



إيدكس 2023 IDEX
30 YEARS



نافدكس NAVDEX

INNOVATION JOURNEY BOOKLET



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WELCOME TO THE FUTURE!

The INNOVATION JOURNEY is a unique collection of products on display across IDEX and NAVDEX 2023.

Curated from almost 150 submissions and assessed by a committee of military defence and security personnel, INNOVATION JOURNEY is designed to provide you with a snapshot of the most innovative products from around the world, on display right here at IDEX and NAVDEX 2023.

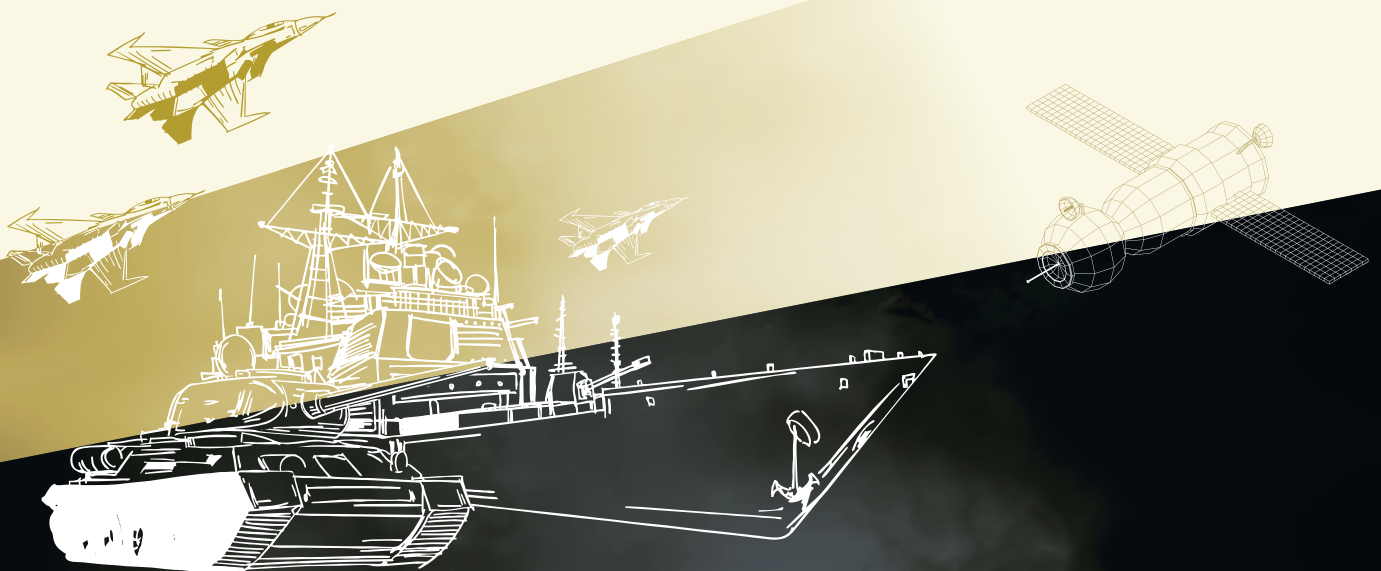
Our handy floorplan in this guide highlights to you the precise location of each innovative product – and you'll find a summary of each product in this guide.

Interested in the latest communication equipment innovations? We've got you covered. The latest AI enabled imaging radar equipment? Got that too.

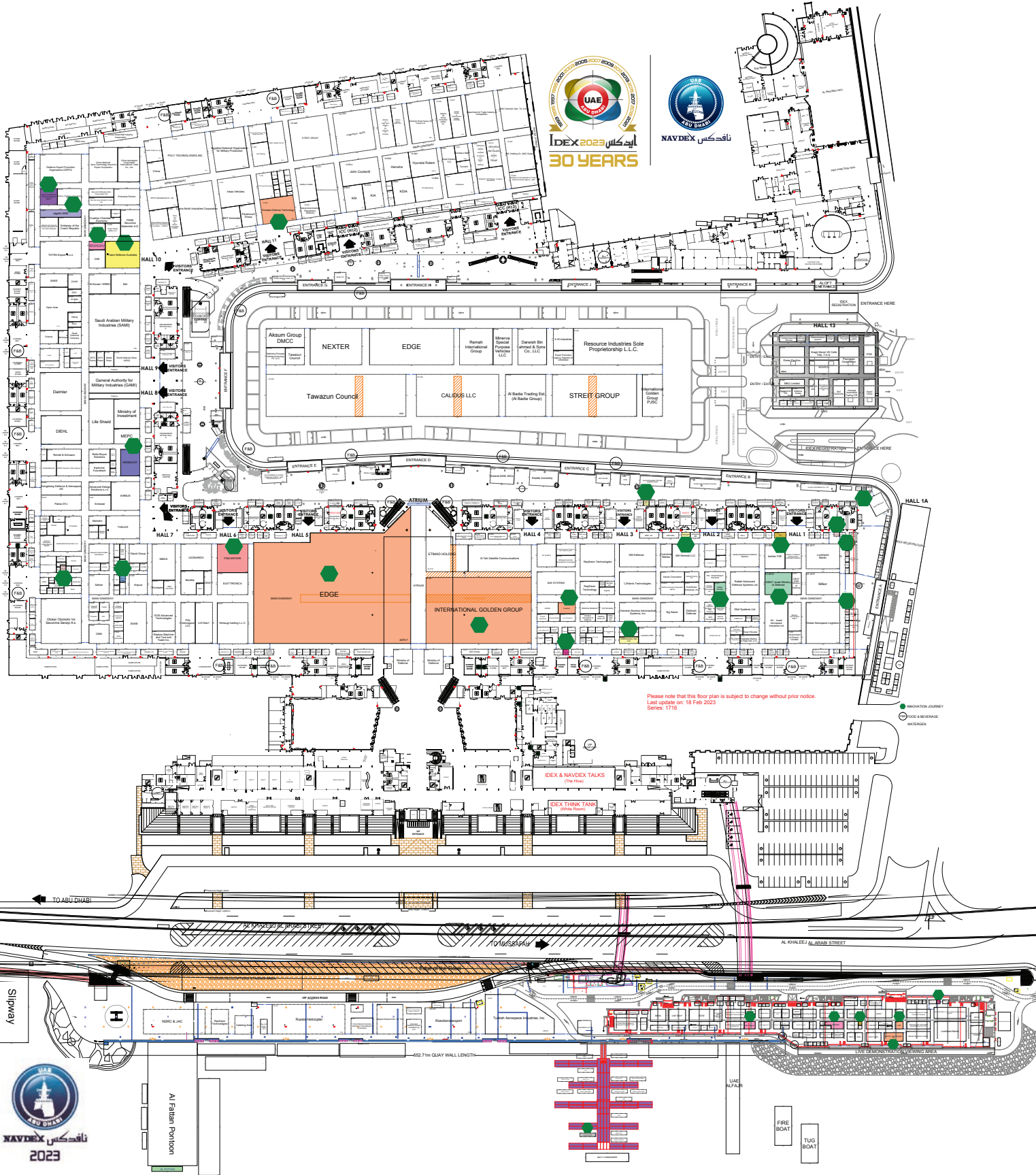
The INNOVATION JOURNEY covers products from 15 countries including Australia, USA, Germany, UAE and many others, covering a broad range of product sectors.

And once you've checked out the INNOVATION JOURNEY – don't forget to check out all our other exhibitors – more than 1,300 from 65 countries.

We hope you have a fantastic, exciting and profitable five days at IDEX and NAVDEX 2023.



FLOOR PLAN



INNOVATION JOURNEY

ARES SHIPYARD



Stand #B025

ULAQ USV - UNMANNED SURFACE VEHICLE



ULAQ is the name of the USV product family developed by the strong alliance of ARES Shipyard and Meteksan Defence, which includes different platform types, capabilities and autonomous functions.

ULAQ AUSV, the first prototype platform of "ULAQ" destroyed the target by firing indigenous laser guided missiles during Turkish Navy's Seawolf 2021 exercise, being the very first ever combat proven, missile firing AUSV in the world. Developing non-stop, ULAQ AUSV completed all trials, including the firing exercises with multiple payloads such as 12.7mm remote weapon system, electronic warfare systems, intelligence and surveillance systems successfully.

ULAQ AsuW (Anti-Surface Warfare) are in serial production for the Turkish Navy, where three new versions of ULAQ family are next in the production line for different end users. ULAQ ASW (Anti-Submarine Warfare), ULAQ SAR (Search & Rescue) and ULAQ MPV (Multi-Purpose Unmanned Vessel) will be in service around the world, soon.

INNOVATION JOURNEY

AIRSHARE



Ontario Canada Pavilion

AIRSHARE



AirShare makes the world's friendliest missile to safely and cost-effectively mitigate small, medium, and large drones. While the defense industry continues to pursue faster, more precise, and more lethal countermeasures, the enemy has been able to evade them by simply getting smaller and cheaper. This is what inspired AirShare's approach--broad area, low-cost, high-persistent countermeasures that are effective against evasively maneuvering drones and drone swarms.

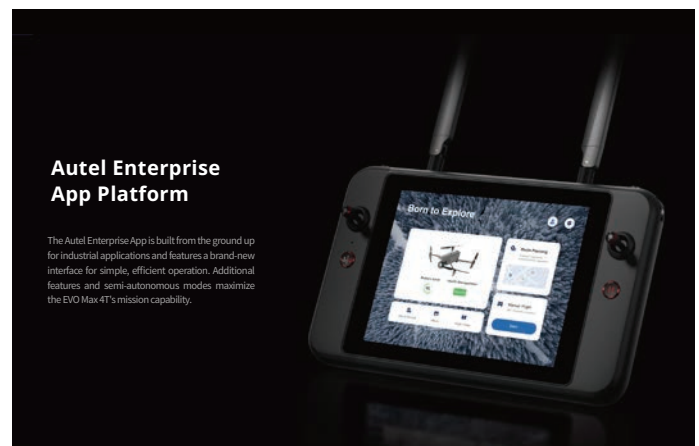
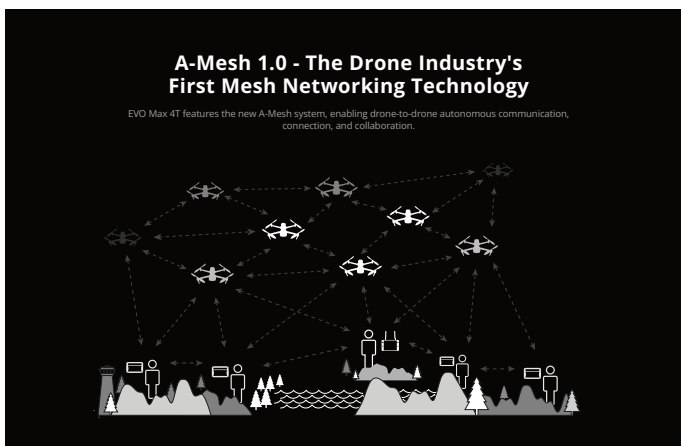
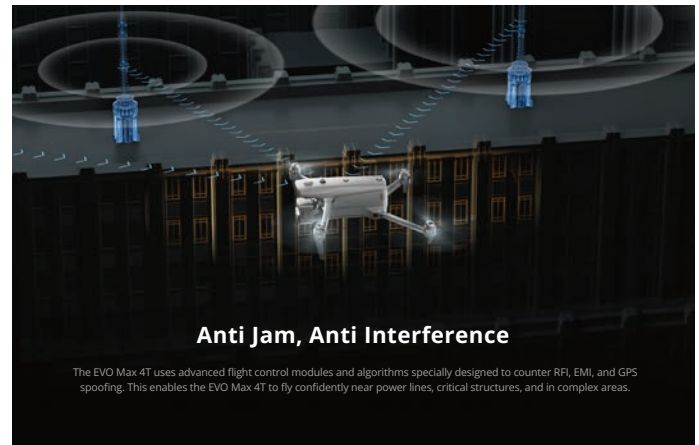
INNOVATION JOURNEY

AUTEL ROBOTICS



Stand #03-A34

EVO MAX 4T



The EVO Max 4T is an intelligent, innovative flight platform perfect for enterprise and prosumer applications. Its advanced autonomous flight technology and AI features give it powerful self-reliance and navigation capabilities. The EVO Max 4T also has omnidirectional obstacle avoidance and tri-anti interference capability (RFI/EMI/GPS) to ensure flight safety and stability in high-interference environments. It has a versatile payload bay that allows for a variety of sensors to be used for a wide range of applications. Its Enterprise App can perform multiple semi-autonomous flight missions, autonomous pathfinding, live streaming, and target acquisition, and also includes various smart accessibility features.

INNOVATION JOURNEY

B.U. COMBINES USA



Stand #A-008

OXYJUMP NG™: THE ULTIMATE MILITARY PARACHUTIST OXYGEN SYSTEM



Collins OXYJUMP NG™ is the ultimate oxygen supply system for high-altitude, high-stress parachute missions. Designed with the most demanding military operations in mind, this system provides an extended oxygen supply using hybrid pulse technology, ensuring that parachutists maintain necessary blood saturation throughout all mission phases. This unique combination of demand breathing regulator technology and oxygen-saving pulse delivery means that OXYJUMP NG uses significantly less oxygen for a complete jump sequence, providing greater flexibility and longer mission durations. And because it doesn't require a separate console, it's ideal for covert operations in small aircraft.

OXYJUMP NG is also highly adaptable, capable of integrating with most parachute systems and harnesses, and providing a flexible range of configurations for use with pre-breathing bottles or oxygen consoles. This system is the pinnacle of oxygen supply technology for elite special forces teams.

INNOVATION JOURNEY

CAE



#IDEX (10-A01) and NAVDEX (B-078)

CAE+TEMPO



CAE's Immersive Maintenance Guide is part of our +Tempo line of training products designed to enhance and accelerate maintenance training. It is constructed with detailed and interactive 3D graphics and is delivered either via tablet or in an immersive virtual reality environment through headsets. IMG provides access to the same advanced courseware, which includes current technical order and Interactive Electronic Tech Manuals data. Benefits of IMG include accelerated skills acquisition, built in performance feedback, rapid ingestion of updated technical order data, and reduced need for live assets.

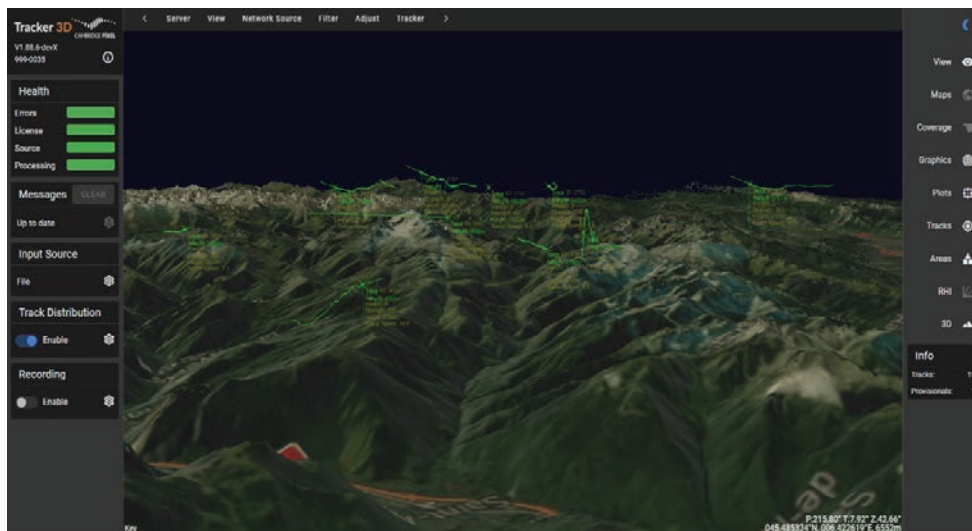
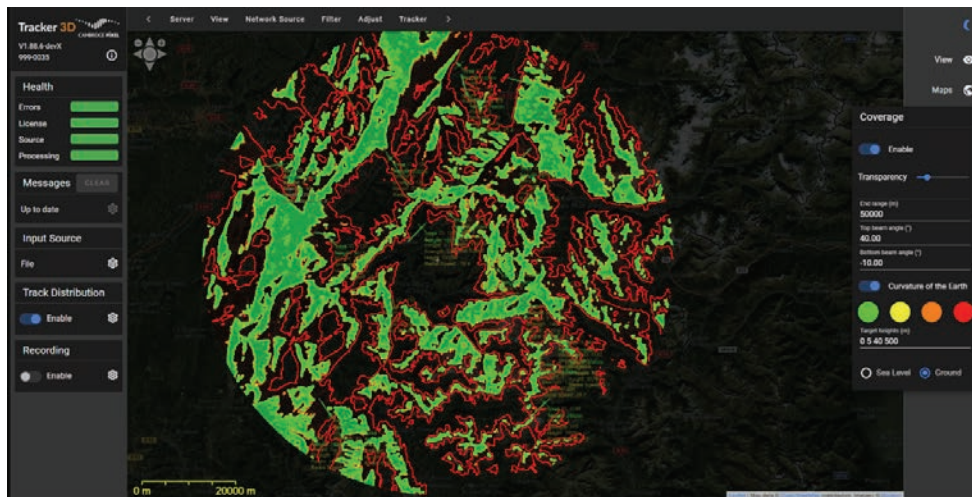
INNOVATION JOURNEY

CAMBRIDGE PIXEL



Stand #03-C45

SPx TRACKER 3D



SPx Tracker-3D is a software-based radar tracker for 3D tracking and tracking from electronically scanned (non- rotating) radars. Airborne targets are getting smaller and more agile, so using advanced tracking software is key to operational superiority in air defence.

SPx Tracker-3D takes in plot detections with variable update rates, allowing for greater granularity of information on targets such as position, size, height and other statistics. The software can track up to 4000 targets and provides a 3D visualisation of terrain data, plots and tracks. The viewpoint can be moved in real-time to visualise the incoming radar detection and terrain.

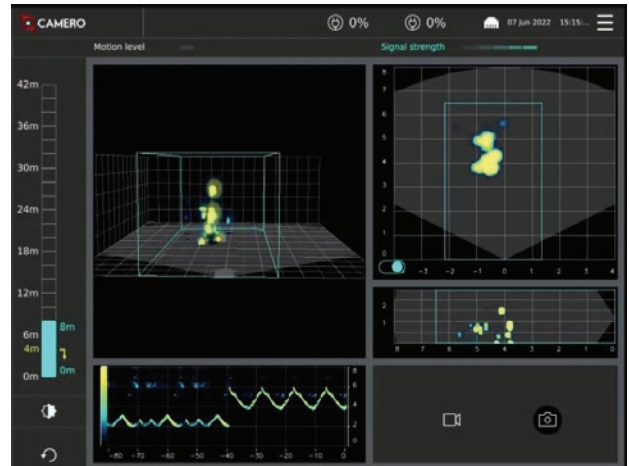
INNOVATION JOURNEY

CAMERO-TECH



Stand #01-A15

THE XAVER™ 1000



The Xaver™1000, the new generation of the Camero-tech's Xaver™ product line, is a real-time 3D 'Sense Through Wall' imaging radar equipped with an innovative AI-based tracking algorithm of dynamic/static target patterns behind walls in more than 30 meters.

It is an essential system for Military, Law Enforcement, Search & Rescue teams, and Intelligence units, operating in various situations including hostile urban and disaster environments. The system creates an unprecedented situational awareness 3D visual picture, providing a clear operational advantage and the ability to distinguish whether the object is an adult, a child, or an animal.

The system is optimized for tactical and ISR operations by gathering mission-critical accurate real-time information about living objects from behind solid walls and barriers including:

- Presence of life in the room
- Number of people and their distance from the system
- Resolution of body parts
- Target height

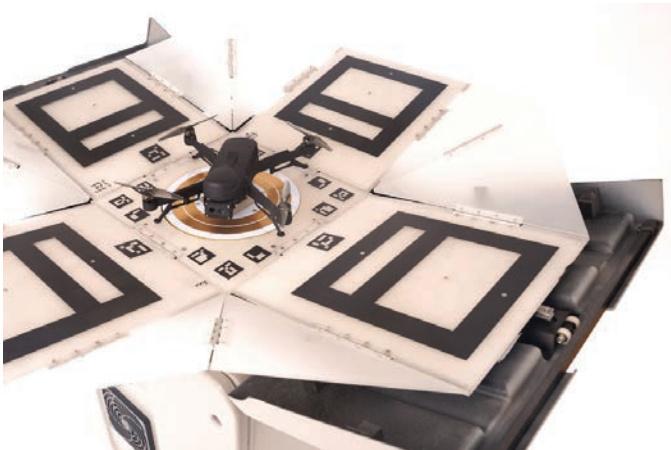
INNOVATION JOURNEY

COPTERPIX



Stand #01-B10

APS300 AUTONOMOUS PATROLLING SYSTEM



APS300 Autonomous Patrolling System:

- Based on a docking station w/Micro Drones, Fully autonomous site protection w/ perimeter of 5Km or 10SKm
- Use UNDER REGULATION(!) Disposable(!) 300grams Micro-Drones (in Israel, full waiver from Aviation Authority-considered Hobby/not Drones)
- Simple operation (2 hours training), customization to specific customer needs (flight routes/connection to command & control systems)
 - Dual day/night camera w/thermal sensor
- Simple installations/no electrical power (using 12V- car battery/small solar panel charge the station battery)
 - True 24/7 operation

INNOVATION JOURNEY

CORDURA® ADVANCED FABRICS – INVISTA



Stand #01-B02

CORDURA® NYCO FABRIC EXTREME



Military Strong, From the Start. For decades, a part of our mission has been to support members of the military by using some of the world's most durable fabrics. Strong, rugged fabrics like CORDURA® NYCO Fabric, made with INVISTA T420HT - the strongest nylon 6,6 staple fiber we have ever produced. Specifically engineered for hot weather combat uniforms, INVISTA T420HT fiber is used to create fabrics made with more open weave constructions than similar alternatives. Resulting in lighter-weight fabrics with increased breathability and the strength and durability CORDURA® is known for. Stop by booth #02-B02 to learn more.

INNOVATION JOURNEY

DEEP TREKKER



Stand #01 B34

DEEP TREKKER REVOLUTION ROV



The Deep Trekker REVOLUTION is a completely re-imagined ROV. The patent pending revolving head allows operators to rotate the camera, manipulators, and sonar all while station holding in moving water. This mission-ready remotely operated vehicle has greater payload capabilities with advanced stabilization, designed to be deployed within minutes. The REVOLUTION and its components (controller, reel, USBL, sonar, etc) are completely battery operated, allowing the system to be deployed from anywhere.

INNOVATION JOURNEY

DESERT POWER DESIGNS



Stand #OW-12

KRONOS SUBMARINE



Desert Power Designs LLC / Highland Systems has developed a unique submarine, which has no analogues in the world, to perform a wide range of tasks:

Military purpose

Rescue work

Underwater engineering works

This is the world's first gliding submarine.

The boat has a unique hydrodynamic hull, which makes it possible to maneuver underwater like an airplane in the sky. It also guarantees high speed performance both submerged and surfaced.

Possibility of operation in any climatic conditions, from equatorial waters to the Arctic.

When designing, advanced engineering solutions were applied.

Designed and built in the UAE.

INNOVATION JOURNEY

FINCANTIERI



Stand #06-A03

FINCANTIERI NEXTECH C-UAS SYSTEM



Fincantieri NexTech has developed an innovative, flexible, scalable and configurable Long Range Counter-UAS system to provide protection against simultaneous and heterogeneous aerial threats, undetectable by conventional air surveillance technology.

Its open architecture permits any-sensor and best-effector integration to be implemented for the required operations and provides end-users with a system that grows to keep pace with threat evolution.

The core element of the implemented air-defense capability is the internally designed and developed Omega360, a 4D multimode software-defined surveillance radar, which sets a new standard for security in all symmetric and asymmetric warfare scenarios when dealing with the most demanding threats

INNOVATION JOURNEY

FLEXFORCE ENTERPRISES



Stand #FT-005

DRONEBUSTER SNA



Dronebuster SNA [satellite navigation attack] is the latest in the six-year legacy of Dronebuster hand-held drone countermeasures. The Dronebuster SNA is a hand-held counter-drone jamming & spoofing system that provides the police or military user the opportunity to stop errant or threat drones regardless of their method of operation. This new model has the command & control and navigation jamming features of many other countermeasures but also has the ability to spoof pre-programmed drones, ensuring all modes of drone threats can be interdicted. These features have been developed with strict adherence to maintaining the legacy Dronebusters compact size & 2 kg. weight ensuring an easy to deploy system for the end user.

INNOVATION JOURNEY

FORCYS



Stand #A-029

INITIATION TRANSPONDER 6



For Mine Counter Measures operations the Initiation-Transponder 6 (IT 6) is a true innovation. Mine clearance puts people, assets and mission at risk. IT 6 helps mitigate this risk, enabling mine neutralisers to be efficiently, securely and wirelessly activated from a safe distance. IT6 uses field-proven digital signal technology for its long range wireless communications link. This means no need for relay buoys or wiring detonators to the surface. IT 6 contains many unique safety and efficiency features which make operations faster and lower risk.

INNOVATION JOURNEY

HALO AMMUNITION



Stand #FTN-009

HALO AMMUNITION



We have revolutionary ammunition that does something never before seen in the arms industry. These brand-new rounds provide both mass trauma (impact/stopping power) and amazing penetration. Usually in the ammunition you have to sacrifice one or the other, with Halo Ammunitions unique never seen design, you get both. The ammunition is also made of the finest and highest quality ammunition being manufactured today.

INNOVATION JOURNEY

HAVELSAN



Stand #B-044

SANCAR AUSV



SANCAR AUSV

HAVELSAN produced the SANCAR Armed Unmanned Surface (AUSV) Vehicle in cooperation with Yonca-Onuk Shipyard. Since modular construction technology is used in the production of SANCAR AUSV, additional payloads can be easily integrated into the platform to fulfill the expected duties while performing different tasks that may arise in the future.

Developed using autonomous systems technologies such as artificial intelligence and data fusion, it has a length of 12.73 meters, a width of 3.3 meters, and a displacement of 9 tons. The platform can reach over 40 knots and has a cruising range of over 400 nautical miles.

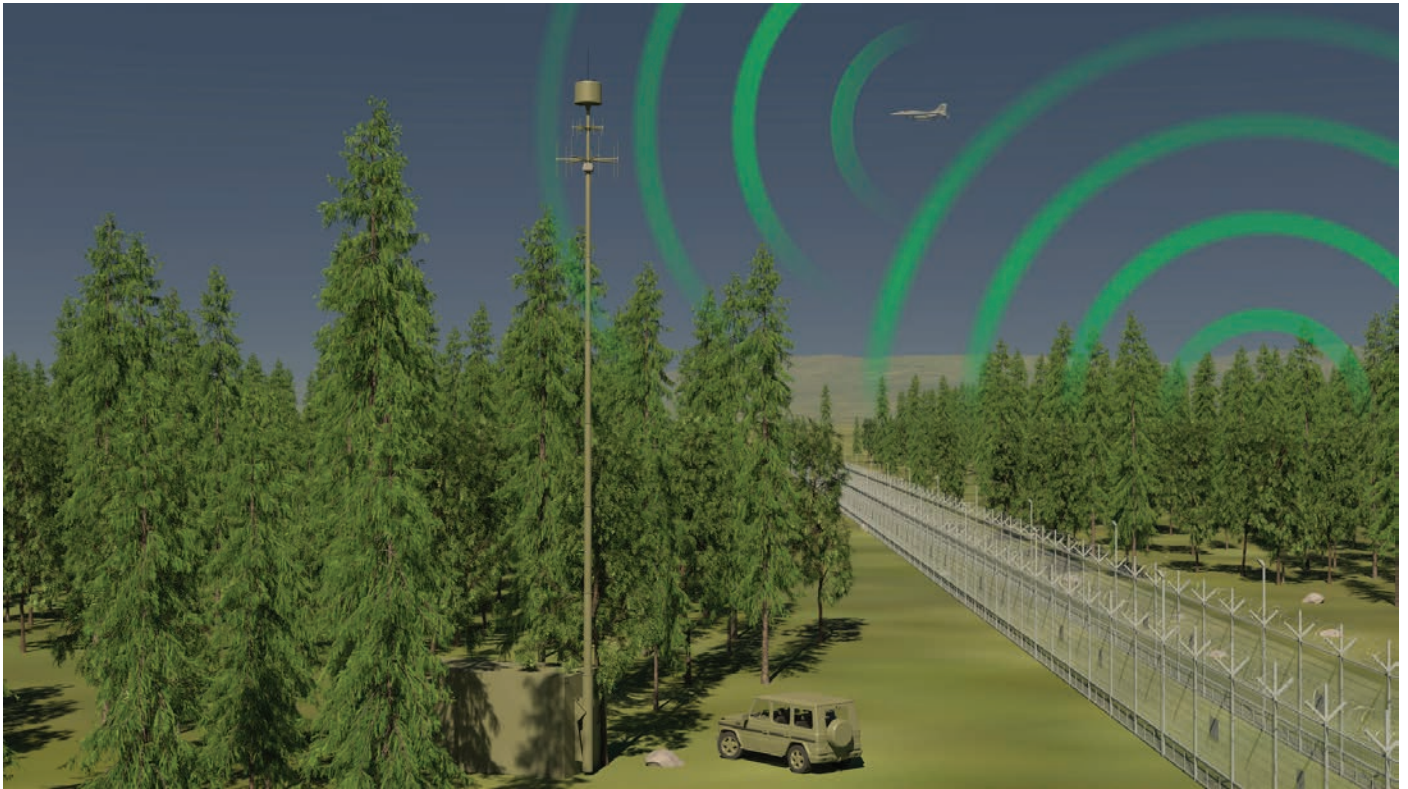
INNOVATION JOURNEY

HENSOLDT



Stand #08-B13

TWINVIS® PASSIVE RADAR



Twinvis adds a new dimension to the world of surveillance and situational awareness.

It offers decisive operational advantages: it cannot be located due to the absence of any transmitted energy and it does not need any emissions from targets to locate them. The system uses existing electromagnetic energy from radio- and TV-broadcast transmitters.

In addition to its high mobility, the system itself remains invisible and therefore cannot be jammed or eliminated in a targeted action. It can also be used to discover stealth aircraft which, due to their low observable technology, have until now remained undetectable for conventional radar systems.

INNOVATION JOURNEY

HEVEN DRONES



Stand #02-A17

H2D55



The H2D55 is the first in a planned lineup of Hydrogen fueled drones by HevenDrones, made to address lithium battery-powered drones' flight endurance and payload capacity limitations, in addition to the long term environmental impact of lithium mining. Without needing to regularly replace batteries, hydrogen fuel cells will also lower long term ownership costs. The forthcoming models in the product line will be released over the next 9 months, and will improve upon the H2D55's payload capacity of 7kg while maintaining its flight endurance of over 2 hours.

INNOVATION JOURNEY

HOUBARA DEFENCE & SECURITY



Stand #03-C33

BRACER SECURE TACTICAL SATCOM



BRACER™ Secure Tactical SATCOM: BRACER was developed specifically to fulfil the needs of NATO Special Forces in establishing reliable communications without the need for existing communications infrastructure in theatre. BRACER™ Provides 100% Global point-to-point Beyond Line of Sight (BLOS) satellite communications and Blue Force Tracking for instant command and control. BRACER™ can tolerate speeds up to Mach 2.0, making it suitable for any platform or mission type and all communications and data are protected by dual AES 256 End-to-End Encryption layers. The system is rated FIPS level 4, making it the most robust and secure satellite communications system which is exportable to commercial customers.

INNOVATION JOURNEY

KATIM



Stand #Hall 5, stand A-05

KATIM GATEWAY 9011



KATIM Gateway 9011 is an industry-first, next-generation network encryption solution. It provides holistic post-quantum, data-in-transit protection that continually adapts to the evolving security landscape, for governments, large corporates, critical infrastructure, and other entities requiring uncompromising security for data and communication networks and endpoints. Future-proofed from the ground up, our ultra-secure network encryptors are built for the disruptions and challenges facing enterprise security architectures. KATIM Gateway 9011 ensures customers are ready for postquantum era, bespoke sovereign cyber security solutions, and networking changes driven by remote work; protecting infrastructure used for cloud computing and 5G networks and devices, and for the exponential growth of data sharing driven by powerful end-user computing. Post-quantum safe UAE National or Public Crypto Suite options. Best-in-class security with application-aware encryption. End-to-end QoS support.

INNOVATION JOURNEY

MAROM DOLPHIN



Stand #11-C07

MAROM DOLPHIN



An innovative, Hybrid robotic system capable of providing an advance and unique solution for a variety of operational needs and gaps in the battlefield. Dual use of carrying heavy loads (150 kg.) over rough terrain and on-demand robotic control capability.

Patented (pending) elastic goose-neck for extreme agility and ergonomics integration to enable a hybrid operation (human/machine) and maintain full combat readiness and mobility.

Offered in two main configurations:

4x4 (load capacities up to 150 kg.)

2x2 (load capacities up to 75 kg.)

Designed to comply with military standards and ingress protection.

capable to take apart and carry on the back.

INNOVATION JOURNEY

MICRO-X



Team Defence Australia

MICRO-X



Micro-X are the first company globally to commercialise a digital X-ray tube using a Carbon Nano Tube (CNT) emitter. The technology breaks through the historical limitations of traditional X-ray and has enabled the development of lighter and digitally controlled X-ray systems.

Designed on the back of a user requirement the Argus X-ray Camera is a combat effective solution, remotely deployable and highly configurable with remote stand-off capability. The system provides the operator with high-definition X-ray images, to support threat detection down to component level. Intuitively designed to reduce cognitive load. Argus is an integrated system able to increase usability across Military High-Risk Search, Detection, Diagnostics and Exploitation.

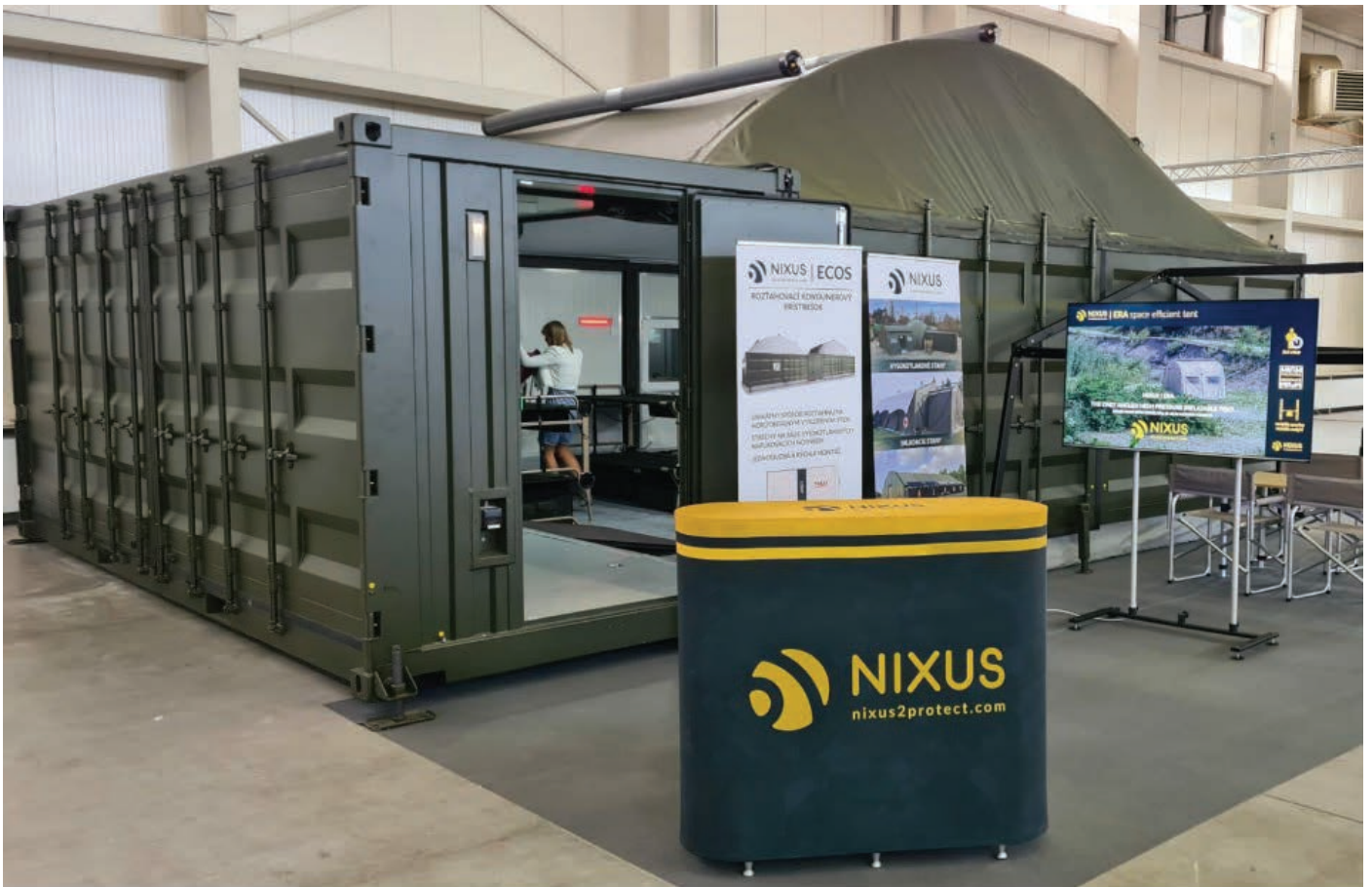
INNOVATION JOURNEY

NIXUS



Stand #10-C07

NIXUS | ECOS



Expandable container shelter NIXUS | ECOS represents a solution for applications where a larger object with solid walls is required, with the possibility of quick unfolding, folding and moving to another location.

The patented ECOS solution is unique in that the container is expanded on both sides by a dimension corresponding to its own length after the horizontal folding of the side walls, whereas previous solutions offer an expansion corresponding to its own width or height. The total built-up area after expansion is approximately 14x6 meters and the internal usable area is 75 m². The shelter roofs are supported by a reliable NIXUS high-pressure beam system. The goal of the development was to provide a compact universal shelter with solid walls and built-in equipment for use as field accommodation, a hospital, a command post, etc., with the installation being handled by a 2–3-member vehicle crew.

The ECOS system is modular, individual devices can be connected to each other.

INNOVATION JOURNEY

OUVRY



Stand #07B28

DEC POL ABS



This dry emergency CBRN decontamination wipe is designed for the decontamination of surfaces, equipments and skin. The DEC POL ABS® wipe decontaminates by transfer more than 99% of chemical agents and reduces the risk of cross-contamination by internal storage of the toxic thanks to the combination of the hyper-absorbents and non-abrasive material. Effective whatever the mode of application, the DEC'POL ABS wipe is an ideal response in the event of chemical contamination : rapid extraction of the contaminant, storage in the "reservoir" layer. The product and the materials are inert so there are no risk of exothermic or explosive reaction.

INNOVATION JOURNEY

PIK-AS AUSTRIA GmbH



Stand #07-D58

LED MAP READING LIGHT



The LED map reading light; PA2310 series, from PIK-AS Austria, was set as standard product for several armies, for their land vehicles. The map reading light does not just provide light, it comes up with several functionalities, like white color mode, blackout color mode (blue/red/green), stepless dimming, low voltage alert as well as with backup battery. The backup battery provides light up to 6h to save soldier's life in the event of vehicle power loss. With several thousand sold units, the product is combat proven and of course additionally EMC certified, shock approved, etc.

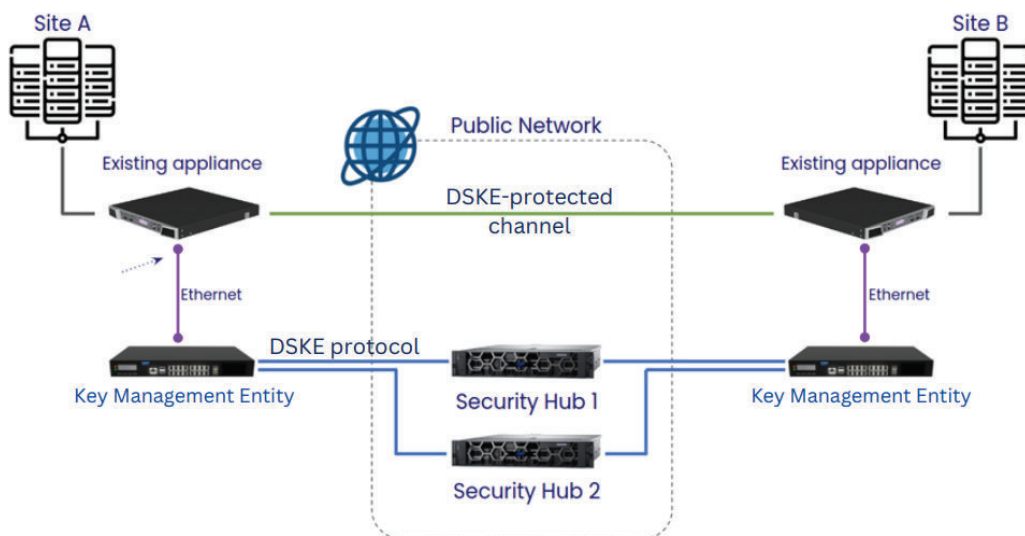
INNOVATION JOURNEY

QUANTUM BRIDGE TECHNOLOGIES



Stand #ST-002

QUANTUM BRIDGE KME



New quantum computing capabilities are under development around the world. Those quantum computers are able to break a great part of the encryption used in everyday communication, like the RSA. Recent publications by a Chinese group (<https://arxiv.org/pdf/2212.12372.pdf>) reveal that the quantum computing threat is actually very real. Worldwide governments and international organizations are now moving to new forms of encryption which are considered quantum-safe. Our products are bringing to the market a quantum-safe encryption system that comes with mathematical proof of its security. Our technology is currently used to protect mobile communication (our Black Phone), and network traffic (our Key Management Entity). We would like to showcase our products and help interested customers to become quantum-safe. The product was designed and built in Canada by a very capable team, led by one of the most important scientists globally in the field of quantum technologies.

INNOVATION JOURNEY

RAMZIQ



Stand #C-020

TUPAN HSVSTOL



It is a HSVSTOL unmanned aerial vehicle capable of carrying out multi-mission in the civil and military fields, operating under low or at high flight speeds due to its versatile propulsion options – Turbofan, propeller or EDF.

HSVSTOL – High Speed and Vertical/Short Take-off and Landing.

EDF – Electric Ducted Fan.

INNOVATION JOURNEY

RAPID MOBILE



Stand #04-C20

RT7 STRATEGIC VOICE & DATA ENCRYPTOR



The RT7 Strategic Voice & Data Encryptor is a ½ 19-inch rack-mount strategic security terminal intended for use in command centres, base/shore stations and naval vessels. The RT7 forms part of the RT family and connects to a single HF or V/UHF radio to provide high-end secure voice, data and position services to existing radio networks. These services include robust secure voice, text, forms, file transfer, navigation, situational awareness, email and interfaces for third-party C2 and C4I systems. The RT7 also has external intercom and ethernet interfaces to support remote operation in addition to the front panel handset.

INNOVATION JOURNEY

RCG RADIO CONTROLLED AIRCRAFT
TRADING LLC ENCRYPTOR



Stand #FT001

HFE INTERNATIONAL GENPOD LRU



HFE International develops and manufactures high-end propulsion systems for UAVs, drones, unmanned systems, and ground support equipment. Propulsion systems include fuel-injection and rotary systems with gasoline and multi/heavy fuel operation.

INNOVATION JOURNEY

SMART BATTERY CHARGER



Stand #C3-003

SBC-DTV35A-400



The SBC-DTV35A-400 is a 24 Volt, 400 Amp triple alternator kit for the Toyota V35A-FTS (3.5L Turbo Gasoline) engine. It leaves the OEM 12 Volt system alone and adds two 24V alternators that combine for 166 Amps at idle and 350 Amps at driving speeds. The OEM 12 Volt alternator can be reused or can be upgraded to an SBC-TV35A-320SPXi for even more 12 Volt power. Applications: 2021+ Toyota Land Cruiser 2021+ Toyota Tundra 2021+ Lexus LX600 Specifications: Output Voltage: 24V Maximum Amperage: 400Amps @ Normal Engine Idle: 166A Also available for the LC300 3.3L Turbo Diesel (F33A-FTV).

INNOVATION JOURNEY

SPACEKNOW



Stand #10-B50

SPACEKNOW GUARDIAN



SpaceKnow Guardian is state-of-the-art AI-based imagery intelligence software for unprecedented, highly scalable, automated analysis of satellite imagery. The way Guardian is built enables the user to automatically monitor thousands of areas globally and in near real-time by a unique synthetic aperture radar (SAR) and optical data fusion. Guardian has a superior capability in military object detection and classification. It is able to detect land equipment, ships, and aircraft, as well as classify the objects up to a specific model. Guardian will automatically monitor any number of places around the world, detect objects, track changes, send you regular reports on the activity, and notify you immediately once a hostile activity is detected. Thanks to its compatibility with multiple satellite imagery providers, Guardian helps to analyze and understand vast amounts of data with extreme speed and accuracy and make the right decision in support of military operations around the world.

INNOVATION JOURNEY

SPEARUAV



Stand #01-A30 and 01-B10

VIPER – PERSONAL LOITERING MUNITION



Equips the dismounted soldier with a wearable, rugged, immediate, and autonomous personal Aerial Loitering Munition, providing small tactical units (squad level and below) with a hovering, loitering precision-strike UAS against both static and mobile positions.

Encapsulated & launchable rotary wing, precision attack drone

Effective against stationary and moving targets within LOS & BLOS

Portable: Light, small, agile, wearable.

Ninox GCS – Ground Control System:

1. Compatible with Android, Microsoft Windows, Linux
2. Open System Architecture integrates seamlessly with existing C@ Systems
3. AI-Based Features to ensure minimal collateral damage
4. Autonomous Target Classification & Tracking- ATR

INNOVATION JOURNEY

THERMAL BEACON



Stand #Hall 01-B10

THERMAL BEACON LTD SECURE OPTICAL SIGNALING



Thermal Beacon Ltd. develops and manufactures high-end innovative thermal beacons as an optical IFF (Identification Friend or Foe) with a focus on quality, reliability, and innovation.

TRflash 3, Thermal Beacon's new product allows multispectral (LWIR, MWIR and SWIR) thermal observation systems, weapon sights, drones, and UAV optical sensors to identify the new Thermal beacon on a soldier and on an armored vehicle, and to enhance the safety and security of soldiers in the field.

INNOVATION JOURNEY

VITEC



Stand #01B03

MGW DIAMOND TOUGH



MGW Diamond TOUGH is a fanless, power-efficient quad channel HEVC and H.264 HD/SD encoder designed in a rugged enclosure. Supporting simultaneous encoding and streaming of analog and SDI sources, KLV / STANAG metadata ingest from various sources (SDI/IP or Serial), real-time image cropping and video scaling, Forward Error Correction (FEC) streaming and JITC compliant output streams.

Designed to meet the growing demand for real-time imagery in the most demanding environments, this appliance packs all the needed capabilities for delivering any type of ISR or SA video generated by ground vehicles, manned or unmanned airborne platforms and marine vessels in extreme conditions.

