

AASI SYSTEMS

SCENARIO STUDY · VIGILANCE

Quad-launcher tracked vehicle

Prison perimeter patrol
and alert

A non-lethal standoff platform for the outer security envelope: a low tracked chassis and a four-tube launcher turret, tasked from the control room.



PRIMARY APPLICATION

Outer patrol · Fence alert · Vigilance hold

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Olive finish · daylight patrol

ENGLISH EDITION

Hold the line until officers arrive

This study sets the operating picture for a tracked vehicle carrying a four-tube launcher turret, applied to prison perimeter patrol and alert. It is a concept of employment, not a site order and not a substitute for fence design, towers, or the response team.

The line is long

Between towers, the outer road is a repeated sector of fence, sterile zone, and lighting. Most of it is watched by camera, not by a person who can act in the next minute.

The event is small

The usual contact is a climb, a cut, a throw-over, a drone drop, or a person at the service gate. These need presence and a hold, not a gun truck.

The gap is time

Alarm to officer-on-scene is the interval that matters. A vehicle already on the sector closes that interval and keeps a subject in place.

INTENDED EFFECT

Delay and capture. Not injury.

The turret carries four independent tubes for an air-driven capture net. No chemical agent. A fired tube holds a person or a small aircraft until the response team takes over. Unused tubes stay available.

Chassis, pedestal, four tubes



Front view · Plan view · Left view

Configuration as shown. Dimensions, range, and payload mass are site-specific and are not stated in this study.

01 Tracked hull

Low chassis with side skirts and a continuous track. Suited to the patrol road, gravel shoulder, and wet pavement outside the fence.

02 Center pedestal

A yoke and tilt arm lift the head clear of the hull so the tubes clear the deck on elevation.

03 Quad head

Four tubes in a square. Each tube is an independent shot. The head pans and tilts as one unit.

04 Two finishes

Matte black for low visibility on a night sector. Olive where the vehicle should read as site equipment in daylight.

Where the vehicle works



Matte black finish, on a road shoulder — the outer patrol surface.

- **Public side**

Road, parking, and the approach to the service gate. The vehicle stays on the secure side of the outer fence unless tasked to a person already outside.

- **Outer fence**

Climb and cut alarms. The vehicle is sent to the panel and holds outside the sterile zone, turret on the contact.

- **Sterile zone**

The clear band between fences. Drone drops and throw-overs cross here. The turret elevates; the hull does not enter.

- **Patrol road**

The circuit the vehicle actually drives: corners, grade changes, lighting poles, and the sally-port apron.

- **Towers**

Still the eyes and the authority. The vehicle adds a moving camera and a hold at the point of alarm.

Patrol, hold, alert

Vigilance is the operating theme for the outer envelope. The vehicle is already on the line. It does not wait in a garage for a truck to be crewed. Three states cover the shift: a moving circuit, a fixed watch, and a tasked response. Fire authority stays with the control room.

PATROL

The circuit

The vehicle runs the outer road. At each corner it pauses, sweeps the turret across the sterile zone, and sends video with the tower picture. Tubes stay trained, not fired.

HOLD

The watch

One vehicle parks a poorly lit corner or the sally-port apron. Tracks down. Turret on a fixed arc. The second vehicle, if assigned, keeps the loop.

ALERT

The task

A fence panel, a drone track, or a gate approach names a point. The vehicle closes to standoff, trains the head, and holds the contact until officers arrive.

WHAT THE THEME IS FOR

A moving camera and a four-tube hold on the prison perimeter — between towers, at the gate, and on the night sector.

Illustrations on the next pages show the function. They are employment studies, not a site plan.

Sector circuit on the outer road



Day patrol · fence line, sterile zone, tower in view

1 Take the road

The vehicle stays on the patrol surface and the shoulder. It does not enter the sterile zone.

2 Pause the corner

At each turn it stops long enough for the turret to sweep the fence and the clear band.

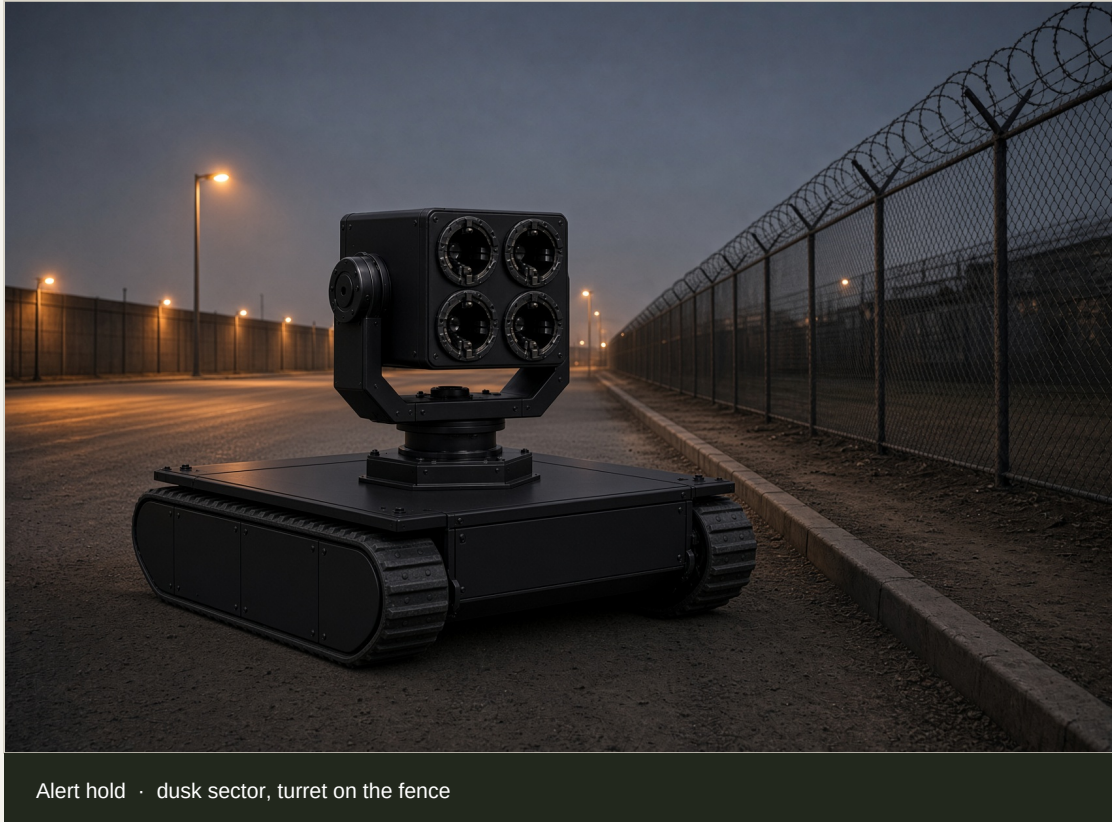
3 Share the picture

Video rides with the tower feed. A long sector is not watched by camera alone.

4 Keep the tubes

The head is trained along the fence. A Vigilance patrol does not fire on a routine pass.

From alarm to a held contact



Alert hold · dusk sector, turret on the fence

- 1 Name the panel**
Climb, cut, or drone track gives a point. The control room tasks the nearest vehicle.
- 2 Close to standoff**
The hull stops outside the sterile zone. Lights and camera stay on the contact.
- 3 Train, then decide**
The four-tube head comes onto the fence. Fire is a control-room decision, one tube at a time.
- 4 Hold for officers**
A net, if fired, keeps a person or a small aircraft in place. Officers take the subject. Reload is at the pad.

Night corner and the service gate



Night hold · corner overwatch

Night corner

One vehicle parks the dark sector. Turret on a fixed arc across the sterile zone. The other vehicle keeps the circuit.



Gate hold · sally-port apron

Service gate

At shift change and deliveries the apron vehicle holds standoff. Turret trained, not fired, unless a person moves to the fence.

Four contacts on the perimeter

Each case assumes control-room tasking, a clear sterile zone, and officer arrival as the end state.

01

Sector patrol

A circuit, not a chase.

The vehicle runs the patrol road on a programmed loop or under an operator. At each corner it pauses and sweeps the turret across the sterile zone, then continues. Video from the platform sits with the tower picture, so a long sector is not watched by camera alone. At shift change the loop slows at the sally port and the delivery apron. Tracks stay on the road and the shoulder. The head is trained, not fired, unless a contact is confirmed.

02

Fence alarm

Climb or cut on a named panel.

The alarm names a panel. The vehicle is tasked to that point and holds outside the sterile zone, turret on the contact. If the person is still on the fence or has dropped to the patrol side, one tube can put a net on them and keep them there. A second person, or a second move after the first net, is why the head carries four tubes. The vehicle does not cross the fence. Officers take the subject. Reload happens at the pad, not on the line.

Drone drop and the service gate

03

Contraband drone

A small aircraft on a drop run.

A multirotor crosses the outer fence toward the yard or the sterile zone. The vehicle does not need to be under the aircraft. The turret elevates and one tube fires a capture net on the crossing or the hover — the same non-lethal effect used for site drone defense. The hull stays on the patrol road. A second tube remains if the first misses or a second aircraft follows. Recovery of the net and the aircraft is an officer task.

04

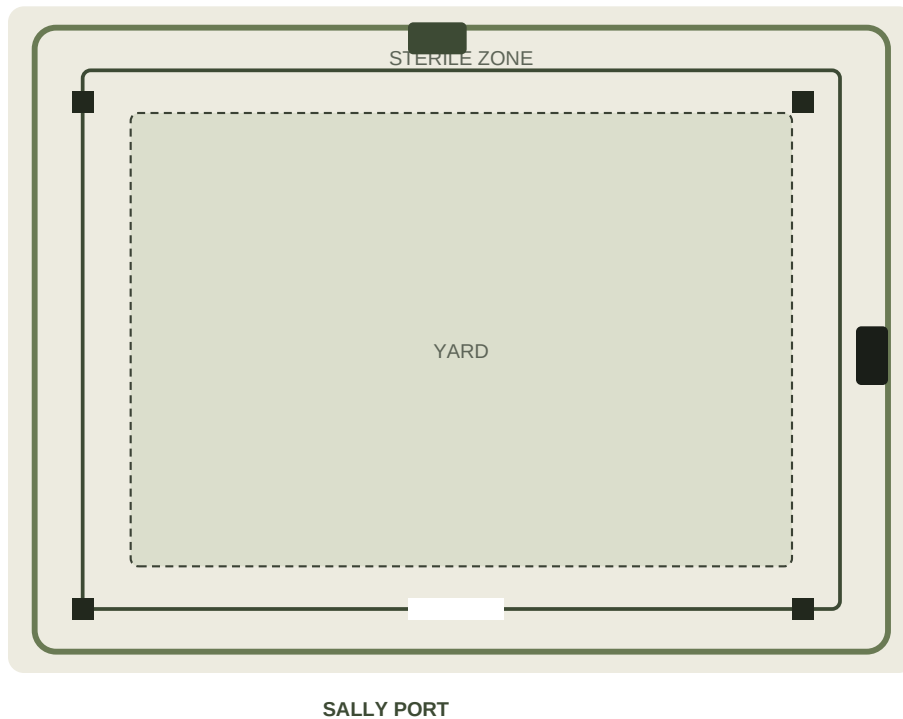
Service-gate approach

An unrecognized stop on the outer road.

A vehicle or a person stops near the sally port outside the scheduled window. The tracked unit moves to a standoff on the apron, camera and light on the contact, launcher trained and not fired. Net is the last step, used if a person leaves the vehicle and moves to the fence, or if a person already outside the outer fence tries to leave the road. Shift-change and delivery windows are the busy case: one vehicle holds the apron while the other keeps the circuit.

Two vehicles, one circuit

Indicative perimeter — not a site plan



Olive marker: patrol. Black marker: corner overwatch. Squares: towers.

Pattern

Two vehicles on opposite sectors, overlapping at the gates. A third, if assigned, parks in overwatch at the sally port during shift change and deliveries.

Authority

The control room tasks the vehicle and retains the decision to fire. The platform reports video and position. It does not self-authorize.

Shot discipline

One tube per confirmed contact. A miss or a second person uses the next tube. The head is not emptied on a single alarm.

Reload

At a designated pad off the circuit, with a clear approach. Not on the fence line, and not inside the sterile zone.

Night

Black finish on the dark sector. One vehicle can hold a poorly lit corner while the other keeps the loop.

What this is for



Olive finish reads as site equipment in daylight. Black is the night-sector alternative.

Best fit

- A long outer road with a clear sterile zone.
- A control room that can task a vehicle faster than a truck leaves the gate.
- Corners, lighting gaps, and a busy sally port.
- Drone drops as a known method of contraband.

Not a replacement

- Fence fabric, alarms, and lighting still do their job.
- Towers remain the authority on the line.
- Armed response still takes the subject.
- The vehicle does not enter housing areas.

Limits to plan for

- A net is single-use until the pad reload.
- Tracks need a path, a corner radius, and a shoulder.
- Foliage, grade, and towers still set the camera view.
- Weather and radio path are site checks, not assumptions.

NEXT STEP

Site walk for road width, corner radius, reload pad, and radio path. One sector trial before a full circuit.

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