

WHO

SYSCOM: ONR
Sponsoring Program:
Transition Target:

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Other Transition Opportunities: Improving training and simulation speed, quality and cost and increasing situational awareness of warfighters is applicable across all military domains.

Notes: Image shows a wide field of view AR display with military assets overlaid on a real world environment.

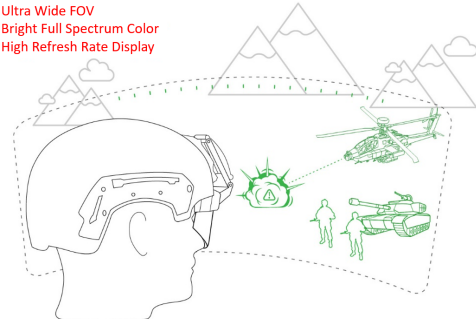


Image Courtesy of Creative Microsystems Corp.

WHAT

Operational Need and Improvement: Augmented Reality (AR) can replace or supplement parts of the training scenario with simulated virtual objects overlaid on the user's real world vision. AR reduces required space, equipment, safety risks, and has substantial cost benefits. This system will dramatically increase the usability by providing a daylight bright, wide FOV display that will increase the realism and effectiveness of the training scenarios.

Specifications Required: Develop a helmet mounted, ultra-wide FOV display, with high resolution and sunlight/night capable, which is compatible with the standard warfighter training equipment.

Technology Developed: Develop a helmet mounted, ultra-wide FOV display, with high resolution and sunlight/night capable, which is compatible with the standard warfighter training equipment.

Warfighter Value: Enhanced force-on-force training simulations to improve the training experience, resulting in higher warfighter performance. Increased warfighter situational awareness with overlaid data or in response to a stimulus, resulting in higher mission effectiveness. Display provides minimal disruption to natural vision so there is no effect or eye strain to impact warfighter's existing capabilities

WHEN

Contract Number: N68335-24-C-0126 **Ending on:** Jan 17, 2025

Milestone	Risk Level	Measure of Success	Ending TRL	Date
Program Kickoff	Low	Align Program Requirements from Stakeholder	1	2nd QTR FY24
Requirements Finalization	Low	Stakeholder sign off on requirements and prioritize key performance metrics	2	3rd QTR FY24
Ultra-wide-field-of-view (UWFOV) Modeling and Simulation	Low	Simulation of optical solution for UWFOV	3	4th QTR FY24
Benchtop UWFOV Demonstration Unit	Medium	Fabrication and Integration of Benchtop Demonstration Unit with UWFOV performance	4	4th QTR FY24
UWFOV Demonstration Prototype	Medium	Fabrication and Integration of Helmet Mounted Prototype Demonstration Unit with UWFOV performance	5	2nd QTR FY25

HOW

Projected Business Model: Creative Microsystems Corp. has the onsite capabilities to provide low volume custom display systems and submodules. We are also willing to partner with larger primes or contract manufacturing for larger volume projects.

Company Objectives: Creative MicroSystems is a world leader in ruggedized, outdoor Augmented Reality display systems that use our proprietary holographic Imageguide™ display technology. Our displays are changing the paradigm with sunlight readability without sunshades, extremely wide field of view, and rugged, compact designs. We are dedicated to creating custom AR solutions for customers and have a proven track record of delivering see through AR displays that provide minimal disruption to natural vision while delivering critical information to the user in a non-intrusive manner based on human factors testing and customer requirements.

Potential Commercial Applications: AR is an rapidly expanding marketplace and Creative Microsystems is helping to create the displays that will take it to the next level by extending the user environment to the outdoors and creating custom solutions for customer.