

S2PRINT Will Increase Lethality, Resilience

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“No Soldier ever fights alone,” says Cynthia Blackwell, the project director of the Soldier Squad Performance Research Institute (S2PRINT) at the Natick Soldier Research, Development and Engineering Center (NSRDEC).

The ways in which Soldiers interact individually, in squads, and on small teams play a key role in success on the battlefield. This is one of the main ideas behind the creation of the S2PRINT.

NSRDEC and the U.S. Army Research Institute of Environmental Medicine (USARIEM) have joined together to lead the development of this state-of-the-art facility, which is slated to be built at the Natick Soldier Systems Center in Natick, MA.

The institute will empower NSRDEC’s and USARIEM’s world-class scientists and engineers with a controlled, cutting-edge, and mission-relevant environment in which to perform applied studies to uncover ways to optimize Soldier and squad performance and enhance combat readiness.

S2PRINT’s emphasis is on Human Performance Optimization, with research focusing on the individual Soldier’s and the squad’s cognitive, social, physiological, physical, and nutrition-based performance. Blackwell explained that S2PRINT will provide the Army with a greater understanding of teams, leading to the optimization of team interactions and team dynamics.

S2PRINT will help researchers to develop validated performance and training strategies; tools and interventions for the Soldier, leader, and small unit; techniques to mitigate injury; and interventions to increase Soldier and squad resilience and longevity.

Studies performed in the S2PRINT facility, which will include several operationally relevant laboratories, will help researchers baseline, measure, predict, and

optimize individual and small unit readiness, performance, and resiliency across real-world, mission-essential tasks. Outcomes/findings of this research will ultimately help improve readiness, enhance mission performance, and increase Soldier and squad lethality.

The new facility will also enhance NSRDEC’s and USARIEM’s already strong collaborations with top-notch academic institutions, cutting-edge industrial partners, and other DOD agencies and initiatives. As with other work performed by NSRDEC and USARIEM, the knowledge obtained through S2PRINT will lead to technologies and informational resources that will benefit not only warfighters but also first responders.

Moreover, Natick will be able to develop and evaluate prototype gear and emerging technologies more quickly than ever before, accelerating the delivery time of critical information and equipment to troops in the field — all while reducing costs.

S2PRINT is expected to become operational in the spring of 2023.



Photo by CPL Gabrielle Weaver

Soldiers with the 2nd Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade, engage opposing forces in a simulated exercise during Saber Junction 18 in Germany on 26 September 2018. The ways in which Soldiers interact individually, in squads, and on small teams will be a key area of study for the Army’s new Soldier Squad Performance Research Institute.