

# Executive Summary

## NAVSEA 03

### Human Systems Integration Directorate

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### **SEA 03 and the LCS Industry Teams**

Since the 28 May 04 Littoral Combat Ship downselect, SEA 03 has been engaged in significant collaboration with the remaining two industry teams, PMS 420, and PMS 501. With the success of LCS Flight 0 dependent on the implementation of major changes in manpower, personnel, and training procedures, the Navy has established the LCS/Sea Warrior team, which is leveraging input from NPDC, CFFC, NAVMAC, NAVSEA 03, Afloat Training Group, BUPERS, Task Force Warrior, SkillsNet, and the Human Performance Center to ensure that LCS will be crewed with the right mix of appropriately trained Sailors within the ship's existing schedule.



Over the past few months, personnel from each organization have been collaborating on a successful model for selecting and training the crew for the LCS sea frame and its attendant mission modules. They are also determining the expected impacts on shore infrastructure, skills-based training requirements, and human performance-related issues associated with the sea frame designs.

POC: Kurt Yankaskas (202) 781-4349



### **SEA 03's Newest Mission: Distance Support**

In order to fulfill NAVSEA's current role in Distance Support (DS) and Navy leadership's expectations for DS in the future, the oversight and coordination of DS has been assigned to SEA 03. In making this decision, VADM Balisle has made it clear that HSI Human Performance and DS goals and objectives are very closely interrelated. The Navy will leverage the principles of HSI in acquisition and DS to help achieve the corporate objectives of Sea Power 21. Together, they will be key enablers for Sea Warrior and Task Force Excel, and integral to the success of Sea Swap, Sea Basing, Sea Enterprise, Optimal Manning, and Navy Knowledge Online initiatives.

Although Distance Support has been supporting the Fleet with real-time technical assistance to afloat units since 1999, the capability will be expanded to help identify future challenges associated with operating reduced and/or optimally manned ships, including those related to personnel management, training, logistics, and maintenance support. DS will also support a review of virtually every aspect of the Navy's base and shore infrastructure. The future expectations for DS align with NAVSEA and Navy objectives to place Sailor and Marine warfighting performance at the center of the acquisition and readiness process.

As VADM Balisle stated earlier this month, "Distance Support is a philosophy, a concept for doing business, and an actual capability. It will be the foundation upon which our 21st Century Navy will operate."

POC: CDR Tom Conlon (202) 781-2496

If you have any HSI-related questions or issues, please contact CAPT Al Thomas, Deputy Director for Human Systems Integration, at (202) 781-3526 or at [thomasaa@navsea.navy.mil](mailto:thomasaa@navsea.navy.mil).

## **Human Performance Assessment Capability: Objectives**

On 19 August CNO Admiral Vern Clark visited the Integrated Combat Environment (ICE) Human Performance Laboratory at NSWC Dahlgren. Admiral Clark was given a demonstration of the ICE future warfighting scenarios and was briefed on the Human Performance Assessment Capability. During his two-hour visit to ICE he expressed strong support for the development of this capability.



Enabling Sailors and Marines to excel by providing systems designed for that purpose is key to the

future of the Navy. The Navy's Human Performance Assessment Capability (HPAC) provides the accountability for that process by measuring Warfighter/ Total System Performance, providing engineering level data on which to base design decisions, training strategies, and CONOPS. Warfighting readiness and improved operational effectiveness at the lowest total ownership cost is the focus.

POC: Trish Hamburger (540) 653-1119

## **SHIPMAIN, C5I, and IBFT**

SEA 03 is chairing the SHIPMAIN Human Systems Integration Assessment Team. The team is made up of subject matter experts from the HSI Virtual SYSCOM, PEOs, Navy Warfare and Learning Centers, Human Performance Center, and Naval Personnel Development Command. The Team is reviewing all new SHIPMAIN candidates for change (CFCs) as they arrive in the Navy Data Environment (NDE) in the mandatory Ship Change Document (SCD) format.

The Team is determining whether or not each CFC has significant impact on Sailor performance. Those that do are forwarded to the appropriate HSI Assessment Team subject matter experts for assessment and follow-up.

The IBFT and C5I initiatives are also interacting in the SHIPMAIN process in order to standardize job listings, skill objects, and training assets.

POC: Pat Hartman (202) 781-3630

## **HSI Tech Authority Fundamentals**

As the warranted technical authority for SEA 03, Mr. Bob Bost serves as the Technical Area Expert for Human Systems Integration.

The scope of his technical authority includes:

- Optimizing manpower, personnel, training and promoting safety, survivability, and quality of life and service;
- Ensuring human capabilities are integrated into the total system, subsystem, equipment, materiel and software acquisition; and
- Overseeing areas of responsibility, including human factors engineering, manpower, personnel, and training.

The elements of environment, safety, and health (ESOH), survivability, and habitability are not included in the technical warrant, as they are owned by SEA 05, but are coordinated between the two directorates.

Mr. Bost's technical authority is exercised during program reviews and the ship and system certification process. He is assisted by designated HSI technical managers and engineering agents at NAVSEA field activities, in academia, and in private industry.

POC: Don Burrows (202) 781-3539

### Technical Authority Pyramid



### **Current Schedule of HSI Courses**

#### **HSI 101**

**NSWC Port Hueneme  
NAVSEA WNY**

**15 September  
28 October**



## ***HSI Web Tools Mature***

Two new web-based tools are now available to the Fleet and Navy acquisition and design professionals to assist in tackling HSI-related issues and requirements.

The Human Systems Integration Clearinghouse for Issues and Policy (HSI CLIP), available at <https://www.hsiclip.org>, is the NAVSEA-sponsored, web-based tool established to discuss and resolve issues affecting human performance on U.S. Navy surface ships, submarines, and aircraft carriers. HSI CLIP provides an information flow process between the Fleet and the Program Offices. It highlights concerns about the effects of future and current policies and technologies on Sailor performance prior to integrating the technology into shipboard combat, engineering, logistic, and administrative systems. HSI CLIP enables dialogue and Fleet feedback, while ensuring that the right subject matter experts are involved in the evaluation of issues.

HSI CLIP provides a forum to raise issues, provide information, pose questions, offer recommendations, and address HSI matters. The site also serves as a single, official, and historical repository for HSI issues related to new and existing shipbuilding programs and is a key enabler of the wider Navy goals of supporting optimal manning through personnel and training efficiencies.

The HSI Program Online Review Tool (HSI PORT), available at <http://navsea03hsireviews.resourceconsultants.com>, provides a single location where program managers can find HSI tools, metrics, and checklists to assist them in ensuring their programs are HSI compliant.

POCs: CDR Tom Conlon (202) 781-2496; Mildred McCullough (202) 781-0835

## ***Virtual SYSCOM and HSI: Common Presentation Layer***

Currently, the Navy fields many different types of visual displays with very different formats. As Sailors are forced to move among these different displays there is a measurable increase in operator interpretation errors, along with attendant training and maintenance costs.

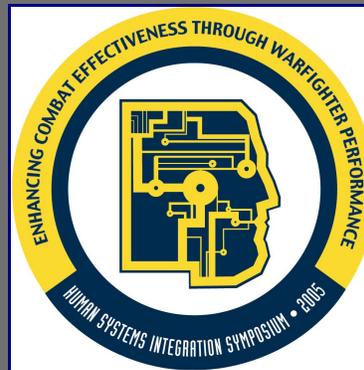
As a result of this situation and guided by the Virtual SYSCOM, SEA 03 has been tasked to develop the specification for a Common Presentation Layer that will define the look and feel for the displays of ship

compartmentation and systems.

SEA 03 is tailoring existing, applicable information display standards to develop specifications that, when used by independent developers, will produce displays with a consistent look and feel. The development of open architecture standards is a critical enabler of this effort.

To ensure compliance in systems currently in development, SEA 03 is represented on CAPT Mike Frick's Future Common Display System (FCDS) Team in PEO IWS. SEA 03 is also working closely with the DD(X), LCS, Damage Control Training and Management System (DCTMS), and other major programs.

POC: Jim Thurber (202) 781-3604



***HSIS 2005***  
***June 20-22, 2005***  
***Sheraton***  
***National Hotel***  
***Arlington, VA***

The theme of the 2005 Human Systems Integration Symposium is "Enhancing Combat Effectiveness Through Warfighter Performance."

Combat effectiveness of a sustainable and protected Force is a top priority in the defense of our Nation. Equipping the warfighter with systems that are designed to optimize performance is a key enabler of this strategic priority. The 2003 Symposium and work in human performance issues over the past two years have laid the groundwork and emphasized enhancements to combat effectiveness through improved warfighter performance.

The Symposium has issued a Call for Papers on the following topics: Establishing a Culture of Human Performance; HSI Success Stories—Past and Present; HSI "How tos"; Equipping the Warrior; Fleet Perspectives and Feedback from the Combat Zone; Future Perspectives—HSI in 2020; Lessons from Other Domains; and International Viewpoints on HSI.

One-page abstracts describing the proposed papers must be submitted by **30 September 2004** to Trish Hamburger ([hamburgerps@nswc.navy.mil](mailto:hamburgerps@nswc.navy.mil)).

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