

NETWORK ENABLED ARMY COMMAND POST DEPLOYS ON KIWI KORU 16

The Network Enabled Army (NEA) programme was created to address a major command and control (C2) capability gap which affected our ability to integrate with the other services, our allies, government agencies, and non government organisations.

To close this gap NEA is developing the capability to build, deploy and sustain fully integrated mission networks. To achieve this the programme has identified four major work streams:

- The Tactical Information Environment will provide the services and processes required to establish and manage deployed information networks.
- The Mobile Tactical Command System will introduce combat net radios, display devices, mobile tactical software applications, and associated harnesses for both mounted and dismounted soldiers.
- The Common User Bearer System will provide computer server capacity and wideband Beyond Line Of Sight connectivity between headquarters within the area of operations, and access to the Strategic Bearer Network which links the deployed force to the NZDF Defence Information Environment.
- The Common Command Post Operating Environment (CCPOE) will provide the deployed home for the command and control (C2) systems.

The CCPOE consists of the deployable infrastructure and support systems which will house the deployed C2 systems. The CCPOE includes shelters, electrical power, data systems, and accessories such as furniture and trailers. The principles used by the CCPOE project are:

- Modularity; utilise a limited range (2–3) of standard, interconnecting shelters.
- Unitary; each provided with its own power, furniture and IT systems.
- Portable; each can be carried on a vehicle or trailer, or be loaded into a container.

An initial set of CCPOE has been acquired to undertake testing and development. This initial set utilises a family of tents which is already in-service with the Joint Operational Health Group. These tents, manufactured by HDT Expeditionary Systems, are easily erected and can be joined to any other tent in the HDT range or to non HDT products and vehicles by means of adapters. Whilst the project has accepted the tents for introduction into service additional consideration is needed before selecting the associated environmental control, power and mobility systems.

Recently the Network Enabled Army Programme (NEA) provided a set of CCPOE to Queen Alexandra's Mounted Rifles (QAMR) to be used on Exercise Kiwi Koru 16 (KK16). This consisted of command posts (CP) for the:

- Task Group headquarters provided by QAMR, and two
- Task Unit headquarters for:
 - Wellington East Coast Squadron of QAMR, which received a standard CP, and also
 - Alpha Company (the high readiness company) from 1st Battalion, the Royal New Zealand Infantry Regiment, which received a lightweight early entry CP.

These CP's were established at Linton in accordance with the layout in 1st (New Zealand) Brigade standard operating procedures (SOP). They were used as a venue for both the





NEA ON A BOLD QUEST

One of the four components of the Network Enabled Army (NEA) programme is the Mobile Tactical Command System (MTCS), which includes combat net radios, display devices, mobile tactical software applications, and soldier harnesses.

In October a rifle section from V Company deployed to Savannah, Georgia, for Exercise Bold Quest. The purpose of Bold Quest, which includes participants from about 20 nations, is to test coalition interoperability and improve the ability to share communication and information between coalition partners. The NEA programme sponsored participation to assess the value of a mature MTCS in a coalition environment, following on from the initial platoon-level demonstrations conducted in May at Waiouru.

The NZ section was embedded in a Canadian platoon, which itself was part of a US company. All commanders in the coalition company used Nett Warrior. This is the MTCS used by the US Army, and combines voice traffic and data sharing over a common radio network with display devices showing the local terrain and the locations of friendly and enemy forces. This allows rapid and accurate sharing of relevant information, and speeds up the orders process and changes to plans. Commanders do not need to come together to receive new orders which are instead sent and received over the digital network as updates to map overlays, clearly identifying boundaries and objectives.

After training together to learn the Nett Warrior system and synchronise training, tactics and procedures as well as standard operating procedures, the CANZUS Company embarked on a series of short-duration tactical tasks. These consisted of a range of dismounted activities against a live near-peer adversary by day and night. The Fort Stewart training area provided the venue, with a mix of very dense brush and forest, swamps, and a dedicated urban training village, inhabited by many very thirsty mosquitoes.

Within just a few missions the three nations of the coalition company were operating together effectively and making great use of Nett Warrior. The system was quick to learn, and provides certainty about the location of other friendly forces and their tasks, speeding up battle procedures.

Bold Quest validated for NEA the value of fielding a MTCS like Nett Warrior, and assumptions about the scale of issue, while also highlighting issues related to carriage of equipment and power consumption. These issues have been fed back into the NEA programme, before final equipment decisions are made. The exercise also provided a small detachment of soldiers from 1 RNZIR with an excellent opportunity to train within a multi-national force.

staff planning and command post exercise phases of KK16. During this time a number of improvements in layout were identified and these were implemented on the final activity; the tactical movement of the headquarters to a new location. These improvements will in due course be incorporated in the SOP.

A small evaluation team was established consisting of the project manager, specialists from the NEA Test Reference and Evaluation Centre (TREC), an electrician from QAMR, a scientist from the Defence Technology Agency and field service representatives from the system vendors. This team looked specifically at a number of environmental control and power supply configurations. Temperature, humidity and power consumption data was obtained over the period of the exercise and has been taken back to DTA in Auckland

for analysis.

This analysis will inform the final environmental control and power supply configuration, with the aim of minimising the demand for generator fuel. This will be achieved by optimising the environmental control system and matching it with intelligent generators linked by a digital control system. These generators will be multi fuel (diesel and aviation fuel) which will simplify logistic support.

Initial findings indicate that the accommodation, furniture and power and data management systems inside the CP are broadly fit for purpose with a few minor exceptions. However it was determined that further work will need to be done in order to optimise the environmental control and power systems. It is planned to address these in the New Year.

