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***U.S. Army Stryker Brigade Network Centric Warfare Capabilities***

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# *U.S. Army Stryker Brigade Network Centric Warfare Capabilities*

## **Abstract**

The First Stryker Brigade Combat Team (SBCT) (3<sup>rd</sup> Brigade 2<sup>nd</sup> Infantry Division) went through its operational evaluation in May 2003 at the Joint Readiness Training Center (JRTC) Certification Exercise (CERTX). The Stryker Brigade is new and potentially transformational in several respects: one, it is a highly mobile light infantry fighting force; two, it is rapidly deployable by sea or air; three, it carries its own organic/integrated flexible beyond line of sight ISR capabilities; and four, and perhaps most importantly, it is network enabled down to nearly the lowest tactical level.

At the same time, the lightweight Stryker vehicle is not a one-for-one substitute for heavy armor. It must rely on the network and its integrated situation awareness capabilities to prevent one-on-one engagements against enemy heavy armor and to enable contact against enemy forces in tactical situations where it has numerical or other force or terrain advantages. Thus, central to the force effectiveness of the Stryker Brigade across a broad range of conflict scenarios are new Network Centric Warfare (NCW) operational concepts that exploit the combat power advantages of network centric warfare capabilities.

This case study examines the NCW concepts and systems of the 1<sup>st</sup> SBCT, and its operational effectiveness in the 1<sup>st</sup> SBCT CERTX. We examine the advantages these NCW capabilities can specifically provide to a mobile light infantry force. Ground maneuver warfare, even at the tactical level is complex. "Friction" and situation uncertainty can slow and degrade operations, and cause fratricide, collateral damage or the death of innocent civilians. With the introduction of longer range direct and indirect fire weapons and integrated joint warfighting capabilities, like responsive Joint Close Air Support (JCAS) capabilities, ground maneuver warfare is becoming more complex still, and the importance of accurate and timely situation awareness information will probably become even more important, especially for SBCTs. We examine this dependence and the impact of high quality Situation Awareness (SA) and shared SA information on the rapid maneuver, on brigade level command decision-making and maneuver planning, and on the force effectiveness of light infantry forces.

At its CERTX the 1<sup>st</sup> SBCT was equipped with a recent version of the Army Battle Command System (ABCS) and certain BLOS communications network capabilities that are known to have certain limitations. These capabilities are described in this paper. These system limitations are being addressed by the U.S. Army. Even with these limitations the 1<sup>st</sup> SBCT executed several key operations well. In this paper we examine the potential impact that planned improved C2, SA, and communications systems - .i.e., a fully integrated set of NCW capabilities, will have on the force effectiveness of the 1<sup>st</sup> and subsequent Stryker Brigades.