

**Alaska Marine Highway System: Columbia Fuel Management System**

**FY2009 Request: \$499,500**  
**Reference No: 47602**

**AP/AL:** Appropriation

**Project Type:** Transportation

**Category:** Transportation

**Location:** Southeast Alaska

**Contact:** Jim Beedle

**House District:** Southeast Areawide (HD 1-5)

**Contact Phone:** (907)465-6977

**Estimated Project Dates:** 04/19/2009 - 06/30/2011

**Brief Summary and Statement of Need:**

This is a new FY2009 project. Install a Stellar Marine ESP 1000, Electronic Speed Pilot power management system on the ferry Columbia to maximize fuel efficiency. This project contributes to the Department's Mission by reducing injuries, fatalities and property damage and by improving the mobility of people and goods.

<b>Funding:</b>	<u>FY2009</u>	<u>FY2010</u>	<u>FY2011</u>	<u>FY2012</u>	<u>FY2013</u>	<u>FY2014</u>	<u>Total</u>
Gen Fund	\$499,500						\$499,500
<b>Total:</b>	\$499,500	\$0	\$0	\$0	\$0	\$0	\$499,500

<input type="checkbox"/> State Match Required	<input checked="" type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input type="checkbox"/> On-Going
0% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

**Operating & Maintenance Costs:**

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
<b>Totals:</b>	<b>0</b>	<b>0</b>

**Additional Information / Prior Funding History:**

None.

**Project Description/Justification:**

The Stellar Marine ESP 1000, Electronic Speed Pilot power management system provides precision control of ship speed and fine tune throttle settings to maximize the vessel's propulsive efficiency.

The new system incorporates the following salient characteristics and features:

- Continuous monitoring of voyage progress and propulsion efficiency, with automatic balancing of engine loads and synchronization of engine RPM.
- Precision electronic throttle control, with automatic setting of throttles based on distance and time to go to selected destination.
- Fine tuning of engine RPM as conditions change to ensure on time arrival using minimum amount of power.
- Automatic disengagement of system when manual controls are used.
- Integral alarm system providing visible and audible alarms if hardware or software malfunctions occur.
- Computer-based daily system operation summaries and status reports.
- Tracking and display of vessel position and status information on system PC.
- Incorporating electronic gauge panel displaying engine parameters, vessel performance, and navigational data from system PC.

**Alaska Marine Highway System: Columbia Fuel  
Management System**

**FY2009 Request: \$499,500  
Reference No: 47602**

- Incorporating voyage data logging including vessel speed, position, engine RPM, fuel burn rate, and efficiency data at one minute increments.
- Generating daily totals, averages, and other statistical data about vessel operation using data logged by system, with data downloadable to system PC on vessel, as well as transferable to shore via satellite or cellular data link.
- Capable of maintaining requested speed to within 0.1 knots automatically as sea conditions change.