

**State of Alaska  
FY2005 Governor's Operating Budget**

**Department of Transportation/Public Facilities  
Marine Engineering  
Component Budget Summary**

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## Component: Marine Engineering

### Contribution to Department's Mission

Ensure that the Alaska Marine Highway System (AMHS) vessels and shore facilities are safe, reliable, comfortable, and accessible to all Alaskans and visitors to the state.

### Core Services

- Conduct annual condition surveys and operational assessments. Provide technical information for long-range planning and facility development.
- Prepare the designs and manage the construction contracts for new vessel construction and for the, repair, refurbishment, and upgrade of our existing vessels. Assure that the vessels continue to comply with all state, federal, and international regulations, as well as all United States Coast Guard (USCG) and classification society requirements.
- Support fleet operations through the port engineer function in Ketchikan and Juneau and while attending AMHS vessels at commercial shipyards.
- Perform preventive maintenance on 20 widely-dispersed, state-owned ferry terminal facilities from Homer to Ketchikan. Perform annual inspections for regulatory compliance and accomplish upgrades, repairs, and refurbishment of terminal facilities. Terminal facilities include transfer bridges, mooring structures, staging areas and terminal buildings.

### FY2005 Resources Allocated to Achieve Results

<b>FY2005 Component Budget: \$2,261,800</b>	<b>Personnel:</b>	
	Full time	21
	Part time	2
	<b>Total</b>	<b>23</b>

### Key Component Challenges

The concurrent contract administration of the new vessel construction of two high speed aluminum catamaran fast vehicle ferries M/V Fairweather and M/V Chenega in Bridgeport, CT. and the conventional speed steel mono-hull M/V Lituya in Morgan City, LA. has severely stretched our existing vessel construction management team. We also must continue to modernize our existing eight-vessel fleet, five of which carry the very demanding Safety of Life at Sea (SOLAS) certification for service to Prince Rupert, BC, Canada. The fast vehicle ferries (FVF) are the first ever constructed in the U.S. to the very demanding International Maritime Organization's High Speed Craft (HSC) Code.

Introduction of the M/V Fairweather service up Lynn Canal to Haines and Skagway and two days a week from her Juneau homeport to Sitka will be the first-ever true point-to-point AMHS ferry service. The USCG route certification endorsements provided to all licensed FVF crewmembers will require significant additional vessel and route knowledge and be the result of hundreds of hours of classroom and underway vessel on-the-job training. Additionally, since these crews will be departing their vessels for home each evening, significant maintenance, cleaning and provisioning requirements will be shifted to limited shore support staff personnel. As feasible, shore support assistance will be contracted out. Implementation of this commercial airline industry model after 40 years of 24/7 staffing of vessels will be a significant management challenge. However, it is anticipated that the improved customer service and operating hours and reduced crewing costs will more than justify this major departure from traditional AMHS operating methodology.

Since homeporting facilities will not be completed prior to the arrival of the M/V Fairweather in Auke Bay (Juneau) in February 2004, temporary vessel support and vessel berthing facilities will need to be acquired until construction of our

new stern berth and vessel maintenance facility can be completed. The Federal Highway Administration has declined to participate in other than the construction of the new facilities.

The addition of modernized and expanded terminal facilities and buildings continues to increase the workload of the shore maintenance team. Although the team is currently fully utilized, their workload will increase further with the anticipated construction of new terminals in Whittier, Valdez and Cordova. These new facilities will have sophisticated security features and in Valdez, prototype vehicle scales in support of the introduction of the fast vehicle ferry M/V Chenega in Prince William Sound in 2005.

All existing and new emergency generator underground fuel storage tanks now require operation inspections and certification to meet 18 AAC 78. Each new terminal that is built, upgraded, or expanded adds a new fire alarm system and/or sprinkler system that require annual re-certification to meet Division of Fire Prevention regulations. These new requirements, added to historical OSHA, DEC, and ADA oversight, require significant administrative efforts and demand additional funding to meet and maintain compliance.

## Significant Changes in Results to be Delivered in FY2005

Recruitment of replacement vessel construction managers and Port Engineers, due to retirement of several seasoned engineers from state service, has been very challenging. It is anticipated that the current level of Marine Engineering service will be maintained and will accomplish both the DOT&PF State Transportation Improvement Plan (STIP) and AMHS Operating Plan as currently written.

## Major Component Accomplishments in 2003

- Successfully managed the \$68 million design and construction shipbuilding contract for two new fast vehicle ferries. M/V Fairweather is in final outfitting and scheduled to commence sea trials December for on-time and within-budget delivery in February 2004. The M/V Chenega is also on schedule for delivery and commencement of service in Prince William Sound in the spring of 2005. These vessels will be the first ever constructed in the U.S. to the very stringent international High Speed Craft Code for vessel construction, crew certification, and route-specific vessel operation.
- Awarded and administered the \$9.5 million design/build contract for the construction of the M/V Lituya under construction at Conrad Industries Shipyard, Morgan City, LA. This vessel is on schedule for delivery to Ketchikan in April 2004 and to commence daily service from Metlakatla starting in May 2004.
- Completed the \$7.5 million refurbishment of the ocean classed ferry M/V Tustumena in Cascade General Shipyard, Portland, OR in March 2003. During this major modernization the vessel received new fin stabilizers, complete reconstruction and safety upgrades of her vehicle elevator, as well as extensive blasting and repainting of her exterior hull. Passenger feedback had been most positive on the improved riding characteristics of the vessel with these improved fin stabilizers in the heavy weather Tustumena encounters during her frequent Aleutian chain and cross-gulf trips. .
- Completed the \$3.5 million Subchapter W modernization of M/V Malaspina at Alaska Ship and Dry-dock (ASD) Shipyard, Ketchikan, AK. Major improvements included state-of-the-art marine evacuation chutes, fast rescue boats, reversible life rafts as well as renovation of all passenger stateroom lavatory facilities.
- Completed the removal of two underground fuel storage tanks at the Auke Bay ferry terminal. Installed one new replacement 1,100-gallon, double walled and monitored tank to supply fuel to both the heating system and the standby generator.
- Continued to reduce the frequency and severity of terminal material casualties and emergency repairs. This was done through the use of improved, condition-based, planned, and programmed preventive maintenance.

## Statutory and Regulatory Authority

AS 19  
AS 44

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### Marine Engineering Component Financial Summary

*All dollars shown in thousands*

	FY2003 Actuals	FY2004 Authorized	FY2005 Governor
<b>Non-Formula Program:</b>			
<b>Component Expenditures:</b>			
71000 Personal Services	1,796.4	1,854.3	1,954.0
72000 Travel	69.2	45.1	45.1
73000 Contractual	111.5	107.5	107.5
74000 Supplies	132.7	155.2	155.2
75000 Equipment	5.7	0.0	0.0
76000 Land/Buildings	0.0	0.0	0.0
77000 Grants, Claims	0.0	0.0	0.0
78000 Miscellaneous	0.0	0.0	0.0
<b>Expenditure Totals</b>	<b>2,115.5</b>	<b>2,162.1</b>	<b>2,261.8</b>
<b>Funding Sources:</b>			
1061 Capital Improvement Project Receipts	1,355.2	1,389.3	1,458.6
1076 Marine Highway System Fund	760.3	772.8	803.2
<b>Funding Totals</b>	<b>2,115.5</b>	<b>2,162.1</b>	<b>2,261.8</b>

### Estimated Revenue Collections

Description	Master Revenue Account	FY2003 Actuals	FY2004 Authorized	FY2005 Governor
<b>Unrestricted Revenues</b>				
Unrestricted Fund	68515	1.5	0.0	0.0
<b>Unrestricted Total</b>		<b>1.5</b>	<b>0.0</b>	<b>0.0</b>
<b>Restricted Revenues</b>				
Capital Improvement Project Receipts	51200	1,355.2	1,389.3	1,458.6
<b>Restricted Total</b>		<b>1,355.2</b>	<b>1,389.3</b>	<b>1,458.6</b>
<b>Total Estimated Revenues</b>		<b>1,356.7</b>	<b>1,389.3</b>	<b>1,458.6</b>

**Summary of Component Budget Changes  
From FY2004 Authorized to FY2005 Governor**

*All dollars shown in thousands*

	<u>General Funds</u>	<u>Federal Funds</u>	<u>Other Funds</u>	<u>Total Funds</u>
<b>FY2004 Authorized</b>	<b>0.0</b>	<b>0.0</b>	<b>2,162.1</b>	<b>2,162.1</b>
<b>Adjustments which will continue current level of service:</b>				
-Changes to Retirement and Other Personal Services Benefits	0.0	0.0	99.7	99.7
<b>FY2005 Governor</b>	<b>0.0</b>	<b>0.0</b>	<b>2,261.8</b>	<b>2,261.8</b>

**Marine Engineering  
Personal Services Information**

Authorized Positions		Personal Services Costs		
	FY2004 Authorized	FY2005 Governor		
Full-time	21	21	Annual Salaries	1,297,995
Part-time	2	2	Premium Pay	147,376
Nonpermanent	0	0	Annual Benefits	593,911
			<i>Less 4.18% Vacancy Factor</i>	(85,282)
			Lump Sum Premium Pay	0
<b>Totals</b>	<b>23</b>	<b>23</b>	<b>Total Personal Services</b>	<b>1,954,000</b>

**Position Classification Summary**

Job Class Title	Anchorage	Fairbanks	Juneau	Others	Total
Accounting Tech II	0	0	1	0	1
Administrative Clerk I	0	0	1	0	1
Administrative Clerk II	0	0	1	0	1
Administrative Clerk III	0	0	1	1	2
Administrative Manager I	0	0	1	0	1
Engineer/Architect II	0	0	1	0	1
Facilities Manager I	0	0	1	0	1
Maint Gen Journey	0	0	1	2	3
Maint Spec Bfc Jrny II/Lead	0	0	1	0	1
Marine Trans Svcs Mgr	0	0	1	0	1
Naval Architect	0	0	1	0	1
Vessel Const Manager I	0	0	1	0	1
Vessel Const Manager II	0	0	6	0	6
Vessel Const Manager III	0	0	2	0	2
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>3</b>	<b>23</b>