



HUMAN SYSTEMS INTEGRATION (HSI) LABORATORY | WarSTAR

NSRDEC's Human Systems Integration (HSI) Laboratory is a newly modernized, 1000 sq ft facility, maintained and operated by Human Factors and Anthropology Subject Matter Experts.

All SMEs are experienced in the development of test methodologies/data collection tools & execution of evaluations focused at assessing HSI issues of Clothing and Individual Equipment (CIE), Shelters, Food Equipment, and Airdrop Equipment.

Extensive selection of:

- Soldier-oriented ancillary gear and equipment
 - Helmets, eyewear, handwear, footwear, duty uniforms, body armor, AW cooling garments, mock weapons, radio handsets, etc.
 - Multi-service CB gear (masks, handwear, footwear, garments)
- Tools & Test equipment used to evaluate Human Factors attributes:
 - **Dexterity/Tactility:** to assess fine & gross motor skills, hand-eye coordination, manual aptitude & tactile sensitivity, grip/torque
 - **Vision:** to assess visual field of view, peripheral vision, depth & color perception, contrast sensitivity
 - **Range of Motion:** to assess angular movement/motion at body joints; quantifies restriction of mobility
 - **Simulated Mission Tasks:** dependent on mission/user – e.g. Bomb Squad activities, Aviator tasks, IMTs, etc. to verify ability to accomplish mission-relevant activities
 - **Compatibility:** of equipment with the intended wearer, his/her gear and the platform in which it will be used
 - **Fit/Sizing, Comfort, Safety, Health Hazards, User Acceptability**
 - **Other Miscellaneous Test Equipment:** e.g., temperature, humidity, noise & light level meters, anthropometers, digital scale, heart rate monitors, force gauges

Access to:

- Active duty USA personnel assigned to NSRDEC specifically to serve as Human Research Volunteers (HRVs)/Test Participants in evaluations; Approved Human Use Protocol for conducting routine evaluations allows for immediate access to TPs
- NSRDEC's Outdoor Obstacle Course, 3D Anthropometric Scanning Facility, Biomechanics & Cognitive Performance Laboratory

POINT OF CONTACT:

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