We protect the airspace

FIELD ctrl SKY ctrl

APS advanced protection systems


APS
advanced protection systems


APS


APS


APS
advanced protection systems

SKY ctrl

COMPREHENSIVE
ANTI-DRONE SYSTEM

FIELD ctrl

ULTRAPRECISE
3D MIMO RADARS

SKY ctrl

FIELD-PROVEN MILITARY-GRADE TECHNOLOGY

Comprehensive anti-drone system

We design and build a top-class comprehensive system for detection, tracking and neutralization of small aerial vehicles.

Instrumented range:	7 – 50 km
Minimum detection range:	1 m
Maximum detection range:	2 – 10 km
Range accuracy:	10 – 1 m
Range resolution:	6 – 3 m
Minimum target altitude:	1 m
Maximum target altitude:	7 – 50 km
Azimuth/elevation:	90˚- 20˚/60˚- 10˚
Frequency X-Band:	X-Band
Technologies:	AESA/MIMO
Tx output power (peak):	8 W – 24 W
WiFi detection:	2.4 GHz i 5 GHz

The system is available in stationary, portable and mobile versions.

- Modular and fully-configurable radar sensor,
- 3D MIMO radar technology for improved performance,
- Radar tracking based on MHT (multi-hypothesis tracking) algorithm,
- Acoustic sensor with the direction-finding capability,
- RF sensor with the whitelisting capability,
- Fully-integrated and automated proprietary jammer for drone neutralization,
- Dedicated web-based C2 (command and control) application for monitoring, configuration and controlling the system.

Precise detection

3D MIMO radars, visual, acoustic and Wi-Fi sensors, Prediction Tool and CyView C2 software

Accurate tracking

multiple targets at once, differentiation between birds and drones, reporting of the object exact 3D position in real-time

Instant classification

artificial intelligence, machine and deep learning, recognition of all flying objects

Effective neutralization

jamming 20 bands: ISM, VHF, UHF, GSM, UMTS, LTE, GNSS, WiFi, VHF, possibility of hard-kill integration

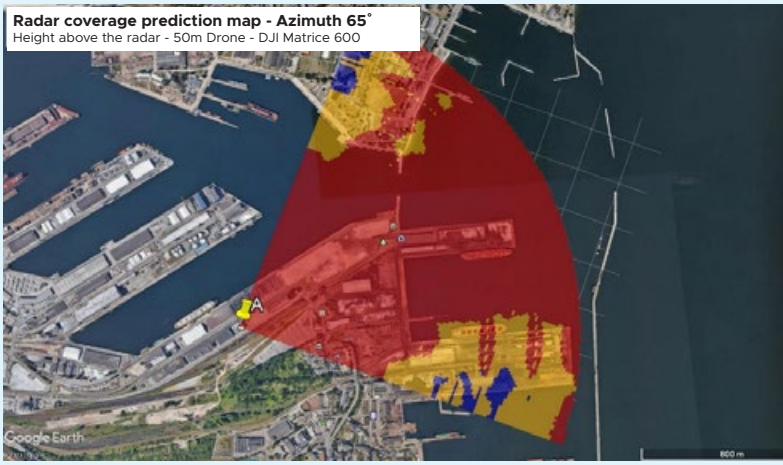
SOFTWARE

We develop software to ensure the most efficient and effective anti-drone system. It is easy to use, fully customizable and reliable in all conditions.

PREDICTION TOOL

Analyses the complexity of the site before our engineers design the final system.

Thanks to the Prediction Tool, we know exactly which SKYctrl system components are needed to guarantee maximum protection.



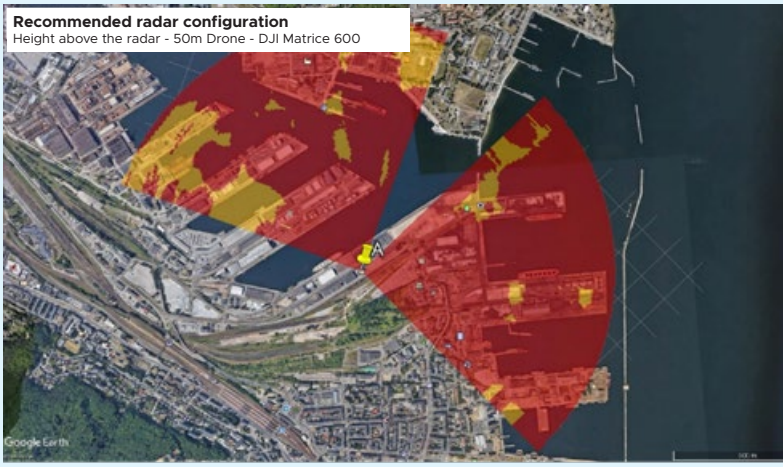
CYVIEW C2

Tracks the direction, course and altitude of all flying objects.

Thanks to our CyView C2 application, we can flawlessly classify every object in the air. When a flock of birds suddenly mixes with a swarm of drones, we will immediately distinguish them and provide a fully-clear view of the airspace.

Advanced neural network algorithms will track selected objects in real-time, register all incidents, and learn on their own how to protect the selected area in the best possible way.

CyView C2 has also a customizable and friendly interface, support for stationary and mobile devices and an open API for integration with external systems.



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SYSTEM COMPONENTS

NEUTRALISATION JAMMERS

20 bands: ISM, VHF, UHF, GSM, UMTS, LTE, GNSS, WiFi, UKF.
Reactive, barrage, sweep and hybrid jamming modes.

RF output power from 10 W to 140 W, depending on band range.

VISUAL SENSORS

Pan–tilt–zoom with manual or autogain control.
Day and night vision.

Variable zoom options.
Up to 360 degrees coverage.

WI-FI SENSORS AND DISCONNECTORS

Range up to 5 km.
Power consumption 60 W.

Frequency 2.4 GHz and 5.8 GHz.
Omni-directional or sectorial angle coverage.

ACOUSTIC SENSORS

Range up to 200 m.
Digital beamforming technology for direction finding.

Robust operation in urban environment.

FIELD ctrl

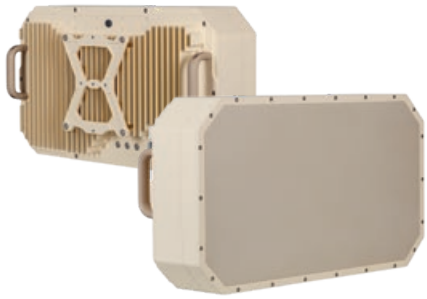
Ultraprecise 3D MIMO radars

We design and build a top-class radars for detecting small flying objects.

ACCESS

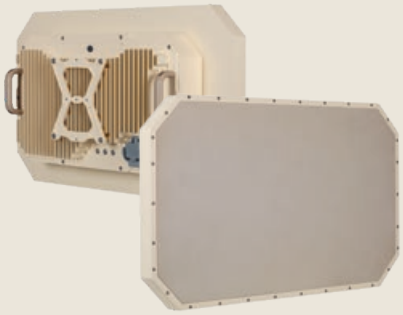
Instrumented range:	7 km
Minimum detection range:	1 m
Maximum detection range:	
Micro UAVs - RCS 0.01 m^2:	2 km
Pedestrian – RCS 0.5 m^2:	3 km
Light vehicle – RCS 2.0 m^2:	5 km
Boat – RCS 5.0 m^2:	7 km
Low-level helicopter – RCS 5.0 m^2:	7 km
Range accuracy / Range resolution:	10m/6m
Minimum / maximum target altitude:	1m/7km
Coverage, azimuth / elevation:	90˚/45˚
Frequency:	X-Band
Technologies:	AESA/MIMO

ADVANCE



Instrumented range:	30 km
Minimum detection range:	1 m
Maximum detection range:	
Micro UAVs - RCS 0.01 m^2:	3 km
Pedestrian – RCS 0.5 m^2:	5 km
Light vehicle – RCS 2.0 m^2:	8 km
Boat – RCS 5.0 m^2:	10 km
Low-level helicopter – RCS 5.0 m^2:	10 km
Range accuracy / Range resolution:	3m/6m
Minimum / maximum target altitude:	1m/30km
Coverage, azimuth / elevation:	90˚/60˚
Frequency:	X-Band
Technologies:	AESA/MIMO

RANGE



Instrumented range:	50 km
Minimum detection range:	1 m
Maximum detection range:	
Micro UAVs - RCS 0.01 m^2:	5 km
Pedestrian – RCS 0.5 m^2:	7 km
Light vehicle – RCS 2.0 m^2:	12 km
Boat – RCS 5.0 m^2:	15 km
Low-level helicopter – RCS 5.0 m^2:	15 km
Range accuracy / Range resolution:	3m/10m
Minimum / maximum target altitude:	1m/50km
Coverage, azimuth / elevation:	90˚/30˚
Frequency:	X-Band
Technologies:	AESA/MIMO

FOLLOW

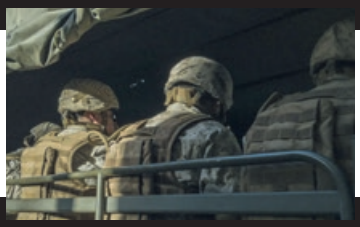
Instrumented range:	50 km
Minimum detection range:	1 m
Maximum detection range:	
Micro UAVs - RCS 0.01 m^2:	10 km
Pedestrian – RCS 0.5 m^2:	15 km
Light vehicle – RCS 2.0 m^2:	25 km
Boat – RCS 5.0 m^2:	30 km
Low-level helicopter – RCS 5.0 m^2:	30 km
Range accuracy / Range resolution:	1m/3m
Minimum / maximum target altitude:	1m/50km
Coverage, azimuth / elevation:	20˚/10˚
Frequency:	X-Band
Technologies:	AESA/MIMO

MARKETS

Airspace security affects the operations of all economic sectors. Thanks to our proprietary solutions, we support the development of states, enterprises, and technological innovations.

CRITICAL INFRASTRUCTURE

We protect the airspace of power plants, refineries and telecommunications networks against the hostile use of drones.



ARMY

We develop key military technologies together with the armed forces of the most powerful countries in the world.

AIR TAXIS

We design technologies for the safe, effective and mass participation of flying objects in air traffic.

AIRPORTS

We protect airports against incidents involving drones and birds.

GOVERNMENT BUILDINGS

We protect the buildings of government institutions against intrusive flying objects.

WIND FARMS

We protect the airspace of wind farms against accidents caused by birds or drones.

PUBLIC EVENTS

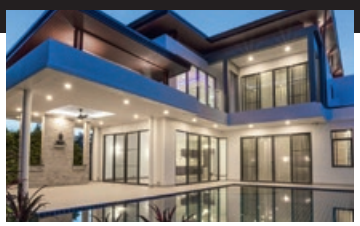
We protect public events, such as: concerts, festivals, marathons, demonstrations and parades.

STADIUMS

We guard the airspace of stadiums that may be the target of attacks by terrorists or provocateurs.

PRISONS

We block the smuggling of weapons, drugs and messages by drones.



VIP

We care about privacy by protecting against drones equipped with cameras or wiretaps.

IMPLEMENTATIONS

We implement our radar technologies in strategically important locations around the world.

We cooperate, among others, with telecommunications corporations from The Gulf Region, a network of airports in Norway, leading Polish chemical industry company Grupa Azoty and one of the biggest ports at the Baltic Sea – the Port of Gdynia.

SAUDI TELECOM COMPANY

We work with the largest Saudi telecommunications company - Saudi Telecom Company. The SKYctrl system protects our partner's airspace from intrusive flying objects.

NATO MILITARY

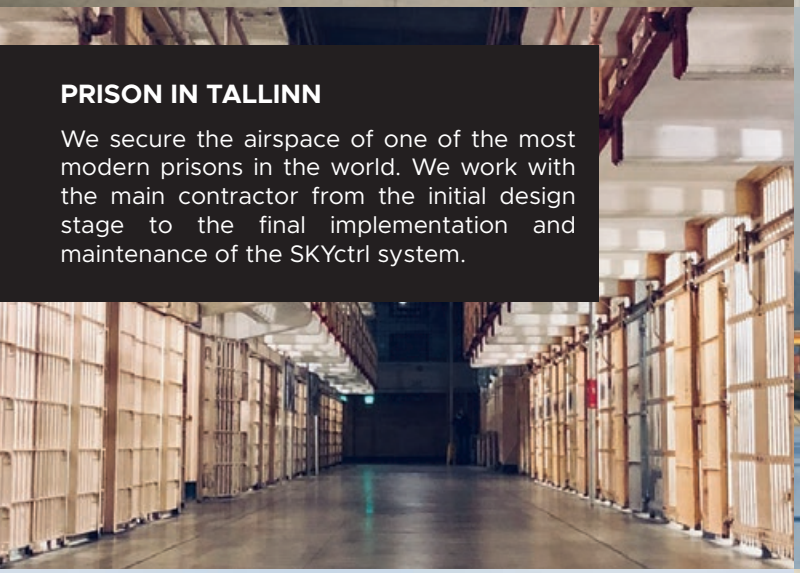
Our FIELDctrl radars and SKYctrl anti-drone systems have been tested and implemented by the authorities of the Republic of Poland and NATO military. We took part in the largest NATO war exercises since the Cold War: DEFENDER - Europe 20.

AVINOR STAVANGER AIRPORT

We protect the Norwegian airport in Stavanger with our SKYctrl system. We are the main supplier of technology that detects, classifies and neutralizes potential threats to air traffic.

PRISON IN TALLINN

We secure the airspace of one of the most modern prisons in the world. We work with the main contractor from the initial design stage to the final implementation and maintenance of the SKYctrl system.



PORT OF GDYNIA

We work with one of the largest seaports in the Baltic Sea region. Our SKYctrl system monitors the airspace of a demanding area full of containers, cranes and ships.

MILITARY INTEGRATION

We integrate with modern air defence systems: VSHORAD and SHORAD. Our FIELDctrl radars perform flawlessly in the most demanding battlefield conditions.

ARMED FORCES FROM THE GULF REGION

We work with military partners from The Gulf Region. Our FIELDctrl radars serve the forces of Saudi Arabia, Qatar and the United Arab Emirates.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