

# USN AND USMC LANDING SHIP MEDIUM ACQUISITION CASE STUDY



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## Abstract

- The purpose of this project is to record the U.S. Navy and U.S. Marine Corps Landing Ship Medium (LSM) program background, identify the acquisition dilemma, and provide a path forward as well as contract recommendations. Differences in minimum LSM capability and survivability requirements widened the program scope between the services, contributed to an unresolved Analysis of Alternatives study which is pending OSD approval, and has delayed the initial program timeline. The acquisition team must manage risk by tailoring, combining, and transitioning between acquisition pathways to deliver the LSM capability to the warfighter.



SeaTransport's Proposed LSM Concept Design.

## Methods

- Case study** - Extensively analyzes the LSM acquisition program as a detailed case study including the background, stakeholders, dilemmas, analysis, and recommendations. This provides an in-depth investigation of a real-world program.
- Stakeholder analysis** - Maps out and analyzes all the key stakeholders involved in the LSM program, their positions, interests, and influence.
- Decision matrix analysis** - Created quantitative decision matrices to evaluate and prioritize alternative options for the program using weighted criteria.
- Literature review** - Relevant literature on acquisition program management, shipbuilding, and related topics are reviewed to inform the analysis.

## Results & Their Impact

- Pursuing a hybrid MTA rapid prototyping into MCA pathway allows accelerated development and schedule while balancing oversight risks. This tailors the program to leverage rapid prototyping advantages before entering formal acquisition. Impact is faster delivery of capability.
- Awarding production contracts to multiple domestic shipbuilders expands capacity and competition. Impact is increased manufacturing throughput, reduced costs, and quicker production timelines to field the fleet.
- Alternatively, utilizing the Army's MSV-H watercraft program to fulfill the LSM requirement could provide a quicker solution to meet the capability need rather than developing the LSM independently. This would leverage existing development efforts and resources. However, it may not fully meet all desired unique performance requirements.

LSM AoA Pending OSD Approval Decision Matrix						Option Scores (Lower is Better)	
Options	Weighted Criteria	Risk Criteria				Unweighted	Weighted
		Cost	Schedule	Performance	Program		
Do Nothing - Utilize Existing Amphibious Ships	1	4	4	1	1	11	27
Use Army MSV-H Program in Development	3	3	2	3	2	13	23
Acquire Commercially Available Vessels (COTS)	2	1	3	2	3	11	24
Pursue LSM Development Without Approved AoA	4	2	1	4	4	15	33

LSM Pending AoA Approval Decision Matrix

Acquisition Pathway Decision Matrix							Option Scores (Lower is Better)	
Options	Weighted Criteria	Risk Criteria					Unweighted	Weighted
		Cost	Schedule	Performance	Manufacturing	Technological		
Major Capability Acquisition (MCA) Entry at MS A	6	6	1	1	1	1	16	53
MCA Entry at MS B	5	5	3	3	3	3	22	53
MCA Entry at MS C	1	1	6	6	6	5	25	52
Middle Tier Acquisition (MTA) Rapid Prototyping and Fielding	2	2	4	5	4	6	23	64
MTA Rapid Prototyping Entry to MCA At MS B	4	4	2	2	2	2	16	50
MTA Rapid Prototyping Entry to MCA At MS C	3	3	5	4	5	4	24	54

LSM Acquisition Pathway Decision Matrix

Design and Construction Contract Award and Management Decision Matrix								Option Scores (Lower is Better)	
Options	Weighted Criteria	Risk Criteria						Unweighted	Weighted
		Cost	Schedule	Manufacturing	Program	Security	Industrial Base		
Single Shipbuilder	3	3	1	1	1	3	12	41	
Multiple Domestic Shipbuilders	2	1.5	2	2	2	1	10.5	37.5	
Multiple Domestic and International Shipbuilders	1	1.5	3	3	3	2	13.5	47.5	

LSM Design and Construction Contract Award and Management Decision Matrix

