

CPO 29 Autonomous Bio-Sensor Infused Triage & Treatment (ABITTS)

Project Summary

This project was an expansion to the second year of the Autonomous Tactical Combat Casualty Care Underlayer project that began in FY18. The purpose of this effort was to further develop a modular, sensor-infused garment that will allow the U.S. military to address several gaps in far-forward tactical combat trauma treatment of penetrating wounds. Based on feedback from the Naval Special Warfare Development Group (NSWDG), the effort concentrated on the accurate detection and reporting of penetrating wounds and automated collection and handoff of patient data. The core of the integrated and modular platform is the “Sensing, Signaling, Treating” concept. SOFWERX executed Phase III of the ABITTS project under CPO 29 which was a follow-on to a previously completed CPO 19. USSOCOM funded CPO 29 under agreement H92405-19-F-0026. DoD Rapid Reaction Technology Office (RRTTO) provided the source funding for this project.

Project Timeline

Kickoff: 12 July 2019
Test Demonstration #1: 22 October 2019
Test Demonstration #2: 11 September 2020
Final Demonstration: 08 July 2021
Delivery of Final Report: 29 July 2021
Project Completion: 15 December 2021



Resources Consumed

Total Cost: \$694,126



Project Results

Ultimately the project failed to deliver the intended deliverables. COVID-19, End User availability and shifting TPOCs impeded the facilitation of the test demonstrations and subsequent garment development. The final demonstration occurred with only the End User present. The garments and TAK plug-in did not perform as intended. As a result, the End User did not desire to move forward. With the approval of RRTTO, the vendor delivered a test kit with the intent of a future demonstration. The end-state TRL is estimated to be at TRL 6. All funds were expended.

