

**State of Alaska
FY2006 Governor's Operating Budget**

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

Component: Marine Engineering

Contribution to Department's Mission

Ensure that all Alaska Marine Highway System (AMHS) vessels and terminal 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 plans, specifications and estimates and manage the construction contracts for new vessel construction and for the repair, refurbishment, and modernization of existing AMHS vessels. Assure that the vessels continue to comply with state, federal, and international regulations, as well as all United States Coast Guard (USCG) and marine classification society requirements.
- Support fleet operations through the port engineer functions located in Ketchikan and Juneau and while attending AMHS vessels at commercial shipyards.
- Perform preventive maintenance on 16 widely-dispersed state-owned ferry terminals ranging in location from Homer to Ketchikan. Perform semi-annual inspections and maintenance for regulatory compliance and accomplish upgrades and repairs of the terminal facilities. Terminal facilities include the transfer bridges, mooring structures, staging areas and terminal buildings. The majority of these terminals are located on the Federal Highway System and are vital for the transportation of goods and people throughout the state.

FY2006 Resources Allocated to Achieve Results

FY2006 Component Budget: \$2,331,400	Personnel:	
	Full time	20
	Part time	2
	Total	22

Key Component Challenges

The contract administration of the new vessel construction of the M/V Chenega in Bridgeport, CT as well as the currently ongoing capital improvement projects to the Columbia and Kennicott has stretched our existing vessel construction management team. We also must continue to modernize our existing fleet, five of which carry the very demanding Safety of Life at Sea (SOLAS) certification required to service Prince Rupert, BC.

The fast vehicle ferry M/V Fairweather, and soon to be completed M/V Chenega, are the first high speed ferries constructed in the U.S. to the very demanding International Maritime Organization's High Speed Craft (HSC) Code. The introduction of Fairweather service from Juneau to Haines and Skagway and twice weekly service to Sitka has been the first-ever true point-to-point ferry service provided by AMHS. The USCG route certification endorsements required of all licensed crewmembers required significant vessel and route knowledge and training. Their success has been the result of hundreds of hours of classroom and underway on-the-job training. Under the day boat operational strategy, the operating crews depart the vessel each evening. Maintenance, cleaning, and provisioning have been shifted to a smaller shore support staff. Where feasible, shore support assistance has been contracted out. Implementation of this commercial airline industry model after 41 years of 24/7 staffing of vessels is a significant management challenge. It is anticipated that the improved customer service and operating hours, plus reduced crewing costs will justify this major departure from traditional AMHS operating methodology.

The completion of a permanent FVF maintenance support facility at the east end of the Auke Bay terminal area now scheduled for FY 2006, will greatly improve operational capabilities by providing for hotel and food product storage, and will allow advanced maintenance to be performed at the Auke Bay home port. This service is currently being provided out of an undersized, temporary portable metal building until the permanent building can be completed.

The addition of modernized and expanded terminal facilities and the introduction of new FVF terminals and maintenance facilities continue to increase the workload of the four-person shore facilities maintenance team. The shore maintenance personnel are currently fully utilized throughout the yearly maintenance cycle. It must be expected that the current staff will be unable to fully maintain the existing facilities without at least a minor increase in both budget and staff with the anticipated construction of new and larger terminals in Auke Bay, Whittier, Valdez and Cordova. Regulatory requirements now mandate that AMHS facilities have sophisticated security features. The Valdez terminal incorporates AMHS' first-ever weigh-in-motion vehicle scales installed in support of the introduction of the fast vehicle ferry M/V Chenega in Prince William Sound in 2005. These scales will require maintenance and calibration.

All emergency generator 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 regulations, added to historical OSHA, DEC, ADA, and now security requirement oversight, require significant administrative effort and demand additional funding to meet and maintain compliance.

Recruitment of replacement Vessel Construction Managers and Port Engineers, primarily due to retirement and transfer from state service, will continue to be challenging. Hiring qualified candidates that have specialized skills and experience normally requires nationwide recruitment and at least six months lead time. 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.

In order to sail to Prince Rupert, B.C. AMHS vessels must continue to be certified under the demanding International Maritime Organization's Safety of Life at Sea (SOLAS) regulations. Over the past 15 years, almost annual new and innovative SOLAS safety and security requirements have been mandated, usually with very short implementation timeframes. Many of these requirements are eventually incorporated in the USCG-enforced U.S. Code of Federal Regulations (CFR's) for the remainder of the AMHS domestic fleet. While we cannot predict these unfunded mandates, we will continue to absorb them in FY 2006 and beyond and do our best to accomplish them using federal funds.

Allocation of adequate STIP funds to procure replacement vessels for our aging fleet, as well as modernize and maintain regulatory compliance of our current vessels, is critical to the long range mission accomplishment of AMHS. The orderly replacement and upgrade of our vessels, with more emphasis on true day boat service, should result in reduced operating expense and improved vessel reliability and customer service. In accordance with our long-range maintenance and modernization plan, the planning for federally funded capital projects for M/V Malaspina, M/V Columbia and M/V Tustumena are underway for accomplishment in FY 2006.

Significant Changes in Results to be Delivered in FY2006

No significant changes are anticipated in FY2006.

Major Component Accomplishments in 2004

- Successfully managed the \$68 million design and construction shipbuilding contract for two new fast vehicle ferries. The M/V Fairweather was delivered on schedule and within budget in March 2004. Following extensive commissioning crew high speed craft code training and license endorsement, the Fairweather began revenue service in early June 2004. Sister ship M/V Chenega is on schedule for delivery and commencement of service in Prince William Sound in the spring of 2005. These vessels are the first ever high speed craft constructed in the U.S. that comply with the very stringent international high speed craft crew certification, and route-specific vessel operation requirements.
- 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 was delivered on schedule and within

- budget in Ketchikan in April 2004, and commenced daily revenue service from Metlakatla to Ketchikan in May 2004.
- Completed the \$6.2 million major federally funded capital improvement project on the M/V Matanuska. This work included: exterior hull painting, rudder bearing replacement, SOLAS required Voyage Data Recorder (VDR) System installation, public and passenger spaces habitability and galley deck upgrades. The passenger elevator control system was upgraded to current operating system along with telephone installation to comply with regulatory body requirements. Officer and crew spaces were also reconditioned including removal of asbestos containing materials (ACM). Approximately \$500,000 in annual maintenance was performed.
 - Completed \$3.8 million in major federally funded capital improvement work on the M/V LeConte. This work included the installation of a new propulsion controls and alarm monitoring system, keel cooler modifications, side and forward lounge refurbishments, gyro compass and steering stand replacements, installation of structural fire protection upgrades, and annual overhaul work.
 - AMHS has started a significant engine and engine room upgrade project to be completed during the winter and spring of 2005 on the M/V Columbia. This project, estimated to cost approximately \$6.8 million, will rebuild the existing engines, upgrade main and auxiliary space ventilation, upgrade and replace aging secondary engine systems, upgrade fire sprinkler systems, perform annual overhaul work, remove asbestos, and will support the remaining useful life of this ship of approximately 20 years.
 - The new Auke Bay stern berth was completed in May, 2004. This facility, constructed for approximately \$5.7 million, allows all tide moorage and rapid passenger and vehicle loading of the M/V Fairweather
 - By November 2004, the new Valdez ferry terminal construction should be completed, replacing the old tidal ramps built for the M/V Bartlett, as well as replacing the terminal building, greatly expanding the uplands, and adding a new generator building, and weigh-in-motion vehicle scale. The new Valdez facility will provide side loading capabilities for all vessels scheduled to use this facility, and for the first time, all Valdez terminal operations will be located in one central location.
 - In addition to Valdez and Cordova, Southeast Regions DOT&PF is in the process of awarding construction projects that will result in much improved operational capabilities in both Whittier and Cordova. Cordova will see the completion of new mooring facility which will provide both stern and side load capabilities. Completion of the FVF maintenance support facility is scheduled for spring 2005. These facility replacements are required to serve the community of Cordova with the new M/V Chenega. Whittier will see the construction of a new terminal building, generator building, secured uplands improvements, and major dock modifications. These modifications are scheduled to be completed in early 2005 at a cost of approximately \$8.6 million.
 - AMHS has selected a marine engineering consultant who has commenced work on the design study report for a new mainline vessel. AMHS has also selected a naval architect consultant to prepare a design study report for the proposed Southern Gateway Shuttle (SGS) which will provide more efficient and timely service to Prince Rupert, B.C. from Ketchikan.
 - AMHS has continued to reduce the frequency and severity of terminal casualties and emergency repairs. This is being accomplished through the use of improved, condition-based, planned, and programmed preventive maintenance.

Statutory and Regulatory Authority

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Contact Information

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Marine Engineering Component Financial Summary

All dollars shown in thousands

	FY2004 Actuals	FY2005 Management Plan	FY2006 Governor
Non-Formula Program:			
Component Expenditures:			
71000 Personal Services	1,838.7	1,957.8	2,023.6
72000 Travel	38.6	45.1	45.1
73000 Services	86.2	107.5	107.5
74000 Commodities	105.7	155.2	155.2
75000 Capital Outlay	0.0	0.0	0.0
77000 Grants, Benefits	0.0	0.0	0.0
78000 Miscellaneous	0.0	0.0	0.0
Expenditure Totals	2,069.2	2,265.6	2,331.4
Funding Sources:			
1061 Capital Improvement Project Receipts	1,381.5	1,459.5	1,505.9
1076 Marine Highway System Fund	687.7	806.1	825.5
Funding Totals	2,069.2	2,265.6	2,331.4

Estimated Revenue Collections

Description	Master Revenue Account	FY2004 Actuals	FY2005 Management Plan	FY2006 Governor
Unrestricted Revenues				
None.		0.0	0.0	0.0
Unrestricted Total		0.0	0.0	0.0
Restricted Revenues				
Capital Improvement Project Receipts	51200	1,381.5	1,459.5	1,505.9
Restricted Total		1,381.5	1,459.5	1,505.9
Total Estimated Revenues		1,381.5	1,459.5	1,505.9

**Summary of Component Budget Changes
From FY2005 Management Plan to FY2006 Governor**

All dollars shown in thousands

	<u>General Funds</u>	<u>Federal Funds</u>	<u>Other Funds</u>	<u>Total Funds</u>
FY2005 Management Plan	0.0	0.0	2,265.6	2,265.6
Adjustments which will continue current level of service:				
-FY 05 Bargaining Unit Contract Terms: GGU	0.0	0.0	9.6	9.6
-FY06 Cost Increases for Bargaining Units and Non-Covered Employees	0.0	0.0	50.1	50.1
-Adjustments for Personal Services Working Reserve Rates and SBS	0.0	0.0	6.1	6.1
FY2006 Governor	0.0	0.0	2,331.4	2,331.4

**Marine Engineering
Personal Services Information**

Authorized Positions		Personal Services Costs		
	<u>FY2005</u> <u>Management</u> <u>Plan</u>	<u>FY2006</u> <u>Governor</u>		
Full-time	21	20	Annual Salaries	1,181,998
Part-time	2	2	COLA	22,203
Nonpermanent	0	0	Premium Pay	223,376
			Annual Benefits	677,588
			<i>Less 0.50% Vacancy Factor</i>	(10,465)
			Lump Sum Premium Pay	0
Totals	23	22	Total Personal Services	2,094,700

Position Classification Summary

Job Class Title	Anchorage	Fairbanks	Juneau	Others	Total
Accounting Tech II	0	0	0	1	1
Administrative Clerk I	0	0	0	1	1
Administrative Clerk II	0	0	0	1	1
Administrative Clerk III	0	0	0	2	2
Administrative Manager I	0	0	0	1	1
Engineer/Architect II	0	0	0	1	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	0	1	1
Naval Architect	0	0	1	0	1
Vessel Const Manager I	0	0	0	1	1
Vessel Const Manager II	0	0	0	5	5
Vessel Const Manager III	0	0	0	2	2
Totals	0	0	4	18	22