



DoD Human Sciences Research Colloquium: Harnessing Talent for Complex Environments and Transforming Dept. of Navy HCS

Held March 21st, 2007 at Nat'l Defense University

**Human Sciences Research Conference:
New Approaches to Warrior Development**

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June 13th, 2007**

Tapping Human Sciences Research: From Whence We Came

- We began with a perceived need for adaptive “strategic corporals,” and for intellectual battle-wise leaders
- Social-psychological and behavioral implications of WW IV warriors (soldiers, sailors, & marines) working in complex new battlespaces, with indigenous civilians, unique cultures, (i.e. asymmetric warfare & GWOT)
- Since May 2003 (*Mission Accomplished*), it is new ballgame; we must play both halves equally well.

What questions should we ask of DoD Human Sciences Research (HSR)?

- Our Human Capital Strategy strives to recruit, select, place, train, and retain high quality, talented people to meet the needs in the Navy and Marine Corps:
 - First, learn what HSR is being done now
 - Identify information gaps, determine what HSR is needed now (HSR requirements)
- Shape future HSR priorities to gain missing info.; inform policy decision-making; apply to military planning and operations

Taxonomy of Human Sciences Research

- Recruiting, Selection, Assignment, Training, Performance, Retention
- Human performance measurement, prediction, learning, motivation, sustainment, enhancing performance (esp. cognitive performance)
- Human Protection from workplace and environmental threats
 - heat, cold, altitude, acoustical noise, toxic fumes, vibration, mechanical, electromechanical, blast overpressure, blunt trauma, hypo- and hyperbaric pressures, non-ionizing radiation; physical strain, carrying heavy loads
 - exposure to chemicals, biological, ionizing radiation, industrial pollutants
- Psychological stressors, psychological trauma, psychiatric casualties, prevention of PTSD, mental health issues
- Diseases, illnesses, sicknesses, injuries (some quickly recoverable at the battle site – evacuation for medical care)

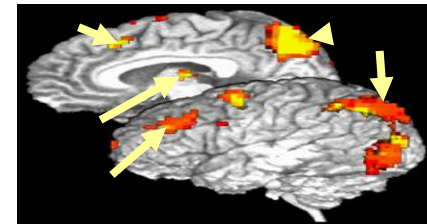


ONR

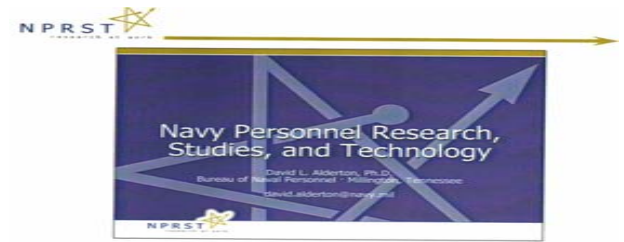
Office of Naval Research

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- Life Sciences Research (Code 341)
- Naval Warrior Applications (Code 342)
- Human Performance Training and Education programs (Code 34)
- Expeditionary Maneuver Warfare & Combating Terrorism (Code 30)
- Extramural research programs at Universities and Contract research facilities; e.g. MURIs
- ONR's Broad Agency Announcement (BAA) and SBIR initiated work (by universities & small research firms).
- Other pertinent programs,
Cognitive neuroscience



Naval Personnel Research Studies & Technology (NPRST)



- NPRST is Navy's personnel research laboratory
- NPRST research solves operational problems
- Transitioning S&T to operational use
- Innovations transitioned to technologies to improve Navy/Marine personnel processes.
- Perform organizational assessments and conduct Navy and Marine Corps surveys, applications development

Navy Medicine Support Command (NMSC)

- Naval Medical Research Center (NMRC), Silver Spring, MD
- Naval Health Research Center (NHRC), San Diego, CA
- Medical research programs include psychological, cognitive, and behavioral research at four Navy medical research labs:
 - Naval Medical Research Center (NMRC) at Silver Spring, MD
 - Naval Aerospace Medical Research Lab (NAMRL) at Pensacola, FL
 - Naval Submarine Medical Research Lab (NSMRL) at Groton, CT
 - Naval Health Research Center (NHRC) at San Diego, CA

 - NHRC Detachment, Environmental Health Effects Lab (EHEL), Dayton, OH
 - NHRC Detachment, Directed Energy Bioeffects Lab (DEBL), SanAntonio,TX

U.S. Army Research Institute (ARI) for Behavioral and Social Sciences

- HSR programs are most pertinent to Navy HCS initiatives.
- Studies underway in personnel selection, placement, training, leadership, attitude, unit cohesion, soldier values, retention, gender and cultural differences.
- Annual surveys of officers and enlisted personnel, to determine attitudes, opinions.
- Does training research in TRADOC communities (e.g. aviation, armor, infantry, artillery, special ops, training simulation devices).

US Army Medical Research & Materiel Command (USAMRMC)



- USA Aeromedical Research Lab (USAARL)
Ft. Rucker, AL (sister to NAMRL)
- USA Research Inst. of Environmental Medicine (USARIEM)
Natick, MA (sister to NHRC)
- Walter Reed Army Inst. of Research (WRAIR)
Silver Spring, MD (sister to NMRC)
- Telemedicine & Advanced Technologies in Medical Res.
(TATRAC) Ft. Detrick, MD
- US Army Research Institute of Infectious Diseases, Ft. Detrick, MD
- US Army Medical Research Institute of Chemical Defense Edgewood, MD

Army Research Lab: Human Research Engineering Directorate (HRED) Aberdeen, MD

- Behavioral Sciences research on auditory, visual and cognitive factors of soldier-system designs
- Soldier behavioral studies in lab and in the field (new weapons platforms, commo. systems, displays, robotics, unmanned vehicle systems)
- Applications of Human Factors & Ergonomics work with PEOs, PMs, and other materiel developers
- Principal supplier of Army MANPRINT data to serve materiel development Milestone decision-making.

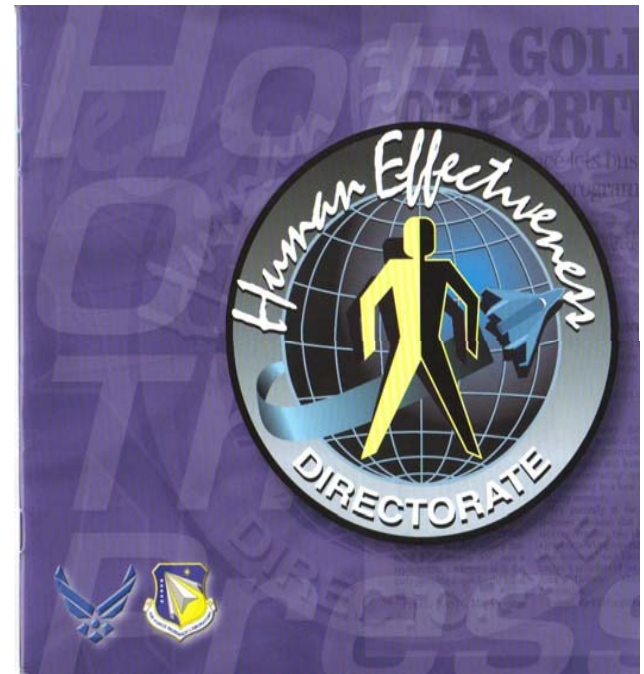


USAF Human Effectiveness Directorate:

WPAFB, Brooks, Williams (Mesa), et al.

Mission: Lead revolutionary S&T for superior airman cognition, readiness, performance, and survival. Scientific capability in 3 thrusts:

- Decision quality information
- Immunity from threat
- Mission effective performance



HSR Colloquium Summary

- Some ongoing HSR programs in DoD, and elsewhere pertain directly to Dept. of Navy HCS initiatives
- We will identify specific HSR needs not being adequately covered by someone
- Determine best ways to spur on HSR work to fill information gaps for Navy HCS
- Explore mechanism/means to transition HSR findings to the Naval Personnel System and to the Operational Navy