

NAVAL SEA SYSTEMS COMMAND

# HSP

## HUMAN



## SYSTEMS



## PERFORMANCE



NAVAL SURFACE WARFARE CENTER, DAHLGREN DIVISION

DAHLGREN

DAM NECK

## ***Reducing Total Ownership Costs of Naval Systems by Embedding the Human Systems Performance (HSP) Model***

*The Chief of Naval Operations recognizes the human, the Sea Warrior, as “a premier element of all operational systems.” The Naval Air Systems Command, Naval Sea Systems Command, Naval Supply Systems Command, Space and Naval Warfare Systems Command, Navy Personnel Development Command, Human Performance Center, and Fleet Forces Command are leading the effort in developing the Navy’s premier capability for HSP analysis and assessment. The HSP Assessment Capability team will enhance fleet readiness and operational effectiveness at the lowest total ownership costs by providing the personnel, expertise, equipment, connectivity, tools, models, environments, and alliances necessary to develop human performance solutions as well as to measure, analyze, and certify warfighter system performance across all phases of the life cycle.*

*The concept of the HSP Assessment Capability team is a synergistic approach to connect existing Navy infrastructure elements to create a distributed human performance assessment capability. The genesis of this effort will be the integration of human performance assessment capabilities across the warfare command domains, leading to the collection and validation of a defined group of human performance metrics and the certification of component- and system-level human performance. The universal application of these efforts will reduce total ownership costs associated with any program, ensuring the warfighter has the right system for the right effort the first time.*

### ***Warfighter and Programmatic Benefits***

By leveraging existing resources and creating economies of scale vice funding program-specific human performance assessment capabilities, a set of common processes with a common infrastructure yields consistent, validated information throughout the Navy, providing systems that meet the needs and expectations of the fleet the first time. The benefits of these efforts include the following:

- Lower total ownership costs
  - Optimized manpower/improved training
  - Quality of life and work/retention
  - Reduced probability of error/friendly fire
- Reduced acquisition risks
  - Ensure we are tackling the right problems
  - Reduce rework – cost and schedule
  - Incorporate lessons learned from others
  - Validate manpower targets
  - Optimize technology implementation
- Concept demonstration, experimentation, validation
  - Targeted fleet requirements
  - Synergistic model for design team
  - Changes and risks addressed early
  - Objective assessments Navy wide
  - Increased science and technology transitions
- Interoperability
  - Distributed decision-making
  - Validation of tactics, techniques, and procedures
- Best practices
  - Consistency, efficiency, effectiveness
  - Processes, measures, certification criteria

### ***Objectives***

- Human performance analysis in requirements generation and analysis of alternatives
- Total system design analysis (including knowledge, skills, and abilities; workload; and human error)
- Usability engineering
- Human performance testing, evaluation, and certification
- Common human performance standards, processes, metrics, and tools
- Common repository for human performance data, metrics, and analysis
- Sea Warrior product integration
- Total system interoperability testing



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