

COLD WEATHER GEAR

An AFFOA Project / Department of Defense Manufacturing Innovation Institutes



Technology: Cold Temperature Artic Protection System (CTAPS)

Project Participants: U.S. Army Combat Capabilities Development Command (DEVCOM), AFFOA, Kennon Products, Inc, and Bethel Industries

Institutes' Role: AFFOA leveraged its textile manufacturing ecosystem and the institute's network of traditional and non-traditional performers to rapidly prototype 1500 CTAPS units in 8 months. AFFOA's ability to source, contract and rapidly prototype 300 sets of the next-generation Cold Temperature Arctic Protection System made it possible to meet the deadline for a limited user evaluation in Jan '21 field test in Alaska.

Technology Description: The Cold Temperature Arctic Protection System is a 5 layer system designed to keep the Warfighter warm and comfortable in extreme cold weather environments while reducing weight and increasing movement. By creating and accessing a flexible and expedient contracting vehicle and a centralized network of traditional and non-traditional performers with broad manufacturing capabilities, AFFOA has created a process and path to support future rapid development needs and opportunities.

Impact: With the ability to rapidly identify and down-select performers utilizing a diverse ecosystem of traditional and non-traditional performers and internal expertise, AFFOA can develop, prototype, and manufacture advanced fabric solutions much faster. The ability to rapidly prototype this novel cold weather system allowed the DoD to test the system in relevant environments and get critical feedback. This can speed up the prototyping of new technologies and products by up to 20%.

