

# NATO Network Enabled Capability

## NNEC uses current and future technology

By Megan Thum,  
NNEC Communications, HQ SACT

**T**ODAY'S WARFIGHTER, whether operating in the mountains of Afghanistan or in a remote desert location in Iraq, is fighting an evolved enemy. The tactics are different, the method of attack is different, and the technology found in even the most remote climes is often highly advanced. NATO Network Enabled Capability (NNEC) will shift the focus onto information superiority as an enabler for combat power and allow collaboration at the speed of tomorrow by making better use of the technology of today and tomorrow.

### NNEC is Vital to Operations

Nations and NATO's future operational environments will demand substantial transformation at all levels: strategic, operational and tactical. Integrated planning and execution, information sharing and responsive support are necessary to achieve success with fewer personnel and fewer resources. Ideally, this would also mean fewer casualties, but an overall more effective Alliance.

We, who are identified as NATO, Nations, industry, non-governmental organizations (NGOs), and several others, must be willing and able to exchange information openly with Partner Nations to accomplish an evolving mission set. In today's dynamic environment, NNEC will enable NATO and the Nations to conduct more complex operations, and despite the deployment of fewer forces, conduct these operations with more efficiency and greater overall effectiveness.



The fourth NATO Joint Computer Assisted Exercise Forum was held at Joint Warfare Centre in September 2009. The primary goal was to promote the exchange of information and "Best Practices" between the staffs of NATO and various national simulation centres worldwide.

"Ideally, NNEC should make it possible for a commander in the field to exercise effective Command and Control allowing seamless communications down to the warfighter," said Major General Jaap Willemse, Assistant Chief of Staff Command, Control, Computer, Communication and Intelligence Division (C4I).

"Part of the work being done within the C4I Division at ACT is coordination with the Nations to make systems capable of working together and of being interoperable."

### What is NNEC?

According to the official definition NNEC

is "the Alliance's cognitive and technical ability to merge the various components of the operational environment from the strategic level down to the tactical level through a networking and information infrastructure."

NNEC is NATO's commitment to standardize and harmonize NATO and national Network Enabled Capability (NEC) programmes. Common cognitive and operational aims will revolutionize the way we fight in our future conflicts. By improving collaboration in an open and dynamic information environment, NNEC enhances the efficiency and effectiveness of the AI-



liance. The NNEC approach of dynamic information sharing will enable cross-discipline information sharing resulting in information superiority and consequently substantial increase of effectiveness. To create the framework in which NNEC capabilities can evolve, three coherence areas have been defined:

- a. Operational Concept Requirement Implications;
- b. Architectures and Services Definition and Standardization;
- c. Implementation.

In addition to the three coherence areas, a steering group (Leadership and Guidance) monitors the progress and reports to the political level. Technology, warfighting methods and capabilities, threats and solutions have changed dramatically over the past 20 years. NNEC, as a capability, is a new way to think about doing business. These changes have put new demands and new requirements on the operator in the field and in the technology and communication tools organizations such as NATO employ. These new requirements demand a very aggressive approach to the speed of communication and demand that all players be on the same page.

"It is essential that all future programmes and projects adapt the policies and processes that NNEC puts forward," said Willemse. "Without NNEC our forces will not benefit from the NNEC-driven unparalleled situational awareness and understanding the Alliance requires to facilitate dynamic and responsive success in any and all missions and environments."

#### **NNEC Can be Achieved**

Bringing NNEC and its capabilities to existing projects and programmes that will affect and improve our warfighters missions is complex, but it can be and has been done as seen in the programs Snow Leopard and MAJIIC (Multi-Sensor Aerospace-Ground Joint Intelligence Surveillance and Reconnaissance Interoperability Coalition).

#### **Learn More about NNEC**

NNEC is not limited to NATO or the Nations; it truly affects everyone at every level. To this end, the NNEC ICT organ-

izes an annual NNEC Conference aimed at disseminate the latest information on the topic and to foster an environment for discussions. The annual NNEC conference is NATO's primary forum to exchange information and views on a wide array of net-centric, NEC and NNEC related topics between all stakeholders.

In 2010 the event will focus on the complexities of information management in the environment of joint coalition forces. This yearly event draws national attention with previous registrations coming from more than 30 countries and 400 attendees.

NNEC is the capability to share information. It is the Alliance's task to actively shape an environment where people are willing to share, where policy and doctrine allow us to share, and where technology enables us to share. †

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**SNOW LEOPARD:** Much like the basic NNEC philosophy, everything relies on the availability of a persistent, robust network infrastructure across which you can federate your capabilities into a whole on an as-needed basis. That is one of the basic principles of NNEC and if you translate that to exercising and training (Snow Leopard) that exactly parallels what NNEC aims. Using a distributed network infrastructure will be able to link or federate capabilities as required into a consistent whole and deliver the content and information you need to run your exercise and training across that distributed infrastructure. ~ Hans Jense



Above: Allied Command Transformation's Assistant Chief of Staff C4I (Command, Control, Computer, Communication and Intelligence) Division, Netherlands Royal Air Force Maj. Gen. Jaap Willemse.

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**MAJIIC:** MAJIIC is operationally based and it looks at the different processes and procedures that are required to fulfill functions. This is very similar to what is going on in the NNEC environment; which is not just about technology but it is also about a way of thinking about how you do your job. NNEC requires that you have to change the way you look forward and re-consider exchange of information. ~ Joe Ross

