

Naval Health Research Center

Research Areas Related to Human Sciences Research

ASN(M&RA) Human Sciences Research Colloquium

March 21, 2007, Washington DC



CAPT Kerry Thompson

Dr. Frank Garland

Dr. Karl Van Orden



Naval Health Research Center Laboratories

- **NHRC Laboratories conduct many studies in the area of Human Sciences Research that have relevance to DoD Human Capital Strategy including:**

- Optimal personnel selection
- Behavioral modification to control alcohol abuse, tobacco use, prevention of overuse injuries in training, and other lifestyle factors
- Human performance enhancement, cognitive sciences

- **Five Laboratories**

- Naval Health Research Center, San Diego;
- Naval Aerospace Medical Research Laboratory, Pensacola;
- Naval Submarine Medical Research Laboratory, Groton;
- Environmental Health Effects Laboratory; San Antonio; and
- Directed Energy Bio-Effects Laboratory, Dayton.



Naval Health Research Center (NHRC) San Diego

- Major Research Areas

- Behavioral Interventions and Epidemiology

- Health Improvement Interventions to reduce alcohol abuse, smoking , overuse injuries, effects of Post-traumatic stress disorder
- Prevention of infectious disease through early identification vaccine effectiveness
- HIV/AIDS Prevention Program in foreign militaries

- Human Performance

- Fitness and Performance in extreme environments:
hot, cold, high altitude



Naval Submarine Medical Research Laboratory (NSMRL)



- **Major Research Areas**
 - **Health, performance, habitability, and human factors issues in submarines**
 - **Disabled submarine survivorship and escape**
 - **Selection and retention of elite groups via psychological testing (e.g., SUBSCREEN for submariners)**
 - **Optimal operator performance (e.g., fatigue mitigation, watchstander scheduling)**
 - **Diver bioeffects on underwater human performance**



Naval Aerospace Medical Research Laboratory (NAMRL)



- Major research Areas
 - Personnel selection and classification research
 - Improving aviator selection for the Navy and Marine Corps
 - Improving operator selection for LCACs and Rescue Swimmers
 - Pharmaceutical safety and efficacy for military operations
 - Determining appropriateness of drugs for aviation personnel
 - Clinical trials for novel drug countermeasures for motion sickness
 - Countermeasures (physiologic and training) for military operations in extreme environments
 - Safer, more realistic hypoxia training (Reduced Oxygen Breathing Device – ROBD)
 - Improving situational awareness in flight operations



Directed Energy Bio-Effects (DEBL) and Environmental Health Effects (EHEL) Laboratories



- **Directed Energy Bio-Effects Laboratory**
 - Major Research Areas
 - Determine magnitude and identify the biological effects of acute and long-term exposures from directed energy sources
 - Develop computational models that predict exposure risk
 - Evaluate/establish protection/countermeasure criteria and technologies
- **Environmental Health Effects Laboratory**
 - Major Research Areas
 - Formulate occupational and environmental health-hazard evaluations and risk assessments
 - Determine neuro-behavioral effects of toxic exposures