

Defense and Air Space

This is the Spanish Air Force's new portable, anti-drone system that fits in a backpack

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EnforceAir2 can detect hostile drones via radio frequency and take control without having to shoot them down.



The new Spanish Air Force anti-drone system

D-Fend Solutions • Omicrono

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Unmanned aerial vehicles are a double-edged sword in terms of security. On the one hand, in Spain models are being developed such as [Sirtap, the first Spanish military drone](#), designed to fly in the harshest conditions and to monitor and spy for 20 hours non-stop. On the other hand, **drones also pose a challenge when defending airport airspace**, mass events or [international summits like the one in Granada](#), in which NATO members participated.

To counter these threats, there have been [homemade solutions like those seen in the early stages of the Russian invasion of Ukraine](#) to high-tech platforms such as [Zadira, the laser cannon that Russia uses to burn drones in a few seconds](#). Among the most effective solutions is the new EnforceAir2, manufactured by D-Fend Solutions and **used, for example, by security services to protect Pope Francis I** on international visits.

Now, the company *Target Tecnología*, in charge of marketing this powerful radio frequency-based system in our country, has just announced the signing of a contract with the Spanish Air and Space Force. This improved version of the platform, which earlier received the Intersec Homeland Security/Service of the Year award, does not base its effectiveness on destroying or disabling hostile drones, but on **taking control and landing them, which prevents the possibility of collateral damage**.

Anti-drone system

Anti-drone defense systems are typically large-scale solutions, but they tend to be very heavy equipment, such as [the Epirus Leonidas](#), which uses **radiation pulses in the microwave spectrum** to electronically disable the drones, rendering them useless and unusable. These systems can also focus on a single target in an area crowded with other aircraft, whether manned or unmanned.

Both [anti-drone guns](#) as well as some kinetic or jamming systems, they can be dangerous methods when used in sensitive environments since, in addition to knocking down the hostile element, they **can interfere with nearby communications** or affect the carrying out of the daily operations of a city's transportation or commerce.



EnforceAir2 installed in a vehicle

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However, the operation and features of EnforceAir2 are completely different. To begin with, its architecture is much more versatile, to the point that it **can be carried in a backpack for stealth missions**. The stationary version or the long-range directional version can be installed on the roof of buildings or in open spaces, but there is also the possibility of using it in vehicles, which adds an important mobility factor.

EnforceAir2 is "the only anti-drone system in the world capable of taking control of a threatening drone, disconnecting it from its pilot and landing it without collateral damage." Its detection system, which **can operate in both autonomous and manual mode and reaches 4.5 km**, serves to locate and identify possible hostile drones present in the airspace. This allows the threat to be neutralized and brought down safely to its take-off location or to a predefined area.



The different versions of EnforceAir2

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This latest version of EnforceAir incorporates improvements. First, there is an important **increase in both the detection capacity for hostile drones in more varied environments, as well as its power** to disconnect them from their pilot. But what really differentiates it from its predecessor is its small size, which even allows it to be carried in a backpack to perform tactical operations.

"In a world where **UAS threats are increasingly multiplying and becoming more sophisticated**, it is necessary to advance at the same pace in defense and security solutions that allow us to face these threats," says Luis Rolandi, deputy director of *Target Tecnología* in a press release.

[*\[This is the Malaga drone that launches missiles with great precision at 4 km and is already being tested by the Air Force\]*](#)

"In this context, EnforceAir2 is positioned as the most sophisticated anti-drone system on the market, capable of detecting, mitigating, and controlling the threat of hostile drones without affecting other 'benign' UASs with which they share airspace." Rolandi also highlights its

“**flexibility, portability, and power**”, which provide a unique versatility on this type of platform.

Airports without drones

The first version of EnforceAir **already operates in many forward operating bases, borders, ports, and international airports**, an ambitious deployment presence that D-Fend Solutions hopes to increase significantly with the second iteration of the system, now acquired by the Spanish Air Force. Further details of the contract are currently unknown, such as the number of units and their cost.

When operating, the system scans and **passively and continuously detects unique communication signals used by commercial drones** in a wide radius. Once a signal is detected, the system can distinguish whether it is an authorized drone or not.



Leonidas anti-drone systems

Epirus

Next, it locates and tracks the drone, in addition to determining the position of the remote pilot and the take-off location. The platform also provides accurate **real-time location tracking**.

During the mitigation process, **EnforceAir takes control of the unauthorized drone**. Thus, the pilot of the hostile aircraft loses all control, including video and telemetry information, and cannot regain it.

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