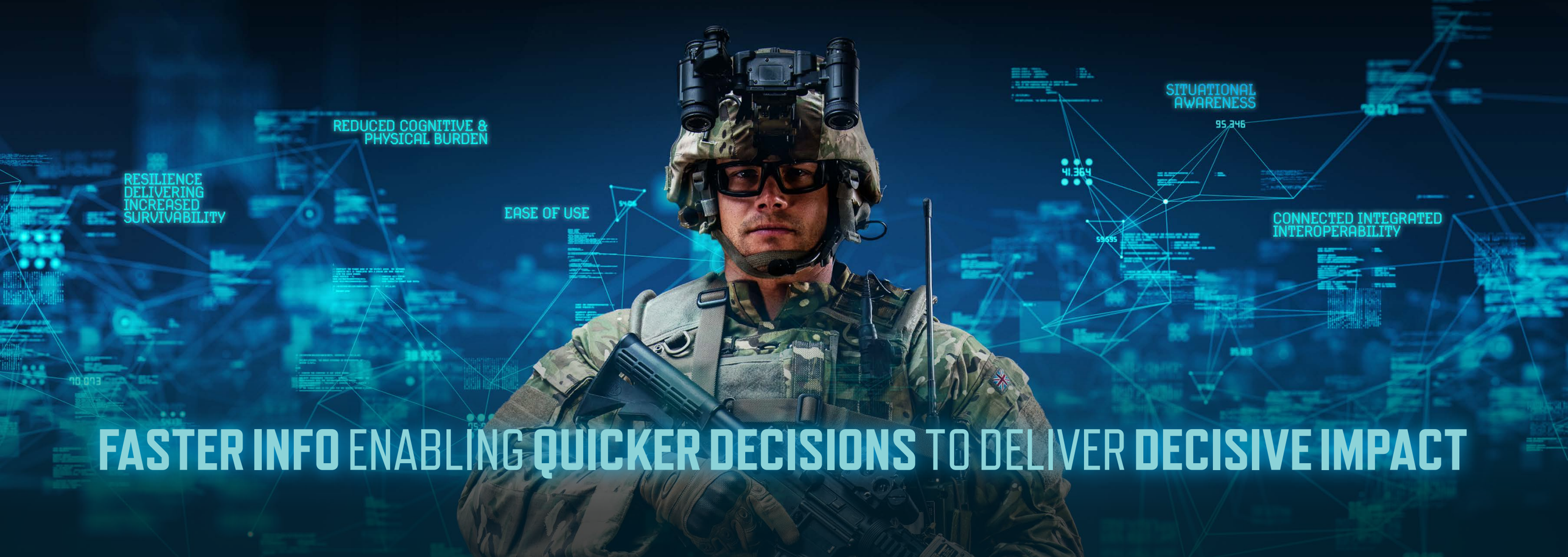
EVEREST

MILITARY OFF-THE-SHELF CAPABILITIES **AVAILABLE TODAY**



FASTER INFO ENABLING **QUICKER DECISIONS** TO DELIVER **DECISIVE IMPACT**

WELCOME TO THE EVEREST EXPERIMENT

Thank you for attending the visitor days.

Everest is a three-month, L3Harris-led experiment in conjunction with the Defence BattleLab and teams from Systematic, Leonardo DRS, NSSL Global, Inmarsat, GlenAir and Exsel.

The genesis of Everest was a desire to bring together a number of companies and create a fieldable network that could be demonstrated live. To support this, all participating companies have self-funded provision of equipment and time to integrate their capabilities. All capabilities being shown are in service, at high TRL and available **now**.

In addition, we anticipate further development of capabilities given additional time and increased equipment availability. All the partners have expressed a willingness to be involved with future experimentation. Other capabilities we are exploring include: planning and network management software, network routing and switching software, deployable cloud solutions and access into the plethora of deployable information systems at the UK's disposal. Adding these capabilities into the key network building blocks being shown provides an opportunity for the UK to move faster to greatly upgraded Tactical CIS.

The Everest result is an integrated network that shows the links from the lowest user, upwards through the echelons of command and back to UK and across to Coalition allies. It shows how sensors can be easily integrated and the network reconfigured to deal with changes in force posture. Finally it shows how industry can come together to deliver solutions that the MOD could look to introduce into service that would rapidly increase the UK's deployed infrastructure capability.

EVEREST

REINVENTION WITH INTEGRATION

The Everest experiment unites equipment and services in an integrated network to underpin LE TACCIS, CEMA, GBAD and ISTAR. Each station displays currently available capabilities that could be immediately deployed with the following operational benefits:

Unique levels of multi-domain connectivity. In congested, contested environments, multi-domain connectivity has been the Holy Grail. The Everest experiment shows how the combination of modern software defined radios with Satcom to the lowest level can pass voice, data and SA to wherever required by adapting to the need and threat environment. The technologies you'll see today accelerate the decision-action cycle and drastically compress the targeting chain.

These same networks support operational deployment and the Battlefield Cloud.

Protection. Ukraine has demonstrated the vulnerability of static, grouped teams. The EVEREST experiment facilitates dispersed HQs with an unprecedented degree of mobility.

Drone Awareness and Counter Small Unmanned Aerial Systems (C-sUAS) Low-cost disposable drones are the new threat vector. EVEREST shows how this threat can be neutralised with C-sUAS systems, supported by Land Ground Based Air Defence (GBAD)

Informing and de-risking Army's Integrated 8, and more urgently 4+1

Coalition interoperability to increase operational effectiveness with major improvements to always-on SA

New ConOps. The leap in bandwidth resulting from High Capacity Line of Sight (HCLOS) technologies, as selected for TRINITY, facilitate the dispersed HQ, point to point VoIP calls and conferencing and innovative sensor arrays.

HF for the backhaul. Modern HF enables all-informed situational awareness and data nets, long range voice and data, Last Ditch Data (LDD) and allied interoperability in a well-established, reliable architecture.

Democratisation of EW down to the patrol level, enabling rich, networked and resilient electronic surveillance capability, rapidly reconfigurable to electronic attack/protection.

Satellite communications extended deeper into the land domain enabling tactical flexibility, dispersed operational connectivity with UK defence CIS at multiple classifications and global reach via multiple constellations bringing choice and resilience.

Unprecedented Common Operational Picture to enable the free flow of information, decisively reducing decision-action time.

EVEREST

COMMON OPERATIONAL PICTURE

ENEMY THREAT

COMSAT/MILSAT
(BROADBAND)

WATCHKEEPER
(VIDEO SOURCE)

COMSAT
(L-TAC)

(OSPREY)

COALITION HQ

NATIVE INTEROPERABILITY

LOCATION #4A
BATTLE GROUP COMMANDER

MOBILE VEHICLE
- AN/PRC-160
- AN/PRC-167
- RF-7850W
- ROVER 6
- OSPREY
- TRINITY
- SITAWARE FRONTLINE

LOCATION #2
PLATOON COMMANDER

PLATOON COMMANDER (D+)
- AN/PRC-163
- S20
- SITAWARE EDGE
- ATAK

SA CROSSBANDING

- RF-7800W
- TRINITY
- LAND EW
- C-sUAS
- LAND GBAD

LOCATION #7
EW, C-sUAS & GBAD

- AN/PRC-160
- AN/PRC-167
- RF-7850W
- RF-7800H
- OSPREY
- TRINITY
- SITAWARE FRONTLINE
- SITAWARE HEADQUARTERS

LOCATION #4
DISTRIBUTED BATTLE GROUP MAIN HQ

RIFLEMAN (D)
- RF-9820S

RIFLEMAN (D)
- RF-9820S

SECTION COMMANDER (D)
- RF-9820S
- SITAWARE EDGE

RIFLEMAN (D)
- RF-9820S

LOCATION #1
DISMOUNT GROUP & JTAC

C-sUAS RADAR AND CAMERA

LOCATION #6
C-sUAS SENSORS

COMPANY HQ
- AN/PRC-160
- AN/PRC-167
- RF-7850W
- TRINITY
- SITAWARE FRONTLINE

LOCATION #3
COMPANY HQ

LOCATION #5
MEWT/LEWT GROUP

MEDIUM WEIGHT EW
- RF-9820S
- CORVUS NODE

LIGHT WEIGHT EW
- RF-9820S
- CORVUS NODE
- SITAWARE EDGE ON S20

JTAC (D++)
- AN/PRC-163
- DRONE CONTROL
- SOLDIER HUB, S20
- STINGER LITE
- SITAWARE EDGE
- ATAK
- TNR-2i

WRAITH™
VOICE / SA

HF (SECRET)
VOICE / DATA / SA

HCLOS (CATAPAN SECRET)
VOIP / VTC / VOICE / DATA / SA / FULL MOTION VIDEO

VHF (ANW2C SECRET)
VOICE / DATA / SA

L-TAC
NB VOICE / DATA

COMSAT/MILSAT (BROADBAND)
WB VOICE / DATA

ISR
DATA / FULL MOTION VIDEO

HARDWIRE ETHERNET

SENSOR DATA

EVEREST

RESILIENT, ADAPTABLE BEARER SUBSYSTEM

The next generation in interoperable battlefield communications.

EVEREST

THE CURRENT CHALLENGE

The UK's in-service bearer solution is functional but constrained in data throughput and interoperability with allies, unable to adapt to meet emerging threats in the battlespace. The risk to UK Forces is that their ability to operate on deployment is likely to be constrained by enemy action and a congested EM spectrum. Each network element performs as designed, but the overall system needs to change to offer commanders and users access to the information they need, where and when they need it.

THE EVEREST ADVANTAGE

Modern software-defined radios provide unprecedented connectivity and data throughput. Individual radios supplied with multiple waveforms and transmission modes enable the user to reconfigure when needed and upgrade capability whilst deployed on operations. Radios can be fielded utilising current infrastructure and offer the UK the opportunity to introduce significant capability increases into service whilst saving on integration costs. This provides support to commanders at all levels by enabling fast information flow and a truly common operating picture for the first time. It would also enable UK to play a full part working with allies by providing secure over-the-air interoperability from UK vehicles.

When viewed as an integrated network – L3Harris bearers enable new modes of operation supporting different CONOPS whilst provide the resilience and adaptability the UK needs in the modern battlespace.

L3Harris battlefield bearers are the key enabler to faster information flow and a truly Common Operating Picture.

BEARERS FEATURES CAPABILITIES FROM THE FOLLOWING COMPANIES:

L3HARRIS®

EXPERIENCE BEARERS AT LOCATIONS THROUGHOUT THE SITE

INTEGRATED TACTICAL MISSION SYSTEM

Proven, off-the-shelf tactical systems for today's battlefield.

EVEREST

THE CURRENT CHALLENGE

UK and Coalition partners need Proven fielded tactical systems fully integrated with strategic partner's networks and applications to enable fast, low risk deployment.

THE EVEREST ADVANTAGE

L-DRS MFoCS based Next Generation Tactical cyber secure computing and networking enables significant size, weight and power advantages on tactical vehicles and in command posts. Both network and application neutral, the capability enables the construction of both simple and highly complex systems in and at the tactical edge. Field Proven and in use by US Army, Marines and international end users.

L-DRS MFoCS is configurable, open, cyber secure and off the shelf tactical mission system.

INTEGRATED TACTICAL MISSION SYSTEM FEATURES CAPABILITIES FROM THE FOLLOWING COMPANIES:

L3HARRIS® SYSTEMATIC LEONARDO DRS

EXPERIENCE LEONARDO DRS INTEGRATED TACTICAL MISSION SYSTEM AT LOCATION 3

JOINT TERMINAL ATTACK CONTROLLER

L3Harris Broadband Communication Systems (BCS) battle-proven JTAC, TDL and ISR Solutions.

EVEREST

THE CURRENT CHALLENGE

Today's JTAC requires access to intel from all domains and the ability to rapidly disseminate information to where it is needed. Current operators have reduced mobility and a detectable signature by being weighed down with multiple radios for TACSAT, BOWMAN, HaveQuick, VuLos, dedicated SATCOM, and a TNR Rover datalink to download satellite imagery.

THE EVEREST ADVANTAGE

Modern JTACs are enabled to meet all CONOPS by carrying a single AN/PRC-163 or 167 fitted with an ISR Mission module. Multiple data channels offer redundancy and pass information straight back to HQ regardless of terrain or conditions. The single-box capability offers a level of resilience and capability not seen before in this form factor.

Improved information flow with faster data transmission and reduced physical burden by reducing four devices to one.

JOINT TERMINAL ATTACK CONTROLLER FEATURES CAPABILITIES FROM THE FOLLOWING COMPANIES:

L3HARRIS® Glenair®

MEET THE JTAC AT LOCATION 1 WITH THE DISMOUNT TEAM

LAND ELECTRONIC WARFARE (EW)

Next-generation offensive and defensive EW innovation.

EVEREST

THE CURRENT CHALLENGE

As the capabilities of our enemies and adversaries grow, the need to protect, detect and counter threats intensifies. Threats are increasingly sophisticated, with the line between EW and the cyber domain becoming ever-more blurred as the universal reliance on digital technology increases.

THE EVEREST ADVANTAGE

The need for high-end, land-based EW capability has never been greater than it is today. With the pace of change more rapid than ever, forces must ensure they're ready to respond just as rapidly. Our innovative, agile BROADSHIELD® and CORVUS® capabilities ensure they stay one step ahead, enabling the achievement of both offensive (Electronic Surveillance and Electronic Attack) and defensive (Force Protection and C-UAS) EW effects for spectrum superiority.

Our EW solutions are purpose-built for rapid response and deployment, offering a modular, future-ready design that enables offensive and defensive EW capability.

LAND EW FEATURES CAPABILITIES FROM THE FOLLOWING COMPANIES:

L3HARRIS®

VIEW LAND EW CAPABILITIES AT LOCATION 5 (MEWT/LEWT) AND LOCATION 6 (C-sUAS SENSORS)

5 6

OSPREY MULTI-DOMAIN, MULTI BEARER C2 NODE

In service, fully tempested, ruggedised and assured Multi-security domain (UK Secret, NATO/Mission Secret, O-S/Unclass) and Multi-bearer (built in LTE/WiFi or via ADSL or Satcom) HQ and small team C2 node.

EVEREST

THE CURRENT CHALLENGE

Key users in deployed HQs or small recce/liaison teams increasingly need to operate at various classifications (UK secret, mission/NATO Secret, O-S and unclassified) enabling work with own forces, allies, local agencies and access to open source information. They also need to be able to exploit any communications bearer for operational flexibility.

THE EVEREST ADVANTAGE

With over 100 OSPREY C2 nodes in service including with the Commando Force, 16 Air Assault BCT and for PJHQ operations, there is opportunity for this proven capability to support teams from a handful to sixty plus staff with multi-security domain information services.

The system can also deliver UK Secret VTC from the tactical edge bridged into dVTC and eVTC (fielded with the RN/RM) and bridge tactical radio systems including Bowman or MANET waveforms enabling C2/SA for dispersed teams.

Leveraging proven and assured deployable OSPREY C2 nodes delivering information advantage and improved connectivity at the edge.

OSPREY FEATURES CAPABILITIES FROM THE FOLLOWING COMPANIES:

NSSLGlobal

EXPERIENCE OSPREY AT LOCATION 4: DISTRIBUTED BATTLEGROUP MAIN HQ

4

SATELLITE COMMUNICATION SERVICES IN THE TACTICAL LAND DOMAIN

EVEREST

Leveraging multiple COMSAT services and user terminals alongside MILSAT to deliver resilient and layered broadband and narrowband global connectivity across deployed HQs and tactical edge users.

THE CURRENT CHALLENGE

There are increasing demands in the quantity of data and number of people and platforms needing access to that data. Deploying terrestrial networks is resource intensive and prone to significant tactical threat. Satcom can enable improved voice and data services for reachback and for a dispersed tactical edge.

THE EVEREST ADVANTAGE

NSSLGlobal and partners, including Inmarsat, deliver the bulk of Defence COMSAT for Royal Navy vessels, the Commando Force, Army users and PJHQ operations. Alongside or instead of MILSAT, a combination of broadband COMSAT (Ku or Ka including GX) and deployable terminals from companies including L3Harris, and narrowband team/patrol systems including L-Tac, BGAN Patrol and Push to Talk handhelds can be part of a PACE plan delivering rapid and resilient connectivity.

COMSAT sometimes augments but is often used instead of MILSAT. COMSAT brings greater coverage, significant flexibility, smaller terminals and higher throughputs.

MILSAT/COMSAT SERVICES FEATURES CAPABILITIES FROM THE FOLLOWING COMPANIES:

L3HARRIS® NSSLGlobal inmarsat

RECEIVE SATCOMMS AT LOCATION 4: DISTRIBUTED BATTLEGROUP MAIN HQ

C4ISR BATTLE MANAGEMENT SOFTWARE

The SitaWare Suite provides world-leading C4ISR capabilities that deliver comprehensive situational awareness, advanced planning, and mission management tools — all of which can be shared seamlessly across all echelons of command.

EVEREST

THE CURRENT CHALLENGE

Peer warfare requires greater information sharing and cohesion between headquarters and tactical units. Yet degraded or non-existent frequencies coupled with EW threats such as jamming make this a constant challenge. The result is a lack of situational awareness throughout the command chain and crucial delays in combat or logistical support.

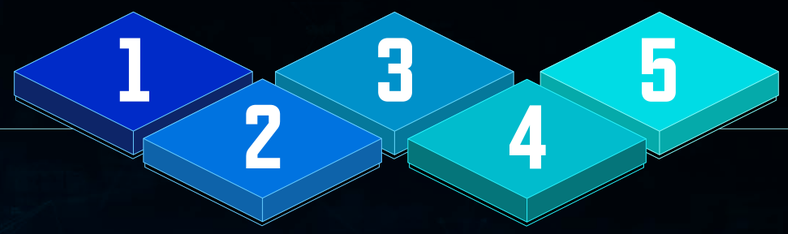
THE EVEREST ADVANTAGE

Central to mission success is a ready-to-go C4ISR capability that allows plans and orders to be accessed and developed at all levels - even when communications are degraded – for a complete situational awareness. SitaWare's intuitive planning, geo-analysis, chat, and video tools allow faster, superior information sharing up and down command chains, ensuring that mission critical decisions are based on correct, timely intelligence that can secure that operational advantage.

SitaWare offers an unmatched ability to provide timely, accurate situational awareness across all levels of command — and is available today.

C4ISR BATTLE MANAGEMENT SOFTWARE FEATURES CAPABILITIES FROM THE FOLLOWING COMPANIES:

SYSTEMATIC



LAND GBAD & C-sUAS

We have extensive operational experience in the delivery of multi-domain situational awareness capabilities to warn, inform, deter and defeat all air threats through our TOTS (Target Orientated Tracking System) and C-sUAS solutions.

EVEREST

THE CURRENT CHALLENGE

The need to understand, isolate and exploit information is important to freedom of manoeuvre. Neutralising threats requires responsive and versatile solutions, adaptive to evolving situations and intelligence needs. TOTS turns raw data into a real-time picture to be disseminated using mapping, visualisation, and data analytics to detect, track, identify and defeat air threats.

THE EVEREST ADVANTAGE

TOTS is a real-time, low-latency, multi-target sensor data fusion and tracking system designed to track air-breathing, ballistic missile and maritime surface targets. The low-latency architecture and autonomous multiple model construct is deployable across multi-domain and is integrated and scalable, ensuring that target tracks are formed quickly after entering sensor coverage or separating from a parent object. Drone Guardian uses TOTS to enable multiple target C-sUAS detection, identification and tracking across both fixed and deployable installations.

The commander determines an adversary's intent with a reduction in manpower requirements and mitigates security risks at a quicker response rate — winning the information battle.

C-sUAS AND GBAD FEATURES CAPABILITIES FROM THE FOLLOWING COMPANIES:

L3HARRIS®

SEE C-sUAS AND GBAD IN ACTION AT LOCATION 5 (MEWT / LEWT) AND LOCATION 7 (EW, C-sUAS & GBAD)

5 7

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