

Aerios Vecta

Airside Vehicle Tracking & Safety

Aerios Vecta brings every aircraft and every airside vehicle onto one live airport map. Surveillance feeds and GNSS tracking combine with geofencing, safety alerts and purpose-built hardware to give airport operators complete airside situational awareness — and the means to act on it in real time.



One live picture of the airside.

Aircraft from surveillance feeds, vehicles from GNSS — rendered together on an accurate airport map with runways, taxiways, stands, service roads and operational zones. Rules and alerts turn that picture into prevention: incursions, speed violations and restricted-area entries are caught as they happen, on screen and in the vehicle cab.

01

Unified Aircraft & Vehicle Tracking

Live aircraft and vehicle positions on one map, with trails, search and 30-day replay.

02

Safety Alerts & Event Detection

Incursion, speed, dwell-time and signal-loss alerts with configurable severity.

03

Geofencing & Custom Rules

Custom zones, permissions and rules by vehicle, speed, time and duration.

04

Blipper Tracking Hardware

Retrofit airside unit: 1-second updates, up to 1.5 m accuracy, in-cab alerts.

05

CCTV Integration

Existing cameras on the airfield map, with live feeds pulled up per safety event.

06

NOTAM Integration

Live NOTAMs correlated with tracked movements and used inside safety rules.

07

METAR & Weather Integration

Prevailing airfield conditions on screen, with weather-threshold alerting.

Unified Aircraft & Vehicle Tracking

Aircraft and vehicles are tracked from their own sources and displayed on one operational map, so controllers, apron staff and safety teams share a single, current view of the airside.

FEATURES

- Live aircraft tracking using ADS-B / surveillance feeds
- Live airport vehicle tracking using GNSS
- Aircraft callsign, flight number, registration, type and movement status
- Vehicle callsign, type, operator, speed and heading
- Aircraft and vehicles displayed simultaneously on a unified airport map
- Real-time movement trails and historical tracks
- Airside traffic replay for up to 30 days
- Search and instantly locate any aircraft or vehicle
- Configurable map layers



Safety Alerts & Event Detection

Continuous rule evaluation against every tracked position — operators are notified the moment airside behaviour deviates from what is permitted.

ALERT TYPES

- Restricted-area intrusion alerts
- Runway and taxiway incursion alerts
- Speed-limit violations
- Vehicle stopped in a critical area
- Excessive dwell-time alerts
- Airport boundary / perimeter exit alerts
- Device offline and GNSS signal-loss alerts
- Configurable alert severity and notifications
- In-vehicle audible warnings for critical violations

MODULE 03

Geofencing & Custom Rules

Define where each vehicle may operate, when, and how fast — then compose custom rules from area, vehicle, speed, movement and time.

FEATURES

- Define custom operational and restricted zones
- Allowed and prohibited zones
- Vehicle-specific and vehicle-type permissions
- Temporary and time-based access permissions
- Entry / exit detection
- Zone-specific speed limits
- Configurable dwell-time rules
- Custom rules based on area, vehicle, vehicle type, speed, movement, time and duration



Blipper tracking hardware

A rugged, retrofit tracking unit built for airside conditions — second-by-second positioning, in-cab warnings and continuous health reporting back to the platform.

1s

Continuous position updates

1.5 m

Positioning accuracy, GAGAN-assisted

4G

LTE connectivity with auto reconnection

FEATURES

- 1-second continuous position updates
- Up to 1.5 m positioning accuracy
- GAGAN-enabled GNSS positioning for enhanced airside accuracy
- Easy retrofit installation on existing airport vehicles
- 4G/LTE real-time connectivity
- In-vehicle audible alerts
- Backup power support
- Tamper / disconnection detection
- Secure encrypted communication



Cameras, notices and weather in the same view

Vecta draws in the airport's existing sources — CCTV, NOTAMs and METAR — so context sits beside the live picture instead of in separate systems.

CCTV Integration

FEATURES

- Integrate existing airport CCTV infrastructure
- Display CCTV camera locations on the airfield map
- View live camera feeds directly from Aeries Vecta
- Associate cameras with runways, taxiways, stands and other operational zones
- Automatically identify relevant cameras for safety events
- Quick access to nearby cameras from aircraft / vehicle locations

NOTAM Integration

FEATURES

- Integrated NOTAM feed within the operational interface
- Display relevant NOTAMs alongside live airside operations
- Correlate NOTAM restrictions with tracked aircraft and vehicle movements
- Use applicable NOTAM conditions within safety rules and alerts

METAR & Weather Integration

FEATURES

- Live METAR integration
- Current wind, visibility, temperature and significant weather
- Prominent display of prevailing airfield conditions
- Weather-aware operational monitoring
- Configurable alerts based on visibility, wind and other weather thresholds
- Support for enhanced monitoring during low-visibility conditions

Real-time airfield visibility, zero blind spots.

Part of the Aerios Airport Operating System — one integrated operational ecosystem.



GET IN TOUCH

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