



Volunteers Climb to New Heights to Advance Army Research

If you were an inventor, wouldn't it be helpful to have a pool of potential customers at your disposal to evaluate your product while you were working on it? Wouldn't it be advantageous to collect data related to this testing and tweak the product based on the testing to ensure it met your customers' needs?

This is part of the idea behind the Human Research Volunteer (HRV) program at the U.S. Army Natick Soldier Research, Development and Engineering Center (NSRDEC) in Natick, MA. The HRV program is such an important part of the research and development process that NSRDEC personnel actively recruit Soldiers graduating from Advanced Individual Training to participate in studies and evaluations. These evaluations not only test military items, but also environmental conditions in which our Soldiers may have to work.

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Dr. Charles Fulco, Research Physiologist, U.S. Army Research Institute of Environmental Medicine (USARIEM), collocated at the Natick site, said that having the HRV pool is the most efficient way that human research can be done. Although his studies focus on altitude effects on personnel, Fulco said, "If you look at research from the big picture, even studies on uniforms need to have human testing done on them."

"Studies do get delayed due to lack of personnel or the timing of volunteers arriving and departing," he continued, noting that the ideal situation would be to have a larger, more permanent volunteer pool on the installation ready to go at all times.

Mary Anne Fawkes, Human Research Program Manager, explained that Soldiers are the best testing resource because they are the customers. HRVs are recruited through the U.S. Army Human Resources Command (HRC). "HRC designates where we can go and recruit for the program," said Fawkes. "When we recruit, we give Soldiers information about the HRV program, including highlights of upcoming studies."

Fawkes emphasizes to potential HRVs that items they are testing may not benefit them today, but the results will yield data to help researchers develop better products for Soldiers in the future.

Usually, the personnel that travel to give this presentation include USARIEM medical personnel, a noncommissioned officer-in-charge and Fawkes. Fawkes said that the recruiting team sometimes includes one of the HRVs, whose personal experience adds to the presentation. "They talk about day-to-day life at Natick, highlight interests of the Boston area to a



young Soldier and just speak to other things besides the testing.”

HRVs at the NSRDEC in Natick, MA, participate in studies and evaluations that are critical to Army research. (U.S. Army photo by Sarah Underhill.)

The Soldiers must volunteer to be in the program and, once in, volunteer for each study, and can change their minds at any point. Initially, HRVs are recruited for a 90-day temporary duty assignment. Fifteen Soldiers came to Natick from Fort Knox, KY, in September. As soon as the Soldiers arrived, they were busy. Following medical clearances and briefings, the new arrivals were ready to volunteer for studies.

Some of the upcoming studies in which HRVs will be asked to participate include a study to determine how well they respond to altitudes between 7,000 and 12,000 feet. Another study will examine the effects of different diets on metabolism at rest and during activity. HRVs can also enroll in a study that will determine how consuming a carbohydrate/protein supplement during and after endurance exercise impacts the rate at which the body builds and breaks down muscle.

If HRC approves, the volunteer may be asked to stay for an additional 89 days, and sometimes volunteers are asked to stay on as permanent party. “There are always HRV permanent party Soldiers at Natick,” Fawkes continued. “The Soldiers selected as permanent party are often those volunteers willing to go the extra mile. Their participation in studies is vitally important to the program. Many times they have a history with an investigator or have participated in similar studies and can provide valuable insight.”

This base of Soldiers also fills in during the gap between recruiting trips and provides guidance to the temporary duty Soldiers. “At this time, however, most of the permanent party Soldiers are deployed or in the process of leaving Natick,” Fawkes said.

When an HRV finishes one study, the volunteer will need to return to a normal baseline before participating in another study. “The problem is the timing of matching up the start of a study with HRVs’ availability,” Fulco said. “It takes a long time to get study protocol approved and then you may not have the number of folks you need to participate.”

Because of the ongoing activity in the Army, it has been more difficult for Natick to recruit HRVs. “There are many more studies, and volunteers are always needed. We now recruit more volunteers than we have in years past. This year we went out in February, July and November,” Fawkes noted.

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Volunteers for the program must be active-duty Army, between the ages of 18 and 35, and in good physical health with no prior heat, cold or orthopedic injuries. PFC Eric Burns of Nashua, NH, has been in the HRV program for the past year. He originally signed up for the program because he would be close to home. After serving as an HRV for a year,

Burns said he now understands the program’s importance. “The Army uses a lot of the data collected here to improve products and performance for the people serving overseas,” he said.

Some of the studies in which Burns participated included an altitude study and a body armor study where the focus was effectiveness and mobility. He was originally scheduled to be at Natick for 3 months, was extended to 6 months and then was able to become a permanent party Soldier. In March, Burns will leave Natick and head to Fort Irwin, CA, to continue his

Army service in his military occupational specialty of tanker.

Recently, two former HRVs, SPC Jaime Rodriguez and CPL Rhett Butler, were killed in Iraq. NSRDEC Acting Director John Obusek said, "I think it is too easy for us to view our Soldiers here at Natick as regular employees, coming to work in the morning and leaving at night to the safety of their homes or rooms. Sometimes we forget that Natick is just a temporary stop for them and that they often leave here after 90 days and go into harm's way very soon thereafter."

Fulco said to sum it up in one word, the HRVs are "critical" to the research that occurs at USARIEM and the other partners at Natick. Since 1954, more than 3,700 Soldiers have participated in the HRV program.

Article courtesy of NSRDEC Public Affairs Office.