US Army bets $159M on ‘superhero-like’ mixed reality vision for its future warfighters

The Army’s SBMC program taps Anduril to deliver modular mixed reality headsets that fuse vision, intelligence, and command tools in one system.

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Anduril's Lattice-integrated IVAS headsets
Anduril

Anduril Industries has secured a $159 million contract from the U.S. Army to prototype a helmet-mounted mixed reality system.

The award is part of the Soldier Borne Mission Command (SBMC) program, the successor to the Army’s Integrated Visual Augmentation System (IVAS).

The company says the system aims to give soldiers “superhero-like abilities,” fusing night vision, augmented reality, and artificial intelligence into one platform.

The goal is faster decision-making and clearer battlefield awareness in contested environments.

The Army’s earlier IVAS effort, developed with Microsoft, faced delays and technical problems after its launch in 2018.

Soldiers reported headaches and nausea, leading Congress to cut funding in 2022.

Anduril’s system builds on those lessons. It combines advanced optics with real-time maps, intelligence, and sensor feeds overlays.

Instead of juggling radios, apps, and paper maps, soldiers will see a unified picture through helmet displays.

“Military operations are inherently human endeavors, characterized by violence and continuous adaptation by all participants,” states Army Doctrinal Publication 6-0, Mission Command. “Successful execution requires Army forces to make and implement effective decisions faster than enemy forces.”

Anduril says its solution reimagines the battlefield interface. “Anduril’s solution reimagines the battlefield interface giving soldiers superhero-like abilities,” the company said in its announcement.

Modular hardware, open software

Anduril is working with Meta, OSI, Qualcomm, and Gentex to build the hardware. The helmet-mounted display will integrate day, night, and thermal imagery with real-time intelligence. Soldiers can select modular components suited to their mission.

The software backbone is Soldier Borne Mission Command-Architecture (SBMC-A). Built on Anduril’s Lattice platform, it unites the displays with edge computing devices and battlefield sensors.

Anduril leads the effort with partners including Palantir, L3Harris, Persistent Systems, Sierra Nevada Corporation, and Maxar Intelligence.

SBMC-A has already been tested with existing IVAS 1.2 headsets. In recent field trials, soldiers tasked drones more than three kilometers away directly from head-mounted displays.

No dedicated drone operator was required.

Anduril highlights that the architecture also speeds software updates. Updates that once took two days can now be pushed in 15 minutes.

That allows daily changes from soldier feedback and cuts costs.

Shaping the future fight

The Army describes SBMC as its largest effort yet to equip every soldier with augmented perception and decision-making.

The initiative integrates lessons from over 260,000 hours of soldier feedback during the IVAS program.

Officials see the program as critical to overcoming one of the battlefield's biggest challenges: fragmented information. In many operations, squad leaders must stitch together maps, radios, and apps just to track their teams and threats. That wastes precious seconds.

By merging sensors, intelligence, and command tools into one system, the Army hopes to flip that disadvantage. Every soldier would see farther, know more, and act faster.

Together, SBMC and SBMC-A aim to redefine soldier systems. They promise to move beyond just night vision to full perceptual augmentation.
"Anduril and its partners are developing a modular component framework, enabling soldiers to select the most effective loadout for their specific mission needs," the company said.

The contract marks the Army's latest push to modernize after years of frustration with earlier head-mounted systems.

If successful, Anduril's prototype could deliver the generational leap the Army has sought since IVAS.