



**THE SMARTEST EYES IN THE SKY**

# ROBOTIC AERIAL SECURITY – US PATENT 9,864,372

Nightingale Security provides Robotic Aerial Security for corporations. Our comprehensive service consists of drones, base stations and powerful mission control software — working together to provide autonomous, 24/7 physical security using real-time aerial surveillance cameras and data-gathering sensors.



**OUR FULLY-AUTONOMOUS SYSTEM** FLIES PATROLS DAY AND NIGHT, IN RAIN AND SNOW, RESPONDS TO ALARMS, TRANSMITS LIVE VIDEO, LANDS, RECHARGES, COMMUNICATES, COORDINATES AND REPORTS MAINTENANCE NEEDS — ALL BY ITSELF.



# A BASE STATION DESERVING OF THE NAME

The Nightingale base station is an integral component of Robotic Aerial Security. Base stations are installed on rooftops and other secure locations around your facility. They are the communication hub of the drone fleet and their industrial-grade, weather- and-endurance-tested aluminum construction makes them strong — and a great place to call home.

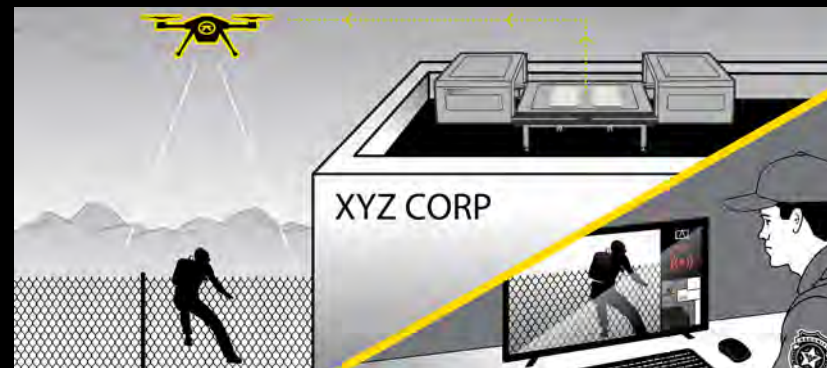




# DEPLOYMENT SCENARIOS

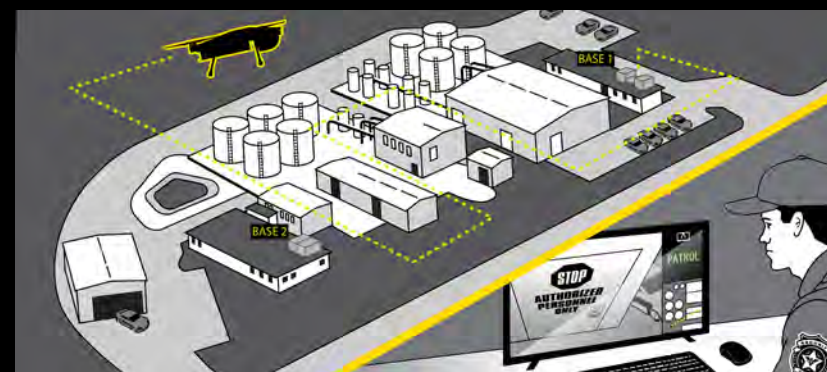
## AUTONOMOUS THREAT RESPONSE

When a security alarm is triggered, the system automatically dispatches a drone to the alarm location and streams live video to the security team.



## SCHEDULED AUTONOMOUS PATROLS

You can set repeatable, autonomous patrol missions based on day, time, path, altitude, hover duration, camera direction and other mission details.



## MANUAL SURVEILLANCE MISSION

During a major event such as an oil spill, chemical leak or fire, you can manually dispatch a drone to monitor events as they unfold on the ground.



# ADVANCED SECURITY

## EDGE COMPUTING

All data gathered by our system is processed and stored behind your firewall. This edge-based design ensures your data is onsite and safe — unlike cloud-based solutions that are vulnerable to being hacked.

## REDUNDANCY

Our drones and base stations communicate and collaborate. If a drone is on a mission and its battery runs low, another drone will autonomously deploy and finish the mission — allowing the first drone to safely return to the base station and recharge.

## ALWAYS ON DUTY

Nightingale drones and base stations provide increased security 24/7. They are a force multiplier providing additional capabilities and they never switch off. They're always on duty, alert and ready for deployment.









# MISSION CONTROL

Our patented software was developed by specialists from SpaceX, NASA and Willow Garage. Our end-to-end system provides Autonomous Remote Operations (ARO) so no human intervention is needed to maintain operational continuity 24/7. Multi-drone squadron operation is powered by algorithmic task assignment and cooperation combined with proprietary Relay-to-Drone-to-Drone (R2D2D) capabilities.



- Control everything, anytime, from anywhere in the world
- Watch live video feeds from multiple drones
- Configure mission details — flight path, hover duration, etc.
- Intelligent Path Planning (IPP)
- Simultaneous video streams and data sensor information
- Command all drones at multiple facilities
- Object recognition and following
- Manually control drones, cameras and sensors
- Static obstacle avoidance (dynamic obstacle avoidance in beta)
- Mission Control is accessible on PC and mobile devices

# C4AI

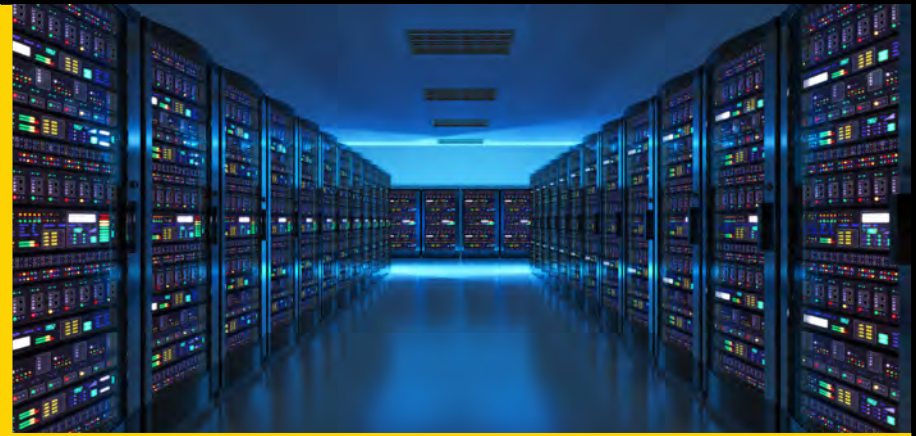
COMMAND, CONTROL, COMMUNICATION,  
COMPUTING AND ARTIFICIAL INTELLIGENCE

The Mission Control app is a communication hub that displays live video and alerts from drones and it lets you control the RAS system anytime, from anywhere in the world. Our system is also outfitted with Artificial Intelligence, enabling the entire system to learn and get smarter as drones fly more missions — it's autonomous, on-the-job training.



# CORPORATE APPLICATIONS

Our autonomous Robotic Aerial Security (RAS) service offers numerous innovative, capability expanding use cases and applications for various industries including: Oil and Gas, Critical Infrastructure, Data Centers, Corporate Facilities, Power Plants, Manufacturing Facilities, Border Patrol, Search and Rescue, amongst others. If you have something to secure, our Robotic Aerial Security service can do it cheaper, faster and better than your current solution.












**ONBOARD DRONE-TO-DRONE COMMUNICATIONS  
ALLOW OUR DRONE FLEET TO COORDINATE EFFORTS  
DURING MISSIONS. NIGHTINGALE IS FAA APPROVED  
FOR MULTI-DRONE OPERATIONS.**



A close-up, low-angle shot of a drone's sensor assembly. The assembly is black and metallic, featuring two large, circular sensor lenses side-by-side and a smaller, circular lens below them. The drone is suspended by a black frame, and a blue cable is visible on the left side. The background is blurred, showing a grey surface and yellow markings.

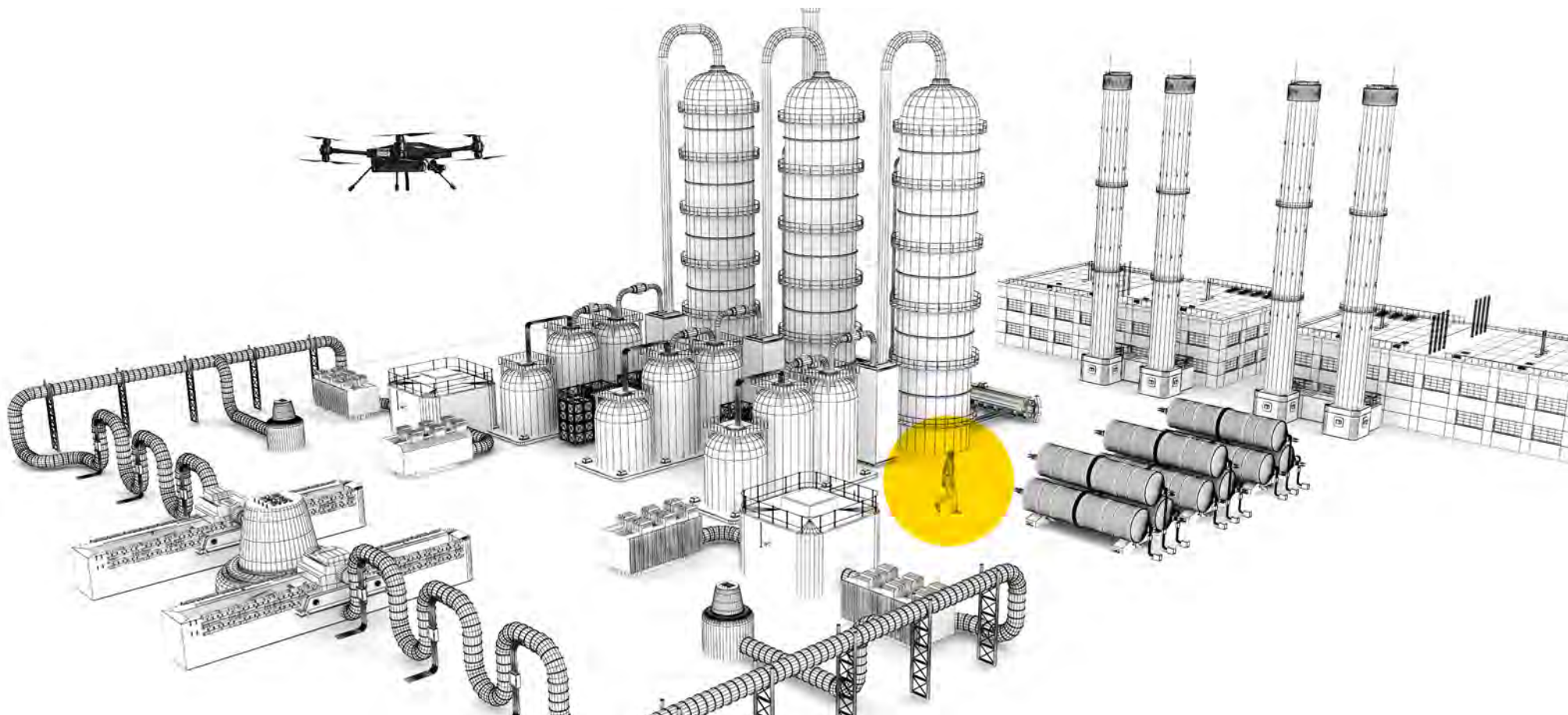
**MULTIPLE SENSORS ALLOW OUR DRONES TO SEE CLEARLY  
DAY OR NIGHT, AND THEY CAN OPERATE 24/7 BECAUSE  
NIGHTINGALE IS FAA APPROVED FOR NIGHTTIME OPERATIONS.**



# ROBOT AS A SERVICE (RaaS)

Here's how it works. For starters, customers don't buy, own or maintain anything. Nightingale Security provides a Robotic Aerial Security subscription service based on a monthly fee and annual contract — we call it Robot as a Service (RaaS).

Depending on your facility requirements, Nightingale Security installs, integrates and maintains all hardware and software. Included in the monthly RaaS service fee is our Maintenance, Repair and Upgrade (MRU) support, which keeps the system operating smoothly and continuously.



# MRU

MAINTENANCE | REPAIR | UPGRADE

MRU support is included in our monthly service fee and provides everything needed to keep the system operating smoothly and continuously. Our integrated Autonomous Logistics (AL) constantly monitors the operational status of our RAS platform to ensure operational readiness and to predict maintenance needs before they arise — maximizing platform up time while minimizing the impact of maintenance. Our MRU service also provides you with the latest features and system upgrades.



# 30

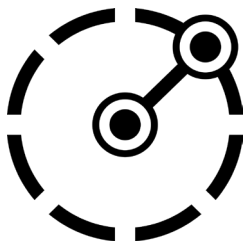
MINUTES PER FLIGHT

# 20

MINUTES TO RECHARGE 80%

# 45

MINUTES TO RECHARGE 100%



## FEATURES

- Designed specifically for security applications
- Stationed onsite for rapid response to alarm events
- Autonomous takeoff, patrol, landing and recharging
- Routine, pre-scheduled flight missions
- Access Mission Control app from PC and mobile devices
- Stream live video feeds to multiple users simultaneously
- Dual sensor (visible and thermal)
- Expandable platform allows integration of new applications
- Autonomous navigation to the point of interest
- Object recognition and following
- Drone-relay capability for extended or persistent monitoring
- Retrieve data and video 24/7 from our secure data storage
- Integrates with existing VMS, alarm sensor and alert systems



## BASE STATION SPECS

- Rooftop mountable with Unistrut Metal Framing System
- Automated lid opening and closing
- IR landing beacon and drone centering mechanism
- Powerful internal PC supports OTA updates and allows for future extensibility
- Autonomous contact charging of drone
- Operating voltage: 110V AC / 220V AC
- Cellular, WiFi or Local network connectivity
- Dust and water resistant (rain, snow)
- UPS backup power for emergency operations
- Sensors for remote monitoring of base station health and base station surroundings
- Dimensions: 168 cm wide x 158 cm long x 91 cm tall



## DRONE SPECS

- Flight time: 30 minutes (fully loaded with sensors)
- Battery charge time: 100% in 45 MIN / 80% in 20 MIN
- Maximum of 13 operational hours per unit per day
- Operational radius of 4 km
- Long-range encrypted datalink or cellular-based C3 (Command, Control & Communication)
- 4-Motor design tested for endurance and reliability
- Gimbal mount camera sensor stabilization
- Video stream format supported: RTMP
- Allows sensor swapping for additional capabilities
- Precision landing for automated base docking/charging
- Dust and water resistant (rain, snow)
- Dimensions: 93 cm wide x 83 cm long x 28 cm tall



**WINNING SINCE 1776**

**CONTACT US FOR A  
FREE DEMO**

USA 408.909.7227

[RAS@NIGHTINGALESECURITY.COM](mailto:RAS@NIGHTINGALESECURITY.COM)

[WWW.NIGHTINGALESECURITY.COM](http://WWW.NIGHTINGALESECURITY.COM)