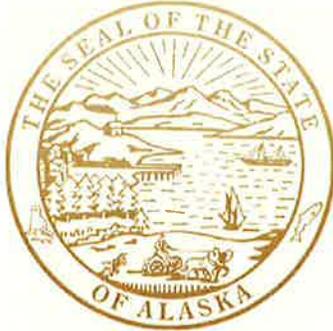


**Marine Transportation Advisory Board Meeting**  
**Friday, August 11, 2017 – 9:30 AM**  
**Vigor Shipyard Conference Room**  
**Teleconference Call-in Number: 1-800-315-6338 - Conference Code 39051#**

Board Members: Robert Venables (Chair), Shannon Adamson, Patricia Branson, Gerald Hope, Daniel Kelly, Jack Jensen, Patty Mackey, David Reggiani, Robert Arnold, Maxine Thompson, Greg Wakefield, Carlin Enlow

1. Call to Order
2. Board Roll Call to Establish Quorum
  - a. Welcome and Introduction of other participants
3. Introductions of new board members
4. Approval of Agenda
5. Approval of Minutes
6. Welcome by host, Vigor
7. Public Comments (3 minutes per speaker)
8. Chair's Report
  - a. Expiring board seats (4)
9. Commissioner Luiken
  - a. Plans for replacing Deputy Director for AMHS
  - b. Tustumena Replacement – "Best Values 101"
  - c. State Transportation plans and road links (incl. roads to shorten ferry routes i.e. Baranof, etc.)
  - d. FY 18 Budget
10. Captain Falvey
  - a. Fleet and Terminal Reports
  - b. Winter Schedule 2017-2018
  - c. FY18 Budget Impacts
  - d. Summer Schedule Issues
11. IFA Update – Dennis Watson
12. AMHS Reform Project Status & Update
13. Board Comments
14. Next Meeting
15. Adjourn



*State of Alaska*  
*Office of the Governor*

**Governor Bill Walker**  
requests the pleasure of your company at the  
bill signing for SB 33

***Naming State Ferries:***  
***M/V Tazlina & M/V Hubbard***

August 10, 2017  
Vigor Shipyard  
3801 N. Tongass Hwy.  
Ketchikan, Alaska 99901

*Governor's remarks and bill signing*  
*3:30pm to 4:00pm*

RSVP  
[victoria.schoenheit@alaska.gov](mailto:victoria.schoenheit@alaska.gov)

## **Procurement Plan AMHS Vessel New Build Program**

A number of different delivery methods exist for public construction projects. This summary briefly touches upon a few of available methods, which include Design-Bid-Build (solicited on the basis of low-bid or “Best Value”), Design-Build, and Construction Manager/General Contractor (CM/GC).

**Design-Bid-Build**--This method is the traditional approach to large construction projects and is the approach that AMHS identified at the May 2013 MTAB meeting for use on the TUSTUMENA Replacement Vessel (TRV) Project. Typically, the process starts with the Owner retaining a design professional who is responsible for developing a relatively complete design for the project.

Once the design phase is complete, the Owner advertises the resulting design, construction, and contract documents and solicits bids or proposals to perform the work as designed and specified in the advertised documents.

Under the Design-Bid-Build approach, the Owner can select the successful contractor through different means. One approach is to simply use an invitation to bid (ITB) and award the contract solely based upon the lowest bid submitted by a qualified contractor.

Alternatively, the Owner may use the “Best Value” approach. This is a modification of the low-bid approach in that low-price remains a relevant factor, but not the sole factor. Here, the Owner advertises the completed design as done with the ITB. However, under the Best Value approach, it requests that interested parties submit proposals that address various evaluation criteria and also include a bid price. Typically, the Owner will select the contractor on the basis of a formula where price is given a certain percentage weight and the other criteria make the remaining portion. The Owner may identify any number of criteria for weighted evaluation. Here are examples of criteria that Owners have used in Best Value solicitations:

- Contractor experience with similar projects,
- Completion within schedule,
- Compliance with material and workmanship requirements,
- Timeliness and accuracy of submittals,
- Safety record,
- Effective management of subcontractors,
- Training and employee development programs, and
- Quality assurance/quality control programs.

A benefit of Best Value is that it enables the Owner to identify an appropriate contractor by assessing a number of criteria that it deems important to successful completion of the project, and not simply award the project to a contractor who will do the work for lowest price.

**Design-Build**---Under this method, the Owner has a single entity (or joint-venture) to both design and construct its project. So, in contrast to the Design-Bid-Build where the Owner works closely with its design professional, with Design-Build the Owner identifies performance specifications that the constructed product must satisfy, *e.g.*, passenger capacity, stability characteristics, etc., and the Design-Build team is left to design and construct a compliant product. (Of course, this is a vast simplification of process, but is intended to illustrate a fundamental difference between the models.)

A benefit of Design-Build is that members of the design and construction teams collaborate early in the process, which should result in a quicker construction phase with fewer unanticipated problems, *e.g.*, an issue overlooked by designers that becomes apparent in the field during construction.

**Construction Manager/General Contractor (CM/GC)**-The CM/GC method has many variations. (Further below we've provided a general illustration of how the Owner might go about a CM/GC solicitation and award.)

Generally, the Owner contracts separately with a design professional and a contractor for design and preconstruction services. During the design phase, the Owner, the design professional, and the contractor collaborate on design development. (For instance, the contractor may provide practical design insights based upon its field experience.) Once design is complete, the contractor has an opportunity to exclusively negotiate with the Owner to perform the construction phase for an agreed, guaranteed maximum price (GMP). If negotiations fail, the Owner may publicly advertise the project and seek bids for performance of the work. As with Design-Build, an advantage of CM/GC is that the contractor serves a constructive role during the design phase.

### *Illustration of Sample CM/GC Project*

Owner publishes public notice calling for shipyards interested in participating in design review and construction of the new vessel.

Owner issues a Request for Qualification (RFQ) to the interested yards:

- (1) Requires each shipyard's qualifications, capabilities, experience and bonding capacity.
- (2) Owner evaluates responses and identifies the two most qualified candidates.

Next, Owner issues Request for Proposals (RFP) to the prequalified shipyards:

- (1) The RFP process includes copies of the 10% - 30 % functional design documents and a process by which the shipyards may provide technical comments on the design (including input on engine selection), schedule and budget.
- (2) Following the technical review process, the shipyards are required to submit a sealed price proposal to include a fee for preconstruction services. Owner will accept price proposals from prequalified shipyards whose final technical proposals are acceptable.
- (3) The basis of the award will be to the prequalified shipyard with the highest combined score of the technical and price proposals and the scores from Step Two. Owner enters into the final design process with the selected CM/GC shipyard
- (3) The selected yard participates in the final design process, constructability reviews, and cost estimating services.
- (4) The Owner will use construction cost estimates produced during this step to acquire adequate construction phase funding.

Upon completion of the design, the contractor will provide a final detailed guaranteed maximum price. If the parties cannot agree on a final price, the Owner reserves the right to terminate negotiations and publicly solicit competitive sealed bids.

Each of these project delivery methods has its own advantages and disadvantages. (Appendix A is a matrix that identifies positives and negatives of each model.) A principal advantage of CM/GC is that the contractor who may ultimately construct the project participates in the design phase. By so doing, the contractor has an opportunity to bring its own perspective to the design process and draw on its own experience, thereby enhancing constructability and averting costs and delays associated with change orders.

As reported to MTAB in May 2013, AMHS has developed the TRV project under the traditional Design-Bid-Build model. Design Phase, Plans Specifications and Estimates (PS&E) is at 100%, including engineering cost estimates, contract drawings, which are compliant with applicable standards set by the U.S. Coast Guard and the American Bureau of Shipping. AMHS has invested approximately \$2.2 million of State funds in the TRV design phase. We are prepared to move forward towards stage 1 of the Best Value Procurement Concept.

To consider CM/GC concept would require AMHS Team to revert back to 30% of design phase and cause a corresponding project delay. To illustrate, on the Alaska Class Ferry Project, Alaska Ship & Drydock (which later became Vigor Alaska) succeeded in obtaining a contract for preconstruction services after AMHS and its design professional had begun the design phase. The parties executed the contract for preconstruction services in April 2012. In September 2014, DOT&PF issued its notice of intent to award the construction contract to Vigor Alaska.

The TUSTUMENA has served the State and its citizens well over the years. However, she is approaching the end of her useful life. Each year requires more and more steel replacement and repairs, which imposes greater costs and delays on the system. AMHS has diligently worked with its consultants to design a replacement vessel for construction once funds are available. With passage of the most recent capital budget, the TRV is now funded. The "Best Value" approach offers the best means for promptly moving the project to construction.

August 11, 2017

## Vessels

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### **M/V Matanuska Repower Winter 2017/2018**

The Matanuska will receive new engines and a new steering system replacement during the winter of 2017/2018. This project will replace the main engines, reduction gears, control systems, shafting, propellers, rudders, associated auxiliary equipment, switchboard, exhaust and waste heat boilers, bow thruster, steering gear, electrical generation switch boards, house and stack repairs, painting, security upgrades, miscellaneous system upgrades, rescue boat and davit upgrades, structural repairs, exterior and interior paint, and a state overhaul. The design engineering is complete, the contract has been awarded to Vigor Industries in Portland Oregon, and the project will commence in November 2017.

### **Malaspina SOLAS Waiver**

The AMHS has received a SOLAS waiver for the Malaspina to run into Prince Rupert in place of the Matanuska. The waiver will expire in December 2018.

### **Fleet wide Lifesaving Equipment Upgrades**

AMHS has an ongoing federally sponsored project to upgrade fast rescue boats and davits where needed. To date, the Columbia and Kennicott have had a new davits and new fast rescue boats installed. The Fairweather has had a new fast rescue boat davit installed, and the Matanuska will receive a new davit and fast rescue boat when it enters the shipyard in the winter of 2017/ 2018 for its re-power project.

### **M/V TAKU Sale**

The state has held two sealed bid auctions for the sale of Taku, one for 1.5 million and one for 700,000, with no bidders. A third posting called a Reserve Bid was posted and will close on August 18.

### **Chenega Layup Update:**

The Chenega continues to remain in an unmanned layup at Vigor Tacoma Shipyard, and per a contract between the state and Vigor Shipyard, the vessel is being monitored.

August 11, 2017

## **Taku Layup Update:**

Taku continues to remain in an unmanned layup in Ward Cove and per a contract between the state, and Ward Cove Industries, the vessel is being monitored.

## **M/V Columbia Hub Repair and Delay**

The Columbia went into Vigor Shipyard in Portland Oregon during September 2016, to repair damage to its Starboard propeller hub mechanism. The damage is suspected to be from an underwater object strike. All of the parts needed for the hub mechanism had to be manufactured in Germany, as off the shelf parts do not exist. The vessel is expected to be back in revenue service on October 29. The Malaspina schedule has been extended to cover for the Columbia.

## **Tustumena Overhaul and Delay**

The Tustumena went into its state overhaul on March 13, and remains at Vigor Shipyard Ketchikan, well past its original scheduled delivery date. Newly discovered wasted steel repairs have caused the delay. Due to the unexpected delay, seven of the ten planned summer chain trips have been cancelled. While the Tustumena has been out of service, Coastal Transportation and Samson Towing have carried some of the displaced traffic and some of the traffic has been rescheduled to the last three chain trips. Revenue service is expected to resume on August 15 with the first chain trip scheduled for August 22. AMHS will also schedule a Kennicott chain trip during April 2018, as insurance in case the Tustumena is again late coming out of its March 2018 overhaul.

## **Satellite Communications System**

The AMHS is currently developing an RFP so as to solicit bids for a new Satellite Communications System contract. Requirements for the new system will be for additional broadband, additional delivery and receiving of data speed, and the special needs of the new reservation system.

## **Passenger Services Upgrade Amenities Project.**

A federally funded fleet wide passenger services upgrade project is in the early stages of planning. Upgrades to public spaces will include galleys and passenger elevators as needed. Work will be completed during vessel overhauls.

August 11, 2017

## Columbia CCP System Replacement Project.

A federal funded obligation request has been made for the design process to replace the Columbia CCP system. This replacement would include reduction gear, shafting, propellers and rudders. There was insufficient federal funding to accomplish this during the recent Columbia re- power project. This request would be pending approval in the FY 18 CIP budget.

## Tustumena Replacement Vessel Project:

The 100% PS&E (Plans Specifications and Estimates) package is complete.

The TRV project was in the FY 18 Capital Budget which has been approved, therefore the state now has the authority to spend project related federal and state matching funds from the vessel replacement fund.

The state plans to explore a Best Value type procurement, which is an innovative type procurement method. The state hopes to have the project ready to go to advertisement by mid-winter 2018.

The project currently has approximately 200 line items which will require Buy America Waivers. Buy America requirements are becoming increasing challenging, due to increasing regulations.

## Tustumena Replacement Vessel Characteristics

- Length Over All (LOA) 330 Feet
- Depth 24.5 Feet
- Breadth Over All (BOA) 71 Feet
- Design Draft 15' – 10" to 16' – 6" (End of Service Life)
- Air Draft 90 Feet
- Cruise / Service Speed 15 Knots
- Vans & Cars 12 Vans & 27 Cars
- Cars Only 54
- Vehicle Loading Ability Stern & Side (Port & Starboard)  
Vehicle Elevator
- Vehicle Lane Length 1,180 Feet
- Passengers 250 (Berths for 104)
- Officer & Crew Minimum Manning IAW Regulatory Requirement  
Manned Engine Room

## ACF Construction Project

Construction is progressing at Vigor Alaska Shipyard Ketchikan. Current estimates place operational acceptance of the second contracted vessel to be in mid-April 2019.

August 11, 2017

## Day Boat Alaska Class Ferry Monthly Construction Report



Project Name: Day Boat ACF

Month Ending: 07/31/2017

Project Number: 73073

### PROJECT STATUS

#### Background Contract Information

Vigor Alaska LLC is completing the project under a Construction Manager / General Contractor (CM/GC) contract signed on October 16, 2014 for \$102,285,078 including change orders, which has been encumbered. Construction is progressing with fifteen modules assembled and four under construction for the first ship. Completion date for the two vessels is October 15<sup>th</sup>, 2018.

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## Continuing AMHS Items:

- Deal with day to day detailed design issues & questions. We have been working with the shipyard on red-line ideas that can make the second ship systems simpler to build and/or more appealing.
- Conduct construction inspections for steel assembly, pipe pressure test, paint surface prep, millage and conditions, and layout on many items.
- Review 3D model and drawings carefully to find and avoid future problems before those sections are under construction.
- Attend production and planning meetings with the shipyard teams.
- Meet with ABS and USCG representatives when they are on site.
- Elliott Bay Design Group (EBDG) has assisted with reviewing technical questions, review calculations, drawing clarification, electrical and structural questions as needed.
- EBDG has completed the preliminary Fire Control Plan. We received the draft copy, reviewed it and EBDG has a revision based on our comments. Today we reviewed it with the local USCG for their input, and they said it looks good. I have asked EBDG to send this to the USCG Marine Safety Center for their review. Ultimately it will come back to the local USCG to give the final approval.
- The contract with Willard Marine has been completed. This is for the procurement of four (4) rescue boats for the two ACF. This is Owner Furnished material listed in the contract with Vigor.
- There have been 38 Owner requested changes funded by the contingency fund to date. These are owner requested changes or changes required by the regulatory agencies. Total Contingencies to date amount to \$825k, and Change Orders amount to \$271k which totals slightly more than 1% of the contract amount.

## Vigor Alaska Items

- There are 126 people assigned to the project, excluding upper management personnel, which is an increase of five from last month's 121. Fluctuations of one or two people is normal. Vigor has eliminated the swing shift and are working all people on the day shift since they believe that the swing shift was inefficient and mistakes were being made.
- The structure group has been moving along with the last two modules for the Tazlina and one module more module for the Hubbard. Once the steel work is complete the outfitting team follows consisting of pipe, paint, and insulation crews.
- The yard has been pushing hard on finishing their work in six (6) different passenger spaces. This is to prepare for the joinery subcontractor to trim out the spaces with the joinery bulkheads, trim, overhead and flooring. The subcontractor USO are expected to arrive August 1<sup>st</sup>.
- Construction has started on the last module for the Tazlina which is Module 22. This module has the stern and side car door frames and openings built into it. Module 6 which is the bow door module is being constructed at this time. This module has many components for supporting the bow doors and is complex with the shape of the bow.
- Material continues to show up for ship #2; Module 7 is under construction now with 3 out of 5 sub-assemblies completed.
- The quality of the work and safety on this project has been very good.
- The assembly hall in the Ketchikan Shipyard is a huge asset to this project.

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## Outstanding & Upcoming Items

- A State inspector is in the process of been assigned to the ACF project. We have been able to keep up with inspections, but as time goes on there will be more systems to test and also the “Test and Trials” which will take lots of time.

## Accomplishments This Month

- The Master butt seam which is the joint between the forward and aft half has been welded out. Ultrasonic Test (UT) were conducted at 44 locations in the major weld seams. Areas with flaws have been repaired. Next week the X-rays will be taken at 25% of the areas that the UT were taken for a comparison and verification that the UT is accurate.
- The engine room continues to be fitted out with pipe and insulation.
- Electrical crews continue to focus on pulling wire between the forward and aft half. They have started making terminal connections in the switchgear and HVAC control panels. They are also preparing for the trim out of lights, switches and receptacles that will take place in conjunction with the joinery installers.
- The paint and insulation crews are working in many different areas, either in the module stage or after all hot work is done in a space and painting that space out completely.
- Construction has started on Module 7 for Boat #2 and is about 50% complete.
- Construction of Module 6 which is the bow door section is in works at this time.
- Some of the steel for Module 22 arrive this month, and this mod just got started the past week.
- The port and starboard stacks of Mod 23 were painted, placed in position, and welded into place.
- The port and starboard garages for the fast rescue boats were primed, set in placed, and are being welded out.
- Spaces are being thoroughly cleaned so as to be ready when the joinery crews arrive the first week of August.

## Potential Problem Areas

- 47.6% of the contract amount with the shipyard has been paid to date, but 70% of the contract project duration has elapsed.
- Schedule updates were provided from the shipyard at the first of each month. Last month’s schedule shows the Tazlina being delivered on March 8<sup>th</sup>, 2018. The Hubbard shows her being delivered on April 22, 2019.

## Budget

- Vigor has submitted thirty (30) progress payments to date for total of \$48.7M. A Progress Payment is made the beginning of each month.
- The amount paid on the first vessel is 73% labor, 85% on materials, and 63% on Subcontractors. The second vessel is 3% on labor, 16% on materials, and 9% on Subcontractors.
- We have received IRIS reports to track expenditures. The project office has also been tracking known expenditures with an Excel spreadsheet.

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## Project Status Summary

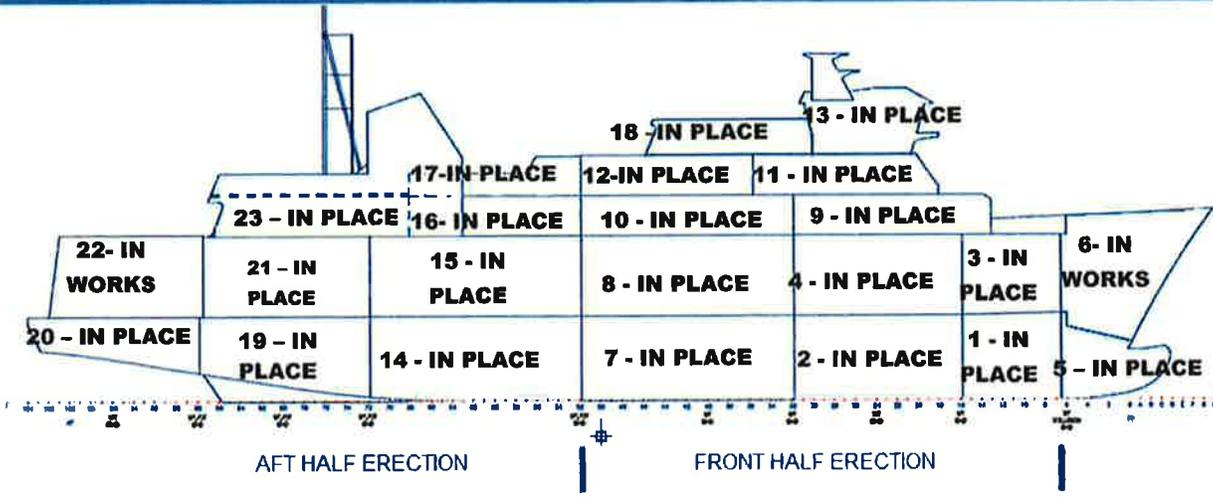
Project Schedule	Project management software indicates a six month delay in delivering the Hubbard.
Project Percent Complete	38%, based on actual hours worked vs. planned hours to completion.
Funds expended to date for Phase 2 & Phase 4	TOTAL \$ 62,623,942 Which is 52% of \$120,001,000
Contract Performance	1020/1460 days (70%)
Contracted Operational Acceptance Date	10/16/2018
Predicted Operational Acceptance Date	04/22/2019

## Contractor's Work Force

Category	Days	Swings	Nights
Managerial and Administration	7	0	0
Steel	46	0	0
Pipe	20	0	0
Electric	12	0	0
Machinist	3	0	0
Paint & Insulation	24	0	0
Support and Non-Specific Trades	14	0	0
<b>Totals</b>	<b>126</b>	<b>0</b>	<b>0</b>

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Figure

1 Ferry Module Arrangement



Figure 2: Lifting the port side stack



Figure 3: "Flying" the port side stack

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Figure 4: Placing the port stack



Figure 5: Fitting the starboard side stack



Figure 6: Fitting and grinding

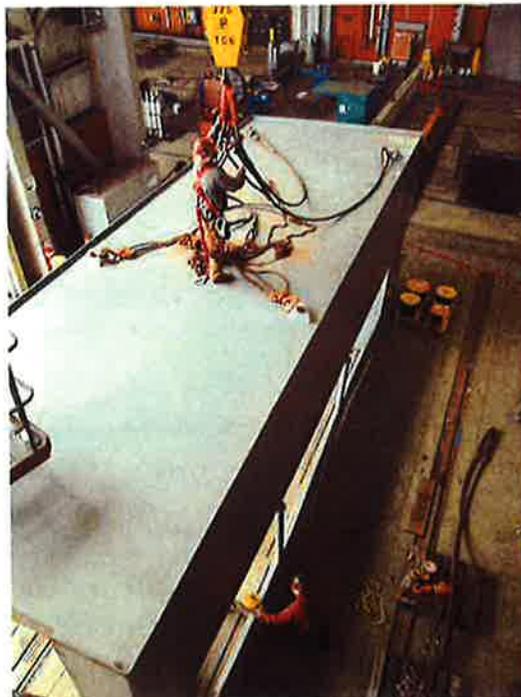


Figure 7: Rigging the starboard FRB garage

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Figure 8: Placing the starboard stack



Figure 9: Moving the aft mast to the paint area

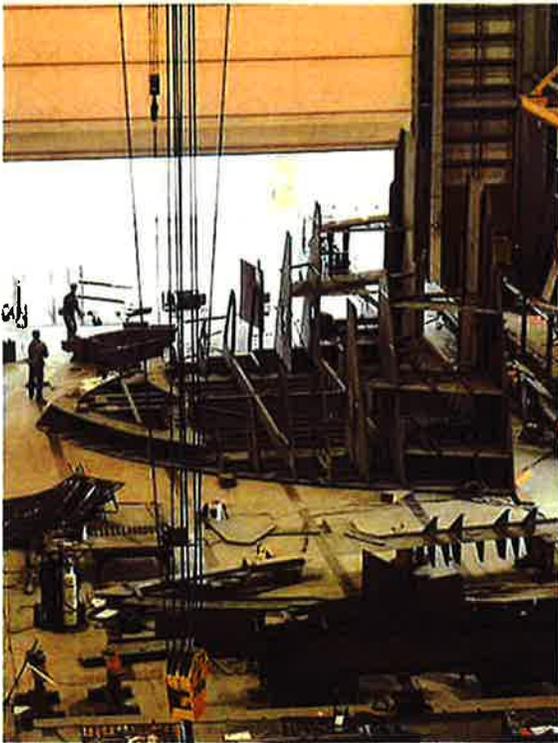


Figure 10: Constructing Module 6, the bow



Figure 11: Moving the starboard RB garage to paint

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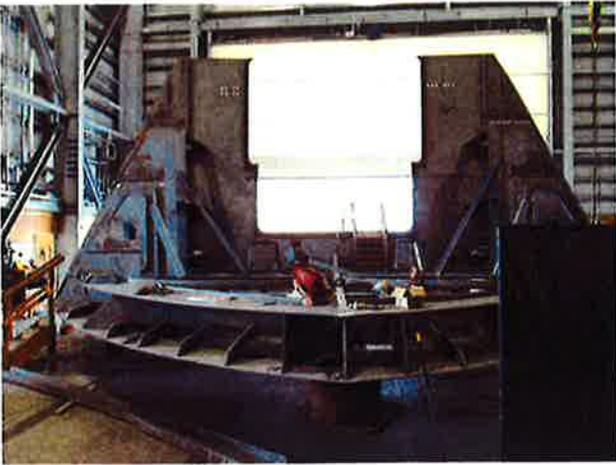


Figure 12: Another view of Module 6



Figure 13: The EOS control console



Figure 14: The car deck, aft looking forward

August 11, 2017

## **New Reservation System**

CarRes is now being used throughout the system. While implementation of the new system has not been without its challenges, the transition process has gone relatively smooth due to the hard work of terminal and vessel staff. The handheld scanners and kiosks are still being tested to ensure full functionality with kiosks being ready for use in selected manned terminals in the near future. The hand held scanners work well with cellular connectivity, although in ports without a cellular connection, an off line operation is still necessary. The goal of the new satellite system contract will be to remedy the hand held scanner issues in some ports with a lack of cellular connectivity. AMHS continues to work closely with CarRes to resolve all of the issues that have come up since the go live, and continue to make improvements so as to increase efficiencies for both customers and staff.

## **Terminals**

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### **Haines ACF End Berth Second Phase**

This project will consist of design and construction of two bow/stern loading docks for berthing the new Alaska Class Ferries. Shore side and uplands improvements will also take place. The preliminary design and required environmental work is currently underway, and this project is expected to be completed in March 2019.

### **Angoon Ferry Terminal Passenger Facility**

This project constructed a new passenger terminal building with restrooms, improved upland parking and staging areas along with the placement of new sanitary sewer and water lines running from the city's municipal lines along with electricity connection. The facility ownership was officially turned over to the City in June 2017.

### **Prince Rupert Ferry Terminal Replacement**

The Prince Rupert ferry terminal dock replacement project remains in a stalemate over the Buy America act compliance issue. On May 30 Prince Rupert Mayor Lee Brain met with the Acting US Ambassador to Canada at the US Embassy in Ottawa to discuss the ongoing Buy America issue. In the meantime, AMHS is coordinating minor repairs and maintenance efforts to keep the facility functional and safe.

### **Skagway Ferry Terminal Modifications**

The project review is delayed due to ongoing coordination with the City of Skagway.

August 11, 2017

## **Ketchikan Terminal**

This is a two phase project consisting of the replacement of some of the of existing vessel berthing and mooring structures, placement of a new turning dolphin between berths 1 and 3, refurbishment of fenders and platform components at the berth #3 float, construction of a new pedestrian covered walkway structure over the existing sidewalk from the terminal building to the berth #3 approach, and the placement of cathodic protection anodes on existing pile supported structures at berths #1 and #3. The first phase of the project consisting of the dolphin upgrade, covered catwalk and utilities work was completed in August 2016 and the Berth 3 side fender upgrades and utility work on the Berth 1 transfer bridge will be completed in April 2019.

## **Ward Cove Layup and Working Berth Facility for AMHS**

Details still need to be worked out between the state and the EPA regarding the environmental aspects of the project and its potential to disturb the sediment cap. The AMHS recently met with AIDEA in Ketchikan to discuss possible funding options for construction of the marine layup facility. NOAA is no longer interested in berthing their vessel in Ward Cove.

## **AMHS Gustavus Terminal Improvements**

In December 2013, a storm damaged the facility. The environmental document work is completed and the project is now proceeding with final design. The construction is expected to take place during spring or fall of 2018.

## **Tenakee Springs Dock Replacement**

Project scoping is underway and a conceptual alternative design has been approved and selected by the city of Tenakee. Construction completion date is expected to be December 2018.

## **Kake Ferry Terminal Passenger Facility**

The project constructed a new passenger terminal building with restrooms and improved uplands parking and staging areas. The project also included placement of a new sewer and water utility service line to the new terminal. Ownership of the facility was officially turned over to the City in June 2017.

## **Waste Water Treatment System Replacement**

Preliminary design work and environmental scoping is ongoing for the replacement of in ground wastewater systems located at state owned terminals Auke Bay, Sitka, Haines, and Skagway. The project is expected to be completed in February 2019.

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## **Underground Diesel Storage tank Removal**

Eight underground diesel storage tanks located at state owned terminals Skagway, Juneau, Wrangell, Petersburg, Ketchikan, Cordova, Sitka, and Valdez are being removed and replaced by above ground storage tanks. A consultant for the project is currently being procured. The project is expected to be completed in March 2018.

## **Auke Bay Terminal Improvements**

This project includes work to install an east stern berth dolphin, terminal building upgrades, along with sanitary sewer and shore tie power upgrades. The project is expected to be completed in August 2018.