UAV Swarm Defense using EchoShield Radar and AGIS C5ISR System

UAV SWARMS operating jointly to attack targets present a complex and time critical issue to defend against. AGIS has started to address this issue. Specifically, we have integrated our SWARM display system to process data from a radar expressly designed to rapidly track large numbers of UAVs in a SWARM.

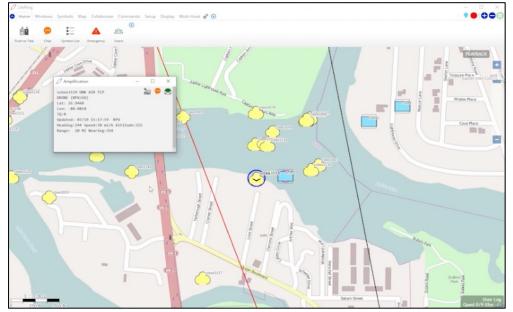
Echodyne's EchoShield radar system is designed to track UAV SWARMS. It processes 100s of returns with an extremely fast revisit rate distinguishing between different types of radar returns including birds, vehicles, aircraft, and UAVs. By analyzing various characteristics of the radar returns, such as size, shape, and movement patterns, the EchoShield radar automatically classifies the objects and sends this data to the AGIS PC SWARM Display and Processing System. See below.



C.O.P. NEWS

COMMON OPERATIONAL PICTURE

EchoShield Radar



AGIS' UAV SWARM Display and Processing System

The AGIS PC SWARM Display and Processing System displays the radar data on the COP and automatically transmits the incoming UAV tracks to all on the AGIS radio networked Air Defense Group including other PC SWARM Display and Processing Systems. You can view the AGIS PC SWARM Display and Processing System in operation by clicking on <u>https://www.agisinc.com/videos/EchoDyneDemo.mp4</u>. How AGIS integrates the data from multiple radars can be seen by clicking on <u>https://www.agisinc.com/videos/radar-ntds.mp4</u>. The AGIS PC SWARM Display and Processing System also transmits the UAV data to and receives location and status data from personnel equipped with AGIS' Smartphones that are on the AGIS radio networked Air Defense Group. It is anticipated that some of these personnel will be equipped with anti UAV weapons.

In a "Weapons Free" environment the anti UAV weapons operators can engage the UAVs at will. However in a "Weapons Tight" environment the AGIS PC SWARM Display and Processing System will need to send a command to engage to the handset user who has an anti UAV weapon.

To try our Web client system, go to either <u>www.liferingmilitary.com</u> or <u>www.liferingfirstresponder.com</u>.

To obtain our Thick client apps, go to www.agisinc.com/download. All other inquiries, please contact Cap Beyer at beyerm@agisinc.com or by phone at 561-744-3213.









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