

BASTION TECH

BTEW-System X007

C-UAS

Drone Shield for Positions and Facilities

+ LISTENS IN SILENCE. ACTS ON ITS OWN.

DETECT

IDENTIFY

DEFEAT

+ IN SERVICE AND COMBAT PROVEN

Overview

A drone controlled from far away cannot be stopped by finding its operator: the operator is simply not nearby. So the action has to be taken against the drone itself. BTEW-System X007 C-UAS finds the drone, identifies it and cuts its control link.

BTEW-System X007 C-UAS by Bastion Tech is a counter-unmanned aircraft system. It combines two elements: the AI-ESM sensor, which detects and identifies drones, and a directional effector, which defeats them.

+ DECISION IN 1 SECOND

The sensor listens to the air at all times and detects drones at not less than 2,000 m. A neural network identifies the type of signal, including digital OFDM links. The system sees FPV drones, Autel drones and all types of Mavic, including modified encrypted Mavics on non-standard frequencies.

Suppression acts on the drone's control link at up to 2 km. A directional antenna with a 40° beam holds the protected sector. All suppression channels switch on at once, because a hostile drone can change its control frequency.

A separate threat is sleeper drones. They are placed near a facility in advance and lie in the grass for weeks, waiting for a command. They are controlled from hundreds of kilometres away, including over 3G, 4G/LTE and 5G networks, so the operator cannot be found on site. X007 acts directly on the drone as soon as it goes on air.

We can do practically any task: we study the facility, choose the zones to protect, set the goal and carry it out.

HOSTILE DRONE GOES ON AIR

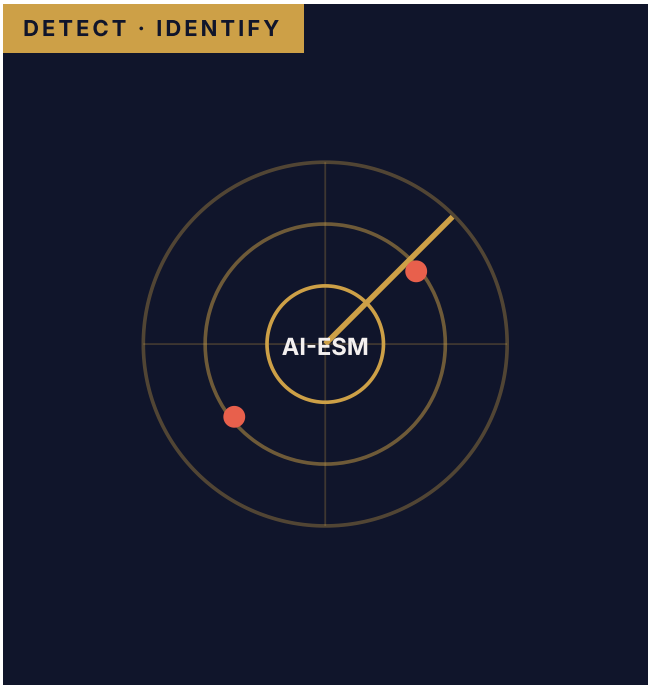
> **DETECTED BY THE AI-ESM SENSOR**
- Not less than 2,000 m

> **IDENTIFIED**
- Neural network: drone and signal type, including OFDM

> **DECISION**
- Automatic, or the operator presses “OK” on the console

> **CONTROL LINK SUPPRESSED**
- Up to 2 km, 40° beam, all channels at once
- The drone loses control

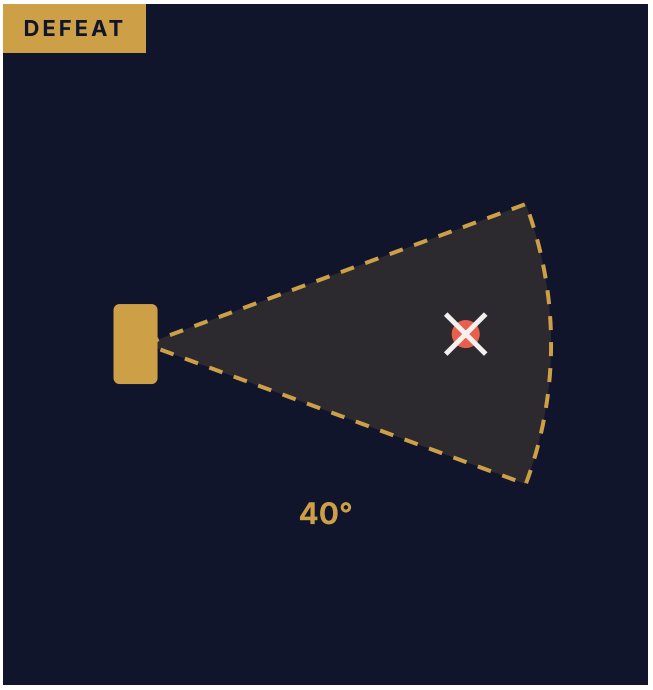
> FROM DETECTION TO SUPPRESSION - 1 SECOND



AI-ESM Sensor

The sensor is passive: it only receives and does not give itself away. It detects drones at not less than 2,000 m.

A convolutional neural network identifies the signal type and the drone type, including digital OFDM links and encrypted links on non-standard frequencies.



Directional Suppression

The effector acts on the drone's control link at up to 2 km. The 40° horizontal antenna beam points at the protected sector.

All suppression channels switch on at once: the drone cannot escape to another frequency.



WHERE THE INFORMATION GOES

All information comes together on the screen of the operator console: the sensor sends the picture to the console and switches on the EW. The decision takes 1 second. The customer chooses the operating mode.

- Automatic mode: the EW switches on by itself when a drone is detected
- Operator mode: the operator confirms suppression on the console with the “OK” button
- A pocket detector duplicates the post and alerts guards and staff on site
- The system can take target cues from radars, including radars already installed at the facility

Where It Is Used

X007 protects what cannot be moved away or hidden: positions, facilities and airports.



Military positions

At a field position X007 stands on its tripod next to vehicles and personnel. The sensor listens to the air around the position, and the effector disables FPV and reconnaissance drones that approach it. The post stays silent until a drone goes on air.



Critical infrastructure

Oil refineries, fuel depots, energy sites, communication nodes and data centres. For such facilities, suppression of the control link is practically harmless: the drone loses control on approach, and the facility does not suffer from missile debris or warheads.

Where It Is Used



Airports and airfields

Posts stand along the perimeter, with the antennas pointed away from the runway, the glide path and the approach and departure corridors. The airport's own emitters are entered into the classifier as “own”. X007 finds drones controlled over 3G, 4G/LTE and 5G networks and sleeper drones left near the airfield.

How We Set Up Protection

Every facility is different, so the work starts with a study of the facility.

01

Study the facility

Area, approaches, own electronics

02

Choose zones

What to protect and from which directions

03

Set the goal

Operating mode and tasks of the posts

04

Carry it out

Placement, tuning, putting into service

Deployment and Power

BTEW-System X007 C-UAS is a fixed post that is quickly set up at a new place.

Tripod tower

The head unit is raised on a tripod and pointed at the protected sector.

Transport

The post is transported on a car trailer.

220 V mains

At facilities with mains power the post is connected to 220 V through an electrical panel.

Batteries

Where there is no mains power, the post runs on batteries.

≥2,000 m	2 km	40°	1 s
Drone detection	Control link suppression	Directional antenna beam	System reaction

Targets

- FPV drones
- Autel drones and all types of Mavic, including modified encrypted Mavics on non-standard frequencies
- Sleeper drones placed near the facility in advance
- Drones controlled over 3G, 4G/LTE and 5G networks

BTEW-System X007 C-UAS

Listens in silence. Acts on its own.

Contact Details

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