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IDA PAPER P-1541

PLANNING AMPHIBIOUS LIFT FORCES

APPENDIX
AMPHIBIOUS SHIP CAPACITY HANDBOOK

Erwin C. Allen
William A. Byrne
Michael L. Plitman
Contributions by Martin B. Betts

April 1981

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Prepared for
Office of the Assistant Secretary of Defense
(Program Analysis and Evaluation)

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Alternative loadings are presented for nine different types of amphibious lift ships. For each type of ship, the loadings vary in their allocation of space to types of cargo. The basic source document is the Ship Loading Characteristics Pamphlet (SLCP).			

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i/ii

PREFACE

(U) This paper has been prepared for the Office of the Assistant Secretary of Defense (Program Analysis & Evaluation) under Task Order PA&E Number 134, "Evaluation of Amphibious Lift Methodology", dated 4 April 1980. The purpose of the task is to evaluate the methodology for calculating lift requirements and capabilities.

(U) The task order schedule called for a draft final report to be delivered on 31 October 1980 and a final report to be delivered on 15 December 1980. This paper fulfills the final deliverable.

(U) This Appendix was prepared by Presearch, Incorporated, for the Institute for Defense Analyses under Purchase Order Number 1519.

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INTRODUCTION

PURPOSE

The purpose of this effort is to examine the ship loading characteristics of amphibious ships and determine the capacities of the different classes for loading troops, vehicles, cargo, helicopters, boats and bulk fuel (fingerprints). Since amphibious ships can be loaded in different ways that result in different fingerprints, ship capacity information is developed to show the different loading options and the corresponding fingerprints for each class. Information is presented in the form of an amphibious ship capacity handbook for use by those involved in ship acquisition or ship allocation decisions. It is not intended to replace those documents used in embarkation planning.

APPROACH

The basic source document for this effort is the Ship Loading Characteristics Pamphlet (SLCP) for each individual ship. Since the SLCP is prepared by each ship after commissioning, there is not yet an SLCP for the LSD-41 Class. Further, SLCPs have not been completed for LHAs 3, 4 and 5. Information on the LSD-41 class is taken from design plans, and information on LHAs 3, 4 and 5 is taken from the SLCP for LHA-1.

Ship Loading Characteristics Pamphlets are designed to show what spaces within the ship are available for what specific types of cargo, i.e., troops, vehicles, helicopters, etc.; and what quantities can be handled. Details on deck layout, deck strengths, overhead clearances, hatch sizes, boom/crane

capacities and other factors pertinent to ship loading are provided by the SLCPs. These documents are used to determine the various ways that the different classes can be loaded (loading options) and to derive the specific fingerprint capacities for each loading option. Loading options are presented for LPH-2, LHA-1, LPD-1, LPD-4, LSD-28, LSD-36, LSD-41, LST-1179 and LKA-113 classes of ships.

All loading options used are those which are considered reasonable for use in amphibious assault operations over a range of environmental conditions. Loading options that might be used for administrative loads or only under ideal environmental conditions are not considered. The first loading option presented for each class of ships is the most appropriate option considering the characteristics of the class and overall amphibious lift requirements.

ASSUMPTIONS

For purposes of this study the lead ship is assumed to be representative of the entire class. The boat and aircraft lift capacities within the classes are consistent and gross ship lift capacities are similar. However, the individual SLCPs indicate substantial variations in troop, vehicle, cargo and bulk POL capacities within the ship classes. The following additional assumptions are used:

- General Assumptions

- Landing craft in wet well decks are preloaded with vehicles. (Landing craft vehicle capacity with 75% broken stow factor applied is included in ship's vehicle capacity.)
- Broken stow factor of 30% is used for all vehicle stowage spaces except landing craft.

- Broken stow factor of 75% is used for all cargo stowage spaces.
- Ship's organic boats other than LCM-6s and LCM-8s are not counted against the landing craft lift equipment.
- Mixes of landing craft used in loading options are influenced by landing craft inventory.
- Vehicles stowed under mezzanine decks in LSDs are protected from salt water immersion by providing a 50 ft safety space between vehicles and landing craft. (No safety space is used between vehicles and amphibious vehicles of LCAC.)
- LVTs are loaded in groups of 12 or 24 to support 1 or 2 rifle companies.

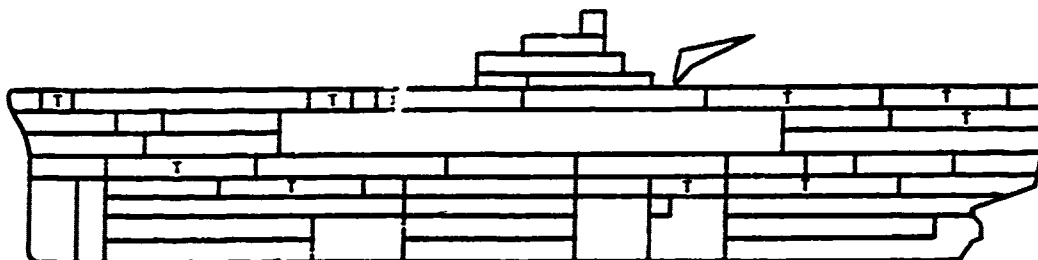
● Specific Assumptions

- LCACs will be designed and constructed so that 2 LCACs will fit in wet wells of LPD-1 and 4 class ships. (Some modification to the ships may be required to achieve the 2 LCAC lift.)
- Cargo is loaded in LHA stowage spaces using the 75% broken stow factor (as in all other ships) even though the LHA cargo spaces are designed for the stowage of specific numbers of pallets.
- LST-1179 class ships are loaded to permit sideloading causeways and helicopter operations.
- LPH and LH aircraft assignments are based on typical composite squadrons including UH-1 D/H, CH-46D and CH-53D/E aircraft.

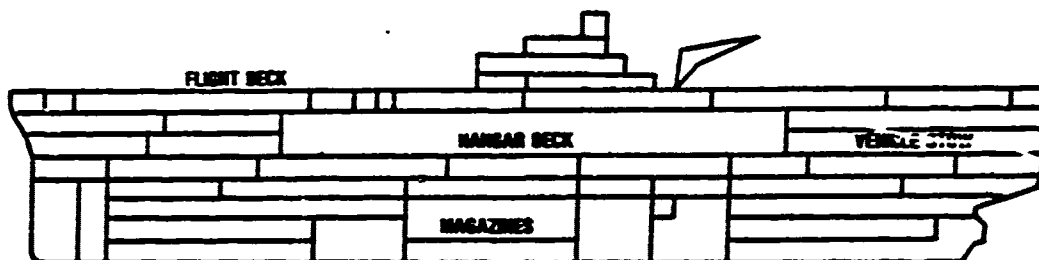
CONTENTS

This handbook contains nine amphibious ship capacity booklets, one for each of nine classes of ships. Each booklet contains two pages of ship capacity information of the ship class, plus one to two pages for each of the several loading options. For each loading option, information is provided on troops, vehicles, cargo, bulk POL, landing craft, amphibious vehicles, and helicopters. This information is given for each deck, and totaled for each ship. The specific number of loading options varies with the ship type. Addendum A provides data on the average capacity by fingerprint category for each class of ships. Addendum B provides information on landing craft characteristics. Addendum C provides a list of abbreviations.

LPH-2



OUTBOARD PROFILE DISPLAYING TROOP ACCOMMODATIONS



**INBOARD PROFILE DISPLAYING FLIGHT DECK,
HANGAR DECK AND VEHICLE STORAGE**

4-14-81-7

SHIP'S LOADING CHARACTERISTICS

The LPH-2 is principally a troop transport/aviation ship designed to load, transport and land troops and helicopter transportable equipment and supplies during the vertical envelopment phase of an amphibious operation. This ship is configured with a large flight deck and hangar deck capable of operating with a composite helicopter squadron. Vehicles can be loaded from a pier or a boat by the ship's crane to the hangar deck and driven into the vehicle stowage area. No spaces have been designated for general cargo; however, ammunition holds and vehicle stowage spaces may be used for general cargo

stowage. There are two aircraft elevators which service the flight deck and hangar deck and two cargo elevators which service the ammunition holds.

SHIP'S BOATS:

LCPL	2
Motor Whale	2
Utility	2

BERTHING ACCOMMODATIONS:

	<u>Officer</u>	<u>CPO/SNCO</u>	<u>Other Enlisted</u>	<u>Surge</u>	<u>Total</u>
Ship's Company	46	N/A	603	---	649
Landing Force	186	47	1,279	216	1,728

CRANES:

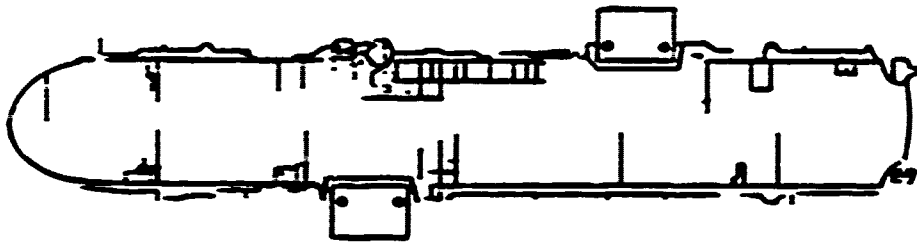
<u>Rig</u>	<u>Lift Capacity</u>	<u>Lift Cycle Time</u>
B&A Crane	18 S/T	4 min ¹

¹Estimated time.

LOADING PLAN OPTIONS

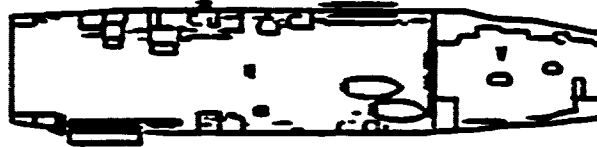
- I. Vehicle Stowage: vehicles
 - Hangar Deck: 4 UH-1D/Hs, 24 CH-46Ds.
- II. Vehicle Stowage: cargo
 - Hangar Deck: 2 UH-1D/Hs, 20 CH-46Ds, 3 CH-43Ds.

LPN-2
LOADING PLAN OPTION I

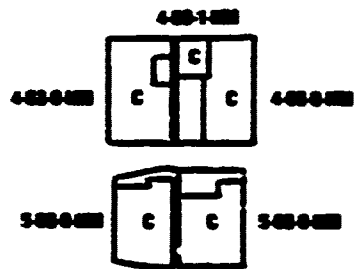


FLIGHT DECK

REAR DECK



VEHICLE STORAGE

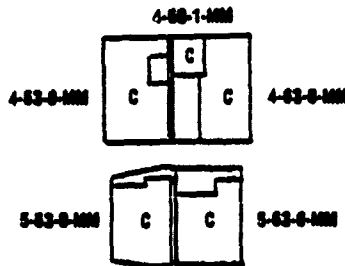
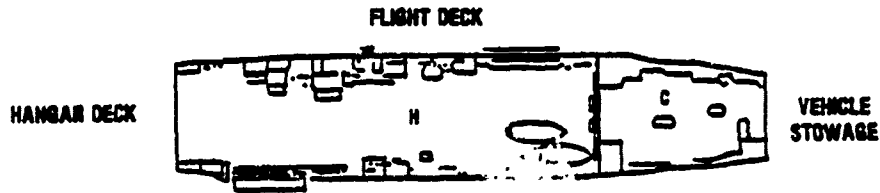
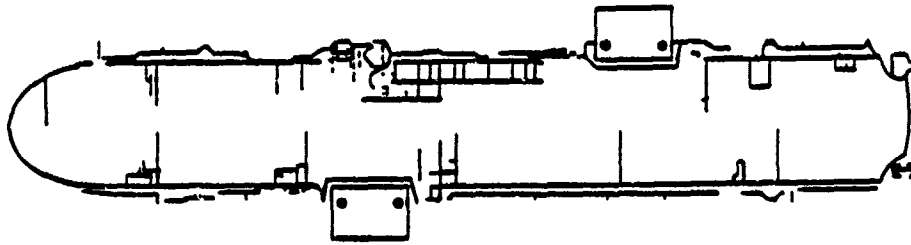


4-100-0

ITEM	QUANTITY	UNITS	BIN NO.		LOADING DATA											REMARKS	TOTAL WEIGHT	
			TYPE	NO.	BY	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE		NO.	DATE
VEHICLE STORAGE	24																	
400-000	4																	
400-000	12																	
500-000	12																	
500-000	4																	
TOTAL																		

- 1. Items are a quantity of units.
- 2. Cap is a quantity of units.
- 3. Bin No. is a quantity of units.
- 4. Vehicle storage within 2000 larger size and 2000 larger size.

LPH-2
LOADING PLAN OPTION II

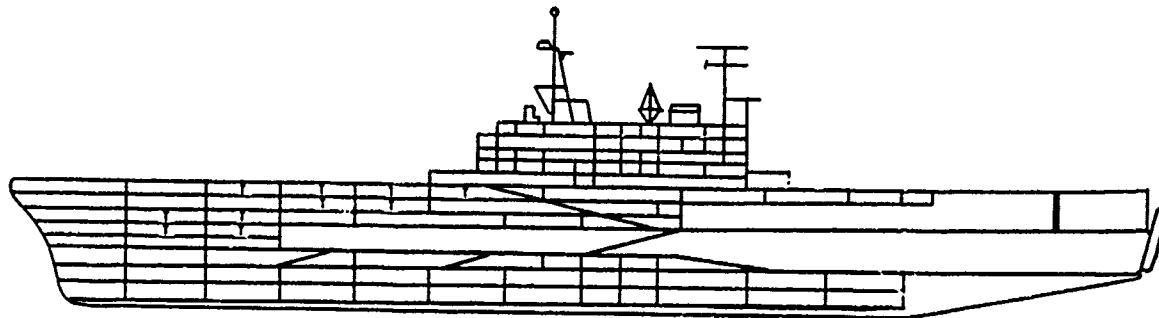


DECK	TROOPS	VEHICLES	CARGO ¹	BULK POL ²		LANDING CRAFT							AMPHIBIANS			HELICOPTER STORAGE ⁴			
				MOBAG	OP-2	JF8	LCM8	LCM6	LCM4	LCU-1810	LCAC	CG	PCS	LVT	LVA	UH-101H	CH-40	CH-53	CH-53E
FLIGHT	FLIGHT OPERATIONS																		
HANGAR																	2	2	3
VEHICLE STG			23.30																
4-83-0-MMM			6.90																
4-83-0-MMM			13.18																
4-88-1-MMM			1.11																
5-83-0-MMM			18.10																
5-83-0-MMM			18.78																
BERTHING	172																		
TANKAGE						285.8													
TOTALS	172		67.48			285.8											2	2	3

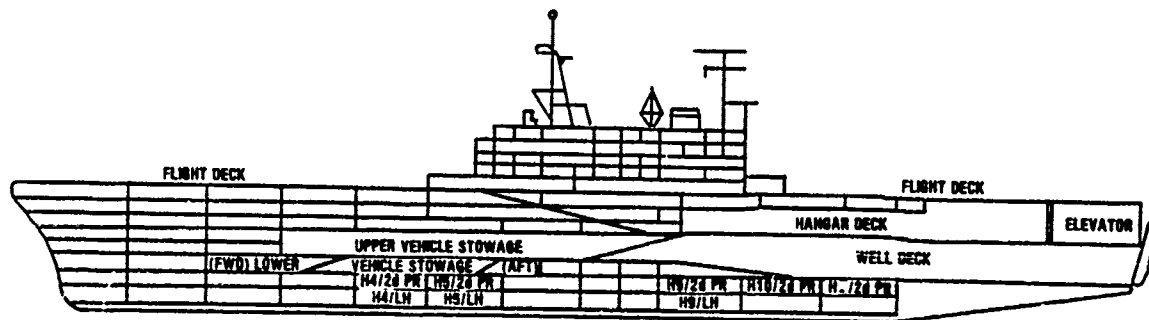
- NOTES: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk POL is in thousands of gallons.
 4 Helicopter storage reflects 75-75% hangar deck and 25-25% flight deck storage.

4-14-81-8

LHA-1



OUTBOARD PROFILE DISPLAYING TROOP ACCOMMODATIONS



INBOARD PROFILE DISPLAYING FLIGHT DECK, HANGAR DECK,
VEHICLE STORAGE SPACES AND CARGO HOLDS

4-14-81-10

SHIP'S LOADING CHARACTERISTICS

The LHA-1 is designed to load, transport, and land troops, vehicles, and equipment simultaneously via surface and aircraft during amphibious operations. It is a large general purpose amphibious ship with substantial lift capacities for troops, aircraft, vehicles, boats, dry cargo and bulk fuel. The ship has the capability to embark a large segment of a Marine Amphibious Unit (MAU) with its equipment and supplies. The aviation facilities are capable of operating with a composite helicopter squadron. The LHA has two LCM-6s that are organic and stowed on the flight deck aft of the island. The well deck

can accommodate all types of landing craft (boats and amphibians) in the current inventory and can transport up to four LCU-1610 class craft. The modern materials handling suite includes forklift trucks, pallet transporters, overhead monorail cranes, horizontal conveyors, and cargo elevators.

SHIP'S BOATS

LCPL 4
 LCM-6 2

BERTHING ACCOMMODATIONS:

	<u>Officer</u>	<u>CPO/SNCO</u>	<u>Other Enlisted</u>	<u>Surge</u>	<u>Total</u>
Ship's Company	78	50	682	---	810
Landing Force ¹	172	59	1,672	---	1,903

CRANES:

<u>Rig</u>	<u>Lift Capacity</u>	<u>Lift Cycle Time</u>
B&A Crane	30 S/T	2.5 min.

¹Accommodations for landing force include spaces for naval staff.

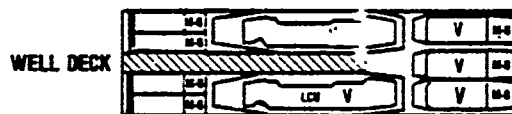
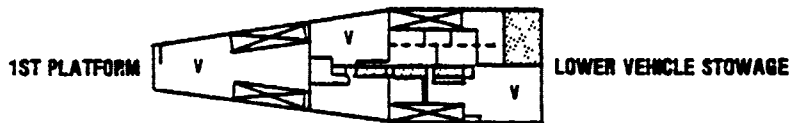
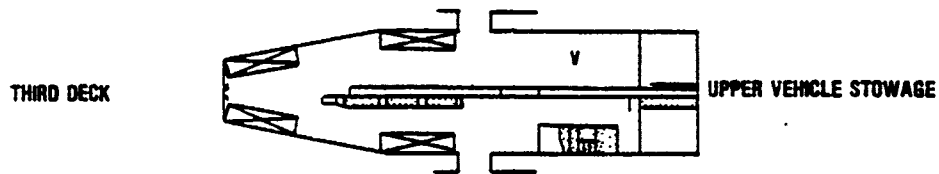
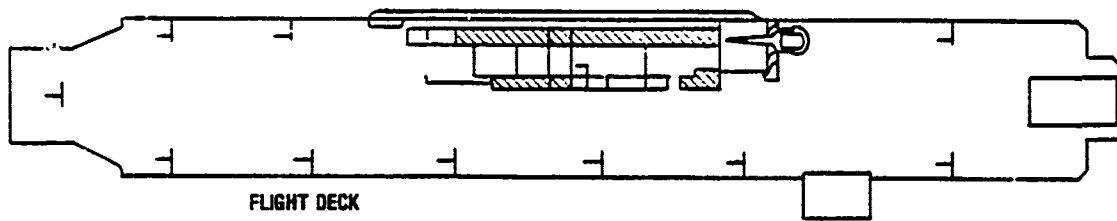
LHA-1
 LOADING PLAN OPTIONS¹

- I. Well Deck: 2 LCUs; 3 LCM-8s
- II. Well Deck: 4 LCM-8s; 2 LCM-6s; 12 LVTs
- III. Well Deck: 1 LCAC; 3 LCM-8s; 12 LVTs
- IV. Well Deck: 1 LCAC; 1 LCU; 3 LCM-8s
- V. Well Deck: 2 LCUs, 2 LCM-8s; 2 LCM-6s

¹In all options vehicles and cargo are stowed in spaces so designated. Composite squadrons consisting of light, medium and heavy helicopters are stored on the hangar deck.

- VI. Well Deck: 12 LVTs aft; vehicles forward
- VII. Well Deck: 1 LCAC and 12 LVTs aft; vehicles forward

LHA-1
LOADING PLAN OPTION I



4-14-81-11

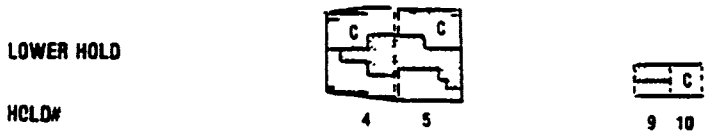
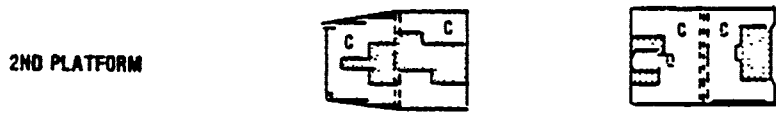
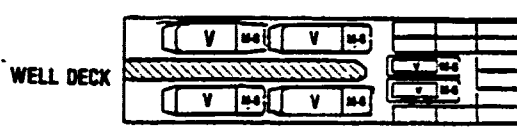
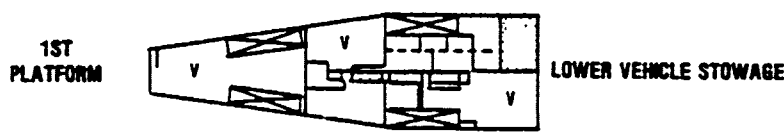
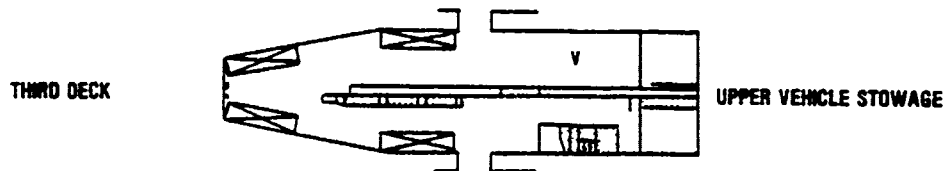
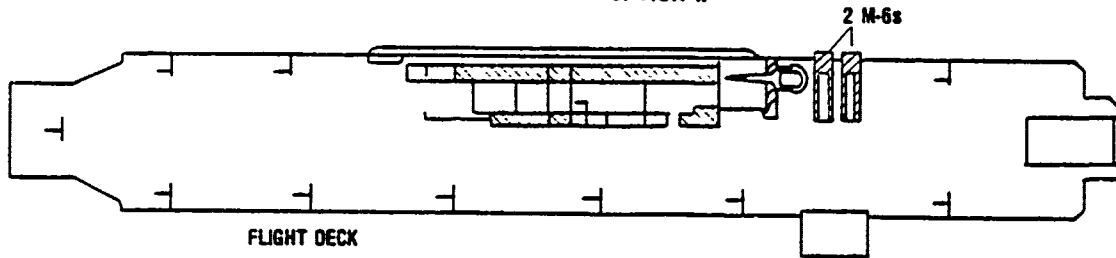
LHA-1 LOADING PLAN OPTION I

DECK	TROOPS	VEHICLES	CARGO ²	DUAL POK ³		LANDING CRAFT						AMPHIBANS			HELICOPTER STORAGE ⁴			
				WHEELS	RF-3	LCM ⁵	LCM ⁶	LCM ⁶	LCM ⁶	LCM ⁶	LCAC	CS	PCB	LVT	LVA	UH1H	CH-53	CH-53
FLIGHT																		
MANUAL																		
Hold 4 24 PW			14.88															
L.A.			16.71															
Hold 5 24 PW			14.38															
L.A.			14.72															
Hold 6 24 PW			17.26															
L.A.			3.29															
Hold 8 24 PW			13.26 ⁷															
L.A.			13.26 ⁷															
Stores 1st Deck			16.38															
Stores 2nd Deck			3.37															
Stores 3rd Deck			1.57															
Stores 4th Deck			18.54															
Stores 5th Deck			1.47															
WELL																		
VERTICAL	1,000																	
GRAVITY		5.71																
PACKAGE																		
TOTALS	1,000	28.08	100.87	18	18													

- NOTES: 1 Vehicle area in thousands of square feet.
 2 Cargo in thousands of cubic feet.
 3 Dual POK in thousands of pallets.
 4 Designed to carry packaged POK.
 5 This space partially loaded with Avrocar Consolidated Movement Unit (AMCU) material.
 6 Two LCM to be used.
 7 The cargo areas of boats in well decks are loaded with vehicles.
 8 Helicopter storage reflects 10 75% longer deck and 20 20% light deck storage.

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LHA-1
LOADING PLAN OPTION II



4-14-81-13

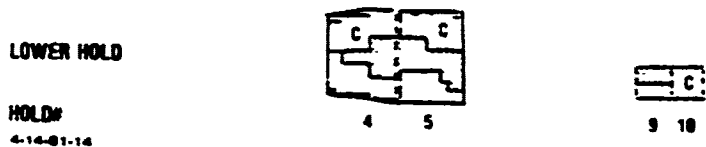
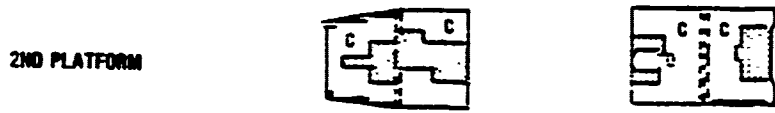
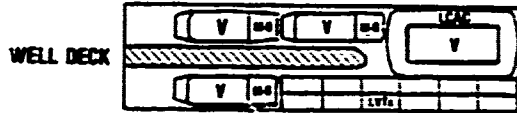
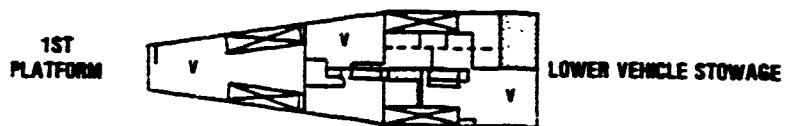
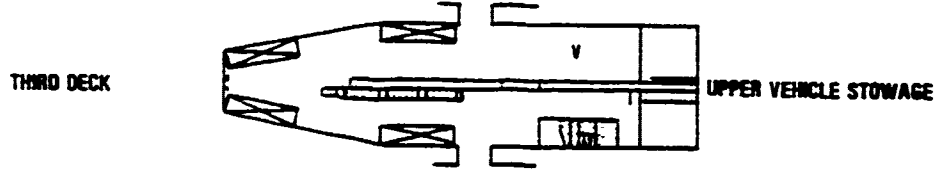
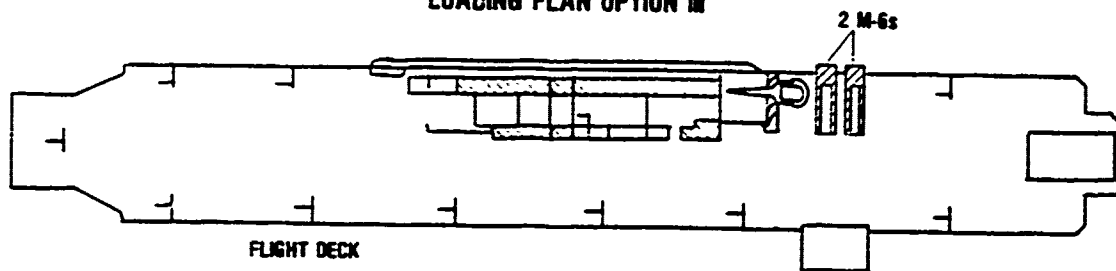
LHA-1
LOADING PLAN OPTION II

DECK	TROOPS	VEHICLES	CARGO ²	DUAL PLS ³		LANDING CRAFT						AMPHIBIANS		HELICOPTER STORAGE ⁹				
				MODULE	DP ¹	LCM ⁴	LCMR	LCM ⁵	LCMR	LCAC	LC	PCB	LVT	LVA	LAV ⁶	CH ⁷	CH ⁸	CH ⁸
FLIGHT DECK																		
PERMIT OPERATIONS																		
MAIN DECK			4.00															
MAIN DECK			18.71															
MAIN DECK			14.28															
MAIN DECK			14.77															
MAIN DECK			17.28															
MAIN DECK			3.28															
MAIN DECK			17.28															
LOWER DECK			18.71															
LOWER DECK			4.43															
LOWER DECK			3.97															
TOTALS	1,000	28,000	100,000	100	100	4	4	4	4	4	4	12	12	4	4	27	27	5

- NOTES: 1 Vehicle are in thousands of square feet.
2 Cargo is in thousands of cubic feet.
3 Dual PLS is in thousands of cubic feet.
4 Two (LCMR) are required.
5 Two (LCMR) are required.
6 Designed to carry packaged PBL.
7 This space partially loaded with Medium Conventional Intermediate (MCI) material.
8 Amphibious space is included in well deck vehicle space.
9 The cargo area of boats in well decks are loaded with vehicles.
10 Helicopter storage reflects 100% longer deck and 200% Right deck storage.

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LHA-1
LOADING PLAN OPTION III



4-14-81-14

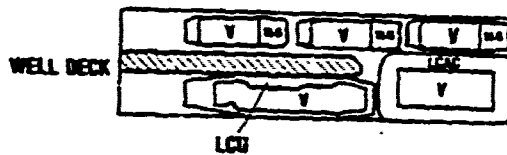
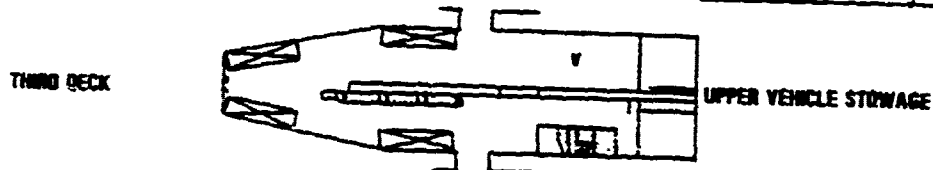
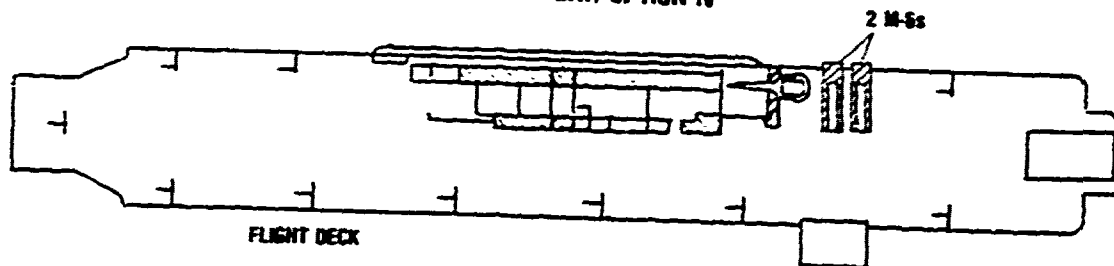
LHA-1
LOADING PLAN OPTION III

SPACE	TROOP NUMBER	CARGO	GALLONS PER		LANDING CRAFT							HELICOPTER BOMBS							
			MIN	MAX	LCM-1	LCM-2	LCM-3	LCM-4	LCM-5	LCM-6	LCM-7	LCM-8	LCM-9	LCM-10	LCM-11	LCM-12			
1000	1000	1000																	
1001	1001	1001																	
1002	1002	1002																	
1003	1003	1003																	
1004	1004	1004																	
1005	1005	1005																	
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1019	1019	1019																	
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1021	1021	1021																	
1022	1022	1022																	
1023	1023	1023																	
1024	1024	1024																	
1025	1025	1025																	
1026	1026	1026																	
1027	1027	1027																	
1028	1028	1028																	
1029	1029	1029																	
1030	1030	1030																	
1031	1031	1031																	
1032	1032	1032																	
1033	1033	1033																	
1034	1034	1034																	
1035	1035	1035																	
1036	1036	1036																	
1037	1037	1037																	
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1040	1040	1040																	
1041	1041	1041																	
1042	1042	1042																	
1043	1043	1043																	
1044	1044	1044																	
1045	1045	1045																	
1046	1046	1046																	
1047	1047	1047																	
1048	1048	1048																	
1049	1049	1049																	
1050	1050	1050																	

- 1 Vehicle wt in thousands of square feet.
- 2 Cargo in thousands of cubic feet.
- 3 Bulk PB in thousands of cubic feet.
- 4 Bulk PB in thousands of gallons.
- 5 Two LCM in one space.
- 6 Designed to carry package PB.
- 7 This space partially loaded with Aviation Consolidated Intermediate (ACI) material.
- 8 Amphibious square is included in well deck vehicle square.
- 9 The cargo area of boats in well decks are loaded with vehicles.
- 10 H-19 helicopter storage vehicle 10 75% longer deck and 20 20% right deck storage.

010010

LHA-1
LOADING PLAN OPTION IV



4-14-81-10

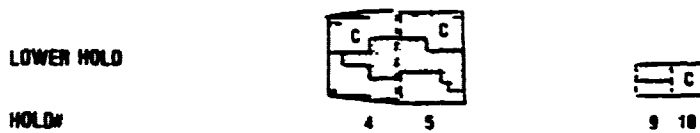
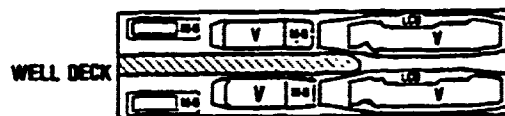
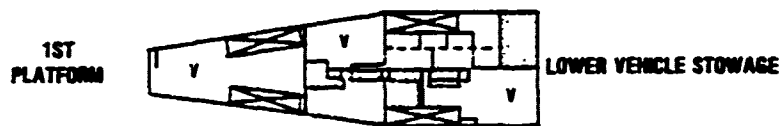
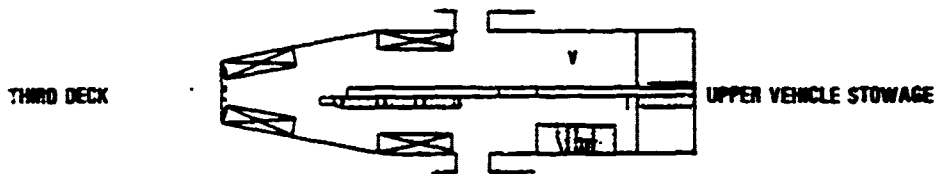
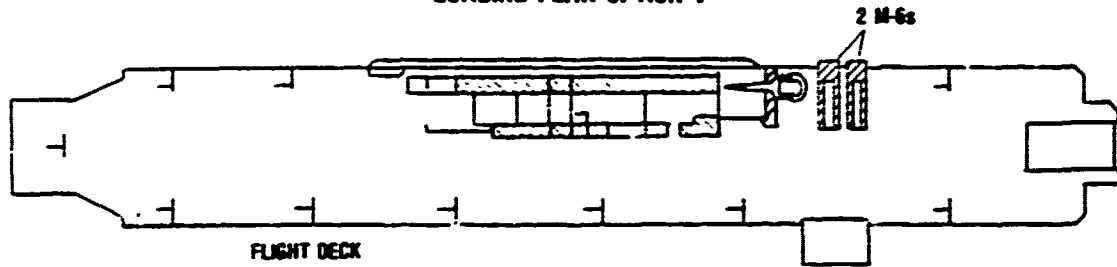
**LMA-1
LOADING PLAN OPTION IV**

BLK	TROOPS	MANUELS	CARGO ²	BASE PCL ³		LOADING CRANT						AMPHIBIANS			HELICOPTER STORAGE		
				BE-1	BE-2	LEAD	LEAD	LEAD	LEAD	LEAD	LEAD	LEAD	LVT	LVT	LVT	CH-40	CH-40
1100	100	100	100														
1200	200	200	200														
1300	300	300	300														
1400	400	400	400														
1500	500	500	500														
1600	600	600	600														
1700	700	700	700														
1800	800	800	800														
1900	900	900	900														
2000	1000	1000	1000														
TOTALS	1,000	1,000	1,000														

- NOTES: 1 Values are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Each PCL is in thousands of gallons.
 4 Two LCMs are required.
 5 Designed to carry package PCL.
 6 This space partially loaded with Aviation Consolidated Intermediate Unit (ACMI) material.
 7 The cargo areas of boats in well decks are loaded with vehicles.
 8 Helicopter storage reflects 30 P40 hangar deck and 20 2000 Right Deck storage.

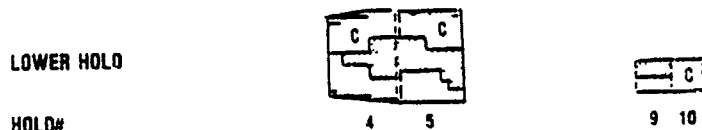
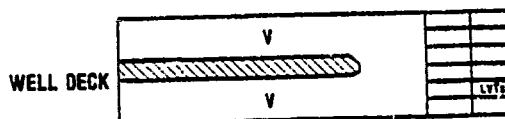
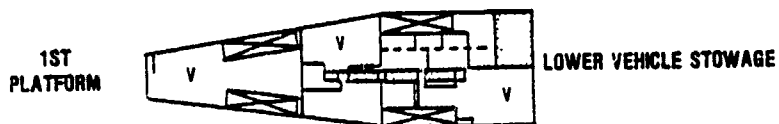
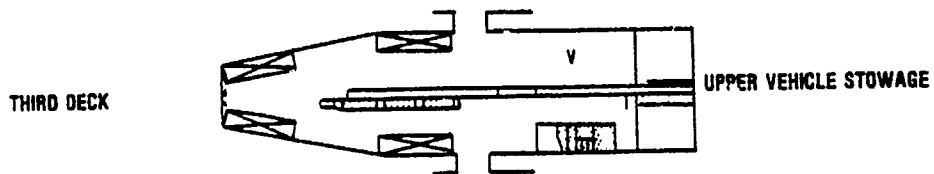
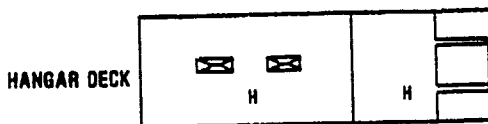
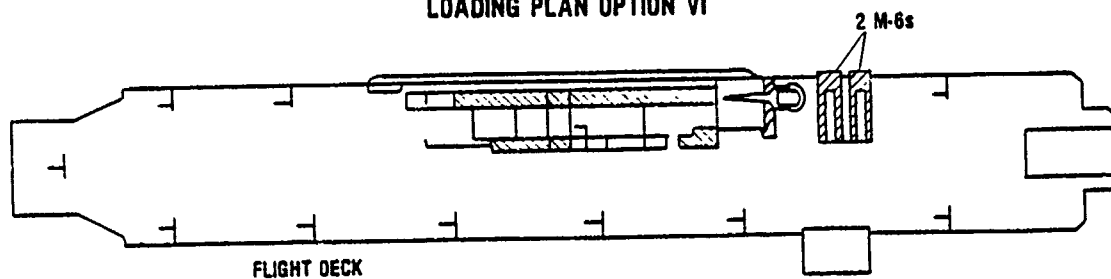
011011

LHA-1
LOADING PLAN OPTION V



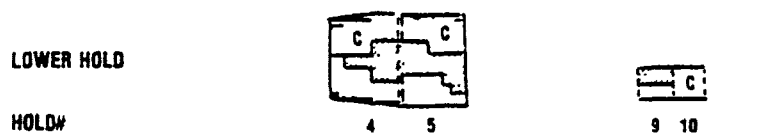
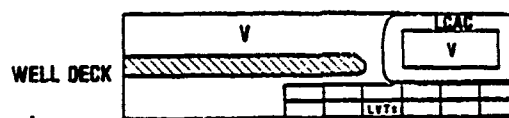
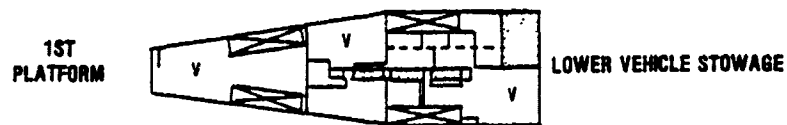
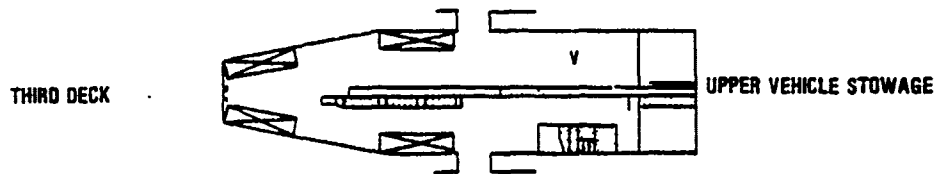
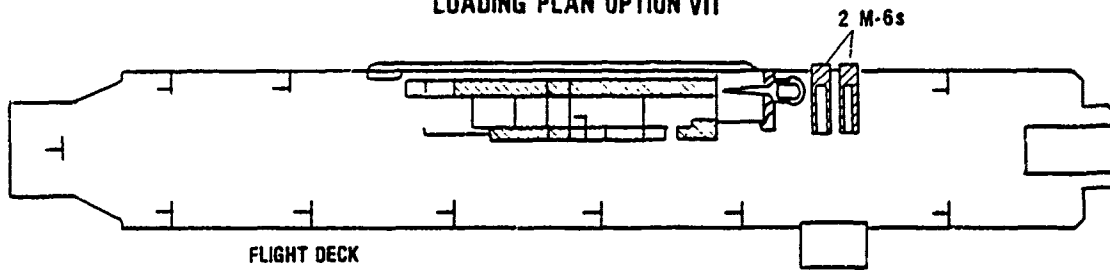
4-14-81-18

LHA-1
LOADING PLAN OPTION VI



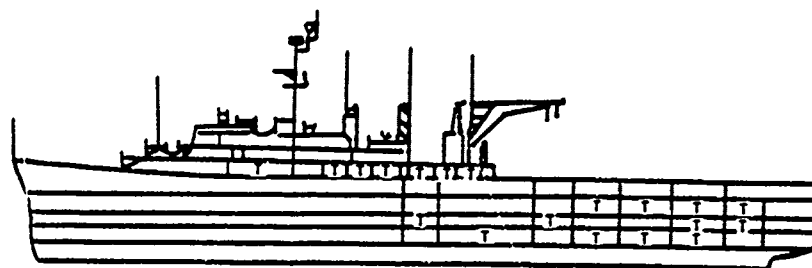
4-14-81-20

LHA-1
LOADING PLAN OPTION VII

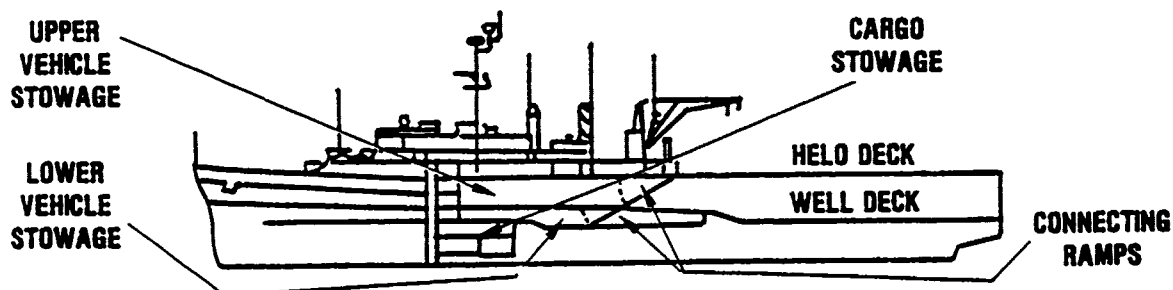


4-14-81-22

LPD-1



OUTBOARD PROFILE DISPLAYING TROOP ACCOMMODATIONS



INBOARD PROFILE DISPLAYING UPPER AND LOWER VEHICLE STOWAGE, CONNECTING RAMPS, HELO DECK, AND WELL DECK

4-14-81-24

SHIP'S LOADING CHARACTERISTICS

The LPD-1 is designed to load, transport and land troops, vehicles, and equipment in amphibious operations. The ship has a helicopter deck, upper and lower vehicle stowage decks and a well deck. It is a general purpose amphibious ship with substantial lift capacities for troops, vehicles, landing craft, dry cargo and bulk fuel plus a limited capacity for helicopters. Materials Handling Equipment (MHE) includes one 30-ton B&A crane, an overhead bridge crane system, vertical pallet conveyors and a cargo elevator. Vehicles can move about the various decks by a series of power operated ramps. Troops, vehicles and equipment can be loaded/offloaded by helicopter and

landing craft simultaneously. The well deck of the LPD-1 can accommodate all types of landing craft (boats and amphibians) currently in the amphibious forces inventory. It is anticipated that the LPD will be able to accommodate two Landing Craft Air Cushion (LCAC); however, some modification to the ramp may be required to achieve this.

SHIP'S BOATS:

Utility	2
LCPL	2
Motor Whale	1

BERTHING ACCOMMODATIONS:

	<u>Officer</u>	<u>CPO/SNCO</u>	<u>Other Enlisted</u>	<u>Surge</u>	<u>Total</u>
Ship's Company	27	30	429	---	486
Landing Force	73	20	647	188	928

CRANES:

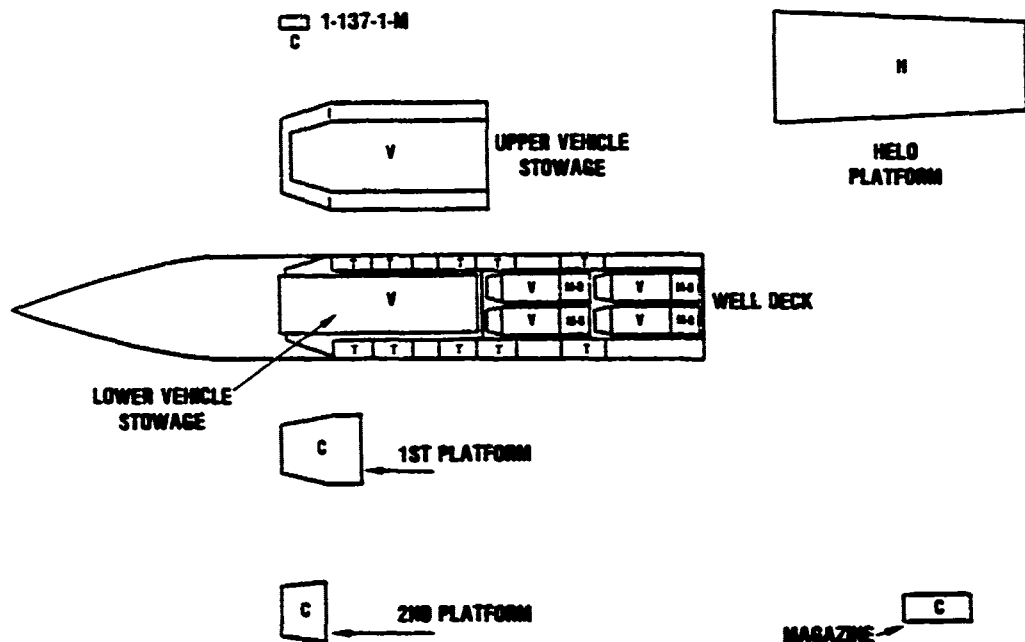
<u>Rig</u>	<u>Lift Capacity</u>	<u>Lift Cycle Time</u>
B&A Crane	10 S/T	8 min
B&A Crane	30 S/T	20 min
Sideport Booms	3 S/T	5 min

LOADING PLAN OPTIONS:

- I. Well Deck: 4 LCM-8s
 - Upper Vehicle Stowage: vehicles
 - Lower Vehicle Stowage: vehicles
- II. Well Deck: 2 LCACs
 - Upper Vehicle Stowage: vehicles
 - Lower Vehicle Stowage: cargo

- III. Well Deck: 2 LCM-6s and 1 LCU
Upper Vehicle Stowage: vehicles
Lower Vehicle Stowage: cargo
- IV. Well Deck: 24 LVTs
Upper Vehicle Stowage: vehicles
Lower Vehicle Stowage: vehicles
- V. Well Deck: 12 LVAs
Upper Vehicle Stowage: vehicles
Lower Vehicle Stowage: vehicles

LPD-1 LOADING PLAN OPTION I

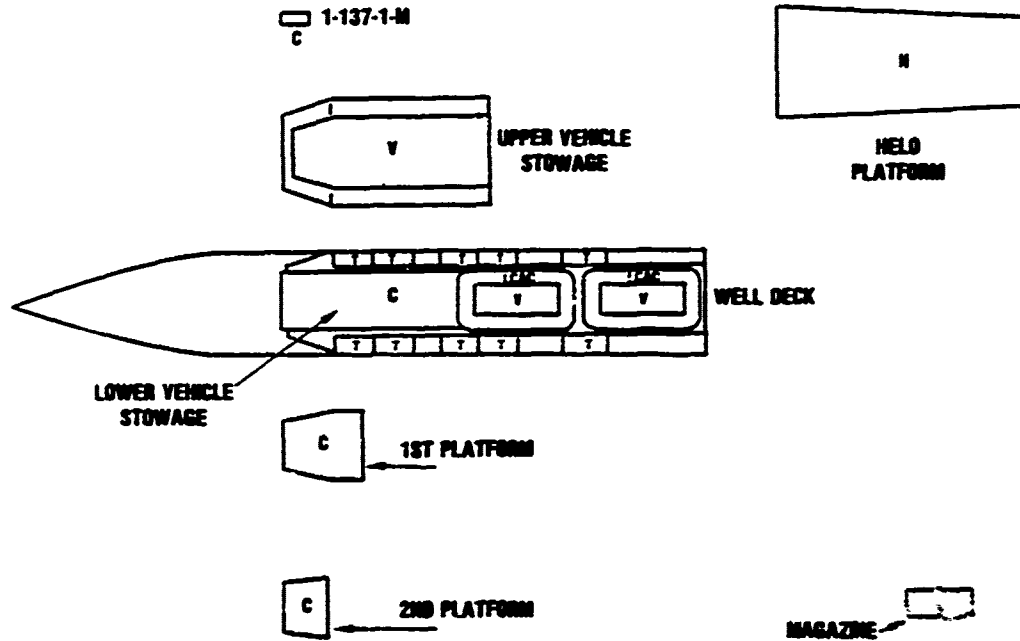


DECK	TROOPS	VEHICLES	CARGO ²	BULK FUEL ³		LANDING CRAFT							AMPHIBIOUS		HELICOPTER STORAGE			
				MREAS	DF-2	JP-6	LCM-6	LCM-8	LCM-10	LCM-16	LCAC	CS	PCS	LVT	LHA	UH-1H	CH-53	CH-46
HELICOPTER PLATFORM	FLIGHT OPERATIONS																	
1-137-1-M			8.97														1	1
UPPER VEH. STGE.		3.92																
LOWER VEH. STGE.		4.36																
WELL DECK								4										
1ST PLATFORM			9.28															
2ND PLATFORM			2.90															
50M-6M			4.92															
BERTHING	500																	
BOATS ⁴		2.92																
TANKAGE				20		200												
TOTALS	500	18.78	17.97	20		200		4									1	1

- NOTES: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk Fuel is in thousands of gallons.
 4 The cargo areas of boats in well decks are loaded with vehicles.

4-14-81-26

LPD-1 LOADING PLAN OPTION II

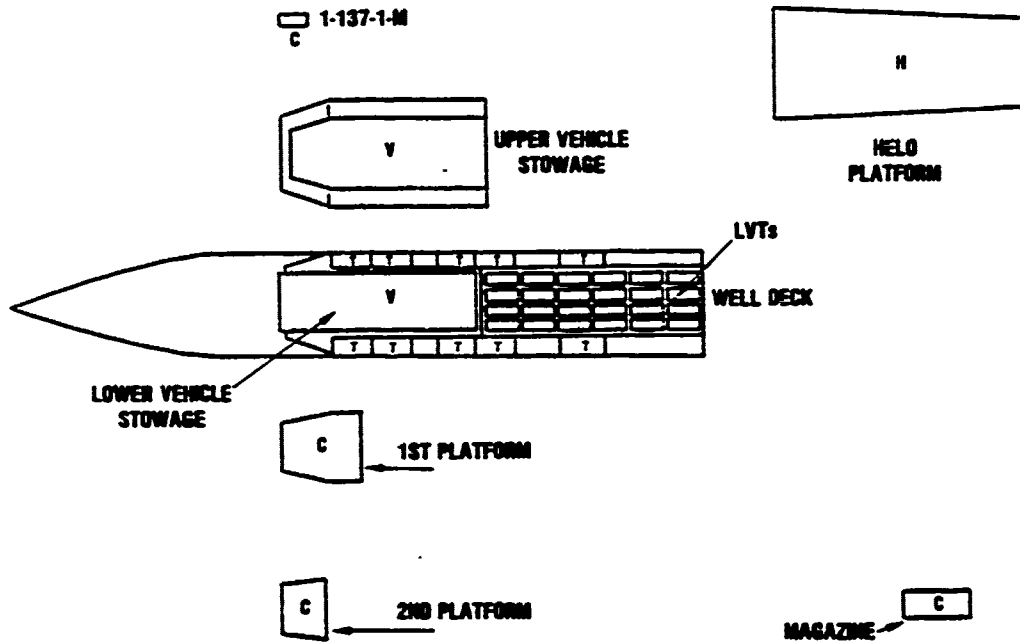


DECK	TROOPS	VEHICLES	CARGO ²	BULK PBL ³			LANDING CRAFT					HELICOPTERS		ACROFTERS ⁴				
				HEAVY	SP-2	SP-6	LCH-8	LCH-9	LCH-10	LCH-11	LCH-12	CS	PCS	LVT	LVB	UH-1H	CH-53	CH-53E
FIELD	FLIGHT OPERATIONS																	
1-137-1-M			8.02														1	1
UP HIGH STEL		3.02																
LOW HIGH STEL			28.00															
WELL										2								
1st PLATFORM			1.00															
2nd PLATFORM			2.98															
8-0404H			4.92															
BERTHING	520																	
BOXES ⁵		2.71																
TOTALS	520	6.63	47.93	28		28				2						1	1	

NOTES: 1 Values are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk PBL is in thousands of pallets.
 4 The cargo areas of boats in well decks are loaded with vehicles.

4-14-81-20

LPD-1 LOADING PLAN OPTION IV

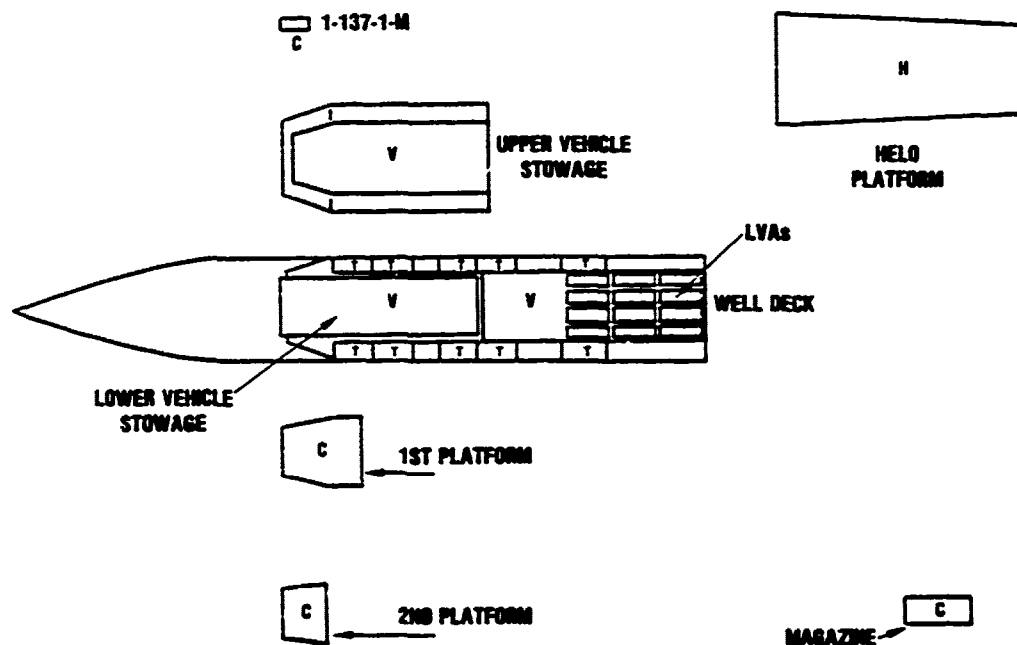


DECK	TROOPS	VEHICLES	CUBIC ²	BULK PUL ³			LANDING CRAFT						AMPHIBIAN		HELICOPTER STORAGE				
				MRCAS	DF2	J46	LCM4	LCM8	LCM16	LCM30	LCAC	CS	PCS	LVT	LVA	CH-53A	CH-53E	CH-53D	CH-53E
HELID	FLIGHT OPERATIONS																		
1-137-1-M			8.87																
UP VEH STE		3.72																	
LOW VEH STE		4.78																	
WELL		8.74 ⁴											26						
1st PLATFORM			9.28																
2nd PLATFORM			2.58																
6-94-84			4.52																
BERTHING	58																		
TANKAGE				28		28													
TOTALS	58	13.38	17.97	28		28							26				1	1	

- NOTES: 1 Vehicle area in thousands of square feet.
 2 Cargo in thousands of cubic feet.
 3 Bulk PUL is in thousands of gallons.
 4 Amphibian square is included in well deck vehicle square.

4-14-81-38

**LPD-1
LOADING PLAN OPTION V**

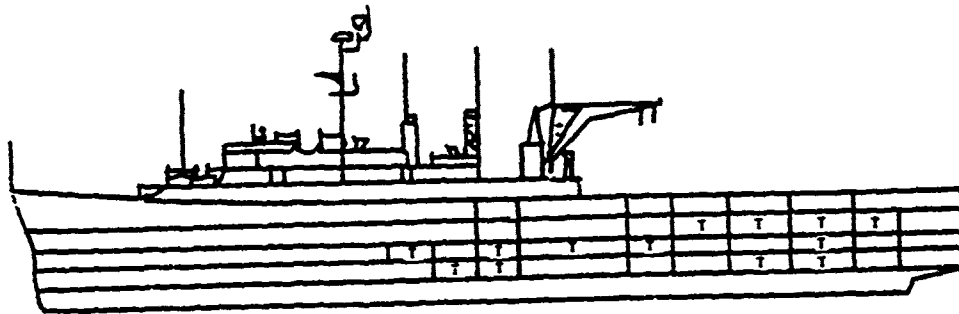


DECK	TOWERS/VEHICLES	CARGO ²	BULK PUL ³			LANDING CRAFT						AMPHIBIANS		HELICOPTER STORAGE				
			MRBMS	DF-2	J-6	LCM-8	LCM-8	LCM-8	LCM-100	LCAC	CS	PCS	LVT	LHA	UH-1H	CH-53	CH-53	CH-53
HELICOPTER PLATFORM	FLIGHT OPERATIONS																1	1
UPPER VEH. STG.		1.92																
LOWER VEH. STG.		4.72																
WELL		7.87												12				
1st PLATFORM		9.28																
2nd PLATFORM		7.58																
6-04-04		4.92																
BERTHING	528																	
TANKAGE			28		28													
TOTALS	528	16.29	17.97	28	28								12	1	1			

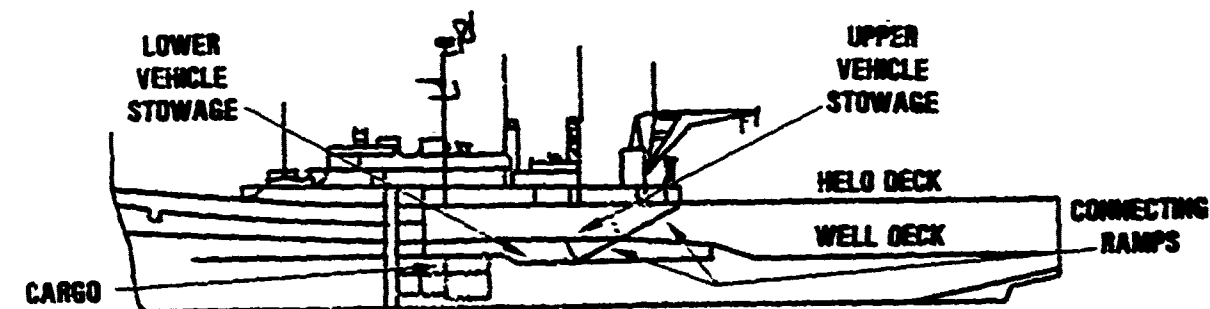
NOTES: 1 Columns are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk PUL is in thousands of gallons.
 4 Amphibian square is included in well deck vehicle square.

4-14-81-29

LPD-4



CUTBOARD PROFILE DISPLAYING TROOP ACCOMMODATIONS



INBOARD PROFILE DISPLAYING UPPER AND LOWER VEHICLE STOWAGE, CONNECTING RAMPS, HELO DECK, AND WELL DECK

2-14-81-30

SHIP'S LOADING CHARACTERISTICS

The LPD-4 is designed to load, transport and land troops, vehicles and equipment in amphibious operations. The ship has a helicopter deck, upper and lower vehicle stowage decks and a well deck. It is a general purpose amphibious ship with substantial lift capacities for troops, vehicles, landing craft, dry cargo and bulk fuel plus a limited capacity for helicopters. Materials handling equipment (MHE) includes one 30-ton B&A crane, an overhead monorail crane system, vertical pallet conveyor, and a cargo elevator. Vehicles can move about the various decks by a series of power operated ramps. Troops, vehicles and equipment can be loaded/offloaded by helicopter and landing craft

simultaneously. The well deck of the LPD-4 can accommodate all types of landing craft (boats and amphibians) currently in the amphibious forces inventory. It is anticipated that the LPD will be able to accommodate two Landing Craft Air Cushion (LCAC); however, some modification to the ramp may be required to achieve this.

SHIP'S BOATS:

LCPL 2
 Motor Whale 1
 LCVP 2

BERTHING ACCOMMODATIONS:

	<u>Officer</u>	<u>Non-Flag Configuration</u>			<u>Total</u>
		<u>CPO/SNCO</u>	<u>Enlisted</u>	<u>Surge</u>	
Ship's Crew	25	15	413	---	453
Landing Force	69	--	650	194	913
Naval Staff	--	--	---	---	---

	<u>Officer</u>	<u>Flag Configuration¹</u>			<u>Total</u>
		<u>CPO/SNCO</u>	<u>Enlisted</u>	<u>Surge</u>	
Ship's Crew	34	31	532	---	597
Landing Force	78	26	756	---	860
Naval Staff	32	3	27	---	62

¹The flag configured ship has an "C" level deck added to accommodate a naval staff and an increase in ship's company and landing force berthing spaces. LPDs 7-13 are flag configured.

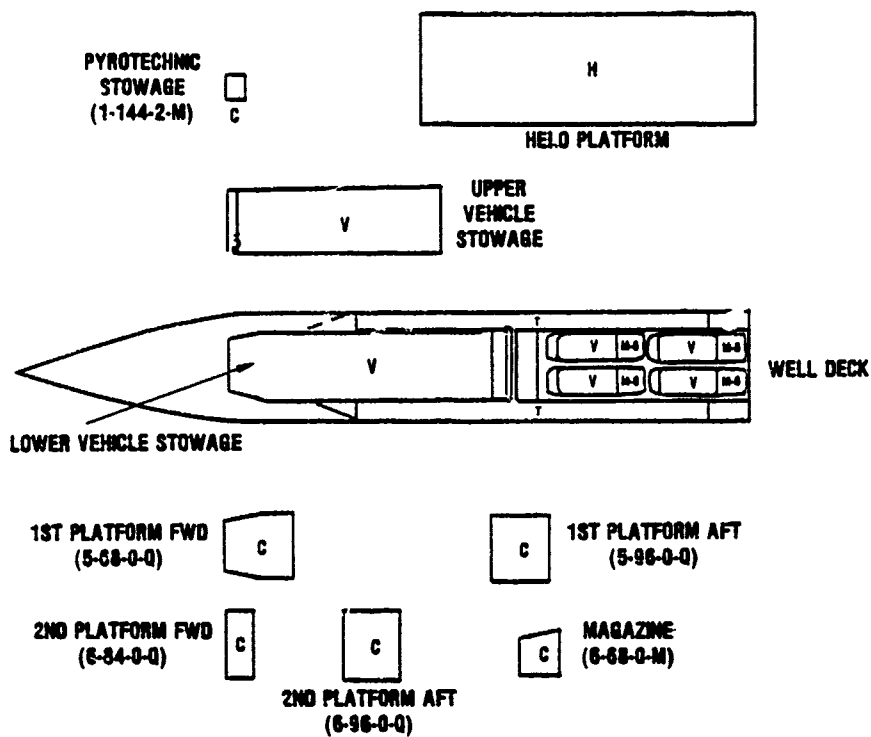
SHIP'S CRANES:

<u>Rig</u>	<u>Lift Capacity</u>	<u>Lift Cycle Time</u>
30A Crane	30 S/T	8 min
30A Crane	10 S/T	12 min

LOADING PLAN OPTIONS

- I. Well Deck: 4 CLM-8s
Upper Vehicle Stowage: vehicles
Lower Vehicle Stowage: vehicles
- II. Well Deck: 2 LCACs
Upper Vehicle Stowage: vehicles
Lower Vehicle Stowage: vehicles
- III. Well Deck: 3 LCM-6s and 1 LCU
Upper Vehicle Stowage: vehicles
Lower Vehicle Stowage: cargo
- IV. Well Deck: 24 LVTs
Upper Vehicle Stowage: vehicles
Lower Vehicle Stowage: vehicles
- V. Well Deck: 12 LVAs aft, vehicles forward
Upper Vehicle Stowage: vehicles
Lower Vehicle Stowage: vehicles

LPD-4
LOADING PLAN OPTION I



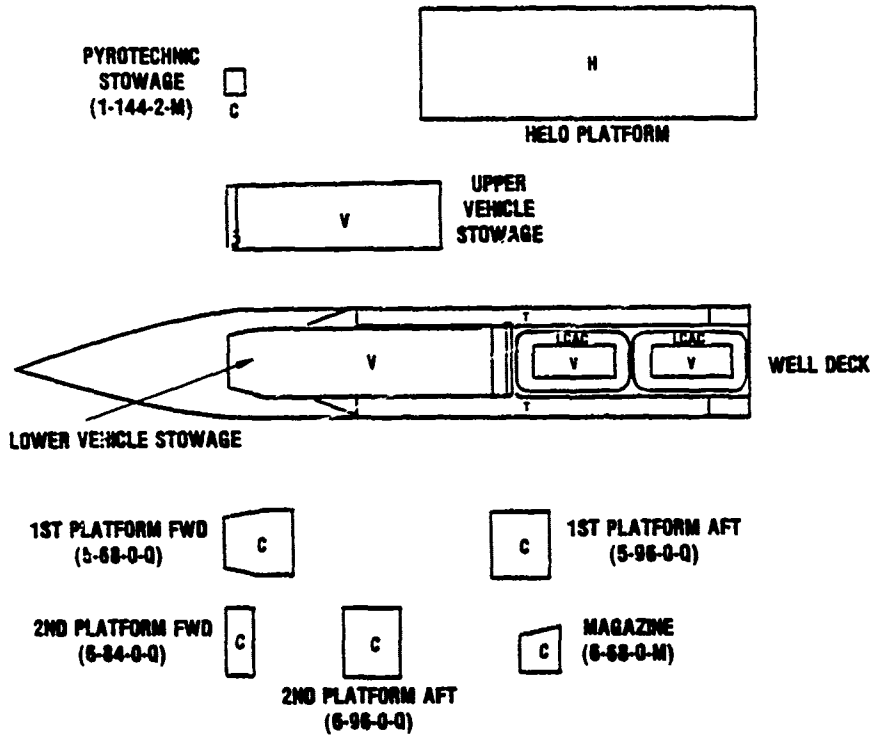
DECK	TROOPS	VEHICLES	CARGO ²	BULK POL ³			LANDING CRAFT					AMPHIBIANS		HELICOPTER STORAGE				
				MOGAS	DF-2	JF-6	LCM-8	LCM-8	LCM-8	LCJ-1070	LCAC	CS	PCS	LVT	LVA	UH-1H	CH-46	CH-53
HELICOPTER PLATFORM			1.22												1	1		
UPPER VEH. STG.		5.97																
LOWER VEH. STG.		6.31																
WELL DECK							4											
5-68-0-0			12.15															
5-96-0-0			11.80															
6-84-0-0			3.74															
6-84-0-0			5.82															
6-96-0-0			8.98															
BERTHING	913																	
BOATS ⁴		2.02																
TANKAGE				22.3		226.5												
TOTALS	913	13.9	43.40	22.3		226.5	4								1	1		

- NOTES: 1 Vehicle area in thousands of square feet.
 2 Cargo in thousands of cubic feet.
 3 Bulk POL is in thousands of gallons.
 4 The cargo areas of boats in well decks are loaded with vehicles.

4-14-81-31

45/46

LPD-4
LOADING PLAN OPTION II

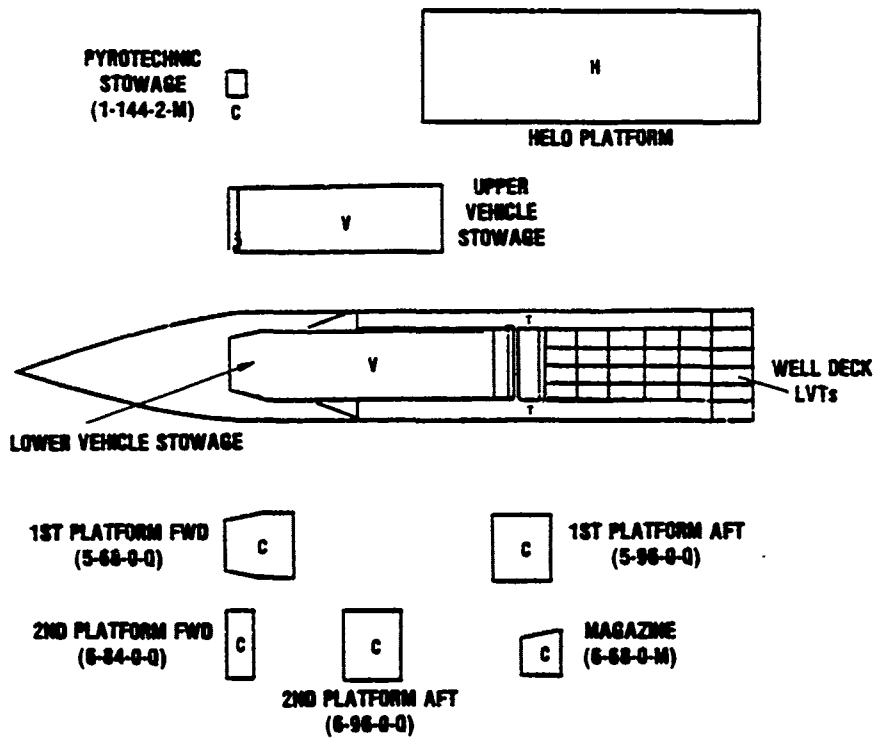


DECK	TROOPS	VEHICLES	CARGO ²	BULK FUEL ³			LANDING CRAFT						AMPHIBIOUS				HELICOPTER STORAGE				
				MORGAN	OF-2	J-5	LCM-8	LCM-9	LCM-10	LCU-1810	LCAC	CS	PCS	LVT	LVA	UH-1H	CH-53	CH-53D	CH-53E		
HEL0		FLIGHT OPERATIONS																1	1		
1-144-2-M			1.22																		
UP VEH STG		257																			
LOW VEH STG		631																			
WELL										2											
5-88-0-0			12.75																		
5-96-0-0			11.89																		
6-84-0-0			3.74																		
6-84-0-0			5.82																		
6-96-0-0			6.98																		
BERTHING	913																				
BOATS ⁴		271																			
TANKAGE				22.3		24.5															
TOTALS	913	1459	43.48	22.3		24.5				2								1	1		

NOTES: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk Fuel is in thousands of gallons.
 4 The cargo areas of boats in well decks are loaded with vehicles.

4-14-81-32

LPD-4
LOADING PLAN OPTION IV

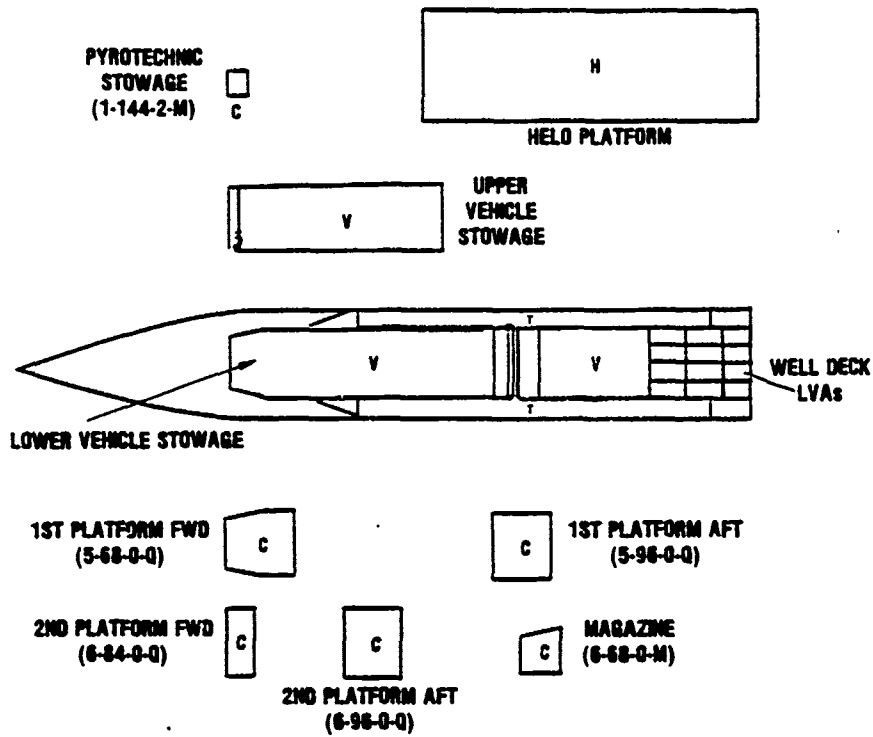


DECK	TROOPS	VEHICLES	CUBIC ²	BULK PCL ³			LANDING CRAFT					AMPHIBIANS		HELICOPTER STORAGE			
				MOGAS	DF-2	JP-6	LCM-6	LCM-8	LCM-9	LCU-1010	LCAC	CS	PCS	LVT	LVA	UH-101H	CH-53D
HELLO	FLIGHT OPERATIONS																
1-144-2-M			1.22	/												1	1
UP VEH STE		5.57															
LOW VEH STE		8.31															
WELL		8.78 ⁴										26					
5-68-0-0			12.15														
5-96-0-0			11.88														
6-84-0-0			2.74														
6-84-0-0			5.82														
6-96-0-0			8.96														
BERTHING	913																
TANKAGE				22.3		224.5											
TOTALS	913	18.98	41.48	22.3		224.5						26			1	1	

NOTES: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk PCL is in thousands of gallons.
 4 Amphibian square is included in well deck vehicle square.

4-14-81-36

LPD-4
LOADING PLAN OPTION V

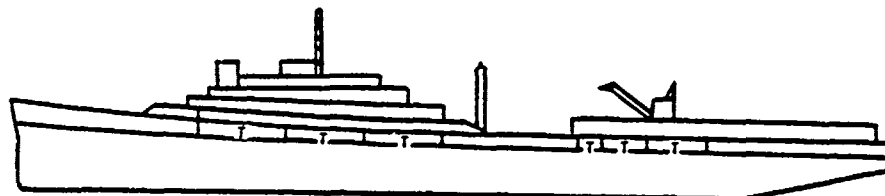


DECK	TROOPS	VEHICLES	Cargo ²	BULK FUEL ³			LANDING CRAFT						AMPHIBIANS		HELICOPTER STORAGE					
				MIDRIS	DF-2	JP-6	LCM-8	LCM-9	LCM-10	LCU-1010	LCAC	CS	PCS	LVT	LVA	UH-101H	CH-40D	CH-53D	CH-53E	
HEL0	FLIGHT OPERATIONS																1	1		
1-144-2-M			1.22																	
UP VEH STL		5.57																		
LOW VEH STL		8.31																		
WELL		7.89 ⁴															12			
5-68-0-0			12.15																	
5-96-0-0			11.88																	
6-84-0-0			3.74																	
6-96-0-0			5.82																	
6-68-0-0			4.98																	
BERTHING	913																			
TANKAGE				22.3			224.5													
TOTALS	913	18.92	43.48		22.3		224.5										12	1	1	

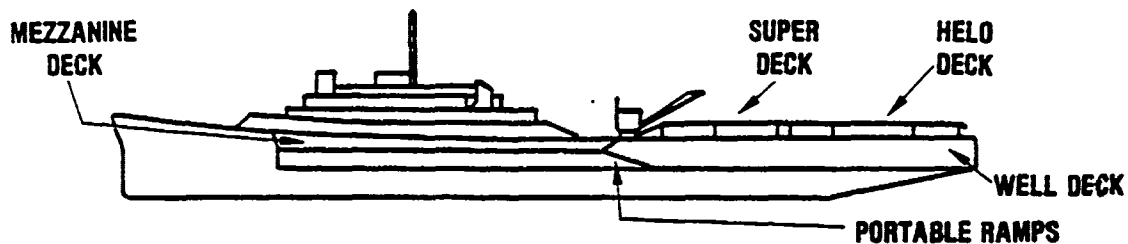
NOTES: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk Fuel is in thousands of gallons.
 4 Amphibian square is included in well deck vehicle square.

4-14-81-38

LSD-28



OUTBOARD PROFILE DISPLAYING TROOP ACCOMMODATIONS



**INBOARD PROFILE DISPLAYING WELL DECK, MEZZANINE DECK,
SUPER DECK, HELO DECK AND PORTABLE RAMP**

4-14-81-38

SHIP'S LOADING CHARACTERISTICS

The LSD-28 is designed to load and transport landing craft and vehicles with attendant personnel in amphibious operations. Major spaces for carrying vehicles and/or cargo or conducting helicopter operations are the helicopter platform, the super deck, the mezzanine deck and the wet well deck. The mezzanine deck, super deck and helicopter platform are constructed so that they can be removed and stored ashore should assigned operations dictate. Mezzanine decks are frequently removed but super-decks and helicopter platforms are rarely removed. Vehicles may be loaded aboard via landing craft into the wet well deck or lifted aboard by crane to the superdeck for transit via ramps to other decks for storage. The well deck is capable of accommodating all types of landing craft and amphibian vehicles currently in the amphibious forces inventory. Vehicles stored in the well deck should be at least 50 ft forward of any

landing craft to minimize potential salt water immersion during ballasting operations. There are no designated general cargo storage spaces aboard the LSD-20; however, cargo with proper preservation may be stowed on the mezzanine deck. Two magazines are available for storing troop ammunition.

SHIP'S BOATS:

LCPL 2
 LCVP 2

BERTHING ACCOMMODATIONS:

	<u>Officer</u>	<u>CPO/SNCO</u>	<u>Other Enlisted</u>	<u>Surge</u>	<u>Total</u>
Ship's Company	20	18	323	---	361
Landing Force	29	12	283	---	324

CRANES:

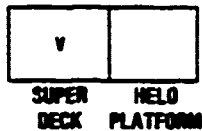
<u>Rigs</u>	<u>Lift Capacity</u>	<u>Lift Cycle Time</u>
Port Crane	50 S/T	6 min
Starboard Crane	50 S/T	6 min

LOADING PLAN OPTIONS

- I. Well Deck: 1 LCU, 2 LCM-6s, 2 LCM-8s aft, vehicles forward
 Mezzanine Deck: vehicles
 Super Deck: vehicles
- II. Well Deck: 1 LCU, 5 LCM-6s aft, vehicles forward
 Mezzanine Deck: cargo
 Super Deck: vehicles
- III. Well Deck: 2 LCACs aft, vehicles forward
 Mezzanine Deck: vehicles
 Super Deck: vehicles

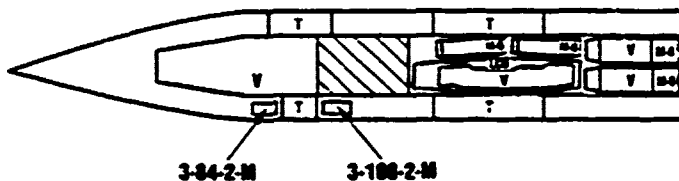
- IV. Well Deck: 24 LVTs aft, vehicles forward
Mezzanine Deck: vehicles
Super Deck: vehicles
- V. Well Deck: 24 LVTs aft, vehicles forward
Mezzanine Deck: cargo
Super Deck: vehicles
- VI. Well Deck: 6 LCM-3s aft, vehicles forward
Mezzanine Deck: vehicles
Super Deck: vehicles
- VII. Well Deck: 12 LCM-6s aft, vehicles forward
Mezzanine Deck: vehicles
Super Deck: vehicles
- VIII. Well Deck: 3 LCACs aft, 12 LVTs and vehicles forward
No Mezzanine Deck
Super Deck: vehicles
- IX. Well Deck: 4 causeways aft, vehicles forward
Mezzanine Deck: vehicles
Super Deck: vehicles
- X. Well Deck: 99 containers
Mezzanine Deck: cargo
Super Deck: vehicles

LSD-28
LOADING PLAN OPTION 1



MEZZANINE DECK

CD 1-109-2-M



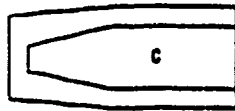
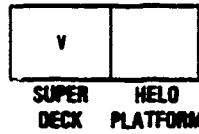
WELL DECK

DECK	TRUCKS	VEHICLES	CARGO ²	BULK PBL ³			LANDING CRAFT						AMPHIBIOUS		HELICOPTER STORAGE					
				MB-6B	DF-2	JF-5	LC-8B	LC-10B	LC-130B	LC-130H	LC-10C	CS	PCS	LYT	LHR	UH-60H	CH-53B	CH-53E	CH-53E	
HELD	FLIGHT OPERATIONS																			
SUPER			2.32																	
MEZZANINE			4.67																	
1-109-2-M			2.85																	
3-84-2-M			1.17																	
3-109-2-M			2.99																	
WELL			4.24				2	2		1										
BERTHING	324																			
BOATS ⁴			2.11																	
TOTALS	324	14.86	2.12	11.6		38.8	2	2		1										

NOTES: 1 Values are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk PBL is in thousands of gallons.
 4 The cargo areas of boats in well decks are loaded with vehicles.

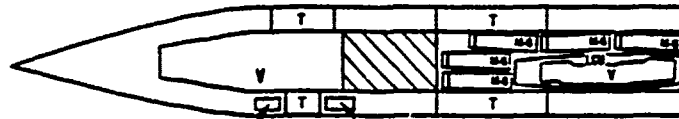
4-14-87-37

LSD-28
LOADING PLAN OPTION II



MEZZANINE DECK

C 1-188-2-M



WELL DECK

3-84-2-M

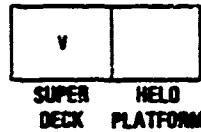
3-188-2-M

DECK	TROOPS	VEHICLES	CARGO ²	BULK POL ³			LANDING CRAFT						AMPHIBIANS		HELICOPTER STORAGE				
				MOGAS	DF-2	JPS	LCM-8	LCM-6	LCM-8	LCU-1018	LCAC	CS	PCS	LVT	LVA	UH-1H	UH-1H	UH-1H	UH-1H
HELDE	FLIGHT OPERATIONS																		
SUPER			2.32																
MEZZANINE			11.87																
1-188-2-M			8.95																
3-84-2-M			1.17																
3-188-2-M			8.98																
WELL		4.15					5			1									
BERTHING	224																		
BOATS ⁴		3.81																	
TANKAGE				11.4		38.8													
TOTALS	224	8.48	13.19	12.4		38.8	5			1									

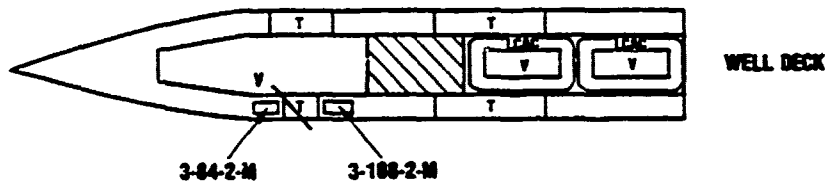
- NOTES: 1 Values are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk POL is in thousands of gallons.
 4 The cargo areas of boats in well decks are loaded with vehicles.

4-14-81-38

LSD-28
LOADING PLAN OPTION III



1-188-2-M

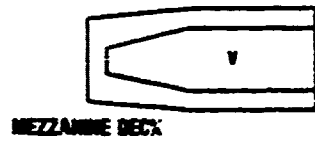


DECK	TROOPS	VEHICLES	CARGO ²	BULK PUL ³			LANDING CRAFT						AMPHIBIOUS		HELICOPTER STORAGE			
				MIDAS	CF-2	JP-6	LCM-6	LCM-8	LCM-9	LCM-1010	LCAC	CS	PCS	LYT	LVA	UH-1H	CH-53	CH-53E
HELO	FLIGHT OPERATIONS																	
SUPER			2.32															
MEZZANINE			4.47															
1-188-2-M																		
3-84-2-M																		
3-188-2-M																		
WELL			5.87							2								
BERTHING	328																	
BOATS ⁴		271																
TANKAGE				11.4		38.8												
TOTALS	328	15.37	2.12	11.4		38.8				2								

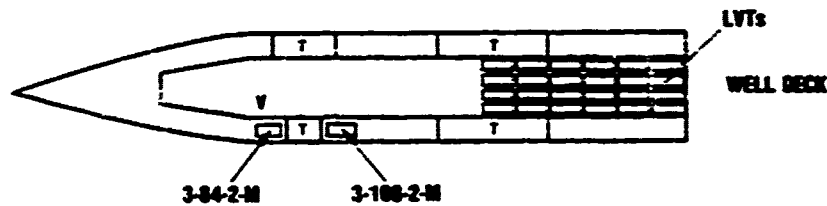
- NOTE: 1 Values are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk PUL is in thousands of gallons.
 4 The cargo areas of boats in well decks are loaded with vehicles.

4-14-81-38

LSD-28
LOADING PLAN OPTION IV



1-100-2-M
C



DECK	TROOPS	VEHICLES	CUBES ¹	DECK PBL ²		LANDING CRAFT						AMPHIBANS		HELICOPTER STORAGE							
				MEGAS	SPZ	JPS	LCM6	LCM8	LCM6	LCM8	LCM6	LCM8	CS	PCS	LVT	CH	CH-53	CH-46	CH-53	CH-46	
HELLO	FLIGHT OPERATIONS																				
SUPER			2.32																		
MEZZANINE			4.47																		
1-100-2-M			3.85																		
3-84-2-M			2.17																		
3-100-2-M			2.90																		
WELL			15.47 ⁴											3							
BERNARD	324																				
TANKAGE				11.4		30.8															
TOTALS	324	22.22	2.12	11.4		30.8								3							

NOTES: 1 Volume in thousands of cubic feet.
2 Cargo in thousands of cubic feet.
3 Deck PBL in thousands of gallons.
4 Amphibian square is included in well deck square.

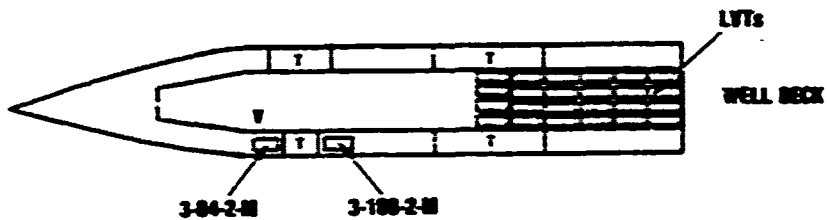
4-14-61-60

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LSO-28
LOADING PLAN OPTION V



1-100-2-M



DECK	TOWERS	HEIGHT	CROSS	SHELF	LOADING CAPACITY										RECEIVED STORAGE			
					WINGS	SP	JP	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG
WELL	FLIGHT OPERATIONS																	
SUPER		2.5																
MEZZANINE			11.0															
3-04-2-M			2.0															
3-100-2-M			1.5															
3-100-2-M			1.0															
WELL		5.0																
SPRING		2.0																
TOWER			11.0															
TOWER	30	12.5	12.0	11.0														

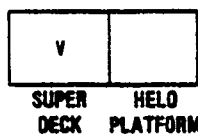
- NOTE: 1. Figures are in thousands of cubic feet.
 2. Cargo is in thousands of cubic feet.
 3. Shelf P/L is in thousands of pallets.
 4. Loading crane is included in well deck capacity.

NOTE: Cargo storage on mezzanine deck is restricted by weight limitation of 700 pounds. Cargo capacity is restricted using a density of 25.3 lb/cu ft.

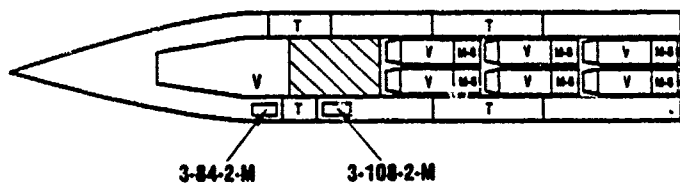
4-14-61-41

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LSD-28
LOADING PLAN OPTION VI



1-188-2-M

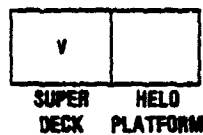


DECK	TROOPS	VEHICLES	CARGO ²	BULK PCL ³			LANDING CRAFT					AMPHIBIANS		HELICOPTER STORAGE		
				MOBAS	DF-2	JP-6	LCM-6	LCM-8	LCM-9	LCU-1818	LCAC	CS	PCS	LVT	LVA	UH-101H
HEL0	FLIGHT OPERATIONS															
SUPER		2.32														
MEZZANINE		4.67														
1-188-2-M			0.98													
3-84-2-M			1.17													
3-108-2-M			0.98													
WELL		4.22					8									
BERTHING	324															
BOATS ⁴		3.04														
TANKAGE				11.4		38.8										
TOTALS	324	14.05	2.12	11.4		38.8	8									

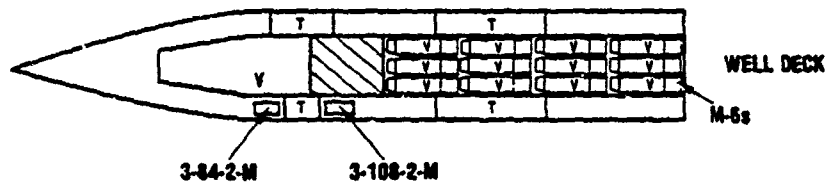
- NOTES: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk PCL is in thousands of gallons.
 4 The cargo areas of boats in well decks are loaded with vehicles.

4-14-81-42

LSO-28
LOADING PLAN OPTION VII



1-188-2-M

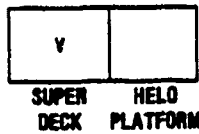


DECK	TROOPS	VEHICLES	CARGO ²	BULK POL ³			LANDING CRAFT					AMPHIBANS		HELICOPTER STORAGE			
				MORAS	DF-2	JP-6	LCM-6	LCM-8	LCM-9	LCU-1818 ¹	LCAC	CS	PCS	LVT	LVA	UH-107H	CH-46D
HELD	FLIGHT OPERATIONS																
SUPER		2.32															
MEZZANINE		4.47															
1-188-2-M			0.88														
3-84-2-M			1.17														
3-108-2-M			0.98														
WELL		4.14					12										
BERTHING	324																
BOATS ⁴		3.88															
TANKAGE				11.4			38.9										
TOTALS	324	14.98	2.12	11.4			78.8	12									

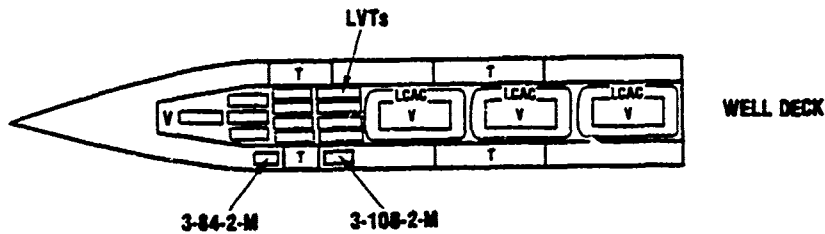
NOTES: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk POL is in thousands of gallons.
 4 The cargo areas of boats in well decks are limited with vehicles.
 4-14-81-48

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LSD-28
LOADING PLAN OPTION VII



CD 1-189-2-M



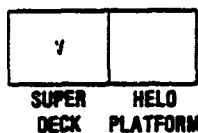
DECK	TROOPS	VEHICLES	CARGO ²	BULK POL ³			LANDING CRAFT						AMPHIBANS		HELICOPTER STORAGE				
				MOSAS	DF-2	JP-6	LCM-6	LCM-8	LCM-9	LCU-1010	LCAC	CS	PCS	LVT	LVA	UH-40H	CH-40D	CH-53D	CH-53E
HELLO			FLIGHT OPERATIONS																
SUPER			2.32																
MEZZANINE																			
1-189-2-M			0.85																
3-84-2-M			1.17																
3-108-2-M			0.90																
WELL			4.22 ⁴								3				12				
BERTHING	224																		
BOATS ⁵		4.87																	
TANKAGE				11.8		28.9													
TOTALS	224	18.81	2.12	11.8		28.9					3			12					

- NOTES: ¹ Vehicles are in thousands of square feet.
² Cargo is in thousands of cubic feet.
³ Bulk POL is in thousands of gallons.
⁴ Amphibian square is included in well deck vehicle square.
⁵ The cargo areas of boats in well deck are loaded with vehicles.

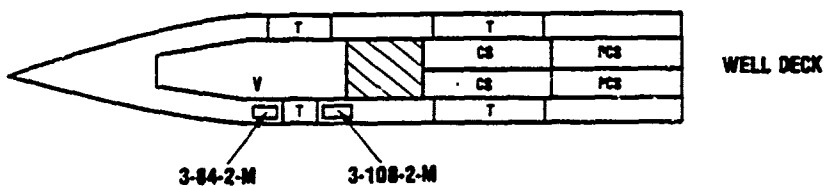
4-14-81-64

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LSD-28
LOADING PLAN OPTION IX



1-189-2-M

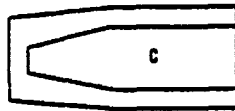
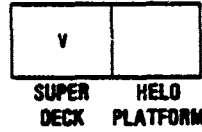


DECK	TROOPS	VEHICLES	CARBO ²	BULK POL ³			LANDING CRAFT						AMPHIBANS		HELICOPTER STORAGE			
				MOGAS	DF-2	J-FS	LCM-6	LCM-8	LCM-9	LCU-1818	LCAC	CS	PCS	LVT	LVA	UH-60H	CH-53	CH-53D
HELO	FLIGHT OPERATIONS																	
SUPER			2.32															
MEZZANINE			4.47															
1-189-2-M			0.98															
3-84-2-M			1.17															
3-108-2-M			0.98															
WELL		0.71											2	2				
BERTHING	324																	
BOATS ⁴		4.75																
TANKAGE				114		38.8												
TOTALS	324	28.25	2.12	114		38.8							2	2				

- NOTES: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk POL is in thousands of gallons.
 4 The cargo areas of boats in well decks are loaded with vehicles.

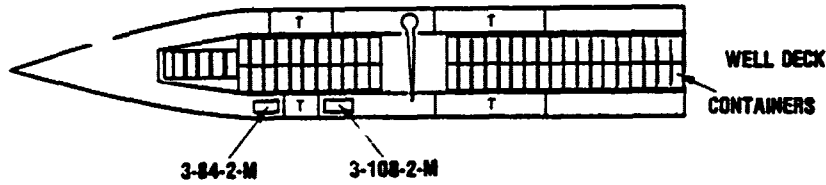
4-14-81-48

LSD-28 LOADING PLAN OPTION X



MEZZANINE DECK

C 1-189-2-M



DECK	TROOPS	VEHICLES ¹	CARBO ²	BULK PDL ³			LANDING CRAFT						AMPHIBIANS		HELICOPTER STORAGE			
				MOGAS	DF-2	JP-5	LCM-6	LCM-8	LCM-9	LCU-1010	LCAC	CS	PCS	LVT	LVA	UH-101H	CH-40D	CH-53D
HELD	FLIGHT OPERATIONS																	
SUPER		2.32																
MEZZANINE			11.87															
1-189-2-M			0.05															
3-84-2-M			1.17															
3-108-2-M			0.58															
WELL			77.72															
BERTHING	224																	
TANKAGE				11.4		38.0												
TOTALS	224	2.32	98.91	11.4		38.0												

NOTES: 1. Vehicles are in thousands of square feet. NOTE: Cargo storage on mezzanine deck is constrained by weight limitation of 140 lb/ft². Cargo capacity is estimated using a density of 25.3 lb/ft³.

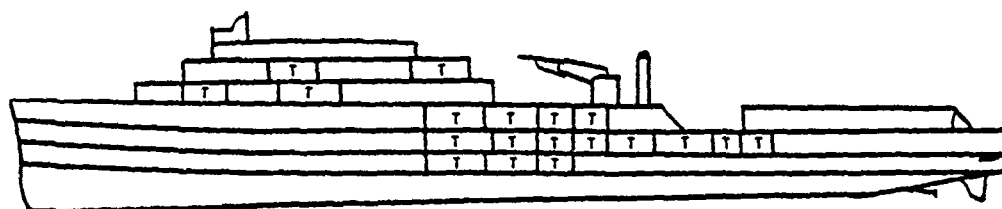
2. Cargo is in thousands of cubic feet.

3. Bulk PDL is in thousands of gallons.

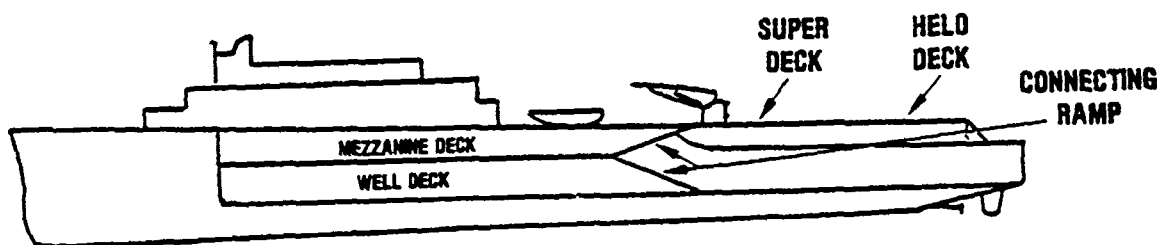
4-14-81-00

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LSD-36



OUTBOARD PROFILE DISPLAYING TROOP ACCOMMODATIONS



INBOARD PROFILE DISPLAYING WELL DECK, MEZZANINE DECK, HELO DECK, SUPER DECK AND CONNECTING RAMPS

4-14-81-47

SHIP'S LOADING CHARACTERISTICS

The LSD-36 is designed to load and transport landing craft and vehicles with attendant personnel in amphibious operations. Major spaces for carrying vehicles and/or cargo or conducting helicopter operations are the helicopter platform, the super-deck, the mezzanine deck and the wet well deck. The mezzanine deck, superdeck and helicopter platform are constructed so that they can be removed and stored ashore should assigned operations dictate. Mezzanine decks are frequently removed but superdecks and helicopter platforms are rarely removed. Vehicles may be loaded via landing craft into the wet well decks or lifted aboard by crane to the superdeck for transit via ramps, to other decks for stowage. This ship has an LCM-6 which is organic and stowed on the wingwall forward of the superdeck. The well

deck is capable of accommodating all types of landing craft and amphibian vehicles currently in the amphibious forces inventory. Vehicles stowed in the well deck should be at least 50 ft forward of any landing craft to minimize potential salt-water immersion during ballasting operations. There are no designated general cargo stowage spaces aboard the LSD-36; however, cargo with proper preservation may be stowed on the mezzanine deck. Two magazines are available for stowing troop ammunition.

SHIP'S BOATS:

LVCP	1
LCPL	2
LCM-6	1

BERTHING ACCOMMODATIONS:

	<u>Officer</u>	<u>CPO/SNCO</u>	<u>Other Enlisted</u>	<u>Surge</u>	<u>Total</u>
Ship's Company	26	25	408	---	459
Landing Force	25	8	304	---	337

CRANES:

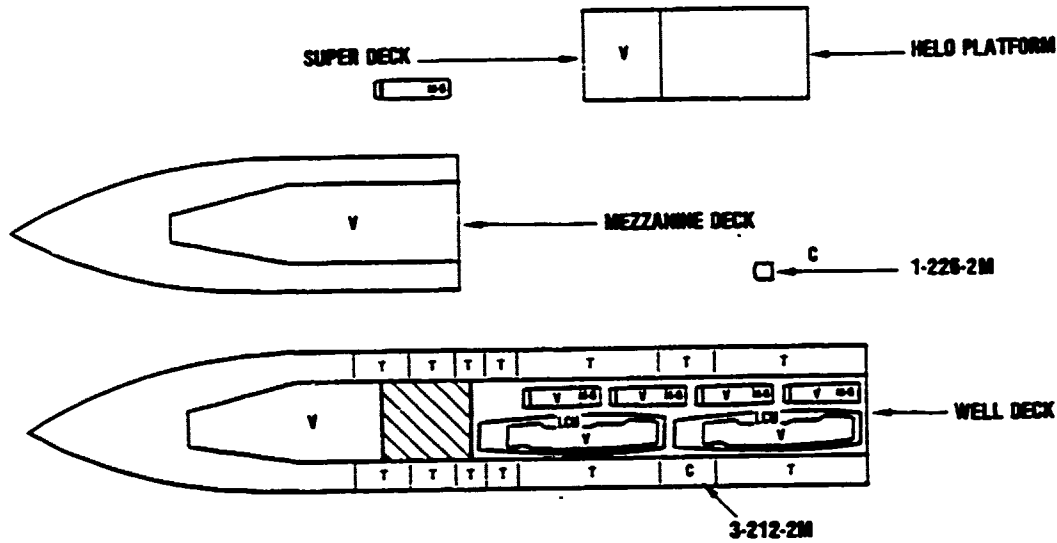
<u>Rigs</u>	<u>Lift Capacity</u>	<u>Lift Cycle Time</u>
Single Whip	20 S/T	4 min
Double Whip	50 S/T	7 min

LOADING PLAN OPTIONS

- I. Well Deck: 2 LCUs, 4 LCM-6s aft, vehicles forward.
Mezz Deck: Vehicles. Super Deck: vehicles.
- II. Well Deck: 6 LCM-8s aft, vehicles forward.
Mezz Deck: vehicles. Super Deck: vehicles.

- III. Well Deck: 2 LCACs aft, vehicles forward.
Mezz Deck: vehicles. Super Deck: vehicles.
- IV. Well Deck: 22 LVTs aft, vehicles forward.
Mezz Deck: vehicles. Super Deck: vehicles.
- V. 1 LCU, 2 LCM-6s, 2 LCM-8s aft, vehicles forward.
Mezz Deck: cargo. Super Deck: vehicles.
- VI. Well Deck: 2 LCACs aft, vehicles forward.
Mezz Deck: cargo. Super Deck: 2 LCM-6s, vehicles.
- VII. Well Deck: 22 LVTs aft, vehicles forward.
Mezz Deck: cargo. Super Deck: vehicles.
- VIII. Well Deck: 3 LCUs, 6 LCM-6s.
Mezz Deck: removed. Super Deck: vehicles.
- IX. Well Deck: 3 LCACs aft, vehicles forward.
Mezz Deck: removed. Super Deck: vehicles.
- X. Well Deck: 10 LCM-8s.
Mezz. Deck: removed. Super Deck: vehicles
- XI. Well Deck: 6 LCM-9s.
Mezz Deck: removed. Super Deck: vehicles.
- XII. Well Deck: 3 LCACs each loaded with 2 LVTs.
Mezz Deck: removed. Super Deck: vehicles.
- XIII. Well Deck: 22 LVAs aft, vehicles forward.
Mezz Deck: vehicles. Super Deck: vehicles
- XIV. Well Deck: 8 causeways, 4 loaded with vehicles.
Mezz Deck: vehicles. Super Deck: vehicles.
- XV. Well Deck: 111 containers
Mezz Deck: cargo

LSD-36 LOADING PLAN OPTION I



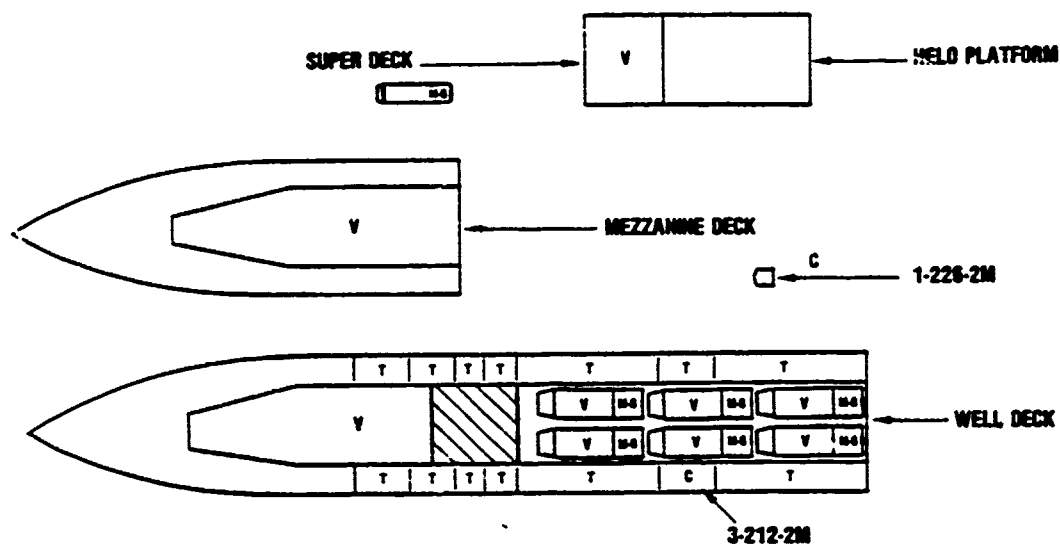
DECK	TROOPS	VEHICLES	CARGO ²	BULK FUEL ³			LANDING CRAFT						AMPHIBIANS		HELICOPTER STORAGE			
				MSBMS	DF-2	JF-5	LCM-8	LCM-6	LCM-0	LCM-1000	LCAC	CS	PCS	LVT	LHA	UH-1H	CH-53	CH-53E
HELD	FLIGHT OPERATIONS																	
SUPER			2.7															
MEZZANINE			5.9															
3-212-2M			1.9															
1-226-2M			8.3															
WELL		3.3					4			2								
WEATHER							1											
BOATWAYS	33																	
BOATS ⁴		4.2																
TANKAGE				2.9		38.9												
TOTALS	33	15.3	1.9	2.9		38.9	5			2								

- NOTES: 1. Vehicles are in thousands of square feet.
 2. Cargo is in thousands of cubic feet.
 3. Bulk Fuel is in thousands of gallons.
 4. The cargo areas of boats in well decks are loaded with vehicles.

4-14-81-88

83/84

LSD-36 LOADING PLAN OPTION II

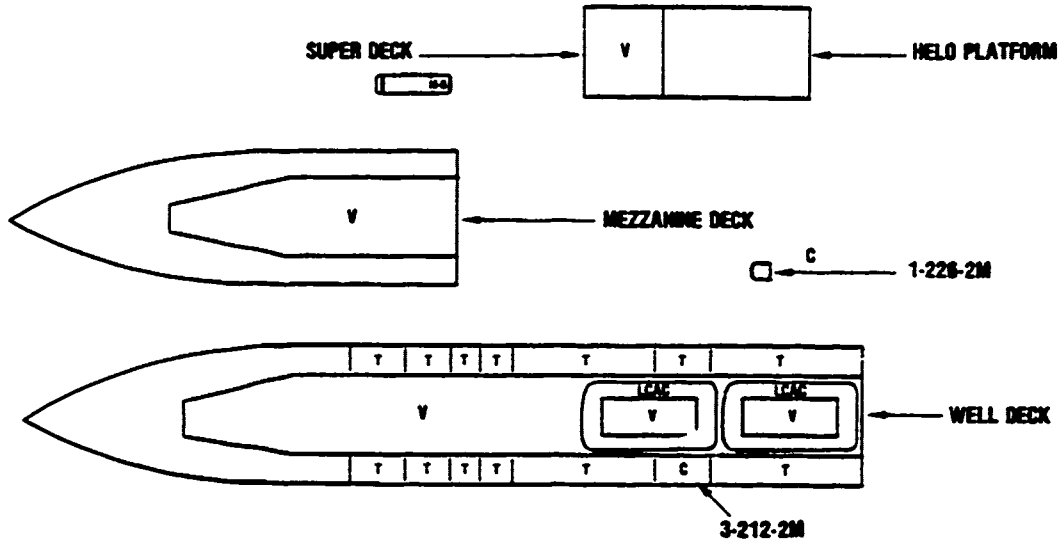


DECK	TROOPS	VEHICLES	CUBIC ²	DIESEL FUEL ³			LANDING CRAFT						AMPHIBANS		HELICOPTER STORAGE				
				MREAS	DF-2	J-46	LCM-8	LCM-8	LCM-8	LCM-16B	LCAC	CS	PCS	LVT	LVA	UH-46B	CH-46B	CH-53B	CH-53E
WELL	FLIGHT OPERATIONS																		
SUPER			2.27																
MEZZANINE			5.98																
3-212-2M			1.88																
1-226-2M			8.18																
WELL			5.43																
WEATHER																			
BERTHING	307																		
BOATS ⁴			3.04																
TANKAGE				2.8		38.9													
TOTALS	337	18.24	1.98	2.8		38.9	1	8											

- NOTES: 1. Values are in thousands of square feet.
 2. Cargo is in thousands of cubic feet.
 3. Sub. FUL is in thousands of gallons.
 4. The cargo areas of boats in well decks are loaded with vehicles.

4-14-81-48

LSD-36 LOADING PLAN OPTION III

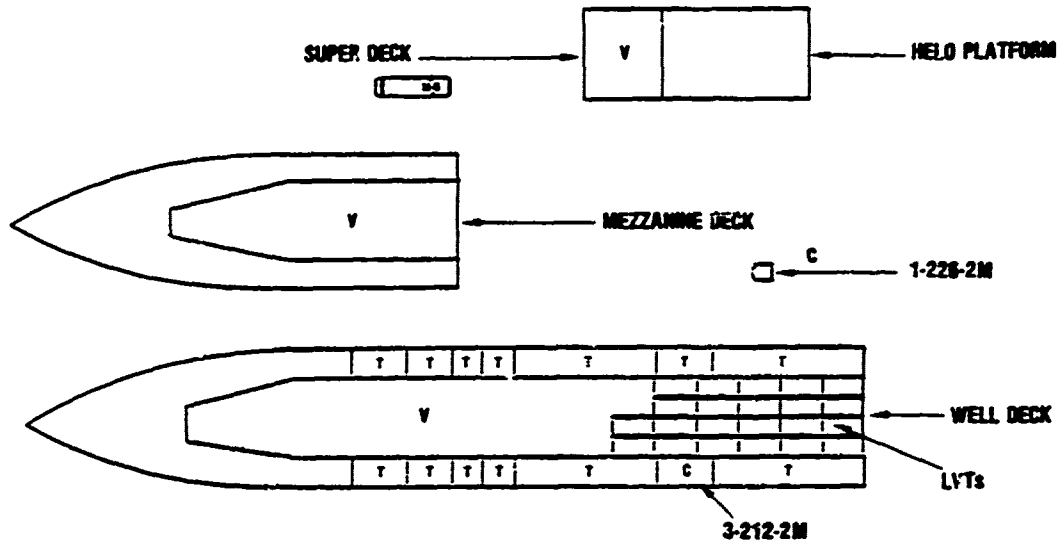


DECK	TROOPS	VEHICLES	CARGO ²	BULK FOL ³			LANDING CRAFT					AMPHIBIOUS		HELICOPTER STORAGE				
				MHCAS	OF-2	JFS	LCM8	LCM6	LCM4	LCM3	LCAC	CS	PCS	LVT	LMA	UH-1H	OH-4D	CH-53
HELID	FLIGHT OPERATIONS																	
SUPER			2.77															
MEZZANINE			5.58															
3-212-2M			1.88															
1-228-2M			8.16															
WELL			0.87						2									
WEATHER						1												
BERTHING	337																	
BOATS ⁴			2.71															
TARRAGE				2.8		38.8												
TOTALS	337	18.15	1.58	2.8		38.8	1			2								

- NOTE: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk FOL is in thousands of gallons.
 4 The cargo areas of boats in well decks are marked with vehicles.

4-14-81-40

LSD-36 LOADING PLAN OPTION IV

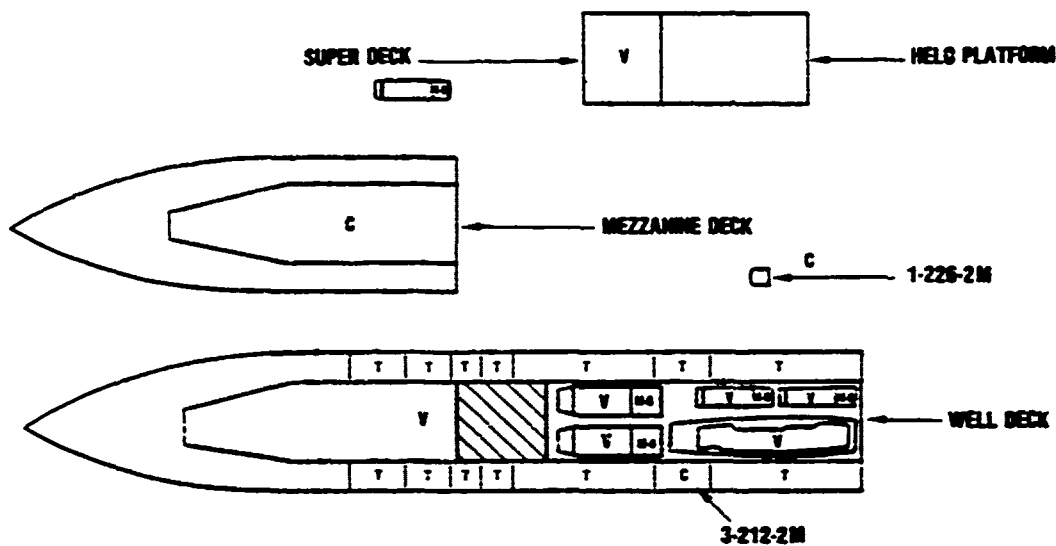


DECK	TRUCKS / VEHICLES	CARGO ²	BULK POL ³		LANDING CRAFT							AMPHIBIOUS		HELICOPTER STORAGE					
			MHCAS	DF2	JFS	LCM-6	LCM-8	LCM-9	LCM-10	LCM-11	LCM-12	CS	PCS	LVT	LHA	OH-6H	OH-6H	OH-6H	OH-6H
HELO	FLIGHT OPERATIONS																		
SUPER	227																		
MEZZANINE	5.98																		
3-212-2M		1.89																	
1-228-2M		8.18																	
WELL	17.89 ⁴												22						
WEATHER						1													
BERTHING	237																		
TANKAGE			2.8		38.9														
TOTALS	237	25.86	1.98	2.8	38.9	1							22						

- NOTES:
1. Values are in thousands of square feet.
 2. Cargo is in thousands of cubic feet.
 3. Bulk POL is in thousands of gallons.
 4. Amphibian space is included in well deck vehicle space.

4-14-81-00

LSD-36
LOADING PLAN OPTION V



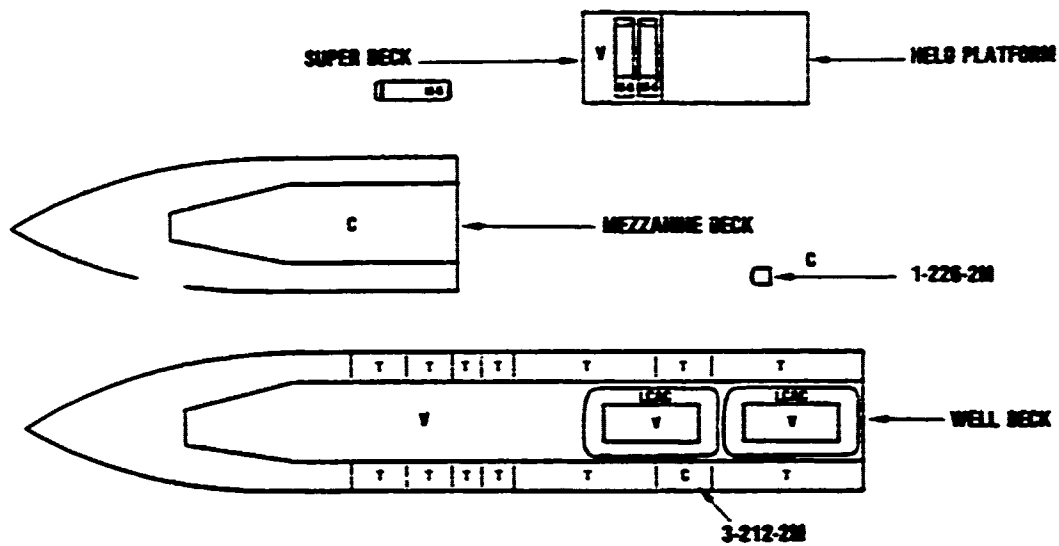
DECK	TRUCKS	VEHICLES	CARGO ²	SUXL PBL ³		LOADING CAPT										AMPHIBS				HELICOPTER STORAGE							
				WINGS	SP-2	SP-5	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG	LONG
WELL			FLIGHT OPERATIONS																								
SUPER		227																									
MEZZANINE			15.81																								
3-212-2M			1.89																								
1-228-2M			2.10																								
WELL		5.24					2	2		1																	
WEATHER							1																				
BOATWORKING	267																										
BOATS		3.11																									
TANNAGE			2.9																								
TOTALS	267	11.12	17.80	2.9			3	2		1																	

- NOTES: 1. Vehicles are in thousands of square feet.
 2. Cargo is in thousands of cubic feet.
 3. SUXL PBL is in thousands of gallons.
 4. The cargo area of boats in well decks are marked with vehicles.

NOTE: Cargo storage on mezzanine deck is restricted by weight limitation of 200 lb/cu ft. Cargo capacity is estimated using a density of 25.3 lb/cu ft.

4-14-81-81

LSD-36 LOADING PLAN OPTION VI



DECK	UNITS AVAILABLE	CUBIC FT ²	SUB PBL ³		LOADING CAPTY							AIRBORNE		REAR/PER STORAGE					
			WINGS	3F2	JPS	LEDB	LEDB	LEDB	LEDB	LEDB	LEDB	CS	PCS	DT	DR	WINGS	CHAS	CHAS	CHAS
WELD	FLIGHT OPERATIONS																		
SUPER	24																		
MEZZANINE	1																		
WELL	2																		
WINGS	27																		
CHAS	271																		
TOTALS	29	1238	1238	23	288	1													

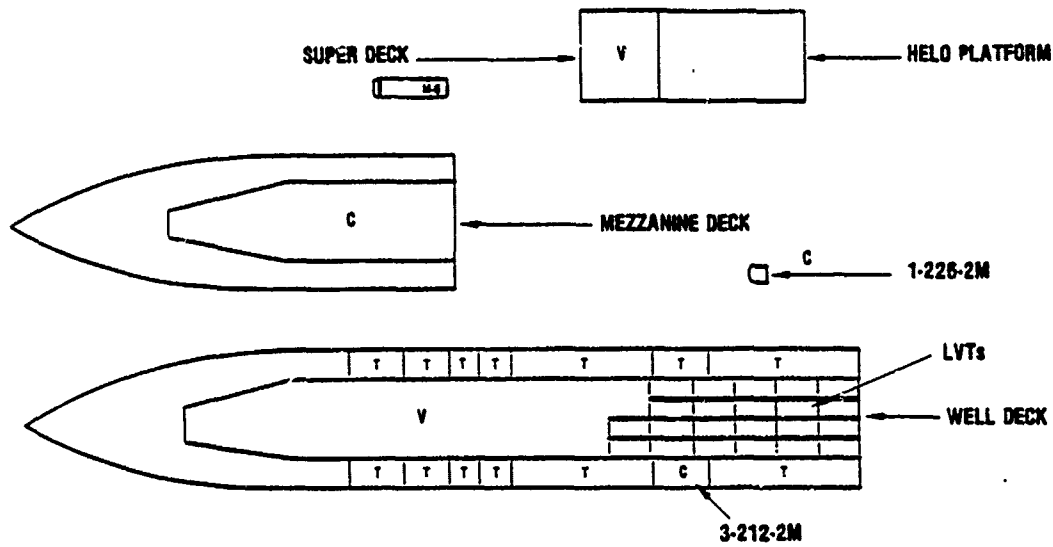
NOTE: 1 Includes air in thousands of square feet.
 2 Cargo in thousands of cubic feet.
 3 Sub PBL is in thousands of pallets.
 4 The cargo areas of decks in well decks are based on full utilization.

NOTE: Cargo stowage on deck is limited by weight
 capacity of deck. Cargo capacity is indicated along a
 length of 253 feet.

4-10-81-88

93/94

LSD-36 LOADING PLAN OPTION VII



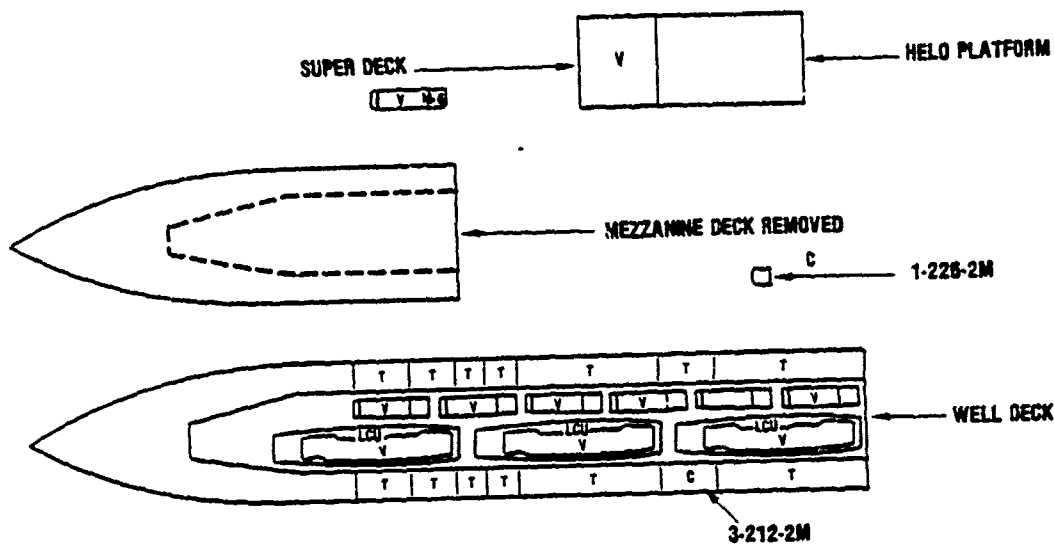
DECK	TROOPS (VEHICLES)	CARGO ²	Bulk PO ³			LANDING CRAFT							AMPHIBIANS				HELICOPTER STORAGE		
			MOGAS	U-2	J-4	LCM-8	LCM-9	LCM-10	LCU-1010	LCAC	CS	PCS	LVT	LVA	UH-1H	CH-40	CH-53	CH-53E	
HELD	FLIGHT OPERATIONS																		
SUPER		2.27																	
MEZZANINE		15.81																	
3-212-2M		1.88																	
1-226-2M		0.18																	
WELL		17.88 ⁴											22						
WEATHER						1													
BERTHING	337																		
TANKAGE			2.8		30.8														
TOTALS	337	28.15	17.88	2.0	30.8	1							22						

- NOTES: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk PO³ is in thousands of gallons.
 4 Amphibian square is included in well deck vehicle square.

NOTE: Cargo storage on the well deck is calculated by weight (density of 200 lb/cu ft) and is estimated using a density of 25.3 lb/cu ft.

4-14-61-63

LSD-36 LOADING PLAN OPTION VIII

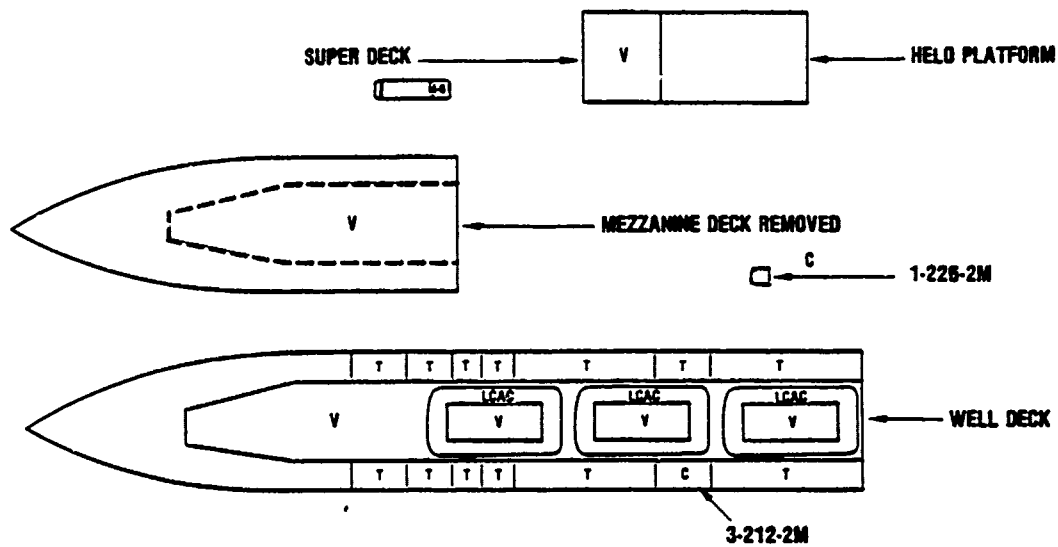


DECK	TROOPS	VEHICLES	CARGO ²	BULK POL ³		LANDING CRAFT								AMPHIBIANS				HELICOPTER STORAGE				
				MOGAS	DF-2	JF-5	LCM-6	LCM-8	LCM-9	LCU-1810	LCAC	CS	PCS	LVT	LVA	UH-40/H	CH-40	CH-53D	CH-53E			
HELD	FLIGHT OPERATIONS																					
S-7ER		2.7																				
MEZZANINE			1.98																			
3-212-2M			0.18																			
1-228-2M																						
WELL							8					3										
WEATHER							1															
BERTHING	337																					
BOATS ⁴		0.28																				
TANKAGE			2.0			38.9																
TOTALs	337	0.58	1.98	2.0		38.9	7					3										

- NOTES: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk POL is in thousands of gallons.
 4 The cargo area of boats in well decks are loaded with vehicles.

4-14-81-64

LSD-36 LOADING PLAN OPTION IX

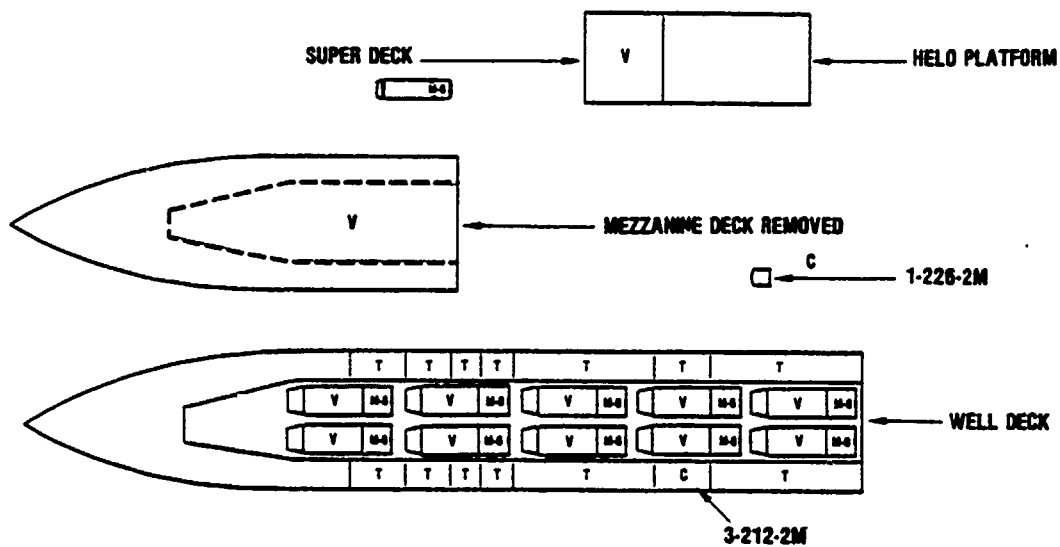


DECK	TROOPS	VEHICLES	CARGO ²	BULK POZ ³			LANDING CRAFT					AMPHIBIANS		HELICOPTER STORAGE			
				MOGAS	OF-2	J-F5	LCM-8	LCM-8	LCM-8	LCU-1010	LCAC	CS	PCS	LVT	LVA	UH-101H	CH-46B
HELD		FLIGHT OPERATIONS															
SUPER		227															
MEZZANINE																	
3-212-2M			1.88														
1-226-2M			6.18														
WELL		4.78							3								
WEATHER							1										
BERTHING	337																
BOATS ⁴		4.08															
TANKAGE				2.8		38.8											
TOTALS	337	11.15	1.88	2.8		38.8	1		3								

- NOTES:
- 1 Vehicles are in thousands of square feet.
 - 2 Cargo is in thousands of cubic feet.
 - 3 Bulk POZ is in thousands of gallons.
 - 4 The cargo areas of boats in well decks are loaded with vehicles.

4-14-81-68

LSD-36 LOADING PLAN OPTION X

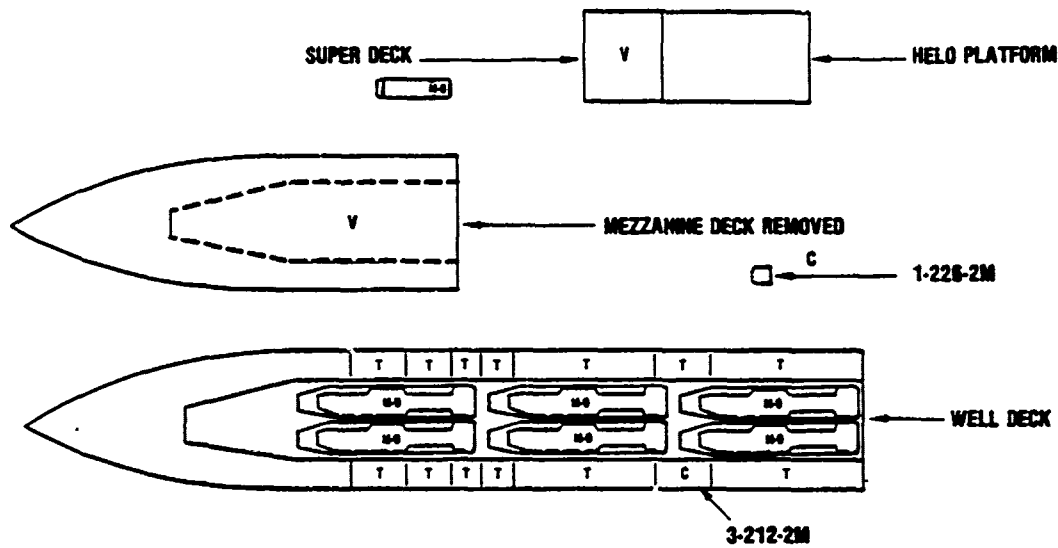


DECK	TROOPS	VEHICLES	CARGO ²	BULK POL ³			LANDING CRAFT						AMPHIBIANS		HELICOPTER STORAGE			
				MOGAS	DF-2	JP-5	LCM-8	LCM-8	LCM-8	LCU-1610	LCAC	CS	PCS	LVT	LVA	LHDN	CH-40	CH-53
HELICOPTER PLATFORM																		
SUPER		727																
MEZZANINE																		
3-212-2M			1.00															
1-226-2M			0.10															
WELL																		
WEATHER							1											
BERTHING	337																	
BOATS ⁴		5.00																
TANKAGE				2.0		30.0												
TOTALS	337	727	1.99	2.0		30.0	1		10									

NOTE: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk POL is in thousands of gallons.
 4 The cargo areas of boats in well decks are loaded with vehicles.

4-14-81-00

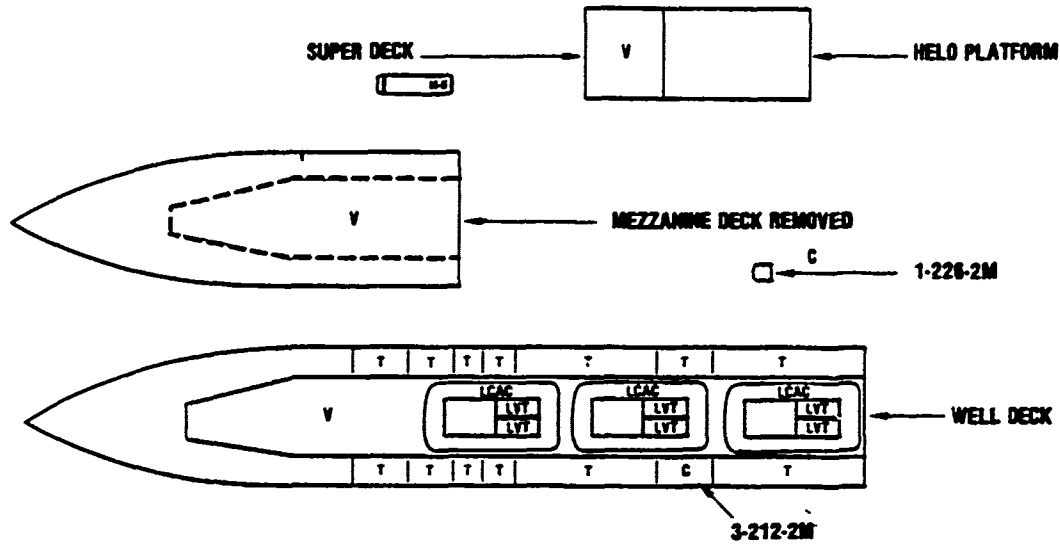
LSD-36
LOADING PLAN OPTION XI



DECK	TROOPS	VEHICLES ¹	CARGO ²	BULK PCL ³			LANDING CRAFT					AMPHIBANS		HELICOPTER STORAGE			
				MCRAB	DF-2	JF-6	LCM-8	LCM-8	LCM-8	LCM-100	LCAC	CS	PCS	LVT	LVA	UH-101H	CH-53D
WELL	FLIGHT OPERATIONS																
SUPER		227															
MEZZANINE																	
3-212-2M			1.88														
1-228-2M			0.10														
WELL																	
WEATHER							1										
BERTHING	337																
BOATS ⁴		0.28															
TANKAGE				2.8		38.8											
TOTALS	337	0.67	1.98	2.8		38.8	1		0								

NOTES: 1. Vehicles are in thousands of square feet.
 2. Cargo is in thousands of cubic feet.
 3. Bulk PCL is in thousands of gallons.
 4. The cargo areas of boats in well decks are loaded with vehicles.
 4-14-81-87

LSD-36
LOADING PLAN OPTION XII



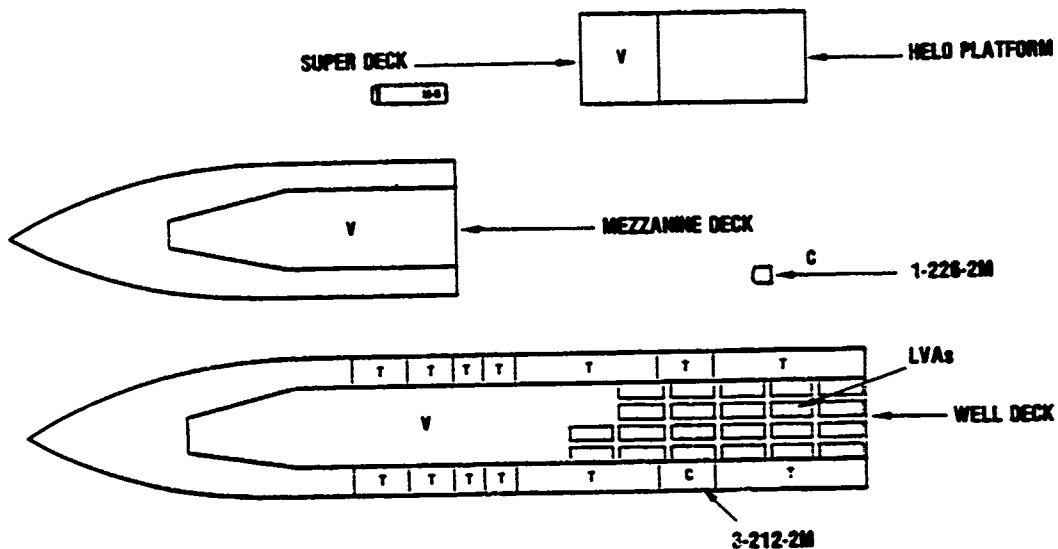
DECK	TROOPS	VEHICLES	CARGO ²	BULK PDL ³			LANDING CRAFT						AMPHIBANS			HELICOPTER STORAGE		
				M1CAG	DF-2	JP-5	LCM4	LCM8	LCM16	LCU-1010	LCAC	CS	PCS	LVT	LVA	UH-1H	CH-53	CH-53E
HELD	FLIGHT OPERATIONS																	
SUPER		227																
MEZZANINE																		
3-212-2M			1.98															
1-226-2M			8.38															
WELL		4.78								3								
WEATHER						1												
BERTHING	337																	
BOATS ⁴		1.67 ⁵											8					
TANKAGE				2.8		38.9												
TOTALS	337	8.73	1.98	2.8		38.9	1			3			8					

- NOTES:
1. Vehicles are in thousands of square feet.
 2. Cargo is in thousands of cubic feet.
 3. Bulk PDL is in thousands of gallons.
 4. The cargo areas of boats in well decks are loaded with vehicles.
 5. LVTs loaded in LCACs included as vehicle space.

4-14-81-00

105/106

LSD-36
LOADING PLAN OPTION XM



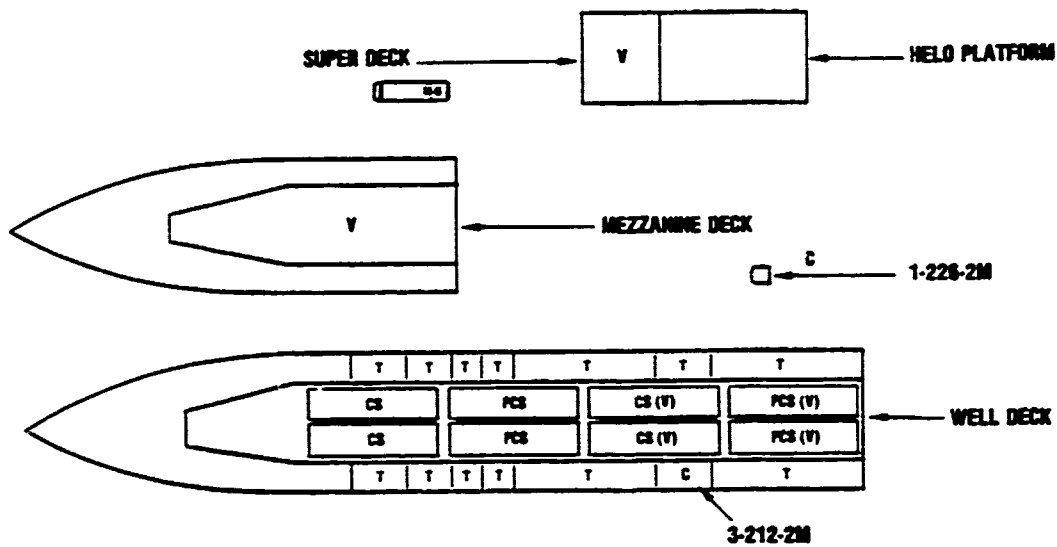
DECK	TROOPS	VEHICLES	CARGO ²	BULK FUEL ³		LANDING CRAFT							AIRFRAMES		HELICOPTER STORAGE			
				MEGAS	DF-2	J-5	LCM-8	LCM-8	LCM-8	LCM-100	LCAC	CS	PCS	LVT	LHA	UH-1H	OH-4D	OH-5D
HELD	FLIGHT OPERATIONS																	
SUPER			2.27															
MEZZANINE			5.59															
3-212-2M			1.89															
1-228-2M			6.19															22
WELL			16.87				1											
WEATHER																		
BERTHING	337																	
TANKAGE				2.8		36.9												22
TOTALS	337	24.88	1.98	2.8		36.9	1											22

- NOTES: 1 Volume in thousands of square feet.
 2 Cargo in thousands of cubic feet.
 3 Bulk Fuel in thousands of gallons.
 4 Amphibian square is included in well deck vehicle square.

4-14-81-80

107/108

LSD-36 LOADING PLAN OPTION XIV

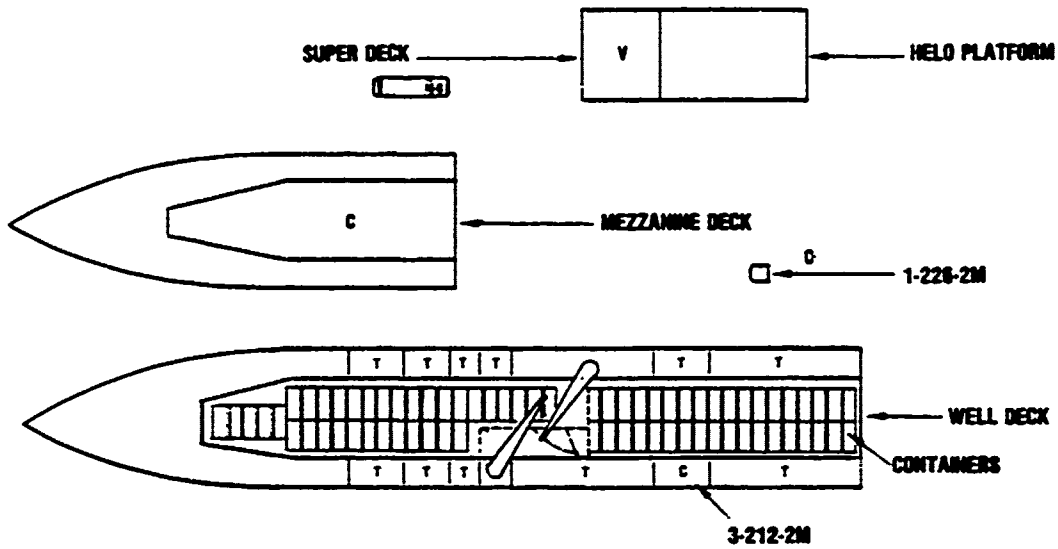


DECK	TROOPS	VEHICLES	CARGO ²	DULK PBL ³			LANDING CRAFT						AMPHIBIOUS		HELICOPTER STORAGE			
				MINISAS	OF-2	JF-6	LCM-8	LCM-8	LCM-8	LCM-100	LCAC	CS	PCS	AVT	LVA	UH-1H	CH-53	CH-53
HELO	FLIGHT OPERATIONS																	
SUPER			2.77															
MEZZANINE			5.90															
3-212-2M			1.90															
1-228-2M			0.10															
WELL											4	4						
WEATHER						1												
BERTHING	327																	
BOATS ⁴		5.82 ⁵																
TANKAGE				2.8		30.0												
TOTALS	327	12.79	1.90	2.8		30.0	1				4	4						

- NOTES:
1. Vehicles are in thousands of square feet.
 2. Cargo is in thousands of cubic feet.
 3. Dulk PBL is in thousands of gallons.
 4. The cargo areas of boats in well decks are loaded with vehicles.
 5. Four crewmembers are at each deck loaded with vehicles. Vehicle load per crewmember cannot exceed 80 short tons.

4-14-81-81

LSD-36
LOADING PLAN OPTION XV



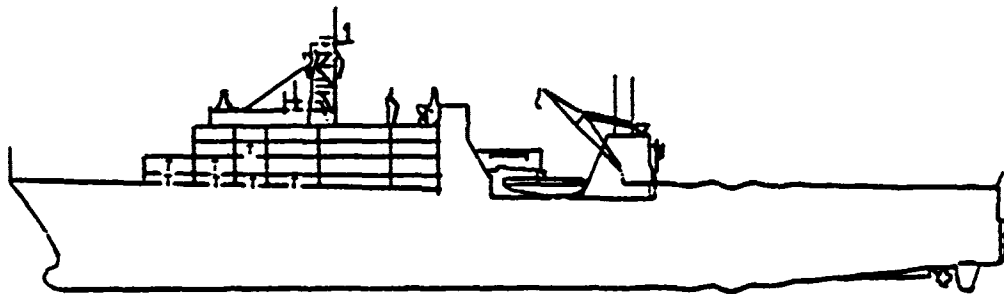
DECK	TRUCKS/VEHICLES	CARGO ²	BULK PBL ³		LANDING CRAFT							AMPHIBIOUS		HELICOPTER STORAGE				
			MDCAS	DF-2	J-6	LCM-8	LCM-8	LCM-8	LCM-1600	LCAC	CS	PCS	LVT	LVA	OH-600	OH-400	OH-500	OH-50E
HELICOPTER	FLIGHT OPERATIONS																	
SUPER		2.27																
MEZZANINE		15.81																
3-212-2M		1.88																
1-228-2M		0.18																
WELL		87.14																
WEATHER																		
BEHIND	337																	
TARRAGE			2.8		38.8													
TOTALS	337	2.27	104.88	2.8	38.8													

- NOTES: 1 Vehicle area in thousands of square feet.
 2 Cargo in thousands of cubic feet.
 3 Bulk PBL in thousands of gallons.

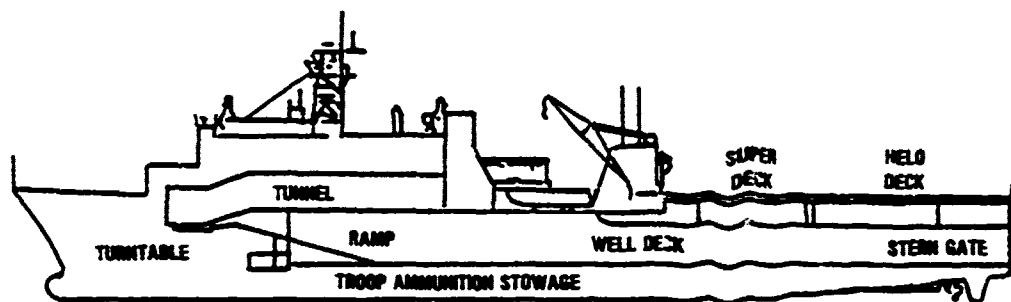
NOTE: Cargo storage on mezzanine deck is calculated by weight limitation of 200 cwt/area. Cargo capacity is estimated using a density of 25.3 lb/cu ft.

4-14-81-02

LSD-41



PROFILE DISPLAYING TROOP ACCOMMODATIONS



INBOARD PROFILE DISPLAYING WELL DECK, RAMP, TURNABLE, TUNNEL,
SUPER DECK, HELO DECK, AND TROOP AMMUNITION STOWAGE

4-14-81-83

SHIP'S LOADING CHARACTERISTICS¹

The LSD-41 is not yet under construction. The ship's design has been developed to load and transport landing craft and vehicles with attendant personnel in amphibious operations. Primary spaces for carrying vehicles and conducting helicopter operations are the helicopter deck, super deck, and the well deck. Helicopter transportable vehicles may be delivered to the helicopter deck for transit to the well deck via fixed and movable ramps, superstructure tunnel, and turntable. The well

¹Data extracted from preliminary design plans.

deck design is oriented toward LCAC operation. The well deck is designed with a foldable water barrier 300 feet forward of the stern. Three spaces are provided for the stowage of troop munitions.

SHIP'S BOATS:

LCPL 2
 Motor Whale 1

BERTHING ACCOMMODATIONS:

	<u>Officer</u>	<u>CPO/SNCO</u>	<u>Other Enlisted</u>	<u>Surge</u>	<u>Total</u>
Ship's Company	13	12	591	---	616
Landing Forces	27	9	430	37	503

CRANES:

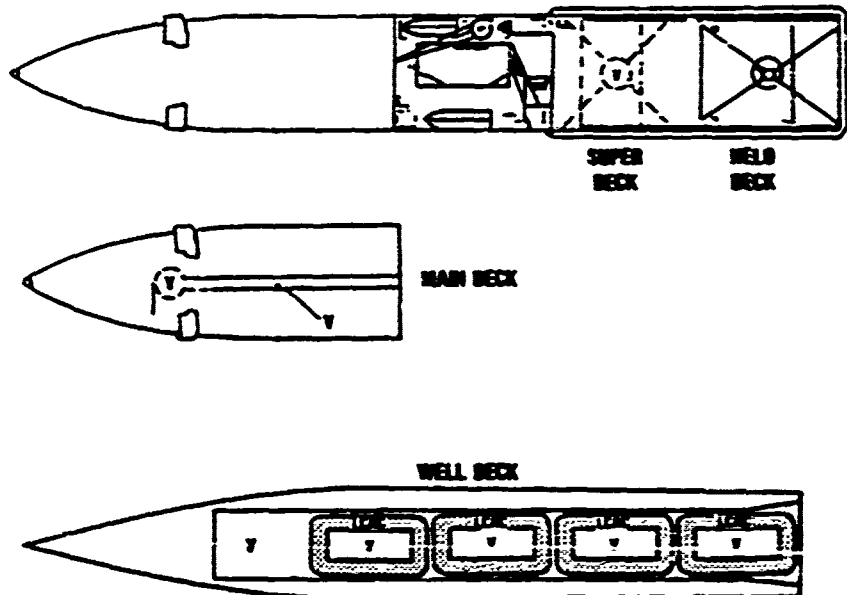
<u>Rig</u>	<u>Lift Capacity</u>	<u>Lift Cycle Time</u>
Single Boom	20 S/T	4 min
Single Boom	60 S/T	8 min

LOADING PLAN OPTIONS

- I. Well Deck: 4 LCACs aft, vehicles forward. (Water Barrier--down)
 Super Deck: vehicles
- II. Well Deck: 2 LCACs, 12 LVTs aft, vehicles forward. (Water Barrier--down)
 Super Deck: vehicles
- III. Well Deck: 1 LCAC, 1 LCU-1610, 2 LCM-8s, 2 LCM-6s, vehicles forward. (Water Barrier--up)
- IV. Well Deck: 3 LCACs, 12 LVTs, vehicles forward. (Water Barrier--down)
 Super Deck: vehicles

- V. Well Deck: 2 LCACs, 6 LCM-6s, vehicles forward. (Water Barrier--up)
Super Deck: vehicles
- VI. Well Deck: 2 LCACs, 24 LVTs, vehicles forward. (Water Barrier--up)
Super Deck: vehicles
- VII. Well Deck: 6 LCM-3s, 3 LCM-6s, vehicles forward. (Water Barrier--up)
Super Deck: vehicles
- VIII. Well Deck: 160 containers
Super Deck: vehicles

LSD-41
LOADING PLAN OPTION I



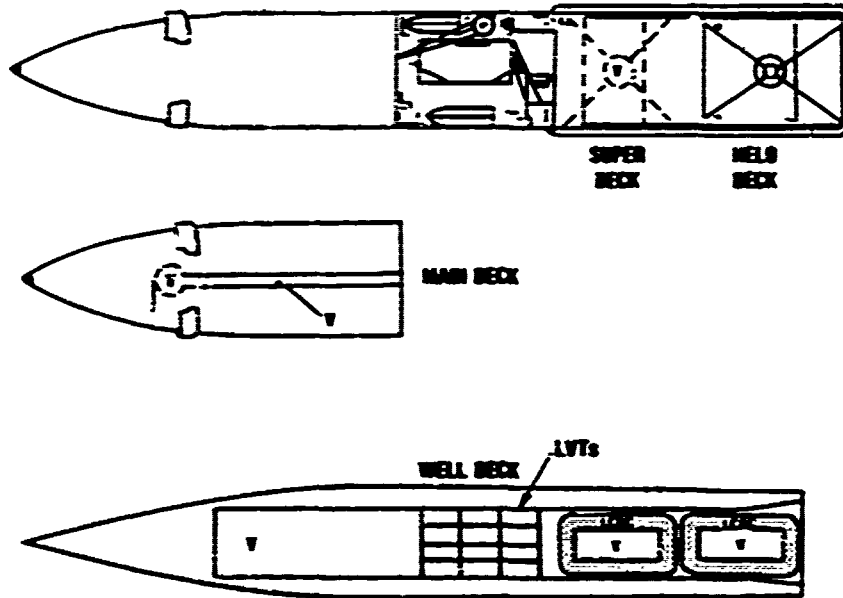
DECK	TROOPS VEHICLES	CRANE ²	SINK FT ²		LOADING CRANE ³						APPROXIMATE		MINIMUM CRANE			
			WINGS	SP2	SP4	LONG	LONG	LONG	LONG	LONG	CS	PCS	LIFT	CRN	CRANE	CRANE
HELD	FLIGHT OPERATIONS															
SUPER		5.00														
PFWD 2d DE		0.50														
PFWD 3d DE		0.50														
AMPHIB 3d DE 1		2.50														
TOWING		1.00														
WELL		1.00								4						
BERYUMS	500															
SEATS ⁴	5.00															
TOWAGE																
TOTALS	500	15.00	4.71							4						

NOTES: 1 Includes one in thousands of square feet.
 2 Crane in thousands of cubic feet.
 3 SINK FT² in thousands of gallons.
 4 The cargo area of beam or well decks are loaded with vehicles.

4-14-67-64

117/118

LSD-41
LOADING PLAN OPTION II

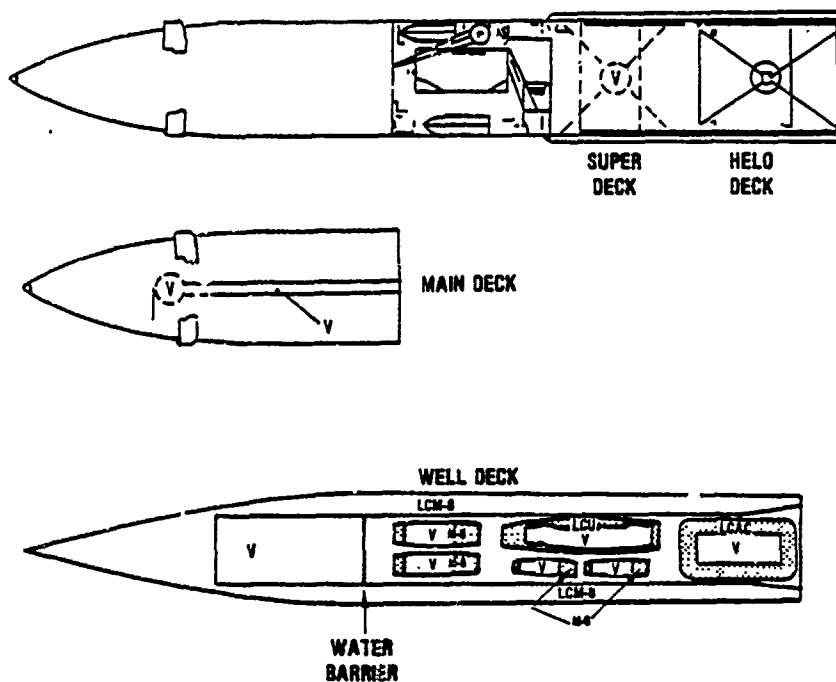


ITEM	QUANTITY	WEIGHT (LBS)	DIMENSIONS (L x W x H)	LOADING CAPACITY										RESERVED SPACE						
				1	2	3	4	5	6	7	8	9	10	11	12	13	14			
WELL BECK	1	100	100 x 100 x 10																	
MAIN BECK	1	100	100 x 100 x 10																	
SUPER BECK	1	100	100 x 100 x 10																	
HELLO BECK	1	100	100 x 100 x 10																	
TOTALS	4	400																		

NOTES: 1. Numbers are in thousands of cubic feet.
 2. Cubic ft. is in thousands of cubic feet.
 3. DIM. (L x W x H) is in thousands of feet.
 4. Available space is indicated in well deck vehicle space.
 5. The cargo area of deck is well deck area marked with white.

4-10-61-05

LSD-41
LOADING PLAN OPTION III

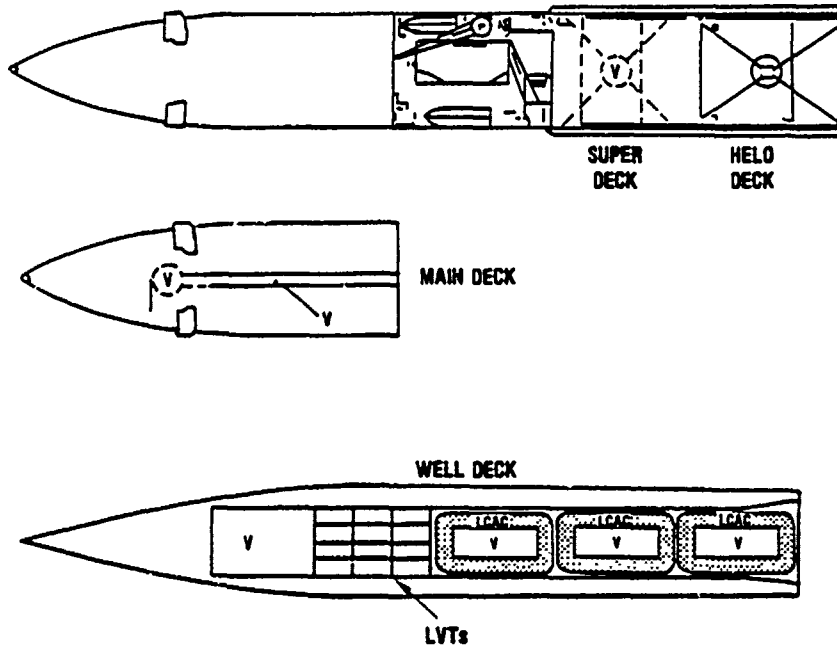


DECK	TROOPS	VEHICLES	CARBO ²	BULK POL ³			LANDING CRAFT					AMPHIBANS		HELICOPTER STORAGE				
				MOGAS	DF-2	JF-8	LCM-8	LCM-9	LCM-10	LCJ-1018	LCAC	CS	PCS	LVT	UH-1H	CH-46D	CH-53D	CH-53E
HEL0	FLIGHT OPERATIONS																	
SUPER			5.84															
PYRO: 24 DR			0.53															
PYRO: 34 DR			0.83															
AMMO: 14 DR			2.56															
TUNNEL		1.48																
WELL		5.51					2	2	1	1								
BERTHING	584																	
BOATS ⁴		4.47																
TANKAGE																		
TOTALS	584	17.31	4.71				2	2	1	1								

- NOTES: ¹ Vehicles are in thousands of square feet.
² Cargo is in thousands of cubic feet.
³ Bulk POL is in thousands of gallons.
⁴ The cargo areas of boats in well decks are loaded with vehicles.

4-14-81-88

LSD-41
LOADING PLAN OPTION IV

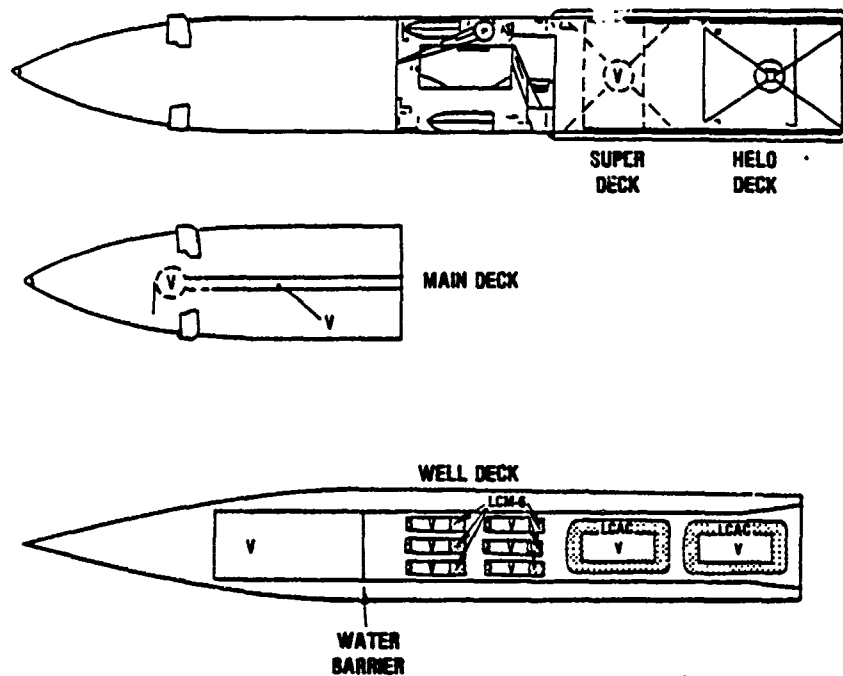


DECK	TROOPS	VEHICLES	CARGO ²	BULK FUEL ³			LANDING CRAFT						AMPHIBIANS		HELICOPTER STORAGE				
				AVIATION	DF-2	J-F5	LCM-8	LCM-8	LCM-8	LCU-1818	LCAC	CS	PCS	LVT	LVA	UH-1H	CH-46	CH-53	CH-53E
WELL		FLIGHT OPERATIONS																	
SUPER		5.84																	
PYRO: 24 CR			0.53																
PYRO: 36 CR			0.83																
AMMO: 36 CR			3.58																
TUNNEL		1.48																	
WELL		6.71 ⁴								3					12				
BERTHING	504																		
BOATS ⁵		4.07																	
TANKAGE																			
TOTALS	504	18.18	4.71							3					12				

- NOTES: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk Fuel is in thousands of gallons.
 4 Amphibian square is included in well deck vehicle square.
 5 The cargo areas of boats in well decks are loaded with vehicles.

4-14-81-87

LSD-41
LOADING PLAN OPTION V

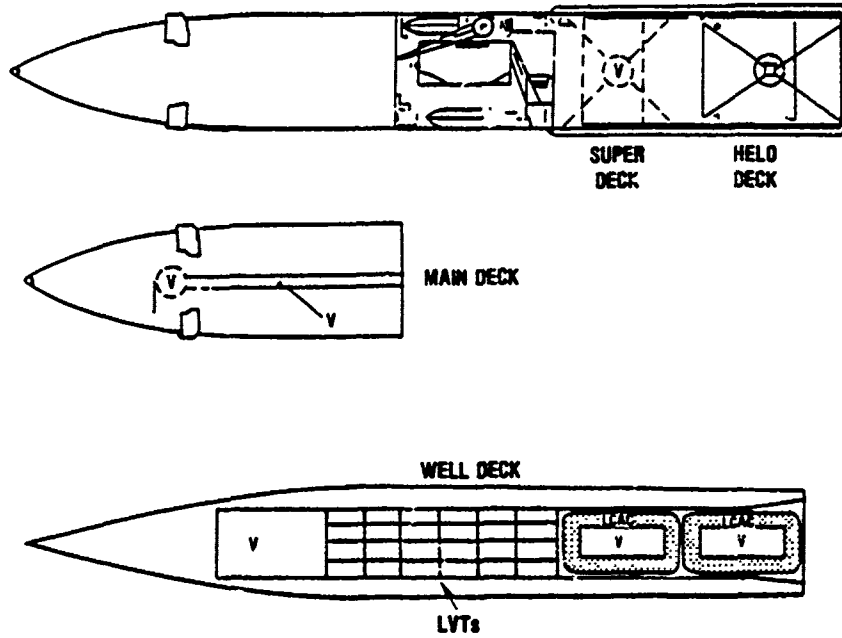


DECK	TROOPS	VEHICLES	CARGO ²	BULK PCL ³			LANDING CRAFT						AMPHIBIANS		HELICOPTER STORAGE		
				MOGAS	DF-2	JF-5	LCM6	LCM8	LCM9	LCU-1810	LCAC	CS	PCS	LVT	LVA	UH-101H	CH-40D
HELLO	FLIGHT OPERATIONS																
SUPER			5.04														
PRND: 2d DR			0.53														
PRND: 3d DR			0.83														
AMND: 3d DR			3.56														
TUNNEL			1.68														
A			5.19 ⁴				8				2						
BERTHING	584																
BOATS ⁴		4.54															
TANKAGE																	
TOTALS	584	17.02	4.71				8				2						

- NOTES: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk PCL is in thousands of gallons.
 4 The cargo areas of boats or well decks are loaded with vehicles.

4-14-61-66

LSD-41
LOADING PLAN OPTION VI



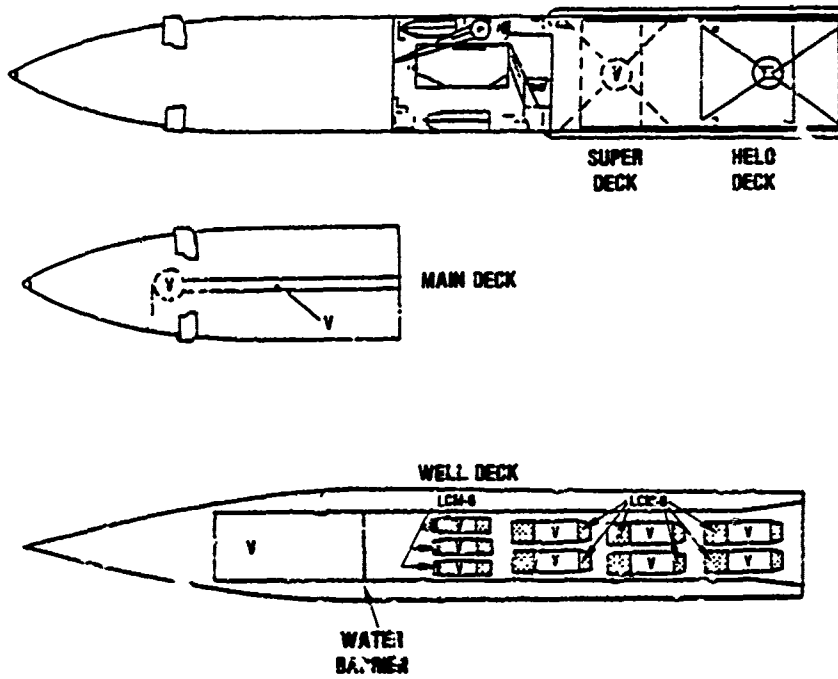
DECK	TROOPS (VEHICLES)	CARGO ²	BULK POOL ³			LANDING CRAFT						AMPHIBANS		HELICOPTER STORAGE		
			NOGAS	DF-2	JF-6	LCM-6	LCM-8	LCM-9	LCU-1070	LCAC	CS	PCS	LVT	LVA	UH-107H	CH-40
HEL	FLIGHT OPERATIONS															
SUPER		5.84														
PYRD: 24 CR		0.53														
PYRD: 24 CR		0.63														
AMRD: 30 CR		3.58														
TUNNEL		1.00														
WELL		11.85 ⁵							2			26				
BERTHING	504															
SEATS ⁴	271															
TANKAGE																
TOTALS	204	21.80	471							2		26				

- NOTES: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk POB is in thousands of gallons.
 4 Amphibian square is included in well deck vehicle square.
 5 The cargo area of boats in well decks are loaded with vehicles.

4-14-81-80

127/128

LSD-41
LOADING PLAN OPTION VII

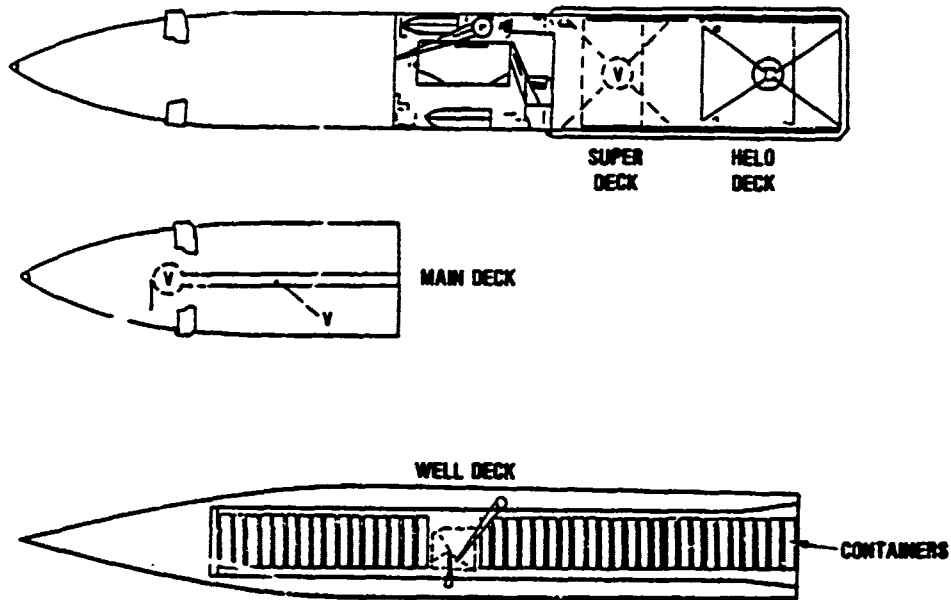


DECK	TROOPS	VEHICLES ¹	CARGO ²	BLK PUL ³			LANDING CRFT					APPURTEANES			HELICOPTER STORAGE		
				WDCAS	DF-2	JF-8	LCM-6	LCM-8	LCM-6 (LCM-10)	LCAC	CS	PCB	LVT	LVA	UH-1H	OH-6H	CH-53
HELO	FLIGHT OPERATIONS																
SUPER		2.04															
PYRO: 22 CR			0.53														
PYRO: 34 CR			0.22														
ARMOR: 24 CR			1.56														
TURBINE		1.43															
WELL		6.15				3	8										
GEYSHING		504															
POWTS ⁴		3.0 ⁴															
TANKAGE																	
TOTALS		504				3	8										

NOTES: 1 Vehicles are in thousands. - 2 square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk PUL is in thousands of gallons.
 4 The cargo areas of Super and Helo decks are loaded with vehicles.

4-14-81-70

**LSD-41
LOADING PLAN OPTION VII**

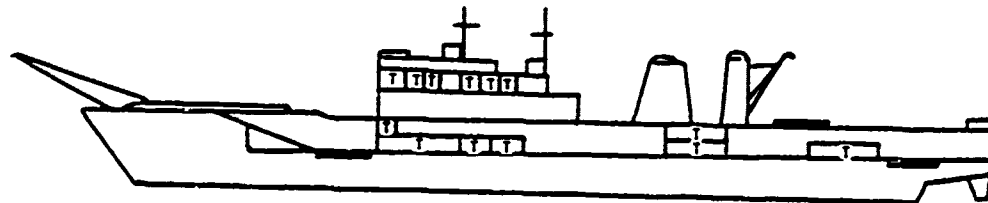


DECK	TROOPS	VEHICLES	CARGO ²	BULK FUEL ³			LANDING CRAFT						AMPHIBIANS		HELICOPTER STORAGE			
				NOVAG	DF-2	J-5	LCM-6	LCM-8	LCM-9	LCM-10	LCM-11	CS	PCS	LVT	LVA	UH-1H	OH-6H	OH-5H
HELLO	FLIGHT OPERATIONS																	
SUPER			5.84															
PYRO: 2M DR			0.53															
PYRO: 3M DR			0.83															
ARMED: 3M DR			3.96															
TURKEL		1.40																
WELL			125.00															
BERTHING	504																	
TANKAGE																		
TOTALS	504	15.01	131.31															

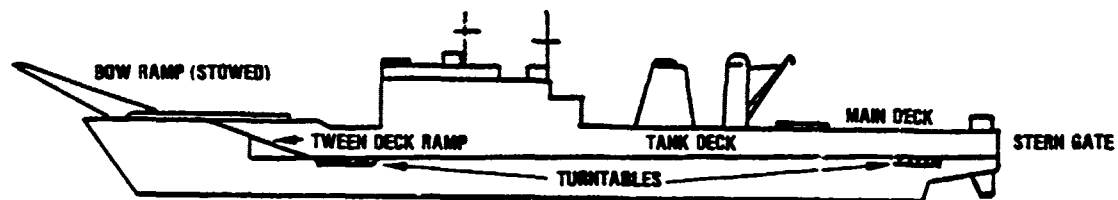
- NOTES: 1 Vehicle area in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk Fuel is in thousands of gallons.

4-14-81-71

LST-1179



OUTBOARD PROFILE DISPLAYING TROOP ACCOMMODATIONS



**INBOARD PROFILE DISPLAYING MAIN DECK, TANK DECK,
TURNABLES, RAMPS AND STERN GATE**

4-14-81-72

SHIP'S LOADING CHARACTERISTICS

The LST-1179 is designed to load, transport and land tank and other combat vehicles with their attendant personnel during amphibious operations. The primary method for embarkation/debarkation of vehicles is over the bow ramp. The ship is equipped with a stern gate for launching amphibian vehicles while underway or at anchor. Under favorable weather conditions, landing craft may marry to the stern gate to load and offload. The tank deck is equipped with turntables, one forward and one aft. The turntables provide a means of turning vehicles within the tank deck. The LST does not usually transport large quantities of palletized cargo, but it is equipped with two 10-ton cargo booms. The LST, the principle transporter of pontoon causeways, can carry up to 4 side-loaded pontoon causeways.

The ship's payload is constrained by stability and weight and is limited to 2,000 long tons including vehicles, cargo, pontoon causeways and bulk cargo fuel.

SHIP'S BOATS:

LCVP 3
 LCPL 1

BERTHING ACCOMMODATIONS:

	<u>Officer</u>	<u>CPO/SNCO</u>	<u>Other Enlisted</u>	<u>Surge</u>	<u>Total</u>
Ship's Company	14	13	193	---	220
Landing Force	18	21	309	27	375

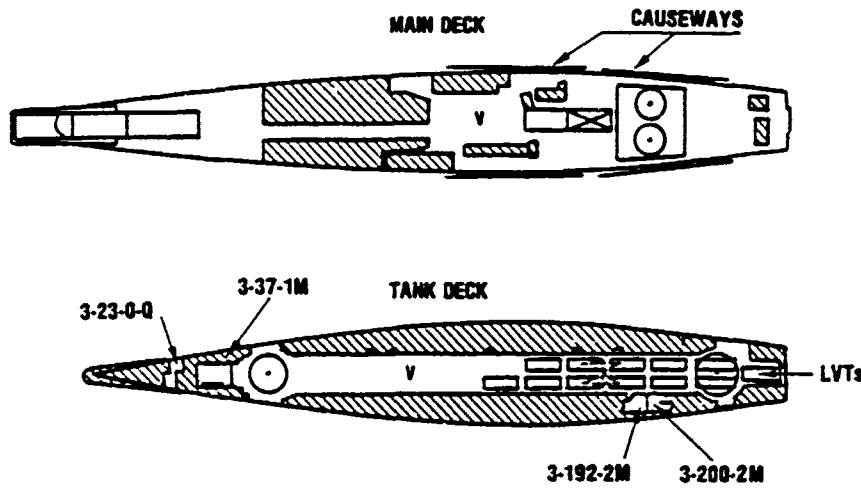
CRANES:

<u>Rig</u>	<u>Lift Capacity</u>	<u>Lift Cycle Time</u>
(2) Booms	10 S/T	4 min

LOADING PLAN OPTIONS

- I. With Causeways, LVTs and Heavy Vehicle Load
- II. Without Causeways, with Heavy Vehicle Load
- III. With Causeways and Heavy Vehicle Load
- IV. Without Causeways, with Medium Cargo and Heavy Vehicle Load
- V. With Causeways, LVAs and Heavy Vehicle Load

LST-1179
LOADING PLAN OPTION I



DECK	TROOPS	VEHICLES	CARGO ²	BULK POL ³			LANDING CRAFT						AMPHIBIANS		HELICOPTER STORAGE				
				MOGAS	DF-2	JP-8	LCM-8	LCM-6	LCM-8	LCJ-1010	LCAC	CS	PCS	LVT	LVA	UH-10H	OH-40	CH-53D	CH-53E
MAIN		5.48																	
3-37-1M			1.88																
3-200-2M			8.88																
3-192-2M			1.17																
3-23-0-0			1.87																
TANK		18.24 ⁴											12						
Sideboard Port											1	1							
Sideboard Starboard											1	1							
BERTHING	375																		
TANKAGE				7.20	20	130.4													
TOTALS	375	15.82	4.15	7.20	20	130.4					2	2	12						

- NOTES: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk POL is in thousands of gallons.
 4 Amphibian square is included in tank deck vehicle square.

NOTE: The estimated weight of this payload is 1,500 long tons.

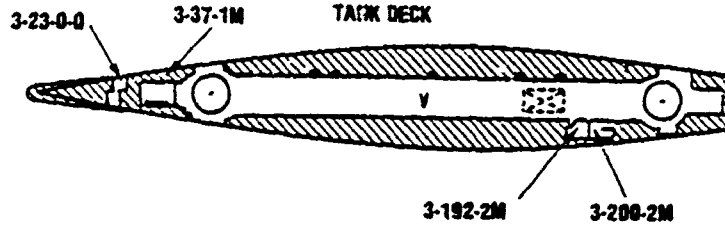
4-14-81-73

LST-1179
LOADING PLAN OPTION II

MAIN DECK



TANK DECK



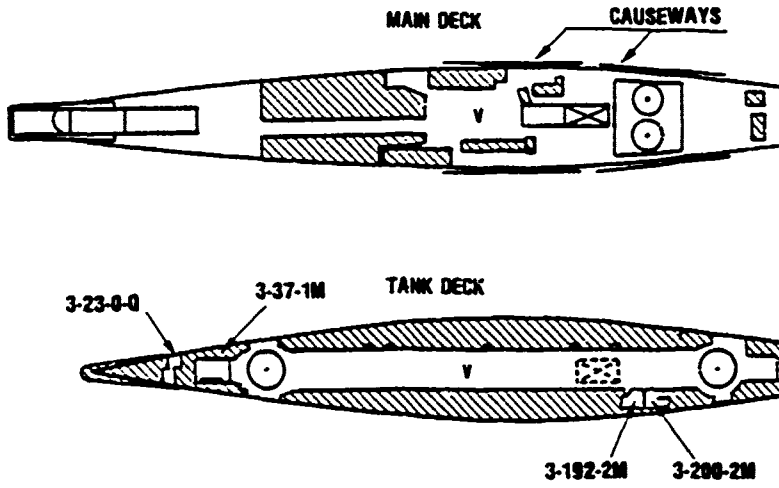
DECK	TROOPS	VEHICLES	CARRO ²	BLK POL ³			LANDING CRAFT						AMPHIBIANS		HELICOPTER STORAGE					
				MOGAS	DF-2	JP-5	LCM-6	LCM-8	LCM-9	LCM-10	LCM-11	LCM-12	LCM-13	CS	PCS	LVT	LVA	UH-1H	CH-53	CH-53D
MAIN			7.17																	
3-37-1M			1.88																	
3-200-2M			8.88																	
3-192-2M			1.17																	
3-23-0-0			1.87																	
TANK			9.88																	
Submerged Port																				
Submerged Deckload																				
BERTHING	375																			
TANKAGE				7.28	287	136.6														
TOTALS	375	18.82	4.15	7.28	287	136.6														

- NOTES: 1 Vehicle area in thousands of square feet.
 2 Cargo in thousands of cubic feet.
 3 Bulk POL in thousands of gallons.

NOTE: Portals may be weight limited dependent on vehicle density.

4-14-81-74

LST-1179
LOADING PLAN OPTION III



DECK	TROOPS / VEHICLES	Cargo ²	BULK FUEL ³					LANDING CRAFT				AMPHIBIANS			HELICOPTER STORAGE		
			MDSAG	DF-2	DF-5	LCM-9	L7A	LCM-9	LCM-100	LCAC	CR	PCS	LVT	LHA	UH-1H	CH-53	CH-53E
MAIN	5.08																
3-37-1M		1.88															
3-200-2M		8.88															
3-192-2M		1.17															
3-23-0-0		1.87															
TANK	18.96																
Submerged Port										1	1						
Submerged Stowage										1	1						
BERTHING	375																
TOTALS	375	15.82	4.15	7.28	287	138.4				2	2						

- NOTES: 1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk Fuel is in thousands of gallons.

NOTE: Payload may be weight limited dependent on vehicle density.

4-14-81-78

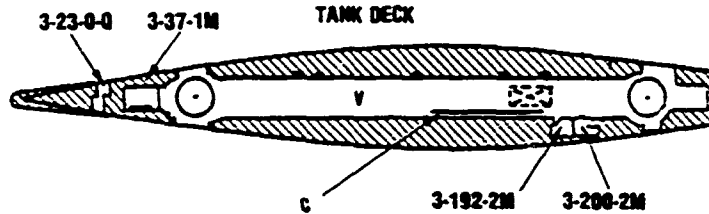
139 / 140

LST-1179
LOADING PLAN OPTION IV

MAIN DECK



TANK DECK



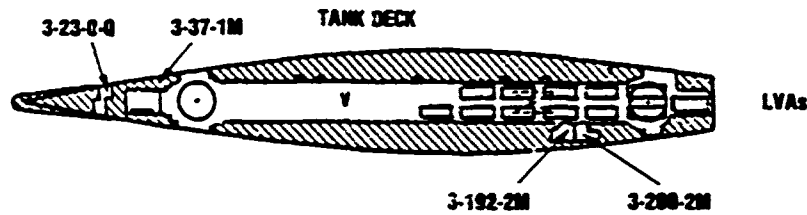
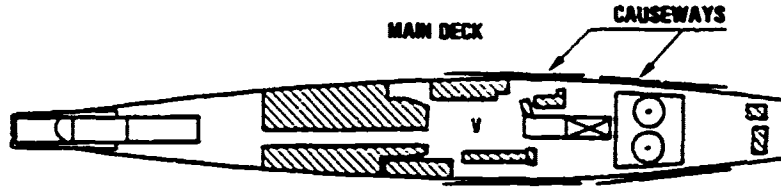
DECK	TOWNS VEHICLES	CUBIC ²	BULK PUL ³			LANDING CRAFT						AIRFRAMES		HELICOPTER STORAGE				
			MISCAN	DF-2	J-F5	LCM-8	LCM-8	LCM-8	LCM-300	LCAC	CS	PCS	LVT	LMA	UH-10M	CH-53	CH-53	CH-53
MAIN	717																	
3-37-7M		1.89																
3-200-2M		5.88																
3-192-2M		1.17																
3-23-0-0		1.87																
TANK	7.86	24.88																
Sea-land Port																		
Sea-land Storage																		
NETTING	375																	
TANKAGE			7.38	287	138.6													
TOTALS	375	15.82	28.88	7.38	287	138.6												

- NOTES: 1. Values are in thousands of square feet.
2. Cubic is in thousands of cubic feet.
3. Bulk PUL is in thousands of gallons.

NOTE: Figures may be weight limited dependent on vessel capacity.

4-14-61-78

LST-1179
LOADING PLAN OPTION V



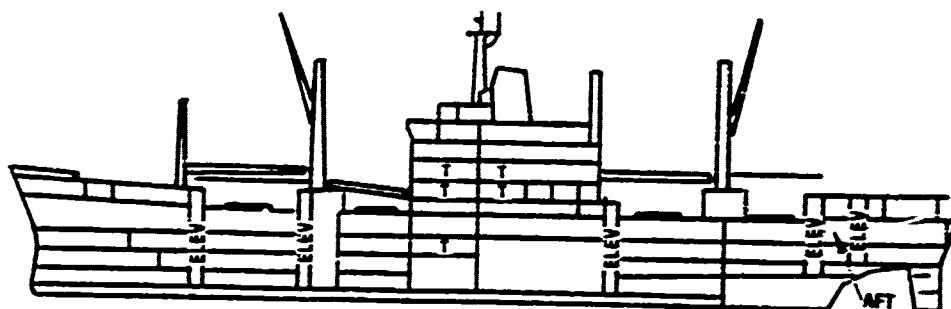
DECK	THRUHS	VEHICLES	CARGO ²	BULK PBL ³			LANDING CRAFT						APPROPRIATE		HELICOPTER STORAGE				
				MHCMS	BF-2	J-6	LCM8	LCM6	LCM4	LCM-100	LCM	CS	PCB	LFH	LR	WH-100	CH-53	CH-53E	CH-53G
MAIN		5.0																	
3-37-1M			1.8																
3-208-2M			8.8																
3-192-2M			1.7																
3-23-0-0			1.8																
TANK		10.3 ⁴																	12
Submerged Port											1	1							
Submerged Storage											1	1							
BERTHING	375																		
CARGO				7.28	28	128.4													
TOTALS	375	15.82	4.15	7.28	28	128.4					2	2							12

- NOTES: 1 Vehicle area in thousands of square feet.
 2 Cargo in thousands of cubic feet.
 3 Bulk PBL in thousands of gallons.
 4 Amphibian square is included in tank deck vehicle space.

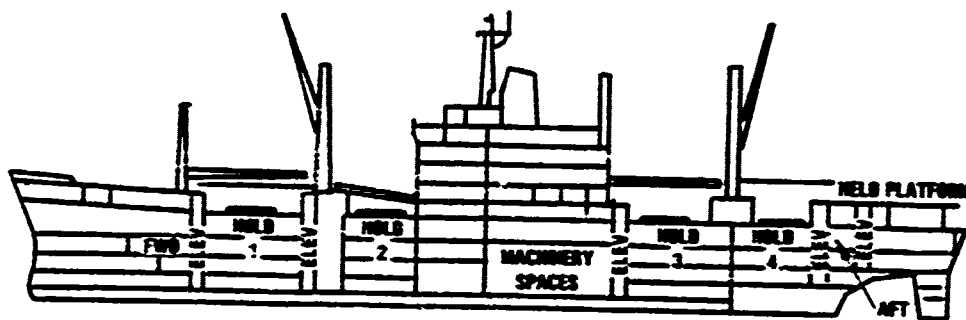
NOTE: Payload may be weight limited dependent on vehicle density.

4-14-61-77

LKA-113



OUTBOARD PROFILE DISPLAYING TROOP ACCOMMODATIONS



INBOARD PROFILE DISPLAYING CARGO HOLDS, HELO PLATFORM AND ELEVATORS

4-14-81-78

SHIP'S LOADING CHARACTERISTICS

The LKA-113 is designed to load, transport, and land vehicles and cargo with attendant personnel during amphibious operations. The ship is equipped with cranes of 70, 40 and 15 ton capacities to service each hold. LCM-8 and LCM-6 landing craft are organic and are stowed on the main deck. The helicopter platform is serviced by a 12,000 pound elevator capable of handling palletized cargo and 1/4 ton type vehicles. In addition, 5-4,000 pound capacity elevators serve the cargo holds.

SHIP'S BOATS:

LCPL	1
LCVP	2
LCM-6	5
LCM-8	4

BERTHING ACCOMMODATIONS:

	<u>Officer</u>	<u>CPO/SNCO</u>	<u>Other Enlisted</u>	<u>Surge</u>	<u>Total</u>
Snip's Crew	31	22	340	---	393
Landing Force	15	6	205	23	249

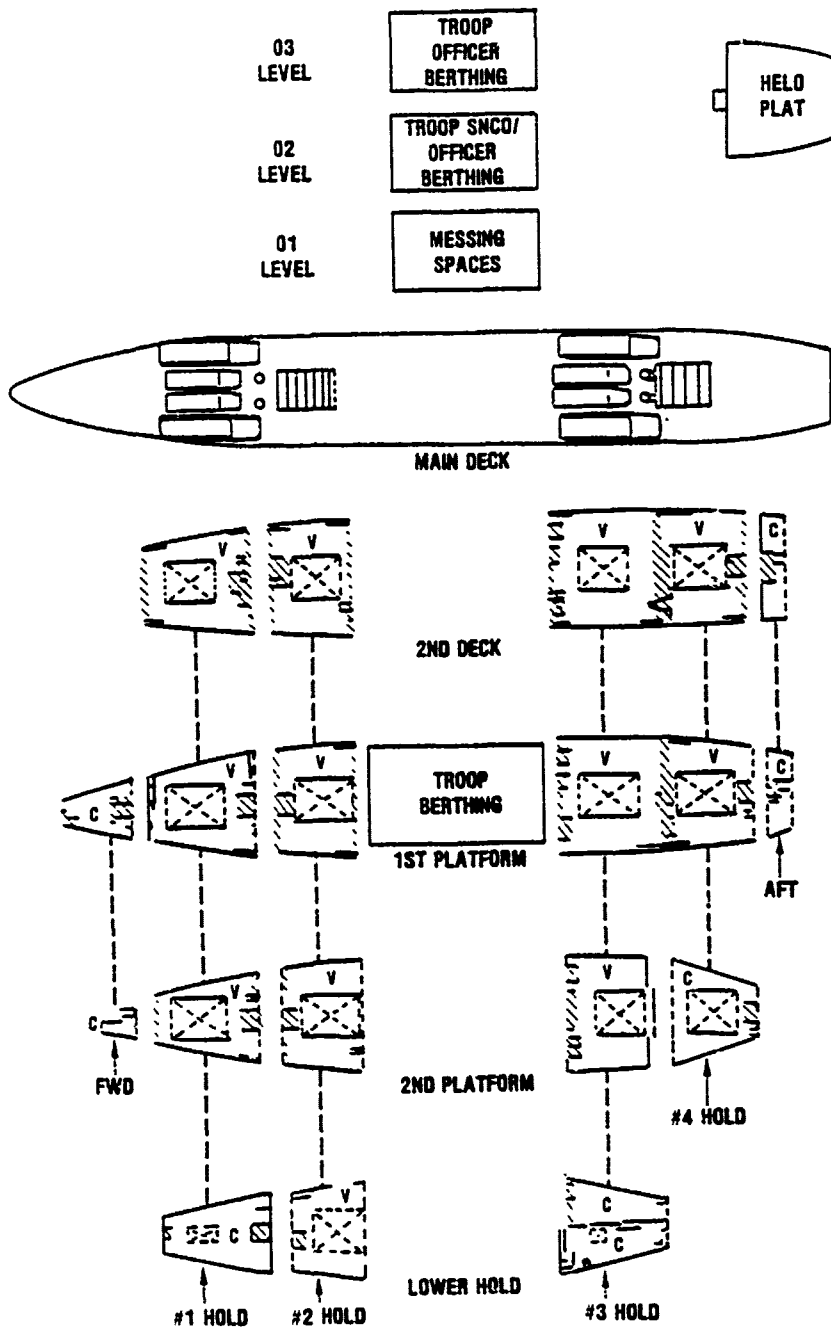
CRANES:

<u>Rig</u>	<u>Lift Capacity</u>	<u>Lift Cycle Time</u>
Single Boom	70 S/T	10 min
Single Boom	40 S/T	10 min
Single Boom	15 S/T	5 min

LOADING PLAN OPTIONS

- I. Normal Vehicle and Cargo Mix.
- II. Heavy Cargo, Light Vehicle Mix (effective operation requires MHE allowance to be on board)
- III. Heavy Vehicle, Light Cargo
- IV. Heavy Cargo

LKA-113
LOADING PLAN OPTION I



4-14-81-79

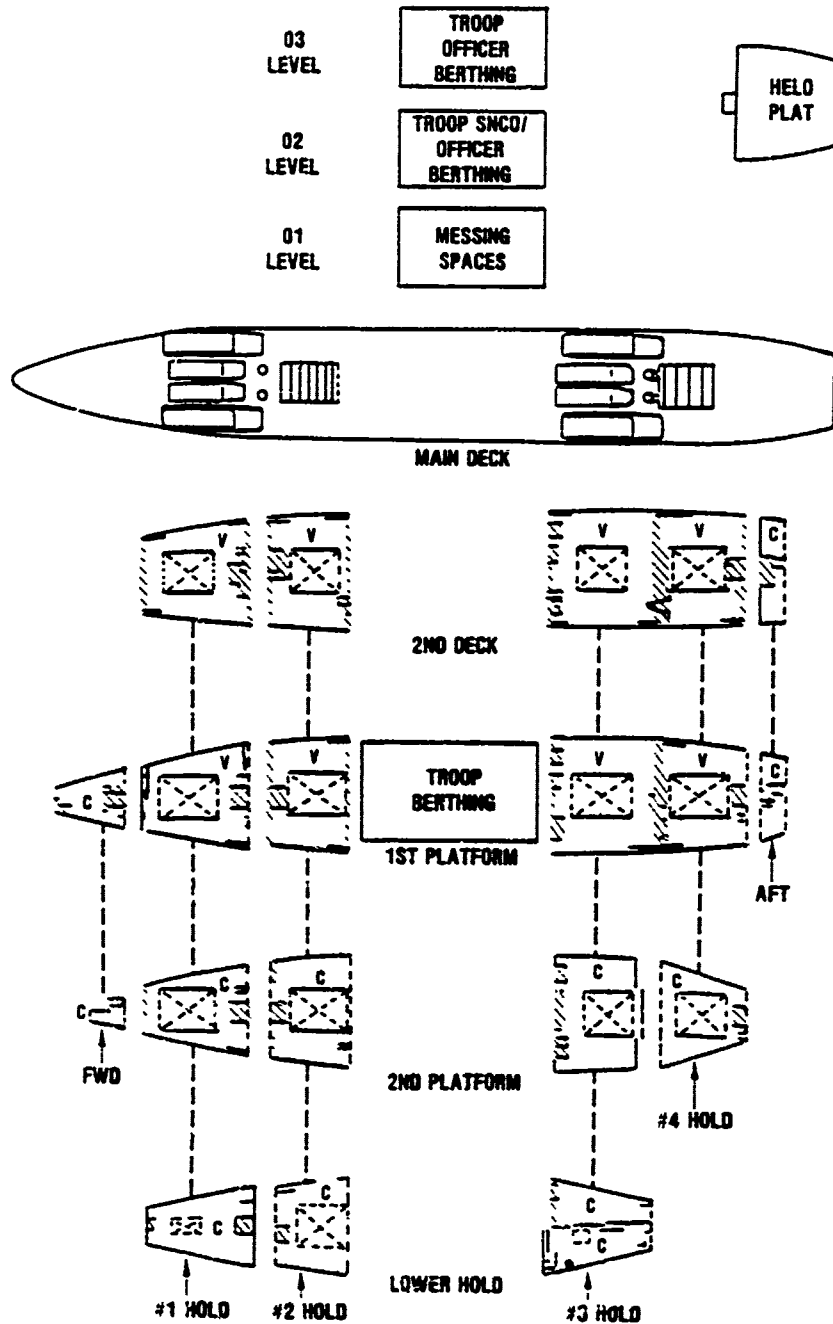
LKA-113
LOADING PLAN OPTION 1

DECK	TROOPS	VEHICLES	CARGO ²	BULK POK ³		LANDING CRAFT						AMPHIBIANS			HELICOPTER STORAGE			
				DE 1	DE 2	LCMA	LCMB	LCMC	LCMD	LCME	LCMF	CS	PCS	LVT	LVA	UH-50H	CH-40	CH-53D
TRAC 1M PT			22															
2M PT			19															
HOLD 1 2M DE		329																
1M PT		286																
2M PT		10																
LN			10.13															
HOLD 2 2M DE		317																
1M PT		286																
2M PT		222																
LN			4.29															
HOLD 3 2M DE		429																
1M PT		416																
2M PT		122																
PORT LN			11.14															
STPS LN			16.9															
HOLD 4 2M DE		317																
1M PT		286																
2M PT		10																
LN			16.48															
MT 2M DE			4.18															
1M PT			4.22															
2M PT																		
LN																		
REITONS	249																	
BLANK																		
TOTALS	249	27.53	71.08															

- NOTES: 1 Vehicle are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Bulk POK is in thousands of gallons.
 4 The cargo areas of boats are not available for portloads.

01101100

LKA-113
LOADING PLAN OPTION II



4-14-81-81

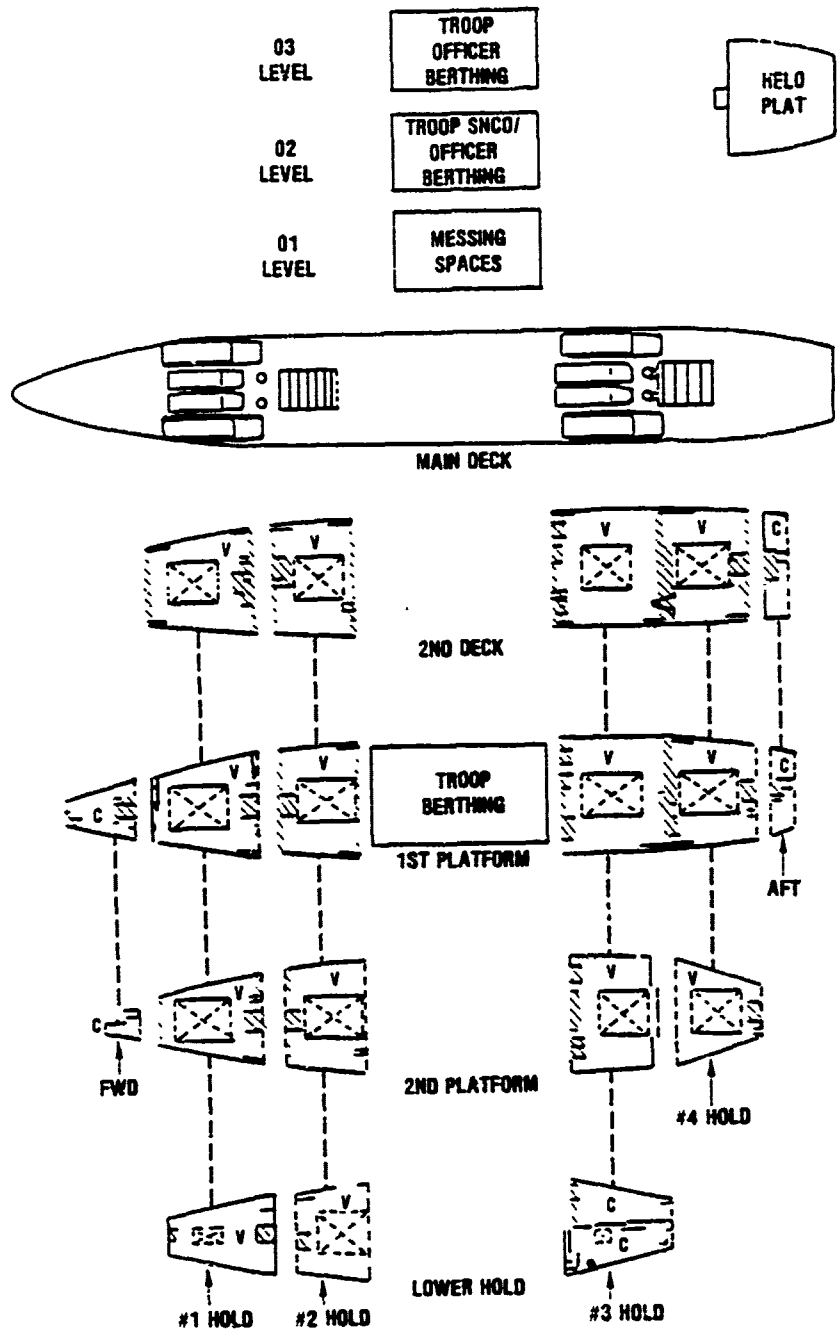
**LKA-113
LOADING PLAN OPTION II**

OCCZ	TROOPS	VEHICLES	CARGO ²	BULK PCL ³		LANDING CRAT						AMPTRAINS		HELICOPTER STORAGE					
				NOVAE	OF 2	OF 1	LCM1	LCM2	LCM3	LCM4	LCAC	CS	PCS	LVT	LVA	UH1H	OH-57	CHSD	CHSE
TRND-14 PAT			1.2																
24 PAT			1.9																
HOLD 1-24 OR		3.2																	
14 PAT		2.0																	
24 PAT			23.2																
LK			8.27																
HOLD 2-24 OR		3.0																	
24 PAT		2.0																	
14 PAT			20.2																
LK			16.78																
HOLD 3-24 OR		4.2																	
14 PAT		4.18																	
24 PAT			22.0																
PORT LK			14.4																
STND LK ⁴			18.26																
HOLD 4-24 OR		3.07																	
14 PAT			27.13																
24 PAT			16.0																
14 PAT			4.0																
24 PAT			4.22																
MEETINGS		20																	
MAN																			
TANKS																			
TOTALS	248	23.8	108.53																

NOTES: 1 Vehicles are in thousands of square feet.
2 Cargo is in thousands of cubic feet.
3 Bulk PCL is in thousands of gallons.
4 The cargo areas of boats are not available for payload.

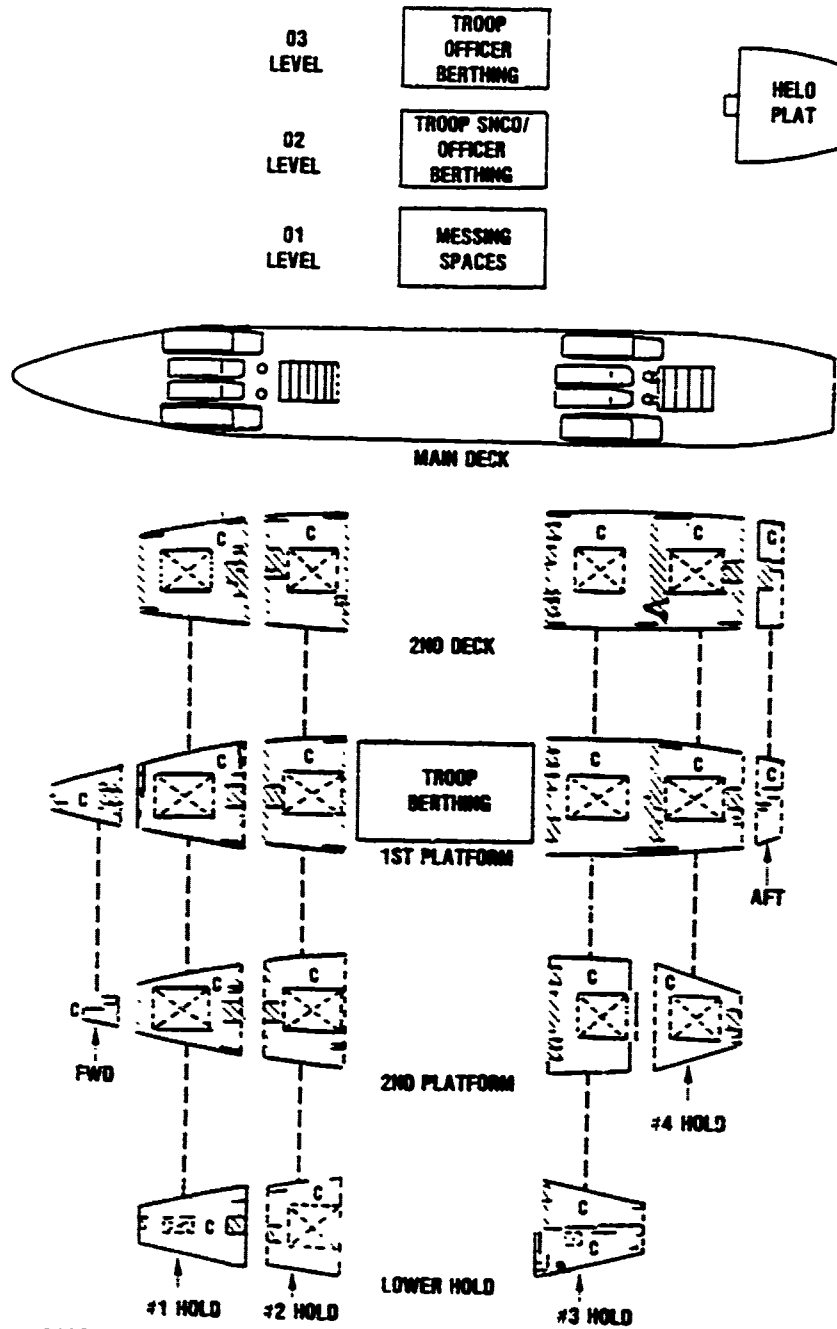
4140148

LKA-113
LOADING PLAN OPTION III



4-14-67-63

LKA-113
LOADING PLAN OPTION IV



4-14-81-86

THIS DOCUMENT IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE BY A CONTROLLED DATA SYMBOL OR MARKING

LKA-113 LOADING PLAN OPTION IV

DECK	TRUCKS NUMBERS	CANS ¹	GALLONS POL ³		LANDING CRAFT				AMPHIBIANS		HELICOPTER STORAGE						
			HT	HT	CH-53	CH-53E	CH-53K	CH-53D	CH-53G	CH-53H	CH-53I	CH-53J	CH-53L	CH-53M	CH-53N	CH-53O	CH-53P
PW-1	101	1															
PW-2	102	1															
PW-3	103	1															
PW-4	104	1															
PW-5	105	1															
PW-6	106	1															
PW-7	107	1															
PW-8	108	1															
PW-9	109	1															
PW-10	110	1															
PW-11	111	1															
PW-12	112	1															
PW-13	113	1															
PW-14	114	1															
PW-15	115	1															
PW-16	116	1															
PW-17	117	1															
PW-18	118	1															
PW-19	119	1															
PW-20	120	1															
PW-21	121	1															
PW-22	122	1															
PW-23	123	1															
PW-24	124	1															
PW-25	125	1															
PW-26	126	1															
PW-27	127	1															
PW-28	128	1															
PW-29	129	1															
PW-30	130	1															
PW-31	131	1															
PW-32	132	1															
PW-33	133	1															
PW-34	134	1															
PW-35	135	1															
PW-36	136	1															
PW-37	137	1															
PW-38	138	1															
PW-39	139	1															
PW-40	140	1															
PW-41	141	1															
PW-42	142	1															
PW-43	143	1															
PW-44	144	1															
PW-45	145	1															
PW-46	146	1															
PW-47	147	1															
PW-48	148	1															
PW-49	149	1															
PW-50	150	1															
PW-51	151	1															
PW-52	152	1															
PW-53	153	1															
PW-54	154	1															
PW-55	155	1															
PW-56	156	1															
PW-57	157	1															
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PW-95	195	1															
PW-96	196	1															
PW-97	197	1															
PW-98	198	1															
PW-99	199	1															
PW-100	200	1															
TOTALS																	

1 Vehicles are in thousands of square feet.
 2 Cargo is in thousands of cubic feet.
 3 Gall POL is in thousands of gallons.
 4 The cargo count of boats are not available for purposes.
 6140108

ADDENDUM A

AMPHIBIOUS SHIP CLASS AVERAGE FINGERPRINT

ADDENDUM A

AMPHIBIOUS SHIP CLASS AVERAGE FINGERPRINT

1. The Ship Loading Characteristics Pamphlet reports space availability for numbers of troops, square feet for vehicles, cubic feet for cargo, gallons of POL, and spaces for specific types of landing craft and aircraft. The bulk fuel (POL) capacity for the LST-1179 class, as reported by the individual ship SLCP is superseded by COMNAVSEASYSCHMD letter SER 3391 of 13 Aug 1980. For vehicles and cargo, a broken stow factor is applied to convert square feet and cubic feet of stowage space to square and cubic feet of vehicles and cargo. The broken stow factor allows for the inevitable space that must exist between vehicles and units of cargo.
2. In certain cases individual SLCPs indicate substantially different capacities among ships of a class. Some of these differences are the results of actual differences in ship characteristics while others are the result of differences in reporting.
3. The SLCP is prepared by ship's personnel for use by embarkation planners. It identifies and describes spaces in the ship that are available for specific landing force elements including troops, vehicles, cargo, helicopters, boats and POL. Preparation of the SLCP requires measurement of the individual spaces, some judgment by ship's personnel on what area within these spaces is usable for payload, and documentation in SLCP format. The potential for error in measurement and documentation and for differences in judgment is substantial.

4. Individual SLCPs indicate substantial differences with classes in capacities for troops, vehicles, cargo and bulk POL. Detailed examination of SLCPs shows that some actual differences in ship characteristics do exist. Some are differences in initial construction and others are the result of ship alterations. However, a number of these differences are the result of differences in reporting ship loading characteristics information. Allowances for stowing ship's material handling equipment, access to fire plugs and damage control equipment, fire lanes, helo operations, side loading causeways, stowage of ship and embarked staff vehicles and for other such purposes are handled differently and result in different statements of capacity where no real differences exist. Adjustments to SLCP figures have been made in this Addendum where different statements of capacity could be attributed to differences in reporting. Table 1, Amphibious Ship Class Average Fingerprints, reflects the range of differences in fingerprint capacities by indicating the high, low, and average capacity by class of ship and fingerprint category. Fingerprint capacities of the lead ship of the class are included as a bench mark for comparing reported differences within a class.

AMPHIBIOUS SHIP CLASS AVERAGE FINGERPRINT

SHIP CLASS	NO. SHIPS	TROOPS ¹ ASSAULT	VEH. ¹ K SQ FT	CARGO K CU FT	HELOS CH-46 EQ	BOATS M-8 EQ	POL KGAL
LPH-2	7						
LEAD SHIP		1728	3.73	46.50	27	-	286.00
AVERAGE		1743	3.67	39.79	27	-	315.57
HIGH		1833	4.00	46.50	27	-	379.40
LOW		1628	3.18	34.87	27	-	286.00
LHA-1	5 ²						
LEAD SHIP		1903	27.67	108.81	38	29.4	408.00
AVERAGE		1903	27.67	108.81	38	19.4	408.00
HIGH		1903	27.67	108.81	38	19.4	408.00
LOW		1903	27.67	108.81	38	19.4	408.00
LPD-1	2						
LEAD SHIP		928	10.70	17.97		8.0	240.00
AVERAGE		930	11.13	19.14	2	8.0	243.03
HIGH		932	11.58	20.31	2	8.0	246.05
LOW		928	10.70	17.97	2	8.0	240.00
LPD-4	12						
LEAD SHIP		913	13.90	43.48	2	8.0	246.88
AVERAGE		862	13.58	39.11	2	8.0	304.08
HIGH		958	14.83	43.88	2	8.0	372.83
LOW		728	11.70	34.99	2	8.0	220.00
LSD-28	8						
LEAD SHIP		324	14.84	2.12	-	10.7	50.40
AVERAGE		318	15.28	2.93	-	10.7	48.25
HIGH		334	18.25	3.86	-	10.7	51.17
LOW		283	14.41	1.86	-	10.7	32.00
LSD-38	5						
LEAD SHIP		337	15.30	1.98	-	14.4	32.88
AVERAGE		337	15.45	1.38	-	14.4	33.63
HIGH		337	17.25	1.98	-	14.4	34.53
LOW		337	14.55	0.85	-	14.4	32.80
LSD-41	0 ³	504	15.81	4.71	-	19.2	- ⁴
LKA-113	5						
LEAD SHIP		248	37.63	70.75	-	13.0	54.90
AVERAGE		231	38.14	68.51	-	13.0	43.22
HIGH		248	38.68	72.17	-	13.0	55.82
LOW		228	37.63	64.15	-	13.0	4.80
LST-1179	20						
LEAD SHIP		375	15.82	4.15	-	-	348.80
AVERAGE		382	15.79	3.27	-	-	348.38
HIGH		388	18.84	4.22	-	-	355.70
LOW		353	14.84	2.19	-	-	345.40

¹ Troop and vehicle numbers represent total ship capacity with adjustment for tactical integrity. Task unit tactical integrity will result in losses of approximately 7% troop and 10% vehicle capacity.

² No data available on LHAs 2 thru 5. Assumed data same as LHA-1.

³ LSD-41 data have been compiled from design plans and are subject to change during design and/or construction phases.

⁴ Data on fuel capacity not presently available. See footnote 3.

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ADDENDUM B

PRINCIPAL CHARACTERISTICS OF SELECTED MILITARY
LIGHTERAGE AND AMPHIBIANS

ADDENDUM B

PRINCIPAL CHARACTERISTICS OF SELECTED MILITARY LIGHTERAGE AND AMPHIBIANS

CHARACTERISTICS	LCM-8	LCM-9	LCM-9	LCM-9	LCM-1010	PIL BARGE	LCAC ¹	LVT	LVA ²
LENGTH OVERALL, ft	58	74	128	135	96	28	88	28	33
BEAM, ft	14	21	22	28	22	10.75	47	10.75	11
DRAFT LOADED, ft	4.8	5.9	3	6.5	2.8	5.73	-	5.73	-
SPEED, kt	8	8	25-48	11	34	8.35 ⁴	35.58	8.35 ⁴	-
CARGO AREA	LENGTH, ft	37	46	108	124	88	87	-	-
	WIDTH, ft	11	15	11-15	18	22	27	-	-
	DEPTH, ft	8	4	4	4	-	-	-	-
CARGO TONS ⁵	34	65	128	188	80.95	80.75	80.75	5	-
VEHICLE CAPACITY, sq ft ⁶	385	588	-	1488	1488	1488	1387	-	-
TROOPS	-	-	-	-	-	-	-	25	-

¹ Production LCACs are not presently in the inventory. All figures given for the LCAC are estimated.

² The LVA is not currently being purchased as a potential future amphibian vehicle acquisition.

³ Loaded draft for the LCM-9 has not been determined. Draft will depend on total craft weight.

⁴ This speed represents the LVT cruising speed on land.

⁵ Cargo tons are expressed in short tons.

⁶ A brine storage factor of 0.75 was applied to the landing craft storage capacity.

4-14-81-88

ADDENDUM C

LIST OF ABBREVIATIONS

ADDENDUM C

LIST OF ABBREVIATIONS

<u>Term</u>	<u>Abbreviation</u>
Aft	A
Aviation Fuel	JP-5
Boat & Aircraft Crane	B&A Crane
Broken Stow	B/S
Cargo	C
Chief Petty Officer	CPO
Causeway Barge (unpowered)	CS
Cubic Feet	Ft ³ (cu ft)
Deck.	Dk (DK)
Diesel Fuel #2	DF-2
Elevator	ELE
Forward	FWD (Fwd)
Gasline	MOGAS
Heavy Helicopter	CH-53D/E
Helicopter	Helo
Landing Craft Air Cushion	LCAC
Landing Craft Mechanized	LCM-6,-8,-9
Landing Craft Personnel Large	LCPL
Landing Craft Utility	LCU-1610
Landing Craft Vehicle & Personnel	LCVP
Landing Cargo Assault (ship)	LKA
Landing Helicopter Assault.	LHA
Landing Platform Dock	LPD
Landing Platform Helicopter	LPH

Landing Ship Dock.	LSD
Landing Ship Tank.	LST
Landing Vehicle Assault.	LVA
Landing Vehicle Tract.	LVT
Light Helicopter	UH-1D/H
Lower	Low
Lower Hold	L.H.
Material Handling Equipment.	MHE
Medium Helicopter	CH-46D
Mezzanine Deck	Mezz
Non-Ready for Issue	non-RFI (aviation parts/ equipment)
Platform	PLT (Plt)
Powered Causeway Barge	PCS
Pyrotechnics	Pyro
Ready for Issue	RFI (aviation parts/equipment)
Short Tons	S/T (S/tons) (2,000 lbs)
Staff Non-Commissioned Officer	SNCO
Starboard	STBD (Stbd)
Stowage.	Stg
Square Feet.	Ft ² (sq ft)
Tank Deck	Tk Dk
Troop(s)	T
Upper.	Up
Vehicle(s)	V
Vehicle(s)	VEH(Veh)