

Phased Introduction

Due to the complexity of the concept and the cost of the development of the technologies, we are not able to make this transformation in a single leap. We have identified three distinct phases: 3 phases:

- The “Initial” NEC state in 2007 mostly involves improving the communications links between currently planned equipment.
- The “Transitional” NEC state in 2015 is where we improve integration
- The “Mature” state in 2020-2030 is where we synchronise every piece of military capability possible.

NEC is often described as a journey not a destination – we recognize that as technology and our understanding of NEC change over time, we are unlikely ever to reach a completely mature state; rather we will move from one transitional state to the next. However, this way of planning provides a point at which to aim. Much progress has already been made in achieving the Initial NEC state which the campaigns in Afghanistan and Iraq have served to confirm.

Investment in Equipment

Within the next five years there are several major equipment programmes planned to support the philosophy of NEC:

- Skynet 5 is a PFI project delivering the next generation of military satellite communications services to support all UK operations.
- Cormorant will link the strategic satellite communications down to operationally deployed Headquarters and units.
- Falcon will provide a secure communication system at the operational level on the battlefield.
- Bowman meets the tactical information needs of the three Armed Services, replacing the Clansman combat radio system and providing secure digital voice and data communications.
- Defence Information Infrastructure, a PPP service-provision arrangement, will draw on these systems to allow us to exchange and share electronic information across Defence from foxhole to stores depot and from sensor to shooter.

The MOD are also investing in the development of remote sensors through the Airborne Stand-Off Radar (ASTOR) programme and Watchkeeper Unmanned Air Vehicles programme and improved electronic warfare capabilities through Soothsayer .

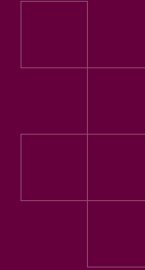


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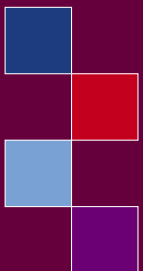


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Future Capabilities : Factsheet 4 Network Enabled Capability



The new Defence Command Paper: ‘Delivering Security in a Changing World: Future Capabilities’ sets out a modernised force structure for the UK Armed Forces. This fact sheet is one of a set summarising these changes and the background to them.



Background

The world order has changed significantly over the last decade, and continues to do so. To meet this the UK requires flexible and adaptable armed forces that can be deployed around the world to counter threats ranging from traditional style conflicts to those more unpredictable in nature. The Network Enabled Capability (NEC) concept will help us to react to these new challenges and is at the heart of the new equipment that we are buying and the changes that we are undertaking to the organisation of our forces.



NEC aims to improve our ability to fight and win by letting us share and exploit information more efficiently and effectively within the British Armed Forces and with our coalition partners. NEC is intended to bring together sensors, decision-makers and weapon systems, along with the support capabilities. It will ensure that information gets to where it is needed, so that it can enable the Armed Forces can execute synchronised attacks with:

- Decisiveness - NEC will ensure that those who need the information have it and that they are able to make better informed decisions.
- Speed - NEC will reduce the time elapsed from a sensor detecting a target to the delivery of an attack.
- Accuracy - better informed decisions and the use of precision weapons reducing the risk of weapons missing their targets and requiring less munitions to be fired.

The combined effect of these elements, coupled with the operational scenarios on which we base our planning, have been key factors in our plans to restructure elements of the Armed Forces. In essence we will in future be able to do more with less.

The Elements of NEC

NEC is still a relatively new concept and will take time to achieve fully. In the short term improvements in equipment will allow us to operate and work together more effectively, but the full benefits from NEC can only be realised with the addition of changes in organisations and individual behaviour which will allow us to fight more effectively than our enemies. While NEC is not just about technology, it does pose major technology challenges. Key to NEC is an ability to move beyond communications and information exchange to a more scientific basis for structuring the way we collect, store and represent information for our forces. We need to improve our understanding of how soldiers, sailors and airmen react to what they are shown, and we shall redouble our efforts to understand how best to help commanders make critical decisions and pass those decisions on to everyone who needs to understand them.



NEC in Action

By using existing equipment, the concept of NEC is already being put into practice. During Operation TELIC in Iraq, 42 Commando Royal Marines came under fire from an Iraqi battery of 130mm towed guns and the response to this is an illustration of the effectiveness of NEC. The enemy battery's firing point was located by one of the Army's ARTHUR Weapon Locating Radars and this data was passed to a Royal Navy Sea King Airborne Early Warning helicopter which was able to track the enemy guns' hasty withdrawal from their firing position. This information was then passed to an Army Phoenix Ground Control Station which tasked an unmanned aerial vehicle (UAV) which intercepted the gun battery and tracked them to a position near Basrah. Using the target data gathered by the UAV, coalition aircraft were able to attack the gun battery, whose destruction was later confirmed by the UAV.

