



# SPARNET

Spartan data network for Dismounted Soldiers

Natick, Massachusetts

## **SPARNET ~ Spartan Sensor Network to Improve Medical and Situational Awareness of Soldiers During Field Training**

**Need:** Soldiers engaged in mentally- and physically-demanding field exercises need mobile “sense and respond” data networks to improve medical- and situational-awareness.

Wearable sensor networks providing geo-location and medical status can help: (a) maintain “who, where, when” situational awareness, (b) sustain physical and mental performance, (c) reduce the likelihood of environmentally-related injuries, and (d) improve casualty management.

**Approach:** “Triple helix” R&D enterprise brings Government, academic, and small-business partners together to develop Spartan squad-area and short-range personal-area data network technologies to knit wearable sensors, predictive models, and user interfaces into useful real-time applications.

### **SPARNET will enable:**

- Real-time surveillance - to recognize, characterize, and respond to changes in Warfighter health status
- Predict and mitigate the effects of heat and cold on Warfighter performance
- Document impact of improved medical awareness on Warfighter practices
- Model mobile network behavior and improve network design
- Model emergent characteristics of SPARNET-enabled humans

The SPARNET enterprise is committed to minimalism, specificity, and the development of flexible technologies that can easily be adapted to meet new R&D and customer needs.

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