

The following pages are taken directly from the new **Unmanned Airspace 2025 Global Counter-UAS Systems Directory**. They are excerpts from the 550-plus page company entries, individual entries from the “Detector”, “Directed energy” and “Integrated systems” sections. In all, there eleven sections of products:

- Capture (net) systems
- C-UAS uncrewed ground vehicles
- Detector systems
- Directed energy
- Electronic counter measures (ECM)
- Guns
- Integrated systems
- Intercept drones
- Missiles
- Munition
- Others, including software

<b>Indra</b>	<b>CROW</b>  <b>Lanza</b>	Detector	The CROW system comprises high-precision radar which detects intrusion, and its optoelectronic systems made visual contact to confirm the threat. At the same time, the system’s electronic defence antennas scan the radio spectrum to determine what type of link these devices were using. All this information fed Indra’s advanced algorithm solution to select most effective countermeasure based on extensive drone data libraries. The Lanza system can detect fifth-generation aircraft, ballistic missiles and drones and is particularly suited to detecting targets in rainy areas such as Thailand. It uses dedicated algorithms to counter attempts to interfere with its functioning and can mitigate the effects of wind turbines and solar plants, which cause reflections that can also affect detection.	Spain	www.indracompany.com
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			<p><b>Partnerships</b></p> <p>In June 2024 Indra, Escribano Mechanical and Engineering and Grupo TRC signed a collaboration agreement to form a C-UAS joint venture. The companies bring combined military C-UAS experience, including Indra's CROW system and Escribano and TRC's involvement with the Spanish Army's Cervus project. Indra and Escribano are also participants in the European projects Jey-CUAS and E-CUAS. In addition, Indra and Escribano have previously formalised a joint venture for the development of a directed energy laser weapon system to counter drones (DIAL program). Together the three companies will work to develop C-UAS technology that can be adapted for deployment and integration into land and naval platforms or for the protection of critical infrastructure.</p> <p>In November 2022 Indra Sistemas integrated Digital Global Systems' (DGS) RF detection capability into its CROW counter-UAS platform. With DGS RF detection, CROW adapts to the specific needs of the environment being protected; integrates and combines use of different sensors and countermeasures; with the possibility of redundant use of sensors in terms of both number and location, says the company press release.</p>		
<b>Intersoft</b>	<b>ASR</b>	Detector	<p>At the 2024 Farnborough Air Show Intersoft Electronics Inc and TSS Solutions reported they would combine forces to develop and deliver Air Surveillance Radar (ASR) Service Life Extension Programmes (SLEP), as well as counter-crewed aerial systems technologies to the United States military. The scalable radar systems covered by the new agreement integrate Intersoft's ASR-M®, a modular approach to airport surveillance radar that embeds advanced technologies to enhance radar performance. The core of ASR-M a signal processor which features patented technologies that have been developed to address current and emerging challenges, such as wind farm mitigation, anomalous propagation, and 5G interference.</p>	USA	<a href="https://intersoft-electronics.com/">https://intersoft-electronics.com/</a>

<b>Involi</b>	<b>Involi.live</b>	Detector	<p>involi.live collects real time LAATD (Low Altitude Air Traffic Data) from ADS-B (Automatic Dependent Surveillance &amp; Broadcast) and aircraft transponders, processes it and transmits it to the UTM system so anyone flying and connected to the system can have that information on-board in real time. The solution is to scale-down and adapt the concept of the control tower to the use case of drones, by creating unmanned micro control towers to detect the position of aircraft. This has the advantage of enabling integration of all latest technologies in such devices, while taking out from the loop the weakest element of the equation: the human. The data gathered from a network of micro control towers will be made available in real-time on a platform. In this way, the information on surrounding air traffic could be used by any air traffic connected to it, to automatically and efficiently.</p>	Switzerland	<a href="http://www.involi.com/how-it-works.html">http://www.involi.com/how-it-works.html</a>
<b>Kara Dag</b>	<b>Obriy</b> <b>Stribog</b>	Detector	<p>The company manufactures dual use drone detectors for civilian use which have also been deployed on the battlefields in Ukraine. Systems can be supplied to protect infrastructure, and the company also provides drone detection as a service for municipalities and police forces. The range includes the Obriy 1.3 drone detector, a wearable device that is designed to detect the approach and direction of DJI-type and FPV drones from 2.5 to 4 km away. It continuously scans 1.2GHz, 2.4GHz, and 5.8GHz bands to identify the presence of drone signals while filtering out interference using a proprietary software algorithm. Kara Dag says the device has undergone successful field testing, is mass-produced, and receives regular software updates. Features include a direction-finding mode, close detection mode and a battery life of up to eight hours.</p> <p>The company is also developing the Obriy 2.0 drone detector. It is designed to detect UAS and interference sources by their radio frequency signatures using a proprietary AI model, trained on Kara Dag's database of drone signatures. The networked detectors can share information with each other using ultra-low-power transmitters. They also include basic drone protection systems based on pre-recorded proprietary signals. In addition, a stationary version, Obriy S, was also under development at the start of 2025. Adapted for installation on buildings, vehicles, or masts, networks of Obriy S could be used to defend critical infrastructure, including airports, factories, and power plants from rogue drones, as well as monitoring compliance with UAS regulations.</p>	Ukraine	<a href="https://karadagtech.com/en/home/">https://karadagtech.com/en/home/</a>

			The Stribog is the company's third device. Kara Dag describes it as an "ultra-light autonomous (under 0.5 kg) signal intelligence system that can be installed on an FPV drone to guide it toward signal sources" such as those operating drones carelessly or with malintent.		
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<b>Epirus</b>	<b>IFPC-HPM GEN II</b> <b>Leonardas H2O</b> <b>ExDECS</b>	Directed energy	<p>Epirus combines solid-state, long-pulse high-power microwave systems with AI and advanced electronics. The software-defined, long-pulse HPM systems, either fixed or semi-fixed, can integrate with other sensors and weapons platforms to provide layered short-range air defence for counter-drone and drone swarm protection. The scalable nature of the company's software-defined, long-pulse HPM systems allow for electronic warfare capabilities on the go - whether placed on unmanned surface vessels for vessel stoppage or hitched to vehicles for convoy security against drone swarms. Epirus provides testing and validation for range, capability, and limitations of electronic effects on long-range targets, and develops long-pulse HPM capabilities to defend high-value assets.</p> <p>Epirus introduced the Leonidas H2O, a high-energy, high-power microwave (HPM) system designed to counter uncrewed aerial systems, boat motors and unmanned surface vessels in April 2025. The system is built using the scalable Leonidas energy-based, HPM technology platform.</p> <p>Leonidas Expeditionary, or ExDECS, is a modular and scalable system designed to fit on a Joint Light Tactical Vehicle trailer and assist Low Altitude Air Defence in expeditionary operations. It is designed to be compact and manoeuvrable. Epirus developed ExDECS, a solid-state, software-defined, long-pulse HPM system to support US Marine Corps Expeditionary Advanced Base Operations and counter-unmanned systems missions. The programme's future will involve initial integration with the US Marine Corps' Common Aviation Command and Control System (CAC2S), along with field experimentation and multi-platform testing in expeditionary scenarios to enhance USMC's Ground Based Air Defense Capabilities.</p>	USA	<a href="https://www.epirusinc.com/">https://www.epirusinc.com/</a>
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			US Navy's Office of Naval Research (ONR).The high-powered microwave (HPM) system, with the programme name Expeditionary Directed Energy Counter-Swarm, or ExDECS, is being developed by ONR, Marine Corps Warfighting Lab and the Joint Counter-small Unmanned Aircraft Systems Office.		
<b>General Atomics</b>	<b>DGHELWS</b>	Directed energy	<p>In April 2025 General Atomics reported it was working on a joint programme within the US Department of Defense looking to deliver airborne laser weapons to the MQ-9 fleet currently fielded in the US Air Force and US Marine Corps. This is a new air-to-air laser weapon to the MQ-9 family; part of a joint programme that is looking to deliver an airborne laser to provide a persistent C-UAS presence to the battlespace.</p> <p><b>Partnerships</b> In late 2021, General Atomics Electromagnetic Systems (GA-EMS) and Boeing team was awarded a U.S. Army Rapid Capabilities and Critical Technologies Office (RCCTO) contract to develop a 300kW-class solid state Distributed Gain High Energy Laser Weapon System. Delivery will be a 300 kW-class distributed gain laser with an integrated Boeing beam director. The objective of this contract is a demonstration of the design.</p> <p>"The high power, compact laser weapon subsystem prototype that GA-EMS will deliver under this contract will produce a lethal output greater than anything fielded to date," said Scott Forney, president of GA-EMS. "This technology represents a leap-ahead capability for air and missile defense that is necessary to support the Army's modernization efforts and defeat next-generation threats in a multi-domain battlespace." The system will leverage GA-EMS' scalable Distributed Gain Laser technology with Boeing's beam director and precision acquisition, tracking and pointing software to provide a complete demonstrator with sophisticated laser and beam control.</p>	USA	<a href="http://www.ga.com/general-atomics-acoustic-detection-system-successfully-performs-at-us-army-event">http://www.ga.com/general-atomics-acoustic-detection-system-successfully-performs-at-us-army-event</a>

<b>ELTA</b>  (See also IAI/ELTA and	<b>MADS-K</b>  <b>OTM-4</b>	Detector, ECM	The MADS-K (Modular Anti-Drone System Kit) is a modular, low-cost, lightweight, simultaneous ground target and UAS detection and mitigation system from EKLTA North America. MADS-K provides the operator a stand-alone mission-scalable C-UAS capability. The MADS-K baseline system's	Israel/USA	<a href="http://www.iai.co.il/17887-en/Groups_ELTA.aspx">http://www.iai.co.il/17887-en/Groups_ELTA.aspx</a>
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<p><b>ELTA North America)</b></p>	<p><b>DroneGuard</b> <b>DroneGuard</b> <b>ComJam</b></p>		<p>modular design incorporates a radar, EO/IR camera, and jammer operating in 360° of azimuth and positive target identification at tactically significant ranges. MADS-K detects, positively identifies, tracks, and when desired jams UAS group 1 and 2 targets.</p> <p>The On-The-Move V4 (OTM V4) is a modular and scalable C-UAS solution for early warning, detection, disruption, and alert at convoy speeds. The OTM V4 system implements a multi-sensor, multi-layer architecture that protects against various types of rotary and fixed wing UAS. The fielded system provides 360° coverage and is equipped with four phase array radar panels that transmit simultaneously with high time-on-target (TOT) and energy. The integrated EO/IR camera receives target cues from the radar to visually identify the threat, allowing the operator to mitigate using the RF jammer or drone take-over system.</p> <p>ELTA Systems in November 2018 unveiled a new and enhanced configuration of its Drone Guard system which detects, identifies and disrupts the operation of UAS and small drones. The new modular configuration has added a Communication Intelligence (COMINT) system for more precise detection, classification and identification based on broadcast frequency and unique communication protocol analysis and verification for neutralizing threats, says the company. Furthermore, the Drone Guard’s 3D Radars, Electro-Optical (EO), and Jammer systems have all been upgraded with bolstered capabilities. The enhanced COMINT system “can effectively jam or disrupt the drone’s control channel and navigation, by supporting an array of communication protocols that can ‘fend off’ a single drone or even a swarm of drones from the guarded premises,” says ELTA.</p> <p>IAI’s ELTA Division developed DroneGuard ComJam to locate and disrupt UAS communications and navigation capabilities, whether they are operating independently or in groups (swarms), without impacting civilian communications and GPS in the same area. The system detects hostile UAS, identifies their mode of operation, and disrupts their communications and navigation so that they are essentially shut down. DroneGuard ComJam offers the advantage of long-range operation, whereby the UAS is disabled while it is still far away – long before it poses a threat to the protected site.</p>		
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