



# Threads

NEWSLETTER

DECEMBER 2015

DEFENCE CLOTHING AND EQUIPMENT NEWSLETTER FOR INDUSTRY

## A MERRY CHRISTMAS AND HAPPY NEW YEAR TO ALL



Firstly, thank you for your support over the last 12 months. Integrated Soldier Systems Branch (ISSB) has, through your support, met all of its operational responsibilities. I also acknowledge the flexibility that you have displayed in meeting Defence requirements. You should all take great pride in the fact that we consistently receive positive feedback from our service personnel on the quality of the clothing, personal equipment, armaments, medical equipment and rations they are receiving.

### Project update

In 2015 ISSB has closed the following projects:

- JP 2060 Phase 2B – Joint Health Capability
- JP 199 – Establishment of Special Operations Command
- JP 2088 – Equipping Tactical Assault Group East
- AMP 58.08 – Enhanced Static Line Parachute with delivery of their remaining capabilities.

LAND 125 Phase 3B Soldier Systems Integrations version 2 (survivability) – Soldier Combat Ensemble achieved initial operational capability by issuing equipment to 7 Brigade soldiers in Adelaide.

LAND 125 Phase 3C Soldier Systems Integrations version 2 (lethality) – Austeyr F88 Upgrade commenced deliveries of the EF88 rifle through an initial low rate production activity with Army.

Projects that remain under tender evaluation include;

- LAND 53 Phase 1BR – Night Fighting Equipment Replacement (NINOX)
- LAND 3025 – Deployable Special Operations Engineer Capability
- LAND 2110 Chemical, Biological, Radiological and Nuclear Defence.

A new first pass project, JP 2060 Phase 3 – Health Clinical Care, is undergoing its definition phase.

### 2015 Industry Forum

There was a tremendous turnout at the Industry Forum in June this year. Participation in the forum highlights the ongoing strong Defence and industry commitment to ensuring that Australian clothing, personal equipment, health and armaments suppliers, manufacturers and supporters are well informed on developments in the acquisition and sustainment of Defence materiel.

I intend conducting the next forum in February 2016, the first since the appointment of the new Head Land Systems, Major General David Coghlan. I encourage you to continue supporting the forums by participating in the equipment displays. We are also seeking your assistance with providing innovative solutions presentations. These activities will continue as the two primary themes of our 2016 events.

I close by wishing you and your families a safe and relaxing festive season and I look forward to catching up with you in the New Year if not before.

Simon Welsh

**Brigadier**

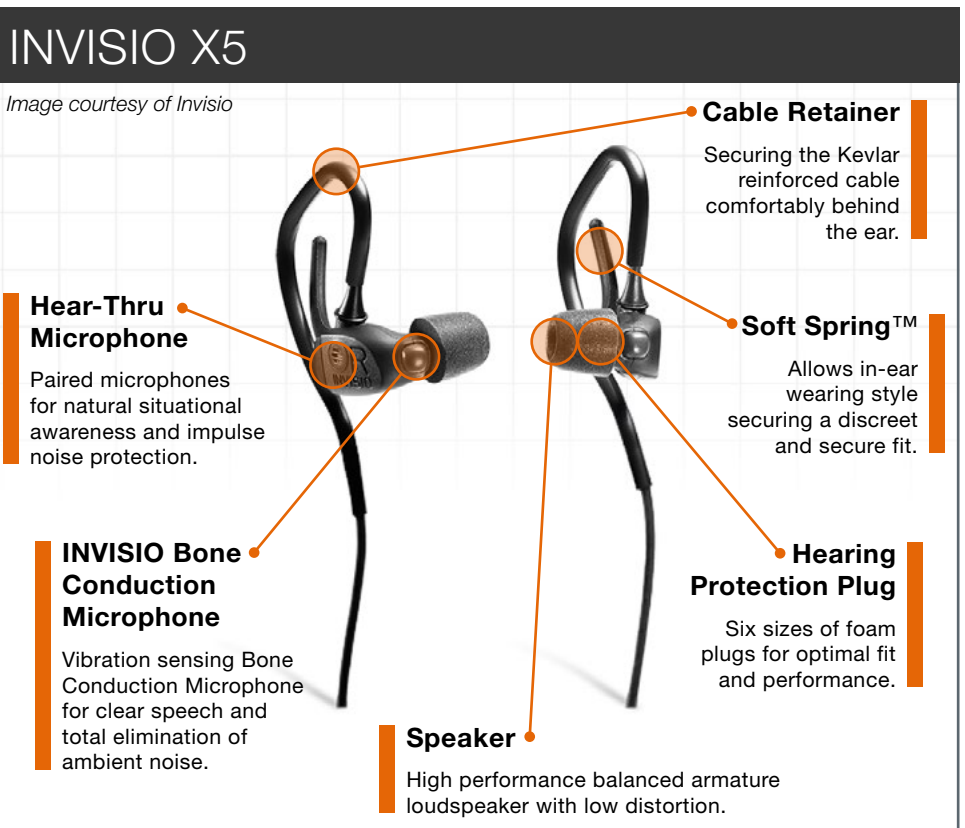
Director General Integrated Soldier Systems

# COMBAT HEARING PROTECTION

The ability for the dismantled close combatant to communicate whilst minimising the harmful affects of battlefield noise is set to get a capability boost from 2016, as part of LAND 125 Phase 3B – Soldier Combat Ensemble.

Canberra-based Defcon Technologies Group recently signed a deed of standing offer with the Commonwealth after they were selected to supply the Australian Defence Force (ADF) with the INVISIO – X5 ‘in-ear’ headset, with S10 and V60 configuration options. The deed runs for the next five years, with the option to extend.

LAND 125 Phase 3B is delivering modernised individual soldier survivability capabilities including enhancements to body armour, helmets, individual load carriage, eye protection and hearing protection. The combat hearing protection (CHP) element will provide the Tier 2 dismantled close combatant with hearing protection to ensure exposure to harmful noise is kept within acceptable limits while minimising the disruption to the user’s auditory situational awareness and abilities in performing their duties. The ensemble will be rolled out in three tranches with the first tranche to



1 Brigade almost complete. The second tranche, focussing on 3 Brigade, will be delivered in 2016 and the third tranche, focussing on 7 Brigade, in 2017.

The tranche 1 CHP solution delivered to 1 Brigade consists of the 3M Peltor

Comtac XP with LEMO connector to enable communications via the soldier personal radio. This solution is a traditional ‘over the ear’ style system that is easy to use and very rugged. For tranches 2 and 3, an open request-for-tender was utilised to identify a solution that best met Army’s requirements.

Project Manager CHP, Major (MAJ) Michael Tull, said the project team had worked extremely hard over a relatively short timeframe to evaluate a number of competitive offers. The tender closed in March 2015 with a strong field of international contenders. Tendered CHP systems underwent a rigorous evaluation process that included technical testing, culminating in a user trial at 3 Brigade.

The INVISIO – X5 headset is a leap forward in CHP capability with the soldiers of 3 Brigade first in line to receive the new systems. The headset is “a world class capability with a key feature being the ‘in-the-ear’ bone-conducting microphone that removes the requirement for a traditional boom microphone”, said MAJ Tull. “Signing the deed before Christmas enables the project to deliver this great capability to the soldiers of 3 Brigade in 2016.”



L-R: Mr Joe Kerrigan (CASG), Mrs Karen Pritchard (CASG), Lieutenant Colonel John-Paul Ouvrier (CASG), Ms Krista Geist (CASG), Major Michael Tull (CASG), Mr David O'Brien (CASG), Mr Nick Stokes (Defcon), Ms Lynne Anderson (Defcon) and Mr Jamie Conley (Defcon)

# LASER SAFETY IN LAND SYSTEMS DIVISION

The rapid increase in the use of lasers for operational applications, varying from weapon aiming devices to non-visible illuminators, offers an opportunity for industry. Technical advancements in laser technology have broadened the spectrum of applications but also increased the hazards and risks associated with their operation. Industry has a key role in supporting the introduction into service of these products by providing compliant technical documentation.



Defence is obliged to assess the safety of laser systems under the requirements of the Australian Radiation Protection and Nuclear Safety (ARPANS) Act and regulations, and to comply with the Army - Technical Regulatory Framework. The Laser Safety Paper (LSP) is a mandatory requirement that details the hazards and risks associated with its operation against Australian Laser Safety Standards AS/NZS IEC 60825. All lasers, regardless of classification, require an LSP to inform the development of technical documents such as user handbooks and instructions and provide a means of mitigating technical and safety risks to users and maintainers.

Some suggestions to assist industry in developing acceptable LSPs are:

- a. Ensure that the LSP complies with the data item description contained within the contract terms. A laser system submitted for tender that lacks a high quality LSP will introduce increased technical risk and constrain Defence's ability to assess the device.
- b. Provide objective quality evidence (OQE) that supports and can validate the LSP. OQE could include independent test reports, build state declarations and single fault analysis.
- c. Adhere to the relevant Australian standards, thus allowing Defence to meet its regulatory obligations. This is especially important for products developed overseas that have been certified against an alternate laser safety standard.
- d. Ensure access to the technical skills required in laser safety, including LSP authoring skills. This must also involve familiarity with latest Australian Standards.

## DIGGERWORKS

Diggerworks has had another busy year in 2015 with the directorate continuing to deliver value along all its lines of operation: modernisation, development, systems integration and configuration management.

While the directorate has worked broadly across all lines of operation, the main effort for 2015 has been the

development of new tiered body armour systems (TBAS) to support the adaptive development methodology built into LAND 125 Phase 3B. In partnership with local defence industry, Diggerworks will deliver an improved TBAS design for future tranches of the project in 2016 and 2017.

**TBAS Version 4.4.** Diggerworks has used operational feedback from the last

three years, as well as user feedback from the release of TBAS Version 4.3 to 1 Brigade in May 2015, to improve the design ahead of the next roll out in 2016. Between June and November 2015, Diggerworks partnered with the LAND 125 Phase 3B contractor to prototype the TBAS Version 4.4 design, complete ballistic testing and run user engagement activities with 3 Brigade in Townsville. The new version features improved fit and comfort, a removable back plate and options to manage acoustic signature.

**TBAS Version 5.** Designed as an option to follow TBAS Version 4.4, TBAS Version 5 reflects the scalable mobility and protection requirements of the modern Australian soldier. In partnership with local industry, Diggerworks has

<b>Modernisation</b>	Soldier power management and LAND 125 Phase 4 – Future Soldier Combat System
<b>Development</b>	Next generation tiered body armour systems, field packs and ballistic protection
<b>Systems integration</b>	Development of an integration assessment framework and assessments in support of tender evaluation boards
<b>Configuration management</b>	Development of soldier configurations for all roles

developed Version 5 over the last three years. In 2015, the final prototype was developed, with ballistic testing and user trials conducted to validate the design. Optimised for high velocity protection and mobility. Version 5 includes add-on scalable features which allow users to rapidly increase protection levels according to the operational environment. Version 5 is still undergoing development, but is proposed as an option for Tranche 3 of LAND 125 Phase 3B in 2017.

**New Director.** After three years and a significant contribution to the development of the soldier combat system, Colonel (COL) Mark Jennings will leave Diggerworks in December 2015 to attend Higher Defence College in Canberra. Diggerworks will welcome COL Richard Barrett as the new Director. Colonel Barrett previously commanded 5th Battalion, the Royal Australian Regiment.

**Industry engagement.** Diggerworks continues to welcome industry visits to shape soldier combat system development and modernisation. For more information on Diggerworks, or to discuss your company's emerging technology, please contact us at [diggerworks@defence.gov.au](mailto:diggerworks@defence.gov.au)



TBAS Version 5



TBAS Version 4.4

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