



DEPARTMENT OF DEFENSE

COMMANDER
U.S. JOINT FORCES COMMAND
1562 MITSCHER AVENUE SUITE 200
NORFOLK, VA 23551-2488

IN REPLY REFER TO:

14 August 2008


MEMORANDUM FOR U.S. JOINT FORCES COMMAND

Subject: Assessment of Effects Based Operations

1. Attached are my thoughts and Commander's guidance regarding Effects Based Operations (EBO). The paper is designed to provide the JFCOM staff with clear guidance and a new direction on how EBO will be addressed in joint doctrine and used in joint training, concept development, and experimentation. I am convinced that the various interpretations of EBO have caused confusion throughout the joint force and amongst our multinational partners that we must correct. It is my view that EBO has been misapplied and overextended to the point that it actually hinders rather than helps joint operations.
2. Therefore, we must return to time honored principles and terminology that our forces have tested in the crucible of battle and are well grounded in the theory and nature of war. At the same time, we must retain and adopt those aspects of effect based thinking that are useful. We must stress the importance of mission type orders that contain clear Commander's Intent, unambiguous tasks and purpose, and most importantly, links ways and means with achievable ends. To augment these tenets, we must leverage non-military capabilities and strive to better understand the different operating variables that make up today's more complex operating environments.
3. My assessment is shaped by my own personal experiences and the experience of others in a variety of operational situations. I'm convinced we must keep the following in mind: First, operations in the future will require a balance of regular and irregular competencies. Second, the enemy is smart, and adaptive. Third, all operating environments are dynamic with an infinite number of variables; therefore, it is not scientifically possible to accurately predict the outcome of an action. To suggest otherwise runs contrary to historical experience and the nature of war. Fourth, we are in error when we think that what works (or does not work) in one theater is universally applicable to all theaters. Finally, to quote Sherman, "Every attempt to make war easy and safe will result in humiliation and disaster." History is replete with such examples and further denies us any confidence that the acute predictability promised by EBO's long assessment cycle can strengthen our doctrine.
4. The joint force must act in uncertainty and thrive in chaos, sensing opportunity therein and not retreating into a need for more information. JFCOM's purpose is to ensure that joint doctrine smoothes and simplifies joint operations while reducing friendly friction. My goal is to return clarity to our planning processes and operational concepts. Ultimately, my aim is to ensure leaders convey their intent in clearly understood terms and empower their subordinates to act decisively.

5. While NATO and many Partner Nations have adopted the EBO nomenclature, NATO's policy focuses on the whole of government/Comprehensive Approach. In short, NATO's Effects Based Approach to Operations (EBAO) does not fully mirror U.S. EBO. NATO's use of EBAO is left unaddressed in this USJFCOM Commander's Guidance.

6. A pre-decisional working draft of this document was prematurely circulated and should be discarded. I regret any confusion resulting from the unintended early release of this draft document.


J. N. MATTIS
General, U.S. Marine Corps

Attachment:

USJCOM Commander's Guidance for Effects-Based Operations

Copy to:

Commander, U.S. Army Training and Doctrine Command

Commander, U.S. Army Forces Command

Commander, U.S. Fleet Forces Command

Commander, Navy Warfare Development Command

Commander, U.S. Marine Forces Command

Commander, Marine Corps Combat Development Command

Commander, Air Combat Command

Commander, LeMay Center for Doctrine Development and Education



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USJFCOM Commander's Guidance for Effects-Based Operations

Aim. This paper explains my perspective and provides guidance on issues related to USJFCOM's use of effects-based operations, effects-based approach, operational net assessment, and system-of-systems analysis in future force development, training, and experimentation. Elements of these concepts have proven useful in addressing "closed systems," such as targeting where their effects can be measured per USAF's deliberate analysis and targeting methods. However, the concepts have been misapplied by others to operations beyond their original intent, resulting in overextension and confusion. Therefore, we will change course and provide the joint warfighter with a more balanced and understandable framework in which to plan, execute, and assess operations.

My Perspective

After a thorough evaluation, it is my assessment that the ideas reflected in effects-based operations (EBO), operational net assessment (ONA) and system of systems analysis (SoSA) have not delivered on their advertised benefits, and that a clear understanding of these concepts has proven problematic and elusive for U.S. and multinational personnel. For example, an analysis of the recent Israeli-Hezbollah conflict found that EBO "terminology used was too complicated, vain, and could not be understood by the thousands of officers that needed to carry it out."¹ In U.S. circles, elements of these concepts were prematurely injected into various Joint and service processes resulting in inefficiency and confusion. This has resulted in an overall negative impact on Joint warfighting. Regrettably, this confusion has also spread to our allies. While we have limited the impact of SoSA, ONA and EBO within our own doctrine, confusion still remains for many of our multinational partners. The U.S. Army, U.S. Marine Corps, and other observers have come to similar conclusions that EBO:

- Assumes a level of unachievable predictability
- Can not correctly anticipate reactions of complex systems (e.g. leadership, societies, political systems, etc)
- Calls for an unattainable level of knowledge of the enemy
- Is too prescriptive and over engineered
- Discounts the human dimensions of war (e.g., passion, imagination, willpower and unpredictability)
- Promotes centralization and leads to micro management from HQs
- Is staff, not Command led
- Fails to deliver clear and timely direction to subordinates

¹ Matt M. Matthews, *We Were Caught Unprepared: The 2006 Hezbollah-Israeli War*, The Long War Series Occasional Paper 26 (Fort Leavenworth, Kansas: Combat Studies Institute Press, 2008), 26.

- Uses confusing terminology and is difficult to understand²

The Israeli Defense Force's (IDF) use of an EBO during the Hezbollah–Israeli Conflict in the summer of 2006 is informative. Although there are several factors why the IDF performed poorly during the war, various post-conflict assessments have concluded that over reliance on EBO concepts was one of the primary contributing factors for their defeat.³ After the war, one Israeli General observed that the new [EBO] doctrine was “in complete contradiction to the most important basic principles of operating an army in general...and is not based upon, and even ignores, the universal fundamentals of warfare.... This is not a concept that is better or worse. It is a completely mistaken concept that could not succeed and should never have been relied upon.”⁴ Other critical warfighting functions such as campaign design and planning, combined arms training, C2 relationships, etc. were overlooked or neglected in favor of EBO operating principles designed to create a “consciousness of victory” for friendly forces and a “cognitive perception of defeat” for enemy forces. This point is driven home in a study conducted by the U.S. Army Combined Arms Center which noted that, “EBO proponents within the IDF came to believe that an enemy could be completely immobilized by precision air attacks against critical military systems” and that “little or no land forces would be required since it would not be necessary to destroy the enemy.”⁵ This type of thinking runs contrary to historical lessons and the fundamental nature of war.

Other critics of EBO have characterized it as over-emphasizing precision air-delivered fires to the detriment of ground maneuver fundamentals. Precision fires alone proved to be ineffective during Desert Storm in 1991, Kosovo operations in 1999, and more recently during the “Shock and Awe” phase of Operation Iraqi Freedom. The inconclusive results of these operations underscore the fact that effects-based operations tend to be ineffective when used exclusive of ground maneuver operations. The U.S. Army Combined Arms Center study also suggested that confusing EBO planning methods and new terminology resulted in imprecise and unclear instructions to subordinate commanders, causing various interpretations of what senior leaders wanted to accomplish. These examples coupled with mediocre results in exercises, experiments, and current operations bring into question the credibility and effectiveness of EBO as an operating concept, including when combined air-ground forces are employed.

Most warfighters acknowledge that elements of effects-based thinking, if used for targeting against closed systems, can have a positive influence on planning. For example, EBO has fostered a thorough examination of desired outcomes and possible consequences of actions. In particular, this has been true with respect to targeting and specific operations against well-defined, “closed” systems such as power grids, road networks, or railway infrastructure. EBO also caused a renaissance in combat assessment beyond simple Battle Damage Assessment (BDA), and imparted an increased understanding of the impacts of our actions. However, “chaos

² Army Doctrine Update, Combined Arms Doctrine Directorate, U.S. Army Combined Arms Center (Ft Leavenworth, KS), 24 February 2007. *Effects Based Operations Conference*, United States Marine Corps (Quantico, VA, September 7, 2005), slides 6-9.

³ Avi Kober, “The Israeli Defense Forces in the Second Lebanon War,” *Journal of Strategic Studies*, vol 31, no 1, 3-40 (February 2008), 16-28 and 37-38. Israel Ministry of Foreign Affairs, Winograd Report, Information and Internet Department, January 30, 2008. Matt M. Matthews, *We Were Caught Unprepared: The 2006 Hezbollah-Israeli War*, The Long War Series Occasional Paper 26 (Fort Leavenworth, Kansas: Combat Studies Institute Press, 2008), 23-28 and 61-65.

⁴ Matthews, 62.

⁵ Matthews, 24.

makes war a complex adaptive system, rather than a closed or equilibrium-based system,” which makes predicting, and then assessing, how physical actions cause behavioral effects a significant challenge.⁶ There is also very strong agreement that any planning construct that mechanistically attempts to provide certainty and predictability in an inherently uncertain environment is fundamentally at odds with the nature of war. While many correctly argue that EBO has evolved to a much more ‘art of war’ type of thinking, we must recognize that the term “effects-based” is fundamentally flawed, has far too many interpretations, and is at odds with the very nature of war to the point it expands confusion and inflates a sense of predictability far beyond that which it can be expected to deliver.

Effects-based thinking and terminology have been used to describe the challenge of integrating DIME (diplomatic, informational, military, and economic) instruments of national power to create the necessary conditions for success. Coordinating DIME into a comprehensive approach to joint operations does not require effects-based thinking or a new lexicon; it does, however, require a firm educational foundation and the collaborative means to gain and maintain a shared understanding of the problem and the complexity involved in developing comprehensive solutions. The best way to accomplish this is through effective campaign design, planning, and assessment as outlined in Chapter 4 of FM 3-24/MCWP 3-33.5, *Counterinsurgency* and TRADOC Pamphlet 525-5-500, *Commander's Appreciation and Campaign Design*.

We must return clarity to our planning processes and operational concepts, especially if we want to break down cross-government barriers. This clarity will better enable us to link “ends” to policy, strategy, campaigns and operations through clear “ways” and “means.” The use of “effects” has confused what previously was a well-designed and straightforward process for determining “ends.” Further, its use has created unrealistic expectations of predictability and counter-productive information appetite in American headquarters. It requires unattainable levels of knowledge about the enemy exercising its independent will. The best way forward is to rebaseline our terminology and concepts by returning to time-honored principles such as mission type orders, unambiguous Commander’s Intent and clear articulation of ends, ways, and means that have been tested in the crucible of battle and are historically grounded in the fundamental nature of war while incorporating, where logical, the issues introduced by today’s more complex environment.

Current State of “Effects”

One must ask the critical question - Is EBO even a viable operating concept? Joint Publication (JP) 3-0 *Joint Operations* and JP 5-0 *Joint Operation Planning* provide the current official perspective of the US military’s use of effects and related concepts in joint operations. These publications contain very little of the original deterministic EBO concept, though they do have some room for improvement in better clarifying existing effects-related terminology and explanations. Additionally, the U.S. Army distanced itself from EBO by concluding in 2007 that the concept has no place in Army Doctrine.⁷ This position was reinforced by the recent release of the new Field Manual 3-0 (Feb 2008), which rejects the more mechanistic aspects of EBO but recognizes the value of operational variables such as the political, military, economic, social,

⁶ Justin Kelly and David Kilcullen, “Chaos Versus Predictability: A Critique of Effects Based Operations,” *Australian Army Journal*, vol II, no. 1 (Winter 2004): 90.

⁷ U.S. Army Training and Doctrine Command (TRADOC) Doctrine Update #1, *Army Doctrine Update* (Fort Monroe, VA: U.S. Arm TRADOC, 24 February 2007), 4-5.

information, infrastructure, physical, and time (PMESII-PT) characteristics of the operating environment. Furthermore, the cumbersome and complex ONA and SoSA processes have been largely rejected in doctrine based on feedback from both US and multinational training and field operations.

While the EBO concept has matured over the past few years, our experimentation and operations with it have fallen short of the mark. I agree with Brigadier Justin Kelly and Lieutenant Colonel David Kilcullen that “while aspirations advanced by supporters of effects-based operations (EBO) are laudable they may not be achievable, particularly in the land warfare environment.”⁸ We are reminded that a concept contrary to war’s fundamental nature will always come up short. Joint doctrine highlights the importance of *mission analysis* to understanding the nature of a given problem and the *purpose* of the operation. Within that context, current doctrine has properly retained the following ideas related to EBO: (1) the value of better understanding the history and culture of a society, interaction between military, interagency and international organizations, socio-economic makeup, political systems, and other factors in the operational environment, (2) using mission analysis to visualize and describe Commander’s Intent thus creating unity of action, (3) nodal analysis as it relates to targeting, and (4) conducting periodic assessments of operations to determine progress toward achieving objectives.

The Way Ahead

The underlying principles associated with EBO, ONA, and SoSA are fundamentally flawed and must be removed from our lexicon, training, and operations. EBO thinking, as the Israelis found, is an intellectual “Maginot Line” around which the enemy maneuvered. Effective immediately, USFJCOM will no longer use, sponsor, or export the terms and concepts related to EBO, ONA, and SoSA in our training, doctrine development, and support of JPME. Approved joint doctrine (specifically JP 3-0 *Joint Operations* and JP 5-0 *Joint Operation Planning*) is the authoritative source for information on how we use effects in joint operations in terms of desired outcomes. As our concepts evolve, these documents must be further refined to comply with guidance contained in this letter. We will continue to emphasize the art of command, the importance of proactive collaborative action with interagency and multinational partners, and comprehensive whole-of-government approaches to achieving our objectives.

Acknowledging the unpredictability of war is fundamental to our view of future conflict. We seek to provide concepts and methods that will better enable us to find our way through the fog, friction, and chaos of warfare. We seek to smooth and simplify Joint operations rather than complicate them. So we focus on the enemy, thereby reducing, rather than aggravating, our internal frictions. We seek to reduce friendly friction rather than to inject difficult-to-understand terminology and processes that demand increasingly large staffs to access effects and that tend to inhibit information flow and hinder rapid decision-making.


I want us to reinforce that conflict is inherently complex and unpredictable. It is a non-deterministic human endeavor whose ramifications are never fully guaranteed, because our adversaries have free will, which will inevitably impact the operating environment in unpredictable ways. Technology and training are key enablers to gain advantages over our adversaries, but no amount of technology or training will enable us to accurately predict

⁸ Kelly and Kilcullen, 87.

reactions of complex systems. The enemy's free will, manifested by courage, imagination, resolve, and other human factors deny predictability in most aspects of war. We must use focused training and technology-enabled solutions or problem solving techniques to enhance initiative, pattern recognition, and decentralized decision-making. However, effects-based thinking and associated tools cannot be used as a substitute for creative campaign design and critical thinking. War is not composed of the tactics of targetry or an algebraic approach to measuring effects resulting from our actions, but rather operations guided by Commander's Intent and constant feedback loops. Furthermore, the centralized nature of EBO is inconsistent with the tenets of the U.S. Joint Forces Command C2 vision, which places a premium on the importance of decentralized Command and Control as a means for resilient forces to prevail in chaos and degraded information environments.

Our goal is to develop a joint force that acts in uncertainty and thrives in chaos through a common understanding of the essence and nature of the problem, and the purpose of the operation. In practice, this means that leaders must ensure their vision and intent is understood and their subordinates act decisively in concert with that intent. As Clausewitz stated, the "trinity of chance, uncertainty, and friction [will] continue to characterize war and will make anticipation of even the first order consequences of military action highly conjectural" thus taking a "systems approach to warfare where second and third-order consequences of actions can be predicted, let alone managed," is an illusion.⁹

Conclusion. Concepts and experimentation are intended to be innovative and must be pushed to the extremes. Most experiments fail, yet through failure spring success. That is acceptable and is part of the price we pay for unregimented thinking and open-minded, disciplined experimentation. That said, I want us to be mindful of lessons of the past seven years. If we made one mistake it was that we fast-tracked some operational concepts and allowed them to gain inappropriate influence while unproven by history, experimentation, and current operations. We must be mindful that the world's militaries often look to the United States and JFCOM for the way ahead and history (including recent history) reminds us there is a cost in lives lost and mission failure when concepts are misapplied. We must execute the processes that underpin this command's key functions with intellectual honesty, rigor and discipline. We must clearly define the problems we are trying to solve and propose value-added solutions that have been properly explored, validated and vetted. Our solutions must include clear language and terminology that promote shared understanding and enables subordinates to act, per Commander's Intent, without single point of failure reliance on technology or burgeoning headquarters. Lastly, decentralized decision-making with emphasis on empowering subordinate's initiative in accordance with intent, clearly defined objectives, and executable tasks is the best approach to achieve our goals.


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⁹ Kelly and Kilcullen, 97.