



NiDAR™ X-TERRA

MOBILE COMMAND STATION
EQUIPPED WITH AI-ENABLED UAS
DETECTION AND INTEGRATED
COUNTERMEASURES, FOR REMOTE
AND HOSTILE ENVIRONMENTS

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Ni NIDAR™ X-TERRA

© NIDAR™ X-TERRA



MOBILE COMMAND & CONTROL

MOBILE C2 UNIT WITH ADVANCED TECHNOLOGY FOR SEAMLESS REMOTE SURVEILLANCE, FORWARD OPERATIONS AND RAPID RESPONSE TO HOSTILE EVENTS

Featuring MARSS NiDAR - our advanced AI platform powered by Hybrid Intelligence which fuses multiple sensors to create a single, accurate tactical picture - X-TERRA is a fully-equipped command and control unit designed to identify and neutralise land-based and airborne threats, including Unmanned Airborne Systems (UAS) and drones. X-TERRA can operate independently, connect to multi-site networks or enhance FOB capabilities with automated detection, alert, monitoring and countermeasure capabilities, for optimised awareness and control.



MULTI-VEHICLE NETWORKING



DRONE / UAS DETECTION



MOBILE NiDAR ACCESS



OBJECT TRACKING



THREAT CLASSIFICATION

POWERED BY NiDAR CORE

THE AI-POWERED INTERNET OF THINGS (IOT) PLATFORM AT THE HEART OF ALL MARSS SOLUTIONS

Adaptable and learning. NiDAR CORE uses a combination of methods from many artificial intelligence disciplines, allowing the system to operate more intelligently than traditional software, more so than Machine Learning approaches, with improved safety, never compromising on quality.

NiDAR CORE exploits expertise through operational logic, data science, algorithms, video analytics, artificial intelligence, ergonomics and user experience (UX). Collectively, these aspects provide a single situational awareness picture to support operations. Integrated throughout our solutions to create a seamless network of systems operating towards one goal - the protection of lives, critical infrastructure and assets.



WE BELIEVE IN 'HYBRID INTELLIGENCE'. OUR SOLUTIONS COMBINE ARTIFICIAL INTELLIGENCE WITH TRADITIONAL ALGORITHMS AND HUMAN INTELLIGENCE TO CREATE AN UNRIVALLED IOT PLATFORM.

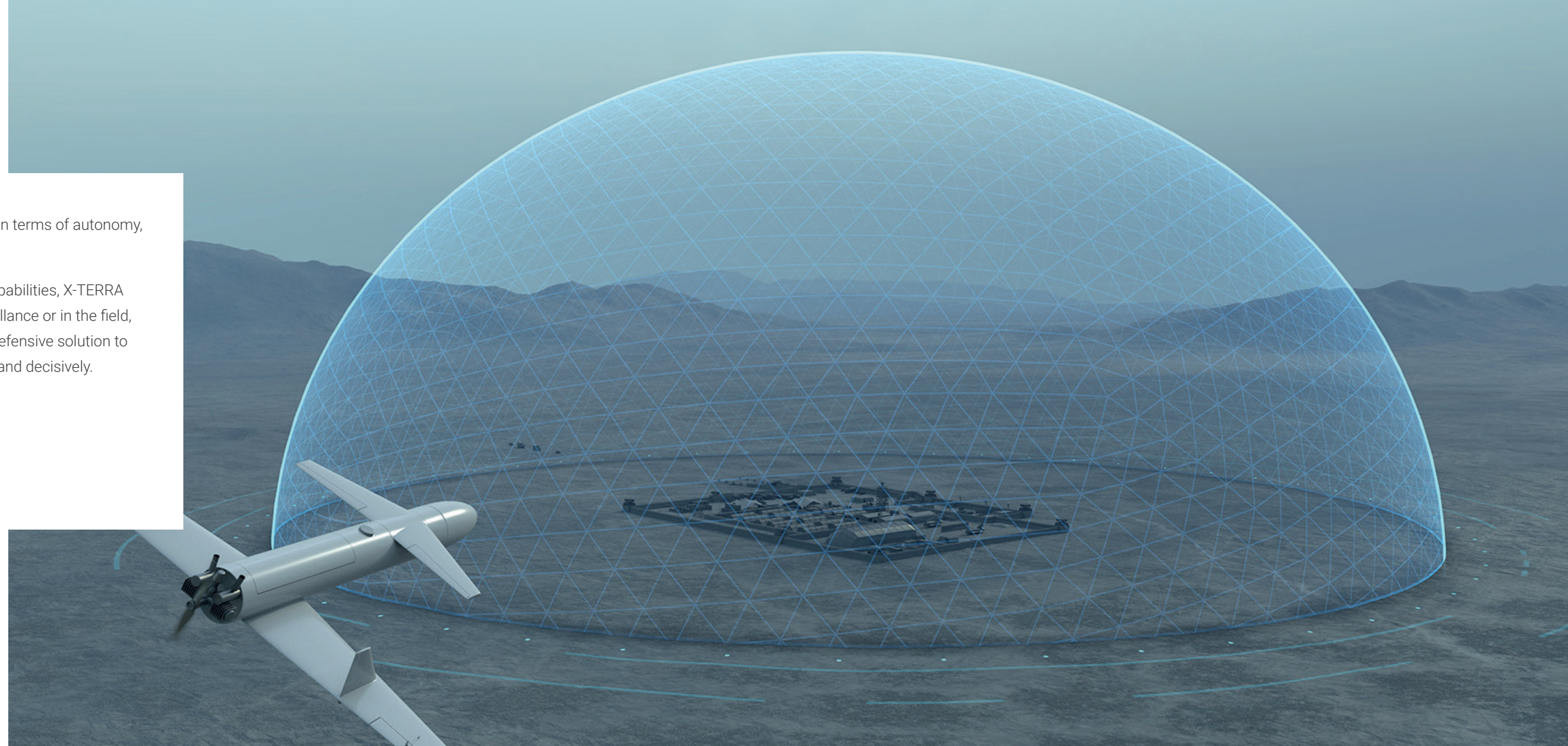
DEFEND AGAINST UNMANNED AIRBORNE SYSTEMS

FROM PEOPLE, TO CRITICAL INFRASTRUCTURE AND ASSETS: HELPING YOU TO PROTECT WHAT YOU VALUE MOST

Unmanned Airborne Systems (UAS) are controlled remotely over long range and can strike in any domain, presenting an operational step-change in asymmetric warfare. Made from readily available, inexpensive tech and easily acquired by hostile forces, their autonomous hunt and attack capability makes them highly effective at exploiting gaps in conventional intel and surveillance, resulting in significant damage to infrastructure and strategic resources.

This threat continues to evolve in terms of autonomy, range, and destructive payload.

With advanced NiDAR CUAS capabilities, X-TERRA can operate as perimeter surveillance or in the field, providing a long range mobile defensive solution to outsmart these threats, rapidly and decisively.

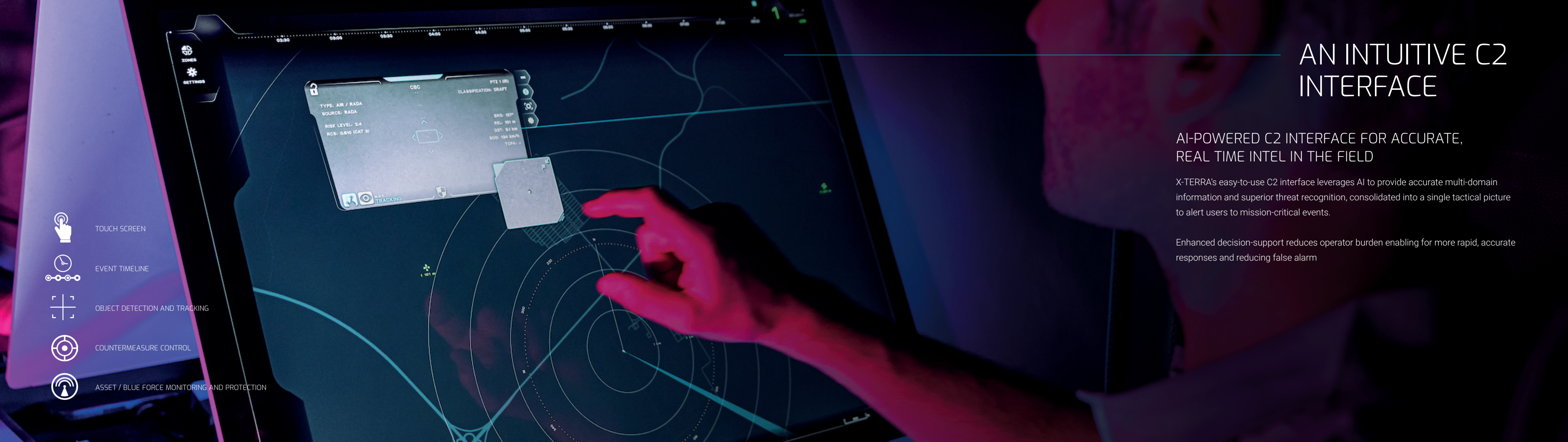




MODULAR AND ADAPTABLE

DESIGNED AND BUILT TO SPECIFICATION FOR MILITARY, SECURITY OR TACTICAL OPERATIONS

A modular mobile command station featuring integrated countermeasures and advanced capabilities, X-TERRA can be customised to client specifications: from sensor and hardware configuration to chassis selection, software and system programming and connectivity.



AN INTUITIVE C2 INTERFACE

AI-POWERED C2 INTERFACE FOR ACCURATE, REAL TIME INTEL IN THE FIELD

X-TERRA's easy-to-use C2 interface leverages AI to provide accurate multi-domain information and superior threat recognition, consolidated into a single tactical picture to alert users to mission-critical events.

Enhanced decision-support reduces operator burden enabling for more rapid, accurate responses and reducing false alarm

-  TOUCH SCREEN
-  EVENT TIMELINE
-  OBJECT DETECTION AND TRACKING
-  COUNTERMEASURE CONTROL
-  ASSET / BLUE FORCE MONITORING AND PROTECTION

ADVANCED FEATURES

X-TERRA'S LEADING TECHNOLOGY PROVIDES SUPERIOR THREAT RECOGNITION, FOR OPERATIONAL ADVANTAGE IN THE FIELD

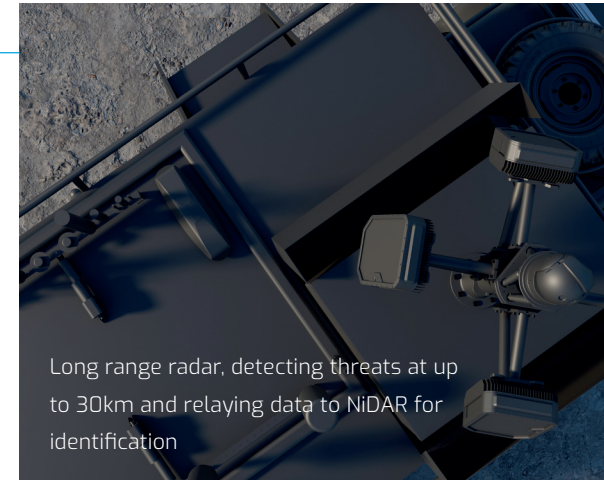
RF and GPS monitoring and jamming for continuous surveillance

Interior housing for onboard command and control, accommodating up to 4 operators

State-of-the-art long range IR cameras, with single or multi-camera 360° monitoring and automated zoom on object



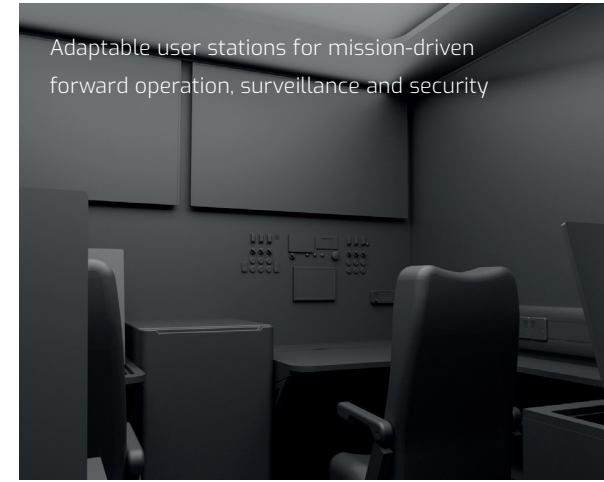
Long range radar, detecting threats at up to 30km and relaying data to NiDAR for identification



Onboard NiDAR - intuitive touch screen interface driven by AI for automated detection, alert and monitoring



Adaptable user stations for mission-driven forward operation, surveillance and security



Robust off-road, all-terrain vehicle for use in hostile environments, areas of conflict, remote operations and ground support



LAYERED DEFENCE

MULTI-DOMAIN SURVEILLANCE AND SITUATION ANALYSIS: FROM DETECTION TO DENIAL, X-TERRA HAS YOU COVERED

DETECT

Onboard radar and RF monitoring for detection of objects across land, surface and air. Live view of objects and accurate sensor diagnostics enables users to observe, monitor and protect assets.

IDENTIFY

NiDAR's proprietary AI uses advanced algorithms, video and behaviour pattern recognition, object data points, event history analysis, RF signal monitoring and environment reports such as weather, location, and flight schedules to identify objects.

ALERT & MONITOR

Continuous surveillance technology to classify and rank potential threats, minimising false alarms and reliably projecting outcomes.

RESPOND

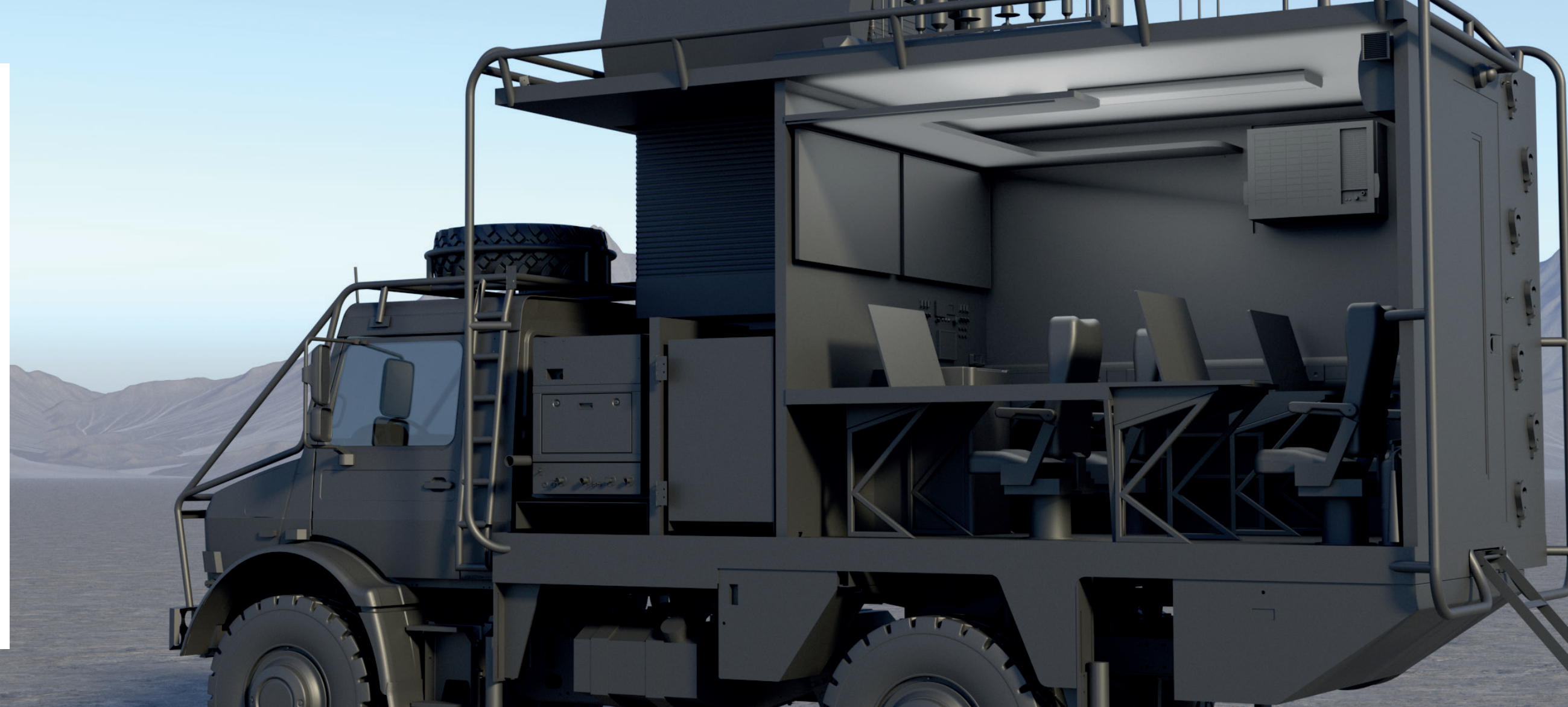
NiDAR's intuitive user interface platform provides X-TERRA operators with response options and countermeasure recommendations. Onboard effectors include RF jamming, GPS jamming and connectivity to kinetic countermeasures for decisive elimination of threats.



TECHNICAL INFO

Dimension	Deployed: 7.5m x 3.6m x 5.7m Box body: 5m x 2.8m x 2.8m
Weight	Vehicle alone: circa 4.1 tons Box body: circa 4.2 tons
Max. Speed	100 km/h
Off-road capability	OEM capability
Transport / logistics	By road. The box and vehicle can be shipped separately by C130 aircraft
PA and flashing lights	Yes
Awning	Optional
Retractable mechanism	Scissor lift platform - 1000kg capacity
Levelling capability	Vehicle: +/-3-5 degrees accuracy via electrical jacks Camera: +/-0.1 degrees accuracy
Deployment capability	Electrical jacks
Maintenance features	Retractable rails, all part accessible, access stairs to roof and all compartments
Others	Adaptable to other chassis

Detection range	< 30km*
Tracking range	< 8km*
Jamming range	< 6km*
Remote communication	Optional MIMO radio or sat
Operator screens	2x 50" screens + 4x 26" consoles
Number of operators	4
CCTV perimeter surveillance	Yes, 4 cameras giving 360 degrees coverage
Power generation	Grid power or on-board generator
Generator capacity	36 kW
Generator Autonomy (stand-alone)	Up to 20 hours
UPS	UPS for soft-shutdown by default
Air Conditioning capacity	Operator compartment: 2 x 4.7kW Rack compartment: 1 x 5.2kW"



LEADING DEFENCE TECHNOLOGY

HELPING NATIONS AROUND THE GLOBE PROTECT WHAT THEY VALUE MOST.

At MARSS, we are helping our customers to strengthen their defence & security and modernise their cities. Trusted globally, our systems protect millions of lives against a wide range of evolving threats from land, sea and air.

Driven by innovation, we are committed to investing in the research and design of new technology to save lives.

Our AI-powered IoT platform NiDAR fuses intelligence from multiple sources with the latest tech, sensors and countermeasures to create a single tactical picture for optimal situational awareness and control.

The continuous development of our NiDAR platform is helping to create smart and secure nations, and protecting against future threats, today.





MARSS is committed to making a difference and creating efficient and intuitive solutions to make the world a safer, and more intelligent, place to live.



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