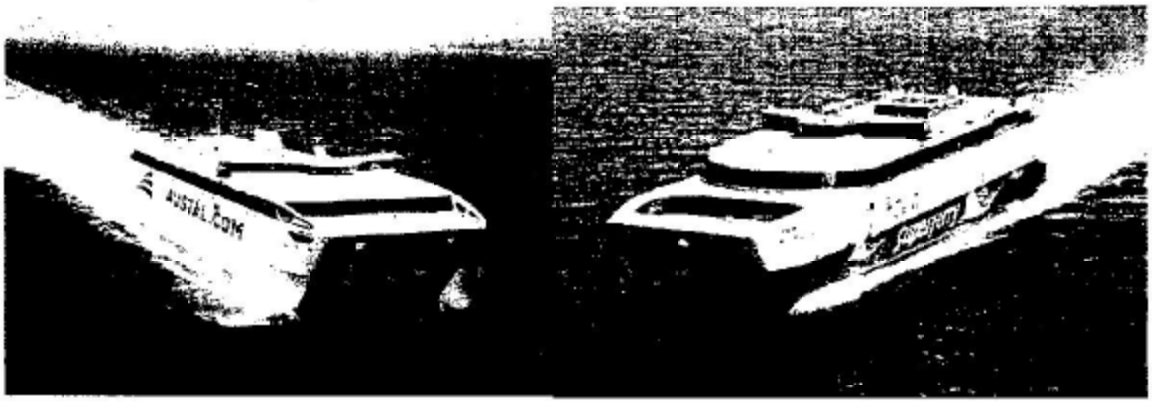
Superferry

PROPOSAL TO
THE UNITED STATES DEPARTMENT OF DEFENSE
FOR THE OUTFIT OF NATIONAL DEFENSE FEATURES (NDF) ON
HAWAII SUPERFERRY'S HIGH SPEED CATAMRAN "A616"
NOW BUILDING AT AUSTAL USA

Westpac Express *HSF ALAKAI*



BY

HAWAII SUPERFERRY INC.

MARCH 11, 2008

Superferry

NDF Proposal to US DOD

HAWAII SUPERFERRY VESSEL #2 (AUSTAL U.S. HULL 616) PROPOSED NATIONAL DEFENSE FEATURE ADDITION

I- INTRODUCTION

In 2004 Hawaii Superferry Incorporated ordered two large fast ferries from Austal USA for ROPAX ferry service in the Hawaiian Islands. Both vessels are very similar in size, design, embedded technology, and capability to Austal's high speed catamaran *WestPac Express* that has been in highly successful service to the U.S. Navy for over 5 years. The first of these new vessels, *HS Alakai* was delivered in 2006 and began service in Hawaii on December 15, 2006; the second, Austal Hull #616, (A616) is under construction at Austal's Mobile, Alabama shipyard with delivery scheduled for February 2009. Both vessels are being financed with assistance of the U.S. Government's Title XI loan guarantee program.

As originally intended and designed for their specific short distance 'hub and spoke' service ferry service between Oahu and Hawaii's other 3 major islands, the vessels are not self-sustaining for on- or off-loading vehicles, in production of freshwater, or in wastewater treatment and overboard disposal. All of these services must be provided from shore facilities.

It seems evident that the impressive capabilities of these new, large, and fast commercial vessels could be of important service in carrying out in-theater lift missions for the Department of Defense (DOD) under any rapid mobilization scenario envisioned and codified by the VISTA program. But operational autonomy and self-sustainability appear to be essential mission objectives for most of the scenarios discussed and reviewed by military authorities. Accordingly, it is proposed that DOD sponsor the addition of three features critical to self-sustainability under the National Defense Feature (NDF) provisions of law. These three features described in more detail below are the installed folding ramp system, a reverse osmosis seawater desalination plant, and a comparable certified wastewater treatment and disposal system. We believe that accomplishment of these additions will provide significantly more flexibility and utility of these vessels in rapidly responding to the demanding and diverse requirements of national defense service. With these features installed, the mobilization period before readiness for DOD service in any time of emergency can be reduced to a matter of a few days.

In view of the current state of construction of A616 at 50% completion, the execution of these additions can be completed within the original construction schedule and much more economically with the vessel now in the building yard than at any later time post delivery. But to accomplish the industrial work required, in-principal approval of the program within a budgetary ceiling is required as soon as possible. The preliminary design and outline specifications have been prepared and detailed design and construction specifications will be completed within the next four weeks.

It is anticipated that at some suitable time after completion, delivery, and start of A616 operations in Hawaii *HS Alakai* will be retrofitted with these same features. The exact timing, location, and method used in effecting these additions has not been established at this time, but the industrial work involved will be conducted under the management and supervision of Austal USA.

II- DESCRIPTION AND OUTLINE SCOPE OF WORK

2.1 - General Description:

Figures 1 & 2 illustrate the A616 modified to accommodate the folding ramp system along with the other two features proposed. These latter two will have a minor impact on the arrangement and light-ship weight of the vessel, but the addition of the ramp will affect both weight and length of the ship. Table I shows an approximate comparison of the principal characteristics of A616 based on the preliminary design developed to date compared with her already delivered sister vessel, *HS Alakai* and, for reference, the very similar *Westpac Express*. It should be noted that the ramp addition would extend the length of A616 about 20 to 23 feet over *HS Alakai* (with a structurally integrated stern shelf supporting the new quartering ramp) and would add an additional 60 tonnes to the Lightship Weight of the vessel.

Table *I*- Approximate Comparison of Noted High Speed Vessels

Principal Characteristics	HSF A616	HS Alakai	HS WestPac Express
Length, Over-All	~370 ft	106.5 m (349.4 ft)	101 m
Length, Waterline	303.0 ft	92.36 m (303.0 ft)	26.7 m
Beam (Molded)	78.08 ft	23.8 m (78.08 ft)	26.37 m
Depth (Molded)	30.87 ft	9.41 m (30.87 ft)	9.4 m
Payload (Incl. Fuel) Short Tons	820 t (estimated)	881.7 t	
Built in Fuel Tankage	157,491 gals	157,491 gals	97,215 gals
Service Speed	~36.0 k	37.3 k	36.0 k

Vehicle load capabilities are similar except HSF has slightly more area to accommodate vehicles. In particular, HSF can accommodate a range of different load out. For example,

- Stryker-type vehicles – 38 can be accommodated on the main deck with space still available above and below the fixed portion of the mezzanine deck (over 4000 square feet each).
- MRAP type III vehicles -- 14 can be accommodated in the center section of the main deck with 20 other positions outboard for similar sized by lighter weight vehicles as well as above and below the fixed portion of the mezzanine deck
- up to 50-foot long rigs – 7 or 8 can be accommodated in the center section with space outboard and above/below the fixed portion of the mezzanine deck.
- with a normal ferry load out of cars only – 230 can be accommodated.

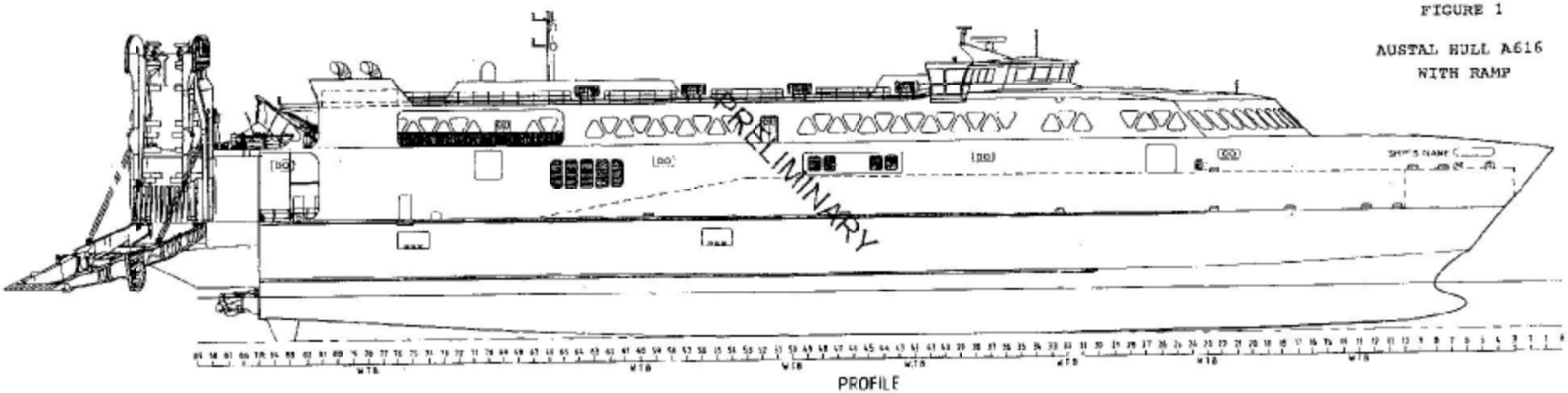
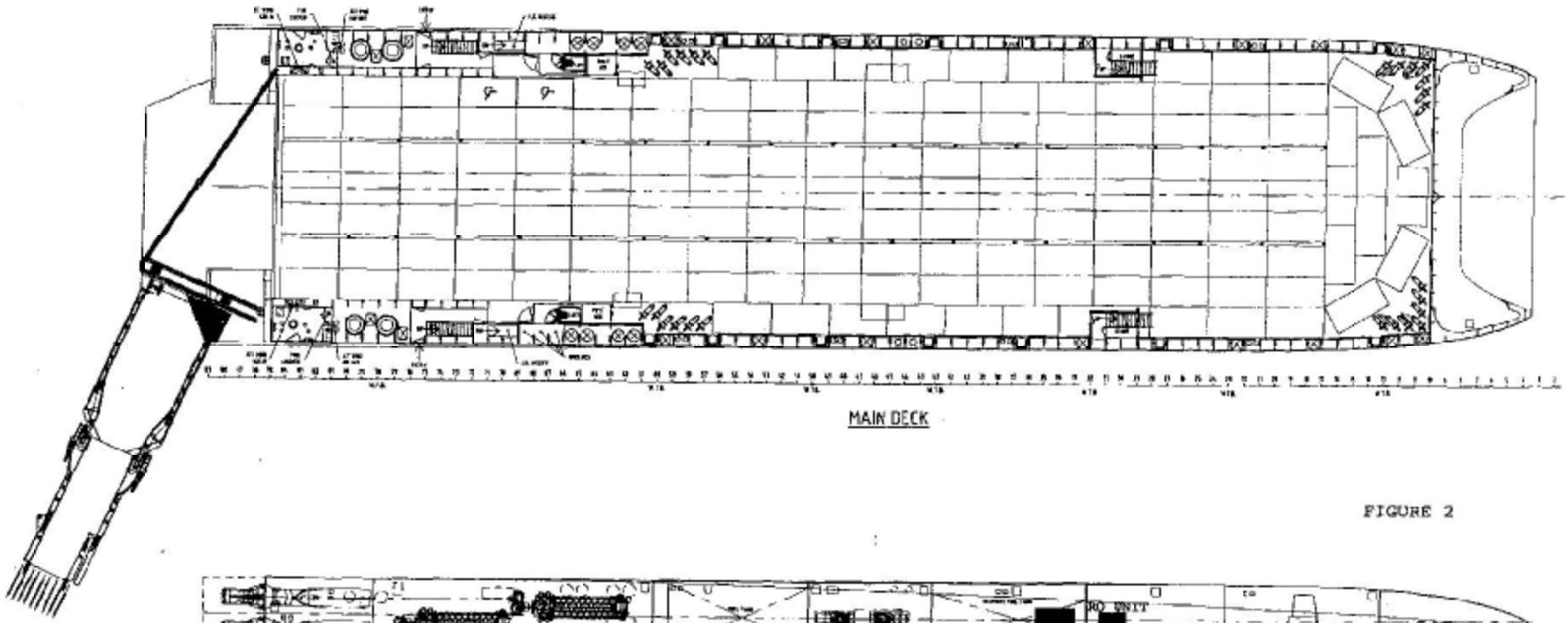


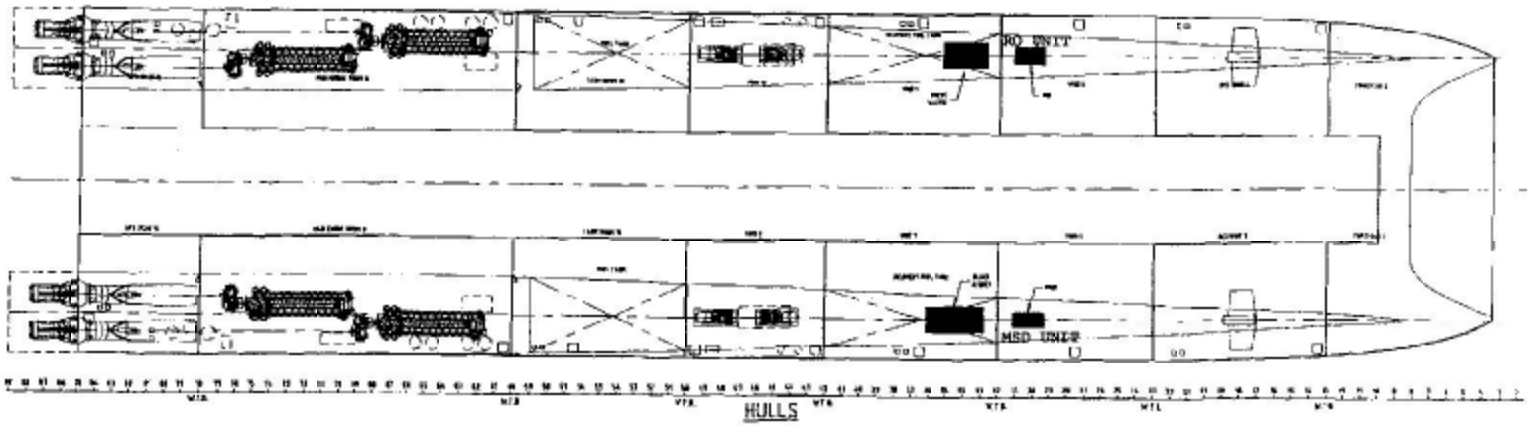
FIGURE 1

AUSTAL HULL A616
WITH RAMP



MAIN DECK

FIGURE 2

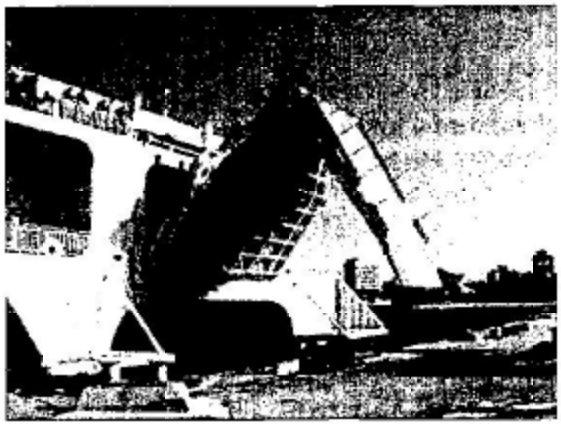


HULLS

PRELIMINARY

2.2- Folding Ramp System:

As shown in Figure 1.0, the installed folding ramp will be an aluminum fixed-type and located on the starboard quarter. As noted above, the after deck will be extended about 20 to 23 feet to allow large vehicles to maneuver both during on-load and off-load and to most expeditiously integrate the quartering ramp into the existing ship design. The ramp will be deployed and retracted hydraulically with an electro-mechanical system very similar to that used on the *Westpac Express* to take advantage of the proven ramp operation on *Westpac Express*. As indicated in the outline Specification contained in Section III, the ramp system will be designed to accommodate any vehicle currently used by *Westpac Express* and *HS Alakai* and will have a structural strength equal to the same design loading to as the vehicle decks of those sister vessels.



2.3- Water Desalination and Wastewater Treatment:

These additions consist of commercially available marine certified, package units and will be installed in ample port and starboard void spaces in close proximity to the storage or holding tanks already provided for water and wastewater service. The specific units selected are described further in Section III. Their provision will permit both more extended voyages than those contemplated for the normal Hawaiian service contemplated and complete independence from any need for shore-side support.

III- OUTLINE SPECIFICATIONS

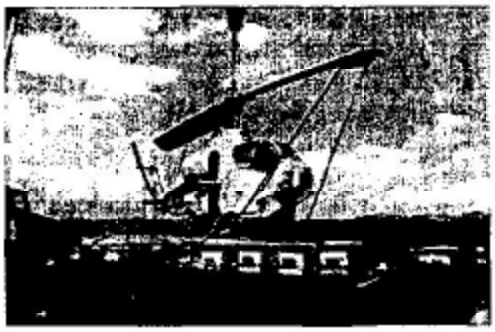
3.1- General Specification for Stern Quartering Ramp:

Table II provides the preliminary specification provided by Austal based on the preliminary design conducted to date. Further explanatory and amplifying notes on this specification are contained below:

- The specification details shown in Austal Hull 616 Stern Quartering Ramp Design Specification Rev 3 are the current requirements that apply for this modification. The

"maximum of 17 feet" stated for the limit on ramp loading applies with a 10^0 slope on the ramp. Note that the ramp resting on the pier will be designed to allow free motion move through a range from 12^0 down to 3^0 up and thus will not lift off the piers in Hawaii with a 17 foot nominal drop and a two foot surge change. This will be formally included in the contract specification.

- The detailed design of the ramp and lifting mechanisms will be like the successfully deployed stern ramp on WestPac Express unless specifically approved by Austal and HSF. This especially applies to the loaded and moving parts of the ramp positioning mechanisms. This will be formally included in the contract specification.
- The detailed design of the stern shelf will include provisions for accepting the existing Nawiliwili shore ramp and planned gangway on the stern in an identical manner as these access ramps are linked to ALAKAI. This will be formally included in the contract specification.
- Some details are still being finalized, including the type of non-skid to be used on the ramp and the material for the wear pads under the ramp where it will contact the pier. Austal and HSF are still evaluating the optimum design for these details but appropriate non-skid and wear pads will be provided. These will be formally included in the contract specification.
- The Austal specification notes loads that can be supported on the ramp and stern shelf. For completeness, it is important to note that the ramp and stern shelf will accommodate the same loads as the center section of the main deck, which is the vehicle area with maximum design load capability.
- High strength stanchions support the passenger deck from the main or vehicle deck. Austal is assessing how to move the aft most stanchions (two total) in order to improve the turning radius for vehicles entering the ship via the new ramp. These stanchions cannot be removed but need to move forward by at least one frame (4 feet). This will be formally included in the contract specification.
- The installation will be in accordance with and under the inspection and test of the classification society (Germanischer Lloyd) and the US Coast Guard.
- Other installation, test and warranty requirements will be consistent with the overall ship specification under which the ship is contracted.



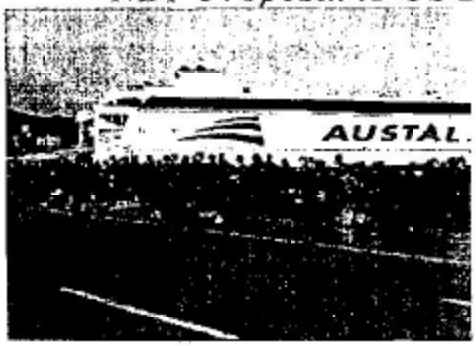


Table II Austal Preliminary Specification of A616 Stern Quarter Ramp Design Specification Rev 3 Dated March 5, 2008

General Capacity and Functional Performance

- The ramp is designed to lower to a maximum of 17ft—i.e. 17ft from main deck to pier.
- The ramp will be a folding design based on the concept model presented in Figure 1
- The main deck extension shall incorporate a shelf for attaching the existing shore ramp at Nawiliwili. This extension will accommodate the passenger boarding ramp at the same location.
- The axle load of the ramp shall be the same as the maximum axle load on the main deck. The aft ramp shall be capable of supporting a WB50 truck (see attached) of maximum 42 tonnes or a MRAP Cat III vehicle:

Length: 26.91 ft (8.20 m)

Width: 8.5 ft (2.59 m)

Height: 13.0 ft (3.96 m)

Weight: 45,320 lbs (20,556.80 kg)

Assuming one front axle and two aft and using 7.5 feet center to center on each axle and 18 feet front to rear.

Table II (Contd.)

MRAP Cat III Example

General Physical Description

An aluminum Stern Ramp shall be provided complete with the following equipment:

- Handrails as required by class and flag
- Anti-slip surface.
- Flap at tip of ramp to allow for ramp movement.
- 200mm kerb
- Hydraulically or electrically activated securing dogs.
- Raise or lower the ramp in no more than 120 seconds.
- Hinge sets with bushes, grease nipples and 2205 SS pins.
- Ramp will operate between -12 and +3deg from the main deck
- Ramp will not carry vehicles unless supported at pier.
- Replaceable stainless steel wear plate at ramp end.
- Safety straps are to be rope.
- The vessel is to be supplied with one set of primary ramp wires complete with test certificates.

The Stern Ramp Preliminary dimensions:

- 28 meters long from the hinge point to the ramp flap tip.
- 3.5m minimum clear widths.

Table II (Contd.)

Normal Operation

• The ramp is raised and lowered using a wire system. There will be two wire drums mounted on a common shaft driven by an electric motor. The second stage of the ramp will be pulled into its operating position either with a fixed wire or by a hydraulic system.
• An alarm will be activated when the ramp is being raised or lowered.
• The use of either hydraulic or electric lifting equipment shall be confirmed based on limits in vessel's existing electric and/or hydraulic power supplies, with changes to the ramp design, or necessary upgrades provided to each system if appropriate.

Emergency Operation

The ship will be provided with two lifting points so that in case of total hydraulic or mechanical failure the ramp can be raised or lowered using chain blocks.

Control

The main aft ramp shall operate manually from the control station that will be located on the starboard aft mooring deck. The control station will have a hinged cover to protect the control levers from water jet spray. The ramp primary and secondary controls will be located in the control station. Operation indication shall be provided in the bridge as required by class and flag. Operation of the ramp shall have limited automation.

3.2- General Specification for Fresh Water Generating System:

- A Village Marine PW8000 RO Desalinization unit is proposed by Austal and accepted by HSF. Additional description is provided in Table III.
- This system is selected because of its reliable use in Navy and Coast Guard ships
- The unit comes with a pre-filter to extend the life of the membranes.
- This 84x48x36 inch unit will be installed in the port hull in void #6 just forward of the fresh water tank that is in void #8. This space is open and provides ample access for maintenance. The fresh water tank in void #8 is above a fuel delivery tank and also provides an optional location if during detailed design that space would arrange better. Given the added weight aft for other modifications the more forward location is preferable.
- The unit operates on 440 volt power available on the ship. One of the two generator rooms is immediately aft in void #10.
- The installation will be in accordance with and under the inspection and test of the classification society (Germanischer Lloyd) and the US Coast Guard.
- Other installation, test and warranty requirements will be consistent with the overall ship specification under which the ship is contracted.

Table III Austal Provided Description of Water Generating System

- Manufacturer- Village Marine Tec™
- Process- Reverse Osmosis
- Capacity from Seawater - GPH - 333.3
  M^3/Day- 19,000
- Power Supply- 440v AC
- Power Demand- 15 HP
- Dimensions- L 84 " L x W 34" x H 35"
- Weight- 1,000 lbs.
- Accessories- UV Sterilizer (no chemicals carried)
  Water Tester
  Cruise Kit
  Media Filter (probable)

- Enhanced Features:
  - Sea Strainer prevents large particles from entering into the system.
  - 316 SS Pre-filtration Housings deliver 200 sq. ft. of filtering area offering more filtration than competitors systems and maximum membrane life.
  - Ceramic Plunger Titanium Pump belt driven for low vibration and noise with excellent corrosion resistance. Lifetime guarantee on pump head to original owner.
  - Boost Pump provides up to 60 psi of boost pressure to the filtration system.
  - Stainless Steel, Glycerin Filled Pressure Gauges accurately reads pressure at filters, pump and product.
  - All 316 SS High Pressure Piping for superior duty life.
  - Standard Sized Membranes are factory tested for high quality and are easy to replace.
  - Brine Water Flowmeter measures brine flow output in gallons per minute for simple diagnostic checks of system efficiency.
  - Product Flowmeter to easily monitor gallons/ hour of water being produced.
  - Automatic Diversion Valve diverts water to discharge if water quality drops below acceptable standards.
  - Digital Water Quality Monitor displays ppm TDS of product water output. Also displays temperature and total hours for accurate service logs.
  - Non-corrosive, Aluminum, Powder coated Frame.
  - One-Year Warranty with Lifetime Guaranteed FRP Pressure Vessels.
  - Freshwater flush system extends life of membranes without use of preservatives.

3.2- General Specification for Maine Sanitation System:

- An ORCA IIA 500 sewage treatment system is proposed by Austal and is the baseline design equipment. Additional description is provided in Table IV.
- The ORCA 500 is rated at 15,000 gallons per day and operates on 440 volt power that is available on the ship.
- These systems are U.S. Coast Guard/ IMO and EC Certified. The basis system utilizes 5% chlorine solution for disinfection but has an option for an automatic chlorine generation system, which HSF has agreed to include.
- This 88.1x40x74.5 inch unit will be installed in the starboard hull in void #5 just forward of the black and grey tank that is in void #7. This space is open and provides ample access for maintenance. The black and grey tank in void #7 is above a fuel delivery tank and also provides an optional location if during detailed design that space would arrange better. Given the added weight aft for other modifications the more forward location is preferable.
- The unit disassembles into three modules for shipping and installation.
- The installation will be in accordance with and under the inspection and test of the classification society (Germanischer Lloyd) and the US Coast Guard.
- Other installation, test and warranty requirements will be consistent with the overall ship specification under which the ship is contracted.
- Note: The system was selected by Austal because it has support on the US mainland. HSF and Austal are also evaluating an alternative unit similar to the one installed on WestPac Express. That unit has a proven successful service record and is still being considered as an alternative while Austal confirms the operating history of the ORCA units. The technical specifications noted above would be retained even if the different manufacturer were selected for better maintenance performance.

Table IV- Austal Provided Description of Marine Sanitation System

- Manufacturer & Type- ORCA® IIA MSD Model 500
- Process- Type II Physical / Chemical (Maceration / Sedimentation / Disinfection)
- Capacity- 15,000 GPD Average
  900 GPM 8 Sec. Surge
- Power Supply- 440v AC
- Power Demand- 5.w KW / 7.0 HP
- Dimensions- - L 88.1" L x W 40" x H 74.5"
- Weight- 2,600 lbs
- Enhanced Features- Automatic Cl^2 Addition Selected
  Others: TBD

IV- Preliminary Budgetary Cost & Schedule Estimate

4.1 Cost Estimate:

Based on the design work done to date HSF and Austal U.S. believe that the previous estimate of $5 Million that we discussed with Mr. Kaskin in other officials in the DOD will be sufficient to execute all of the NDF work described herein. The major portion of this sum will be expended on executing the modifications to A616 , including lengthening of the vessel to accommodate access and egress of large vehicles and in manufacturing and installing the telescoping ramp itself. When design is completed in approximately 4 weeks, HSF is prepared provide a more detailed cost proposal along with a detailed scope of work. However, in view of the importance of this installation and the fact that construction of A616 is well underway with current construction progress at about 50%, HSF is prepared to commit to this budgetary estimate at this time.

4.2 Schedule:

Assuming that DOD indicates that this proposal is accepted in principle and provides reasonable assurance that funding will be available to Austal for accomplishing the work described within the next 3 months, we are confident that all of the scope can be completed by the scheduled delivery of A616 in February 2009.

4.3 Rationale For Sole Source Procurement:

We understand that a convincing sole-source justification must be rendered by DOD in order to facilitate an expedited decision and commitment to a suitable contract. In that regard, the following arguments are offered for consideration:

1. The second Hawaii Superferry vessel, Hull 616, is scheduled for delivery in February 2009. When delivered on that date, the vessel together with its already operational sister ship *HS Alakai* will be the largest, most capable commercial high speed U.S.-flag vessels available with the capability to carry large payloads of passengers and heavy vehicles. With the addition of the proposed National Defense Features, the vessel will provide new, much needed military logistics capability in the U.S. commercial fleet that can be called into service by the military on very short notice. This would be a prime example of the Secretary of the Navy's desire to find ways to leverage the U.S.-flag commercial fleet to provide more support in meeting defense logistics requirements and could be accomplished at very little cost to the Government. HSF has already committed to place both of its vessels under the aegis of the VISTA program so that either can be made available on very short notice in the event mobilization and call-up.

2- The plan to accomplish the NDF features proposed at the current stage of construction of hull 616 is by far the most efficient and least costly approach, since the major modifications to the stern needed to accommodate the ramp can be made with minimal impact on existing structure. Accomplishment of the significant structural and mechanical changes required after delivery would impose considerable added time and cost in rip-out of the then-existing structure and either delay the commencement of commercial service or disrupt HSF's Hawaiian service at some later time.

3- The vessels themselves are both very similar to WestPac Express. The design-builder, Austal, has both the unique in-depth knowledge and experience to accomplish the type of installation required based on its knowledge of the design and the rules and standards used in the construction of these vessels along with the highly successful ramp addition that it made on WestPac Express before that vessel's charter to MSC.

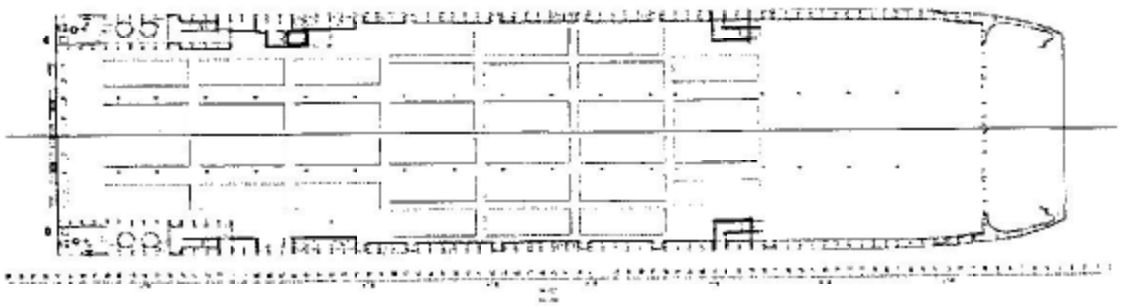
4- Accomplishment of the design, construction, installation, and test of the ramp system on Superferry Hull 616, will provide Austal with unique capability to manage the subsequent refit of Alakai, HSF's first vessel currently in-service, at minimal disruption to that vessel's commercial service. Although the location for accomplishing this refit has not been finalized at this time, it is intended that as a minimum Austal would serve as prime contractor for the work required, supervise the rip-outs required, build certain critical sections of the new structure, supervise all of the industrial work necessary in effecting the additions, purchase and kit the mechanical installation and other outfit, and supervise the testing of the NDF additions to the specifications and USCG High Speed Vessel Rules.

Optional other attachments.....

ALAKAI With Small MRAP & STRYKER Load

~ 38 positions depending on actual size and within overall load limitations

ALAKAI With Large MRAPS



~ 14 positions in center lanes support 7.5 tonnes/axle; other 20 positions support 6 tonnes/axle within overall load limitations