMHS vessels;
- DOTPF internal written policies and procedures governing the evaluation of vessel maintenance bids;

- DOTPF procedures and guidelines for interport differential calculations;
- Alaska Industrial Development and Export Authority's (AIDEA) audited financial statements for the fiscal year ending June 30, 2003;
- AIDEA's project fact sheet on the Ketchikan shipyard, operated by Alaska Ship and Drydock (ASD);
- Operating agreements for ASD and Seward Ship's Drydock (SSD);
- 2000 – 2003 reviewed financial statements of ASD; and
- 2001 – 2003 Statements of Gross Income and Costs of Routine Operations, and the Syncrolift Deferred Maintenance Costs of SSD (unaudited).

We interviewed the following individuals:

- Management of in-state and out-of-state shipyards under contract with AMHS;
- AIDEA executive director;
- DOTPF procurement specialists;
- AMHS marine engineering manager;
- AMHS vessel construction managers;
- AMHS port engineers; and
- Federal Highway Administration (FHWA) regional grants manager.

We analyzed and evaluated the following AMHS records:

- Support for the procurement of annual overhauls of AMHS vessels; and
- Support for the procurement of major updates and refurbishments of AMHS vessels.

ORGANIZATION AND FUNCTION

The Alaska Marine Highway System (AMHS) was created under Alaska Statute (AS) 19.65 and is organized within the Department of Transportation and Public Facilities (DOTPF). The primary management units at AMHS are general administration, financial administration, reservations, vessel operations, port operations, and marketing. The AMHS director reports to the DOTPF commissioner and is responsible for administering AMHS. The AMHS director position is exempt and serves at the pleasure of the governor. As part of the Alaska highway system, the AMHS receives funding for capital projects from the Federal Highway Administration (FHWA).

AMHS operates ten vessels¹ on routes that cover over 3,500 miles of Alaska and British Columbia coastline between Bellingham, Washington and Dutch Harbor. Along these routes, AMHS serves 30 Alaska communities plus Bellingham and Prince Rupert, British Columbia. Eight of the vessels operate in the inland waterways of southeast Alaska (from Haines to Bellingham, Washington) and two operate in southcentral and southwest Alaska (from Seward to Kodiak to the Aleutians).

AMHS is responsible for maintaining the vessels that provide state ferry service. When vessel overhaul is required, contracting and bid specifications are developed via a joint effort between DOTPF's Southeast Region contracting officer/procurement specialist, AMHS' port engineer, AMHS' port captain, and the AMHS' support services manager. The specific procurement process followed is determined by whether or not federal funds are involved in the vessel project.

¹ One more vessel, the M/V Chenega, is scheduled to be operational in May 2005. It will serve the Prince William Sound area of southcentral Alaska, connecting the ports of Cordova, Valdez, and Whittier. The M/V Chenega will replace the M/V Bartlett, which was sold in October 2003.

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BACKGROUND INFORMATION

The Alaska Marine Highway System (AMHS) regularly overhauls, repairs, maintains, and refurbishes the system's vessels. When arranging for state-funded maintenance, AMHS follows provisions of state law that waive the standard competitive bidding requirements. The law also directs state-funded maintenance of all vessels be done at an in-state shipyard.² Such maintenance is generally done between September and May to coincide with low ferry passenger and freight traffic volume.

Construction of a state-owned shipyard was envisioned in the mid-1970s

In 1976, the legislature studied the feasibility of building a shipyard in Alaska. A major policy consideration was the possibility of using such a shipyard to provide required maintenance of AMHS ferry vessels. With work on AMHS vessels providing a revenue base, construction of such a shipyard was seen as a way to encourage economic development and generate jobs. A feasibility study concluded, however, that it did not appear AMHS maintenance needs and other demands could justify the necessary investment. In 1978, the legislature did move ahead by appropriating \$1 million to acquire a site for a shipyard in Ketchikan.

During the 1980s, the Department of Transportation and Public Facilities (DOTPF) built a shipyard in Ketchikan at a cost of approximately \$38 million. The Ketchikan shipyard is adjacent to the AMHS ferry docking facility and consists of: (1) over 15 acres of property; (2) a 7,200-square-foot shop building with an overhead crane; (3) an oily water separator facility; (4) a 10,000-ton floating dry dock; and (5) a 1,100-foot wharf.

The facility was leased to the City of Ketchikan, which in turn subleased operations of the shipyard to a private contractor.³ DOTPF canceled the lease with the City of Ketchikan in 1991 and closed the facility for a period of two years.

In late 1993, Alaska Ship and Drydock took over operations of the Ketchikan shipyard

In November 1993, the shipyard was reopened by DOTPF under an operating agreement with Alaska Ship and Drydock (ASD), a private-sector enterprise.⁴ In July 1997,

² Alaska Statute 36.90.049 specifically requires that a “marine vessel owned by the state shall be maintained and repaired at a shipyard facility located in the state....” The statute does permit flexibility in that this requirement does not have to be followed if the “department that operates the vessel determines in writing that there is no shipyard facility located in the state that is equipped or qualified to perform the particular maintenance or repair required.” The statute also permits sending the vessel for out-of-state maintenance and repair if the “proposed cost of maintenance or repair work is unreasonable.”

³ Two separate contractors operated the shipyard facility from its opening in 1987 until closure in 1991.

⁴ An amendment to the original November 1993 agreement between AMHS and ASD extended the term of the agreement to August 15, 1997.

DOTPF transferred title for the Ketchikan shipyard facility to the Alaska Industrial Development and Export Authority (AIDEA). ASD arrived at an agreement with AIDEA to continue operating the shipyard for five more years.⁵

Key financial provisions of the operating agreement included the following:

- Payment to AIDEA for non-shipyard use of the facility. AIDEA receives \$1,500 per month as payment for the office space and machine shop at the facility that is used by ASD for operations not related to the shipyard. In addition, the agreement with AIDEA requires the Ketchikan shipyard to pay five (5) percent of all gross income in excess of \$150,000 related to any non-shipyard activities.
- AIDEA shares in profits above certain thresholds. The operating agreement provides for an annual payment of 15 percent of any Ketchikan shipyard net profits between \$300,000 and \$500,000 and 25 percent of all net profits in excess of \$500,000.
- Set-aside requirements to cover equipment costs. The operating agreement provides for the Ketchikan shipyard to make an annual payment to a repair and replacement account at a rate of 10 percent on the first \$100,000 of net profits.⁶

To date, the Ketchikan shipyard's operator, ASD, has paid AIDEA only the monthly \$1,500 rental payment for non-shipyard use of the property.

Also in 1997, the City of Ketchikan, the Ketchikan Gateway Borough, and Ketchikan Public Utilities entered into a Memorandum of Understanding (MOU) with the shipyard providing for certain concessions. The concessions involved relief from taxes on property and electricity at reduced rates.

A city-owned and contractor-operated shipyard at Seward also services some AMHS vessels

The City of Seward has developed and owns a waterfront facility known as the Seward Marine Industrial Center (SMIC). Seward received approximately \$18 million from the State to develop SMIC.⁷ Part of SMIC is a shipyard and dry-dock facility that is capable of providing overhaul services to some AMHS vessels. The city has leased operation of the "shiplift facility," which includes the center's dry dock, travel lift, and vessel transfer system, to a private-sector contractor, Seward Ship's Drydock (SSD).

⁵ The agreement allowed for extension upon the mutual agreement of ASD and AIDEA. The operating agreement with ASD expired on June 30, 2004, and has been extended to June 30, 2005. The provisions of the July 15, 1997, original operating agreement remain in full force and effect.

⁶ Additionally, the shipyard operator is required to contribute 20 percent on net profits in excess of \$100,000 to the set-aside fund, up to an overall contribution of \$150,000.

⁷ Chapter 82, SLA 81 and Chapter 8, SLA 82 appropriated \$13,725,000 and \$4,000,000, respectively, to the City of Seward for construction of SMIC.

The Seward shipyard facility is capable of dry-docking and servicing vessels up to the 5,000-ton category, utilizing a Syncrolift. The size of the lift limits Seward's shipyard capacity to service AMHS vessels. The Seward shipyard can only handle the six AMHS vessels below 5,000 tons.⁸

In October 2001, the City of Seward and SSD amended the lease payment provisions of the ground lease and added approximately four more acres of land to the original agreement. The annual rent through December 2004 was set at \$44,912 for the original acreage and \$16,912 for the additional land, subject to adjustment after a survey's determination of total square footage.

AMHS operating vessels are overhauled each year

Each AMHS operating vessel undergoes an annual overhaul.⁹ An overhaul includes inspection, repair, and maintenance that cannot be performed while the vessel is in operating status. The typical overhaul period is approximately six weeks. Overhaul work is typically performed in the following areas: (1) dry-docking (hull); (2) engine; (3) deck; and (4) passenger services. Funding for overhaul work is typically provided by appropriations out of the State's capital budget.

Other maintenance work and refurbishment is done to the vessels during the overhaul period to satisfy requirements of equipment manufacturers' warranty and the Federal Communications Commission's (FCC) certifications of vessel communication and safety communication equipment. Maintenance work is also required to comply with the requirements of the federal American with Disabilities Act and the Occupational Safety and Health Administration. As reflected by the summary schedule in Appendix A, between July 1998 and March 2005 over \$20 million in solely state-funded overhaul work has been done during the almost seven-year period, mostly at in-state shipyards. An out-of-state shipyard may be used when state-funded overhaul work is combined with federally funded refurbishment work in one project. This requires the work to be awarded on a competitive bid basis—which may result in the out-of-state shipyard getting the bid.

⁸ The six AMHS vessels in the below-5,000-ton category include the Taku, LeConte, Aurora, Tustumena, Lituya, and Fairweather. A seventh vessel, the Chenega, scheduled to begin service in May 2005, also will be in this category.

⁹ The overhaul of AMHS vessels is guided by the policies of both the American Bureau of Shipping (ABS) and the U.S. Coast Guard (USCG). Both entities focus on safety and vessel seaworthiness. USCG has a more stringent standard of safety and seaworthiness. ABS standards require dry-docking twice every five years, but USCG requires U.S.-flagged passenger vessels to be dry-docked every twelve months. The vessel and the assigned crew must pass a USCG inspection before a certificate of inspection can be issued allowing the vessel to be placed back in service.

As needed, both in-state shipyards are used to perform dry-docking, repairs, and berthing

AMHS contracts with both the Ketchikan and Seward shipyards to perform annual vessel overhauls.¹⁰ Since August 1986, the state statutes have directed that vessels be maintained and repaired at shipyards located within the State unless there is no state shipyard able to perform that service at a reasonable price. Competitive bidding procurement provisions were waived for vessel maintenance in the same statute. In FY 98 the statutes were revised, primarily adding a base port designation for state marine vessels to aid in the interport differential calculation. The statute states that vessels primarily serving the region “*east of the longitude of Icy Cape*” have Ketchikan as a base port. Vessels primarily serving the “*remainder of the state*” have Seward as the base port.¹¹

With sale of the M/V Bartlett in October 2003, only one vessel in the AMHS fleet has Seward as a designated base port.¹² The M/V Bartlett’s replacement, the M/V Chenega, built at Derektor Shipyard in Connecticut, was expected to go into service in May 2005.

Federally funded projects must be awarded using a competitive procurement process

In addition to annual overhauls, AMHS upgrades and retrofits its vessels. Many of these projects are funded through a combination of federal and state funding sources. AMHS combines¹³ the contract for each ferry’s annual overhaul with any federally funded project that may also be scheduled for the vessel in the same year.¹⁴ Appendix B summarizes projects paid for, in part, by federal funds between July 1998 and March 2005. As the schedule reflects, such projects have totaled more than \$76 million during the almost seven-year period.

Federal assistance maintenance contracts are awarded through a competitive, sealed-bid process set out in state law at AS 36.30. The use of Alaska Bidder Preference and other such bidding requirements is prohibited on projects paid for, in part, with federal funds. However, AMHS is permitted to apply what is termed the interport differential when awarding these bids that involve in-state and out-of-state shipyards.

¹⁰ ASD’s contract was from January 15, 1999, through January 14, 2002, and has been on a month-to-month basis since. The SSD contract was from January 31, 2000, through January 31, 2004, and also is currently operating on a month-to-month basis.

¹¹ These are the locations designated for AMHS vessels for the purpose of calculating the interport differential under AS 36.90.049. Currently, Ketchikan is the designated base port for the following vessels: Aurora, Columbia, Fairweather, Kennicott, LeConte, Lituya, Malaspina, Matanuska, and Taku. Seward is the designated base port for the Tustumena and will be for the Chenega.

¹² The Aurora was transferred to the southcentral routes pending the Chenega coming on line, although the Aurora’s designated base port is still considered to be Ketchikan.

¹³ Federal regulation, 23 CFR 635.111(c), also allows for the combining of federal aid and state-financed projects as long as the bid schedule quantities and bid prices are kept separately.

¹⁴ Since FY 99, four out-of-state shipyards—Mar Com Inc., Lake Union Drydock, Cascade General, and Bellingham Bay Shipyard—have been awarded AMHS contracts.

Interport differential is applied to competitive procurements related to work on vessels

Interport differential refers to the costs involved for the State to transport a state-owned vessel to an out-of-state shipyard for repair and maintenance work. Under state law, this differential includes costs such as: fuel to transport the vessel to the shipyard facility and return; maintenance costs incurred and consumables used; crew wages to prepare the vessel for the shipyard and return the vessel to revenue status; and travel costs and per diem for non-crew staff and consultants to administer the contract.

The primary purpose of designating base ports for various vessels is to calculate the interport differential for a given vessel. Accordingly, Ketchikan is used as the base port for purposes of calculating the differential for most ships, while Seward serves as the base port for one or two AMHS vessels operating west of the Icy Cape longitude.

As a longstanding matter of public policy, shipyards often receive government subsidies

Subsidies to shipyards are provided as incentives by local, state, or federal governments. Such incentives are designed to: (1) promote the industry; (2) entice an enterprise to move to, or stay in, a given community; or (3) in the case of the federal government, assist in the interest of national security and defense. Subsidies may take the form of direct grants, low-interest loans, tax deferral, property tax exemption/reduction, lower utility rates, or acquisition of capital assets from the government entity at less than fair market value.

At the end of World War II, the United States had a vast complex of shipyards that were used to support its wartime program of naval and merchant ship construction. The complex included nine government-owned and operated shipyards and approximately 132 privately owned shipyards. The government invested over a billion dollars in this complex. Ninety percent of the funding went into 60 private shipyards in which the government had invested more than \$5 million each for land and facilities.

U.S. shipyards also received subsidies under the U.S. construction-differential subsidy program, to help them compete successfully with foreign shipyards for international commercial shipbuilding contracts. The subsidy program was terminated in 1981. Federal legislation has been enacted to establish programs that would assist domestic shipyards directly or indirectly. Shipyards have obtained financing and technology development assistance through the Federal Ship Financing Guarantee Program (Title XI), which was established by the Merchant Marine Act of 1936; the Capital Construction Fund (CCF); and MARITECH.¹⁵

¹⁵ MARITECH was another federal program that was industry-led and jointly funded by the government and industry. The program provided matching government funds to encourage the shipbuilding industry to direct and lead in the development and application of advanced technology to its competitiveness and preserve its industrial base. MARITECH funding ended in 1998. The shipyard industry, recognizing the need to build on MARITECH's success, teamed with the Navy, Defense Advance Research Projects Agency (DARPA), USCG, and federal

The federal Maritime Administration (MARAD) has provided indirect financial assistance to U.S. ship owners and shipyards through the Federal Ship Financing Guarantee Program and CCF. Title XI provides for federal government guarantees of private-sector financing and refinancing. In addition to utilization for construction or reconstruction of U.S.-flagged or export vessels in U.S. shipyards, it may also be used for modernization of U.S. shipyards.

After the State built the Ketchikan shipyard at a cost of \$38 million, the Ketchikan Gateway Borough granted the shipyard's operator property tax relief and cash incentives totaling \$800,000 from calendar years 1999 through 2001. Additionally, Ketchikan Public Utilities (KPU) charged the shipyard a lower industrial rate for electricity.

The federal government also awarded the following grants for the Ketchikan shipyard:

- In 2001, the Federal Highway Administration (FHWA) funded a DOTPF shipyard improvement project totaling \$2.6 million.
- The Economic Development Administration (EDA) of the U.S. Department of Commerce awarded a \$5.3 million grant, with a corresponding \$5 million total match from both the borough and the State, for the purchase of a vertical lift.

Construction of Seward's marine industrial complex, which includes the shipyard facilities, was also partially funded by the State. In 1981, the legislature appropriated \$13.7 million to the City of Seward to construct the complex. Another \$4 million was appropriated to Seward by the legislature in 1982 as a grant for the industrial park associated with the complex. Additionally, the legislature made two specific appropriations directly related to the shipyard facility. In 1986, the legislature appropriated just over \$1 million for cradle and rails, and in 2001 an additional \$1 million was appropriated for portable work stations at the shipyard.

State-funded vessel overhauls are based on negotiated prices, while federally funded are based on competitive bids

Since the construction of major in-state shipyards, the legislature has considered it appropriate to use state vessels—most prominently, AMHS ferries—as a way to generate revenue for these government-owned, privately operated facilities. By mandating state vessel use of in-state shipyards for overhaul work, and by exempting state agencies from competitive bidding for contracts related to such work, the legislature clearly wanted to use state assets to promote viable in-state shipyard operations.

For projects that are funded entirely with state funds, overhaul contracts are awarded by AMHS on a noncompetitive basis, as allowed by state law. Depending on where the vessel operates, one of the in-state shipyards is used—Ketchikan or Seward.

Maritime Administration (MARAD) to develop a successor program called MARITECH Advanced Shipbuilding Enterprise (ASE). The program received congressional funding in federal FY 99.

State vessel overhaul work items and specifications have been generated from historical data developed from standard overhaul work. Bid-schedule work items, and related pricing applicable to the vessels, are negotiated annually with the in-state shipyards. The basic contract for each shipyard provides a detailed description of specifications for the 30-plus items required for annual overhaul and how the work is to be performed. A notice to proceed (NTP) must be approved by the port engineer before overhaul work can proceed on the applicable vessel.

In contrast, federally funded vessel projects must go through a competitive bidding process. Federally funded projects are required to have the appropriate architectural and engineering services for the development of the design and specifications. The AMHS selection committee¹⁶ evaluates the consultants' proposals. Selection of a consultant is based on the selection procedures required under the Brooks Act (Public Law 92-582) and AS 36.30.270.

Consultant-developed specifications are used on the federal project bid specifications for the competitive sealed-bidding process. AMHS applies an interport differential to bids received from out-of-state shipyards. The differential ostensibly represents the savings involved with using an in-state facility rather than incurring the costs of transporting a vessel out-of-state for the repair project. Contracts for federal projects are awarded based on the lowest responsible and responsive bid, in accordance with state and federal regulations.

¹⁶ The committee may vary depending upon the nature of the contract but is usually composed of a procurement specialist, project resident engineer, vessel construction manager, and marine transportation services manager.

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REPORT CONCLUSIONS

The Alaska Marine Highway System (AMHS) adheres to state and federal procurement laws and regulations when contracting for vessel maintenance and repairs. The Ketchikan shipyard performs most in-state vessel overhauls. The shipyard facilities in both Seward and Ketchikan have benefited from governmental subsidies.

Our conclusions are discussed in detail below:

AMHS maintenance and repair procurements comply with laws and regulations

Maintenance and repair covers both state-funded annual overhauls as well as federally funded refurbishment projects. Contracts for annual overhauls and refurbishments between January 1999 and March 2005 were issued in accordance with both state and federal procurement laws and regulations.

Where applicable, interport differential costs were applied correctly and bid specifications were developed without creating bias among competing bidders. The estimated and actual differential costs were reasonable and consistent with regulation.

Ketchikan shipyard is performing most in-state vessel overhauls

Since the construction of major in-state shipyards, the legislature has directed state marine vessels—most prominently, AMHS ferries—to use these facilities for vessel overhaul work. This directive, set out in state law, was seen as a way to generate revenue for these government-owned, privately operated facilities. By mandating that state vessels use in-state shipyards for overhaul work, and by exempting agencies from competitively bidding out such work, the legislature clearly wanted to leverage state assets to promote viable in-state shipyard operations.

AMHS complies with this mandate by contracting with either the Ketchikan or Seward shipyard for overhaul projects. Overhauls are typically performed at the shipyard in the vessel's base port whenever possible. This reduces the chance of extended disruption of ferry schedules due to the additional transportation time created by sending a ferry out-of-region for overhaul. AMHS also believes, not unreasonably, that this practice ensures the safety of the vessel and crew while avoiding the risk of additional costs for possible damages when transporting vessels from southeast Alaska to Seward during bad weather and rough seas.

Since most AMHS vessels operate in southeast Alaska, awarding overhaul work to the vessel's base port shipyard results in the Ketchikan shipyard receiving the larger share.

The price for overhaul work items is negotiated between AMHS managers and the shipyard, rather than determined through a competitive bidding process. Given the extent of subsidies involved with both the Ketchikan and Seward shipyards, bid pricing for overhauls would likely have limited benefit in determining a price for a given work item. However, by continually allocating work on this basis and relying on negotiated contracts, the State may not necessarily be getting the best price for vessel overhauls.

AMHS may benefit from reconsidering the use of competitive procurement for in-state overhauls to a limited extent. AMHS could explore establishing an overhaul schedule for a vessel that would minimize its operational and safety concerns. When this is done, AMHS could solicit bids from both shipyards. Results of such a bid could provide: (1) an opportunity for both shipyards to compete on an economic basis for the overhaul work, and (2) a better reference point for setting negotiated prices for contracts not competitively awarded.

Evaluating the fairness of the marine vessel maintenance statute and its application is difficult. Typically, fairness or a lack of bias comes from the state agency treating each potential vendor in the same manner. In these circumstances, this is not possible to achieve because of the initial and ongoing governmental subsidies received by both the Seward and Ketchikan shipyards. Further, there are operational concerns that the Department of Transportation and Public Facilities has identified, such as crew safety and potential vessel damage from travel between southeast Alaska and Seward for maintenance during bad weather. We find that the statutes do provide for maximum use, without an unreasonable bias, of in-state shipyards.

In accordance with established public policy, both shipyards are subsidized

Both of the major in-state shipyards receive substantial subsidies. These subsidies, both direct and indirect, are provided by local, state, and federal governments. To assess the nature and extent of the subsidies each shipyard receives, we would require full access to proprietary financial information. Because we lack authority for such access, we could not satisfy our inquiries to the full extent of the subsidies that either Alaska Ship and Drydock in Ketchikan or Seward Ship's Drydock enjoys. The schedule in Appendix D lists subsidies we were able to identify for each shipyard operator.

Appendices

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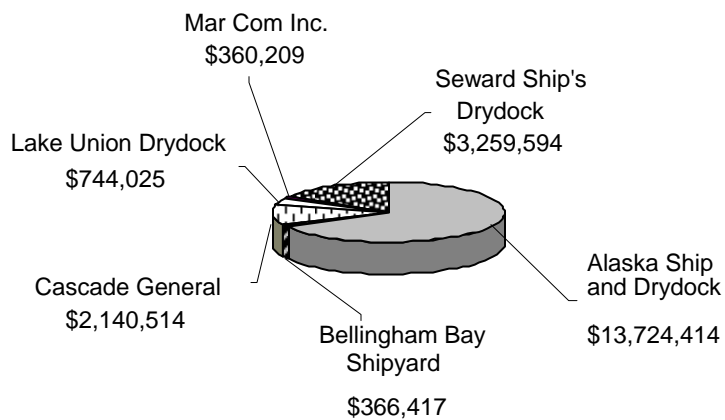
Appendix A

Alaska Marine Highway System Overhaul Projects Summary of Payments to Shipyards Fund Source: General Fund July 1998 - March 2005

Payments by Fiscal Year:

Fiscal Year	Amount
FY 99	\$ 2,444,485
FY 00	3,061,396
FY 01	3,421,323
FY 02	2,523,143
FY 03	3,849,119
FY 04	3,063,362
FY 05	<u>2,232,345</u>
Total	\$20,595,173

Payments by Vendor:



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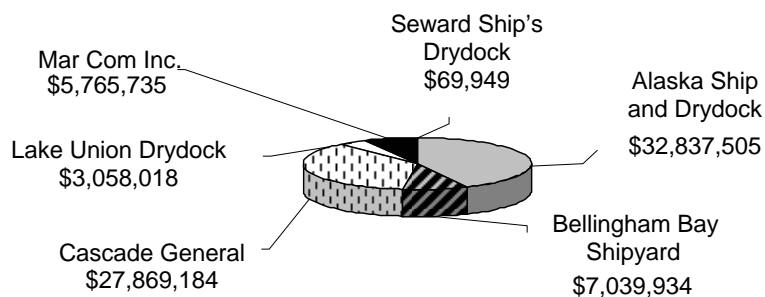
Appendix B

Alaska Marine Highway System Refurbishment and Repair Projects Summary of Payments to Shipyards Fund Source: Federal Funds July 1998 - March 2005

Payments by Fiscal Year:

Fiscal Year	Amount
FY 99	\$ 6,081,955
FY 00	15,878,986
FY 01	19,848,901
FY 02	6,084,679
FY 03	9,318,846
FY 04	9,475,852
FY 05	<u>9,951,106</u>
Total	\$76,640,325

Payments by Vendor:



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Appendix C

**Alaska Marine Highway System
 Overhaul Projects
 Summary of Payments to Shipyards (by Vessel)
 Fund Source: General Fund
 July 1998 - March 2005**

<u>Vessel</u>	<u>Shipyard</u>	<u>Fiscal Year</u>	<u>Amount</u>
M/V Aurora	Alaska Ship and Drydock	FY 99	\$ 295,430
	Alaska Ship and Drydock	FY 00	281,559
	Mar Com Inc.	FY 01	360,209
	Alaska Ship and Drydock	FY 02	149,404
	Alaska Ship and Drydock	FY 03	464,536
	Alaska Ship and Drydock	FY 04	<u>136,707</u>
	<u>Total for M/V Aurora</u>		
M/V Bartlett	Seward Ship's Drydock	FY 99	\$ 244,992
	Seward Ship's Drydock	FY 00	154,627
	Seward Ship's Drydock	FY 01	345,178
	Seward Ship's Drydock	FY 02	141,475
	Seward Ship's Drydock	FY 03	<u>41,209</u>
	<u>Total for M/V Bartlett</u>		
M/V Columbia	Alaska Ship and Drydock	FY 99	\$ 360,300
	Alaska Ship and Drydock	FY 00	319,257
	Alaska Ship and Drydock	FY 01	306,865
	Cascade General	FY 02	386,730
	Alaska Ship and Drydock	FY 02	3,889
	Alaska Ship and Drydock	FY 03	391,851
	Alaska Ship and Drydock	FY 04	158,171
	Cascade General	FY 05	<u>810,310</u>
	<u>Total for M/V Columbia</u>		

Appendix C
(continued)

**Alaska Marine Highway System
Overhaul Projects
Summary of Payments to Shipyards (by Vessel)
Fund Source: General Fund
July 1998 - March 2005**

<u>Vessel</u>	<u>Shipyard</u>	<u>Fiscal Year</u>	<u>Amount</u>
M/V Kennicott	Alaska Ship and Drydock	FY 99	\$ 250,855
	Alaska Ship and Drydock	FY 00	391,499
	Alaska Ship and Drydock	FY 01	344,016
	Alaska Ship and Drydock	FY 02	439,260
	Alaska Ship and Drydock	FY 03	281,494
	Alaska Ship and Drydock	FY 04	645,801
	Cascade General	FY 05	<u>449,722</u>
<u>Total for M/V Kennicott</u>			<u>\$2,802,347</u>
M/V LeConte	Alaska Ship and Drydock	FY 99	\$ 248,328
	Bellingham Bay Shipyard	FY 00	366,417
	Alaska Ship and Drydock	FY 01	257,150
	Alaska Ship and Drydock	FY 02	273,571
	Alaska Ship and Drydock	FY 03	317,477
	Lake Union Drydock	FY 04	<u>744,025</u>
<u>Total for M/V LeConte</u>			<u>\$2,743,642</u>
M/V Malaspina	Cascade General	FY 99	\$ 178,951
	Alaska Ship and Drydock	FY 00	299,515
	Alaska Ship and Drydock	FY 01	495,374
	Alaska Ship and Drydock	FY 03	605,644
	Alaska Ship and Drydock	FY 04	<u>217,062</u>
<u>Total for M/V Malaspina</u>			<u>\$1,796,546</u>
M/V Matanuska	Alaska Ship and Drydock	FY 99	\$ 295,801
	Cascade General	FY 99	19,000
	Alaska Ship and Drydock	FY 00	474,300
	Alaska Ship and Drydock	FY 01	529,936
	Alaska Ship and Drydock	FY 02	485,675
	Alaska Ship and Drydock	FY 03	372,535
	Alaska Ship and Drydock	FY 04	<u>667,695</u>
<u>Total for M/V Matanuska</u>			<u>\$2,844,938</u>

Appendix C
(continued)

**Alaska Marine Highway System
Overhaul Projects
Summary of Payments to Shipyards (by Vessel)
Fund Source: General Fund
July 1998 - March 2005**

<u>Vessel</u>	<u>Shipyard</u>	<u>Fiscal Year</u>	<u>Amount</u>
M/V Taku	Alaska Ship and Drydock	FY 99	\$ 369,157
	Alaska Ship and Drydock	FY 00	425,038
	Alaska Ship and Drydock	FY 01	350,710
	Alaska Ship and Drydock	FY 02	396,201
	Seward Ship's Drydock	FY 02	4,022
	Alaska Ship and Drydock	FY 03	682,403
	Alaska Ship and Drydock	FY 04	321,926
	Alaska Ship and Drydock	FY 05	<u>176,452</u>
	<u>Total for M/V Taku</u>		
M/V Tustumena	Seward Ship's Drydock	FY 99	\$ 181,671
	Seward Ship's Drydock	FY 00	349,184
	Seward Ship's Drydock	FY 01	431,884
	Seward Ship's Drydock	FY 02	242,916
	Seward Ship's Drydock	FY 03	690,972
	Seward Ship's Drydock	FY 04	197,845
	Seward Ship's Drydock	FY 05	<u>233,619</u>
	<u>Total for M/V Tustumena</u>		
<u>Grand Total All Vessels</u>			<u>\$20,595,173</u>

The summary of state overhaul expenditures by vessel and fiscal year, for FY 99 through FY 04, was compiled from the Alaska Marine Highway System's summary of funds expended on shipyard contracts. Payments for FY 05 (through March 2005) were compiled directly from the state accounting system.

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Appendix D

Subsidies to Ketchikan and Seward Shipyards

Ketchikan Shipyard

Type of Subsidy	Source	Comments
Ketchikan shipyard construction	State of Alaska	Department of Transportation and Public Facilities built shipyard at a cost of approximately \$38 million in the 1980s.
Ketchikan shipyard facility lease	State of Alaska	Until the shipyard's net profit is in excess of \$300,000, use of the State's shipyard facility is without charge.
Shipyard maintenance costs	Ketchikan Gateway Borough State of Alaska	Maintenance costs for the shipyard facility in excess of \$120,000 are paid from the Alaska Industrial Development and Export Authority's (AIDEA) repair and replacement (R&R) account for the Ketchikan shipyard. The R&R account receives funds annually from the Ketchikan Gateway Borough, and AIDEA matches Ketchikan's contribution to the R&R fund.
Mandatory R&R on dry dock and associated facilities and equipment	State of Alaska	For equipment, dry dock, and associated facilities, subject to availability of funding in the R&R account and AIDEA approval, costs in excess of \$15,000 per individual item may be paid for by the R&R account.
Infrastructure improvement	U.S. Federal Highway Administration	\$2.6 million federal grant to AIDEA for Ketchikan shipyard infrastructure improvement.
	State of Alaska	\$1 million appropriated through Department of Commerce, Community, and Economic Development to Ketchikan Gateway Borough for shipyard development.
	Ketchikan Gateway Borough	\$1.5 million local match by Ketchikan Gateway Borough is required.

Appendix D
(continued)

Subsidies to Ketchikan and Seward Shipyards

Ketchikan Shipyard - continued

Type of Subsidy	Source	Comments
Vertical lift	Economic Development Administration, U.S. Dept. of Commerce	\$10 million federal grant for vertical lift at the Ketchikan shipyard.
	State of Alaska Ketchikan Gateway Borough	\$5 million matching funds from State and Ketchikan Gateway Borough.
Engineering and design funds	Ketchikan Gateway Borough	\$186,188 transferred to AIDEA for use on engineering and design improvements of shipyard.
Operating incentives	Ketchikan Gateway Borough	Subsidies including \$800,000 ¹⁷ cash incentives, industrial rate for shipyard electricity, and property tax exemption totaling approximately \$1.3 million.

¹⁷ According to the comptroller for the Ketchikan shipyard's operator, Alaska Ship and Drydock, this is for "local bidder preference cash payments" to help bring jobs to the shipyard.

Appendix D
(continued)

Subsidies to Ketchikan and Seward Shipyards

Seward Ship's Drydock

Type of Subsidy	Source	Comments
Industrial park development	State of Alaska	\$13.73 million appropriated to Seward: <ul style="list-style-type: none"> • \$11.73 million for Seward's marine industrial park and • \$2 million for industrial park shore protection.
	State of Alaska	\$4 million grant for Seward marine industrial park.
	State of Alaska	\$1.070 million for marine industrial park cradle and rails.
	State of Alaska	\$1 million for Seward shipyard portable work station.
Rent credit	City of Seward	Rent credit amount limited to actual expense on Syncrolift deferred maintenance items listed in Maintenance and Operations Agreement (up to \$61,824 through December 31, 2004).

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3132 CHANNEL DRIVE
JUNEAU, ALASKA 99801-7898

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OFFICE OF THE COMMISSIONER

July 27, 2005

Ms. Pat Davidson, Legislative Auditor
Legislative Budget and Audit Committee
Division of Legislative Audit
P.O. Box 113300
Juneau, AK 99811-3300

Dear Ms. Davidson:

Thank you for the opportunity to respond to the preliminary audit report on Department of Transportation and Public Facilities (DOT&PF), Alaska Marine Highway System, Vessel Maintenance and Repair Procurement, March 31, 2005.

This audit report was well researched and well written. The department concurs with the report conclusions.

If you require any further information, please contact Nancy Slagle at 465-8974.

Sincerely,

Mike Barton
Commissioner

cc: John Falvey, General Manager, AMHS, DOT&PF
Mark O'Brien, Chief Contracts Officer, DOT&PF
Nancy Slagle, Director, Division of Administrative Services, DOT&PF
Robin Taylor, Deputy Commissioner / Director of Marine Operations, DOT&PF

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