NAVAL WAR COLLEGE
Newport, Rhode Island

Maximum Flexibility: Enhancing the Operational Employment of High Speed Sealift

By

Frank S. Mulcahy

Lieutenant Commander
Civil Engineer Corps
United States Navy

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The content of this paper reflects my own personal views and opinions expressed within are not necessarily endorsed by either the Naval War College or the Department of the Navy.

Signed: _____

8 February 2004

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. REPORT DATE *(DD-MM-YYYY)*	2. REPORT TYPE	3. DATES COVERED *(From - To)*
09-02-2004	FINAL	

4. TITLE AND SUBTITLE

Maximum Flexibility:

Enhancing the Operational Employment of High Speed Sealift

5a. CONTRACT NUMBER

5b. GRANT NUMBER

5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)

LCDR Francis S. Mulcahy, CEC, USN

Paper Advisor (if Any): N/A

5d. PROJECT NUMBER

5e. TASK NUMBER

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Joint Military Operations Department
Naval War College
686 Cushing Road
Newport, RI 02841-1207

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

10. SPONSOR/MONITOR'S ACRONYM(S)

11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION / AVAILABILITY STATEMENT

Distribution Statement A: Approved for public release; Distribution is unlimited.

13. SUPPLEMENTARY NOTES A paper submitted to the faculty of the NWC in partial satisfaction of the requirements of the JMO Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.

14. ABSTRACT

The recent introduction of High Speed Vessels (HSV) into military service is the most exciting thing to happen to the surface fleet since the introduction of the Aegis radar system. Already, the performance of the HSV-1X Joint Venture and similar ships during Operation Iraqi Freedom has made many stand up and take notice of the capabilities these vessels bring to the warfighter. The Joint Task Force Commander will likely have these assets available for the next major operation. However, the services have differing views on how to employ them in an operational role. The Department of Defense needs to take a joint approach for a multi-mission solution. The best way to employ the HSV in an operation is to place all vessels under control of the Joint Force Maritime Component Commander (JFMCC) and modify the JFMCC staff to enable the robust and dynamic cross-component utilization of a very limited asset.

15. SUBJECT TERMS

high speed sealift, HSV, JFMCC, multi-mission, TSV, logistics, intra-theater transport, helicopters, cross-component, sea basing

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			Chairman, JMO Dept
UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED		30	19b. TELEPHONE NUMBER *(include area code)* 401-841-3556

Standard Form 298 (Rev. 8-98)

ABSTRACT

The recent introduction of High Speed Vessels (HSV) into military service is the most exciting thing to happen to the surface fleet since the introduction of the Aegis radar system. Already, the performance of the HSV-1X *Joint Venture* and similar ships during Operation Iraqi Freedom has made many stand up and take notice of the capabilities these vessels bring to the warfighter. The Joint Task Force Commander will likely have these assets available for the next major operation. However, the services have differing views on how to employ them in an operational role. The Department of Defense needs to take a joint approach for a multi-mission solution. The best way to employ the HSV in an operation is to place all vessels under control of the Joint Force Maritime Component Commander (JFMCC) and modify the JFMCC staff to enable the robust and dynamic cross-component utilization of a very limited asset.

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

INTRODUCTION

The recent introduction of High Speed Vessels (HSV) into military service is the most exciting thing to happen to the surface fleet since the introduction of the Aegis radar system. Already, the performance of the HSV-X1 *Joint Venture* and similar ships during Operation Iraqi Freedom has made many stand up and take notice of the capabilities these vessels bring to the warfighter. While it may be a stretch to call speed by itself "transformational", it is fair to say that the wave-piercing catamaran, in conjunction with other Navy initiatives in the rotary wing and special warfare arenas, promises to significantly transform the way the Navy does business in the littorals.

However, there stands a divergence on how these ships should be employed in a joint operation. The Army views it as a Theater Support Vessel (TSV) with a primary focus on logistics. The Marine Corps holds a similar view. The Navy envisions the HSV as a littoral combat-oriented platform.[1] To maximize the contributions of high speed vessels in operational employment, the Department of Defense needs a joint approach and a multi-mission solution. The best way to employ the HSV in an operation is to place all vessels under direct control of the Joint Force Maritime Component Commander (JFMCC) and transform the JFMCC staff to enable robust and dynamic cross-component utilization of a very limited asset.

---

[1]Nate Orme, "Army Catamaran Hauls Equipment Double-time," American Forces Information Service 8 September 2003, <http://www.defenselink.mil/news/Sep2003/n09082003_200309084.html>; Nathan Hodge, "Army, Marine Corps to Team on Fast Sealift Ships," Defense Week 1 December 2003, Lexis-Nexis; "Incat-Bollinger Team Delivers HSV-2 Swift to the Navy." Defense Daily International 15 August 2003, Lexis-Nexis.

HSV CONCEPT DEVELOPMENT

The current generation of military High-Speed Vessels (HSV) is based on technology fully developed by the commercial sealift industry. Substantially developed in the 1980s, the Australian firm Incat's wave-piercing catamaran is one of the most commercially practical hull forms for speed with relative economy. The Incat-built catamaran MV *Cat-Link V* currently holds the transatlantic crossing speed record of 39.897 knots, set in 1998.

Military experimentation with the HSV concept began in 1999 with the Australian Navy's HMAS *Jervis Bay*, placed in service in response to the crisis in East Timor. In 2001, the Marine Corps leased the catamaran *Westpac Express* to ferry troops and equipment to training areas in the Western Pacific. Soon after, the Army leased the *Joint Venture* (HSV-X1) and *Spearhead* (TSV-1X) from Incat for joint experimentation. The Army has driven much of the interest in high speed ships in an effort to shrink its deployment timeline. By developing lighter units, enhancing pre-positioned stocks, and introducing high speed intra-theater sealift, the Army hopes to deploy a medium-sized force in 96 hours, a division in 120 hours, and five divisions in 30 days.[2]

Both *Joint Venture* and *Spearhead* were deployed to Southwest Asia in support of Operation Iraqi Freedom (see Figure 1)[3]. The *Spearhead* was used for intra-theater transport to Kuwait, moving two Patriot missile batteries from Qatar, 500 tons of ammunition from Jordan, and the 101st Air Assault Division Military Police from Djibouti, all at much higher speeds than possible with current intra-theater sealift.

---

[2] Alan Vick and others, The Stryker Brigade Combat Team: Rethinking Strategic Responsiveness and Assessing Deployment Options, (Santa Monica, CA: RAND 2002), 2.

[3] Photo source: <http://www.navsource.org/archives/09/094653209.jpg>

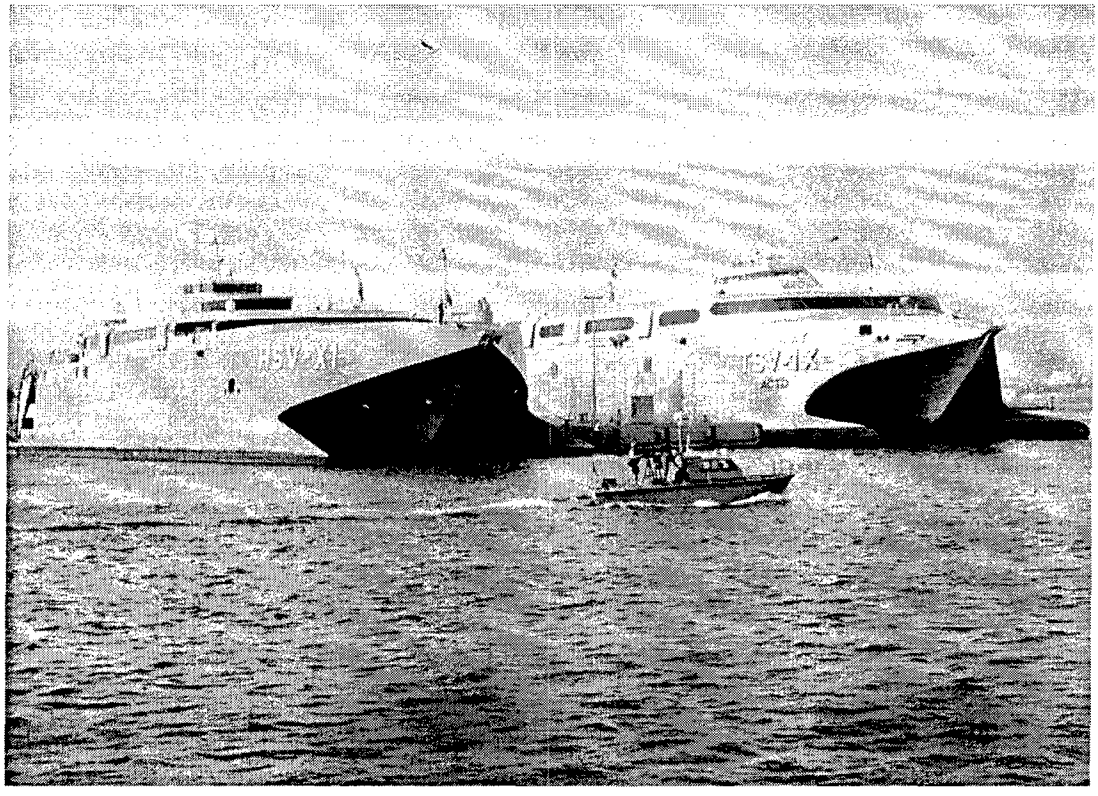


Figure 1: ***Joint Venture* and *Spearhead* moored at Camp Patriot, Kuwait**

The *Joint Venture* played a Special Operations role in the first days of the war, serving as a "mother ship" for SEALs and their watercraft operating against the Iraqi port of Umm Qasr in a micro-version of the Navy's Sea Basing operational concept. "What we did near Umm Qasr was historic," said LCDR Tom Rancich, in charge of future operations for the Naval Special Warfare Task Group. "We've never had 14 small boats operating independently of the big navy for seven days, unresupplied."[4]

[4] James Dao, "A Floating Truck Stop Keeps Navy Commandos at Work," International Herald Tribune Online, 29 March 2003, <http://www.iht.com/articles/91481.html> [30 January 2004].

CURRENT HSV CAPABILITIES

The latest HSV leased from Incat for military use is the HSV-X2 *Swift* (see Figure 2).[5] It entered Navy service in August 2003 to serve as an interim Mine Countermeasures Command and Control Ship after the decommissioning of the USS *Inchon*. The vessel is also slated for experimentation with the Navy's Littoral Combat Ship (LCS) and Sea Basing concepts. Built with military service in mind, it incorporates many of the lessons learned from experience with *Joint Venture* and *Spearhead*. Major enhancements include:

- Low maintenance helicopter deck with hangar facilities for two MH-60 airframes
- Strengthened roll-on/roll-off vehicle ramp to accommodate M1A1 main battle tank
- Enhanced stern crane for small craft operations

Since the ship design was heavily modeled on existing commercial technology, the order-to-delivery cycle was just ten months, even with 75 Navy-requested design changes during construction. It best represents the type of vessel that the Joint Force Commander can expect to employ in the next major operation and its capabilities will provide the basis for later discussion on operational employment. Figures 3 and 4 illustrate the unique catamaran hull design and interior layout.[6] The *Swift*'s pertinent specifications are shown in Table 1.

---

[5] Photo source: <http://www.strategypage.com/gallery/default.asp?target=hsv-2.htm>

[6] Photo sources: Figure 3: <http://www.strategypage.com/gallery/default.asp?target=high_speed_vehicle.htm> and Figure 4 <http://www.caller2.com/2003/pics/p-p1-a-swift-entrance-p-2.jpg>

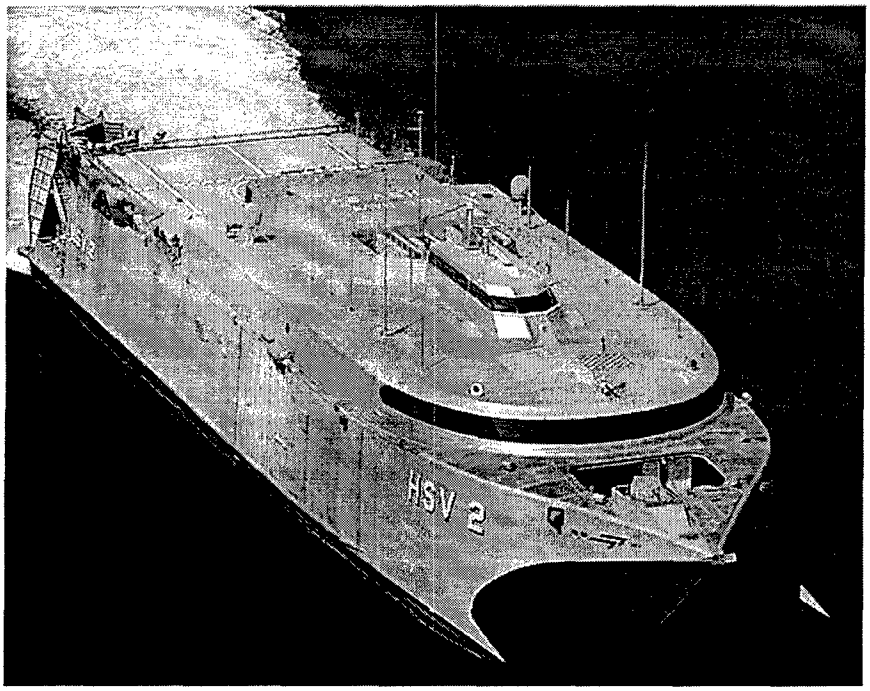


Figure 2: **HSV-X2 *Swift***

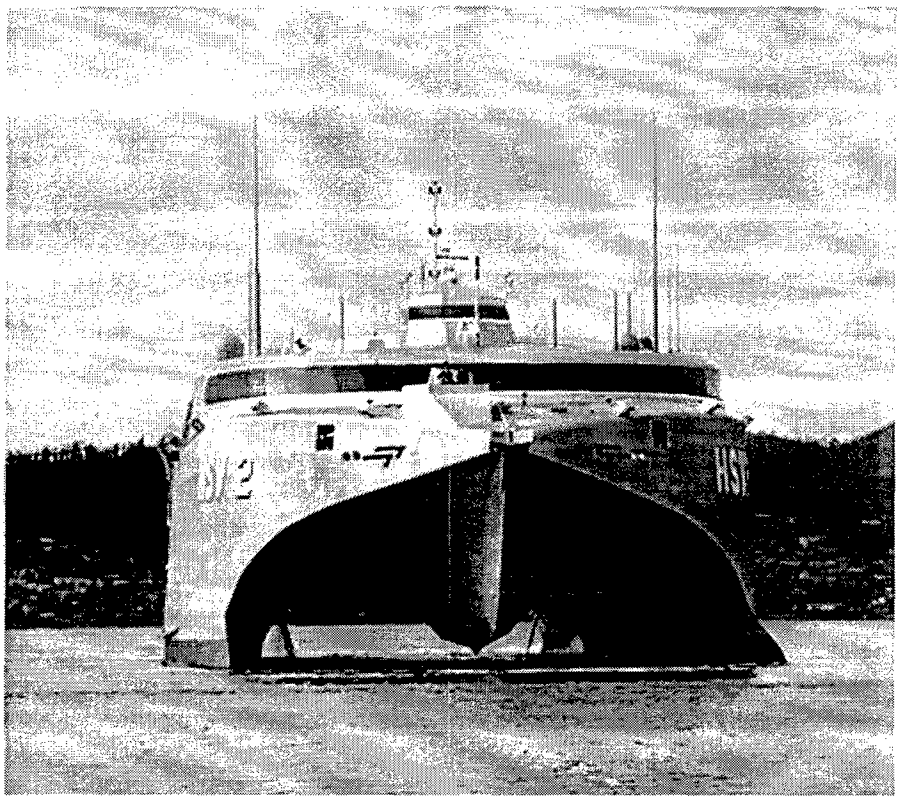


Figure 3: **HSV-X2 *Swift* (bow aspect)**

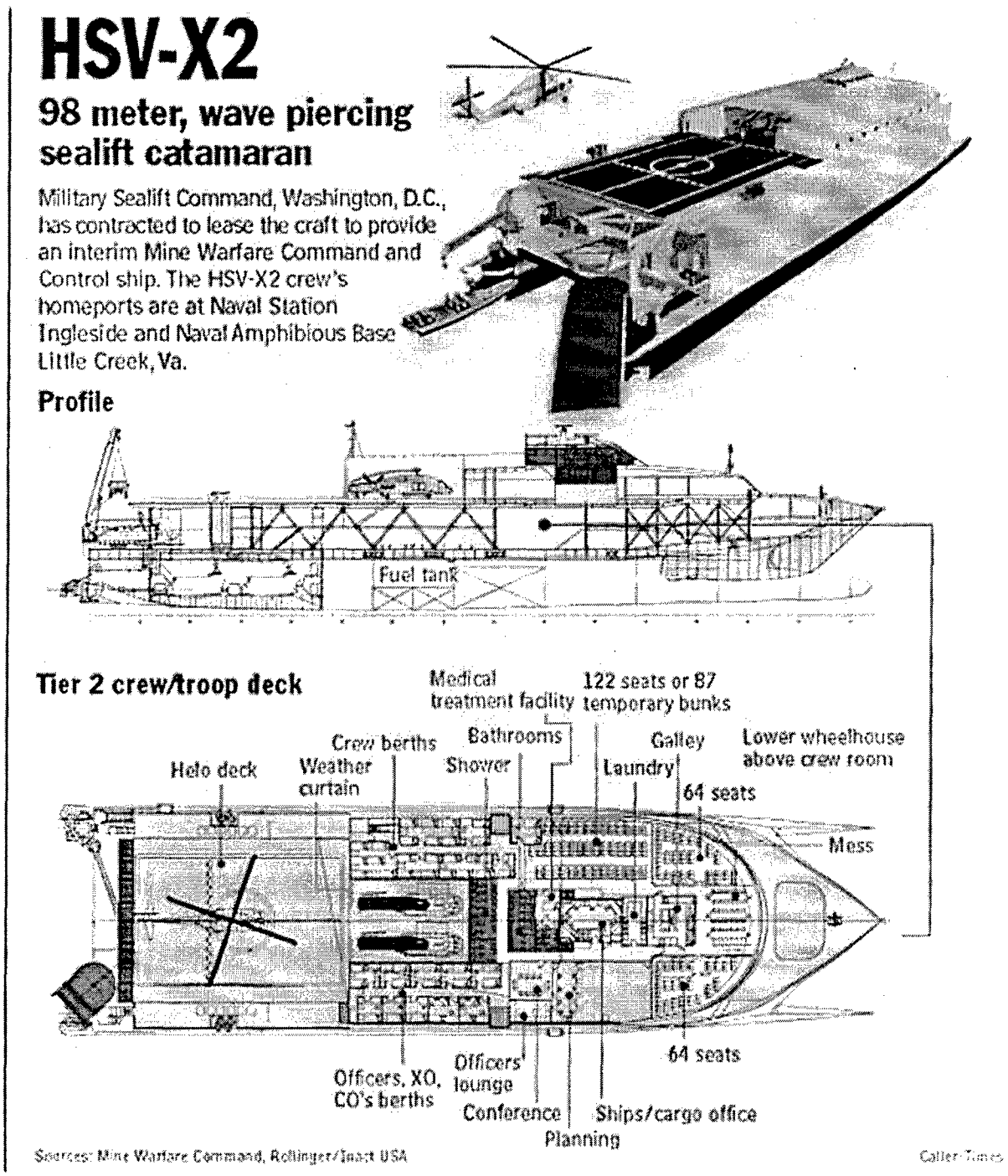


Figure 4: **HSV-X2 *Swift* interior layout**

Specification	Capacity
Length	321.5 ft (98 m)
Beam	88.6 ft (27 m)
Draft	11.2 ft (3.4 m)
Speed	46+ knots
Permanent Berths	103
Passenger Capacity	250 (reconfigurable to 128 with 87 temp berths)
Cargo Capacity	600 short tons/15,500 sf
Height of Cargo Bay	16 ft
RO/RO Ramp Capacity	141,000 lbs (M1A1 Tank)
Crane Capacity	26,000 lbs (22,000 lbs to flight deck)
Helo Storage and Maint.	2 MH-60 airframes
Range (one-way)	1100 NM @ 35 knots or 4000 NM @ 20 knots

Table 1: **HSV-X2 *Swift* Specifications**

Clearly, the HSV-X2 *Swift* is quite swift at over 46 knots and she is at least as fast as the *Spearhead*, which maintained 48.7 knots in a high speed run off Qatar in 2003.[7] The ship is lightly armed and her weaponry is primarily for self-defense. She carries a 25mm stabilized gun forward and additional crew-served .50 caliber weapons aft. The helicopter deck is certified for the H-46 and H-60 helicopters in addition to several smaller airframes. A key capability is her innovative hangar facilities that allow for storage and maintenance of two of the new MH-60S helicopters. The hangar door is a curtain to save weight while still protecting aircraft from the elements. The 12 foot draft allows access to ports denied to deep draft sealift. Moreover, the HSV extends its operating reach into far more littoral areas than current possible with frigates and destroyers. This capability is important for two reasons.

[7] Christopher Holton, "New High Tech, High Speed Ship Saw Action in Iraq War." World Tech Tribune.Com (17 November 2003) <http://216.26.163.62/2003/wtt_11_06.html> .

First, the decreased draft will allow the HSV to traverse large expanses of shallow seas, enabling the already speedy vessel to cut corners where deeper draft ships must proceed around. Second, the ability to get close to the shoreline and traverse the riverine environment means she can support helicopter and personnel operations farther inland than other ships with helicopter assets, extending the operational reach of the joint force. In summary, the key capabilities that the *Swift* brings to the fight are speed, cargo/troop carrying capacity, helicopter facilities, and shallow draft.

ROBUST OPERATIONAL EMPLOYMENT

Given the capabilities of the HSV, it is employable in a wide variety of missions that can serve all of the component commanders. The Joint Force Land Component Commander (JFLCC) looks to it primarily for cargo and troop hauling. The Joint Maritime Component Commander (JFMCC) sees it as a littoral command and control platform and mobile helicopter base. The Joint Force Air Component Commander (JFACC) values it in a combat search and rescue (CSAR) role, while the Joint Force Special Operation Component Commander (JFSOCC) likes it for sea-based force insertion and support. The varied missions envisioned for the vessel include:

- High-speed intra-theater transport into shallow or damaged ports (see Figure 5)[8]
- Sea Based Logistics
- Special Operations Forces (SOF) insertion, basing, and support
- Anti-Submarine Warfare (ASW) including Command and Control (C2)

[8] Photo source: <http://foxxaero.homestead.com/indrad_026d.html>

- Anti-Surface Warfare (SUW) (including C2)
- Mine Counter-Measures (MCM) (including C2)
- Maritime Interdiction Operations (MIO)
- Non-combatant Evacuation Operations (NEO)
- Helicopter "Lily Pad" range extension operations
- Mining
- Sea Based Medical support to land forces
- Riverine operations in support of SOF and land forces
- Counter-narcotics operations

Given its capabilities, the Joint Task Force Commander (CJTF) has two basic options for employing the HSV in an operation. First, HSVs can be apportioned to different component commanders for the duration of the operation to allow maximum responsiveness for component-specific missions. Thus, the JFLCC may have several HSVs for troop

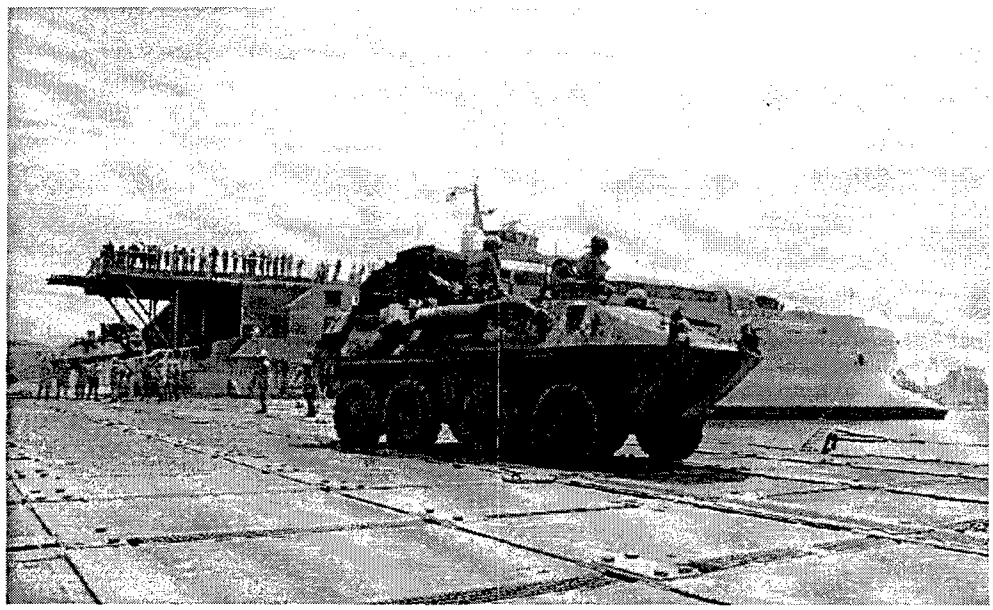


Figure 5: **HSV unloads Army tactical vehicle onto floating causeway**

deployment and sustainment, the JFMCC will have a few for ASW/SUW/MCM/MIO, the JFSOCC will have some for SOF insertion and support, and the remainder may be devoted solely to intra-theater logistics support. Available HSV sorties would be offered up to the JFMCC at the parent component commander's discretion, similar to how the Marine Air-Ground Task Force (MAGTF) commander volunteers fixed-wing assets to the JFACC.

Alternatively, the CJTF can assign all HSV assets to the JFMCC, who would employ HSV in the most effective manner overall to achieve the Joint Task Force (JTF) objective. The JFMCC would coordinate with the other component commanders beginning in the earliest planning stages to determine how the HSV should be employed throughout the operation. Each phase of the operation would be analyzed to see which HSV missions were heavily emphasized and which were not, so that HSV missions could be apportioned differently as the operation progresses. For example, given an expeditionary scenario, the first phase would most likely focus on force deployment and sea control aspects, with occasional clandestine insertion of Special Forces units. The second phase may introduce NEO and MCM, emphasize SOF insertion, but de-emphasize deployment. By Phase 3, HSVs may be heavily used in helicopter lily pad and riverine operations and in support of large troop redeployments while guarding against a small craft SUW threat. The final phase would involve re-deployment to a regeneration staging area and humanitarian logistics support.

It is clear that the various missions have a different emphasis based on the phase of the operation. Therefore, split apportionment of HSV assets among the components for the duration of an operation would be an ineffective way to employ them. While it gives combatant commanders direct control over assigned assets, which increases responsiveness, it does not enable effective synchronization of maritime efforts. The sea is a vast maneuver

area and the threat environment can change rapidly. Apportionment stovepipes will not only inhibit synergistic use of assets but will adversely affect HSV force protection efforts as well. The JFLCC may have vessels dashing unprotected through an ASW threat area and have no knowledge of a small boat threat that has recently emerged at a troop redeployment objective. Most important, however, this method of apportionment does not allow for flexible and scalable application of combat and transport power based on the changing needs of the operation. Apportionment of assets would be based on initial planning assumptions and actual events would likely dictate reapportionment during the operation. This reapportionment, conducted in an ad-hoc manner through discussions (possibly heated) between combatant commanders, would fail to exploit opportunities in a timely fashion due to friction inherent in the process. Moreover, even if the component commanders were earnest about offering available sorties to the JFMCC, it is likely that the ships would not be configured or positioned properly for contingency tasking. The JFACC can rely on high airspeeds to mitigate a lack of planning, while JFMCC usually does not have that luxury, even with HSV.

The JFMCC is the best candidate to optimize HSV employment throughout an operation. Joint Pub 3-32 *Doctrine for Command and Control of Joint Maritime Operations* (still in draft form) makes the case for JFMCC HSV control quite clearly: "Maritime planners must be able to fully recognize and integrate different capabilities, requirements and limitations of multi-mission forces. It is important to understand the crucial implications of multi-mission tasking for logistics operations and offensive and defensive operations. These implications must be factored into JFMCC decisions regarding delegation or transfer of command relationships and decisions regarding employment of multi-mission platforms.

Some capabilities of multi-mission ships may be made available to other components in direct support based on the JFMCC's apportionment recommendation to the JFC."[9]

The primary driver for JFMCC control has to do with HSV's helicopter support capabilities. The HSV can support two H-60 airframes. It can carry the MH-60S *Knighthawk* airframe, primarily for logistics, Search and Rescue (SAR), airborne MCM, or it can carry the MH-60R *Strikehawk*, which is ASW/SUW strike focused and carries dipping sonar and sonobuoys. It can carry two of the same variant, or a mix of the two. It can carry the armed or unarmed version. Or it can receive and hangar other Department of Defense (DOD) H-60 airframes like the MH-60K or -L SOF versions. The reason that this drives the problem is that the HSV's multi-mission capability is dependant to a large degree on which helicopters are assigned. Thus, the problem is not just a hull apportionment problem; it's a helicopter apportionment problem as well. The JFMCC is in the best position to manage helicopter assignment and rotation based on mission and threat assessment at the time, given the array of sea based rotary-wing assets available to the JFMCC. For example, it's relatively easy to shift an MH-60S to an HSV to perform an inshore logistics mission from another ship whose role is not as critical at that phase of the operation. The flexibility of "plug and play" aviation for the HSV enables the JFMCC to optimize HSV utilization for the JTF.

JFMCC ORGANIZATION

It is one thing to say JFMCC is the best candidate for HSV management, but quite another to say that current JFMCC doctrine is up to the task. The Navy has had a reputation

[9] U.S. Joint Chiefs of Staff, Doctrine for Command and Control of Joint Maritime Operations (First Draft), Joint Pub 3-32 (Washington, DC: 4 June 2002), III-2.

for years that it is the "least joint" of all the services. As CAPT Gary Belcher stated, "JFMCC flies in the face of naval tradition and poses organizational and cultural challenges whose solution must be anchored in both joint and naval doctrine."[10] Other component commanders may have strong arguments against a JFMCC "monopoly" over HSV. First and foremost is the risk of non-responsive mission allocation. If component commanders do not get adequate HSV support at critical points of the operation, mission failure may result. Also, the crews of HSVs apportioned to the same component for an operation will develop a keen familiarity with component-specific missions and develop beneficial working relationships with its personnel. Furthermore, planning and coordination of HSV employment is made simple when the component commanders control their own assets, while JFMCC control would require more administrative effort in this regard.

Though these are all valid concerns, they can be alleviated or mitigated by an effective and responsive JFMCC organization. One can look to the successful evolution of the JFACC concept for guidance. In fact, in discussing the proposed Maritime Tasking Order (MTO), the draft JFMCC Joint Pub 3-32 states: "The MTO process is very similar to the Air Tasking Order (ATO) process, which governs air operational planning, produces a daily air operations plan and a supporting plan. The MTO governs the parallel development of operational planning for a three-day period and results in a composite of intended maritime activity across all 12 warfare maritime force operations areas for an additional 24 hours."[11] Since the HSV can do so much for so many, it is imperative that the JFMCC staff be properly

[10] Belcher, Gary, "JFMCC – A Needed Joint Capability or Just a New Name for Naval Business as Usual," (Unpublished Research Paper, U.S. Naval War College, Newport, RI: 2003), 8.

[11] U.S. Joint Chiefs of Staff, Doctrine for Command and Control of Joint Maritime Operations (First Draft), Joint Pub 3-32, H-1.

trained to plan and produce an MTO that effectively synchronizes the efforts of its assigned assets, including the HSV, with the operations of the other component commanders to achieve CJTF objectives.

The notional JFMCC Planning Process shown in Figure 6 is a visual description of the process proposed in draft Joint Pub 3-32.[12] It is a good place to start, as it provides a basic construct for the planning and execution of Maritime Component missions. The key cells for HSV mission apportionment are the Future Plans Cell, which plans for tasking greater than 96 hours away, and the Current Plans Cell, which handles detailed plans for tasks less than 96 hours out. The Future Plans Cell will need to ensure that the HSVs are properly

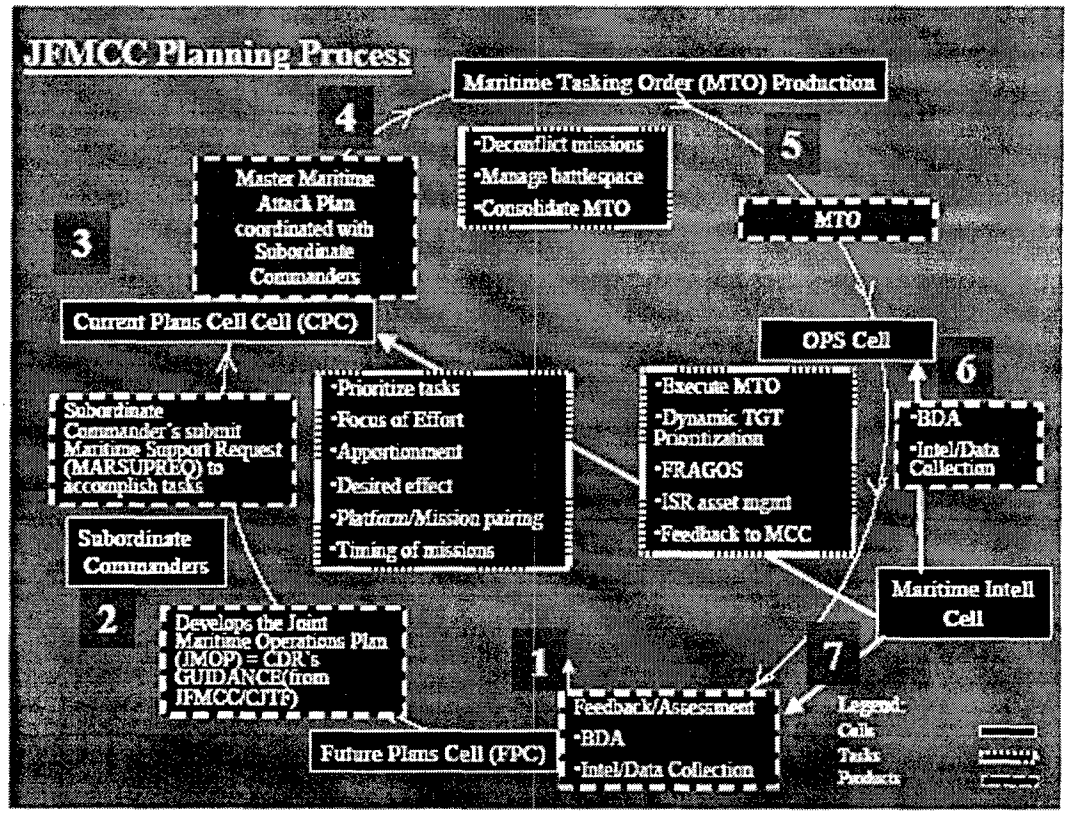


Figure 6: **Notional JFMCC Planning Process**

[12] U.S. Joint Chiefs of Staff, Doctrine for Command and Control of Joint Maritime Operations (First Draft), Joint Pub 3-32, H-4.

configured for the tasking expected of them. It will also need to ensure that an adequate number of helicopters by variant are available for assignment to the HSVs. Some helicopters require kits that can add capability but require time for outfitting. The Current Plans Cell will ensure that missions are properly paired with the appropriate vessel and rotary-wing assets.

Also, the JFMCC staff must properly sequence and synchronize HSV missions, so the right HSVs end up in a materially and geographically feasible position for follow-on missions. HSVs are rapidly reconfigurable, but excess reconfiguration carries a cost in resources. This is best handled through the creation of a HSV specialist billet on the JFMCC staff, which would be responsible for coordination of vessel and rotary wing assets and liaison with other component staffs on HSV missions. This effort is critically important, since the JFMCC will need to rely much more heavily on coordination and input from the staff Liaison Officers (LNOs) than it ever has in the past. It is very likely that the HSVs will spend much of their time in direct cross-component support, with some missions requiring cross-decked personnel and aviation assets from other component commanders. In fact, the HSV specialist will infuse judgment into the process, when it makes sense to keep a specific HSV employed within one component for mission familiarity reasons or when a vessel must be "fenced-off" to a specific component during a critical phase of the operation.

This may be a difficult practice to instill in a staff that heretofore was focused on carrier battle group employment, but it will become a routine evolution given time and practice, as the JFMCC staff will come to enjoy the flexibility that the multi-mission HSV provides. Also, since multi-service rotary wing aviation is interoperable with the HSV, JFMCC planners will often find themselves in a pinch for JFMCC airframes only to find a few extra through their LNO chain. In fact, the HSV may very well provide the necessary

impetus for change in the JFMCC culture, instilling true jointness and setting the stage for even greater success in the Sea Basing concept of the future.

OPERATIONAL VIGNETTE

To illustrate HSV planning and execution concerns, HSV cross-component employment under the JFMCC will be demonstrated through a hypothetical vignette. In this scenario, a squadron of eight HSVs with characteristics identical to the HSV-X2 *Swift* will be deployed as part of a Joint Task Force.

In the summer of June 2005, the Democratic Republic of Congo (DRC) (see Figure 7 for area map) [13] was thrown into chaos after the nation's three largest rebel factions united around opposition leader General Rafael Mombaso and overthrew the legitimate government. U.S. intelligence sources soon determined that al-Qaeda operatives from Sudan were financially backing Mombaso, in hopes of establishing a new base of operations after being ejected from Afghanistan. Soon after the coup, representatives from North Korea and Iran were seen frequently visiting the capital, while surplus Russian military hardware and Iranian Scud SS-1C missiles were observed in the Congolese port of Matadi. North Korea was also providing military advisors to General Mombaso. The signs of an unhealthy alliance between Iran, North Korea, and al-Qaeda prompted the United States to seek consensus for United Nations intervention, but political friction prevented it until August of 2006, when the DRC surprised the world by invading both northern Angola and Congo-Brazzaville and seizing

[13] Map source: <http://www.infoplease.com/atlas/country/demrepcongo.html>

their oil fields and refinery infrastructure (see Figures 8 and 9).[14] The UN Security Council authorized use of force to restore territorial sovereignty of Angola and Congo-Brazzaville.

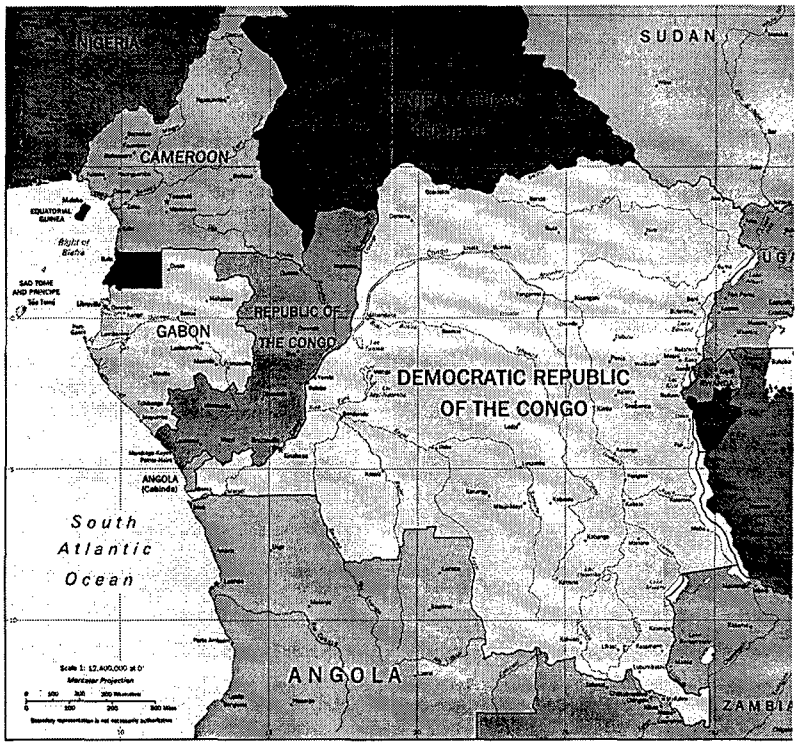
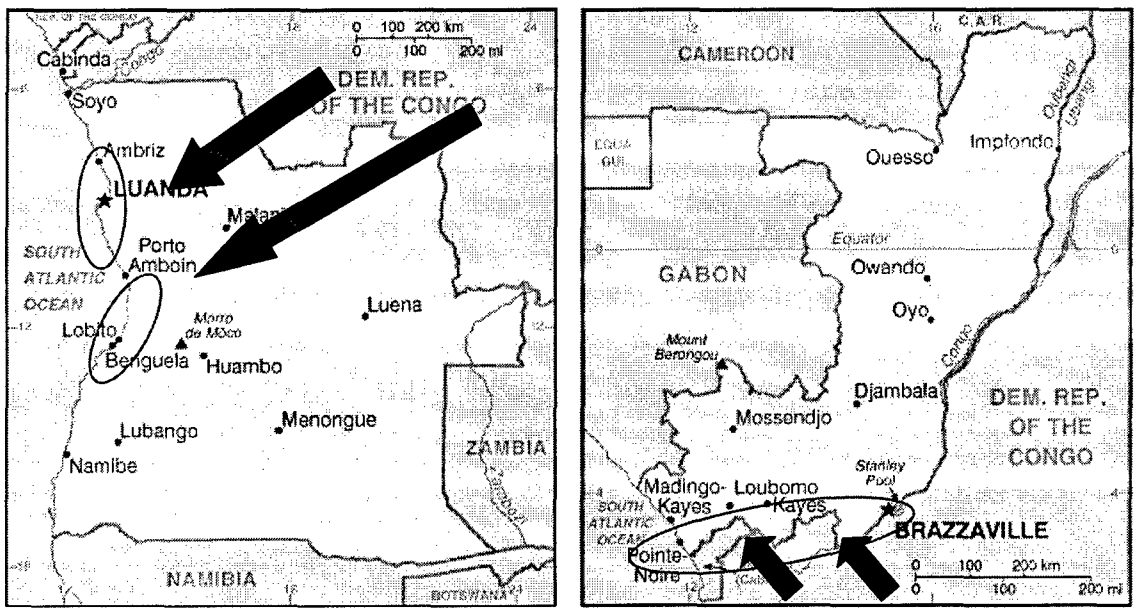


Figure 7: **Map of Congo-Angola region**



Figures 8 and 9: **Detailed map of DRC incursions into Angola and Republic of Congo**

[14] Map source: <http://www.odci.gov/cia/publications/factbook/geos/ao.html>

Joint Task Force Destroy Evil Axis was formed as part of a multi-national coalition to restore the territorial integrity of Angola and Congo-Brazzaville and disarm the DRC. The Angolan forces in the south would be bolstered by troops from Nigeria and South Africa to provide the majority of ground forces. The U.S. role would be primarily limited to air superiority, maritime operations (including Marine Corps Expeditionary Strike), and special operations in support of coalition land forces, with a Stryker Brigade Combat Team envisioned as a follow-on force for peacekeeping operations.

The DRC was successful in igniting the rebel factions in Angola to rise against the government and the countryside was plunged into civil war. President Juan dos Santos escaped to the south but the capital of Luanda fell into DRC hands. The airfields and ports were no longer safe and widespread looting was reported. Though the naval threat in the region was minimal, two North Korean Romeo-class diesel submarines were known to be operating in the waters off Angola and 2 Sang-o midget subs were rumored to be based out of the newly conquered Angolan port of Luanda. Since other African nations were unwilling to allow basing of forces in fear of further uprisings, the JTF Commander developed a course of action that involved sea basing the U.S. forces.

The JTF maritime assets consisted of the forward-deployed USS *Harry S. Truman* (CVN-75) Carrier Strike Group (CSG) and Expeditionary Strike Group (ESG) 2 with the 13th Marine Expeditionary Unit (MEU). The USS *John F. Kennedy* (CV-67) was surged forward as a sea base for special operations, with the Army's 1st Special Operations Group (SOG), Seal Team 5, and 160th Special Operations Aviation Regiment (SOAR) embarked. Additionally, two Marine Corps CH-46 squadrons along with selected companies of Army Blackhawk, Apache, and Chinook helicopters from the 101st Air Assault Division were

embarked on USS *John F. Kennedy* for extra troop lift and ground support. The Navy's single squadron of eight HSVs were scrambled from Ingleside, TX and deployed along with the USNS *Denebola*, an Army Fast Sealift Ship that would tend the HSVs at the sea base. Sixteen MH-60S and MH-60R helicopters flew out to the HSVs from NAS Jacksonville to give the squadron a full complement of rotary wing assets. The JFMCC planned to redistribute a few of the helos to the CSG upon arrival to meet the unique needs of the mission.

Phase I of the operation involved deploying the force, conducting Intelligence, Surveillance, and Reconnaissance (ISR) to shape the battlespace, and positioning forces for the next phase. As the ESG and CSG closed on the Joint Operations Area (JOA), an advance detachment of SEAL Team 5 deployed via strategic airlift to Lagos, Nigeria, the initial Air Port of Debarkation (APOD). JFMCC assigned two HSVs to sail direct to Lagos to embark the SEAL detachment, and then proceed to station off the coast of Angola for inland ISR operations. JFMCC soon successfully conducted a Non-combatant Evacuation Operation (NEO) with the 13th MEU and brought Ambassador Dell and the Angolan embassy staff back to the sea base, now established 75 miles due west of Luanda to allow for a better ASW defense. As the remaining HSVs arrived, they were assigned sectors for ASW, SUW, and MIO operations. One of the top JFMCC priorities was to find the North Korean submarines, and the HSV's ability to launch its MH-60S helos for a sector search, then zig-zag ahead at 45 knots to recover them meant much more area could be searched per day than ever possible with the slower monohull escort ships. In fact, one of the HSV-launched helos had a sonobuoy hit on the second day of search operations and quickly located the first Romeo. It was harassed by airborne active dipping sonar for 36 hours then departed for home, tracked

by South African based P-3 patrol aircraft as it headed south. The second sub soon followed. Another HSV was performing an SUW screen of the sea base 25 miles east when an MH-60R detected two DRC Shanghai II patrol craft out of Luanda. One was destroyed by a Penguin missile, while the other made it back to base and never again strayed outside the mouth of the Congo River.

At the start of Phase II, the focus shifted to seizing the port cities of Luanda and Point Noire to use as Sea Ports of Debarkation (SPODs) for the follow-on coalition forces. HSV-based SEALs in southern Angola had made contact with the commander of the Angolan Army, who was briefed on the operation. He was asked to provide local security at the southern port of Namibe, the planned coalition logistics hub. He indicated he could handle it with a company of light infantry, but would need transport for his troops. The MTO was quickly modified to divert an HSV from MIO duties. Speeding at 47 knots to a beach 80 miles from the company's position, it embarked a Marine CH-46 from the *Kennedy* enroute. The Angolan security company was shuttled to the HSV by air and then raced south to Namibe, discharging the troops with air cover and reconnaissance provided by its embarked MH-60S. It then resumed patrolling inside its MIO sector. The JFMCC commander was impressed with how fast he could reach any point 200 miles inland from the entire JOA coastline with the HSV/H-60 package without having to dangerously disperse his high value surface escorts.

By this time, two HSVs were busy shuttling South African forces from Port Elizabeth, South Africa to Namibe and two others ran the Nigerians from Lagos, Nigeria to the sea base. While the 31st MEU and the Nigerian troops took Point Noire with Marine LCAC landing craft and rotary wing support from the ESG, the South Africans and 1st SOG

were assaulting Luanda. The SOG was supported by the 160th SOAR off of the *Kennedy*, while the South Africans were shuttled from Namibe in a combination of Army Chinooks, Blackhawks, and Marine CH-46s from the *Kennedy* along with four Navy MH-60s detached from the "troop shuttle" HSVs. The helicopters would launch from Namibe, refuel on the southern SOF HSV, now doubling as a "lily pad", drop the troops at the Luanda LZ, then refuel again on the way back. The operation slowed somewhat when two MH-60s were diverted on the fly to conduct a CSAR for a downed EA-6B crew behind enemy lines, but the objective was met with a few hours to spare. Once coalition troop deployment was complete, two of the HSVs embarked a joint medical staff and were employed for medevac duties, though fortunately, casualties were light...

This scenario demonstrates the tremendous flexibility that the HSV gives the JTF if properly employed by the JFMCC. However, such utilization is simply not possible unless the JFMCC staff is in tune with the JTF mission priorities and in lockstep with all forces involved. The lessons learned from the JFACC experience can be taken onboard with ease if JFMCC planners are open to it, and given the asymmetry of future operations, we simply cannot afford to be standoffish about integrating JFMCC.

CONCLUSION

The role of the HSV in a military operation has been limited and mainly experimental to date. Though it has already demonstrated tremendous potential for employment in a combat environment, the question of how the Joint Task Force will manage their employment in a future operation goes unanswered. Clearly, the complexity of the operation

will dictate the organization and employment. Some operations will ask nothing more of an HSV than to shuttle people and equipment from point A to point B, and cross-component utilization will be a non-issue. Other situations may dictate a limited multi-mission application, but where asset apportionment for the operation's duration makes sense. However, it is easy to plan for those situations and the real challenge is to figure out how to employ the HSV in a complex and dynamic environment, where robust multi-mission flexibility serves as a force multiplier.

It stands to reason that the HSV has tremendous potential as a maritime asset for the JFMCC, but also has a powerful role as a logistics and maneuver warfare asset as well. Its main operating area is that classic seam in joint operations, the littoral environment. In its transport role, it has a tremendous impact on JFLCC-focused land operations, while its aviation assets can also project power inland. In a matter of hours, it can shift gears into a classic JFMCC sea control role, hunting submarines with airborne dipping sonar. The JFMCC organization is in the best position to properly manage and integrate this multi-mission platform, but it will not come easy. JFMCC doctrine must be written to enable dynamic and robust use of the HSV across component boundaries, and it is better to do this now than to read about it in the next operation's "lessons learned" message.

BIBLIOGRAPHY

Belcher, Gary. "JFMCC – A Needed Joint Capability or Just a New Name for Naval Business as Usual?" Unpublished Research Paper, U.S. Naval War College, Newport, RI: 2003.

Bucchi, Mike and Mullen, Mike. "Sea Shield: Projecting Global Defensive Assurance." U.S. Naval Institute Proceedings (November 2002): 56-59.

Callahan, Shawn M. "The Impact of Fastship and High Speed Sealift on Strategic Sealift." Unpublished Research Paper, Air University, Air Command and Staff College, Maxwell Air Force Base, AL: April 1998.

Clark, Vern. "Sea Power 21: Projecting Decisive Joint Capabilities." U.S. Naval Institute Proceedings (October 2002): 32-41.

Cordle, John. "High Speed is the Future." U.S. Naval Institute Proceedings (June 2003): 54-55.

Dawson, Cutler and Nathman, John. "Sea Strike: Projecting Persistent, Responsive, and Precise Power." U.S. Naval Institute Proceedings (December 2002): 54-58.

Flynn, Michael D. "A Joint Seabasing Operational Concept." Unpublished Research Paper, U.S. Naval War College, Newport, RI: 2003.

Hodge, Nathan. "Army, Marine Corps to Team on Fast Sealift Ships." Defense Week 1 December 2003. Lexis-Nexis (23 January 2004).

Holton, Christopher. "New High Tech, High Speed Ship Could Rapidly Deploy U.S. Forces." World Tech Tribune.Com (28 October 2003) <http://216.26.163.62/2003/wtt_10_28.html> [4 Dec 2003]

Holton, Christopher. "New High Tech, High Speed Ship Saw Action in Iraq War." World Tech Tribune.Com (17 November 2003) <http://216.26.163.62/2003/wtt_11_06.html> [4 Dec 2003]

"Incat-Bollinger Team Delivers HSV-2 Swift to the Navy." Defense Daily International 15 August 2003, Lexis-Nexis (23 January 2004).

Klein, John and Morales, Rich. "Sea Basing Isn't Just About the Sea." U.S. Naval Institute Proceedings (January 2004): 32-35.

Lenox, Kevin. "Why Did Navy Helos Cross the Beach?" U.S. Naval Institute Proceedings (January 2004): 50-52.

Moore, Charles and Hanlon, Edward. "Sea Basing: Operational Independence for a New Century." U.S. Naval Institute Proceedings (January 2003): 80-85.

Mullen, Mike. "Global Concept of Operations." U.S. Naval Institute Proceedings (April 2003): 66-69.

Naber, Jim. "Army After Next and High Speed Sealift." Unpublished Research Paper, U.S. Army War College, Carlisle Barracks, PA: 1999.

O'Neil, William D. "If It Can't be Big, It Needs to be Novel." U.S. Naval Institute Proceedings (December 2003): 47-51.

Orme, Nate. "Army Catamaran Hauls Equipment Double-time." American Forces Information Service 8 September 2003. <http://www.defenselink.mil/news/Sep2003/n09082003_200309084.html> [23 January 2004].

Pringle, Cedric E. "Evaluating the Sea Basing Concept: Is This Future Capability a Critical Strength, Weakness, or Vulnerability for the Theater Commander?" Unpublished Research Paper, U.S. Naval War College, Newport, RI: 2003.

Schrady, David. "Combatant Logistics Command and Control for the Joint Force Commander." Naval War College Review (Summer 1999): 49-75.

Shoffner, Wilson A. "Enhancing the Army's Strategic Deployability." Unpublished Research Paper, U.S. Army Command and General Staff College, School of Advanced Military Studies, Fort Leavenworth, KS: 2000.

Spivey, Owen. "High Speed Sealift (HSS) INCAT 046 CAT Evaluation." Army Logistician (January-February 1999).

Tunick, Wayne A. and Weaver, Michael J. "Arm All Navy Helicopters." U.S. Naval Institute Proceedings (December 2003): 36-39.

U.S. Joint Chiefs of Staff. Doctrine for Command and Control of Joint Maritime Operations (First Draft). Joint Pub 3-32. Washington, DC: 4 June 2002.

U.S. Joint Chiefs of Staff. Doctrine for Joint Operations. Joint Pub 3-0. Washington, DC: 10 September 2001.

U.S. Joint Chiefs of Staff. Doctrine for Logistic Support of Joint Operations. Joint Pub 4-0. Washington, DC: 27 January 1995.

U.S. Joint Chiefs of Staff. Joint Vision 2020. Washington, DC: June 2000.

U.S. Special Operations Command. Special Operations Forces Posture Statement 2003-2004. Washington, DC: 2003.

Vick, Alan, David Orletsky, Bruce Pirnie, and Seth Jones. The Stryker Brigade Combat Team: Rethinking Strategic Responsiveness and Assessing Deployment Options. Santa Monica, CA: RAND 2002.

LIST OF ABBREVIATIONS AND ACRONYMS

APOD	air port of debarkation
ASW	anti-submarine warfare
ATO	air tasking order
C2	command and control
CJTF	Commander, Joint Task Force
CSAR	combat search and rescue
CSG	carrier strike group
DRC	Democratic Republic of the Congo
ESG	expeditionary strike group
HSV	high speed vessel
ISR	intelligence, surveillance, and reconnaissance
JFACC	Joint Force Air Component Commander
JFLCC	Joint Force Land Component Commander
JFMCC	Joint Force Maritime Component Commander
JFSOCC	Joint Force Special Operations Component Commander
JTF	Joint Task Force
JOA	joint operations area
LCS	littoral combat ship
LNO	liaison officer
LSV	logistics support vessel
MAGTF	Marine Air-Ground Task Force
MCM	mine counter-measures
MIO	maritime interdiction operations
MTO	maritime tasking order
NEO	non-combatant evacuation operations
SAR	search and rescue
SPOD	sea port of debarkation
SOAR	special operations aviation regiment
SOF	special operations forces
SUW	anti-surface warfare
TSV	theater support vessel