**ALASKA STATE LEGISLATURE**
**HOUSE TRANSPORTATION STANDING COMMITTEE**
February 4, 2014
1:00 p.m.

**MEMBERS PRESENT**

Representative Peggy Wilson, Chair
Representative Eric Feige
Representative Lynn Gattis
Representative Bob Lynn
Representative Jonathan Kreiss-Tomkins

**MEMBERS ABSENT**

Representative Doug Isaacson, Vice Chair
Representative Craig Johnson

**COMMITTEE CALENDAR**

PRESENTATION: AMHS DAYBOAT/ALASKA CLASS FERRY DESIGN & TUSTUMENA REPLACEMENT FERRY DESIGN UPDATES BY RUEBEN YOST~ DEPUTY COMMISSIONER & CAPT. JOHN FALVEY~ GENERAL MANAGER~ ALASKA MARINE HIGHWAY SYSTEM~ DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

- HEARD

**PREVIOUS COMMITTEE ACTION**

No previous action to record

**WITNESS REGISTER**

RUEBEN YOST, Deputy Commissioner
Department of Transportation & Public Facilities (DOT&PF)
Juneau, Alaska
**POSITION STATEMENT:** Presented a PowerPoint on the AMHS overview, Dayboat/ACF, and Tustumena Replacement Ferry Design updates.

CAPT. JOHN FALVEY, General Manager
Ketchikan Office
Marine Highway System
Department of Transportation & Public Facilities (DOT&PF)
Ketchikan, Alaska

**POSITION STATEMENT:** Presented a PowerPoint on the AMHS overview, Dayboat/ACF, and Tustumena Replacement Ferry Design updates.

**ACTION NARRATIVE**

1:00:56 PM

**CHAIR PEGGY WILSON** called the House Transportation Standing Committee meeting to order at 1:00 p.m. Representatives Gattis and P. Wilson were present at the call to order. Representatives Feige, Kreiss-Tomkins and Lynn arrived as the meeting was in progress.

AMHS DAYBOAT/ALASKA CLASS FERRY DESIGN & TUSTUMENA REPLACEMENT FERRY DESIGN UPDATES BY RUEBEN YOST~ DEPUTY COMMISSIONER & CAPT. JOHN FALVEY~ GENERAL MANAGER~ ALASKA MARINE HIGHWAY SYSTEM~ DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

**PRESENTATION: AMHS DAYBOAT/ALASKA CLASS FERRY DESIGN & TUSTUMENA REPLACEMENT FERRY DESIGN UPDATES BY RUEBEN YOST~ DEPUTY COMMISSIONER & CAPT. JOHN FALVEY~ GENERAL MANAGER~ ALASKA MARINE HIGHWAY SYSTEM~ DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES**

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CHAIR P. WILSON announced that the only order of business would be a presentation: AMHS Dayboat/Alaska Class Ferry Design, & Tustumena Replacement Ferry Design Updates By Rueben Yost~ Deputy Commissioner & Capt. John Falvey~ General Manager~ Alaska Marine Highway System~ Department Of Transportation & Public Facilities.

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RUEBEN YOST, Deputy Commissioner, Department of Transportation & Public Facilities (DOT&PF), offered to first present a general AMHS overview. He touched on topics for discussion including the system background data for fiscal year 2014 (FY 14) - look forward, and FY 15 Governor's requested budget [slide 2]. He then turned to the organization/leadership chart for the AMHS, noting he serves as deputy commissioner, Captain Falvey is the general manager, AMHS, and three section heads report to Captain Falvey, including marine engineering, operations, and business development.

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JOHN FALVEY, CAPTAIN, Alaska Marine Highway System (AMHS), Department of Transportation & Public Facilities (DOT&PF), reviewed the organization chart, relating the functions of the three sections, including vessel construction managers, port engineers, planning, and terminal repair. On the operations side, the functions include the environmental, dispatch, safety, and training components [slide 3]. Additionally, the business development section manages the administration for the AMHS, such as terminals, computers, and marketing. The AMHS consists of 1,030 personnel and the slide shows the breakout for vessel operations, terminals, marine engineering, reservations and marketing, and administration.

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CAPTAIN FALVEY next discussed the fleet composition by mainliner, Aurora class, and shuttle ferries categories and by age [slide 4]. He emphasized that the older ships, the mainliners, are the biggest ships. He turned to the terminal composition, consisting of 35 ports of call extending from the southern terminus at Bellingham to the northern terminus at Valdez; the western terminus at Dutch Harbor; 17 ports located in Southeast Alaska, Canada, and Washington, and 18 ports located in Southcentral and Southwest Alaska [slide 5]. Of the 35 ports of call, 17 are state-owned facilities, 4 are leased facilities, and 14 are privately owned. He reported that the AMHS is moving forward on its new reservation system, with the 12 unmanned facilities targeted to use kiosks, similar to how Alaska Airlines allows its passengers to self-ticket. The four leased facilities are Bellingham, Prince Rupert, Seldovia, and Kodiak. He highlighted that Prince Rupert is essentially state-owned since the DOT&PF executed a 50-year long-term lease using $3.4 million of federal funds to secure it. The 14 privately-owned terminals operate under a terminal use agreement. The life-extending or large capital projects are managed by Southeast Region, Department of Transportation & Public Facilities (DOT&PF) whereas his staff handles annual maintenance and repairs, such as bridge or electrical system repairs.

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MR. YOST reviewed a map of the AMHS route as compared to British Columbia (BC) ferry system and the Washington State ferry system [slide 6]. He stated that the AMHS has 3,500 route miles, with considerably longer routes than the BC ferries or Washington

State ferries, although they serve considerably more passengers and vehicles on much shorter routes.

CAPTAIN FALVEY compared the number of vessel miles, noting the AMHS travels 550,000 total vessel miles and the Washington state ferries travels 900,000 total vessel miles per year.

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MR. YOST compared the monthly traffic activity from FY 09 to FY 14, by month [slide 7]. The passenger traffic varies with the season, ranging from 50,000 to 60,000 in July and August, decreasing in the winter, and rising again in April. He indicated the traffic has been fairly consistent; however in recent years the passenger traffic has increased whereas vehicle traffic has less variation and remains fairly steady throughout the year. Essentially the AMHS functions as a highway so passenger service reflects the numerous summer tourists traveling without vehicles.

CAPTAIN FALVEY added that approximately two-thirds of its ridership during the summer consists of passengers who reside outside Alaska whereas in winter two-thirds of the AMHS's ridership is from Alaskans. The AMHS takes advantage of this and conducts its maintenance in the January to March timeframe each year.

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CAPTAIN FALVEY referred to the graph that shows on-time departures and customer satisfaction [slide 8]. The AMHS conducts surveys and customer satisfaction remains high. He related that on-time departures are gauged on being "within a half hour" of the published departure schedule. He highlighted that 40 percent of passenger booking are made on-line without using a reservation agent. He hopes the number of passenger bookings will continue to increase under the new reservation system.

CAPTAIN FALVEY reviewed the operating expenditure analysis from FY 07-FY 13 [slide 9]. Personnel costs and fuel costs represent 80 percent of the AMHS's costs. Fuel delivery costs have increased by $12 million since FY 07, having risen from $2.28 to $3.50 per delivered gallon. He highlighted that the past two years have been good years, noting that operating costs were $53.8 million in FY 12 and $53.2 million in FY 13 even though the M/V Tustumena was not functioning for nearly a year. If the

M/V Tustumena been operational he thought it would have been record revenue year for the AMHS; however, now that the M/V Tustumena is up and running revenues should increase.

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MR. YOST turned to the FY 13 revenues and costs, highlighting that AMHS's revenues were $53.2 million in FY 13 [slide 10]. He explained that even though the AMHS has been carrying more passengers, the vehicle deck represents the most expensive part of the ferries' operations so nearly half the AMHS's revenue is derived from transporting vehicles. Passenger and stateroom ticket sales make up the remainder. He referred to the pie chart on the right of the slide, which shows the operating costs at $172.5 million. As Captain Falvey mentioned, personnel costs make up nearly two-thirds of the operating costs, with fuel costs comprising 22 percent. The AMHS continues to strive for efficiency by reducing fuel and personnel costs.

CAPTAIN FALVEY explained that fixed costs include $16.3 million in services, of which $5 million is for risk-management insurance, $1.2 million is for the Bellingham facility lease, $1 million for bandwidth to run the satellite systems, and the approximately $900,000 for Prince Rupert lease costs. He emphasized that employee wages and benefits represent 61 percent of the costs, with $2.6 million for vessel employee mandated travel as per collective bargaining contract agreements.

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MR. YOST reviewed the FY 14 budget "looking forward," explaining that the AMHS has strived to stay within AMHS's budget even though traffic numbers have softened. Currently, the AMHS's traffic is nine percent below the FY 13, in part, due to the M/V Tustumena not operating last summer. Fortunately, the AMHS experienced minimal mechanical issues although several ferries were cancelled due to weather. Further, the new reservation system should further reduce costs while increasing the public's convenience. While the AMHS had a $3.5 million reduction in its FY 14 budget, the budget reductions were addressed through service reductions and to the greatest extent possible tried to avoid any revenue enhancements. In fact, the AMHS has not raised fares since FY 07, although it eliminated some discounts that did not achieve an increase in ridership.

CAPTAIN FALVEY provided a status report on the new reservation system. The request for proposal (RFP) is "on the street," bids

close on March 15, and the study should be completed April 30. Additionally, an AMHS tariff study is underway with the goal of achieving "fair and equitable" fees. Still, keep in mind that the AMHS provides different types of service, such as mainline ferries, fast ferries, and the M/V Kennicott's service, he said.

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CHAIR P. WILSON asked whether the department will review the findings and if the committee could be briefed prior to the end of the legislative session.

MR. YOST explained some initial briefings will occur, but the process is that the commissioner sets the fares and will review any new fare structures with the governor prior to making any decisions.

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CAPTAIN FALVEY provided details on the service reductions for the $3.5 million revenue reductions for FY 14 [slide 12]. He anticipated the AMHS will meet the $3.5 reductions in revenue, although management has made some assumptions. He stated that the AMHS's approach is to cut costs equally in service reductions, revenue enhancements, and administrative costs. In terms of service reductions, he described operational cuts and schedule changes that will be made by either cutting hours or starting service later in the summer for the M/V Lituya, the M/V Fairweather, and the M/V Taku. For example, the M/V Lituya will run three hours less per day due to a route change which will achieve $200,000 in savings. The M/V Fairweather will begin mid-May, in part, due to replacing four new engines; however, the delay will result in an estimated $800,000 savings. The M/V Taku typically experiences a lull in June; thus, it will begin on July 1, which will result in an estimated $1 million in savings. Finally, the AMHS has typically budgeted $200,000 for outsourcing service, for example, to allow the AMHS to contract with Allen Marine when a vessel such as the M/V LeConte breaks down. The AMHS decided not to use this funding and if an issue arises the department will need to request supplemental funding, he said.

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MR. YOST reported revenue enhancements [slide 13]. First, the AMHS reduced its contracts with travel agents by eliminating commissions for in-state travel, particularly since passenger

self-bookings have reached 40 percent. Typically travel agents received 10 percent [of the fares]. This change will result in an estimated $100,000 offset in FY 14, which is estimated to increase to $448,000 in annual general funds. While the decision wasn't popular with travel agents, the AMHS values travel agents, in particular, the agent's ability to bring new customers to the system through marketing efforts. Second, the AMHS discontinued three seasonal discount programs, including a "30-percent winter roundtrip discount," that was on top of the "winter driver goes free" discount, and "a summer driver goes free" discount. The AMHS found the discounted fees did not increase ridership. Thus, the AMHS removed two of the discounts, but retained the "winter driver goes free" discount since this provides Alaskans a break at a time when the AMHS has excess vehicle capacity. This should result in $650,000 and $450,000, respectively, for $1 million in overall savings in FY 15, based on a full year.

MR. YOST turned to the tariff study Captain Falvey mentioned earlier. Although the AMHS previously conducted a review in 2008 focused on providing service to communities, this tariff review considers fares based on standard of service. Typically, the AMHS's standard of service means a vessel runs from "point A" to "point B" and stops at every port in between. Additionally, the AMHS offers an express service that runs from Bellingham to Ketchikan, Juneau, Yakutat, and Whittier, as well as service from an out port to a hub. For example, the M/V Lituya provides a single round-trip service that runs from Prince Rupert to Metlakatla, but in doing so the vessel cannot be used elsewhere. He summarized that the AMHS believes the overall pricing should be based on the level of service provided, such as mainline ferry service, express service and service to a hub.

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CAPTAIN FALVEY, with respect to travel agent commissions, remarked that the changes are going well. The AMHS's management supports paying the ten percent to agents to attract potential customers from the Lower 48 and Europe. Despite the travel commission cuts, the AMHS will continue to move military families, but the military will deal directly with the travel agents and the commissions are paid by the military direct to the travel agents. He reiterated that the state will save money with these changes but travel agents are still doing fine.

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MR. YOST turned to the FY 15 Governor's requested budget and related the budget is similar to the FY 14 budget level [slide 14]. He reported the operating budget is $165 million with fuel at the base price provides for 399 weeks of service with 7,280 ports of call. The routes will maintain the same number of port calls and continue the twice monthly Bellingham to Whittier run during the summer, and twice a month runs to the Aleutian chain, which allows Kodiak to have weekly service. When the M/V Kennicott is heading south, the M/V Tustumena is returning from the Aleutian chain run and vice-versa, when the M/V Kennicott returns from the Aleutian chain the M/V Tustumena heads to Kodiak. He acknowledged that Kodiak experienced less service when the M/V Tustumena was out for repairs.

MR. YOST continued the FY 15 Governor's Requested budget report. The capital budget includes funding for vessel overhauls to maintain the U.S. Coast Guard's (USCG) required certificate of inspections (COIs). Additionally, the fast vessel ferry (FVF) Chenega is scheduled for new engine replacement next year, noting that one vessel is done per year. Further, terminal refurbishment and vessel life projects are scheduled, with the M/V LeConte scheduled to undergo a major winter haul. Lastly, the estimated revenue is nearly $56 million, with FY 13 actuals at $54.3 million. The FY 14 operating costs are estimated at $54.4, based on a projected increase in revenue as well as a substantial amount achieved by eliminating some discounts and reducing travel agent commissions. He cautioned that revenues represent estimated projections. For example, revenues are adversely impacted with vessel capital improvement project delays and ridership depends on the economy; however, the AMHS will know how successful its strategies have been by the end of summer. In turn, this will help the AMHS plan next year's budget projections. In terms of service, it may be possible to restore some of the M/V Taku's service in June 2015. Additionally, the M/V Matanuska provides service to Prince Rupert twice a week via the M/V Matanuska although he acknowledged that the public would prefer four sailings in June.

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CAPTAIN FALVEY provided an update on capital projects. The M/V Columbia, "the queen of the fleet," is getting new engines. The federally funded project to install the new engines is going very well, on budget, on time, and is being accomplished in Portland. Additionally, the M/V Kennicott is undergoing extensive work at the Ketchikan shipyard under a federal-

sponsored project. The FVF Fairweather's four engines are currently being installed. He anticipated this will solve the problems the FVF Fairweather experienced in rough seas, noting that sea trials will be conducted next month. The project is on time, on budget, with the engine manufacturer paying for the installation, and the new engines include warranty provisions. Further, the AMHS purchased two spare engines at an extremely reduced cost. These have been delivered and are warehoused in Ketchikan. Next year, the M/V Kennicott will undergo the second phase of the capital project and the FVF Chenega is also scheduled to receive new engines next year.

CAPTAIN FALVEY pointed out that the twice monthly run from Bellingham to Whittier has resulted in increased revenue of about $3 million per year by moving the terminal out of Prince Rupert. He remarked that the public and the military love the current "express" run out of Bellingham. In response to Representative Lynn, he clarified that when he referred to the "chain" he was referring to the Aleutian Islands or the "Aleutian chain."

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REPRESENTATIVE KREISS-TOMKINS asked about the AMHS's outlook on serving Prince Rupert in terms of ridership. He recalled last year the ridership from Prince Rupert experienced a downward trend and was a drain on AMHS's operating funds.

MR. YOST answered that the AMHS intends to maintain its service from Prince Rupert. In fact, the AMHS just signed a long-term lease for the terminal and plans to rebuild the terminal. The M/V Taku's scheduled runs have been delayed due to decreased passenger traffic; however, it is important to maintain service to Prince Rupert due to van shipping. He acknowledged that since freight only represents one lane of the car deck, the AMHS must consider the schedule. The AMHS currently plans to offer twice-weekly service to Prince Rupert from mid-September through June but will increase service to four times per week from July through September.

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REPRESENTATIVE KREISS-TOMKINS asked whether the British Columbia's (BC) government cost shares on capital projects for the Prince Rupert port.

MR. YOST answered no; that the AMHS negotiated a fairly good lease for annual operating costs. Due to the long-term lease, the terminal is essentially the State of Alaska's (SOA) terminal so BC is not participating in capital costs, he said.

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CHAIR P. WILSON recalled problems with van shipping due to the condition of Prince Rupert's dock. She asked whether the dock has been improved to an extent that it can handle full containers since this is important during the fishing season.

CAPTAIN FALVEY acknowledged that five years ago the dock was essentially condemned. Since then, Prince Rupert invested a few million dollars to repair the dock. Again, the AMHS anticipates building a new dock within the next year and the new dock will be fully capable of handling full van containers.

REPRESENTATIVE P. WILSON asked who is paying for the dock improvements.

CAPTAIN FALVEY related that the lease was secured with federal dollars at $3.4 million for 50 years. Additionally, the AMHS is using federal monies to rebuild the dock.

The committee took an at-ease from 1:39 p.m. to 1:40 p.m.

1:40:15 PM

CHAIR P. WILSON turned to the portion of the DOT&PF's presentation on the DAY BOAT and Alaska Class Ferries (ACF).

MR. YOST turned to the slide entitled, "Day Boat ACF." He provided a refresher on the vessel mission requirements. The AMHS still plans on building two day boats that will each handle 53 vehicles and 300 passengers. He reviewed day boat vessel specifications, noting the vessel needs to be able to perform at 15.5 knots and provide an additional half-knot at 85 percent power. Additionally, the day boat needs to be a single-ended vessel, with drive through loading/unloading capabilities for rapid load/unload of passengers/vehicles, with bow and stern doors. He emphasized the importance of a dedicated lane so passengers do not cross vehicle lanes. Finally, the vessels need to be highly maneuverable so significant time isn't spent backing the vessel.

MR. YOST discussed the next slide entitled, "Day Boat ACF - Design Study." He explained the routes, noting the two day boat vessels will replace the M/V Malaspina, which currently provides summer shuttle service in Lynn Canal. The first priority for service will be Lynn Canal; the second priority will be to operate a short existing AMHS route, including Hoonah, Gustavus, and Tenakee; and the third priority will be to provide potential "Juneau Access" routes from Berners Bay, if required. He outlined some operational constraints, such that the vessels must be able to operate using existing terminals, except for Haines - which will need an "N" berth installed. Additionally, the day boats must be designed to use existing vehicle loading ramps and standard walk-on passenger loading ramps, yet efficient enough to use overnight mooring since the vessels will be tied to the dock for 12 hours per day.

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MR. YOST turned to the "Day Boat ACF" and the major design decisions, some of which were controversial, including whether the vessel would have a closed-aft deck design versus an open deck [slide 4]. He highlighted some concerns, such as traffic volume issues in Lynn Canal, with high summer travel and much smaller volumes in the winter. Although some East Coast vessels have open aft decks, the AMHS evaluated concerns about protection from the weather. He acknowledged that while cost reductions for construction and operating costs would occur by using the open deck design, the AMHS decided to completely enclose the car deck so this is no longer an issue.

1:45:32 PM

MR. YOST discussed the type of bow doors [slide 5]. The AMHS's considered the M/V Bartlett's design with knight's hood bow that completely tips up, but ultimately selected the safety-features of the side opening doors. He showed several slides that demonstrate features of the more efficient side doors, noting the design does not have projections so ice won't adhere [slides 6-11]. Additionally, safety features include three hooks that latch the doors shut, a design that allows the water direction to work to force doors shut, as well as a completely separate inner door. These features greatly reduce the likelihood of a catastrophic failure such as one that happened in the Baltic Sea.

MR. YOST reviewed the Day Boat ACF major design decisions, including considering the overall vessel length and shape of the

hull, addressing icing conditions, and eliminating forward guard sponsons [slides 12-13]. Significant concern was expressed that the M/V LeConte, the current vessel serving Lynn Canal, was too small and experienced icing conditions during winter conditions. He said that the AMHS addressed these issues by eliminating forward guard sponsons, enclosing life boats, and optimizing the bow shape. The current day boat design concept is for two vessels 280 feet in length [compared to the M/V LeConte at 235 feet]. Additional testing will be done to ensure the overall length is adequate to transport 53 vehicles, he said.

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MR. YOST related a separate sea-keeping analysis was performed in late May based on 95 percent of prevalent weather in the worst months, noting the remaining 5 percent of the worst weather is limited to 1.5 to 2 days [slide 13]. The study also examined hull lengths using historical wind speeds, direction, and wave heights, as well as calculating motion sickness indices using wave data. The AMHS found that when the hull design results in 10 percent of the people feeling ill during the worst two hours, it will result in passenger dissatisfaction.

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MR. YOST turned to the model testing performed [slide 14]. In addition to using computer analysis, a 50-foot wooden model was built to test hull optimizations, bare hull resistance, appended resistance, seakeeping, maneuvering, and bulbous bow function - which increases fuel efficiency. The tests were conducted in October 2013 in Denmark [at Force Technology in Lyngby, Denmark]. The tests consisted of moving the vessel through the water to simulate various wave conditions.

MR. YOST discussed day boat design development, turning to the subheading entitled, "MSI vs. Vessel Length & Longitudinal location" that illustrated the model test results for a series of hull lengths [slide 15]. Since the M/V LeConte has been in service for many years the testers were able to use actual data. He described the result that illustrates the effects on intermediate lengths with the bottom green line depicting the M/V Taku. He provided specific details on the effects of bow shape and length, noting the left hand side of the chart shows the accelerations experienced at the 95 percentile weather with the axis representing either the motion sickness index or vertical acceleration in percentage of G-force. For comparison, purposes, a 4.5 percent G-force will result in ten percent of

passengers experiencing motion sickness. This chart highlights the reason why passengers experience motions above 4.5 percent, no matter where they are on the M/V LeConte. He noted the M/V Taku is well below this G-force in the mid-stations. He pointed out the blue line represents the hull length initially chosen, the three blue "Xs" represent the actual test data, and the selected hull has more acceleration at the bow, but is "right on" in the solarium and towards the middle performs well below the predicted motion for that length vessel. He also concluded that producing a vessel 45 feet longer than the M/V LeConte will greatly reduce the motion, but adding a second passenger deck allows concentrating passenger accommodations in the least motion part of the vessel so this has been incorporated into the design.

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MR. YOST discussed the principal design element for the day boat ACF as compared to the M/V LeConte [slide 16]. He recalled testimony referring to the proposed day boat as "little shuttles." However, the proposed day boats will be approximately 45 feet longer than the M/V LeConte. Other design elements also affect performance such as the beam over guards, draft, propulsion horsepower, and speed. Wider beam over guards will improve overall stability and the hull will consist of a box chine rather than a rounded hull for fuel efficiency. He discussed the passenger and vehicle capacity of the day boats, with an increased passenger capacity of 53 and having an additional 96 seats for passengers. The day boat vessel capacity can haul 19 more vehicles than the M/V LeConte for a total of 53 vehicles. He stated that the day boats will have similar types of engines, but with substantially-increased horsepower that will allow the day boats to travel 1.5 knots faster at 16.0 knots.

MR. YOST reported that the vessel design is 85 percent completed, noting the end-view schematic shows the 3-foot passenger walkway that will allow passengers to embark and disembark without crossing vehicle car decks [slides 17-18]. He highlighted the space arrangements, including the family space area and library work space. Reconfigurations were made that enhanced access for disabled persons, reduced the number of four-person tables, added more two-person tables and banquettes in the dining area, as well as a group lounge on the upper deck for use by school groups.

2:01:52 PM

MR. YOST reviewed the remaining schedule and reported that by the end of February, the AMHS will have a final contract design [slide 23]. He reported that the AMHS received two estimates, one from Alaska Ship and Dry Dock - Vigor Alaska, and Elliott Bay Design Group. He pointed out the confidentiality, noting neither entity can review the other's cost estimates. He anticipated receiving estimates by early March, followed by negotiations, with the bid being awarded in May or June 2014. He estimated it will take two years for construction, with completion of the first day boat vessel estimated in May 2016 and the second day boat vessel in May 2017.

2:03:27 PM

REPRESENTATIVE KREISS-TOMKINS asked whether the vessels will have a bulbous bow and the pros and cons of using that bow design on vessels of this size.

CAPTAIN FALVEY answered yes; that the day boats will have a bulbous bow. The bow design has been improved over the years and will reduce wave resistance and help the vessel move through the water more easily, which will also achieve more fuel efficiency.

2:04:32 PM

REPRESENTATIVE KREISS-TOMKINS asked what considerations the DOT&PF has taken for building the vessel in Alaska. He suggested that everyone has a vested interest in building the day boat vessels in Alaska. He further asked for a sense of the process the AMHS will take when awarding the contract to an in-state or an out-of-state shipyard.

MR. YOST answered that the AMHS has not set a dollar value or fixed percentage it will use when determining the successful bid. He said the most important consideration is that the vessels must be built within the existing budget. He explained that if the AMHS obtains strong evidence through a competitive bid process that the vessel can be built on budget out-of-state, but not at the Ketchikan shipyard, the AMHS would need to seriously consider whether it will continue with the construction management general contract (CMGC) process. In the event that both estimates are within the budget the commissioner and governor will evaluate the project and make a determination.

REPRESENTATIVE KREISS-TOMKINS asked for the amount budgeted amount for the vessels.

MR. YOST answered that the total construction cost, including design, is roughly $117 million. He added that this includes $121 million appropriated by the legislature minus $3 million spent on design costs for the 350-foot vessel, much of which was incorporated into the two day boat vessels.

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MR. YOST clarified that this doesn't represent the construction price since additional design costs will be necessary to get to the final design process. Additionally, construction engineering costs are necessary for all projects, including inspections to monitor the work. The typical overhead costs must fit within the $117 million or the AMHS will need to find the money from somewhere else, he said.

CAPTAIN FALVEY added that the funding spent on the larger ACF design means the AMHS owns the design, which is well-archived and could be used if the state built another M/V Matanuska or M/V Malaspina style larger mainliner. He characterized the design as being at the point where it would be easy to design cabins.

2:08:07 PM

CHAIR P. WILSON asked whether he found the CMGC process as beneficial.

MR. YOST answered that the AMHS made several changes based on input from ASD's project estimator. In fact, the estimator has been involved since the day boat concept began and the "more eyes" that review the design the better, he said. The AMHS has implemented changes that simplify the design so it's easier to construct, which will result in better prices regardless of which shipyard builds the day boats.

2:09:27 PM

CHAIR P. WILSON referred to slide 16, to the vehicle capacity, and noted the capacity was increased to 53 vehicles. She asked whether that was done because of the decision to have a completely covered deck.

MR. YOST answered no. He said the number of vehicles was increased to 53 after analyzing the traffic in Lynn Canal and to address the goal to accommodate 95 percent of the summer traffic. He elaborated that additional sailings may need to be added or other vessels rerouted to obtain additional capacity. The AMHS has tried to find the "sweet spot" and achieve a vessel that can handle the bulk of the traffic, yet still be economic to operate and seaworthy.

2:11:47 PM

CHAIR P. WILSON referred to the AMHS overview and schedule changes. She anticipated she would receive substantial complaints from her constituents.

MR. YOST understood some constituencies would like the AMHS to offer four trips out of Prince Rupert from May-September; however, the traffic figures have declined since 2001. The AMHS evaluated the traffic and does not think it is frequency based. The AMHS concluded it can accommodate two round trips out of Prince Rupert, except from July until mid-September. He understood some of the interest in round trips stems from fish and produce shipments, which the AMHS will work to provide as the budget permits. In 2005, the AMHS expanded the fleet by two fast ferries and the M/V Lituya, but the department must review the level of service with respect to the cost.

2:14:36 PM

CHAIR P. WILSON turned to the next portion of the PowerPoint presentation for a report on the M/V Tustumena Replacement Ferry Design.

2:15:09 PM

CAPTAIN FALVEY reported that the M/V Tustumena was in the shipyard last winter for capital overhaul. He offered his belief that the ship is in very good shape and that it will provide a few more years of very reliable service. He said that the project accomplished everything necessary, but it took longer than anticipated to complete.

CAPTAIN FALVEY reported that the replacement vessel fund balance is $40 million and of that $10 million will be used for design for the replacement vessel. He reported this vessel will be classed to operate in the ocean, not just near coastwise operations. He pointed out that classification societies exist,

but the AMHS will likely use the American Bureau of Shipping (ABS) classing [slide 2]. The ABS classes all of the AMHS's steel ships and the replacement vessel will be constructed in compliance with ABS rules for unrestricted ocean service. The machinery, boilers, and systems will meet the AMS requirements and the vessel can carry vehicles and passengers in the ocean. He pointed out big differences exist between ocean and coastwise travel

2:19:24 PM

CAPTAIN FALVEY related that the vessel will provide domestic service within 50 nautical miles from shore. For example, certain stability rules apply to vessels traveling up to 50 nautical miles from shore. He said it is important to note that the M/V Tustumena is 296 feet in length, which provides a benchmark. The replacement vessel will need to be able to travel to all ports serving the Aleutian Islands. He recalled the M/V Kennicott could not travel to five ports due to the docks.

CAPTAIN FALVEY said that the goal was to serve each port and build a bigger ship so the replacement vessel is designed at 325 feet in length and the hull design will have a deeper draft hull design.

2:21:42 PM

CAPTAIN FALVEY reviewed the vessel specifications, such that the replacement vessel will be a larger vessel at 325 feet with a 250 passenger capacity compared to the M/V Tustumena's current 174 passenger capacity. He compared the replacement vessel stateroom, vehicle, and speed as compared to the current M/V Tustumena, including it will have greater stateroom capacity, will carry 52 vehicles compared to the 36 vehicle capacity, and it will cruise at 15 knots as opposed to current 13.8 knots. He related the final three items, the reconnaissance report, environmental analysis, and design study report relate to deliverables of the final design. He said the reconnaissance report develops the operating requirements, and may include a rough cost estimate and recommendation to proceed with a particular vessel under a specific procurement method. He said the AMHS is prepared to use federal funds by including the environmental analysis. Next, the design study report will be developed, he said.

2:23:56 PM

CHAIR P. WILSON asked for clarification on the environmental analysis.

CAPTAIN FALVEY responded it is operational but covers some design.

MR. YOST added that typically a federally-funded vessel is excluded from a full assessment since steel vessels have been found to have little significant environmental impact; however, the AMHS will review any comments. He explained the process, including that the reconnaissance report is issued, followed by the public comment period, and an environmental analysis that incorporates and addresses any concerns. For example, when the AMHS performed the environmental analysis on the fast ferries, one ferry was funded used federal highway funds so the AMHS obtained a categorical exclusion that documented the project was excluded from further analysis. He offered his belief that since Federal Transit Administration (FTA) funds were used for the FVF Chenega. The FTA required an environmental study since some concerns were voice about high speed vessels operating in Prince William Sound that could affect marine mammals. He suggested that the AMHS won't know for sure if any issues will arise until the public concerns are received; however, typically few concerns arise with steel replacement vessels.

2:26:20 PM

CAPTAIN FALVEY turned to the design study report (DSR) and said that the report reviews all aspects of the project, including routes, procurement methods, and recommendations. Each proposed solution will be analyzed to determine how well it satisfies the project's purpose. He briefly noted deliverables for final design, highlighting the arrangement, scaling calculations, the superstructure, and the complexity of the process when building the vessel [slide 6].

2:27:51 PM

CAPTAIN FALVEY turned to slide 7, which highlights the project milestones. He said that the professional services agreement was awarded to Glosten and Associates Team of Seattle, which is a very large naval architectural and marine engineering firm. The AMHS has frequently worked with this organization on projects such as the fast ferries and the M/V Kennicott. Additionally, he said this firm also does significant work on

federal projects, are very aware of the ships, and are a large and capable firm.

CAPTAIN FALVEY reviewed the timeline, such that in December 2013 site visits were completed to assess the condition of the terminals, that the reconnaissance report will be done in February 2014, that public participation is scheduled in March and April 2014, including soliciting public input from Homer, Kodiak, and Dutch Harbor. As Mr. Yost mentioned, he said the environmental document will follow in May 2014 and the design study report will be issued in June 2014. He anticipated it will take about a year to design the ship. He showed the profile of the concept profile of the new M/V Tustumena [slide 8]. He concluded that the project is moving along quite well and the steering committee is a strong steering committee.

2:30:50 PM

REPRESENTATIVE KREISS-TOMKINS asked why the M/V Tustumena will be larger.

CAPTAIN FALVEY answered that the AMHS anticipates potential passenger and freight growth since the figures are slowly increasing.

MR. YOST added that having a longer vessel translates into a more seaworthy vessel, which is important since the vessel is the fill in vessel for the M/V Kennicott. In fact, one of three of the M/V Tustumena's trips was delayed due to the conditions that were too rough for the passengers. He concluded that the vessel will be a faster vessel that can handle greater ocean conditions.

2:32:49 PM

REPRESENTATIVE KREISS-TOMKINS related his understanding that freight traffic has been limited due to the lack of steel reinforcement on the car deck sufficient to handle the weight. He said it sounds as though freight is the rationale for the Prince Rupert terminus. He asked what the AMHS is doing to capture more of the market, with an understanding that it must be careful about competing with the private sector.

MR. YOST somewhat disagreed that freight is the fare driver. He reported that revenue derived from freight represents a relatively small amount of revenue; however, it is an important part of the AMHS's mission. The main revenue is derived from

passenger vehicles and passengers. He offered his belief that one outcome of the fare study might be that the AMHS has relatively low pricing for shipping as compared to the private sector. He mentioned that in long ferry runs refrigerated vans plug into ship's power, but the system doesn't charge more for the power. He said that the AMHS must review all aspects of the non-motorized freight since the current vessel requires more time in port to offload the vans.

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CAPTAIN FALVEY, in response to an earlier question, answered that the fast ferries have reinforced decks. The reduced van weight capacity is necessary due to the dock condition at Prince Rupert. Additionally, the majority of the freight moving out of southeast is fish and Prince Rupert is used primarily due to the enhanced speed needed to transport fish to market.

MR. YOST added that container vans affect the stability of the vessels so the van capacity of M/V Malaspina, M/V Taku, and the M/V Matanuska has not been based on the strength of the deck, but because of the stability pattern of the ship.

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REPRESENTATIVE GATTIS stated that she has fond memories of traveling on the M/V Tustumena since she attended high school in Cordova. She said she thinks it is wise decision to have the longer replacement vessel since it may result in smoother rides for passengers.

2:38:25 PM

**ADJOURNMENT**

There being no further business before the committee, the House Transportation Standing Committee meeting was adjourned at 2:38 p.m.