United States Marine Corps
School of Advanced Warfighting
Marine Corps University
2076 South Street
Marine Corps Combat Development Command
Quantico, Virginia 22134-5068

FUTURE WAR PAPER

A Critical Eye On
Distributed Operations

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF OPERATIONAL STUDIES

AUTHOR:
LIEUTENANT COLONEL
ROBERT L. TANZOLA
USMC

AY 2004-05

Mentor: LtCol Knut Støvne
Approved: _____
Date: _____

Report Documentation Page

Form Approved
OMB No. 0704-0188

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
2005		**00-00-2005 to 00-00-2005**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
A Critical Eye On Distributed Operations	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **United States Marine Corps,School of Advanced Warfighting, Marine Corps University,2076 South Street, Marine Corps Combat Development Command,Quantico,VA,22134-5068**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT **unclassified**	b. ABSTRACT **unclassified**	c. THIS PAGE **unclassified**	**Same as Report (SAR)**	**20**	

I. General

Distributed Operations (DO) is a Marine Corps warfighting concept in development that exhibits great potential for positive implications upon future warfighting capabilities. The concept is one of several Marine Corps impetuses to transform to meet the challenges presented in the ever-changing environment of future warfare and to maximize effectiveness in the on-going global war on terrorism (GWOT). A critical analysis will be conducted in order to assist in the successful concept development. DO is a viable concept. In order for the Marine Corps to successfully implement DO, many aspects and functional areas will need improvement and refinement.

By first understanding the nature of future warfare and then studying the rudimentary DO experimentation by the Marine Corps, one becomes well prepared to thoroughly examine the concept. Armed with this knowledge, by applying the parameters of the Joint Capabilities Integration and Development System (JCIS) useful analysis will be accomplished. Through proper concept development and assimilation, the Marine Corps will gain the ability to conduct Distributed Operations which will lead to great increases in the effectiveness of the Marine Corps in future conflict.

II. Characteristics of Future War

A. Future Environment. In order to set the stage for a critical analysis of the warfighting method of Distributed Operations (DO), one must understand the characteristics of the environment that war is fought in today and gain insight into the tract that 21st Century warfare is taking. A comparison table of common trends from various works on future warfare follows (see Figure 1). Several aspects from Figure 1 will be elaborated upon to enhance

understanding. Following this material, a discussion of a Marine Corps experiment called Hunter Warrior will provide support for several of the unique options for future conflict.

	Wass ***de Cgege & RHS***	**Sinn-reich/ Murray**	**Cebrow-ski**	**Murry & Scales**	**Aussie Complex Warfigting**
Speed	X *preclusion*	X	X	X	
Reach					
Flexibility				X *Ad Hocery*	
Agility	X				
Mobility	X				
Modularity	X	X-*granular*			X *Morphing*
Adaptability	X			X	
Decision Superiority			X	X	X
Decentralized					
Interoperable	X				
Distribution			X	X	X-s*warming*
Precision		X		X	X
Networked			X		
Expeditionary					X-*austerity*
Simultaneity		X	X	X	
Lethality					
Continuous Pressure					
Multi-dimensional	**X**	X-*noninear ops*			X
Interdependent		X		X	
Complexity			X		

Figure 1. Characteristics/Attributes of Future Warfare/Forces

Hoffman, Frank Dr., MS Word Table, created 13 July 2004.

Globalization is a process of increasing connectivity, where ideas, capital goods, services, information and people are transferred in near-real time across national borders.[1] The fundamentals of globalization have become tools for state and non-state actors to do harm to those who threaten their existence. It is difficult for any government to control globalization due to the diversification of all processes across the globe. Likewise, national security becomes a greater challenge.[2]

One result of globalization is that the United States has emerged as the dominant nation-state with respect to all aspects of conventional warfighting and is the last remaining superpower

of the Cold War. The United States is invincible in a conventional, force-on-force setting. With this distinction comes two consequences: conventional war is now compressed into a brief, violent[3] collision with a rapid United States victory and conventional war is no longer the primary forum for confrontation to take place. These consequences have forced adversaries to the United States to adapt in order to survive. No longer will battle be chosen on conditions favorable to the invincible superpower. Winning a direct conventional confrontation against the United States is not possible so adversaries have adapted to other means. They now seek to engage asymmetrically and unconventionally using terrorism, insurgency, subversion and information operations. Decisive military responses and results are now great challenges to the United States. Military success has taken a step back from being the decisive instrument and now other elements of power need to be applied to achieve decision.[4]

The foe is no longer the uniformed armed force of an aggressor nation state. Our enemies are now insurgents, terrorists and organized criminals. Our friends are not only our traditional allies but also new coalition partners, the State Department, the Department of Justice, the Central Intelligence Agency, many other government and non-government agencies, the national population and the non-nation-state structure and people. The complex interaction[5] of these players has great effects upon planning and conducting operations.[6]

A quick look at the terrain and people is now in order to further explain the effects of complexity.[7] The global demographics have shifted population centers to large urban areas and to the littorals. Unlike open terrain, the crowded cities and littorals prevent our sensors and weapons systems from working at the optimum maximum ranges. This restrictive terrain has a propensity for violent close combat.[8] Adding to the complexity of the physical terrain, the humans that occupy this terrain are greatly diverse in ethno-linguist groups, political factions,

tribal or clan groups, religious denominations and ideological groups. To outsiders in complex physical and human terrain, it is a challenge to pick apart the aggressor/malcontent from the benevolent/supportive population.[9]

Unlike the past where the threat was easy to define, the threats of today are from a large and diverse group. In addition to the conventional forces, traditional irregulars, local terrorists, rural guerillas, bandits, tribal fighters and mercenaries, we face drug traffickers, multinational corporations, private military companies, unarmed protesters, environmental groups, computer hackers, rioters, intelligence services, militias, looters, people smugglers, pirates, religious sects, issue motivated groups, urban guerillas, hostile media and diplomatic alliances. Besides identification, the challenge also lies in countering them since military force is not always an option.[10] Asymmetry exists between all aspects of our force and that of the adversary.

Traditional conflict has seen a great diffusion beyond its' normal framework. Quite possibly the levels of war are being redefined due to information technology and the existence of asymmetric players in conflict. Tactical actions with strategic impact are becoming more common. Consider the Marines hoisting the American flag over a statute of Saddam Hussein during Operation Iraqi Freedom. Had the flag not been quickly replaced by an Iraqi flag that American flag would have had greater strategic meaning. It is also rumored that direction to remove the flag came real time from the continental United States. Future military action may also take a greater supporting role to other elements of national power to achieve the nations' strategic goals. This has been evident in the reconstruction efforts of Iraq with the prevalent role of the State Department.[11]

Both friend and foe are recipients of a vast array of highly lethal[12] weapons created at home or a product of the globalized weapons market. With more open borders and a free-

flowing technological exchange on the internet there is no loss of lethality across the entire spectrum of would-be adversaries. Developed concurrently with the lethal options, less-than and non-lethal systems are also developing but at a slower rate. The availability of other options will add to the complexity of dealing with threats. As always, the implications and unintended consequences of the new array of lethal weapons must be taken into consideration when conducting military operations.

B. Hunter Warrior. DO roots can be traced to a 1997 Marine Corps Advanced Warfighting Experiment called, "Hunter Warrior" conducted by the Commandant's Warfighting Laboratory. Hunter Warrior focused on extending the size of the littoral battlefield that could effectively be influenced by modest sea-based forward-deployed naval forces. The objective was to investigate potential capabilities that could reasonably be fielded by the year 2005 in naval forward-presence forces overseas. The scenario established a situation in which naval forward-presence forces were tasked with conducting advanced force operations in support of a friendly nation against an invasion by a hostile neighbor, pending the arrival of follow-on US land-based forces. The commander established his command center approximately 150 miles from the battlefield. He was provided with an experimental staff organization that was equipped with non-standard integration tools to control the pace and collective engagement of all indirect weapons systems. He employed squad-sized ground forces with surrogate communications systems and experimental target-acquisition systems that were projected tactically into the operating area by helicopter. Logistics support, tactical air support and intelligence support was provided with little modification by technologies current in 1997. Reportedly, very few new technologies were employed since Hunter Warrior was about investigating how doctrine,

organization, training, equipment, and sustainment can be improved to produce the needed capabilities to implement new warfighting concepts.[13]

Hunter Warrior produced the following observations applicable to the study of DO:

1) “Marine infantry squads, with some additional training and a few new technologies to permit precise target locations, can act effectively in dispersed units on the battlefield and effectively control supporting fires in a manner often associated with officer forward observers and forward air controllers.

2) Emerging technologies make it possible to integrate command and control over a wide littoral area, and potentially to discriminately centralize or decentralize command and control seamlessly, as desired, from combat operations centers afloat to those ashore.

3) Long-range, precision naval gunfire is a significant addition to the supporting arms available to the infantryman on the littoral battlefield.

4) Small independent units must have complete confidence in their command, control, communications, computers and intelligence architecture. They must be confident that calls for fire or logistics support will be responded to rapidly and effectively.

5) It is possible to accurately track and predict consumption by units in the field and push supplies forward anticipating need using many of the same inventory technologies used by Wal-Mart.

6) An apparent long-range target acquisition gap exists between light, hand-held capabilities available to the infantryman on the ground and current thermal target acquisition systems available in vehicles and aircraft.

7) New longer-range, man-portable or vehicle-mounted air defense systems may pose an increasing threat to helicopter or tilt-rotor aircraft mobility on the future battlefield.

8) Digitization of the battlefield does not take the place of tactical training and procedures to prevent fratricide.

9) Tactical unmanned air vehicles (UAVs) can be effectively be operated above the battlefield to provide real-time video and target acquisition.

10) Technology offers the opportunity to revolutionize command and control centers with a refocus on decision aids in place of a map with symbology. Three dimensional depictions of the battlespace and the use of video photography and visual displays of data sere used to improve the ability of decision-makers to grasp developments over a wide and rapidly changing battlefield." [14]

III. Pre-Decision Draft G

Since Hunter Warrior 1997, seminar discussion and concept development has continued. A follow-on experiment is planned for 2005 and a DO capable element is to be trained and deployed operationally in 2006. Additionally, the impact of the events of September 11, 2001, Operation Enduring Freedom and Operation Iraqi Freedom have been incorporated into the thought processes and concept development. The Requirements Division of the Marine Corps Combat Development Command has carried the torch of DO development and has produced Pre-Decision Draft G – 5 October 2004, *Distributed Operations from the Sea*. It is this unsigned draft that is the subject of analysis. The definition of concept, central and supporting ideas and characteristics come directly from the pre-decision Draft G to accurately describe DO.

A. Definition of Concept. The concept of *Distributed Operations* describes an approach, applicable at the operational and tactical levels of war, by which a commander disperses and concentrates networked forces, generates actionable intelligence, and directs precise joint fires to shape the battlespace and act as a "reconnaissance pull." This approach

seeks to create an enhanced positional, psychological, technological, and temporal advantage over an adversary. This concept embraces the principle of *maneuver* and captures the idea that a commander moves and positions his forces in combination with the other warfighting functions to put his adversary at a disadvantage. For purposes of clarity, "Networked" means that forces involved within the operations will be working toward a common purpose, regardless of physical separation. The combination of commander's intent, advanced technologies, and training shall enable distributed forces to work in unison toward a desired effect.

B. Central and Supporting Ideas. The United States has a strategic imperative to remain globally postured and engaged. The Global War on Terror has extended special operations forces and highlighted their multidimensional capabilities. Our adversaries continue to integrate low cost anti-access capabilities in the conduct of irregular operations. Countering this threat requires a combination of special operating forces and general-purpose forces. Future Marine forces must be capable of generating actionable intelligence, maneuvering over an extended battlespace, delivering precise fires and effects, and concentrating effects to achieve desired results. Future distributed operating forces will network with all elements of the joint force in order to realize the full effects of the joint force.

The concept of Distributed Operations fills a capability gap between conventional and special operations forces while exploiting the attributes of decentralization, continuous pressure, multi-dimensionality, and simultaneity when applied in conjunction with conventional forces. This combination of capabilities compounds the adversary's dilemma and enhances the joint force's effectiveness thereby increasing the potential for achieving decisive results. DO provides the commander the ability to achieve advantage by providing multiple, simultaneous actions to dominate multiple domains through a decentralized but networked application of capabilities.

C. Characteristics of Distributed Operations

Decentralization. Create advantage and increased tempo by enabling decision-making and execution at the lowest level. Acquire and exploit intelligence where its value is greatest, increasing the velocity of the conversion of intelligence to action.

Complexity. Achieve a competitive advantage relative to the adversary by presenting a complex and unpredictable array of sources and types of interactions over an extended operational area.

Multi-dimensionality. Employ multiple forms of maneuver and fires from multiple sources to raise the levels of complexity presented to the adversary and increase his sense of confusion and futility.

Simultaneity. Combine effects at multiple locations at the same time to create and exploit opportunities at a rate with which the adversary cannot cope.

Continuous Pressure. Maintain an operational tempo and multi-dimensional effects that ensure the adversary cannot adapt or readjust his force posture or reconstitute capabilities.

IV. Critical Implications

Nearly eight years after Hunter Warrior, the draft decision document is close to signature. Concurrently, a list of proponents and antagonists to the concept has grown. As predicted, world events have generally conformed to the theories of future conflict. The Office of the Secretary of Defense has charged the services with modernization and transformation to improve effectiveness and has created the JCIS. To accomplish this transformation, JCIS has implemented processes that assess existing and proposed capabilities in light of their contribution to future joint concepts. The process must produce capability proposals that consider the full range of doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) solutions in order to advance joint warfighting. Thus, DOTMLPF has been chosen to examine and critique DO.

A. Doctrine.

Is DO an additive capability or new mission for units of the Marine Corps and most specifically, the infantry battalion.[15] At present, it is difficult to train to all the mission essential tasks established for an infantry battalion. Adding a new capability would mean including new essential tasks to train to. With time being a scarce commodity, this is highly challenging. If

DO is a new mission for an infantry battalion, it is presumed that infantry battalions will be dedicated to the execution of distributed operations. A new set of mission essential task lists (METLs) will replace the current ones for an infantry battalion. Presumably, other units that support or are supported by distributed operations will also have a change in METLs. This will incur a cost to the Corps in the loss or degradation of certain skills but will result in a gain to the Corps in the additive METLS from DO.

The concept of being dispersed with the ability to mass is challenging from a variety of perspectives.[16] As the size of the unit decreases and the distance from the main body decreases so do the challenges of force protection increase. This must be considered in planning employment. Likewise, these challenges apply to providing support to dispersed units.[17] The greater the number of dispersed units and the greater the separation between dispersed units, the complexity of supporting the units increases. A shift in support methodology is in order here. Presently, small units conducting DO-like missions are tasked to carry all required supplies and are recovered to effect re-supply. Under DO, an infantry unit would be re-supplied when and where it is needed.[18] The means to facilitate this will be covered later but it must be understood that there will be an increase in effort in order to provide support. Similar to logistical support, the support with air delivered fires is governed by sound doctrine that is very specific in its' requirements for the ground control of air delivered fires. Properly trained rifle and light armored reconnaissance platoon commanders and reconnaissance team leaders are the only infantry communities allowed to control air delivered munitions. It will be a requirement to modify doctrine to include infantry rifle platoon sergeants, squad leaders and quite probably team leaders to this list.

Swarming of dispersed units is an important characteristic of DO. It too presents challenges that need to be mentioned. Dispersed units moving on an adversary would be executing a complex link-up with several moving units and possibly one or more stationary units. Among many factors, the ability to mass quickly is mainly a function of a means to move and of command and control. Current doctrinal procedures for facilitating this type of operation are sound.

B. Organization

What is a DO force? Is it as small as a squad or is it no smaller than an infantry battalion, is it a new organization, organized around a MAGTF assigned to the US Special Operations Command (SOCOM) to execute DO or is it a re-born Raider Battalion?[19] An aggressive examination of organizational options available will lead to an improved concept.

Our current infantry battalion is organized around the table of organization for a battalion system established by Napolean with officers and enlisted holding the same billets with the same responsibilities with very little change since World War II.[20] The current structure has stood the test of time where centralized control was imperative to mission accomplishment. With the advent of written maneuver warfare doctrine, execution off of commanders' intent has replaced the need for centralized control. Command and control tools have greatly improved but the top down structure has not changed. If DO is an entirely new way of conducting operations, then a new organization may be worth examining. Currently an infantry sergeant (and often a corporal) leads an infantry squad. At the same time, a special forces captain leads a special forces team of roughly the same size. The infantry squad is composed of junior Marines and the special forces team is all non-commissioned officers and above. A hybrid between the two different organizations would be successful in the execution of distributed operations. The extent of this

new structure would greatly impact many facets of the Marine Corps, especially training, materiel and personnel.

C. Training

According to SOCOM, it takes 3-5 years to make a special forces operator that is capable of conducting DO-like missions.[21] The Corps needs to establish what the standards of performance are for Marines to conduct similar tasks for DO. The individual and collective initial and sustainment training requirements are not related to one military occupational specialty at this time but the skills are probably resident across a couple of occupational specialties. The current Marine Corps infantry division reconnaissance battalions and Marine Expeditionary Force reconnaissance companies have resident many of these skill sets. However, the units do no swarm or mass forces as implied by DO. Individually and collective training requirements for these units closely mirror the SOCOM units. The challenge now will be the limited time available for first term Marine employment. This is an issue that has plagued the Marine reconnaissance community since its inception and must be considered when discovering who will conduct DO. The Corps must establish the desired level of training and maturity for these types of operations and re-tool the training pipe-line to meet the output required. Maturity is a function of time and this must be considered. A "B" team may be a necessary stepping stone for the creation of an "A" team. This has long been taboo in the Corps. To maintain the Corps ethos, all DO training must have a base and this base must be rooted in the absolute mastery of all infantry skills.[22]

Definitely not all inclusive but some specifics on areas to be trained need mention. First and foremost training must be enhanced in the communications area. Units cannot exist on a wide front without the ability to use the equipment that will tie them together. Secondly, and

almost of equal importance, units conducting DO must be absolute masters of all joint supporting arms procedures and equipment.[23] These skills must be mastered by each member of the smallest sub-unit of DO for they may find themselves in the position to deliver fires and as an additive effect it will enhance confidence. To assist survivability, training in stealth is a must because much of the man-portable fire direction equipment requires a closer proximity to the enemy to have effect on target.[24] Positive, aided, night identification of most threat targets is still at a range of less than 1000 meters. Finally, to hone the product, training should encompass decision making, cultural awareness and ethical action.[25]

An equal amount of training attention needs to be directed at the other elements of the Corps that support the force conducting DO. In order to mitigate the risk of these types of operations, the aviation and combat service support elements must be capable of supporting the DO units in any clime and place. Fires and resupply must be delivered with the same exacting precision and in many cases stealth to accomplish the mission on the ground. Given the limited Corps aviation assets and a logistics infrastructure without any great reach, these two components will need equal focus in the training effort.

D. Material

Funding for DO is an absolute imperative. It is a capability that is not possible without great increases in equipment that the Marine Corps does not possess. The list that follows is an example of some of the equipment needed in support of DO:

i) Mobility equipment. From the smallest unit to the largest unit involved in DO operations. Rapid and reliable mobility is required. The Marine Corps is still developing the MV-22 and Expeditionary Fighting Vehicle. No solution has been found to an internally transportable vehicle for the MV-22.

ii) Fire support equipment. Reliable, high endurance and highly man-portable terminal guidance equipment for all elements. Some sets are available today but not in the quantities to

support wide scale DO operations. For a future combat system, much research and development must be done.

iii) Communications equipment and over the horizon/on the move command and control systems. This would include combat identification, small unit surveillance equipment and common relevant operational picture sets. Same general comments as fire support equipment.

iv) Resupply equipment. A parafoil delivery system is currently being employed. It has a large radar cross-section and must be deployed from fixed wing aircraft. Again, much research and development must be done.

v) Much of the above equipment requires a common network to interface with each other. This network is a critical vulnerability to conducting modern DO operations.[26] It must be hardened to enable continued service. Additionally, above systems must be fielded with not only back-ups but also tertiary systems to ensure continued connectivity.

E. Leadership/Education

As with any new method or concept, the tactics, techniques and procedures must be introduced to all levels of military education. Instruction must be tailored to specific institutions and time must be allocated for post-formal education assimilation. Although there is nothing negative with learning something new, the sooner the training begins the sooner the concept will become imbedded. One reality that is difficult to change is the high turnover at the small unit level. A larger number of Marines exit after the initial enlistment than stay in the Corps. This factor will be even more challenging when it will take a greater training effort to make a DO unit only to see a good sized part of it exit active service shortly after becoming qualified and possibly before even being employed in an actual operation. The benefits may not outweigh the costs here. For this investment to be more worthwhile enlistment lengths may need to be analyzed and the small unit leaders may need vetting before they enter the training process.

Another reality of DO is the increase in responsibilities levied on the team and squad level leaders. They will be more lethal on the battlefield and be required to make many decisions on their own without the comfort of the next level of command being only one small terrain

feature away at most. Acknowledgement of this fact and preparing Marines to lead in DO is vital. Of equal importance is providing properly qualified Marines to conduct DO.

F. Personnel

The characteristics of 21st Century Warfare have a strong impact on the operating forces. These forces will face situations never before encountered and they will be challenged to the greatest extent. The requirements for increased operational agility, rapid decision making, complex terrain and enemies and under closer and more lethal battlefield conditions will demand the highest quality professional warriors. It is assumed that the majority of the forces that make up the infantry field are expected to man the majority of the DO designated billets. Oddly, fifty percent of the infantry field scores in bottom one half of the Armed Forces Qualification Test (AFQT).[27] The AFQT is a general measure of trainability and predictor of on-the-job performance and is the primary index of recruit aptitude.[28] At the expense of other occupational specialties in Corps, there must be a reallocation of better qualified Marines entering the infantry community for DO to be successful.

G. Facilities

With an increase in breadth and depth of operational capability from DO, the Corps will add more challenges to its already overcrowded and limited fire support training facilities. Bigger training areas, more electronic spectrum and areas free for explosive use and laser use will be required. This will be a great challenge in the continental United States alone. Outside of the borders it will be even more complicated.

IV. Conclusion

DO has many advantages and some challenging implications. Across the analysis, the implications appear to be resolvable with dedication throughout all levels of leadership, well

aimed funding of key equipment shortages and rapid incorporation of technology. The advantages of DO broadly increase the Marine Corps effectiveness throughout the spectrum of complex conflict both imagined and being realized daily. The Marine Corps rests firmly on a sound base to adopt and implement DO. The greatest asset of the Corps, the Marine, has been prepared through the continued small unit excellence ethos of the Corps to readily accept this challenge. DO is viable, the Corps is the force to wholeheartedly adopt it and by doing so the Corps will continue to serve the nation with distinction.

Endnotes

[1] World Commission on the Social Dimension of Globalization, *"A FAIR GLOBALIZATION Creating opportunities for all,"* 2004. "*Commanding the Contested Zones*," 2004, pp.x-xi
[2] Kilcullen, Dave, LtCol, "*Complex Warfighting,"* Draft Version 5, 2 Mar 2004, pp. 2-3.
[3] Sinnreich, Richard and Wass de Czege, Huba "*Conceptual Foundations of a Transformed U.S. Army,"* 27 March 2002, pp. 6, 26.
[4] Ibid, pp. 3-5.
[5] Sinnreich, Richard and Wass de Czege, Huba "*Conceptual Foundations of a Transformed U.S. Army,"* 27 March 2002, page 8.
[6] Kilcullen, Dave, LtCol, "*Complex Warfighting,"* Draft Version 5, 2 Mar 2004, paragraph summarized from p. 5.
[7] Biddle, S. Dr. "*Afganistan and the Future of Warfare,"* Information Paper, Date Unknown, p. 2.
[8] Ibid, p. 2.
[9] Kilcullen, p. 6.
[10] Kilcullen, p. 8.
[11] Ibid, pp. 8-11.
[12] Biddle, p. 2.
[13] Lasswell, James A. Col, "*Assessing Hunter Warrior,"* Armed Forces Journal International, May 1997, paragraph summarized from pp. 14-15.
[14] Lasswell, James A. Col, "*Assessing Hunter Warrior,"* Armed Forces Journal International, May 1997, p. 15.
[15] Hanlon Jr., Edward LtGen, "*Distributed Operations: The Time is Now*," Marine Corps Gazette, Volume 88, Issue 7 Jul 2004, p. 32.
[16] Dobson, Robert K, "*The Distributed Operations Hurdles,"* Marine Corps Gazetee, Oct 2004, p. 32.
[17] Lubold, Gordon, "*Small Marine Units, Big Impact*," Marine Corps Times, 24 May 2004, p. 4.
[18] Lasswell, James A. Col, "*Assessing Hunter Warrior,"* Armed Forces Journal International, May 1997, pp. 14-15.
[19] Hanlon Jr., Edward LtGen, "*Distributed Operations: The Time is Now*," Marine Corps Gazette, Volume 88, Issue 7 Jul 2004, p. 32.
[20] West, Bing, "*Rediscovering the Infantry in a Time of Transformation,"* Defense Horizons, March 2002, p.7.
[21] Hanlon Jr., Edward LtGen, "*Distributed Operations: The Time is Now*," Marine Corps Gazette, Volume 88, Issue 7 Jul 2004, URL <www.mca-marines.org/Gazette/0704hanlon.html> Accessed 16 Aug 2004.
[22] Kennedy, P. J. Lt Col, "*Equipping the Strategic Corporal for the 21st Century Warfare*," Furture Warfare SAW AY-2002, p. 4.
[23] West, Bing, "*Rediscovering the Infantry in a Time of Transformation,"* Defense Horizons, March 2002, p. 4.
[24] Lasswell, James A. Col, "*Assessing Hunter Warrior,"* Armed Forces Journal International, May 1997, p 14-15.
[25] West, p. 5.
[26] Lubold, Gordon, "*Small Marine Units, Big Impact*," Marine Corps Times, 24 May 2004, p. 4.
[27] Kennedy, P. J. Lt Col, "*Equipping the Strategic Corporal for the 21st Century Warfare*," Furture Warfare SAW AY-2002, p. 6.
[28] Office of the Assistant Secretary of Defense Website, http://www.dod.mil/prhome/poprep99/html/chapter2/c2_recruiting.html

Bibliography

Biddle, S. Dr. "*Afganistan and the Future of Warfare,*" Information Paper, Date Unknown.

David, G. John Capt USMC, "*A Marine Raider Battalion: Giving USSOCom a Unique Capability*," Marine Corps Gazette, June 2004, p 46-48.

Dobson, Robert K. Jr. Col USMC (Ret.) "*The Distributed Operations Hurdles,*" Marine Corps Gazette, October 2004, pp. 32-33.

Edwards, Steve LTC USA, "*Distributed Operations*," Future Warfare Division, TRADOC FUTURES CENTER

Feith, Douglas J. Under Secretary of Defense for Policy, "*Report to Congress: Strengthening U.S. Global Defense Posture*," (Unclassified) 17 September 2004.

Fick, Nathan, "*Don't Dumb Down the Military.*" New York Times, 20 Jul 2004, Section A, Column 2, Editorial Desk, p 19.

Hanlon Jr., Edward LtGen, "*Distributed Operations: The Time is Now*," Marine Corps Gazette, Volume 88, Issue 7, Jul 2004.

Hoffman, Frank Dr., MS Word Table, created 13 July 2004.

January, J. M. Maj, "*TF-58: Developing 21st Century Warfighting Concepts*," Command and Staff College 2003.

Joint Staff, "*An Evolving Perspective: U.S. Joint Warfare and Crisis Resolution in the 21st Century*," Directorate for Operational Plans and Joint Force Development, The Joint Staff, Washington, D.C., 28 Jan 2004.

Kennedy, P. J. Lt Col, "*Equipping the Strategic Corporal for the 21st Century Warfare*," Furture Warfare SAW AY-2002

Kilcullen, Dave, LtCol, "*Complex Warfighting,*" Draft Version 5, 2 Mar 2004.

Krulak, Charles Gen, "*Hunter Warrior: Equipping the Man not Manning the Equipment*," Leatherneck Magazine, May 1997.

Lasswell, James A. Col, "*Assessing Hunter Warrior,*" Armed Forces Journal International, May 1997, pp. 14-15.

Lubold, Gordon, "*Small Marine Units, Big Impact*," Marine Corps Times, 24 May 2004.

Marine Corps Warfighting Publication (MCWP) 0-1, *Marine Corps Operation.* Washington, DC: Headquarters, United States Marine Corps, 1999.

Marine Corps Warfighting Publication (MCWP) 6, *Command and Control.* Washington, DC: Headquarters, United States Marine Corps, 1996.

Ridderhof, P. J. LtCol, MCCDC binder, "*Distributed Operations: The Next Step in Maneuver Warfare*," Information Paper, 7 Jul 2004.

Schmidle, Robert E. BGen, "*Distributed Operations: Brief for LtGen Huly*," Date unknown.

----------, "*Distributed Operation: From the Sea,"* Marine Corps Gazette, Volume 88, Issue 7 Jul 2004, p 37-41.

----------, "*Commanding the Contested Zones,"* Proceedings, Volume 130/9/1,219, Issue Sep 2004, p 49-54.

Schmitt, John F. Maj, "*A Critique of the Hunter-Warrior Concept*," Marine Corps Gazette, Volume, Issue, June 1998.

---------, "*Observations and Comments on the Operating Concept in the Hunter-Warrior Experiment*," Draft letter to LtGen P. K. Van Riper, 18 Mar 1997.

Sinnreich, Richard and Murray, Williamson, "*Joint Warfighting in the 21st Century*," Date Unknown.

Sinnreich, Richard and Wass de Czege, Huba "*Conceptual Foundations of a Transformed U.S. Army,"* 27 March 2002.

Spark, Michael, "*Guerrillas, Small Wars, and Marines*," Marine Corps Gazette, Vol 42, Issue 1, Jan 1962.

West, Bing, "*Rediscovering the Infantry in a Time of Transformation,"* Defense Horizons, March 2002.

World Commission on the Social Dimension of Globalization, "*A FAIR GLOBALIZATION Creating opportunities for all,"* 2004.

"*Distributed Operations: Course of Action for the Establishment of the Initial Operating Capability*," Draft 22 Apr 2004, Date and Author unknown.

"*Expeditionary Warrior (EW) 05 Marine Corps Title X War Game Information Paper*," Date and Author unknown.

"*Force Application Functional Concept*," Department of Defense, Feb 2004.