Natick Soldier Research, Development and Engineering Center

Natick Soldier Systems Center, Natick, MA 01760
Public Affairs (508) 233 6938
david.accetta@us.army.mil
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FOR IMMEDIATE RELEASE

Natick, MA- Personnel from the U.S. Army Research, Development & Engineering Command's (RDECOM) Natick Soldier Research, Development and Engineering Center (NSRDEC) will conduct an Army-wide Anthropometric Survey (ANSUR II) at selected installations beginning in early October 2010 to update the Army's anthropometric database.

The ANSUR II program, endorsed and directed by Headquarters, Department of the Army (HQDA), will measure 13,000 Soldiers; 5,000 from the active-duty ranks, 1,000 aviators from any component; 2,000 from the Army Reserve; and 5,000 from the National Guard. This collection of Soldier body measurements representing the different body sizes and shapes present in today's Total Army will result in a database that will be used to improve the design and fit of clothing and individual equipment systems used by Soldiers in the near future.

The measuring team will gather biographical data, 94 standardized direct body measurements and three-dimensional (3D) surface scans of the whole body, head/face and foot. The standardized body measurements will include some familiar clothing measurements such as chest and waist circumferences, body breadths and depths, as well as some very specialized dimensions like functional leg lengths. These leg lengths are used to design cockpits and crew stations for combat vehicles, aircraft and other human system platforms.

A three-dimensional whole body scanner will be used to capture body contours and curvatures to help in designing close-fitting items such as body armor. A three-dimensional head and face scanner will be used to capture the shapes and curvatures needed for designing helmets, goggles, face, and respiratory protection. And finally, a foot scanner will be used to capture foot size and shape for footwear design.

Army clothing, protective equipment, combat vehicles, aircraft, and weapon systems must be designed and sized to fit their users based on statistical data collected from a representative sample of the force. The last data collection, the Army Anthropometric Survey (ANSUR), occurred in 1988. During the ensuing 20-plus years, the Army has noticed changes in the body sizes and types of its Soldiers, requiring an update of the original survey.

The ANSUR II anthropometric database will be used to establish design and sizing requirements, engineering solutions, digital models for vehicular crew stations, portable shelters and workstations, protective clothing and individual life support equipment, and military uniforms.

The NSRDEC ANSUR II team, including a research anthropologist, military personnel, and civilian contractors, will visit selected locations across the United States from October 2010 through January 2012. Selected Army units that represent occupational cross-sections of the

Army will be screened and individuals will be selected in accordance with a stratified random sampling approach by age, sex and race. They will then be measured and scanned for the ANSUR II database.

"This study is absolutely crucial not only to the design of Soldiers' uniforms and protective equipment, but also to the design of future combat vehicles. ANSUR II is the most comprehensive anthropometric data set to ever be collected by the Army and we truly appreciate the support from all levels of the Army's leadership," said Dr. Claire Gordon, NSRDEC senior research scientist in biological anthropology.

For more information visit: **http://nsrdec.natick.army.mil/ANSURII/**

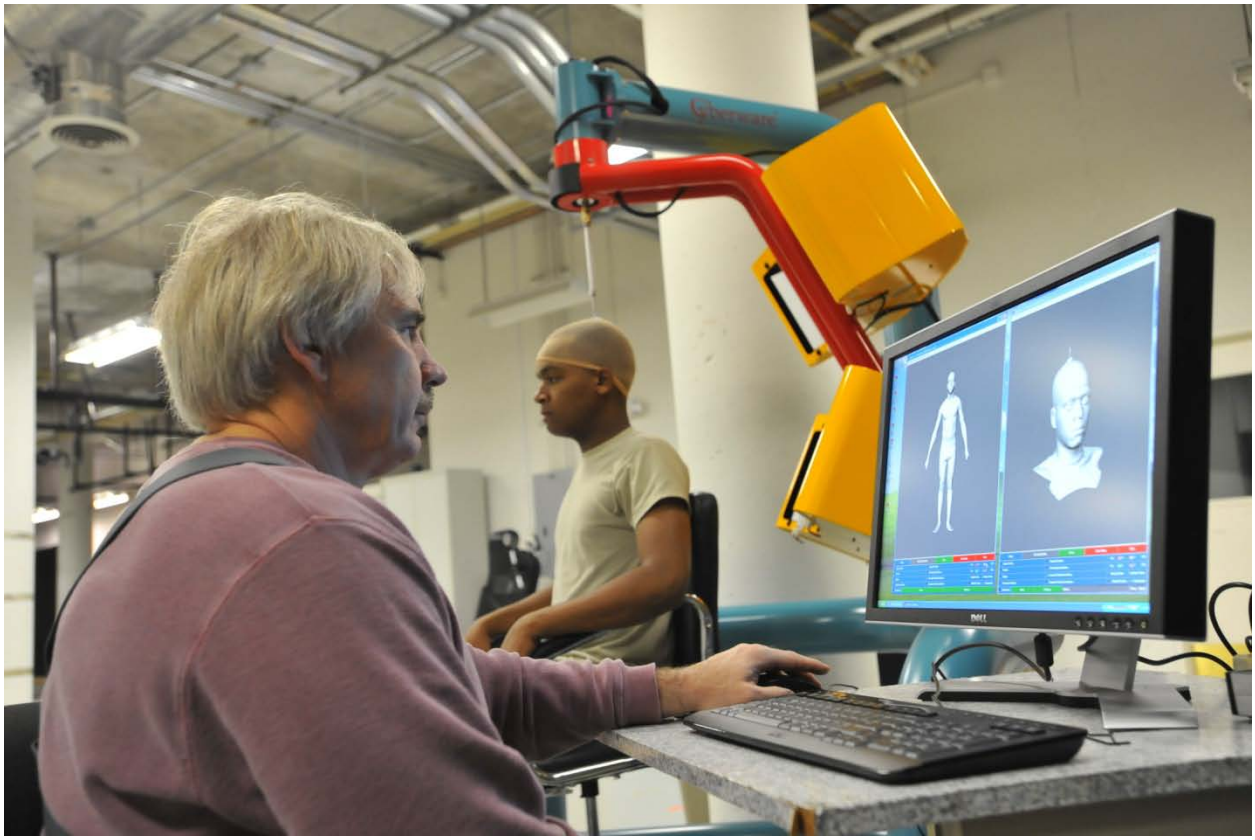

PHOTO CUTLINE:

Dr. Brian Corner, a scientist at the Natick Soldier Research, Development and Engineering Center, Natick, MA measures a Soldier's head and face using a three-dimensional scanner to gather data for new uniform and equipment sizing. (US Army photo)