BOURA CYBER
Intelligence Security Solutions

Nexus360
Comprehensive
Counter–Drone Defense

Clear vision. Fast response. Total control.

Dominate the Skies: Nexus360^{0} Counter-Drone Protection

The rise of affordable, capable UAVs has created new risks - weaponized drones, surveillance, collisions, and smuggling - empowered by "attack manuals" that repurpose commercial models. Defending critical assets demands a flexible, all-in-one counter-drone solution.

BouraCyber's Nexus360^{0} is a scalable, end-to-end bundle that adapts to any drone threat. Non-proprietary yet fully customizable, it puts intelligence-driven alerts in your hands and stays future-ready with regular updates. Ruggedized for outdoor, indoor, mobile, or vehicle use - any terrain, any weather - Nexus360^{0} delivers complete protection and seamless operational continuity.

The Threat Landscape
Why Counter-Drone Solutions Are Essential

The commercial drone market has seen explosive growth, making advanced drone technology accessible to a wider audience, including those with malicious intent. This has led to a significant increase in security incidents, ranging from unauthorized surveillance to direct threats. The ease of acquiring and modifying drones means that traditional security measures are often insufficient. Effective counter-drone technology is no longer optional; it is a critical necessity to maintain security and prevent disruptions.

"This is not an emerging threat.
This was emerging five years ago.
This is here. It is now."

Brian Harrell
Assistant Director for Infrastructure Security, CISA

Nexus360 Command & Control (C2) for Counter-Drone Defense

At a Glance

Nexus360° is a command and control (C2) platform built to give operators immediate clarity in the face of airborne threats. The interface is simple, intuitive, and action-driven - surfacing only what matters most. Behind this simplicity lies a powerful orchestration engine that integrates multiple sensor types and mitigation systems into a single, seamless defense network.

Key strengths

Immediate situational awareness - Focused UI highlights live threats and recommended responses.

Automation-first - Reduces human latency with pre-defined rules and automatic actions.

Modular & scalable - Integrates radar, RF, optical, and third-party sensors into one platform.

Multi-layer defense - From early detection to hard-kill mitigation.

Geo-fenced safety - Dual polygon zones for alerts and automatic engagement.

Audit & compliance - Full event logging for accountability and forensics.

Geo-fenced protection zones

Nexus360° allows operators to define layered polygons around the area of interest:

Outer Alert Zone - triggers early warnings and verification processes.

Inner Action Zone - initiates automatic or urgent responses if threats cross into critical areas.

This layered model compensates for slow human reaction times and ensures no critical breach goes unanswered.
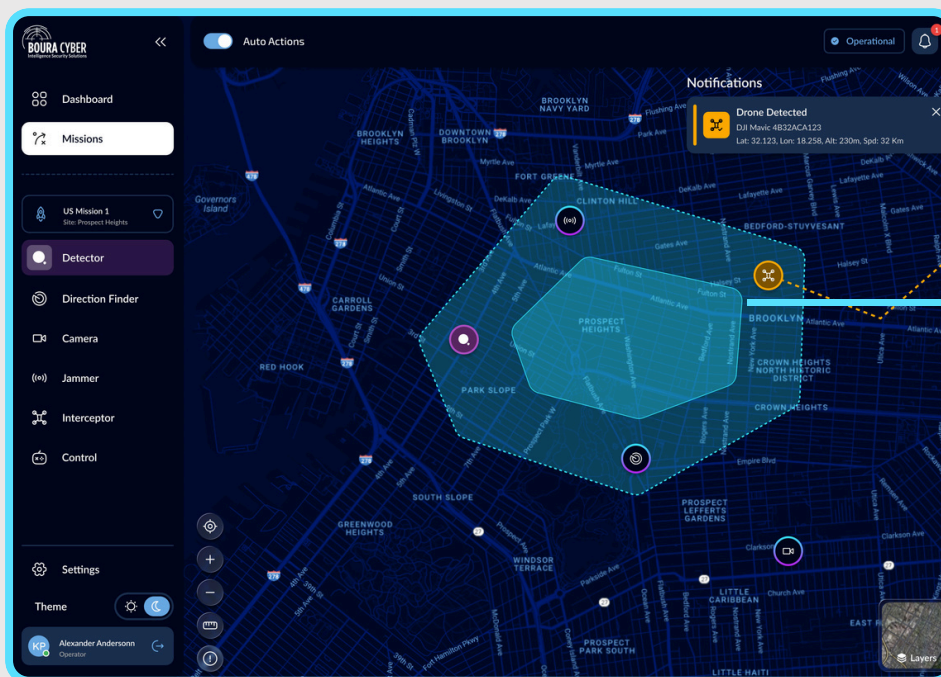

Illustration 1 - UAV in the detection zone. Dash line indicated UAV path - Detecting sensor is automatically operating.

Operator-centric design

✓ **Threat cards** with live data, confidence scores, and video feeds.

✓ **Map-centric interface** with tracks, polygons, and playback.

✓ **Automated playbooks** to standardize detection-to-mitigation workflows.
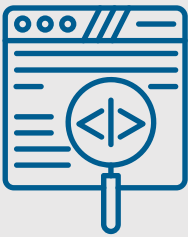
Role-based collaboration between operators, supervisors, and analysts.

Sensor Fusion Made Simple

Nexus360° classifies and manages all connected sensors into three categories:

General Detectors

Radar, RF, acoustic, or ADS-B devices that flag potential airborne activity.

Smart Detectors

Advanced identifying sensors, that provide metadata (make/model, serial ID, and live flight data).

Visual Systems (PTZ & Smart Cameras)

Live video feeds, fixed-direction or auto-tracking, integrated directly into the threat timeline for real-time visual verification.
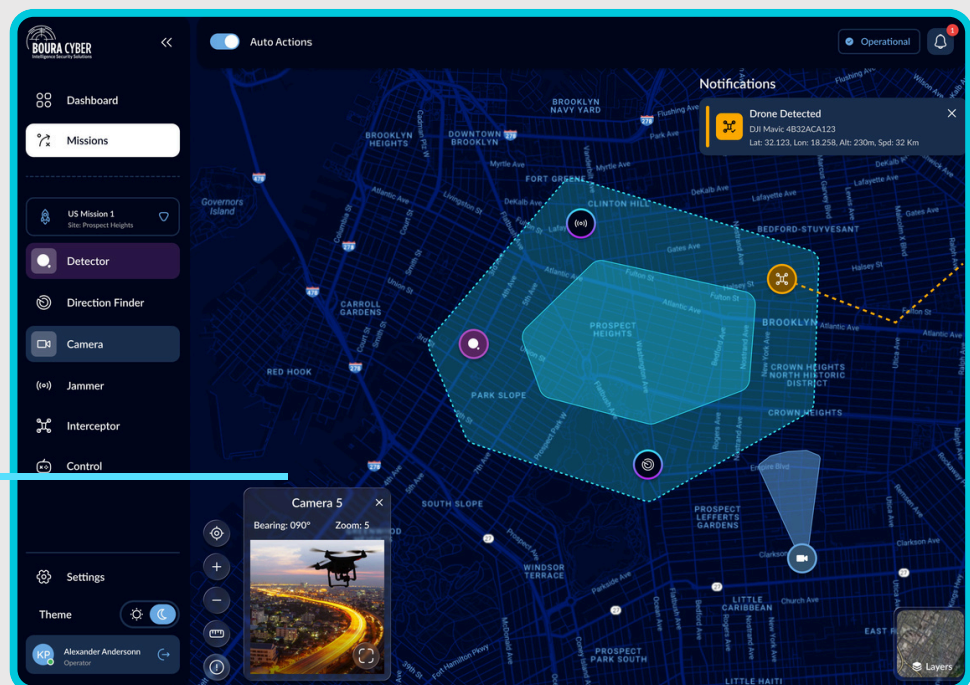

Illustration 2 - with UAV in the detection zone, user operates camera providing a visual.

Flexible Mitigation Options

Operators can apply a wide range of countermeasures - either automatically or manually - with clear safety rules and pre-authorization policies:

- ◎ **Electronic measures:** drone takeover, control-link jamming, GNSS spoofing.
- ◎ **Physical interception:** interceptor drones, net systems, directed projectiles.

Each action is logged, monitored, and bound by safety rules to ensure lawful, effective operations.
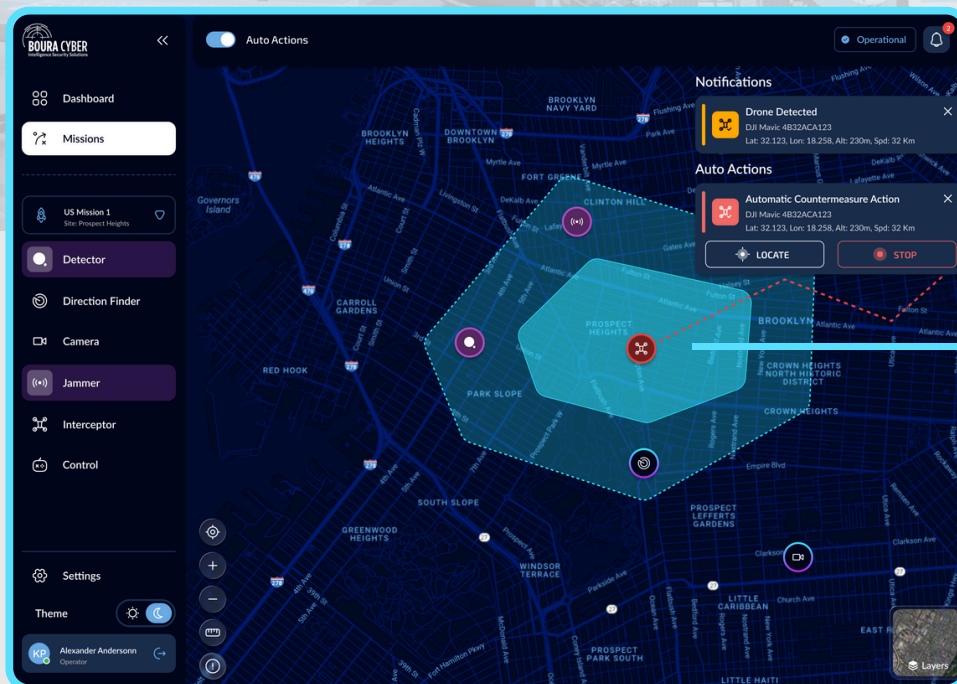

Illustration 3 - UAV has reached the action zone. Sensors and jamming measurements are automatically operating.

Typical applications

🚌 **Airports & transportation hubs**

🗼 **Critical infrastructure (energy, water, telecom)**

🏟 **Stadiums & event venues**

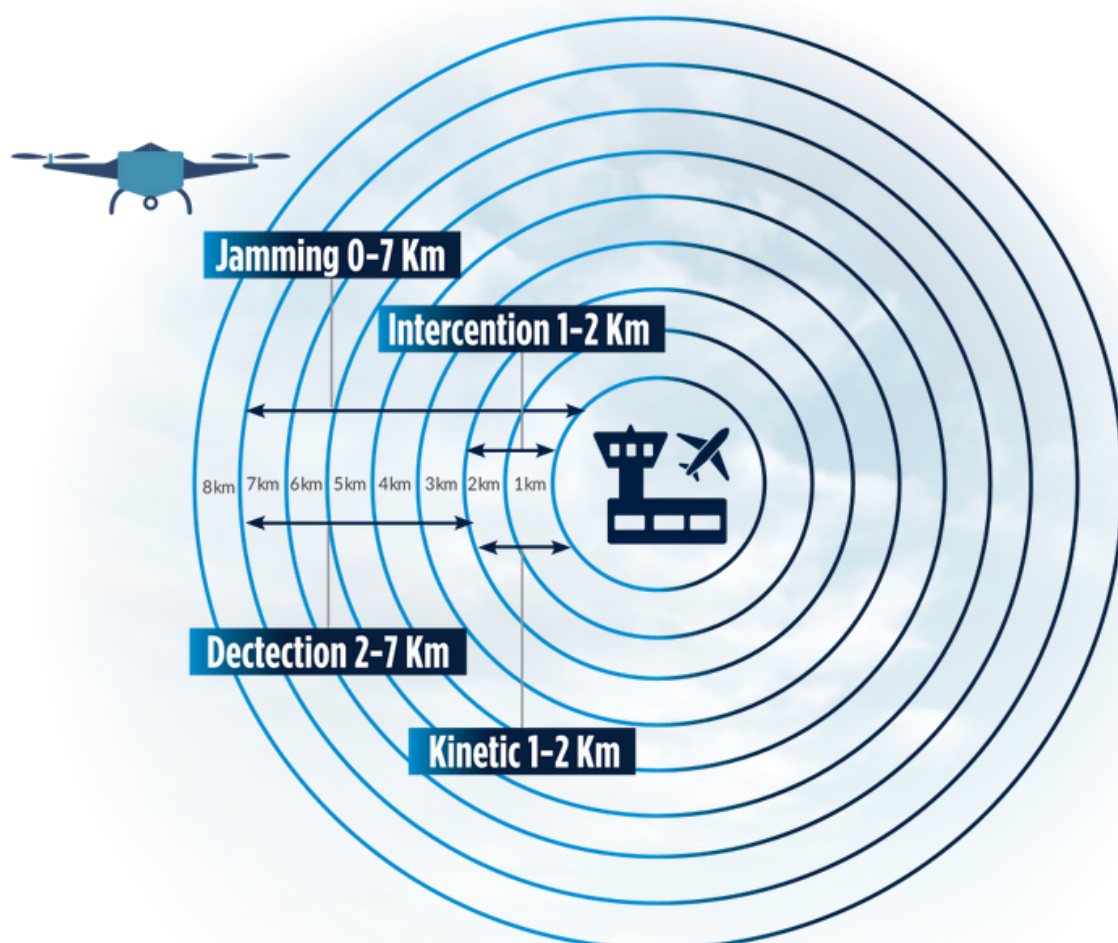🏰 **Military & government sites**

🏭 **Industrial and prison facilities**

Nexus360 End-to-End Solution for Counter-Drone Defense

BouraCyber's Nexus360 solution operates on a proven "Detect, Track, Identify, and Mitigate" framework, ensuring a complete and coherent defense against drone incursions.

This multi-sensor, multi-layer architecture enables security staff to create situational awareness, classify threats, and take appropriate action.

1

UAV Detection:
Seeing Every Threat

Nexus360 employs a sophisticated array of sensors for comprehensive drone detection, offering 24/7 autonomous monitoring and alerting, even during nighttime and beyond visual line of sight.

RF (Radio Frequency) Detection

This layer uses advanced **wireless sensors** and **wideband direction finding** to passively detect drone signals across **400 MHz–6 GHz**. RF systems deliver **360° coverage**, spotting drones over 1 km away and tracking up to 32 at once. The **passive, invisible design** ensures **reliable**, eco-friendly performance, while BouraCyber provides complete RF solutions - antennas, components, and testing tools for optimal deployment.

Electro-Optical Sensors

These sensors provide visual confirmation and enhanced tracking capabilities, integrating with other detection methods to provide accurate drone location and situational awareness.

Radar

For detecting "dark drones" that emit no RF signals, Nexus360° employs **pulse-Doppler 3D radar** operating in the X-band (9–10.2 GHz). These systems detect **low-altitude aircraft** like a **DJI Phantom 4** at 10 km+, with 360° coverage and 0–30° pitch. The radar tracks 200+ targets simultaneously and detects speeds as low as 1 m/s.

Integrated Command and Control (C2) Application

All detection data is fed into an easy-to-operate, integrated C2 application, enabling security staff to manage the entire process efficiently.
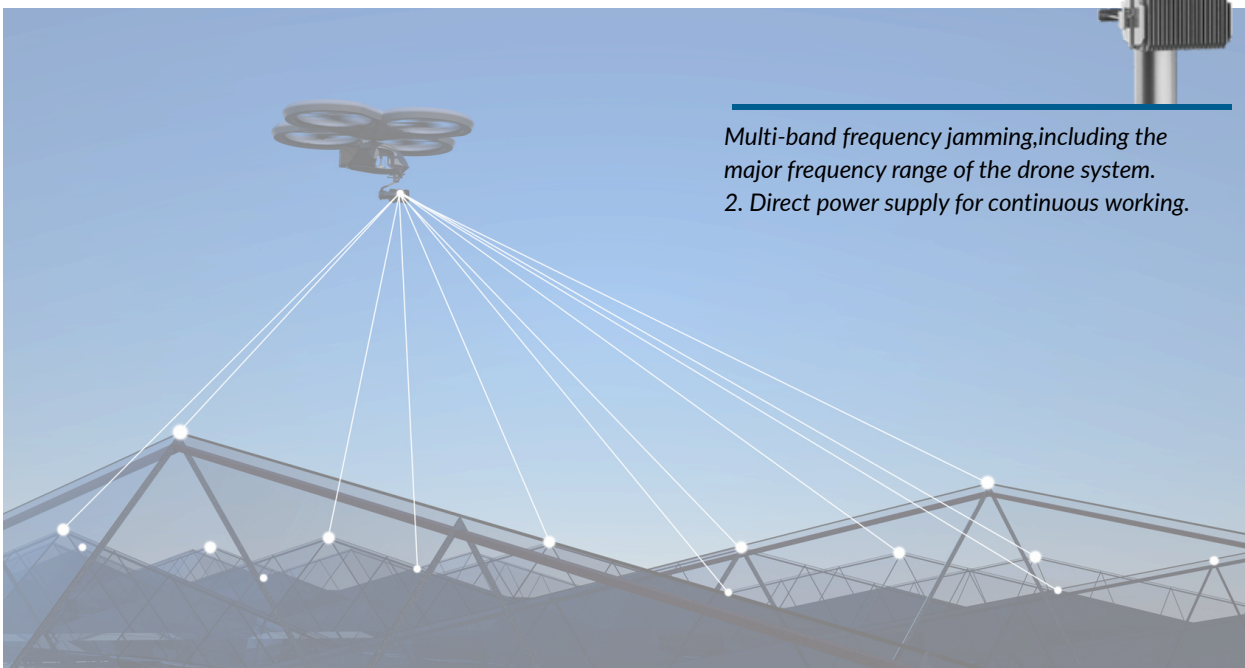
Tracking & Identification:
Pinpointing the Threat

2

Upon detection, Nexus360 records a drone's altitude, speed, coordinates, and the remote controller's last known location. It provides user-level ID — vendor, model, serial number — so operators can distinguish friend from foe, reduce false alarms, and respond precisely.

Jamming

Our RF jammers sever command and GNSS links, forcing unauthorized drones to land or leave the protected airspace. Nexus360 uses multi-band jamming across major drone frequencies; with directional antennas some jammers reach up to 1,000 m. We offer fixed-site and portable hand-held defenders - lightweight (<6 kg) units that combine detection and jamming with built-in displays for tactical use.

Multi-band frequency jamming,including the major frequency range of the drone system.
2. Direct power supply for continuous working.

3

Interception & Mitigation:
Neutralizing the Threat

Nexus360 offers versatile and safe mitigation options with no collateral damage or interference, adapting to various operational requirements. The system can handle multiple drones simultaneously.

Advanced Countermeasures (Takeover/Geofencing)

Beyond traditional jamming, Nexus360 incorporates advanced mitigation capabilities. This includes passively reading the drone's signal, pairing with it, and safely taking control. This allows for "smart disconnects," redirecting the drone to a designated safe location or implementing geofencing to prevent further incursions.

This capability ensures robust, reliable mitigation that can track while mitigating, without reliance on the original remote controller.

BouraCyber's Value Proposition:
Your Trusted Partner in Drone Defense

BouraCyber is committed to providing best-in-class solutions that meet organizations' specific needs. With Nexus360, we offer unparalleled value:

- End-to-End Protection: Integrated detection, tracking, identification, and mitigation – all managed from one command platform.
- Adaptability: Fully scalable and fast to deploy in portable, vehicle-mounted, or fixed setups to meet any mission need.
- Performance: Advanced protocol analytics deliver accurate, data-rich detections with 360° coverage and support for evolving drone tech.
- Safety & Compliance: No false alarms, interference, or collateral damage; compliant with top industry standards.
- Efficiency: Low TCO, quick 15-minute setup, and operator training in under two hours.
  Partnerships: Open API enables seamless integration or use as a standalone defense layer.

Nexus360 delivers a robust, adaptable solution to today's counter-drone challenges, providing end-to-end protection for critical infrastructure and sensitive sites. Designed for any mission, terrain, or weather, it ensures safe operations with no false alarms, interference, or collateral damage.

Contact us to learn more or schedule a demo.

Why BouraCyber

- **Battle-proven** - Trusted by defense and lawenforcement agencies worldwide.
- **Rapid ROI** - Cuts analyst workload by up to 40 % within 90 days.
- **Enterprise-grade security** - ISO 27001, GDPRready, and zerotrust design.
- **Futureproof** - Continuous datasource expansion and AI model updates.

BouraCyber Solutions, founded by cyber intelligence experts with 30+ BouraCyber Solutions was founded by cyber intelligence experts with more than 30 years of domain experience. Dedicated to our customer needs, we focus on field-proven, best-of-breed, innovative products, top-notch execution, and customer service.

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