

REPORT DOCUMENTATION PAGE**Form Approved**
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching 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 Service, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.

PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE (DD-MM-YYYY) 05-05-2011		2. REPORT TYPE Master of Military Studies Research Paper		3. DATES COVERED (From - To) October 2010 - May 2011	
4. TITLE AND SUBTITLE IA-D3: AN ASSESSMENT PROCESS FOR MILITARY HEALTH SUPPORT IN STABILITY OPERATIONS (MSOs), ENABLING MEDICAL DIPLOMACY FOR COUNTERING IRREGULAR THREATS				5a. CONTRACT NUMBER N/A	
				5b. GRANT NUMBER N/A	
				5c. PROGRAM ELEMENT NUMBER N/A	
6. AUTHOR(S) LCDR JOSEPH EDWARD F. PIANSAY, MSC, USN				5d. PROJECT NUMBER N/A	
				5e. TASK NUMBER N/A	
				5f. WORK UNIT NUMBER N/A	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) USMC Command and Staff College Marine Corps University 2076 South Street Quantico, VA 22134-5068				8. PERFORMING ORGANIZATION REPORT NUMBER N/A	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A				10. SPONSOR/MONITOR'S ACRONYM(S) N/A	
				11. SPONSORING/MONITORING AGENCY REPORT NUMBER N/A	
12. DISTRIBUTION AVAILABILITY STATEMENT Unlimited					
13. SUPPLEMENTARY NOTES N/A					
14. ABSTRACT Currently, there is no standardized operational assessment framework or methodology for the joint services and the Marine Air Ground Task Force (MAGTF) when assessing MSOs and health services support (HSS) planning and execution across the spectrum of conflict. A standardized operational assessment framework or TTP - that integrates the current MAGTF D3A process and complements the USAID's TCAFP method - is both desired and recommended. The proposed Interagency Assessment-D3 (IA-D3) process - that readily integrates to MAGTF targeting process - is intended to assist USN, USMC and interagency healthcare planners or administrators involved in the assessment of and improving collaborative planning for MAGTF MSOs. Implementation of this process aims not only to facilitate enhanced unity of interagency effort in stability operations but also seeks to answer the basic questions: "Are we doing things right?" and "Are we doing the right things?" in order to enable medical diplomacy to countering irregular threats					
15. SUBJECT TERMS Medical Stability Operations (MSOs) in Irregular Warfare (IW), Military Health Support (MHS) for stability operations, health services support (HSS), medical civil-military operations (MCMOs), D3-A (Decide, Detect, Deliver and Assess), and TCAFP (Tactical Conflict Assessment and Planning Framework).					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UU	18. NUMBER OF PAGES 47	19a. NAME OF RESPONSIBLE PERSON Marine Corps University / Command and Staff College
a. REPORT Unclass	b. ABSTRACT Unclass	c. THIS PAGE Unclass			19b. TELEPHONE NUMBER (Include area code) (703) 784-3330 (Admin Office)

*United States Marine Corps
Command and Staff College
Marine Corps University
2076 South Street
Marine Corps Combat Development Command
Quantico, Virginia 22134-5068*

MASTER OF MILITARY STUDIES

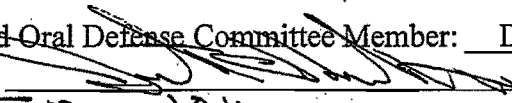
**IA-D3: AN ASSESSMENT PROCESS FOR
MILITARY HEALTH SUPPORT IN STABILITY OPERATIONS (MSOs),
ENABLING MEDICAL DIPLOMACY FOR COUNTERING IRREGULAR THREATS**

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

LCDR JOSEPH EDWARD F. PIANSAY, MSC, USN

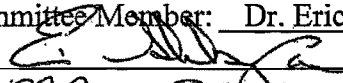
AY 10-11

Mentor and Oral Defense Committee Member: Dr. Jonathan F. Phillips

Approved: 

Date: 5 May 2011

Oral Defense Committee Member: Dr. Eric Shibuya

Approved: 

Date: 5 MAY 2011

Executive Summary

Title: IA-D3: An Assessment Process for Military Health Support in Stabilization Operations (MSOs), Enabling Medical Diplomacy to Countering Irregular Threats

Author: Lt.Cmdr. Joseph E. F. Piansay, Medical Service Corps, United States Navy

Thesis: Medical diplomacy is decisive use of ‘soft power’ in foreign policy to counter irregular threats, shaping favorable public opinion of USG, both in the homeland and overseas. Numerous medical analytical software and tools exist among the services. Currently, there is no standardized operational assessment framework or methodology for the joint services and the Marine Air Ground Task Force (MAGTF) when assessing MSOs and health services support. (HSS) planning and execution across the spectrum of conflict.

Discussion: DoD Instruction 6000.16, issued on 17May10, established current guidance and DoD’s interagency responsibilities on Military Health Support (MHS) for stability operations, hereafter referred to as medical stability operations (MSOs). DoD considers MSOs a core mission of the U.S. military and that the DoD Military Health System (MHS) shall be prepared to conduct MSOs throughout all phases of conflict and across ROMO, including combat and non-combat environments. During the conduct of stabilization and reconstruction operations such as in OIF II and OEF-A, commanders of Marine Air-Ground Task Forces (MAGTFs) are routinely tasked with planning and executing “quick-impact” MSOs (i.e. MED/DEN/VET Civil Assistance Programs and cooperative medical engagements in rural areas or outlying villages) that align with US operational and strategic interests. Yet within the joint medical community, little or no attention has been made to standardize the assessment process for determining success or failure in executing MSOs. Within the MAGTF command element, the Information Operations-Civil Military Operations section within the G-3 Assessment cell, uses the joint targeting “D3A-Decide, Deliver, Detect, Assess” framework for steady-state kinetic, lethal fires. Conversely, MSOs fall under the MAGTF’s non-lethal fires or effects (IO-CMO) and should likewise be integrated into the [targeting] cycle in order to accomplish the overall MAGTF and joint force commander’s end states for the stability operations phase. Given limited HSS assets and resources, MSOs in MAGTF operations necessitate pre-and post-conflict medical assessment of the host nation’s public health sector so as to plan, design and conduct the right MSOs at the right population district, with the right capabilities in the right time, delivering the intended, positive effect(s) on the population at risk (PAR), that embodies medical diplomacy as means for countering irregular threats, consistent with our national and strategic interests.

Conclusion: A standardized operational assessment framework that integrates the current MAGTF D3A process and complements the USAID’s TCAPF method, is both desired and recommended. The proposed Interagency Assessment-D3 (IA-D3) process is intended to assist USN, USMC and interagency healthcare planners or administrators involved in the assessment and planning of MAGTF MSOs. Implementation of this process aims not only to facilitate enhanced unity of interagency effort in stability operations but also seeks to answer the basic questions: “Are we doing things right?” and “Are we doing the right things?”

DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENT AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

QUOTATIONS FROM, ABSTRACTIONS FROM, OR REPRODUCTION OF ALL OR ANY PART OF THIS DOCUMENT IS PERMITTED PROVIDED PROPER ACKNOWLEDGEMENT IS MADE.

Illustrations

Page

Figure 1-1. TCAPF (USAID) METHODOLOGY	15
Figure 1-2. TCAPF IN SUPPORT OF THE MARINE CORPS PLANNING PROCESS	17
Figure 2. THE MAGTF COMMANDER'S ASSESSMENT PROCESS	19
Figure 3. D-3A – MAGTF TARGETING CYCLE: ASSESSMENT AND DECISION	22
Figure 4. IA-D3 – PROPOSED MAGTF ASSESSMENT METHOD FOR MSOs	23

Table of Contents

	Page
EXECUTIVE SUMMARY	ii
DISCLAIMER	iii
LIST OF ILLUSTRATIONS	iv
ACKNOWLEDGEMENTS	vi
INTRODUCTION	1
ROLE OF MSOs AND MEDICAL DIPLOMACY	2
THE CENTRAL IDEA: STRATEGIC CONTEXT OF ASSESSING MSOs	5
DESCRIPTION OF THE MILITARY PROBLEM	7
CURRENT ANALYTICAL MODELS FOR HSS OPERATIONS	11
USAID: TACTICAL CONFLICT ASSESSMENT AND PLANNING FRAMEWORK	14
ASSESSMENT DOCTRINE FOR MAGTF OPERATIONS	18
OODA LOOP: OBSERVE, ORIENT (ASSESS), DECIDE AND ACT	20
ASSESSMENT FOR MSO: HOW ARE WE DOING?	20
D3-A: DECIDE, DELIVER, DETECT AND ASSESS	21
ADOPTING IA-D3 PROCESS, STANDARDIZING MAGTF MSO ASSESSMENT	23
CRITERIA FOR EVALUATING PERFORMANCE AND EFFECTIVENESS	27
FEEDBACK TO THE COMMANDER	27
CONCLUSIONS	28
ENDNOTES	32
APPENDIX A: HSS CHECKLIST FOR DETAILED PLANNING OF MSOs	34
APPENDIX B: COMMON HSS ANALYTICAL SOFTWARE AND TOOLS	38
APPENDIX C: WORKING GROUP COORDINATION FOR MSOs (NOTIONAL)	40
APPENDIX D: JOINT HSS ASSESSMENT FACTORS	41
GLOSSARY	42
TERMS AND DEFINITIONS	43
BIBLIOGRAPHY	46

Acknowledgements

This paper has been greatly influenced by a number of subject matter experts (SMEs) and professionals who assisted me by providing their precious time and guidance. First and foremost, I would like to thank my thesis research advisors and mentors, Dr. Jonathan Phillips, Lt.Col. Jason Adkinson, and Dr. Eric Shibuya for their valuable mentoring, advice and insight throughout this academic endeavor and course of study at the Command and Staff College, Marine Corps University. Additionally, I would like to acknowledge the professional expertise and resource support of Mr. Greg Nakano, CDR Bill Hughes, both distinguished SMEs of Military Health Support in Stabilization Operations (MSOs) and who worked respectively at OSD Pentagon, Washington D.C. Without the guidance and support of my mentors and SMEs, I would have been marooned or lost in a sea of medical jargon and complexity that this important subject required me to navigate.

And last, but certainly not the least, I take this special moment to recognize and express deep appreciation for the contributions of my dear family - my beautiful and loving wife, Esther, and my two candid and cool man-cubs, David and Jericho. If not for their unbridled love, moral support and inspiration, I would be lost in the sea of despair and not have made it this far.

Introduction

This paper examines Medical Stability Operations (MSOs) in an Irregular Warfare (IW) environment. MSOs are an *essential* component of Phase IV-Stability and Reconstruction (hereafter referred to as S&R) operations as military personnel seek to restore public health services to pre-conflict levels, reduce further loss of civilian life, and alleviate further suffering during or after cessation of hostilities. MSOs, fall under joint 'umbrella' term medical civil-military operations (MCMOs) - described in Joint Publication 4-02, *Health Service Support* (October 2006) – and are considered a “be-prepared-to” health services support (HSS) mission of Marine Air Ground Task Force (MAGTF), conducted during or after transition from the combat phase to the stabilization and reconstruction (S&R) phase (i.e. Phase IV), referred to as S&R hereafter. Yet the Marine Corps has not developed a viable assessment methodology for the MSOs it conducts. Simply put, how does the Marine Corps know when an MSO is succeeding in S&R operations? The solution is to modify and employ an existing joint (land and maritime) targeting cycle - known as *D3-A (Decide, Detect, Deliver and Assess)* - that promotes interagency collaboration and enhances medical diplomacy to counter irregular threats during post-combat operations.

Thus, this paper highlights the *assessment* piece of problem framing when planning (and employing) MSOs as 'non-lethal fires' within the Information Operations and Civil Military Operations (CMO) staff function of a MAGTF command element. Moreover, this paper explores a proposed *interagency* planning method for assessing MAGTF MSOs that takes into account not only the interagency, but also host nation representatives and civil considerations in an effort to ensure accurate measures of performance and success.

Also provided is a short literature review of current medical software tools used in planning for MAGTF HSS operations, a concept overview of USAID's Tactical Conflict Assessment and Planning Framework (TCAPF), and doctrinal underpinnings of MAGTF Assessment. Although the ideas posited in this paper are not new, they are different due to an objective emphasis on a proposed interagency method for standardizing MAGTF assessment for MSOs, since no standard medical assessment doctrine exists within the MAGTF and the joint force. Finally, recommendations are offered to assist USN, USMC, and interagency healthcare planners involved in the assessment and planning for MAGTF medical stability operations.

Role of Medical Stability Operations (MSOs) and Medical Diplomacy

By their nature, [MSOs] are typically lengthy endeavors that comprise military missions, tasks, and activities conducted outside the United States in coordination with other instruments of national power to forge unity of effort through a whole of government approach. MSOs aim to establish or restore basic civil functions and provide security for the local populace until a civil authority or HN [host nation] government is capable of providing these services for their people.¹

[S&R] operations objectives could include the restoration of services such as water, sanitation, *public health, and essential medical care*. The desired military end state in the health sector should be an indigenous capacity to provide vital health services. In stability operations, another government agency will typically serve as the lead; DoD should be prepared to support this agency.²

Although the term MSOs is a new DoD term of reference (per the recently published DoD Instruction 6000.16 on May 17, 2010), the concept of the Joint Force or the MAGTF to

plan and execute HSS across the range of military operations (ROMO) – S&R operations in particular - is anything but new.³

MSOs fall under the overarching Medical Civil-Military Operations (MCMO), a joint term of reference, because it deals with that “discipline of civil-military medicine that includes peacetime medical elements of security cooperation activities, humanitarian assistance (HA), disaster response and disease outbreak response in a permissive environment, pre-conflict health-related civil-military activities, and health related civil-military activities during major campaigns and operations, and post-conflict stability operations.”⁴

Medical diplomacy, on the other hand, is a dynamic and intended *effect* of MSOs that falls under the concept of Public Diplomacy (or Strategic Communications), which is a key instrument of national power leveraged by U.S. foreign policy in S&R operations. “Medical diplomacy, the collaboration between countries to improve relations and simultaneously produce health benefits, is a form of soft power that has major benefits for both countries involved and should be seen as a model for international relations.”⁵

In the IW operating environment, U.S. policy makers and military leaders must ask the question, “*What is the intended effect and role of U.S. MSOs, as a form of medical diplomacy, in setting the stage for military and strategic success in S&R operations?*” One can look back at the profound success of the British forces as they prosecuted the Malayan Emergency between 1948-1960 using series of proactive civil-military operations under the ‘Briggs Plan’. The British garnered a decisive victory using a *hearts-and-minds* strategy. This was “a phrase made popular by General Sir Gerald Templer, the British High Commissioner in Malaya from 1952 to 1954 - into the counterinsurgency lexicon”, winning the support of the population. Overall, this strategy improved the social well-being and health conditions, “persuading the people not to seek retribution against

those who supported the insurgents, but to provide them with the resources that would wean them way from the insurgents.⁶

Recent data on medical humanitarian assistance is likewise compelling and has favorably shaped the domestic and global perceptions of U.S. foreign policy for countering irregular threats. The examples of medical diplomacy in the global arena are the decisive medical support and deployment of our nation's strategic medical assets - the navy hospital ships (i.e. the USNs military sealift command ships, United States Naval Ship or USNS COMFORT and MERCY) - for major humanitarian and relief efforts in response to the December 2004 Tsunami disaster in Southeast Asia and the January 2010 Earthquake in Haiti. Both major relief efforts boosted the American image overseas, especially the Tsunami relief efforts wherein Indonesia - the largest Muslim nation in the world - turned the tide of negative perceptions, at a time when the world opinion was critical of the U.S.-led invasion of Iraq.

Medical diplomacy involves short-term and long-term MSOs that align with our nation's strategic interests. Examples of the short-term, so-called 'quick impact' MSOs are the tsunami relief efforts mentioned and the 'cooperative medical engagements (CME) in OIF II or the 'village medical outreach' programs in OEF-Afghanistan (OEF-A). The long-term MSOs, meant to build capacity and capability of failing states or partner nations, are the Africa and Pacific Partnership Station (APS/PPS) or the interagency effort to establish or restore essential health services with respective host nation ministries of public health in OIF II or OEF-A. The main thrust of U.S. foreign policy for implementing medical diplomacy is to help shape favorable public opinion, both in the homeland and abroad, enabling positive international relations in efforts to bolster support of U.S. strategic interests, strengthen alliances with friendly nations, increase partnerships, and benefit future or existing trade relations.

The Central Idea: Strategic Context of Assessing Medical Stabilization Operations (MSOs)

At the strategic level, the IW campaign should address “the five principal IW activities or threats, they are: counterterrorism (CT), unconventional warfare (UW), foreign internal defense (FID), counterinsurgency (COIN), and SOs.”⁷

In stability operations (SO), the nature of the conflict and the civil-military priority of effort is centered on the contest for gaining the influence or controlling perception of the HN population in order to support the rule of law and HN government’s legitimacy. Mission success in terms of achieving our nation’s political objectives and strategic goals, within SO’s complex and dynamic operating environment, is underpinned by an assessment framework and process that precedes detailed planning and decisive execution. Because stability operations in IW is oftentimes complex and dynamic, assessment – just like intelligence collection - is continuous and serves to inform the MAGTF commander’s decision making process.

In MAGTF planning for IW, assessment is an inherent, essential activity for the MAGTF commander and his battle staff in order to understand both the operating environment and the nature of the problem before courses of action are determined and organic resources are committed or employed. Medical assessment must be synchronized with the MAGTF’s intelligence section when developing Intelligence Preparation of the Battlespace (IPB) products. MAGTF medical planners usually derive their baseline assessment and staff estimate from open-sourced medical intelligence, past after-action reports, along with the host nation’s country health study (downloaded from NCMI) so that they can identify the pre-existing public health infrastructure as well as the overall pre-conflict health profile of the HN population-at-risk (PAR). Information collected continuously enables the MAGTF medical planners’ to refine their assessment and staff estimates, leading to realistic recommendations for the type and duration of

MAGTF MSOs to be implemented, either concurrent with or immediately following the combat phase of operations. Their assessment also takes into account the overall theater S&R campaign plan published by higher headquarters.

Transitioning from conventional combat operations to an S&R phase *requires* an assessment process that enables field commanders and command surgeons at all levels of the MAGTF to orient to and increase their understanding of the operating environment. Assessment enables MAGTF medical forces to ‘respond’ versus ‘react’ in restoring essential public health services that were disrupted as a result of collateral damage during hostilities or combat operations. Ultimately, “the goal is to enhance the [HN government’s] legitimacy and influence over the population by addressing the causes of conflict and building the [host nation’s] capacity to provide security, good governance, [essential health services], and economic development.”⁸

In the planning and execution of military operations, standing Rules of Engagement or ROEs, enforced by the MAGTF, help mitigate the lethal nature in which combat operations are prosecuted. However collateral damage - despite prior planning estimates, mitigation strategies and precision targeting by combat forces - cannot be altogether avoided. And so, during the early assessment activities of the Marine Corps Planning Process, using intelligence received from the G-2 section and downloading the HN country health study from the National Center for Medical Intelligence’s (NCMI) unclassified database, MAGTF medical planners are on task to provide timely staff estimates and input to the MAGTF targeting board or working group.

Typically, medical staff input may contain recommended key HN infrastructure (i.e. known hospitals, clinics as well as buildings or ‘shelters of opportunity’) within the area of operations that require protection and designation as “no-fire areas” so that they can be used as interim community health clinics for “quick-impact” MSOs to support the population during or

immediately after combat operations. The value of HN public health infrastructure, if kept intact, can be readily leveraged by the MAGTF for follow-on operations and can be used to enable restoration of HN public health system, and provide essential health services post-conflict, alleviating overall suffering of the HN population. MAGTF HS planners need to be proactive and responsible for conducting ongoing assessments of organic MAGTF health services capability, environmental health assessments and risk assessments directed to support organic force personnel as well as for the targeted, vulnerable HN population.

According to the latest USMC Operating Concepts (June 2010) on IW, it states “to be successful at effectively countering irregular threats, [the MAGTF] must view both the problem and the solution more holistically. The establishment of a secure environment in which society can make progress that supports the normality of that particular society, is vitally important.”⁹ Aside from security of the environment, HN essential services (such as basic sewer and trash, water, electricity, and *medical services*) that were disrupted, severely degraded or damaged beyond repair due to hostilities, quickly leads to sub-standard and unhealthy living conditions for the displaced population and civilian casualties. The community environment thus becomes a breeding ground for rampant pestilence and disease non-battle injuries (DNBIs) often resulting in increased mortality (death) rates and further suffering of the population.

Description of the Military Problem

This section describes the military problem, provides a short literature review of current analytical models used for USMC HSS operations, and introduces USAID’s Tactical Conflict Assessment and Planning Framework (TCAPF) used by the MAGTF in OEF-A. It examines the issue of the proliferation of numerous medical analytical methods and software tools that are

predominantly focused on friendly forces employed in traditional combat operations or conventional warfare and are not designed for S&R and IW.

These medical tools are 'deterministic' in that analytical outputs are primarily based on historical accounts of U.S. joint ground combat operations, the traditional kinetic warfighting. Based on a forecasted casualty stream, medical requirements (i.e. number of operating room tables, treat beds, medical staff personnel, supplies, amount of blood needed, and ground-air transportation requirements) are computed to ensure adequate medical treatment and support patient treatment throughout the continuum of care (i.e. from point of wounding in the forward area to hospitalization in theater and eventual strategic aeromedical evacuation for definitive hospitalization INCONUS). Transitioning from combat operations to S&R and MSOs, the MAGTF's on-hand medical supplies and equipment (i.e. Class VIII) are primarily for treating organic and friendly force personnel who are all in the 'active well' category and hardly compatible for the treatment S&R demographics for the patient or casualty stream is pregnant women, children and the elderly. A notional Class X (MSO-Humanitarian) block of medical equipment and supplies has to be assessed and planned for, prior to deployment to the area of operations to anticipate 'response' versus 'react' to demand requirements of HN population.

Despite the abundance of tools available for joint military health planners today, there is no existing standard process or algorithm among the services for how assessment is to be conducted in IW - for MSOs, MCMOs and HSS operations overall, across the range of military operations (ROMO). Although new USMC TTPs for assessment have been developed and refined with the publication of the MAGTF Staff Training Program (MSTP) pamphlet 6-9, *Assessment* in 2007, the proponent's research and study of this topic yielded no standardized USMC operational assessment process specific to MSOs or for MAGTF health services support

(HSS) across ROMO. Thus, this paper aims to fill the gap for USN, USMC and interagency healthcare planners involved with assessment and planning for MAGTF MSOs. The proposed assessment framework, which integrates TCAPF in the assessment activities for MSOs, is consistent with USMC TTPs for developing a “rapid needs assessment”. This medical assessment framework is doctrinally grounded by USMC expeditionary maneuver warfare, the OODA Loop (i.e. U.S. Air Force fighter pilot, Colonel John R. Boyd's theory or "Boyd's OODA loop” and finally, the D3-A (i.e. Decide, Deliver, Detect and Assess), the MAGTF *fires* targeting process which the proposed assessment framework is derived to nest with the overall joint targeting and decision cycle.¹⁰

Due to the nature of modern conventional and unconventional warfare, the transition from the combat phase to S&R phase of operations is *fluid*, so that medical planners need to constantly assess and plan where they are one step ahead on the 'war against disease and death' (as a result of battle and non-battle injuries brought about by combat operations) and remain ever ready to *respond versus react* in planning and executing not only MSOs but the entire capability arsenal of MAGTF HSS across ROMO.¹¹

MAGTF operations are also doctrinally constrained by sustainment factors such as the amount of logistics capabilities and supplies they bring to the fight, translated in “days of supply or DOS” and support capability. For example, the Marine Expeditionary Unit (MEU) can operate without resupply for 15 days of intense infantry combat operations – with 30 DOS for the Marine Expeditionary Brigade and 60 DOS for a Marine Expeditionary Force respectively. And so, for USN or interagency healthcare planners and administrators working or assigned to fill billets within the MAGTF in support of stabilization operations, knowing and understanding the doctrinal DOS limits and organic medical support capabilities, factoring consumption rates,

aids in the proper 'needs' assessment planning for MSO missions. Experienced MAGTF medical planners can quickly assess and determine organic HSS capabilities suited to 'quick-impact' MSO projects (e.g. medical/dental civic assistance program or MED/DENCAP) necessary to restore or establish civil security, critical public infrastructure and essential services.

Successful mission accomplishment in conducting MSOs – given the time and funding limitations imposed by higher authority - relies on an operational assessment process that takes into account the overall project feasibility. The process or framework must be able to identify and prioritize need (i.e. requirements) versus want (i.e. 'nice-to-have'), and determine the realities on the ground whether or not 'quick-impact' or long-term MSOs are required and whether the security environment is 'permissive' or stable (i.e. where force protection of medical forces are assured). Such assessment process should aid in the MAGTF commander's decision on whether to develop or reconstruct, and whether to use organic medical forces or to outsource (using contingency contracting) the essential health services requirements of the population.

Because MSOs are in the province of Information Operations (IO), where non-lethal or non-kinetic operations and targets (such as the population) are the focus, there exists considerable value and utility for any of these HSS logistics calculators used in conventional MAGTF operations. However, these analytical tools merely aid in generating MSO requirements data only after a rapid operational assessment of the target population (and given a set of measures of performance and effectiveness) has been completed. Since these calculators do not give the MAGTF medical planner a systematic process or framework required to complete such operational assessment for MSOs (or for MAGTF HSS operations across ROMO), the current USMC doctrine for D3A and O-O-D-A loop offers a baseline, systematic and rapid approach to this dilemma.

The following section provides a short literature review of current computer-based modeling software and logistics calculators that support conventional MAGTF HSS operations and the maintenance of geographic combatant commanders' Annex Q-Health Services in operational plans (OPLANS) and contingency plans (CONPLANS). Medical forecasts and logistics data derived from the suite of medical software comprise the necessary detail to carry out HSS operations in peacetime or in war. While there are numerous software applications, those listed are the main joint and service HSS models used only for conventional warfare or traditional kinetic, force-on-force operations. The United States Agency for International Development's (USAID) Tactical Conflict Assessment and Planning Framework (TCAPF) is later introduced since the Army and Marine Corps recently embraced this interagency model for conducting counterinsurgency operations in OIF II and OEF-Afghanistan.

Current Analytical Models for HSS Operations

Numerous medical software tools exist, each having a specific application. Dr. Paula Konoske, Head of Modeling and Simulations at the Naval Health Research Center, states that "modeling and simulation software has long been integral to the Navy's preparation for contingencies. The Navy has designed programs to address issues specific to warfighting and specific to the medical needs of [patient] admission. A quick survey of the more common joint and service HSS analytical models and logistics calculators is worth mentioning (summarized in **APPENDIX B- Common HSS Analytical Software and Tools**) to show the proliferation of medical tools for health services support specific to warfighting or combat (kinetic) operations and grossly lacking in assessment for non-kinetic operations such as stabilization operations in IW.¹²

Current medical software supports a given patient casualty stream (or scenario) that produces the number of patient admissions (i.e. workload) required for treatment throughout the five standard levels of care – from first-responder treatment at point of injury in the combat zone and all the way through definitive hospitalization INCONUS . This patient casualty stream is what drives the Navy requirements for medical supply, logistics, and patient movement. These software programs only apply to combat force personnel and do not necessarily apply to IW, S&R and the unique set of host nation population demographics involved with MSOs.

In the course of research, it was noted that these software tools were primarily used by medical logistics and plans officers at the operational level (i.e. component headquarters like the MARFORS and Combatant Commander or CDR staffs such as PACOM and CENTCOM) and specifically, at the U.S. Joint Staff for the maintenance of ANNEX Q-Health Services portion of CDR deliberate and contingency plans. Medical planners at the Marine Expeditionary Force (MEF) level and below – the ‘tactical’ level MAGTFs - do not have access to these tools nor are they trained to use them. More often than not, the MAGTF medical planners at the MEF and lower-level MAGTFs - such as the Marine Expeditionary Brigade (MEB) and Marine Expeditionary Units (MEUs) - are not accredited for access to these tools since they are reserved for component and CDR medical staffs.

While the suite of medical software programs provide for efficient medical logistics calculations based on planning data (provided by other battle staff sections intelligence, plans and operations, logistics, etc.), major planning for MAGTF contingency and combat operations are often driven by higher headquarters (such as the MARFOR or service component medical planning staffs) leaving little initiative and resources for lower-level MAGTF medical planners to adequately plan for MSOs. Additionally, the medical software tools offer neither a doctrinal

methodology for conducting a rapid, baseline medical assessment to start with nor a systematic feedback data in software applications.

Thus, the MAGTF medical planner, in preparing for HSS missions in stabilization (non-kinetic) operations, still requires a 'no nonsense' rapid operational assessment method or framework based on a given set of planning factors at the tactical level – both objective and subjective. Initial information for such an operational assessment can be derived from attending daily "battle update briefs" presented by other MAGTF line planners, intelligence sections, etc., which details current status of operations and follow-on missions. The medical planner must also take into account the pre-conflict state of key HN public health infrastructure (as a baseline for restoring level of health services post-hostilities), and more importantly, know the status of the operating environment's security situation – whether permissive, non-permissive or hostile. Doctrinally, MSOs and HSS operations are conducted in permissive environments, where there is an established or acceptable level of security and force protection of MAGTF medical personnel.

In past and recent personal observations, MAGTF medical planners have little or no software training whatsoever in the medical software. In addition, these tools are focused on conventional, kinetic operations where medical logistics support requirements for organic and friendly forces casualties are mere calculations based on commander-approved intelligence estimates and inputs from the Marine planners. While these high-speed tools and algorithms are clearly modeled to lethal, kinetic operations, providing a suite of calculators for forecasting or generating demand of medical requirements (i.e. hospital beds, intra- and inter-theater medevac assets, medical supplies and equipment to support casualty flow, based on exposure to combat intensity rates and theater evacuation policy), no tools exist for non-kinetic operations. Also, it is

remarkable to note that medical assessments take the long-form of health surveys directed at friendly, organic forces and limited to preventive environmental health surveys, with no disciplined medical analytical process or assessment framework that integrate with MAGTF assessment and decision cycles when targeting or prioritizing MSOs in S&R operations.¹³

However, in MSOs, simulations and computations can prove meaningless if a planner does not have the right medical planning factors and considerations for assessment in a non-lethal, non-kinetic operating environment requiring an operational assessment of: a) needs of the population, b) MAGTF organic HSS capabilities available for MSOs and c) associated environmental risk or security hazards in executing MSOs.

USAID: Tactical Conflict Assessment and Planning Framework (TCAPF)

TCAPF (see **Figure 1-1**) is based upon the same theoretical underpinnings as USAID's Conflict Assessment Framework (CAF), which in turn has also been incorporated into Office of the Coordinator for Reconstruction and Stabilization's (S/CRS) Interagency Conflict Assessment Framework (ICAF). "The TCAPF is an assessment tool based on the following theory that 'perceptions of the population cause actions that instigate instability and foster insurgency.' By carefully targeting the real causes of instability, perceptions of the population can be positively affected."¹⁴ The USMC began its investment, adopting and integrating TCAPF as a TTP since FY09 and was used by 2nd MEB units in OEF-Afghanistan for S&R lines of operation within the Helmund Province, generating favorable results.¹⁵

The difference is that CAF and ICAF are national-level tools for identifying sources of instability at the macro level, whereas TCAPF is a tool adapted to military or combat units at the tactical level (such as the MAGTF). USAID has the competency for long-term development

while the military has the competency for both combat (kinetic) and stability (non-kinetic) operations. Transitioning from combat operations to stability operations, TCAPF is an assessment and planning tool that will aid MAGTF medical planners in the 'needs assessment', to enable better understanding and target the sources of instability at the local level, where people actually live and where the insurgents actually gain or lose traction with the population.

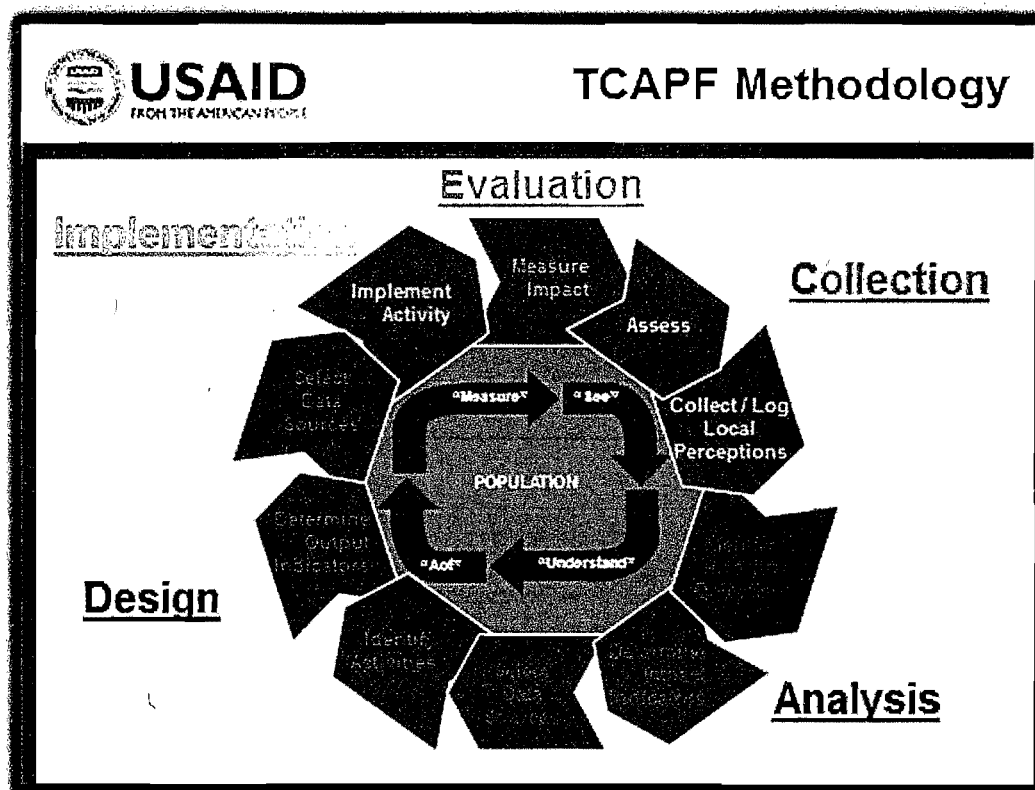


Figure 1-1. USAID's Tactical Conflict Assessment and Planning Framework (TCAPF) Methodology. Source: USAID TCAPF Office of Military Affairs (OMA) powerpoint brief by Dr. James Derleth, February 20, 2010.

TCAPF improves the Interagency Conflict Assessment Framework (ICAF) and provides a better programmatic and tactical assessment and planning approach that support military objectives in stability operations. Basically, the TCAPF process is divided into five (5) steps, with four (4) basic questions asked to survey local perceptions about the causes of instability or threats.

The five TCAPF steps are as follows:

1. **Collect** information on the local population's problems/grievances
2. **Analyze** this information, plus other information streams, to identify sources of instability in each AO
3. **Design** activities to address these sources of instability
4. **Implement** the activities
5. **Evaluate** the impact of these activities in helping foster stability (not just output)

The four simple TCAPF questions to establish baseline for local perceptions, generating initial, rapid assessment data are as follows:

1. "Has the number of people in the village changed in the last year?"
2. "What are the most important problems facing the village?"
3. "Who do you believe can solve your problems?"
4. "What should be done first to help the village?"

The TCAPF conceptual overview, the basic steps and survey questions above, should help guide the MAGTF medical planner in framing an operational approach for a rapid medical assessment for MSO planning and execution.¹⁶ As more time and situation permits for deliberate planning, the proponent has provided a recommended *HSS Checklist for Detailed Planning of MSOs* (found in **Appendix A** of this paper) to support decision making of the MAGTF commander based on stated mission, objectives and end states.

As the MAGTF transitions from the combat phase to stabilization phase, *Assessment* helps answer the basic question, "How are we doing?" More importantly, it identifies the post-conflict state of security and the gaps in essential services that have to be restored or established for the HN population. At the tactical and operational levels, assessment and re-assessment throughout the planning cycle allows the MAGTF, joint, coalition commanders and interagency stakeholders to gauge the collective efficiency, measure performance (i.e. MOPs: "Are we doing things right?"), and effectiveness (i.e. MOEs: "Are we doing the right things?") and participation in military operations.

The following illustration (**Figure 1-2. TCAFP in support of the Marine Corps Planning Process**), depicts how TCAFP integrates into the Marine Corps Planning Process (MCP) and the Army's planning process (MDMP). Note that the assessment activities initially take place during Step 1: Problem Framing of MCP (or Step 2: Mission Analysis for MDMP) and that assessment activities by the MAGTF battle staff, in USMC doctrine, remain continuous throughout the MCP and serve to inform the MAGTF and operational commanders, providing them real time feedback to streamline the decision cycle and conduct of MAGTF operations.

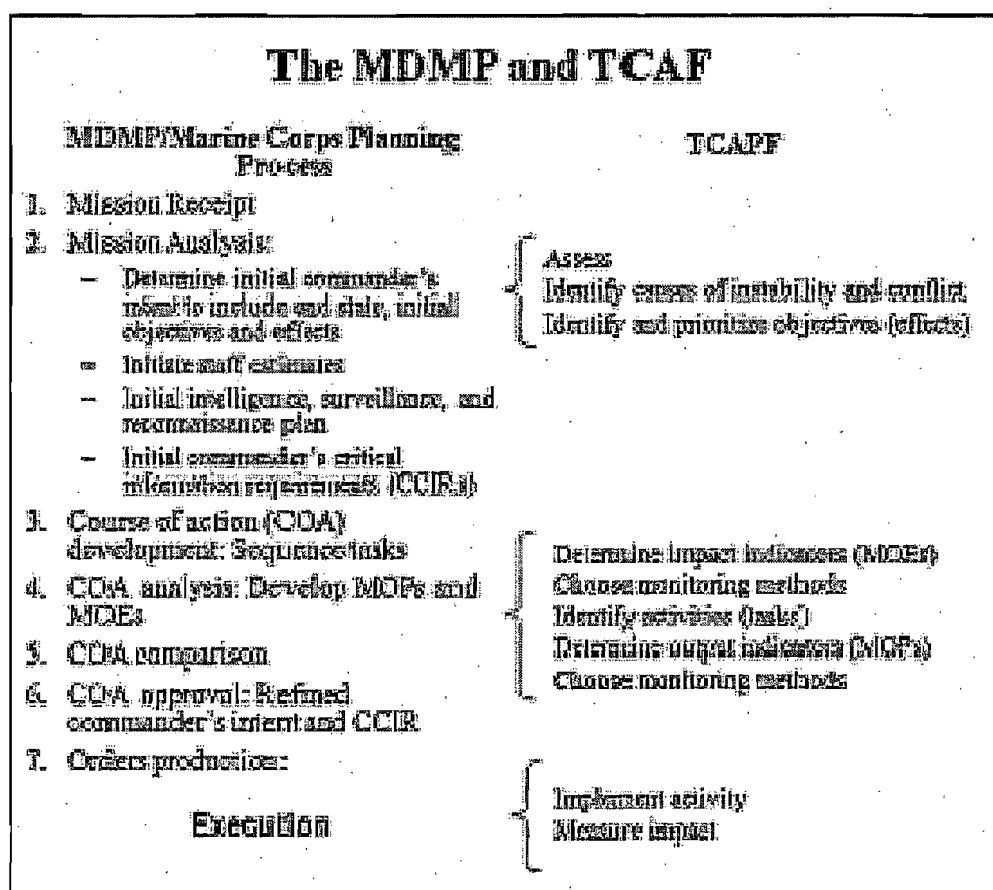


Figure 1-2. TCAFP in support of the Marine Corps Planning Process. Source: Army Handbook No.10-41, *Assessment and Measures of Effectiveness in Stability Ops*, May 2010

“The TCAFP supports both the Marine Corps Planning Process and the Army's Military Decision Making Process (MDMP) by providing what constitutes a mechanism for the commander and his staff to see how their plan is achieving goals, objectives, and end state. The TCAFP can also help identify causes of instability and place

possible solutions against these causes.

The TCAPF will also help determine the measures of effectiveness (MOEs) and organize data into understandable formats to measure success. The TCAPF can also do the same with measures of performance (MOPs). The TCAPF will measure the impact of programs and actions to assist the planners by recommending required changes.”¹⁷

Assessment Doctrine for MAGTF Operations

The USMC’s MAGTF Staff Training Program (MSTP), a lead authority for developing and standardizing service TTPs (tactics, techniques and procedures) for Marine operating forces, reinforces the value that “Assessment should help the commander identify success or failure, determine the extent to which required conditions have been met for follow-on actions, and recognize whether a particular end state has been reached. More specifically, assessment should enable the commander to estimate the overall progress of an operation as it unfolds in the operational environment so he can make informed decisions for future actions.”¹⁸

The USMC have been deployed working together with the Army for the last 7 or so years prosecuting the global war on terror and adopted the Army definition in their FMI 5-0.1, *The Operations Process* which defines *Assessment* as the “continuous monitoring and evaluation of the current situation and progress of the operation.”¹⁹ MSTP Pamphlet 6-9, *Assessment*, October 2007, states that “Assessment answers the commander’s basic questions:

- “How are we doing?”
- “Are we doing the right things?”
- “Are we doing things right?”

Assessment helps the commander identify success or failure, determines the extent to which required conditions have been met for follow-on actions, and recognize whether a particular endstate has been reached. More specifically, assessment should enable the commander to estimate the overall progress of an operation as it unfolds in the operational environment so he can make informed decisions for future actions.”²⁰

O-O-D-A Loop: Observe, Orient (Assess), Decide and Act

Central to USMC maneuver warfare doctrine is the OODA Loop. The Marine Corps Doctrinal Publication (MCDP) 6, *Command and Control*, establishes the doctrinal foundation and the conceptual framework for assessment through a simple model of the command and control process known as the OODA Loop, an acronym for observe-orient- decide-act, which describes the basic sequence of the command and control process.²²

For the navy medical planner who has not yet served with a MAGTF battle staff or who is not familiar with either TCAPF or in medical planning for MAGTF HSS operations, the 'Orient' (or Assessment) phase provides a lens with which the planner takes into account the host nation population, which is the primary target and focus in S&R operations. Absent any intelligence estimates, the navy medical planner can derive their baseline assessment and staff estimates from country health demographics that come from open-source medical intelligence (i.e. past after-action reports, along with the host nation's country health study) which can be downloaded from internet open-source, unclassified websites such as the National Center for Medical Intelligence (or NCMI), World Health Organization and Foreign Country Clearance Guide, etc. along with e **Appendix A** (*HSS Checklist for Detailed Planning of MSOs*) of this paper to help refine their assessment and staff estimates for realistic recommendations on the type and duration of MAGTF MSOs to be implemented, either concurrent with or immediately following the combat phase of operations.

Assessment for MSOs: How Are We doing?

"Nowhere is this disorganization more apparent, nor have more opportunities been lost, than in the areas of health and medical care in Afghanistan. Too much effort is wasted on poorly coordinated Medical Civic Action Programs (MEDCAPs), where U.S. and NATO International Security Assistance Force (ISAF) military medical personnel deliver health

care directly to Afghan civilians, undercutting the confidence of the local population in their own government's ability to provide essential services.”²³

Many articles, such as Robert Wilensky's article, *Military Medicine to Win Hearts and Minds*, as quoted above, were written about Provincial Reconstruction Teams (PRTs) in Afghanistan stabilization operations. Assessment is a mission essential, precautionary measure to ensure MSOs do not fail to deliver on the true, real needs of the target population. All too often, after-action reports of PRTs detail a repeat of virtual challenges, lost opportunities and lessons 'not learned' due to lack of thorough assessment and understanding of their assigned population district or province. Compounded by PRT's lack of participation in the planning and only relying upon the outcomes and agreements between military commanders and tribal elders attending Key Leader Engagements, the MSOs conducted were the wrong projects at the wrong place. **Figure 3-D-3A** – depicts an overview of the 'targeting cycle' used by MAGTF planners for rapid assessment and decision-making of warfighting solutions in military operations.

D3-A: Decide, Deliver, Detect and Assess

The purpose of targeting is to provide a logical progression in the development of warfighting solutions to meet the joint force commander's (JFC's) and [MAGTF commander] objectives.²⁴

The MCRP 3-16.1A (also known as FM 3-09.12), *TTPs for Field Artillery and Target Acquisition* states that the “Decide, Detect, Deliver, and Assess (D3A) methodology facilitates the attack of the right target at the right time with the most appropriate asset. Integral to this process is target tracking. Tracking is essential to detect and deliver functions. Tracking also impacts the ability to assess a target and implement subsequent reattack decisions. Targeting is a

combination of intelligence functions, planning, battle command, weaponeering, operational execution and combat assessment (CA).²⁵

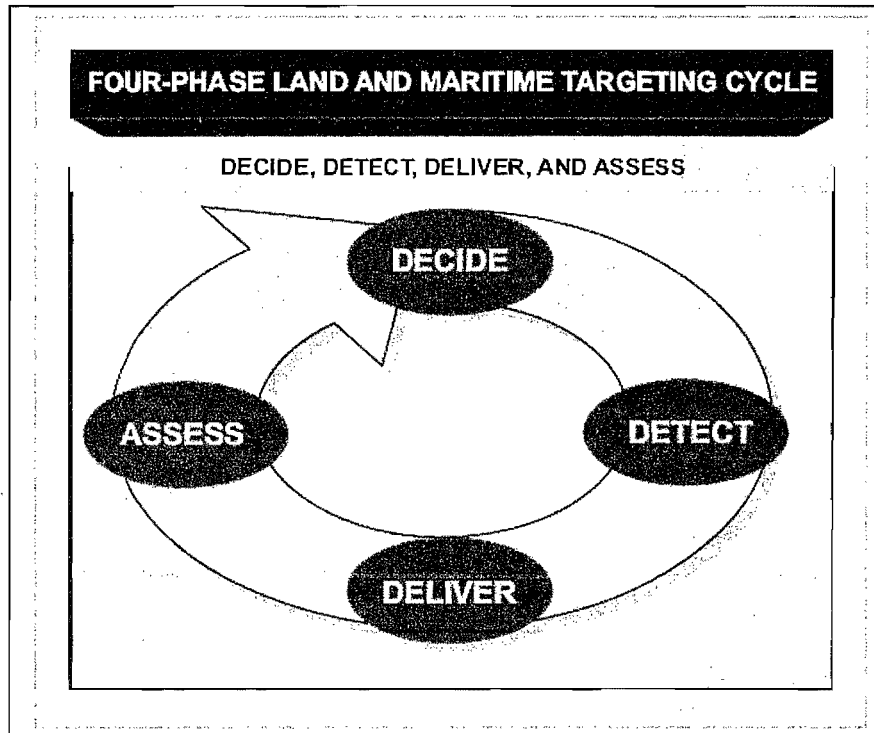


Figure 3. D-3A (Decide, Detect, Deliver and Assess): The MAGTF TARGETING CYCLE
adopted from the 4-Phased Land and Maritime Targeting Cyc
Source: JP 3-60, *Joint Targeting*, 30April 2007, Appendix B-3

Because MSO planning and coordination fall under the MAGTF's Information Operations (IO) and CMO working group activities, medical intelligence information and a rapid assessment of the target (i.e. the intended population) along with the security environment (i.e. determine if 'permissive') helps planners recommend to the MAGTF commander potential population district or centers to be prioritized for MSOs. The MAGTF commander then decides appropriate medical force packages to be sourced, resourced and executed to decrease civilian deaths and suffering due to disease and collateral damage from combat operations. And just like

for lethal fires, MSOs need to be tracked and measured to ensure attainment of the intended effects or to make adjustments in the duration and capability of MSO projects.

Adopting IA-D3 Process: Standardizing MAGTF MSO Assessment

Literature review of TCAPF, Assessment and Joint Targeting doctrine in MAGTF operations is fundamental to assessing and planning for MSOs. Employment of TCAPF in assessment is favorable because the interagency framework, as a common denominator for assessment, blends military and interagency methodology at the earliest phases of planning.

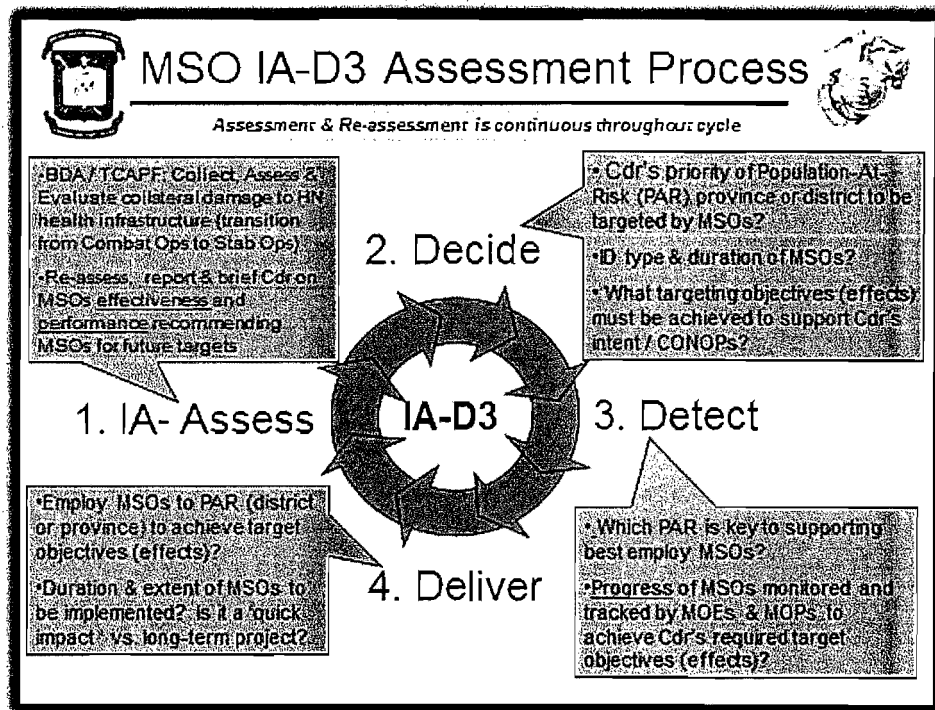


Figure 4. IA-D3 – Proposed ASSESSMENT METHOD for MSOs

Source: Adopted and modified from D3A slide, MSTP powerpoint (slide 33) on MAGTF Fires, MCPP Support Classes, accessed online: <https://www.mstp.usmc.mil/classes/default.aspx>

TCAPF is thus integrated in the proposed targeting cycle specific to MSOs, namely

Figure 4. IA-D3 as depicted above. It retains the standard four-step targeting cycle in **Figure 3**

but distinctly puts the *interagency assessment* (IA) as the first, critical step. Whether for short-term, 'quick impact' MSOs (i.e. medical response within the first 96-hrs) to mid-term (i.e. 1 to 2 years) or for long-term (i.e. 3 to 5 years, and beyond), the TCAPF within the IA process serves not only bring together the synergy between the military and the interagency representatives at the onset of assessment (and planning) but also serves as a quick benchmark for understanding the environment, developing a rapid needs assessment, defining the nature of the problem, and performing a 'battle damage assessment or BDA' - which are all necessary to develop the right type and duration of MSOs for the target HN population.

This proposed 'IA-D3' process is distinct and unique when compared to the traditional MAGTF D3A algorithm (as depicted in **Figure 3**) for the doctrinal targeting for MAGTF lethal fires or effects. Since MSOs are within the domain of non-lethal fires or effects, *Step 1: Interagency Assessment (IA)* is the [required] key event or precursor to the MSO assessment and planning process. The rapid assessment of the security of the environment and BDA is determined post-conflict or during the transition from combat operations to S&R operations. In addition to post-conflict, BDA to HN public health infrastructure, the USAID's TCAPF "atmospherics" (i.e. socio-politico-economic factors based on the 4 basic questions) for the PAR (population-at-risk) are collected, evaluated and analyzed to determine type and duration of MSOs for MAGTF commander's decision.

Other *atmospherics or filters* that are part of the tactical and operational level of commander's assessment - although not an inclusive list and can be tailored based on the MAGTF commander's critical information requirements (CCIRs) and serves as the *lens* to get a better understanding of the environmental problem - are also critically important for the planning and execution of MSOs. Here are some of them: DIME (Diplomacy, Information, Military and

Economic), PMESII (Political, Military, Economic, Social, Infrastructure, and Information), ASCOPE (Area Structures Capabilities Organizations People and Events), etc. It is important to note that, it is [after] completion of the IA step that shapes the MAGTF commander to make decisions on the types and duration of MSO activities or engagements that will meet the requirements of the population center(s) being focused, in stride with U.S. operational and strategic objectives.

During *Step 1-Interagency Assessment*, the MAGTF medical planner should collect, analyze, and design (the first three steps in TCAPF for the IA activity) and re-assess broad target selection of the population at risk (PAR), using updated intelligence information (or aided by Annex A-HSS Checklist for Detailed Planning of MSOs, if given more planning time). Ideally, this *rapid, medical operational assessment* of environment takes the form of a pre-deployment site survey (PDSS) which may take one or two days and should include the following:

- Post-conflict damage assessment of key public health infrastructure
- Pre-conflict healthcare delivery standards
- Number of displaced civilians
- Security situation (must be 'permissive')
- Development of intermediate, near-term HSS objectives for "quick impact"
- Development of MOPs and MOEs

Force Health Protection of MAGTF HSS force personnel and its capabilities remain paramount prior to the conduct of MSOs because they are the only organic direct and general support medical assets supporting the MAGTF, transitioning from combat operations to the stabilization phase. During this step, all available medical intelligence and surveillance information is collected and analyzed by the staff to enable specific target selection of population centers. This may take the IO-CMO Working Group one or two days for a rapid assessment, determining type and time-phase of MSOs, the selected target population district or center with

corresponding HSS force package and capabilities set prepared for decision by the MAGTF commander. (Refer to *APPENDIX C – Working Group Coordination for MSO* which illustrates notional medical staff coordination for assessment, planning and synchronization of MSOs using proposed IA-D3 framework.)

In *Step 2-Decide*, the MAGTF commander has a target population prioritized. If none, the MAGTF medical planner is prepared to provide target population based on Step 1-IA. A recommendation is also made for the MAGTF commander to make decision(s) on type and duration of MSOs and the target effects to be achieved (consistent with the MAGTF commander's intent and concept of operations). Once MSO projects approved and synchronized, as part of the MAGTF's Integrated Priority Target List, medical force packages are sourced, resourced and scheduled for execution.

During *Step 3-Detect*, aside from target population centers that are considered 'low hanging fruit' for quick-impact MSOs, continuous assessment may revise the MAGTF's MSO priorities based on medical intelligence updates on other potential target populations - leveraging those population districts considered to be socio-political centers of influence that can enhance interagency effort and cooperation from the host nation.

Step 4-Deliver consists of deployment of MAGTF medical force packages, actions on the objective which also involves monitoring, collecting on the MOPs and MOEs, providing a re-assessment and status of MSOs in execution, briefed to the MAGTF commander per the established information battle rhythm. Based on these daily battle briefs or assessment recommendations, if MSOs are not tracking towards stated objectives and end states, the MAGTF commander has the option to: decide to discontinue MSOs altogether for that particular population district or provide necessary adjustments to method or intensity of MSOs.

Criteria for Evaluating Performance and Effectiveness

Integral to the targeting cycle at the command element, MAGTF medical planners must conduct a series of health services assessment: needs assessment, capabilities assessment and risk assessment. In stability operations these assessments are done in coordination with the MAGTF IO-CMO working group within the G-3 FECC (Fires and Effects Coordination Center) as well as with interagency stakeholders (IOs, NGOs, PVOs and HN or partner nation representatives).

Needs assessment should be led or conducted in conjunction with the HN's or partner nation's ministry of health or governance leadership in the health sector, when possible. Civilian health partners such as the Centers for Disease Control and Prevention, WHO, USAID, and any NGOs/IGOs familiar with the operational area also can help with this process. The goal is to identify the health sector priorities of the HN or FN and the most threatening issues to the local population. In doing so, the medical health service can then target resources and health assets to projects that will help build indigenous health system capacity and capabilities, save lives, meet the commander's CMO objectives, and be sustainable by the HN or FN upon transition.²⁶ For specific medical assessment factors, refer to *APPENDIX D – Joint HSS Assessment Factors* (JP 4-02, Health Services Support, October 2006). These factors can be adopted as source criteria for evaluating performance and effectiveness.

Feedback to the Commander

MAGTF medical planners using the IA-D3 assessment framework can assist the MAGTF commander in identifying health services gaps, deficiencies and requirements of the supported population in stability operations. Such feedback provides the MAGTF commander a baseline

for developing guidance and for planning MSO, integrating the roles of interagency, coalition and host nation partners in synchronizing civil-military efforts. MSOs are inherently resource-intensive where the MAGTF commander and his higher headquarters' 'expectation management' and information requirements are directed towards reporting on the MAGTF's measures of performance and effectiveness (MOPs and MOEs). This information battle rhythm should detail relative impact results, issues or challenges over a specified time horizon with stated recommendations via periodic in-progress briefs (or IPRs). This feedback loop is essential for assisting the MAGTF commander and his superiors in gauging the level of health services capacity or capability that is being restored for the population. At a minimum, the brief should and must report on MOPs and MOEs with baseline recommendations and planned future activities to sustain or complete MSOs underway. This periodic feedback of information is key to enabling the MAGTF commander to re-assess and make decisions to re-adjust operational priorities or resource requirements (i.e. time, personnel or funding) for MSOs. Through IPR briefings, the commander is also assisted in decision points for other MSOs in support of branch plans (that address the 'What if') or sequels (that address 'What Next') required to accomplish the operational and strategic end states of MSOs.

Conclusions

Throughout the course of research for this paper, few literature and material was available for medical assessment and there are no doctrinal references that point to any standardized way or method for conducting an operational assessment for health service support in joint operations. However, major sections of this paper were primarily sourced from non-medical joint and service doctrine and, focused on MSOs, assessment, and targeting.

It is not the argument of this paper, nor is it intended to suggest, that the medical assessment methods used for OIF II and OEF-A are ineffective; the DoD military health support system using shared, open-source “medical lessons learned” database provides tips on what worked for MAGTF medical plans and logistics personnel to meet their mission objectives whether in peacetime, combat operations or in COIN and stability operations. Yet effort must be made to capture and standardize TTP, especially in the area of medical operational assessment to integrate better in the MAGTF targeting cycle to ensure delivery of HSS at the right place, at the right time and in the right amount, not just for MSOs but across the spectrum of conflict.

“SOs are a core U.S. military mission. The Department of Defense (DoD) must be prepared to conduct and support them across all activities including doctrine, organizations, training, education, exercises, materiel, leadership, personnel, facilities, and planning.”²⁷ When combat operations conclude, military forces will eventually transition their focus to stability operations, where civil military operations (CMO) are likely to become the priority of military activities. The MAGTF, as part of the joint force, will more than likely be the first military service in the IW environment to be involved in the planning, execution and assessment of steady state or post-conflict S&R and CMO activities that target the restoration of essential health services and rebuilding key public health infrastructure of the host nation in order to meet both the needs and requirements of the population.

Medical diplomacy, as the overall theme of military health support in stability operations or MSOs suggests, aligns with our USG’s public diplomacy or strategic communications campaign at the global level. MSOs and “medical efforts have a prominent role in enhancing the USG’s strategic communications impact during relief efforts. Improving our ability to respond efficiently, quickly and with targeted objectives that meet the needs of the host nation” and its

population.²⁸ Clearly, medical diplomacy, when employed decisively can increase partnership among allies, build or restore capacity of partner nations, and project 'soft power' that extends our nation's public diplomacy for preserving our strategic interests and way of life.

Thus, this paper highlights the *assessment* piece of problem framing when planning (and employing) MSOs as 'non-lethal fires' within the Information Operations and Civil Military Operations (CMO) staff function of a MAGTF command element. *Assessment* is intended to shape the MAGTF's 'success template' for designing and planning MSOs for achieving stated military objectives that nest with our nation's operational and strategic aims and interests. Moreover, ongoing medical assessment of the host nation's key population centers and public health infrastructure during the kinetic phase of MAGTF operations is equally important as the rapid, systematic assessment of the operating environment post-conflict. This recommended process seeks to identify and prioritize for the MAGTF commander, those 'quick impact' (as well as long-term) military health support projects in stability operations.

For the proper assessment of MAGTF MSOs, a standardized operational assessment framework that modifies the traditional MAGTF D3A process for kinetic operations while integrating key components of the USAID's TCAPF method, is both necessary and recommended. Using the IA-D3 process for MSOs, enables a quick, guided assessment for proper determination of the right MAGTF health services projects, implemented in the right place at the right time; that target the desired MAGTF non-lethal, non-kinetic effects corresponding to the needs and requirements of the affected population. It is the proposed solution and *TTP* that aims to modify and employ an existing joint (land and maritime) targeting cycle – that is, *D3-A (Decide, Detect, Deliver and Assess)* - that promotes interagency

collaboration and enhances medical diplomacy, to counter irregular threats during post-combat operations.

Lastly, the *proposed assessment methodology* also aims to ensure that planning and execution of MSOs are aligned with operational and strategic interests, providing baseline feedback to the MAGTF commander that answers the questions, “Are we doing things right?” and “Are we doing the right things?” Given the limited organic medical resources, as the MAGTF quickly transitions from the combat phase to the SO phase, *assessment* ensures the discrete targeting and execution of the right, ‘quick impact’ MSOs, for the right population, at the right place and at the right time.

Endnotes

¹U.S. Army Field Manual (FM) 3-07, *Stability Operations and Support Operations* (Washington, DC: U.S. Government Printing Office [GPO], 6 October 2008), vii.

² U.S. military forces should be prepared to lead the activities necessary to accomplish these tasks when indigenous civil, USG, multinational, or international capacity does not exist or is incapable of assuming responsibility. Once legitimate civil authority is prepared to conduct such tasks, US military forces may support such activities as required or necessary. See U.S. Department of Defense, *Health Service Support*, JP 4-02, (Washington, DC: U.S. Joint Staff, 31 October 2006), pp. IV-2

³See U.S. Department of Defense Instruction (DoDI) 6000.16, issued on 17 May 10, established current guidance and DoD’s interagency responsibilities on Military Health Support (MHS) for stability operations, hereafter referred to as medical stability operations (MSOs). DoD considers MSOs a core mission of the U.S. military and that the DoD Military Health System (MHS) shall be prepared to conduct MSOs throughout all phases of conflict and across ROMO, including combat and non-combat environments.

⁴ U.S. Joint Chiefs of Staff, JP 4-02, *Health Service Support*, IV-7.

⁵ Julie M. Feinsilver, *Cuba's Medical Diplomacy*, in *Changing Cuba/Changing World*: compiled by Mauricio A. Font, John Arias and Jackie Slater, Chapter 15, (New York, NY: Bildner Center for Western Hemisphere Studies, 2008), 273, Accessed: 20 February 2010: http://web.gc.cuny.edu/dept/bildn/publications/documents/Feinsilver15_002.pdf

⁶ Richard Stubbs, *From Search and Destroy to Hearts and Minds: The Evolution of British Strategy in Malaya 1948-60*, Daniel Marston and Carter Malkasian, eds. *Counterinsurgency in Modern Warfare* (New York, NY: Osprey Publishing, 2008), 113, 130.

⁷ U.S. Department of Defense, *Irregular Warfare (IW) Joint Operating Concept (JOC)*, version 2.0, (Washington, DC: U.S. Joint Staff, 17 May 2010), 5.

⁸ *Irregular Warfare (IW) Joint Operating Concept (JOC)*, 5.

⁹ U.S. Marine Corps, *Marine Corps Operating Concepts* – Third Edition, (MCCDC: Quantico, VA), June 2010, 118.

¹⁰ See 'Boyd's OODA Loop' in J. Boone Bartholomees Jr., *A Survey of the Theory of Strategy*, U.S. Army War College Guide to National Security Policy and Strategy, Chapter 7 (Carlisle, PA: Strategic Studies Institute, 2008), 94. Accessed: 30 January 2010. www.strategicstudiesinstitute.army.mil/pdf/files/pub708.pdf

¹¹ Boyd's OODA Loop is, the decision cycle of *observation, orientation, decision, and action*. "Like the pilot, a strategist wins by out-thinking and out-maneuvering his opponent; by the time the opponent decides what to do and initiates action, it is too late since you already have anticipated and countered his move or made a countermove that makes his action meaningless."

¹² See Dr. Paula Konoske, *Tactical Medical Logistics Planning Tool: Modeling Operational Risk Assessment*, Naval Health Research Center (NHRC), San Diego, CA. Accessed: 20 November 2010: <http://ftp.rta.nato.int/public/Fulltext/RTO/MP/RTO-MP-HFM-109//MP-HFM-109-P15.pdf>

¹³ The proponent draws these raw opinions and observations based on 12 years planning and executing HSS operations with Marine operating forces' headquarters staffs, from battalion (1st MedBn) to MEU (11th MEU-SOC) to MARFOR command elements (such as MAFORPAC, MARCENT-FWD/KOREA); while assigned to MAGTF Staff Training Program (MSTP) and LCE-HSS instructor-planner, training MEF, MEB and MSC HSS staffs for deployment to OIF II and OEF-A. As MAGTF instructor for the 2-week Navy Medical Planner Course (POMI) for the last three years, the proponent noted neither instruction nor emphasis on the 'how to' or TTPs for "operational medical assessment" when planning HSS operations across the spectrum of conflict.

¹⁴ United States Army Handbook No.10-41, *Assessment and Measures of Effectiveness in Stability Ops*, released May 2010.

¹⁵USAID TCAPF Office of Military Affairs (OMA) power point brief by Dr. James Derleth, February 20, 2010. Accessed: 20 November 2010: www.oss.net/.../file.../2010-02-20%20TCAPF_Overview_w-notes_pages.ppt

¹⁶See USAID TCAPF Office of Military Affairs (OMA) power point brief speaker notes by Dr. James Derleth. A current vignette details evolution TCAPF use by the USMC: The TCAPF questionnaire was first road tested in the Horn of Africa in 2006, at which time the current four TCAPF questions were selected and refined from a larger pool of test questions. ICAF and TCAPF are both included in Appendix D of Army FM 3-07, Stability Operations. TCAPF's growth has been aided by financial support from several sources. The Marine Corps Tactics and Operations Group (MCTOG) allocated \$1.8M in FY09, and an additional \$1.5M thus far in FY10 to enable USAID to hire additional TCAPF trainers and to provide instruction on TCAPF to all Marine battalions, regimental and Expeditionary Brigade staffs prior to their deployment, as well as in-country follow-up visits. MCTOG has also funded the development of refined TCAPF training materials to facilitate TCAPF's incorporation into Professional Military Education venues. Joint Forces Command is funding the development of an online training course for TCAPF, and USAID's Office of Civilian Response is funding the development of computer simulations-based training for TCAPF.

¹⁷U.S. Army Handbook No.10-41, p.14.

¹⁸U.S. Marine Corps Combat Development Command, MAGTF Staff Training Program (MSTP) Pamphlet 6-9, *Assessment*. (October 2007), p.2.

¹⁹United States Army. 2006. FMI 5-0.1: The Operations Process. Department of Defense. Accessed: 4 December 2010. <<http://www.fas.org/irp/doddir/army/fmi5-0-1.pdf>>.

²⁰MSTP Pamphlet 6-9, *Assessment*. p.4

²¹MSTP Pamphlet 6-9, *Assessment*. p.1-2.

²²MSTP Pamphlet 6-9, *Assessment*. p.2-3. Regarding the OODA Loop, "When engaged in conflict, we first observe the situation by taking in information about our own status, our surroundings, and our enemy. Having observed the situation, we next orient to it and we make certain estimates, assumptions, analyses, and judgments about the situation in order to create a cohesive mental image. In other words, we try to determine the impact of our observations of the situation upon our forces and their operations. Based on our orientation, we decide what to do; whether that decision takes the form of an immediate action or a deliberate plan. Then we put the decision into action. This includes disseminating the decision, supervising to ensure proper execution, and monitoring results through feedback, which takes us full circle to the observation phase. Having acted, we have changed the situation, and so the cycle begins again."²²

²³Robert Wilensky, *Military Medicine to Win Hearts and Minds* (Lubbock: Texas Tech University Press, 2004), 104–107. Wilensky discusses the Vietnam experience with MEDCAPs, pointing out that while providing positive press back home, the actual MEDCAP effort in Vietnam undermined long-term U.S. goals.

²⁴U.S. Joint Chiefs of Staff, JP 3-60, *Joint Targeting*, 30 April 2007, Executive Summary, v. Accessed: 2 March 2011: [www.bits.de/NRANEU/others/jp-doctrine/jp3_60\(02\).pdf](http://www.bits.de/NRANEU/others/jp-doctrine/jp3_60(02).pdf)

²⁵Headquarters U.S. Marine Corps, MCRP 3-16.1A (FM 3-09.12), TTPs for Field Artillery and Target Acquisition, (1990).

²⁶U.S. Marine Corps Combat Development Command, *USMC Tentative Manual for Partnering Operations (FOUO)*. (MCCDC: Quantico, VA), 12 April 2010, pp.32.

²⁷U.S. Department of Defense, DoD Directive (DoDD) 6000.16, Military Health Support for Stability Operations. 17 May 2010.

²⁸Edwin Burkett, MD, USJFCOM Command Surgeon and Jerry Tuero. "Developing Future Command Surgeons and Staff for Joint Operations and Assignments." *JCOA Journal* (Summer 2010): 51.

APPENDIX A – HSS Checklist for Detailed Planning of MSOs

Note: This is a representative HSS (health services support) Checklist which has been adopted and modified from the original HSS Checklist for Stabilization Operations found in Section B, Appendix K of JP 4-02. This HSS Checklist is intended to enable MAGTF healthcare planners and interagency counterparts in conducting a thorough, rapid assessment for planning and executing MSOs (medical support to stabilization operations).

For a more complete and detailed Checklist for planning HSS operations, refer to Appendix K of Joint Publication 4-02, *Health Service Support*.

PART A: HSS Checklist for Rapid Assessment for MSOs (1-3 days)

a. Has a medical needs assessment or pre-deployment site survey (PDSS) preceded MSOs and medical CMO (MCMO)?

(1) What is the security situation of the operating environment? *a stabilized, secure operating environment is a [constraint] and key assumption when planning force protection of MAGTF forces conducting MSOs and MCMOs to support the HN population.

(2) Who or what JTF or multi-national force unit is responsible for providing security for forces conducting MSOs and MCMOs?

(3) Have pre- and/or post-conflict damage assessments been conducted on HN (host nation) public health infrastructure and systems?

(4) Are HN/country medical intelligence profiles (consisting of: key public health infrastructure and operating status; disease epidemiology, population demographics, environmental health risk assessments, and geographic CCDR Force Health Protection countermeasures) ready and available?

NOTE: Country medical intelligence sources can be accessed online from NCMI (National Center for Medical Intelligence) or regional Navy environmental and preventive medicine units (NEPMUs), and other key medical agencies such as USACHPPM (Army Center for Health Promotion and Preventive Medicine) or World Health Organization (WHO), etc.?

(4) What other assessment and surveys by other agencies have been accomplished?

b. Will there e an equal exchange of information with agencies/NGOs and IGOs?

(1) Has the HN (host nation) been involved in the assessment process? *a key factor for objective determination of success or failure in the conduct of MSOs and MCMOs.

(2) Will the JTF share information that does not compromise force protection, but may be useful to civilian agencies?

(3) Have efforts been made to avoid unnecessarily classifying information that may be useful to partner agencies and nations? And, has this been discussed with the MAGTF G-2 and/or the JTF J-2?

c. Have HN issues been adequately considered?

(1) Will the HN (public health ministry) be considered the lead? And, the MAGTF or JTF (Joint Task Force) the supporting element?

- (2) Will projects enhance the legitimacy of the HN?
- (3) Will projects boost the population's confidence in the HN?

d. How will projects be selected?

- (1) Will projects emphasize capacity building (developing medical societies, training public health personnel, etc.)?
- (2) Have local cultural and religious issues been considered (including traditional medicine, female providers for female patients, etc.)?
- (3) How will MSO and medical MCMO projects be tracked?
- (4) How will locations of projects be listed and standardized? Map grid references? Street addresses?

e. What standard of care will apply if medical care is delivered to civilians? The HN?

International consensus standards? Has the HN been involved in this decision? *immediate objectives of the MAGTF HSS forces is to: alleviate further death and suffering of population at risk (PAR), restore or re-establish the pre-conflict essential public healthcare services, while building HN capacity to sustain such healthcare system; if healthcare system non-existent pre-conflict, plan and design enduring MSOs that focus on building and developing capacity that is time-phased, for example:

- Near-Term (0-90 days) Phase: Introduction of essential services ('Quick-Impact')
- Mid-Term (1-2 years) Phase: Expansion and Development of Services
- Long-Term (3-5 years) Phase: Sustainment and Transition of Services

i. What measures of effectiveness (MOEs) and performance (MOPs) will be used?

- (1) Consider HN (host nation) partnered or involved in development of MOEs and MOPs

PART B: HSS Checklist for Planning MSOs (near term, mid-term and long term)

a. General Planning Considerations for Problem Framing or Mission Analysis (USN)

- (1) Will medical personnel conduct or support MSO?
- (2) What is the political-military desired end-state?
- (3) How will MSO support the commander's intent and the desired political-military end-state?
- (4) Who has the CJTF designated as the lead for MSO? CA? JTF surgeon (JTFS)? and How will CA and JTFS efforts be coordinated?
- (5) What medical resources does CA have?
- (6) Does MSO interfere with the traditional HSS mission?
- (7) Has the CJTF been advised of the capabilities/limitations and major issues involved in the medical civil-military support operation?
- (8) How will the JTF best support the HN if HN does not have a clear long-term strategy?
- (9) What other USG agencies are involved? Who is "supported" and who is "supporting"?
- (10) What multinational or international agencies are active in the JOA?
- (11) What NGOs and IGOs are active in the JOA?

(12) What is the role of other USG and multinational agencies? Are projects better performed by one of these agencies?

(13) Have all restraints and constraints under Title 10 and related DODDs and DODIs been fulfilled?

(14) Has the independence/impartiality/neutrality of the NGO/IGO community been acknowledged/respected to allow for the mutual exchange of information?

b. How will MCMO/activities be coordinated?

(1) Have liaisons with CA personnel been established?

(2) Has a CMOC been established? And, has a medical LNO to the CMOC been appointed?

(3) What other civil-military coordination mechanisms are present (UN's on-site operations coordination center, humanitarian operations center etc.)? And, do they have medical working groups?

(4) Have projects been coordinated with information operations and the media?

(5) Has coordination with civil engineers been considered for water/sanitation projects?

(6) Have existing projects of other agencies been taken into account, to avoid duplication of effort?

(7) Have HA, HCA, and HA (other) missions been coordinated with DOS and HN?

c. Are MAGTF and CJTF resources adequate to conduct MSOs or medical CMOs?

(1) Does the medical force have the right training/resources/personnel/equipment to conduct MSOs (e.g., training in CMO, information operations, civil-military/interagency relations, HA, traditional medicine, cultural issues, language skills and appropriate medical subspecialties [public health, pediatrics, tropical medicine, geriatrics])?

(2) Do medical personnel have training or experience in CMO (language/cultural skills, civil-military/interagency/humanitarian training or experience)? And, does the JTF have the appropriate personnel to conduct MSOs or medical CMO (public health, pediatrics, adequate number of female providers, etc.)?

(3) Will other MNF (multinational force) nations conduct or support medical civil-military support operations?

(4) Do projects detract from the MNF's mission of providing security for other humanitarian actors to work ("humanitarian space")?

(5) What equipment will be required for the mission (vehicles, radios, specialized equipment for public health, and equipment for pediatric and geriatric care)?

(6) Is the operating environment secure? Who will provide security for MSOs?

(7) Who will provide translation and interpretation support?

(8) If the decision is made to emphasize capacity-building projects for the HN, have off-the-shelf courses for this purpose been considered (Defense Institute for Medical Operations, Defense Medical Training Institute, etc.)?

(9) Have local resources been used to the maximum extent possible?

(10) What funding sources will be used? Title 10 HCA, HA, HAP-EP? Overseas humanitarian disaster and civic aid? Central Emergency Revolving Fund (UN) (CERF)? Or other funding source?

(11) What are the restraints/constraints of each funding source?

d. Have all potential negative effects of MSOs and medical CMOs been considered?

- (1) How will parallel medical systems be avoided?
- (2) How will dependency be avoided? *MSOs geared to building a sustainable capacity
- (3) How will duplication of effort be avoided?
- (4) What long-term impact will the projects have?
- (5) What is the potential economic impact of medical civil-military support operations/ activities (i.e., direct food aid may cause market prices to drop and discourage agriculture)?
- (6) Do projects raise unrealistic expectations in the HN population?
- (7) Does the activity distort the distinction between civilian and military agencies?
- (8) Will projects be sustainable by the HN, UN, or other agencies?
- (9) Who will provide follow-up and continuity of care if direct patient care activities are rendered?
- (10) What is the plan to transition responsibility for public health and other medical projects back to the HN or other appropriate authority (UN, multinational JTF, etc.)?

APPENDIX B – Common HSS Analytical Software and Tools

Source: *Tactical Medical Logistics Planning Tool: Modeling Operational Risk Assessment*, Naval Health Research Center (NHRC), San Diego, CA, Accessed: 20 November 2010: <http://ftp.rta.nato.int/public/Fulltext/RTO/MP/RTO-MP-HFM-109//MP-HFM-109-P15.pdf>

A quick survey of the more common HSS analytical models and logistics calculators is worth mentioning to show the proliferation of medical tools for health services support specific to warfighting or combat (kinetic) operations and grossly lacking in assessment for non-kinetic operations such as stabilization operations in irregular warfare. They are summarized below.

JWARS is a program developed to model the warfighting requirements within a joint theater of operations, simulating the combat, maneuvering, and movement of units and supplies across land, air, and sea. Using a decision tree structure, JWARS models direct and indirect fire engagements, the formations of units when moving, assembling, attacking, and defending, and communications across units. In addition, JWARS models the supply and resupply requirements necessary to sustain a warfighting mission, scheduling supply delivery of fuel and ammunition via transportation assets according to how the scenario unfolds within the simulation. (NHRC, 20 November 2010)

JSAF is a program designed to model the complex integration of all branches of the military (Army, Air Force, Marines, and Navy) in the execution of a warfighting mission. JSAF generates elements of a contingency, such as troops, tanks, ships, airplanes, munitions, buildings, and sensors, which interact within the constraints of a combat environment. The synthetic environment is a representation of terrain, oceans, and weather conditions that affect the decision, interactions, and capabilities of joint forces ("Information"). JSAF was later expanded to include a medical component called Joint Medical Semi-Automated Forces (JMedSAF), which provides medical planning and rehearsal within a joint environment. JMedSAF simulates force-on-force interactions and models the treatment, transportation, and evacuation of the resulting casualties according to joint doctrine. (NHRC, 20 November 2010)

FORECAS is a software program developed by NHRC (Naval Health Research Center) that is designed to provide medical planners with the estimates of the average daily rates of wounded in action (WIA) and non-battle injury (NBI) patients during a specific scenario. NHRC developed these rates primarily based on the analysis of historical accounts of ground operations. A deterministic model, FORECAS assists medical providers by projecting the distribution of injuries and illnesses likely to occur within different warfighting environments. (NHRC, 20 November 2010)

ESP is a program developed by NHRC for three purposes. First, ESP can be used as an estimation tool that projects the quantities (including weight, cube, and cost) and combinations of consumable supplies and equipment necessary to support the needs of a patient stream throughout the continuum of care. Second, ESP can be used as a decision tool that evaluates inventory readiness by assessing which supplies are missing and how these missing supplies affect medical treatment options. Third, ESP is a mapping and

training tool that illustrates the relationship among PCs, tasks, supplies, and areas of care. As a deterministic model, ESP is most useful for generating the supplies needed to treat a user-defined patient distribution. (NHRC, 20 November 2010)

MAT [or Joint Medical Analysis Tool-JMAT] is designed as planning tool for the joint environment. Medical planners use MAT to both generate the medical requirements required to support patient treatment within a joint warfighting operation as well as develop and evaluate courses of action for this operation. As a tool for both deliberate and crisis-action planning, MAT determines the number of beds, the number of operating room tables, number and types of personnel, and the amount of blood required to treat the casualty stream. MAT also identifies bottlenecks within the system and assesses risk associated with the designated medical treatment facilities. (NHRC, 20 November 2010)

TMIP or Theater Medical Information Program (TMIP). Another joint software application that has matured since OIF II and is widely used today is the TMIP is a “tri-Service” (Army, Air Force and Navy) web-based system designed to enable better collaboration among the services, providing information to dispersed medical forces in the joint operating area to support all medical functional areas, including command and control, medical logistics, blood management, patient regulation and evacuation, medical threat/ intelligence, health care delivery, manpower and training. Although TMIP integrates medical systems at the theater level to support deployed medical forces, it is primarily used as a collaboration and reporting mechanism more than an ideal assessment and decision-support tool. (JP 4-02, *HSS in Joint Operations*, III-13-14)

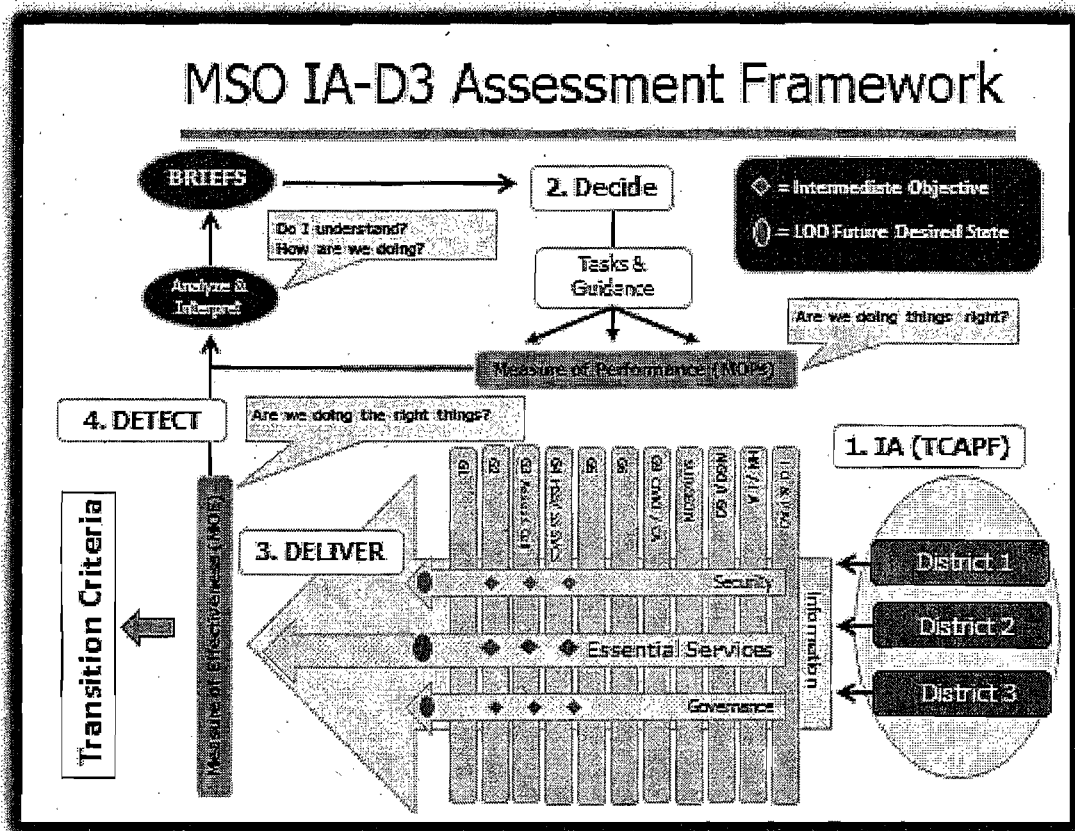


Figure 5-2. Sample IA-D3 – Coordination, Planning and Synchronization of MAGTF MSOs under the Essential Services ‘logical’ Line of Operations (LOO).

Medical Staffing and Working Group Coordination: IA-D3 Framework

Figure 5-2 above merely illustrates the medical staff coordination involving the planning and synchronization of IA-D3 assessment framework (see Figure 5-1). This also shows the key staff sections within the MAGTF command element (highlighted in red). Within the MAGTF Fires and Effects Coordination Center (FECC), and since MSOs are in the domain of ‘soft’ targeting and non-kinetic operations, the primary staff action falls under IO-CMO Working Group, supporting the Essential Services LOO (Line of Operation, also highlighted in red).

APPENDIX D – Joint HSS Assessment Factors

Source: JP 4-02, Health Services Support, October 2006. These factors can be adopted as source criteria for evaluating performance and effectiveness. “Standards of care should be agreed upon with HN and the lead USG agency during mission planning; normally, HN standards or international consensus minimum standards (such as Minimum Standards in Disaster Relief, World Health Organization) should be used. The JFC, JFS, and CA should monitor MCMO throughout planning and execution and should utilize both measures of performance and measures of effectiveness. Planners should anticipate unintended consequences and should correct for these during and after execution. The JFC and JFS should be cognizant that in MCMO, the provision of HSS and health education play a direct role in countering both medical and general threats and provide a noncontroversial and cost effective means of utilizing the military element to support US national interest in another country by:

- (1) Assisting with the development and refinement of the HN medical infrastructure.
 - (2) Provide and assist with sustaining the basic necessities of life for the general population through development and/or enhancement of the HN civilian medical programs.
 - (3) Providing assistance in establishing, repairing, or improving basic health and sanitation services, especially if these have been degraded by military operations.
 - (4) Monitoring civil health indicators and health risk (i.e., life expectancy, infant mortality rate), in conjunction with medical intelligence and the J-2.
- f. Significant health benefits can be derived from nonmedical interventions, such as improving the water supply, electrical grid, ensuring security of health facilities, etc.”

HEALTH SERVICE ASSESSMENT FACTORS	
• Population Demographics • Sanitation and Personal Hygiene • Endemic and Epidemic Disease Surveillance • Available Medical Intelligence • Availability and Accessibility of Health Care Delivery Systems and Process • Cultural Factors Related to Health Service Support (HSS) • Primary Care Capabilities • General Health of the Population • Baseline Health Indicators	• Political Impact of Providing Care to the Local Population • Anticipated Type, Number, and Capabilities of Relief Organizations • Secondary and Tertiary Hospital Facilities and Supporting Transportation • Local Facilities for Production of Medical Equipment and Supplies • Education and Training Levels of HSS Professionals and Technicians • Ongoing International and Local Civilian Assistance Efforts

Figure 6. HEALTH SERVICE ASSESSMENT FACTORS

Source: JP 4-02, *Health Service Support*, 31 October 2006.

Glossary

Note: Acronyms and terms of reference tend to change over time, reflective of emerging or new operational terminology, and changes to joint and service doctrine or capabilities. However, this paper only cited baseline authoritative sources for official military acronyms which can also be referenced in other joint doctrine and warfighting publications listed in the Bibliography:

- DoD Instruction 6000.16, *Military Health Support for Stabilization Operations*.
- Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*.
- Joint Publication 4-02, *Health Service Support*
- MCO 3502.6, *Marine Corps Force Generation Process or FGP*
- MCRP 5-12C, *Marine Corps Supplement to the Department of Defense Dictionary of Military and Associated Terms*.
- MCWP 3-33.1, *Marine Air Ground Task Force Civil Military Operations*.

CCDR – combatant commander

CCIRs – commander’s critical information requirements

CENTCOM – Central Command – a geographic combatant command

D3A - Decide, Deliver, Detect, Assess

DoD – Department of Defense

DOTMLPF -

HSS – Health Service Support

HN – Host Nation

LOO – Line(s) of Operation (where type of LOO can be logical or physical; this paper supports the logical LOO of “Essential Services”)

MCMO – Medical Civil-Military Operations

MEB – Marine Expeditionary Brigade

MEF – Marine Expeditionary Force

MSO – Military Health Support in Stability Operations; MCMOs that are planned and implemented specific to stability operations.

PACOM – Pacific Command – a geographic combatant command

PAR – Population At Risk

PN – Partner Nation

ROMO – Range of Military Operations

S&R – Stability and Reconstruction

USG – U.S. Government

TACSOP – Tactical Standard Operating Procedure (SOP)

TCAPF – Tactical Conflict Assessment and Planning Framework

TTP – Tactic, Technique and Procedure

Terms and Definitions

civil considerations. How the manmade infrastructure, civilian institutions, and attitudes and activities of the civilian leaders, populations, and organizations within an area of operations influence the conduct of military operations. (FM 6-0)

Counterinsurgency. (joint) Those military, paramilitary, political, economic, psychological, and civic actions taken by a government to defeat insurgency. (JP 1-02)

Counterterrorism. (joint) Operations that include the offensive measures taken to prevent, deter, preempt, and respond to terrorism. (JP 1-02)

effect. An *effect* is the physical or behavioral state of a system that results from an action, a set of actions, or another effect; the result, outcome, or consequence of an action; or a change to a condition, behavior, or degree of freedom.

objective. An *objective* is the clearly defined, decisive, and attainable goal toward which every operation is directed or the specific target of the action taken (for example, a definite terrain feature, the seizure or holding of which is essential to the commander's plan, or, an enemy force or capability without regard to terrain features).

http://www.dtic.mil/doctrine/doctrine/jwfc/intfiretar_hdbk.pdf

health service support (HSS). All services performed, provided, or arranged to promote, improve, conserve, or restore the mental or physical well-being of personnel. These services include, but are not limited to, the management of health services resources, such as manpower, monies, and facilities; preventive and curative health measures; evacuation of the wounded, injured, or sick; selection of the medically fit and disposition of the medically unfit; blood management; medical supply, equipment, and maintenance thereof; combat stress control; and medical, dental, veterinary, laboratory, optometric, nutrition therapy, and medical intelligence services. Also called HSS. (This term and its definition modify the existing term and its definition and are approved for inclusion in the next edition of JP 1-02.)

host nation. (joint) A nation that receives the forces and/or supplies of allied nations, coalition partners, and/or NATO organizations to be located on, to operate in, or to transit through its territory. (JP 1-02)

intelligence preparation of the battlefield. The systematic, continuous process of analyzing the threat and environment in a specific geographic area. Intelligence preparation of the battlefield (IPB) is designed to support the staff estimate and military decision-making process. Most intelligence requirements are generated as a result of the IPB process and its interrelation with the decision-making process. (FM 34-130)

line of operations (LOO). Can be either a logical or a physical LOO (joint) 1. A logical line that connects actions on nodes and/or decisive points related in time and purpose with an objective(s). 2. A physical line that defines the interior or exterior orientation of the force in

relation to the enemy or that connects actions on nodes and/or decisive points related in time and space to an objective(s). (JP 1-02)

measure of effectiveness. (joint) A criterion used to assess changes in system behavior, capability, or operational environment that is tied to measuring the attainment of an end state, achievement of an objective, or creation of an effect. (JP 1-02)

measure of performance. (joint) A criterion to assess friendly actions that is tied to measuring task accomplishment. (JP 1-02)

military health system (MHS). A health system that supports the military mission by fostering, protecting, sustaining, and restoring health. It also provides the direction, resources, health care providers, and other means necessary for promoting the health of the beneficiary population. These include developing and promoting health awareness issues to educate customers, discovering and resolving environmentally based health threats, providing health services, including preventive care and problem intervention, and improving the means and methods for maintaining the health of the beneficiary population, by constantly evaluating the performance of the health care services system. (Approved for inclusion in the next edition of JP 1-02.)

MSTP – MAGTF Staff Training Program. A USMC organization that provides training in MAGTF, Joint and Combined warfighting skills, within the Joint and Combined environment, in order to improve the warfighting skills of senior commanders and their staffs. (MCO 3502.6, *Marine Corps Force Generation Process or FGP*)

MCMO – MCMO are health-related activities in support of a JFC that establish, enhance, maintain, or influence relations between the joint or coalition force and HN, multinational governmental authorities and NGOs, and the civilian populace in order to facilitate military operations, achieve US operational objectives, and positively impact the health sector. MCMO will normally be performed by joint or coalition medical personnel and CA forces, in coordination with other USG or multinational agencies. The subsets of MCMO include peacetime medical elements of security cooperation activities, HA, disaster response and disease outbreak response in a permissive environment, pre-conflict health-related civil-military activities, and health related civil-military activities during major campaigns and operations, and post-conflict stability operations. Medical Civil-Military Operations (for the purposes of this paper, this joint term of reference is synonymous to traditional Medical, Dental, Optical and Veterinary Civic Actions Programs or Med/Den/Opt/VetCAPs; and the newly emerged terms such as VMOP-Village Medical Outreach Programs in OEF-A; and CME-Cooperative Medical Engagement in OIF II) (JP 4-02, *Health Service Support*, 31 October 2006)

open-source intelligence. (joint) Information of potential intelligence value that is available to the general public. (JP 1-02)

population at risk (PAR). The strength in personnel of a given force structure in terms of which casualty rates are stated. Also called PAR. (Approved for inclusion in the next edition of JP 1-02.)

risk management. The process of identifying, assessing, and controlling risks arising from operational factors and making decisions that balance risk cost with mission benefits. Also called RM. (JP 1-02)

stability operations. (joint) An overarching term encompassing various military missions, tasks, and activities conducted outside the United States in coordination with other instruments of national power to maintain or reestablish a safe and secure environment, provide essential governmental services, emergency infrastructure reconstruction, and humanitarian relief. (JP 1-02)

security. (joint) 1. Measures taken by a military unit, an activity or installation to protect itself against all acts designed to, or which may, impair its effectiveness: 2. A condition that results from the establishment and maintenance of protective measures that ensure a state of inviolability from hostile acts or influences. (JP 1-02)

SCETC – Security Cooperation and Education Training Center. USMC organization that coordinates, forms, prepares and deploys Marines for missions that are not executed from assigned operational forces. This includes coordinating and preparing training assistance teams and unit level advisors in support of international forces, as well as civil affairs training. (MCO 3502.6, *Marine Corps Force Generation Process or FGP*)

staff estimate. Also called ‘running estimate’. A staff section’s continuous assessment of current and future operations to determine if the current operation is proceeding according to the commander’s intent and if future operations are supportable. (FMI 5-0.1)

Trend Reversal and Reinforcement Process (TRRP) - process through which Marine Corps entities rapidly incorporate solutions to lessons learned across DOTMPLF pillars. The process involves taking information provided by the MCCLL, analyzing it, vetting the results and then working to develop solutions. (MCO 3502.6, *Marine Corps Force Generation Process or FGP*)

working group. A temporary grouping of predetermined staff representatives who meet to coordinate and provide recommendations for a particular purpose or function. (FMI 5-0.1)

Bibliography

Bartholomees, J. Boone Jr. *A Survey of the Theory of Strategy*, U.S. Army War College Guide to National Security Policy and Strategy. Carlisle, PA: Strategic Studies Institute, 2008.

Burkett, Col Edwin, MD, USJFCOM Command Surgeon and Jerry Tuero. *Developing Future Command Surgeons and Staff for Joint Operations and Assignments*. Joint Center for Operational Analysis (JCOA) Journal, Summer 2010.

Feinsilver, Julie M. *Cuba's Medical Diplomacy*. In *Changing Cuba/Changing World*: compiled by Mauricio A. Font, John Arias and Jackie Slater, Chapter 15. New York, NY: Bildner Center for Western Hemisphere Studies, 2008.

Konoske, Dr. Paula. *Tactical Medical Logistics Planning Tool: Modeling Operational Risk Assessment*, Naval Health Research Center (NHRC), San Diego, CA, 2003.

Stubbs, Richard. *From Search and Destroy to Hearts and Minds: The Evolution of British Strategy in Malaya 1948-60*, Daniel Marston and Carter Malkasian, eds. *Counterinsurgency in Modern Warfare*. New York, NY: Osprey Publishing, 2008.

Wilensky, Robert. *Military Medicine to Win Hearts and Minds*. Lubbock: Texas Tech University Press.

Military Doctrinal Publications

Headquarters, U.S. Marine Corps. MCWP 3-33.1 *MAGTF Civil Military Operations*. Washington, DC: Headquarters U.S. Marine Corps, 7 April 2003.

Headquarters, U.S. Marine Corps. MCWP 3-33.1, *Marine Corps Operating Concepts - Third Edition*, MCCDC, Quantico VA. June 2010.

Headquarters, U.S. Marine Corps. MCRP 3-16.1A, *TTPs for Field Artillery and Target Acquisition*. MCCDC, Quantico VA. 1990.

U.S. Department of the Army and Headquarters U.S. Marine Corps. *Counterinsurgency*. FM 3-24 or MCWP 3-33.5. Washington, DC: U.S. Department of the Army, December 2006.

U.S. Department of the Army. Handbook No. 10-41. *Assessment and Measures of Effectiveness in Stability Operations*. Washington, DC: U.S. Department of the Army, May 2010.

U.S. Department of the Army. FM 5-01.1: *The Operations Process*. Washington, DC: U.S. Department of the Army, 2006.

U.S. Department of Defense, DoD Directive (DoDD) 3000.05, *Military Support for Stability, Security, Transition and Reconstruction Operations*. Washington, DC: The Pentagon. 28 November 2005.

U.S. Department of Defense, DoD Directive (DoDD) 6000.16, Military Health Support for Stability Operations. Washington, DC: The Pentagon. 17 May 2010.

U.S. Department of Defense, *Irregular Warfare (IW) Joint Operating Concept*, version 2.0. Washington, DC: The Pentagon. 17 May 2010.

U.S. Department of the Army. FM 3-07, Stability Operations and Support Operations. Washington, DC: Headquarters, United States Army, 20 Feb 2003.

U.S. Joint Chiefs of Staff, JP 3-60 *Joint Targeting*. Washington, DC: The Pentagon, 30 April 2007, Appendix B-3.

U.S. Joint Chiefs of Staff, JP 4-02. *Health Services*. Washington, DC: The Pentagon, October 2006, Appendix B-3.

U.S. Joint Chiefs of Staff, *Joint Fires and Targeting Handbook*, Washington, DC: The Pentagon (accessed: 15 Feb 11)
http://www.dtic.mil/doctrine/doctrine/jwfc/intfiretar_hdbk.pdf