



**OSAN**  
DEFENSE INDUSTRY

ENGINEERED SUPERIORITY.  
DELIVERED DECISIVELY.

# VLS-MX

MOBILE VERTICAL LAUNCH STRIKE SYSTEM

ADAPTIVE STRIKE. CONTROLLED DOMINANCE.

## ABSOLUTE STRIKE AUTHORITY

Next-generation mobile vertical launch capability designed for precision engagement in complex battlefields. Integrated. Adaptive. Decisive.



### ADAPTIVE SALVO ENGINE

AI-assisted multi-missile engagement to overload and penetrate enemy defenses.



### NETWORK-CENTRIC INTEGRATION

Seamless connectivity with UAVs, radars, satellites and command systems.



### PRECISION ENGAGEMENT

Sub-10m CEP with real-time targeting and mid-course updates.



### RAPID DEPLOYMENT & RELOCATION

Launch readiness under 3 minutes. Shoot-and-scoot under 2 minutes.



RANGE  
UP TO  
**300**  
KM



VLS CELLS  
**10-12**  
MULTI-ROLE  
PAYLOAD



LAUNCH  
READINESS  
**< 3**  
MIN



CEP  
**< 10**  
M



MOBILITY  
**8x8**  
HIGH MOBILITY  
PLATFORM

### BUILT FOR DECISIVE SUPERIORITY



**SURVIVABLE**  
Low signature design and active protection ready.



**SECURE**  
End-to-end encrypted communication and data protection.



**RELIABLE**  
Engineered for extreme environments.  
-30°C to +55°C

CONTROL THE ENGAGEMENT.  
OWN THE OUTCOME.

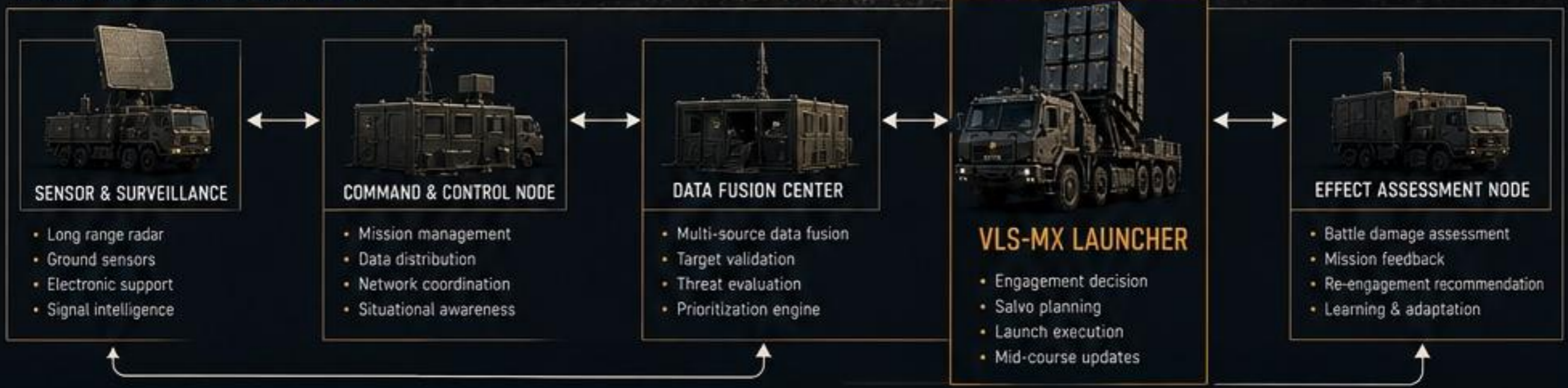
## A NETWORKED STRIKE ECOSYSTEM

VLS-MX operates as part of a distributed strike network. All components share real-time data, synchronize continuously, and contribute to a single decisive outcome.

-  **DISTRIBUTED & RESILIENT**  
No single point of failure.  
Built for mission continuity.
-  **REAL-TIME & ADAPTIVE**  
Continuous data updates.  
Adaptive to changing conditions.
-  **AUTONOMOUS READY**  
Operator-supervised autonomy.  
Faster decisions, greater impact.
-  **SECURE & ENCRYPTED**  
End-to-end encrypted links.  
Data protection at every layer.



## STRIKE ARCHITECTURE OVERVIEW



## VLS-MX ARCHITECTURAL LAYERS

<p><b>01</b></p> <p><b>ARCHITECTURAL FOUNDATION</b></p> <ul style="list-style-type: none"> <li>• Distributed strike architecture</li> <li>• No central dependency</li> <li>• Continuous system synchronization</li> <li>• Real-time operational coherence</li> </ul>	<p><b>02</b></p> <p><b>TARGET ACQUISITION LAYER</b></p> <ul style="list-style-type: none"> <li>• Multi-source targeting</li> <li>• Radar / SIGINT / EO inputs</li> <li>• Real-time tracking</li> <li>• Dynamic prioritization</li> </ul>	<p><b>03</b></p> <p><b>DATA FUSION CORE</b></p> <ul style="list-style-type: none"> <li>• Sensor fusion engine</li> <li>• Multi-layer data processing</li> <li>• Conflict resolution logic</li> <li>• Target validation system</li> </ul>
<p><b>04</b></p> <p><b>DECISION ENGINE</b></p> <ul style="list-style-type: none"> <li>• AI-assisted engagement logic</li> <li>• Adaptive strike selection</li> <li>• Real-time threat evaluation</li> <li>• Engagement scenario optimization</li> </ul>	<p><b>05</b></p> <p><b>ADAPTIVE SALVO CONTROL</b></p> <ul style="list-style-type: none"> <li>• Multi-missile coordination</li> <li>• Time-on-target synchronization</li> <li>• Trajectory diversification</li> <li>• Defense saturation logic</li> </ul>	<p><b>06</b></p> <p><b>NETWORK CONTROL LAYER</b></p> <ul style="list-style-type: none"> <li>• Distributed command structure</li> <li>• Node-to-node communication</li> <li>• Redundant connectivity</li> <li>• Self-healing network</li> </ul>
<p><b>07</b></p> <p><b>FIRE EXECUTION SYSTEM</b></p> <ul style="list-style-type: none"> <li>• Vertical launch control</li> <li>• Launch sequencing</li> <li>• Safety protocols</li> <li>• Engagement validation</li> </ul>	<p><b>08</b></p> <p><b>SYSTEM RESILIENCE</b></p> <ul style="list-style-type: none"> <li>• Fault-tolerant architecture</li> <li>• Operation under node loss</li> <li>• Adaptive reconfiguration</li> <li>• Continuous mission execution</li> </ul>	<p><b>09</b></p> <p><b>STRUCTURAL DOMINANCE LOGIC</b></p> <ul style="list-style-type: none"> <li>• Parallel engagement capability</li> <li>• No sequential dependency</li> <li>• Continuous strike readiness</li> <li>• Real-time adaptation</li> </ul>

## ARCHITECTURAL LOGIC

VLS-MX is not designed as a linear firing system. It operates as a distributed strike network, where targeting, decision, and execution occur simultaneously.

## STRATEGIC OUTCOME

-   
DECISION-CYCLE  
COMPRESSION
-   
MULTI-TARGET  
ENGAGEMENT
-   
NETWORK-LEVEL  
STRIKE COORDINATION
-   
OPERATIONAL  
SUPERIORITY

## KILL SHOT

SEQUENTIAL FIREPOWER IS PREDICTABLE.  
DISTRIBUTED STRIKE LOGIC IS UNSTOPPABLE.

# PERFORMANCE & STRIKE ENVELOPE

RANGE. REACTION TIME. COORDINATED IMPACT.

## COORDINATED POWER. PRECISION RESULTS.

VLS-MX delivers rapid, long-range, and high-precision strikes through adaptive salvo control and intelligent engagement logic built for modern battlefields.



### CORE PERFORMANCE DATA

	MAX TACTICAL RANGE	120 - 180 km
	EXTENDED PRECISION RANGE	UP TO 300 km
	CEP (GUIDED)	< 10 m
	LAUNCH INTERVAL	0.8 - 2.5 sec
	TIME TO FIRST LAUNCH	< 180 sec
	FULL SALVO (10-12 MISSILES)	< 25 sec

### STRIKE DYNAMICS

	TIME-ON-TARGET SYNC	±50 ms
	MULTI-ANGLE ATTACK	✓
	TRAJECTORY VARIABILITY	HIGH
	DEFENSE SATURATION CAPABILITY	ADVANCED

“ SPEED WITHOUT COORDINATION IS WASTED.  
COORDINATED IMPACT DEFINES DOMINANCE. ”

### 01 STRIKE RANGE ENVELOPE



- Tactical: 120 - 180 km
- Extended: up to 300 km
- Multi-profile trajectories
- Terrain adaptive flight

### 02 SALVO CAPABILITY



- 10 - 12 missiles
- Coordinated launch logic
- Variable timing
- Simultaneous multi-target engagement

### 03 REACTION TIME



- System ready: < 150 sec
- First launch: < 180 sec
- Decision latency: < 300 ms

### 04 ACCURACY & GUIDANCE



- INS + GNSS
- Mid-course correction
- Real-time targeting update
- < 10 m CEP

### 05 ADAPTIVE STRIKE BEHAVIOR



- Dynamic target prioritization
- Engagement recalculation
- Adaptive trajectory
- Multi-layer strike logic

### 06 SURVIVABILITY PERFORMANCE



- Launch → relocate: < 120 sec
- Shoot-and-scoot capability
- Signature management
- Counter-detection behavior

### ENGINEERING STATEMENT

Strike effectiveness is not defined by missile quantity, but by **timing**, **coordination**, and **adaptive execution**.



### STRATEGIC OUTCOME



COORDINATED STRIKE LOGIC  
DELIVERS **UNCONTESTED**  
**OPERATIONAL SUPERIORITY.**

**ONE SYSTEM.  
MULTIPLE MISSIONS.  
ABSOLUTE IMPACT.**

VLS-MX delivers mission success across diverse operational scenarios with precision, adaptability, and overwhelming strike dominance.



## 01 LONG-RANGE STRIKE DOMINANCE

- Up to 300 km precision strike
- Deep target engagement
- High-value target elimination
- Low detection window



## 02 MULTI-TARGET ENGAGEMENT

- Simultaneous multi-target attack
- Different engagement profiles
- Intelligent prioritization
- Parallel strike logic



## 06 AREA DENIAL / CONTROL

- Critical area suppression
- Restrict enemy movement
- Challenge enemy air defense
- Establish operational control



## 04 PRECISION STRIKE EXECUTION

- < 10 m CEP
- Real-time target updates
- Target verification
- Low collateral risk



## 05 DEFENSE SATURATION OPERATIONS

- Adaptive salvo engine
- Multi-vector attack
- Time-on-target synchronization
- Interception overload



## 06 RAPID STRIKE DEPLOYMENT

- < 3 minutes system ready
- Rapid deployment capability
- Fast repositioning
- Minimal exposure time



### OPERATIONAL LOGIC

VLS-MX does not execute predefined missions. It adapts in real time based on:

- Target behavior
- Battlefield conditions
- Network intelligence



**DETECT**  
Multi-source sensing



**ANALYZE**  
Integrated data fusion



**ADAPT**  
Dynamic decision engine



**EXECUTE**  
Coordinated salvo



**IMPACT**  
Mission accomplished

### STRATEGIC OUTCOME



**PERSISTENT STRIKE READINESS**  
Always ready. Always lethal.



**MULTI-DOMAIN OPERATIONAL CONTROL**  
Dominant across all environments.



**REDUCED ADVERSARY RESPONSE WINDOW**  
Strike first. Stay ahead.



**CONTINUOUS BATTLEFIELD PRESSURE**  
Relentless impact. Relentless advantage.



**MISSION SUCCESS IS NOT DEFINED BY CAPABILITY. IT IS DEFINED BY ADAPTABILITY UNDER PRESSURE.**



## CORE SYSTEM PARAMETERS

-  **PLATFORM TYPE**  
8x8 Mobile VLS Launcher
-  **LAUNCH CELLS**  
10-12 Modular Canister Units
-  **MAX TACTICAL RANGE**  
120 - 180 km
-  **EXTENDED RANGE**  
up to 300 km
-  **CEP (GUIDED)**  
< 10 m
-  **LAUNCH INTERVAL**  
0.8 - 2.5 sec
-  **TIME TO FIRST LAUNCH**  
< 180 sec
-  **FULL SALVO CAPACITY**  
10-12 missiles

### 01 PLATFORM CONFIGURATION

- Chassis 8x8 heavy tactical platform
- Length 10.8 - 11.6 m
- Width 2.55 m
- Height (travel) 3.6 - 3.9 m
- Combat Weight 36,000 - 42,000 kg
- Payload Capacity up to 18,000 kg

### 02 MOBILITY SYSTEM

- Max Speed 95 km/h
- Off-road Speed 45 - 60 km/h
- Operational Range 700 - 900 km
- Gradient 60%
- Side Slope 30%
- Fording Depth 1.2 m

### 03 LAUNCH MODULE

- System Type Vertical Launch System (VLS)
- Configuration Modular multi-cell
- Canister Length up to 5.5 m
- Diameter up to 420 mm
- Launch Type Cold Launch (Primary)  
Hot Launch-Compatible Configuration (Optional)

### 04 MISSILE PERFORMANCE

- Tactical Range 120 - 180 km
- Extended Range up to 300 km
- Accuracy < 10 m CEP
- Guidance INS + GNSS
- Mid-course Update Supported

### 05 SALVO SYSTEM

- Max Salvo 10 - 12 missiles
- Launch Interval 0.8 - 2.5 sec
- Time-on-Target Sync ± 50 ms
- Trajectory Control Adaptive
- Multi-target Engagement ✓

### 06 FIRE CONTROL SYSTEM

- Architecture Distributed
- Decision Latency < 300 ms
- Engagement Mode
  - Manual
  - Assisted
  - Operator-Supervised Autonomous
- Target Processing Real-time

### 07 SENSOR & TARGETING

- External Sensor Integration
  - UAV
  - Ground Radar
  - Satellite
  - Forward Observer
- Multi-source Data Fusion ✓
- Real-time Target Update ✓
- Tracking Capacity up to 500 targets (network level)

### 08 COMMUNICATION SYSTEM

- Network Type Encrypted RF mesh
- SATCOM Integrated
- Data Link Line-of-sight + relay
- Encryption AES-256 (military grade)

### 09 NAVIGATION SYSTEM

- GNSS + INS hybrid ✓
- GPS-denied operation capability ✓
- Terrain-referenced navigation ✓
- Anti-jamming system ✓

### 10 SURVIVABILITY

- Relocation Time < 120 sec
- Signature Reduction Thermal / Acoustic
- Countermeasures Decoy (optional)
- Emission Control Mode ✓

### 11 POWER SYSTEM

- Engine 520 - 650 HP diesel
- APU Integrated
- Silent Operation Mode 2 - 4 hours
- Power Distribution Adaptive

### 12 OPERATIONAL ENVIRONMENT

- Temperature -30°C to +55°C
- Altitude up to 3,500 m
- Terrain Capability Desert / Urban / Rugged

### 13 RELOAD SYSTEM

- Reload Time 15 - 25 min
- Handling Semi-automated
- Support Vehicle Required



## ENGINEERING STATEMENT

All specifications are derived from integrated system architecture, validated through engineering analysis, simulation, and operational execution logic.



INTEGRATED DESIGN



ENGINEERING ANALYSIS



SIMULATION VALIDATION



OPERATIONAL LOGIC



PERFORMANCE IS NOT ASSUMED. IT IS **ENGINEERED**, MEASURED, AND **EXECUTED**.

## DOMINANCE IS NOT A MOMENT. IT IS A CONTINUOUS STATE.

VLS-MX maintains persistent operational presence, rapid decision capability, and adaptive mission execution across all domains and conditions.



### 01 PERSISTENT BATTLESPACE PRESENCE

- Continuous readiness
- Long-duration operations
- Uninterrupted field presence
- High situational awareness



### 02 DECISION CYCLE ADVANTAGE

- <300 ms decision latency
- Real-time target prioritization
- Continuous data flow
- Rapid engagement turnaround



### 03 MULTI-MISSION EXECUTION

- ISR-supported strike
- Parallel mission execution
- Dynamic mission transition
- Simultaneous operations



### 04 CONTESTED ENVIRONMENT DOMINANCE

- GPS-denied operation
- Anti-jamming capability
- Electromagnetic resilience
- Mission continuity under pressure



### 05 NETWORK-LEVEL CONTROL

- Distributed command structure
- Node-based coordination
- Real-time synchronization
- Adaptive network behavior



### 06 ADAPTIVE OPERATIONAL BEHAVIOR

- Reconfigure during mission
- Adapt to target behavior
- Dynamic strike planning
- Continuous optimization



#### OPERATIONAL LOGIC

VLS-MX maintains continuous operational presence while adapting mission execution in real time.

It does not react to battlefield conditions. IT DEFINES THEM.



**SENSE**

Multi-source data collection



**UNDERSTAND**

Real-time fusion & analysis



**DECIDE**

Prioritize & assign engagements



**EXECUTE**

Coordinated strike execution



**ASSESS**

Battle damage & mission feedback



**ADAPT**

Replan & optimize continuously

#### IMPACT STATEMENT



The system remains present, adaptive, and decisive across all mission phases.

#### STRATEGIC OUTCOME



CONTINUOUS BATTLEFIELD DOMINANCE



DECISION-CYCLE COMPRESSION



MULTI-DOMAIN OPERATIONAL CONTROL



PERSISTENT MISSION EXECUTION

“ OPERATIONAL CONTINUITY EXCEEDS ADVERSARY RESPONSE CAPABILITY. ”

VLS-MX is engineered as a unified system where structure, power, data, and control operate in complete synchronization. Every component has a defined role in mission execution.



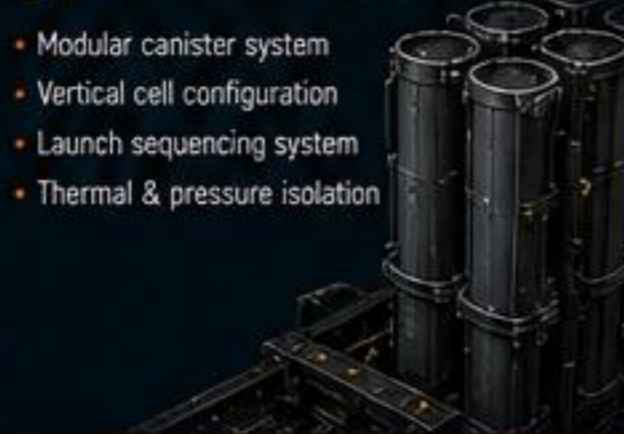
## 01 AIRFRAME / STRUCTURE

- Reinforced chassis
- Load-bearing frame
- Shock-resistant structure
- Launch stress integration



## 02 VLS LAUNCH MODULE

- Modular canister system
- Vertical cell configuration
- Launch sequencing system
- Thermal & pressure isolation



## 03 PROPULSION & POWERTRAIN

- 520–650 HP diesel engine
- Transmission system
- Drivetrain architecture
- Mobility power delivery



## 04 POWER DISTRIBUTION SYSTEM

- Central energy bus
- Dual-layer distribution
- Redundant supply channels
- Load balancing system



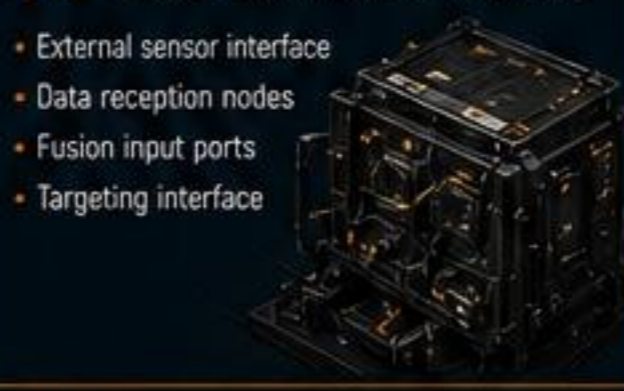
## 05 FIRE CONTROL CORE

- Distributed control nodes
- Real-time processing unit
- Engagement computation
- Decision logic engine



## 06 SENSOR & INTERFACE MODULE

- External sensor interface
- Data reception nodes
- Fusion input ports
- Targeting interface



## 07 COMMUNICATION SYSTEM

- RF communication module
- SATCOM interface
- Encrypted data routing
- Relay system



## 08 NAVIGATION & GUIDANCE

- GNSS + INS
- Terrain reference module
- Anti-jamming navigation
- Fallback navigation logic



## 09 MISSION CONTROL SYSTEM

- Mission execution controller
- Targeting management
- Task coordination logic
- System orchestration



## 10 SAFETY & CONTROL SYSTEM

- Launch safety interlocks
- Fault detection
- Emergency shutdown logic
- System integrity monitoring



## 11 RELOAD & HANDLING SYSTEM

- Canister handling interface
- Alignment system
- Loading support mechanism
- Safety locking



## 12 STRUCTURAL INTEGRATION LOGIC

All components are integrated into a unified system architecture where structure, power, control, and mission systems operate as a single synchronized entity.



### ENGINEERING LOGIC

VLS-MX is not assembled as independent subsystems. It is engineered as a unified architecture where:

- DATA FLOW
  - ENERGY FLOW
  - CONTROL FLOW
- are interdependent.



### KEY INTEGRATION BENEFITS

- Reduced System Latency
- Increased Reliability
- Improved Redundancy
- Higher Operational Efficiency
- Faster Decision Execution

“  
SYSTEM PERFORMANCE  
IS DEFINED BY  
**INTEGRATION,**  
NOT COMPONENTS.  
”

FROM STRATEGIC STRIKE TO RAPID DEPLOYMENT  
ACROSS OPERATIONAL ENVIRONMENTS



DESERT OPERATIONS

URBAN OPERATIONS

COASTAL OPERATIONS

## 01 BORDER SECURITY OPERATIONS

- Border surveillance
- Intrusion detection
- Rapid response
- Continuous patrol support



## 02 URBAN STRIKE & TARGET TRACKING

- Dense urban environment
- Real-time target tracking
- Low collateral risk
- Precision engagement



## 03 COASTAL & MARITIME CONTROL

- Coastal area control
- Port protection
- Maritime target tracking
- Extended coverage



## 04 STRATEGIC STRIKE OPERATIONS

- High-value target engagement
- Long-range strike capability
- Multi-target coordination
- Rapid reaction



## 05 ELECTRONIC WARFARE SUPPORT

- Signal monitoring
- RF signal analysis
- Communication suppression support
- Electronic environment awareness



## 06 RAPID DEPLOYMENT OPERATIONS

- Rapid deployment
- Mobile operations
- Minimal infrastructure need
- Flexible mission transition



### DEPLOYMENT MODEL

VLS-MX deployment is structured for rapid operational readiness.



Mobile Ground Control Integration



Rapid Launch Capability



Minimal Infrastructure Requirement



Multi-Platform Coordination

### OPERATIONAL LOGIC

The system adapts to mission environments without requiring structural reconfiguration.

**Deployment is not scenario-dependent. It is system-driven.**



## KILL SHOT

ONE SYSTEM.  
MULTIPLE OPERATIONAL REALITIES.

## IMPACT STATEMENT

Deployment flexibility ensures continuous mission readiness across diverse operational environments.



## STRATEGIC OUTCOME

- Rapid deployment capability
- Multi-environment adaptability
- Continuous operational presence
- Real-time mission execution





**OSAN**  
DEFENSE INDUSTRY

# ENGINEERING POWER. OPERATIONAL CONFIDENCE. GLOBAL EXECUTION.

Advanced Defense Systems.  
Built for Real-World Superiority.



OSAN Defense Industry operates as a high-capability defense engineering platform integrating autonomous systems, advanced manufacturing, system-level integration, and global operational deployment.



## MISSION READY

Mission-ready platforms engineered for real-world operations.



## GLOBAL REACH

Active operational presence and execution capability across multiple regions.



## ENGINEERED TO WIN

Advanced engineering, integrated systems, and proven performance.



## TRUSTED PARTNER

Delivering reliable solutions with integrity, accountability, and long-term commitment.



## OUR COMMITMENT

All systems are developed under strict engineering validation processes ensuring:



PERFORMANCE  
RELIABILITY



OPERATIONAL  
CONSISTENCY



MISSION  
READINESS

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**CAPABILITY DEFINES OUTCOME.  
EXECUTION DEFINES DOMINANCE.**



**OSAN DEFENSE INDUSTRY**

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