

Battlefield Reflector for Isolated Travelers Everywhere (BARFITE)



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Army, Air Force, Space Force, Marine
Corps, Coast Guard, Joint Personnel
Recovery Agency

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Personnel Recovery, EW, Tagging,
Tracking & Locating

THE CHALLENGE

The return of great-power competition means near-peer adversaries are challenging United States military superiority across many domains and mission sets. One of these mission sets is the ability to rescue service members in enemy territory, a mission the US military calls combat search and rescue (CSAR). CSAR refers to more specialized operations in which an isolated person or persons are recovered from hostile environments, typically with the existence of threats to the recovery force. Currently, a gap exists because U.S. military CSAR aircraft packages cannot follow advanced stealth aircraft deep into areas with advanced air defenses. The gap has implications for the costs of air campaigns, aircrew morale, and even coalition operations since the U.S. military has often provided CSAR support to allies.

THE INNOVATION

Airborne Outfitters has developed a new and innovative technology, BARFITE, a patented device that utilizes antennas that can reflect secure, coded messages in a GPS denied environment, while being completely reactive. RF signals, such as radar, are emitted by a plane or satellite passing overhead and a unique signature signal is then reflected to the aircraft/National Technical Means (NTM) and compared to stored signals on the jet/satellite so the pilot/operator can identify who the person is, location, and other pertinent data.

THE NAVY BENEFIT

CSAR assets may also be utilized in a ship-borne mass casualty event at sea. BARFITE can be incorporated into clothing, equipment, life vests, and life rafts. In the event of a mass casualty event at sea, SAR or CSAR assets can then leverage the basic principles of ground positioning to track and determine the BARFITE's position on sailors in the water.

THE FUTURE

With a finalized proof of concept and initial product testing completed by the U.S. Navy, Airborne Outfitters is ready to develop BARFITE into a modern NORDO (No Radio) signal and believes it may be able to be incorporated into several aircraft parts, floatation devices, and/or inflatable/foldable personal NORDO signals. With this technology employed and utilizing the current radar technologies available, it could fill the gap between electronic signaling equipment and visual recognition signals.

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