



Expeditionary Warfare Conference October 27, 2011



**Joint High Speed Vessel (JHSV) and
Mobile Landing Platform (MLP)
Program**

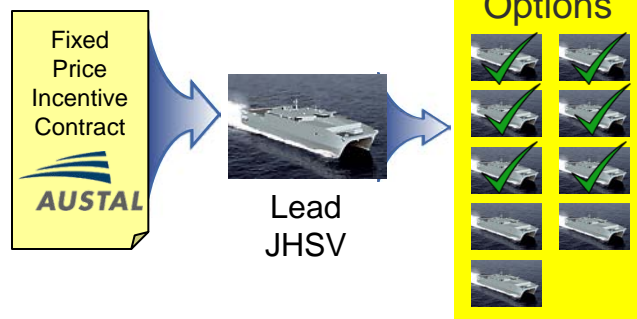
**CAPT Henry Stevens III
Strategic and Theater Sealift
Program Manager, PMS 385**



JHSV Overview

Program Structure:

Post Milestone B. The Navy awarded a fixed price incentive contract on November 13, 2008 to Austal USA in Mobile, Alabama for detail design and construction of the lead JHSV plus 9 JHSV ship construction options. Program is on schedule.



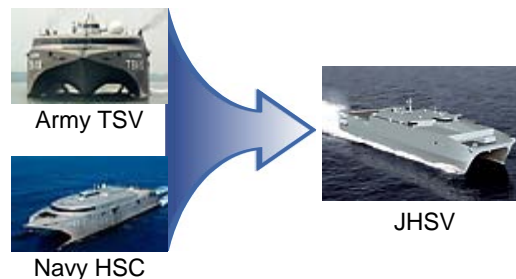
Commercially Based:

Leverages extensive commercial investment in high speed vessels possessing organic cargo handling capability to provide effective, affordable military capability from a non-developmental item.



Joint:

Merges Army Theater Support Vessel (TSV) and Navy High Speed Connector Programs. Leverages Navy's Core Ship Acquisition Competency. Provides cost effective, common logistics support platform for Army, Marine, and Navy warfighters.



Rapid Transport:

Focused technology to meet warfighting needs. Provides COCOMs a 35 knot intra-theater transport of 600 st of combat ready units over 1200 nautical miles with ability for off-load in austere environment without reliance on shore infrastructure.



Streamlined Acquisition:

Concept to Shipbuilding Contract in 2 ½ years with scheduled ship delivery 36 months after contract award. Both span times represent 50% time savings from a typical development and ship construction approach. Keys to success: (1) Stable requirements; (2) Minimize change; (3) Production Efficiency

Typical



JHSV





JHSV Characteristics

Characteristics

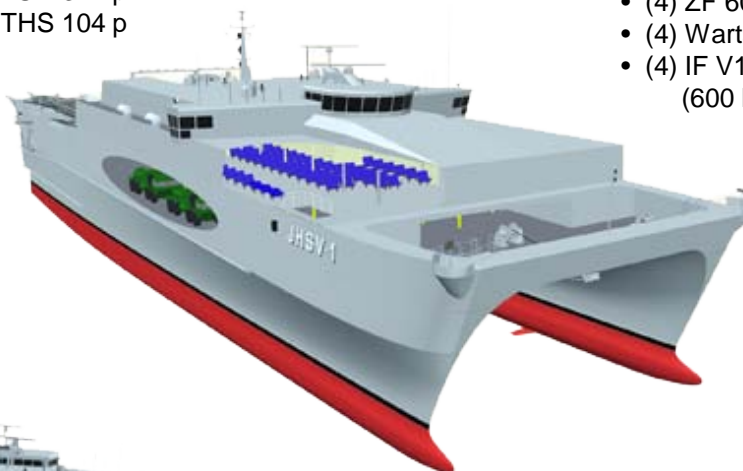
LENGTH	103.0 m (337.9 ft)	ALUMINUM CONSTRUCTION	
BEAM	28.5 m (93.5 ft)	CREW	42 p
DRAFT(F)	3.91 m (13 ft)	TROOP SEATS	312 p
FULL LOAD	2400 mt (2362 Lt)	TROOP BERTHS	104 p

Machinery

- (4) MTU 20V8000 M71L Diesel Engines (9.1 MW each, 36.4 MW total)
- (4) ZF 6000NR2H Reduction Gears
- (4) Wartsila WLD 1400 SR Waterjets
- (4) IF V1312C2ME-HPCR Diesel Generators (600 kW each, 2.4 MW total)

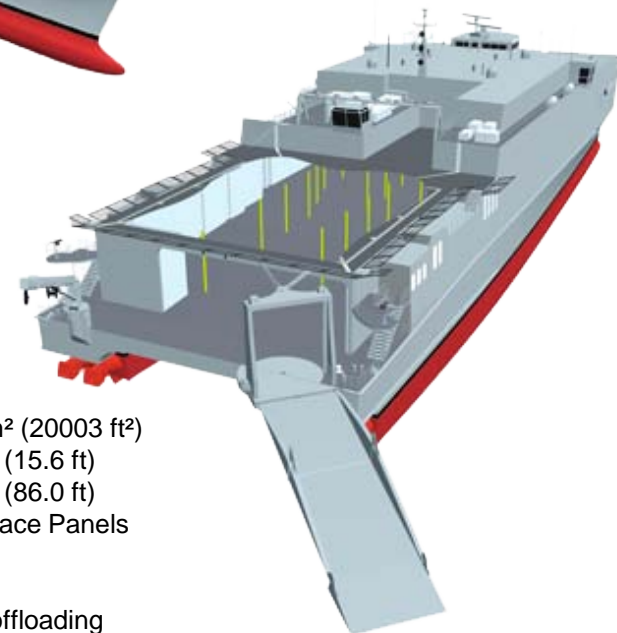
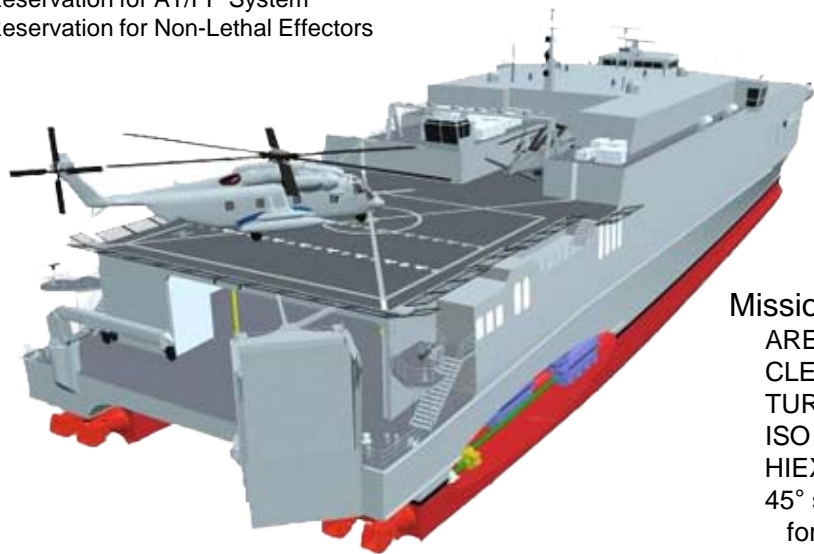
Aviation Facilities

- NAVAIR Level 1 Class 2 Certified Flight Deck for one helicopter
- Centerline parking area for one helicopter
- NAVAIR Level 1 Class 4 Type 2 Certified VERTREP
- Helicopter Control Station



Armament

- (4) .50 Caliber Machine Guns
- Reservation for AT/FP System
- Reservation for Non-Lethal Effectors

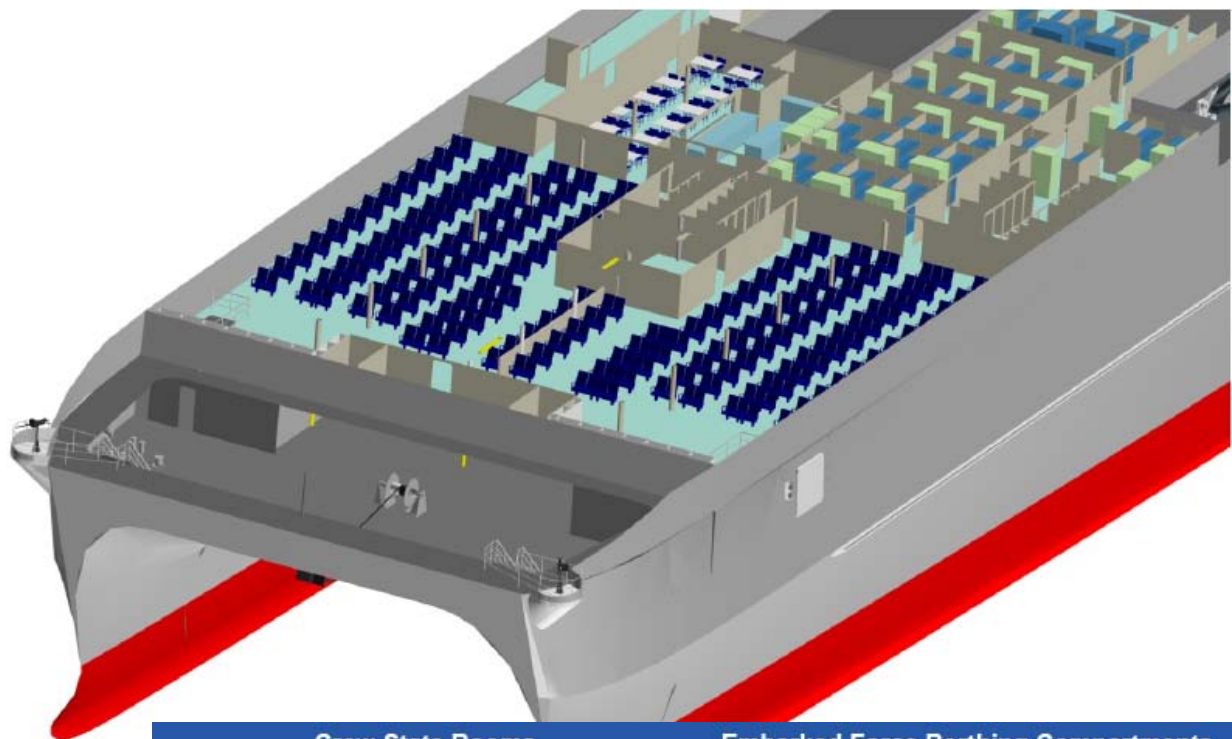


Mission Bay

AREA (with Tie Downs)	1858 m ² (20003 ft ²)
CLEAR HEIGHT	4.75 m (15.6 ft)
TURNING DIAMETER	26.2 m (86.0 ft)
ISO TEU STATIONS	6 Interface Panels
HIEX Foam Firefighting System	
45° slewing articulated quarter ramp	
for rapid and efficient loading and offloading	



JHSV Troop Accommodations



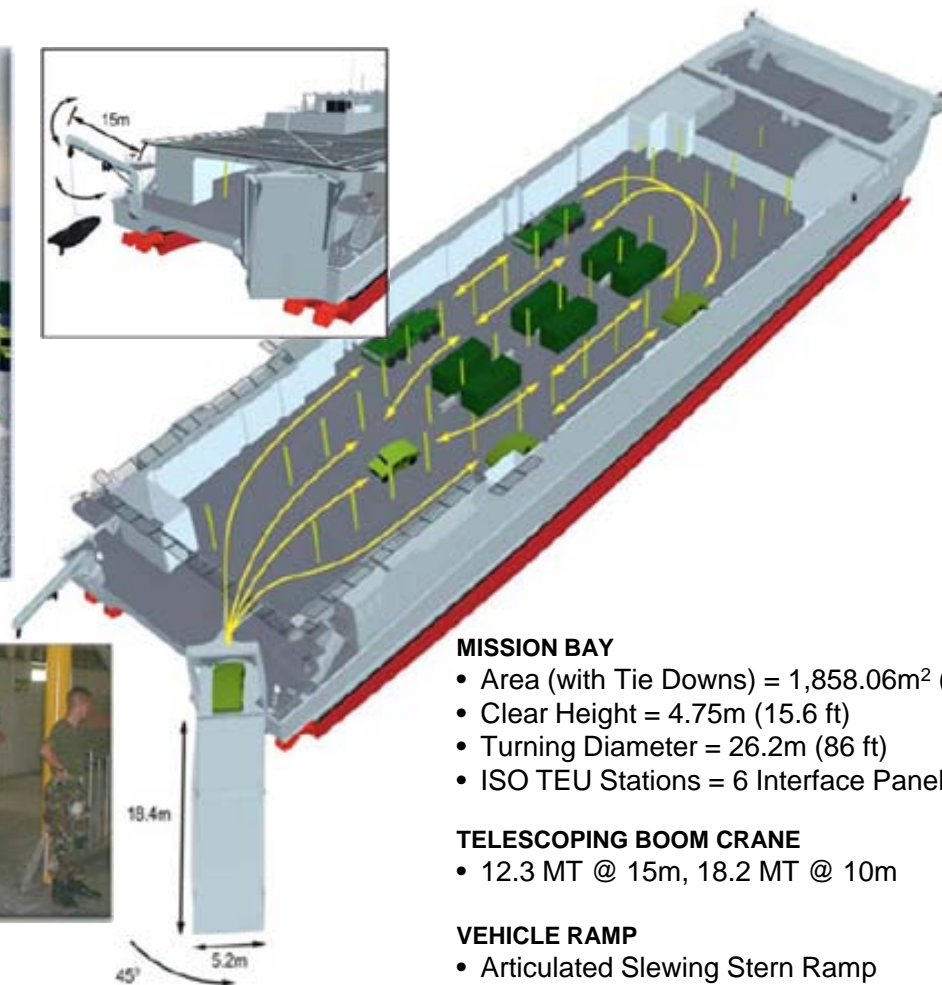
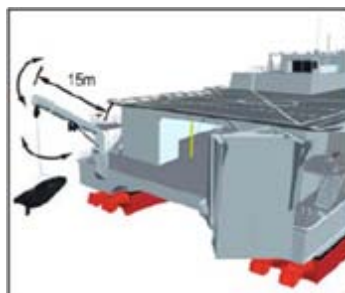
ACCOMMODATIONS

- Crew = 42 p
 - 2 x Single SR
 - 6 x Double SR
 - 7 x Quad SR
- Troop Seats = 312 p
- Troop Berths = 104 p
- Galley & Messing = 48 p





JHSV Mission Bay



MISSION BAY

- Area (with Tie Downs) = 1,858.06m² (20,000ft²)
- Clear Height = 4.75m (15.6 ft)
- Turning Diameter = 26.2m (86 ft)
- ISO TEU Stations = 6 Interface Panels

TELESCOPING BOOM CRANE

- 12.3 MT @ 15m, 18.2 MT @ 10m

VEHICLE RAMP

- Articulated Slewing Stern Ramp
- Straight Aft to 45° Starboard



WestPac Express Operational Experience



Aviation Capability and Support



- Land, Launch and refuel in up to Sea State 3, Day/Night all weather CH-53, H-60 & H-46 aircraft.
- Level 1 Class 2 (limited services)
- Class 4 Type 2 VERTREP, H-60, H-46, H-47, H-53, V-22
- Helo wash-down facilities available





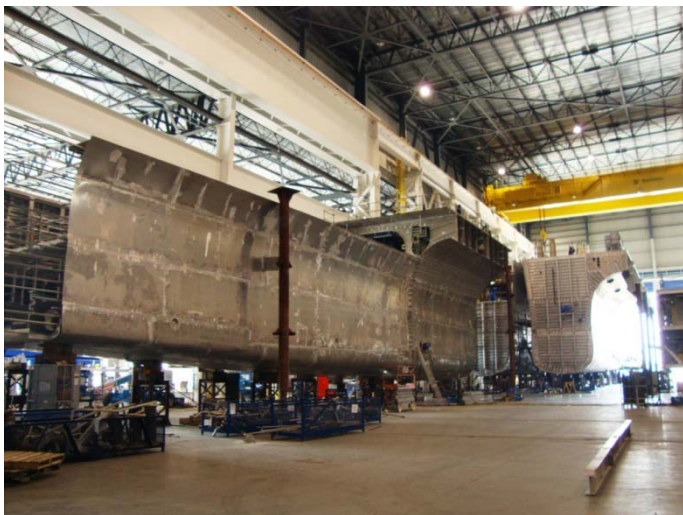
JHSV Production Progress



JHSV 1 (Spearhead) at pier for Christening



JHSV 1 (Spearhead) Test and Activation



JHSV 2 and 3 Under Construction



JHSV Program Way Ahead



- **JHSV 2 Keel Laying (1st Qtr FY 2012)**
- **JHSV 1 Builder's Trials/Acceptance Trials (Winter 2011)**
- **JHSV 1 Delivery (2nd Qtr FY 2012)**
- **JHSV 3 Keel Laying (2nd Qtr FY 2012)**
- **JHSV 1 Post Delivery Test & Trials (3rd Qtr FY 2012 – 1st Qtr FY 2013)**



MLP Overview

Program Structure:

Navy awarded National Steel and Shipbuilding Company (NASSCO) a contract on February 13, 2009, for Systems Design (SD) Part 1, with an option for SD 2. Advance Design awarded August 13, 2010. Detail Design & Construction contract for MLP 1 and 2 was awarded May 27, 2011, and a contract option for Long Lead Time Material for MLP 3 was awarded June 30, 2011.

- ✓SD1
- ✓SD2
- ✓AD

✓Awarded

DD&C

- ✓MLP 1
- ✓MLP 2
- ☐MLP 3

Delivers Joint Warfighter Equipment

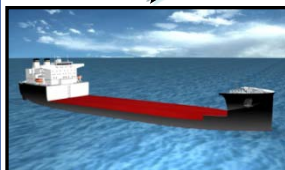
Each MLP provides:

- 3 LCAC berths, Skin-to-Skin ramp & fenders
- 25,000 sq. ft. Raised Vehicle Deck



Commercially Based

Designed/constructed to commercial ship standards. Navy standards and certifications applied to mission-related ship functions. Operated by a 34-person Military Sealift Command crew.



MLP at Delivery



Sea Base Surface Interface Hub

Enables personnel and equipment transfer from MPF(F) LMSR and JHSV to shore via LCACs in Sea State 3 conditions.



Core Capability Set

Government designed. Constructed under separate contract.





Mobile Landing Platform (MLP 1)

ACCOMMODATIONS

	Lic/ Off	CPO/ SNCO	Unlic/ OEP	Total
MSC	15	-	19	34
Spares	0	-	0	0
Standing Detach.	0	0	0	0
NSE	0	0	0	0
Troops	0	0	0	0
Total	15	0	19	34

Habitability: Based on BP Tanker standards, MSC crew in single staterooms with 1 exception of one two-person stateroom

MACHINERY SYSTEMS

- Commercial Diesel-Electric Propulsion
- Integrated Electric Plant
- 4 x 6.1 eMW Medium Speed Diesel Generators
- 6.6 kV Electric Propulsion System
- 2 x 10.0 MW at 85 rpm Synchronous, Variable Speed, Reversible Propulsion Motors
- 1,000 kW Emergency Diesel Generator
- 2 x 7.45 m diameter propellers
- 1 x 2,000 kW Azimuthing Bow Thruster (DPS-0)



AUXILIARY SYSTEMS

- All-Electric Auxiliaries
- Ballast System: 4,000 m³/hr, up to ~20m draft
- A/C Plants 2x85 ton
- Stores Cranes: 2 x 5 mt capacity

COMMAND & CONTROL

- Legacy BP Tanker Navigation and Communication
- Integrated Navigation Bridge System
- SOLAS Communications for Sea Area III
- 2 x Differential GPS
- 3 cm (X-band) & 10 cm (S-band) radars

INTERFACE STATIONS SERVICES

Seawater cooling	AFFF	JP-5
Seawater firefighting	Electric power	Oily waste
Telephone	Distilled water	Food waste
General announcing	Potable water	DFM
General alarms	LP air	
NIPRNET	Sewage discharge	
SIPRNET	Grey water discharge	

CARGO CAPABILITIES

- Mission Deck: 154.7 x 50m
- Mission Deck Area: 7,735 m²
- Lift Capacity: 23,000 mt @ 9m submergence with fixed ballast
- Deck Load Capacity: 20 mt/m²
- JP-5 Stowage: 380,000 gal
- Potable Water Stowage: 100,000 gal
- Potable Water Generation: 25,000 gal/day

LIFESAVING

- USCG Certified (Cargo & Misc. Vessels)
- Lifeboats: 2 x 46 person (one ea. P/S))
- Rescue Boat: 1 x 7m RHIB
- Liferafts: 2 x 25-person (two ea. P/S aft) 1 x 10-person (one ea.. P/S fwd)

DIMENSIONS

- Length, LBP: 233.2 m
- Length, Overall: 239.3 m
- Beam, DWL: 50.0 m
- Full Load Departure Draft: 9.0 m
- Load Line Draft: 12.0 m
- Depth, Mission Deck: 15.5 m
- Depth, Upper Deck: 28.0 m

STABILITY

IAW IMO (SOLAS) and 46 CFR

HULL STRUCTURE

Commercial, ABS Steel Vessel Rules

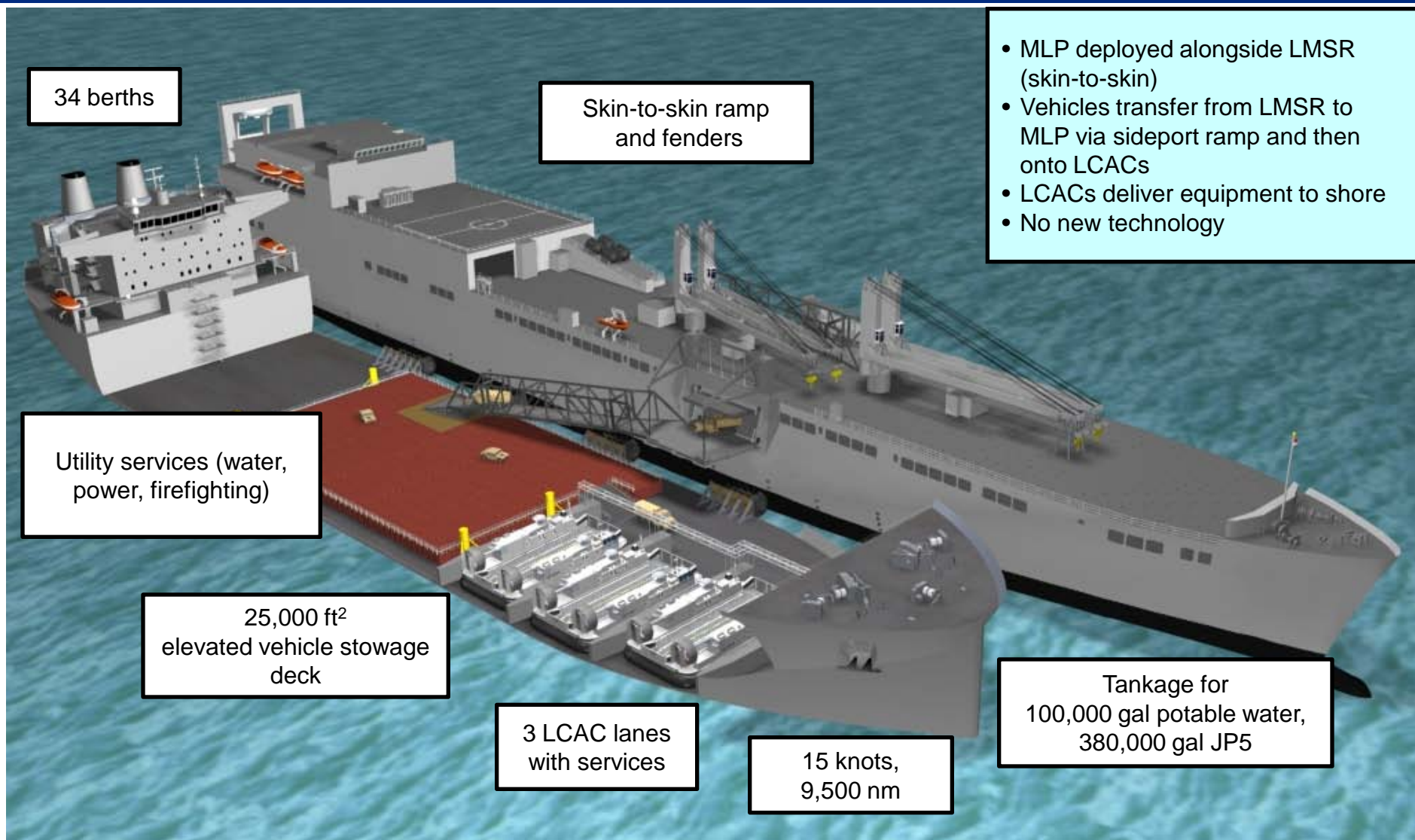
MEDICAL

24 m² (255 ft²) (Isolation only). BP tanker legacy facility

Information as of 10/19/2011



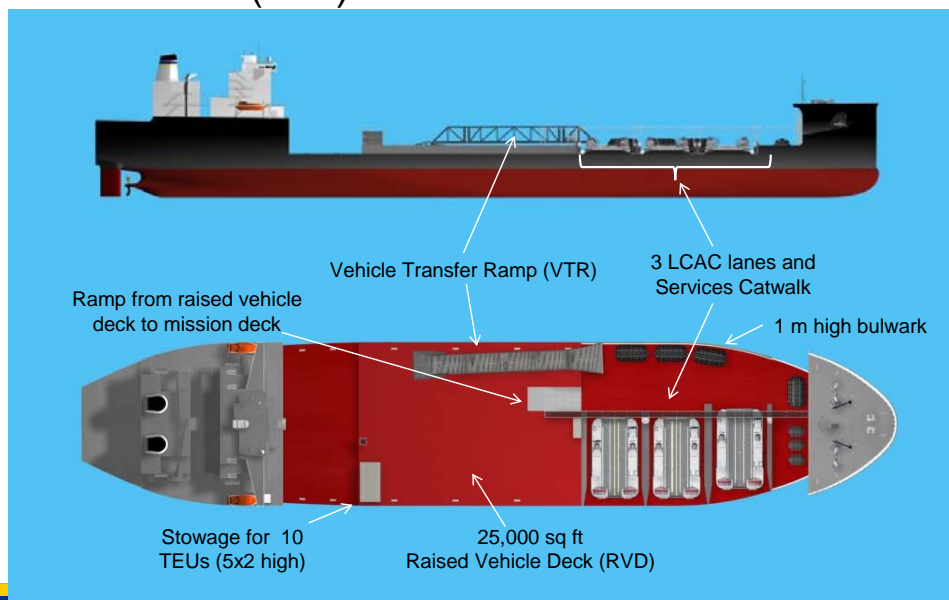
MLP Capabilities





Core Capability Set Acquisition Plan

- Government-led contract design effort to refine and translate the requirements into the design and specifications for the core capability set before competing the contract, which allows more user input.
- A separate competitive contract for Detail Design and Construction and integration of the core capability for MLP 1 with options for MLP 2 and MLP 3 will be issued.
- Core Capability Set includes: Elevated vehicle stowage deck, 3 LCAC lanes, LCAC services catwalk, Skin to Skin fenders, and support structures to receive LMSR side port ramp and fender to bear upon.
- Interfaces between the ship and core capability package are managed via an existing Interface Control Document (ICD).





MLP Production Progress



MLP Blocks
under
construction at
NASSCO





MLP Program Way Ahead

- **Core Capability Set RFP Release (1st QTR FY 12)**
- **MLP 1 Keel Laying (1st QTR FY 12)**
- **Award Core Capability Set (3rd Qtr FY 12)**
- **MLP 2 Start of Construction (3rd Qtr FY 12)**
- **MLP 1 Undock (1st Qtr FY 13)**