

Controlling the Drone Threat with Next-Generation C-UAS Defense:

SHIELD-Cyber

Liteye SHIELD and D-Fend Solutions EnforceAir



Liteye Systems and D-Fend Solutions offer a multilayered cyber and radar/EO-IR/directional RF combined system of systems solution to address complex Counter-Unmanned Aircraft Systems (C-UAS) environments. D-Fend's EnforceAir fully integrated into Liteye SHIELD brings expanded and complementary C-UAS capabilities, with heightened benefits to operators across sectors and use cases.

OPTIMIZED COUNTER-DRONE CAPABILITIES WITH SHIELD & ENFORCEAIR

The Liteye SHIELD next-generation C-UAS system constructs highly reliable, machine speed detection, tracking, and identification to ensure both radio frequency (RF) controlled UASs and autonomous "Silent Flight" UASs are detected and defeated. The Liteye SHIELD system's open architecture is capable of both air and ground multi-domain and multi-mission operations.

D-Fend Solutions' EnforceAir is a leading radio frequency (RF) cyber-based takeover solution. The system, in either autonomous or manual mode, detects, locates, and identifies rogue drones in the airspace, and then neutralizes the threat by taking full control over the drone and landing it safely in an operator-defined zone. EnforceAir's surgical cyber takeover and safe landing avoids collateral damage, interference, disruption, and disturbance to normal everyday operations. In addition, it enables authorized drones to operate as usual, without any interference.

To focus on continuous improvement and safer airspace, Liteye and D-Fend have joined forces, seamlessly integrating EnforceAir into the SHIELD system.

SHIELD & ENFORCEAIR INTEGRATION FOR A LAYERED MULTI-TECHNOLOGY DEFENSE

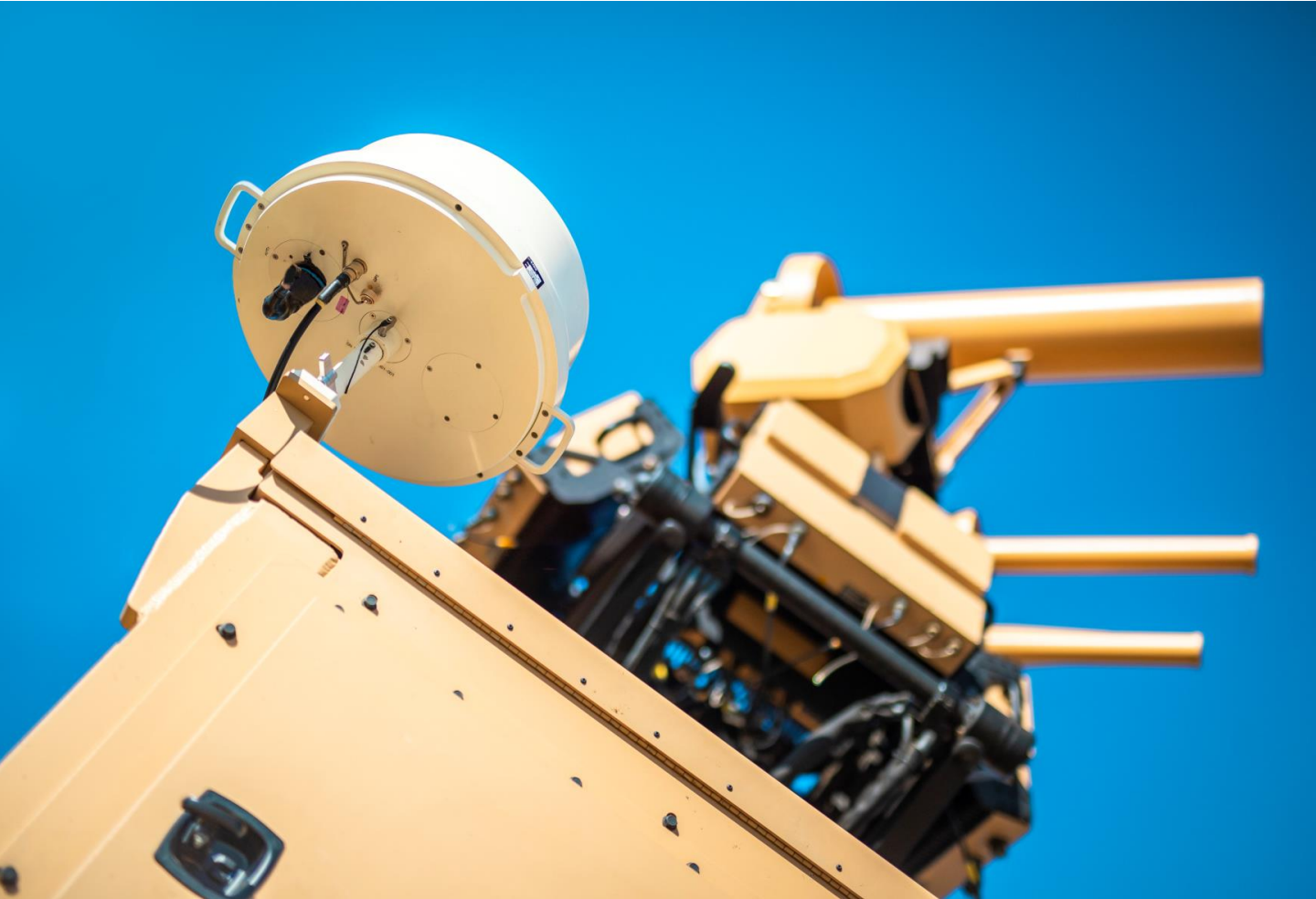
The SHIELD system uses EnforceAir's radio frequency detection in conjunction with its radar detections. Since EnforceAir does not produce false positive detections, its drone detection, correlated by radar, positively identifies target drones. Additionally, EnforceAir provides information about the drone type, protocol, and frequency. This information can help SHIELD operators determine which frequencies to jam if desired.

EnforceAir provides in-real-time grid coordinates: for the drone, for the takeoff location, and for the pilot's ground controller. This information helps the SHIELD operator dispatch a ground intercept team to reach the pilot while simultaneously mitigating the drone threat. The SHIELD operator can employ EnforceAir to take control of the drone, send it to an appropriate safe area or kill box and examine the drone with electro-optical/infrared (EO/IR) cameras or destroy the drone if desired. Integrating the solutions leads to a much higher probability of eliminating the drone threat, and dealing with the pilot while providing a safer outcome for troops, personnel, and infrastructure.



KEY BENEFITS OF THE SHIELD-ENFORCEAIR JOINT SOLUTION

- Combat-proven components, platform-agnostic, reduced labor requirements and increased detection and mitigation range
- Mobile & on-the-move capability to passively monitor and defeat RF-controlled drones, while additionally detecting and defeating “silent flight,” or ground or other threats
- Additional mitigation capabilities for a more controlled, less disruptive defense
- Controlled retraction of full SHIELD detection capability by employing EnforceAir detection if radar use is not possible due to non-clear line-of-sight or strong ground reflections, or when the mission requires only passive/silent operations
- Easy and accurate identification of drone operator location and elimination of rogue drones with real-time location accuracy of airborne threats, takeoff locations, and operator’s hand controller location



With the integration of SHIELD and EnforceAir, Liteye Systems and D-Fend Solutions offer an enhanced multilayered system of systems solution to address today’s complex drone threats. Multiple detection options provide an in-depth defense mechanism, that can be selected according to situation and security considerations. A layered, less disruptive, more advanced technological approach reduces the chance for collateral damage. EnforceAir has been successfully integrated, tested, and validated with the SHIELD system.

For more information, please visit: <https://liteye.com/> and www.d-fendsolutions.com
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