

EM Pulse and Icarus Swarms unveil “Echo Swarm”, a drone swarm capable of creating multiple false echoes on radar systems

A new electromagnetic deception capability combining decoying, radar seduction and saturation — the result of over a year of joint development, tested this summer in the United States as part of Silent Swarm 2026.

1 DRONE	ONE SWARM	2 AREAS OF EXPERTISE
A multitude of representative electromagnetic signatures	dozens of false radar targets	Electromagnetics + robot swarm systems

Bordeaux, 7 October 2026 — At UAV Show 2026, French companies EM Pulse and Icarus Swarms are announcing a new electronic warfare solution enabling a swarm of drones to generate false, mobile and coordinated radar targets.

The result of more than a year of joint research and development, this technology combines two complementary areas of expertise: EM Pulse, a specialist in radar technologies and electromagnetic signatures, and Icarus Swarms, a specialist in robot swarm systems.

The solution combines ORUS, Icarus Swarms’ swarm command and flight control system, with the RCS range developed by EM Pulse. It turns lightweight drones into a distributed electromagnetic deception system capable of building an artificial, evolving radar scene.

Creating the appearance of a force that does not exist

The technology enables a single drone to simultaneously generate several radar signatures representative of all types of aircraft, such as the highly distinctive signature of a helicopter. By coordinating several drones within a single swarm, it becomes possible to make several dozen false helicopters appear on radar systems.

ORUS coordinates the drones’ positions and trajectories, while EM Pulse’s technology generates the associated signatures. Together they can produce a dynamic artificial radar scene: the simulated targets move, fly in formation and can be split into several groups serving different objectives over the course of a single mission.

“A single drone can make up to four helicopters appear on radar. A swarm can therefore simulate several dozen false aerial targets.”

Deception, decoying and radar seduction

This capability falls within the field of electromagnetic deception: deliberately constructing a picture of the air situation that differs from reality in order to disrupt the adversary’s analysis and decision-making.

The system can produce decoy effects by generating credible radar tracks corresponding to targets that are not physically present. It can also be used for radar seduction, with false signatures used to draw the adversary’s attention and assets towards chosen targets and areas, and induce radar systems to track false targets.

The strength of the approach lies in its distributed, reconfigurable nature. The swarm makes it possible to multiply signatures, change their geometry and build up a coherent false tactical picture over time.

A technology tested in the United States at Silent Swarm 2026

The solution developed by EM Pulse and Icarus Swarms reached a major milestone in the summer of 2026 with trials conducted in the United States as part of Silent Swarm 2026, a US military experimentation event dedicated in particular to operations in the electromagnetic spectrum and the integration of technologies onto autonomous systems.

These trials exposed the technology to a representative electronic warfare environment and validated the system's performance against a range of surface-to-air defence systems.

The solution has also been tested against operational French and foreign systems during military exercises.

Combining French expertise

EM Pulse contributes its expertise in radar technologies and electromagnetic signature control. Icarus Swarms contributes ORUS, its command and control technology for autonomous robot swarms.

Combining the two approaches makes it possible to treat each drone as a mobile element of a distributed, controlled electromagnetic system. Operational capability no longer rests on a single platform: it emerges from the coordination of the swarm as a whole.

The solution is being presented at UAV Show 2026, held in Bordeaux on 7 and 8 October, ahead of the Demo Day on 9 October in Mérignac.

Quotes

“Electronic warfare has traditionally been fought in the signal domain. With swarms, we add a further dimension: space. We can move and orchestrate a large number of signatures to build, on the radar screen, a tactical situation that does not exist in reality.”

Christophe Hanrion, Director, Icarus Swarms

“Modern tactical superiority rests on mastering coherence in space and time. By combining the synchronisation of a drone swarm with the on-demand generation of false radar signatures, we are not merely saturating the adversary: we are dictating their perception of the battlefield.”

Pierre Massaloux, CEO, EM Pulse

About EM Pulse

EM Pulse is a French engineering company specialising in electromagnetic signature control, providing practical solutions to characterise, analyse, optimise and monitor the radar cross-section (RCS) of a wide range of systems. Its expertise enables it to develop deception systems capable of modifying a platform's electromagnetic footprint on demand.

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About Icarus Swarms

Icarus Swarms develops ORUS, a command and control platform enabling swarms of aerial, ground and naval robots to operate in a coordinated manner. The company develops collaborative robotics solutions intended in particular for defence and security missions.

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