



Influences on Expeditionary C2 in Contemporary Operations

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Introduction

Through out history command and control has been understood to be one of, if not the most critical influences on the success or failure of military operations. In today's asymmetric expeditionary environment, C2 is as critical as it has ever been. Whether it be a ground commander manoeuvring tanks and soldiers, an air commander using battle space management to command planes and airmen or a maritime commander manoeuvring ships and sailors, C2 is vital to their success. NATO is currently involved in several operations and missions and the ability to efficiently and effectively command and control is integral to their success. There are several areas that influence command and control, and understanding what they are and how they influence Expeditionary C2 in Contemporary operations is key to success. Over the past year, the Command and Control Centre of Excellence in Ede NL has worked to support Supreme Allied Command Transformation with efforts to transform NATO by providing subject matter expertise on all aspects of the Command and Control process, and through this has discovered that what is typically expected to be the biggest influences on C2 has turned out not to be the case.

Command and Control

In the absence of clarity from NATO doctrine, the following Command and Control (C2) working definition, provided by NC3A, is used by the C2CoE: "The exercise of authority and direction by a properly designated commander over assigned forces through an arrangement of personnel, equipment, communications, facilities and procedures in the accomplishment of a mission". In other words, C2 enablers are personnel, equipment, communications, facilities and procedures, and the art of C2 is that these enablers are being

employed by a commander in planning, directing, coordinating and controlling forces and operations in the accomplishment of the mission.

Net Centric Warfare and Command and Control

Networking can have a significant effect on command and control. The principals that support Net-centric warfare state that "a robustly networked force would improve information sharing and collaboration, which enhances the quality of information and shared situational awareness. This enables further collaboration and self-synchronization and improves sustainability and speed of command. This will ultimately result in improved Mission Capability Packages and increased mission effectiveness." The ability to effectively Command and Control Forces in this day and age directly hinges on the ability to apply the principals of Net-centric warfare, and a commander's ability to increase the Network Enabled Capability of his or her organization. Supporting NEC are certain lines of development; these lines encompass Doctrine, Organization, Training, Material, Leadership, Personnel, Facilities, and Interoperability (DOTMLPFI). The areas within DOTMLPFI are the key areas that influence expeditionary command and control in today's operations.

Technology 'Paper Tiger' as a Key Factor Impacting C2

With there being a huge emphasis put on NEC to help support a commander's ability to make decisions, there are tendencies to focus on technical solutions within Material of DOTMLPFI. "Robustly Networking" the force seems to be synonymous with increasing technical advantage. It is only natural that in a technologically advanced society that one would think the biggest influence would be technology. There seems to be a fixation on coming up with

up with the perfect C2 management tool, or creating a CIS architecture that provides seamless interoperability. Although increased technical capabilities do play an integral part, it has become evident that it is not a "Silver Bullet" when it comes to increasing C2 capabilities. Technology is only an enabler supporting two key aspects. During the NEC assessment of NRF 9, although suffering from CIS issues, the NRF was able to function at an efficient level in the certification exercise Steadfast Jaw. This was achieved by implementing alternative C2 systems and individual existing social networks.

Leadership, Training, Personnel and Culture, the 'Real Tigers'

Through Network Enabled Capability assessments of the NATO Response Force 9 and 10, it has been brought to light that Material truly does play only an enabling role. The two most significant areas of DOTMLPFI that influences C2 are Leadership and Training. No amount of technology applied to increasing C2 capabilities will be effective without solid leadership and training, and in some cases the shortcomings of the Material line of development requires increased capabilities in other areas. Implementing alternatives to offset shortfalls also requires commanders to be in tune with the situation and the requirements. Commanders must have the leadership capabilities to ensure that proper emphasis is applied in the right places at the right time to increase C2 capabilities. Likewise, a unit trained at a higher degree of competency in implementing alternative means can offset the lack of or degraded technical capabilities. Success or failure of today's operations depends on Leadership and Training!

Another aspect that influences C2 in contemporary operations is the Social Networking inside of an organization. It has been identified that the Social Networking directly supports information sharing at all levels within some organizations. This was seen during the NEC assessment of NRF 10. This network exchanges critical information. An example is the informal networking that occurs between the leadership in one organization and colleagues that are in positions within higher HQs and peer organizations. When informal social information is gained it is injected into the formal processes. The impact that social networking has, even in an operational tactical environment can not be underestimated. There could be times when social networking is more efficient than the formal information exchange via technical networks.

Control Part of Joint C2 = Battlespace Management

It is becoming more and more evident that in current and future NATO operations, the lines between services

and their responsibilities of control start to overlap. Battlespace management or the synchronization of activities within a battlespace becomes Joint control. No longer does Air Battlespace Management belong to just to Air Forces. Both Army and Naval forces will have a requirement to use a portion of the airspace especially with increased use of rotary wing assets and unmanned aerial platforms. Like wise, the ground and the sea are no longer the specific domain of Army and Naval services respectively. With this in mind, the key areas that influence C2 which were discussed earlier are relevant in the scheme of Joint Command and Control and congruently Battlespace Management.

Transformation of NATO C2 is Key to Success of Future Operations

As NATO continues current operations it is clear that missions, whether they are military or humanitarian will succeed or fail on commander's ability to command and control effectively. Although important, material in the form of applied technology is only an enabler. The important role is played by leadership, training, people and culture. They are the start of the transformation process. They have the power to enforce! It is important to understand that social networks supports C2 currently by offsetting situations where technology can and sometimes fails. There is also the requirement to transform the way that the services control the battlespace through a more joint approach. There are no more individual boxes. We all work in the same big box. With this in mind, it is paramount that NATO transform its Command and Control to ensure that commanders and service men and women will see nothing but success.

Endnotes:

1. Command and Control Centre of Excellence, NATO Response Force (NRF) 9 Network Enabled Capabilities Assessment, August 2007, Ede, The Netherlands
2. Albers, Garstka, Stein, Network Centric Warfare "Developing and Leveraging Information Superiority, October 2003, CCRP
3. Command and Control Centre of Excellence, NATO Response Force (NRF) 10 Network Enabled Capabilities Assessment DRAFT, January 2008, Ede, The Netherlands
4. NC3A stands for NATO C3 Agency. NC3A operates across the spectrum of the C4ISR life cycle, acting as a catalyst, a facilitator, a coherence agent and a delivery agent for many NATO systems and capabilities. For the Agency, the capability process begins with helping Allied Command Transformation (ACT), in conjunction with Allied Command Operations (ACO), identify and articulate coherent and long-term capability requirements.