

# **Stability Operations: Ill-Structured Problems, Stakeholders, and Gaining Consensus**

**A Monograph**

**by**

**Major Johnny R. Sutton**

**United States Army**



**School of Advanced Military Studies  
United States Army Command and General Staff College  
Fort Leavenworth, Kansas**

**AY 2011**

<b>REPORT DOCUMENTATION PAGE</b>			<i>Form Approved</i> <i>OMB No. 074-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503				
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE 23-02-2010	3. REPORT TYPE AND DATES COVERED SAMS Monograph July 2010 - May 2011		
4. TITLE AND SUBTITLE Stability Operations: Ill Structured Problems, Stakeholders and Gaining Consensus		5. FUNDING NUMBERS		
6. AUTHOR(S) Major Johnny R. Sutton, United States Army				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) School of Advanced Military Studies (SAMS) 250 Gibbon Avenue Fort Leavenworth, KS 66027-2134		8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSORING / MONITORING AGENCY REPORT NUMBER		
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution is Unlimited			12b. DISTRIBUTION CODE	
13. ABSTRACT ( <i>Maximum 200 Words</i> ) This monograph explores recommended doctrinal revisions for inclusion of the theory of characteristics of wicked problems, stakeholder methodology and Delphi modeling to enhance the Military Decision Making Process (MDMP) specifically for stability operations. The addition of these concepts does not denigrate the MDMP, but rather provides tools to develop understanding, integrate vested host nation stakeholders in the planning process, and provides a technique for structuring engagements. The characteristics of wicked problems provide an underpinning for understanding complexities inherent in stability operations, and mechanisms for connecting conceptual and detailed planning. The inclusion of stakeholders in doctrine provides host nation perspective to refine understanding through the lens of the local population, a specified population to enable transition, and a mechanism for conducting assessments. The addition of the Delphi technique provides a framework for Key Leader Engagements (KLE) to develop consensus among stakeholders or identify gaps between the current environment and the desired environment. The combination of these tools provides a theoretical base for what is plausible given the nature of ill structured problems; a means, through stakeholders, to identify what is important; and, a technique to structure engagements to provide consensus among divergent stakeholders.				
14. SUBJECT TERMS MDMP, Stability Operations, Stakeholders, Wicked Problems, Delphi Model		15. NUMBER OF PAGES 50		
		16. PRICE CODE		
17. SECURITY CLASSIFICATION OF REPORT (U)	18. SECURITY CLASSIFICATION OF THIS PAGE (U)	19. SECURITY CLASSIFICATION OF ABSTRACT (U)	20. LIMITATION OF ABSTRACT	

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)  
Prescribed by ANSI Std. Z39-18  
298-102

# SCHOOL OF ADVANCED MILITARY STUDIES

## MONOGRAPH APPROVAL

Major Johnny R. Sutton

Title of Monograph: Stability Operations: Ill-Structured Problems, Stakeholders, and Gaining Consensus

Approved by:

---

Alice Butler-Smith, Ph.D.

Monograph Director

---

Mr. Bruce Stanley, Seminar Leader

Second Reader

---

Wayne W. Grigsby, Jr., COL, IN

Director,  
School of Advanced  
Military Studies

---

Robert F. Baumann, Ph.D.

Director,  
Graduate Degree  
Programs

Disclaimer: Opinions, conclusions, and recommendations expressed or implied within are solely those of the author, and do not represent the views of the US Army School of Advanced Military Studies, the US Army Command and General Staff College, the United States Army, the Department of Defense, or any other US government agency. Cleared for public release: distribution unlimited.

## Abstract

STABILITY OPERATIONS: ILL-STRUCTURED PROBLEMS, STAKEHOLDERS AND GAINING CONSENSUS by MAJ Johnny R. Sutton, United States Army, 41 pages.

The Department of Defense emphasis on stability operations caused the United States Army to change its operational concept to Full Spectrum Operations (FSO). The acknowledgment of the importance of stability operations however, does not translate to the ability to plan such operations. As a result, the army has revised its doctrine to meet the demands incurred since embarking on the Global War on Terrorism in 2001.

These revisions were necessary and relevant to secure the lessons of eight years of war. However, doctrinal revisions failed to provide a complete theoretical foundation for ill-structured problems as described in FM 5-0, *The Operations Process*; nor did the revisions do more than provide examples of stakeholders much less provide a definition of such actors; and, while key leader engagements are common practice in Iraq and Afghanistan, doctrine has not provided any tools for structuring these engagements to assist in developing understanding of ill-structured problems, or how to gain consensus among divergent groups of stakeholders. Thus, this monograph outlines three methods for inclusion in future revisions of doctrine to improve the Military Decision Making Process (MDMP) specifically for stability operations.

## Table of Contents

Introduction .....	1
Characteristics of Wicked Problems in Social Context.....	7
Understanding the Problem Social Context: Stakeholder Analysis .....	18
Gaining Consensus in Social Context: Delphi Modeling.....	26
Conclusion: Stability Operations Planning .....	36
Appendix I: Delphi Models.....	43
BIBLIOGRAPHY .....	44

## Introduction

In 2001, the United States embarked on the complex and dynamic Global War on Terrorism and the subsequent monumental effort to establish new governments in Afghanistan and Iraq respectively while under fire. This phenomenon of using the military for nation building is not new to the United States.<sup>1</sup> Over the last two decades the United States has entered seven societies to liberate and rebuild.<sup>2</sup> As a consequence of the crucible of Iraq and Afghanistan, stability operations have become an essential military task, rivaling major combat operations.<sup>3</sup>

Military manpower has frequently been used by the United States to conduct nation-building activities. However, only recently did the U.S. Government change its approach to nation building, and further define the Army's role in light of the struggles incurred in Iraq and Afghanistan. As a result the Department of Defense (DoD) issued in November 2005, DoD Directive (DODD) 3000.05 that emphasized that stability operations were no longer secondary to combat operations, stating:

Stability operations are a core U.S. military mission that the Department of Defense shall be prepared to conduct and support. They shall be given priority comparable to combat operations and be explicitly addressed and integrated across all DOD activities including doctrine, organizations, training, education, exercises, materiel, leadership, personnel, facilities, and planning.<sup>4</sup>

---

<sup>1</sup> James Dobbins, Seth G. Jones, Keith Crane, and Beth Cole DeGrasse, *Beginner Guide to Nation Building*, (Santa Monica: Rand, 2007), xvii. Nation building, as it is commonly referred to in the United States, involves the use of armed force as part of a broader effort to promote political and economic reforms with the objective of transforming a society emerging from conflict into one at peace with itself and its neighbors. Further, Nation building is used because in American parlance at least, it involves both the military and civilian instruments.

<sup>2</sup> Dobbins, et al., *Beginner Guide to Nation Building*, iii. In 1991, the United States liberated Kuwait; 1992, U.S. troops went into Somalia, 1994 Haiti, 1995 Bosnia, 1999 into Kosovo, and 2001 into Afghanistan followed by Iraq in 2003.

<sup>3</sup> JP 3-0 defines stability operations as 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. U.S. Department of Defense, ed., Joint Publication 3-0: Joint Operations (Washington, D.C.: The Government Printing Office, March 22, 2010), GL-26.

<sup>4</sup> Department of Defense (DOD) Directive 3000.05 *Military Support for Stability, Security, Transition, and Reconstruction Operations* (SSTR) established SSTR as a core military mission during the

Additionally, the State Department established the Office of the Coordinator for Stabilization and Reconstruction (S/CRS), as a result of National Security Presidential Directive 44 (NSPD-44), to establish the interagency capability for stabilization and reconstruction operations.<sup>5</sup>

The result of DODD 3000.05 and NSPD-44 was the explicit acknowledgement by both the Department of Defense and the State Department of the importance of stability operations. Acknowledging the importance of such operations however, does not translate to the ability to effectively plan such operations in stability operations. The Military Decision Making Process (MDMP), as outlined in FM 5-0, *The Operations Process* alone is not a sufficient method for planning stability operations and needs to include civilian planning concepts to more efficiently plan for nation building oriented tasks.<sup>6</sup> This monograph will examine three civilian planning concepts for inclusion in design and the MDMP to enhance conceptual and detailed planning expressly required for stability operations. Specifically, it will explore how civilian-planning concepts - Horst Rittel's characteristics of wicked problems, stakeholder analysis, and Delphi modeling – could augment the MDMP for stability operations planning.

As the military continues to fight in Afghanistan and Iraq, defining the problem attributes inherent in stability operations, stakeholder analysis, and Delphi techniques can be incorporated into design and the MDMP that enhance the collaboration between the United States and the host nation. These methods would potentially serve as a supplement to conceptual planning, and provide a basis for transition to detailed planning.

---

period of increasing violence in Iraq. The directive was effective 28 November 2008. (Washington, D.C., 2008), 2.

<sup>5</sup> S/CRS was established as an exploratory staff element of the U.S. State Department as part of the NSPD-44 process to establish interagency capability for stabilization and reconstruction operations. Congress formally authorized S/CRS in the 2009 National Defense Authorization Act. See Title XVI, "Reconstruction and Stabilization Civilian Management Act of 2008" in Public Law 110-114, October 14, 2008.

<sup>6</sup> U.S. Department of Defense, U.S. Army Field Manual 5-0, *The Operations Process* (Washington, D.C.: U.S. Government Printing Office, March 2010).

FM 5-0, *The Operations Process*, published in March 2010 added design to secure the lessons of 8 years of war and provide a cognitive tool for commanders who will encounter complex, ill-structured problems in future operational environments like those faced by commanders in Iraq in March 2003.<sup>7</sup> The MDMP was suited for commanders to maneuver their units from Kuwait into Iraq, defeat the Iraqi Army, and seize key cities and infrastructure.<sup>8</sup> The problem was structured between two symmetrical adversaries.<sup>9</sup> However, after accomplishing their initial mission, commanders were told to “establish a safe and secure environment.”<sup>10</sup>

This task was unfamiliar – an ill structured problem – and required adapting existing processes to gain understanding of the problem.<sup>11</sup> Intuitively commanders used design and adapted the MDMP, but the process can be made more efficient for stability operations planning.<sup>12</sup> The intrinsic difficulty is that the problems facing commanders are interconnected between, but not limited to, social groups, policy, economics, governance, religion, and tribal influence that each serves to influence the population simultaneously. A key assumption in this monograph is that these problems are not simple, linear, nor do they exist as discrete closed systems, so they do not have a readily identifiable solution. For a system to be defined as linear it must only meet two conditions. The first is proportionality, or that the system output is proportional to changes in the system input. The second condition is that of linearity, or that the whole is equal to the sum of the parts. This condition would allow the system to be broken into

---

<sup>7</sup> FM 5-0, *The Operations Process*, 3-3.

<sup>8</sup> FM 5-0, *The Operations Process*.

<sup>9</sup> This monograph defines symmetrical threat as war between belligerents whose relative combat power, strategies or tactics do not differ significantly.

<sup>10</sup> FM 5-0, *The Operations Process*.

<sup>11</sup> FM 5-0, *The Operations Process*.

<sup>12</sup> FM 5-0, *The Operations Process*, defines Design as a methodology for applying critical and creative thinking to understand, visualize, and describe complex, ill-structured problems and develop approaches to solve them. This paper is an effort to explore specific techniques and definitions that refine the Design process for conceptual planning in stability operations.



smaller parts for analysis.<sup>13</sup> However, the problems inherent in stability operations are complex, and occur in everyday life.

This distinction is important because, unlike a ‘problem’, which implies a solution, there may or may not be a solution for the situations encountered in stability operations.<sup>14</sup> Moreover, this distinction is important, since it is likely that future U.S. deployments will mirror conditions like those in Afghanistan and Iraq. The new FM 5-0 better addresses, through design, a methodology for understanding problems, but it could be made more explicit in addressing the inherent difficulties of stability operations.<sup>15</sup> The civilian concepts examined in this monograph specifically address problems inherent in and allow, sensemaking of conditions and unique contexts that are stability environments. Further, they expand the repertoire of the commander and staff.

The inclusion of Horst Rittel and Melvin Weber’s wicked problem characteristics in Design and the MDMP places problems, inherent in stability operations, in their proper context – society.<sup>16</sup> Further, unlike problems of scientists or engineers there is not a clear indication whether or not the problems have been solved. Moreover, the characteristics of wicked problems are found in nearly all public policy issues, similar to those problems confronting commanders and staffs in stability operations.<sup>17</sup> Therefore, the use of these characteristics is imperative because they frame the environment, problem, and solutions as distinguished by these properties in each unique social context. Bryan Lawson, in *How Designers Think*, reinforces the preliminary

---

<sup>13</sup> Alan D. Beyerchen, “Clausewitz, Nonlinearity and the Unpredictability of War,” *International Security* 17:3 (Winter 1992), 53.

<sup>14</sup> Peter Checkland and John Poulter, *Learning for Action: A Short Definitive Account of Soft Systems Methodology, and Its Use Practitioners, Teachers and Students* (Chichester: John Wiley & Sons, 2006).

<sup>15</sup> FM 5-0, *The Operations Process*.

<sup>16</sup> Horst Rittel and Melvin Weber. “Dilemmas in a General Theory of Planning,” *Policy Sciences* 4, (1973): 160. The term “wicked” is used, not because the properties are ethically deplorable, but that they are akin to that of “malignant” (in contrast to benign) or vicious (like a circle) or tricky (like a leprechaun) or aggressive).

<sup>17</sup> Rittel and Weber, “Dilemmas in a General Theory of Planning,” 160.

findings of Rittel and Weber by discussing how these characteristics work as part of the design process.<sup>18</sup> Dr. John Conklin also uses the characteristics of wicked problems as he introduces social complexity and fragmentation.<sup>19</sup> Additionally, Conklin posits six coping mechanisms that if incorporated into stability operations planning could enhance the process. These mechanisms are critical because they provide a method for planners to transition from conceptual planning to detailed planning.

The addition of the characteristics of wicked problems provides conceptual understanding of what is plausible, given a problem, and the relationship of that problem within the environment as a whole. However, it is not enough to analyze the problem in this manner, as it will continue to result in a biased perception of the problem if only viewed through a U.S. lens. Therefore, stakeholder analysis should be incorporated into the planning process to identify host nation stakeholders and develop shared understanding between U.S. perception and host nation reality.

The stakeholder analysis methodology provides a system to determine individuals or groups within the host nation that will actively support or attempt to hinder the planning process. Further, stakeholders are the social context within which commanders and staffs attempt to apply the design frames based on Rittel and Weber's characteristics of wicked problems. Thus, stakeholder analysis provides a means to incorporate host nation information that leads to success as defined by the host nation. Dr. John Bryson, in his article "What to do When Stakeholders Matter," focuses on how and why stakeholder identification and analysis techniques might be used to help organizations meet mandates, fulfill missions, or create public value.<sup>20</sup> Dr. Jane Gilmour also examines stakeholders in her report "Stakeholder Mapping for Effective Risk

---

<sup>18</sup> Bryan Lawson, *How Designers Think: The Design Process Demystified*, 4th ed. (New York: Architectural Press, 2007), 120.

<sup>19</sup> Jeff Conklin, *Dialogue Mapping: Building Shared Understanding of Wicked Problems* (Hoboken, NJ.: Wiley, 2005), 7-11.

<sup>20</sup> John M. Bryson, "What To Do When Stakeholders Matter: A Guide to Stakeholder Identification and Analysis Techniques," (Paper presented at the National Public Management Research Conference, Georgetown University Public Policy Institute, Washington, D.C., October 9-11, 2003), 3.

Assessment and Communication,” and discusses the growing challenges for government to meet community and sectoral expectations and to develop effective relations with stakeholders that will further organizational objectives and policy outcomes.<sup>21</sup> These tools provide a framework to analyze stakeholders that currently do not exist in doctrine.

Finally, the Delphi technique, a tool for developing consensus that could be used as a war-gaming technique will be examined in order to expand the war game process to account for multiple groups as opposed to strictly friendly and enemy. Norman Dalkey, with the Rand Corporation in 1969 and in conjunction with the United States Air Force, experimented with Delphi procedures for formulating group judgments. The study is relevant for the use by experts as advisors in decision-making, especially areas of broad or long-range policy formulation.<sup>22</sup> Essentially the technique is a method for eliciting and refining group judgments. Or, stated another way, “the rationale for the procedures is primarily the age old adage “Two heads are better than one,” when the issue is one where exact knowledge is not available.”<sup>23</sup> In their article, “The Delphi Technique: Making Sense of Consensus” Chia-Chien Hsu and Brian Sandford support the Rand Corporations findings, stating, “The Delphi technique provides those involved or interested in engaging in research, evaluation, fact-finding, issue exploration, or discovering what is actually known or not known about a specific topic a flexible and adaptable tool to gather and analyze the needed data.”<sup>24</sup> Therefore, the Delphi technique is arguably a tool that is useful toward producing consensus among stakeholders, based on an appreciation of the problem about the characteristics of wicked problems, and provides a point in which to begin detailed planning.

---

<sup>21</sup> Jane Gilmour and Ruth Beilin, *Stakeholder Mapping for Effective Risk Assessment and Communication ACERA Project 06/09* (The University of Melbourne: ACERA, April 2007).

<sup>22</sup> Norman Dalkey, “The Delphi Method: An Experimental Study of Group Opinion” (Santa Monica: Rand, 1969), iv.

<sup>23</sup> Dalkey, “The Delphi Method,” 1.

<sup>24</sup> Chia-Chien Hsu and Brian Sandford, “The Delphi Technique: Making Sense of Consensus,” *Practical Assessment, Research & Evaluation* 12, no. 10 (August 2007): 1-8, <http://pareonline.net/pdf/v12n10.pdf> (accessed August 5, 2010).

The inclusion of the characteristics of wicked problems, stakeholder analysis and the Delphi technique within Design and the MDMP could serve to enhance conceptual and detailed planning in the context of stability operations. In combination, each concept informs the design frames, and ultimately guides the transition to detailed planning. Thus, these tools describe ill-structured problems in a social context, identify host nation imperatives through the lens of host nation stakeholders, and establish a method for gaining consensus among stakeholders.

## **Characteristics of Wicked Problems in Social Context**

Field Manual 3-07, *Stability Operations*, states, “Conflict, by nature, is a complex endeavor; it is fundamentally human in character, and, as such, is inherently unpredictable in nature.”<sup>25</sup> General Rupert Smith describes this complexity as a result of war amongst the people and that the complexity may be manifest in the number and variety of participants, their relationships, their cultural differences, and their various and shifting political and social goals.<sup>26</sup> Alternatively, the complexity may be described as a network of interconnected, adaptive systems.<sup>27</sup>

The challenge of stability operations is the interconnected, adaptive relationships between human beings, human actions, and human organizations. These three human dynamics that are at the heart of wicked problems are complex because they involve a seemingly endless array of interdependent variables, constraints, uncertainties and ambiguities, divergent viewpoints and conflicting values, all operating in complex social context.<sup>28</sup> FM 3-07 further acknowledges this complexity, stating, “Stability operations, more than offensive and defensive operations, present a

---

<sup>25</sup> U.S. Department of Defense, U.S. Army Field Manual 3-07, *Stability Operations* (Washington, D.C.: U.S. Government Printing Office, March 2008), 4-3.

<sup>26</sup> Rupert Smith, *The Utility of Force: The Art of War in the Modern World* (New York: Allen Lane, 2005), 3.

<sup>27</sup> Joint Warfighting Center (JWFC) Doctrine Pamphlet 7, *Operational Implications of Effects-based Operations* (Norfolk, VA: JWFC, November 17, 2004), 1.

<sup>28</sup> Dr. Edward A. Smith, Jr. and Mark N. Clemente, “Wicked Problems and Comprehensive Thinking in Irregular Warfare” (paper presented at the 14th International Command and Control Research and Technology Symposium (ICCRTS), Washington, DC, March 24-26, 2009).

unique challenge.”<sup>29</sup> Where combat typically focuses on the defeat of an enemy force, stability operations focus on the people.<sup>30</sup>

In 1973, Horst Rittel and Melvin Weber described characteristics of wicked problems that provide a basis for developing an understanding of the problematic situations inherent in stability operations. Rittel coined the term wicked problem, and developed the Issue-based Information System (IBIS) structure upon which Dialogue Mapping is based.<sup>31</sup> Rittel’s perspective placed human relationships and social interactions at the center of the IBIS as a method for dealing with wicked problems.<sup>32</sup>

The importance of Rittel and Weber’s description of wicked problems for planning is they establish problems in social context, and increase the planner’s repertoire for understanding problems in stability environments. Current doctrine does not explicitly establish this context. Further, doctrine does not discuss the transition from conceptual to detailed planning that is exacerbated by the nature of wicked problems. Therefore, with the increased importance placed upon stability operations, doctrine should include Rittel and Weber’s characteristics to better inform mission command in stability operations.

Rittel and Weber’s first characteristic of wicked problems is there is no definitive formulation of a wicked problem. Well or medium structured problems, as presented in FM 5-0, have an exhaustive formulation that can be stated with the information the problem solver needs for understanding and solving the problem. These problems are complicated, unlike ill-structured or wicked problems in which the information needed to understand the problem depends upon the

---

<sup>29</sup> FM 3-07, *Stability Operations*, 4-6.

<sup>30</sup> FM 3-07, *Stability Operations*, 4-6.

<sup>31</sup> Issue-Based Information Systems is a method to support coordination and planning of political decision processes. IBIS “guides identification, structuring, and settling issues raised by problem-solving groups, and provides pertinent to the discourse....” Kunz Werner and Horst Rittel, “Issues as Elements of Information Systems, Working Paper No. 131,” (Heidleberg, Germany: Studiengruppe fur Systemforschung, July 1970). Dialogue Mapping is a process that creates a diagram that captures and connects participants’ comments as a conversation unfolds.

<sup>32</sup> Jeff Conklin, *Dialogue Mapping*, 7-11.

problem solvers idea for solving it.<sup>33</sup> Essentially the determination of the problem constitutes the problem. Moreover, planners will not understand the problem until a solution has been developed. There is not a definitive statement of what constitutes a wicked problem, nor a replicable solution. Each problem is both unique and interconnected with related problems; there will be disparate views of what the problem is, enumerable potential solutions, and no definable and universally recognized end-state.<sup>34</sup>

Rittel and Weber's second characteristic is that wicked problems do not have a stopping rule. Unlike problem solving where there is a definitive solution, and the problem solver knows when they are done this trait is not the case when solving ill-structured or wicked problems. This rule epitomizes stopping when one has a solution that is good enough. Since there is no definitive problem or solution the problem solving process ends when one runs out of resources, such as time, money, or energy, not when an optimal or correct solution emerges.<sup>35</sup> Therefore, the onus is on the planner to determine when sufficient information has been gathered to transition from conceptual to detailed planning.

Planners must also understand solutions to wicked problems are not true-or-false, but good-or-bad. Unlike ill-structured problems, complicated problems have conventionalized criteria susceptible to independent checks that objectively validate the offered solution. In contrast, ill-structured problem solution quality is not objective, nor is it derived from following a formula. Solutions are simply better, worse, good enough, or not good enough. Further, solutions are assessed in social context, and judgments vary and depend on stakeholder's independent values and goals.

The idea that solutions to wicked problems are good or bad is intensified, because there is no immediate or ultimate test of a solution to a wicked problem. For problems other than ill-

---

<sup>33</sup> This monograph uses the terms wicked problem and ill structured problem interchangeably.

<sup>34</sup> Smith and Clemente, "Irregular Warfare," 2.

<sup>35</sup> Conklin, *Dialogue Mapping*, 7-11.

structured problems, planners can immediately determine how good a solution attempt has been. The test of the solution is under the control of the staff involved and interested in the problem. Implemented ill-structured problem solutions, on the other hand, generate enumerable consequences over an unbounded period. Moreover, the consequences may be undesirable, and outweigh the intended advantages to be accomplished.

Additionally, planners must understand that an attempted solution to a wicked problem is a one-time operation. In the sciences and in fields like mathematics, chess, or mechanical engineering design, the problem-solver can try various solutions without penalty. The outcome does not influence the system or society. However, with ill-structured problems every implemented solution is consequential. Further, it changes the problem, and likely creates new problems. Therefore, planners must be prepared to reframe the problem, and plan branches and sequels based on anticipated outcomes.<sup>36</sup>

Planners must be cognizant of Rittel and Weber's sixth characteristic of wicked problems that states wicked problems do not have an enumerable (or an exhaustively describable) set of potential solutions, nor is there a well described set of permissible operations that may be incorporated into the plan for the sake of time management. Planners unaware of this characteristic risk not transitioning to detailed planning in a timely manner, because they continually evaluate solutions for better options. However, there is no way to determine that all possible solutions have been identified or considered. In the world of social policy, like stability operations, there are not a set of finite rules or an explicit tool chest of operations.

The idea that there is not a set of finite rules provides establishes that every wicked problem is essentially unique. Obviously, similarities can be found in common between problems however, they are largely trivial. Every problem is unique, no two are alike, and the solution must

---

<sup>36</sup> FM 3-07, *Stability Operations*, 4-1.

be a custom fit. Thus, one gains wisdom and experience in approaching wicked problems, but one is always a beginner in the specifics of a new wicked problem.

The difficulty in defining wicked problems lies in the premise that every one can be considered a symptom of another problem. Problems can be described as discrepancies between the current state and the desired state. A design technique for determining the importance of discrepancies in the overall function of system requires conceptual removal of causes to determine plausible outputs of the system with the element removed.<sup>37</sup> The process of resolving the problem is the search for determining the causes for the discrepancy. Thus, removal of the cause poses another problem of which the original problem is a symptom. The problems are hierarchical, and incrementally solving symptoms does not necessarily translate to overall improvement of the system.

The existence of a discrepancy representing a wicked problem can be explained in numerous ways. The definition of the problem determines the nature of the problem's solution. In dealing with ill-structured problems, there are numerous ways to refute a hypothesis, unlike in sciences where a formula can be established to refute evidentiary discrepancies. Moreover, as previously examined, the uniqueness of the problem does not readily lend itself to testing. Therefore, planners choose solutions plausible to them. Thus, as noted by John Lewis Gaddis, the planner's worldview is the strongest determining factor in explaining a discrepancy and, ultimately, in resolving a wicked problem.<sup>38</sup>

Rittel and Weber's last characteristic is the most ominous for the military planner, because the planner does not have the right to be wrong. The expectation in science is a

---

<sup>37</sup> Jamshid Gharajedaghi, *Systems Thinking: Managing Chaos and Complexity: A Platform for Designing Business Architecture* (New York, NY: Elsevier, 2006), 108. Gharajedaghi describes holistic thinking as consisting of four aspects: structure, function, process, and context/purpose. These aspects of a system are considered cyclically and iteratively with time for reflection between each cycle. Thus, determining the activity, in context, will provide a synthesis of the other elements.

<sup>38</sup> John Lewis Gaddis, *The Landscape of History: How Historians Map the Past* (New York: Oxford University Press, 2004), 22.



hypothesis will either be refuted, or withstand the scrutiny of the community and gain some amount of consensus. Consequently, the scientific community does not hold their members accountable if a hypothesis is refuted. These expectations are not tolerated in the world of ill structured problems however. Military planners are liable for the consequences their actions generate. The planner works in an open system of social context, and a great number of people are touched by those actions.

Rittel and Weber's characteristics not only establish wicked problems in social context, but also distinguish problems in stability operations from those that are the concern of natural sciences. Unlike societal problems, the problems of natural science are definable, separable, and may have identifiable, findable and definitive solutions.<sup>39</sup> However, the societal problems facing military planners in stability operations are inherently different. Essentially, they are problematic situations or, simply everyday life.<sup>40</sup>

This understanding allows a planner to take a systemic view, turn away from blame and away from easy technical fixes, and look into the social domain that is the essence of the complexity is stability operations.<sup>41</sup> Moreover, it lends valuable insight to the solution space, distilling the conceptual understanding of the problem, which allows the application of a solution or an approach that is relevant in unique, specific context. Importantly, this solution, and as noted by Rittel and Weber, is not definitive. The solution could be something such as a policy or process that manages a problematic situation to achieve a desired effect, or a transition point; it is highly unlikely that it is a perfect end state.

Chinese wisdom reveals how they treat problem frames and goals as provisional landmarks on the road to better. The mission may end, but in the Eastern, way of thinking the

---

<sup>39</sup> Rittel and Weber, "Dilemmas in a General Theory of Planning," 160.

<sup>40</sup> Peter Checkland and John Poulter, *Learning For Action: A Short Definitive Account of Soft Systems Methodology, and its use Practitioners, Teachers and Students* (Chichester, UK: Wiley, 2006), xv.

<sup>41</sup> Conklin, *Dialogue Mapping*, 7-11.

idea of end state is not accurate.<sup>42</sup> In complex systems, the conditions change endlessly. Therefore what is actually desirable or achievable inevitably changes as the system evolves and more is known. This perspective on solutions and end states is useful in addressing problems in stability operations.

FM 5-0, *The Operations Process*, uses four characteristics that are similar to Rittle and Weber's characteristics to distinguish ill structured problems from other problems, and establish a start point for conceptually understanding the difficulty of identifying solutions and end states in stability operations. Specifically, in the manual's discussion of problem structuring, states that professionals have difficulty agreeing on what constitutes the problem and will have to agree on a shared hypothesis of possible solutions to address the problem. Or, as Laurence J. Peter states, "some problems are so complex that you have to be highly intelligent and well informed to just be undecided about them."<sup>43</sup> FM 5-0 further states, as part of solution development, that professionals will disagree on how the problem can be solved, about what constitutes a desirable end state, and if the end state can be achieved. Further, under execution of solution, success requires learning to perfect technique, adjust the solution, and continuously refine understanding of the problem. Finally, doctrine discusses the need for adaptive iteration to both refine the problem and possible solutions and further distinguish ill-structured problems from well and medium defined problems.

While these characteristics are adequate to differentiate types of problems from one another, they do not fully develop conceptual appreciation of the interrelated, adaptive complexity of problems in stability operations. As Rittel and Weber write, "planning problems

---

<sup>42</sup> Huba Wass de Czege, "Winning Complex Contests of Power and Influence Requires Effective Learning and Adapting," *The Azimuth* 7, no. 1 (January 2010): 3-9.

<sup>43</sup> Laurence J. Peter, *Peter's Almanac* (New York: William Morrow & Co, 1982).

are inherently wicked.”<sup>44</sup> Well and medium structured problems are relatively benign. The mission is clear, and it is clear whether the problems have been solved.<sup>45</sup>

Ill-structured problems do not have these clarifying traits. The primary stability tasks as outlined in FM 3-07, *Stability Operations*, epitomize the essence of ill-structured problems.<sup>46</sup> These are problems of governmental, social, policy planning and are ill defined; they rely upon elusive judgment for resolution.<sup>47</sup> The significance of these problems and their proposed solutions is they are fundamentally a social process.<sup>48</sup> Planning in stability operations, as articulated in FM 5-0 and FM 3-07, must seek to understand the environment in the context of social interaction and minimize the adverse effects of complex operations. However, doctrine fails to explain adequately the problematic social nature of ill-structured problems. As a result, planners are disadvantaged in their ability to represent the less tangible aspects of visualization, since they do not have a complete theoretical base for approaching ill-structured problems.

The classical system approach to problem solving, based on distinct phases does not work for ill-structured problems. Stability operations must each be understood in their own context; information cannot be sought without an idea of a solution; understanding does not come first, followed by a solution.<sup>49</sup> The art of such problem solving is not rushing to knowing what type of

---

<sup>44</sup> Rittel and Weber, “Dilemmas in a General Theory of Planning,” 160.

<sup>45</sup> FM 5-0 describes well-structured problems as easy to identify, the information required to solve them is available, and the methods to solve them are fairly obvious. Additionally, these problems have testable solutions. Further, FM 5-0 describes medium structured problems as more interactively complex than well-structured problems, but less so than ill structured problems. While professionals agree on the problem however, they may not agree on solutions. Moreover, the solution is not necessarily applicable to similar cases, thus the solution may require modification depending on the situation.

<sup>46</sup> FM 3-07, *Stability Operations*, 3-19. The primary stability tasks are Establish Civil Security, Establish Civil Control, Restore Essential Services, Information Engagement, Support Governance, Support Economic and Infrastructure Development.

<sup>47</sup> Rittel and Weber, “Dilemmas in a General Theory of Planning,” 160.

<sup>48</sup> Conklin, *Dialogue Mapping*, 3.

<sup>49</sup> Tom Ritchey, “Wicked Problems: Structuring Social Messes with Morphological Analysis,” *Swedish Morphological Society*, <http://www.swemorph.com/wp.html> (accessed July 9, 2010).

solution to apply. In morphological analysis, this idea is known as remaining in the mess.<sup>50</sup> That is, keeping options open long enough to explore as many relationships in the problem topology as possible, prior to formulating solutions.<sup>51</sup>

FM 3-07 describes planning as an adaptive process that ebbs and flows with the situation. Further, as understanding of the situation evolves, planners develop branches and sequels to account for such evolution.<sup>52</sup> This planning approach infers that the planner has requisite knowledge of the characteristics of wicked problems.

Dr. Jeff Conklin shares a similar understanding as Rittel and Weber on the issues of distinguishing characteristics, and offers a methodology for dealing with such problematic situations. Conklin posits that wicked problems require making decisions, doing experiments, launching pilot programs, testing prototypes, and etc.<sup>53</sup> Further, he states that study alone leads to analysis paralysis, a condition where action is not taken until more information is available. As a result, Dr. Conklin describes, what he considers are at least six coping techniques for dealing with wicked problems.

The first method is to lock down the problem definition. This technique entails the development of a description of a related problem or a sub-problem that can be solved, and declare that to be the problem. Further, this technique focuses efforts. Moreover, it balances resources, capabilities, and activities across multiple lines of effort.<sup>54</sup> The risk is that it is never possible to be sure when all aspects of the problem have emerged. Thus, a continuous assessment of the environment is required to analyze possible unintended effects elsewhere in the environment.

---

<sup>50</sup> Tom Ritchey, "General Morphological Analysis: A General Method for Non-quantified Modeling" (paper presented at the 16th EURO Conference on Operational Analysis, Brussels 1998). Fritz Zwicky developed morphological analysis as a method for structuring and investigating the total set of relationships contained in multi-dimensional, non-quantifiable, problem complexes.

<sup>51</sup> Ritchey, "Wicked Problems," 5.

<sup>52</sup> FM 3-07, *Stability Operations*, 4-1.

<sup>53</sup> Conklin, *Dialogue Mapping*, 10.

<sup>54</sup> FM 3-07, *Stability Operations*, 4-2.

Conklin's second technique is to assert that the problem is solved. Since a wicked problem does not have a definitive solution, this point of attempting to tame it is so that a solution can be reached. The problem with this method is that considerable authority must be had to appear successful. A significant issue with this course of action is the potential for loss of legitimacy if the host nation population interprets the technique as dishonest. Thus, it could undermine stability mechanisms to affect civilians in order to attain conditions that support establishing a lasting, stable peace.<sup>55</sup>

The third method Conklin posits is to specify objective parameters by which to measure the solution's success. Further, Conklin states, "Officially and by definition, what is being measured becomes the problem."<sup>56</sup> However, the danger with this method is planners potentially become intensely focused on what is being measured and overlook problems that are subsequently created. Therefore, responsiveness, the speed with which a desired change can be detected, is paramount, and selecting measurement tools that afford responsiveness is critical.<sup>57</sup> Moreover, effective measurement allows responsiveness to events as they unfold and anticipates events.<sup>58</sup>

The fourth method for solving wicked problems has planners cast the problem just like a previous problem that has been solved, and resembles the military saying, "we always fight the last war."<sup>59</sup> This technique requires that evidence that complicates the problem be ignored, and to treat the problem as a previously solved problem. Therefore, commanders know what to expect, can determine goals that are feasible, and what appropriate actions to take. This approach must be balanced, however since experience is lacking given the specific context, and a planned systemic

---

<sup>55</sup> U.S. Department of Defense, U.S. Army Field Manual 3-0, *Operations* (Washington, D.C.: U.S. Government Printing Office, February 2008).

<sup>56</sup> Conklin, *Dialogue Mapping*, 11.

<sup>57</sup> FM 3-07, *Stability Operations*, 4-13.

<sup>58</sup> FM 3-07, *Stability Operations*, 4-13.

<sup>59</sup> Conklin, *Dialogue Mapping*, 7-11.

approach to problem solving must be devised. Moreover, planners must be cognizant of differences between the situations or risk only focusing on what is similar.

Conklin's fifth method for determining solutions to wicked problems is giving up on achieving a good solution. This method essentially maintains the status quo. Planners follow orders, continue about their daily tasks, and attempt not to make major mistakes.

The final technique for solving wicked problems declares a limitation of just a few possible solutions, and focuses on selecting from these options. This method acknowledges the idea that solutions are either good or bad and enumerable. Further, as a technique for planning, this method fosters a base for decisive and effective action in the midst of such uncertainty.<sup>60</sup> Planners choose a few solutions that are feasible, acceptable, suitable, and determine objectives to begin detailed planning. However, critical to the choice of solutions is whether the plan fosters flexibility, initiative, and adaptability due to unforeseen events.<sup>61</sup>

The importance of using the understanding of wicked problems and all that it implies about the analysis of problems incurred in stability operations owes, simply to the wicked problem that is stability operations: The interdependence of democratization, civil administration, security, and economics in a given social context is so complex as to be un-amenable to simple solutions. Through collaborative planning, military commanders can gain an appreciation of the scale of complexity through discourse with subordinate commanders.<sup>62</sup> Ultimately, there is a trade-off between complexity and scale, and upon which the success of the command depends.<sup>63</sup> The primary elements of nation building cannot be examined using a reductionist approach to understanding the situation, since the parts of nation building emerge as governmental system. However, planners must understand the interconnected layers of the system, from local to

---

<sup>60</sup> FM 3-07, *Stability Operations*, 4-1.

<sup>61</sup> FM 3-07, *Stability Operations*, 4-1.

<sup>62</sup> Yaneer Bar-Yam, *Making Things Work: Solving Complex Problems in a Complex World*, 1st ed. (Massachusetts: Knowledge Press, 2005), 69.

<sup>63</sup> Bar-yam, *Making Things Work*, 69.

national level, decreases the complexity since the number of variables to be examined decreases. Further, planners develop a better understanding of the problem, anticipate change, create opportunities and can recognize and manage transitions because the characteristics inform planners of what is plausible in dealing with wicked problems.<sup>64</sup>

Conflict is a complex endeavor; it is fundamentally human in character, and inherently unpredictable in nature.<sup>65</sup> The inclusion of Rittel's characteristics of wicked problems and Conklin's coping methodology for dealing with such problems expands the commander and staff's repertoire for conceptual planning in stability operations. Moreover, Conklin provides a method to transition from conceptual to detailed planning. Therefore, the addition of these theories in doctrine provides tools to understand environments inherent in stability operations and minimize the adverse effects of complexity on operations.

Wicked problems are only a part of the overall condition that composes stability environments.<sup>66</sup> The other part, as Conklin asserts, is social complexity. The success of stability operations, like counterinsurgency, depends on thoroughly understanding the local society and culture within which the operations are being conducted.<sup>67</sup> Further, leaders must understand the actors who can affect operations.<sup>68</sup>

## **Understanding the Problem Social Context: Stakeholder Analysis**

The operations outlined in DoDD 3000.05, collectively called Stability, Security, Transition and Reconstruction involves collaboration among diverse stakeholders.<sup>69</sup> This perspective puts human relationships and social interactions at the forefront. According to Rittel

---

<sup>64</sup> FM 5-0, *The Operations Process*, 3-7.

<sup>65</sup> FM 5-0, *The Operations Process*, 3-4.

<sup>66</sup> Conklin, *Dialogue Mapping*, 17.

<sup>67</sup> FM 3-24, *Counterinsurgency*, 1-22.

<sup>68</sup> William D. Wunderle, *Through the Lens of Cultural Awareness: A Primer for US Armed Forces Deploying to Arab and Middle Eastern Countries* (Fort Leavenworth, KS: Dept. of the Army, 2007), 61.

<sup>69</sup> Department of Defense, Department of Defense (DOD) Directive 3000.05: *Military Support for Stability, Security, Transition, and Reconstruction (SSTR) Operations* (Washington, D.C., 2005).

and Weber what the problem is depends on who you ask – different stakeholders will have different views about what the problem is and what constitutes an acceptable solution.<sup>70</sup> Moreover, failure to attend to the information and concern of stakeholders is a flaw in planning or action that too often and too predictably leads to poor performance, outright failure or even disaster.<sup>71</sup>

Barbara Tuchman in her history *The March of Folly: From Troy to Vietnam* recounts a series of disastrous misadventures that followed the ignoring of interests, and information held by, key stakeholders. She concludes that – obliviousness to the growing disaffection of constituents, primacy of self-aggrandizement, and the illusion of invulnerable status – are three prevalent attitudes that are persistent aspects of folly.<sup>72</sup> Further, Paul Nutt’s careful analysis of 400 strategic decisions in *Why Decisions Fail* indicates a failure to attend carefully to stakeholder interests and information can easily lead to disaster.<sup>73</sup>

As examined in Chapter 2, understanding and solving the correct problem, in proper social context is important. Social context is a condition of the complexity regarding problems in stability operations. Therefore, to ascertain a more accurate depiction of the problematic situation, and proposed solutions, stakeholders must be considered. Stakeholder analysis can be used to generate knowledge about the relevant actors to understand their behavior, intentions, interrelations, agendas, interests, and the influence or resources they have brought – or could bring – to bear on decision making processes.<sup>74</sup> Further, stakeholders bring useful and relevant knowledge to the decision-making process; there is more likely to be stakeholder acceptance of

---

<sup>70</sup> Rittel and Weber, “Dilemmas in a General Theory of Planning.”

<sup>71</sup> John M. Bryson, “What To Do When Stakeholders Matter: A Guide to Stakeholder Identification and Analysis Techniques,” (Paper presented at the National Public Management Research Conference, Georgetown University Public Policy Institute, Washington, D.C., October 9-11, 2003), 3.

<sup>72</sup> Barbara W. Tuchman, *The March of Folly: From Troy to Vietnam*, Later Printing ed. (New York: Ballantine Books, 1985), 126.

<sup>73</sup> Paul C. Nutt, *Why Decisions Fail* (San Francisco: Berrett-Koehler Publishers, 2002), 81.

<sup>74</sup> Ruairi Brugha and Zsuzsa Varvasovszky, “Stakeholder Analysis: A Review,” *Health Policy and Planning* 15, no. 3 (oxford university press 2000): 239-46.



decisions, even if those decisions do not necessarily reflect individual desired outcomes; and, to respond to changing community and sectoral expectations.<sup>75</sup>

Stakeholder analysis helps with the identification of stakeholder interests, potential risks, and key people to inform about progress, as well as negative stakeholders that may adversely affect progress. Over the course of the last 20 years numerous techniques have been presented that examine the identification and analysis of stakeholders. However, specific analysis techniques are not presented in this paper. Stakeholder analysis tools tend to be straightforward: matrices or lists of criteria or attributes.

Stakeholders cannot be expected to solve all problems, nor does identification guarantee representation. However, stakeholders are now arguably more important in today's globalized world than ever before. Militarily it is an important component of stability operations as noted by then LTG Petraeus' fourteen observations from soldiering in Iraq.<sup>76</sup> The identification of stakeholders and their empowerment to assume roles and responsibilities in stability operations is vital to long-term success. However, while the term stakeholder is used in FM 3-07 and DoDD 3000.05, it is not explicitly defined. Both documents only provide examples of stakeholders or use the term actors to convey the same idea. Therefore, doctrine needs to incorporate the identification of stakeholders, not merely examples, and how their role in the environment affects stability operations.

The term stakeholder is often associated with corporate management, and the definitions vary widely depending upon the business. Thus, the author offers a definition for military use, composed of several leading authors' ideas on the subject, as any person, group, or organization

---

<sup>75</sup> Gilmour and Beilin, *Stakeholder Mapping for Effective Risk Assessment and Communication*, 7.

<sup>76</sup> David H. Petraeus, "Learning Counterinsurgency: Observations from Soldiering in Iraq," *Military Review*, January-February 2006.

that can be affected or will affect the organization's plan.<sup>77</sup> These persons, groups, and organizations include both those with the power and influence to respond to, negotiate with, and change the organization's goals and those whose power and influence is nominal, but whose interests must be understood. Moreover, these persons, groups, and organizations depend upon the organization's plan to achieve their own goals, and, in turn, the organization depends upon them. The definition of stakeholders is consequential, because it affects who and what counts.<sup>78</sup> Further, the need for stakeholder support is critical to create and sustain winning coalitions, and to ensure long-term viability of organizations, as well as policies, plans and programs.<sup>79</sup> This definition is consistent with the stakeholder examples listed in both FM 3-07 and DoDD 3000.05.

The term stakeholder however is not synonymous with stakeholder analysis techniques, which Robin Grimble defines as "a methodology for gaining an understanding of a system, and for assessing the impact of changes to that system, by means of identifying the key stakeholders and assessing their respective interests."<sup>80</sup> Further, Grimble underlines the usefulness of stakeholder analysis in understanding complexity and compatibility problems between objectives and stakeholders. For example, an examination of lines of effort reveals that the problem set encompasses any number of people, groups, and organizations interconnected across the efforts.<sup>81</sup> Mark Schapiro and Stephen Petzold, as part of the Provincial Reconstruction Team (PRT) and

---

<sup>77</sup> Bryson, "What To Do When Stakeholders Matter." For definitions of stakeholders as presented in Bryson's paper see, Paul C. Nutt and Robert W. Backoff, *Strategic Management of Public and Third Sector Organizations: A Handbook for Leaders* (San Francisco: Jossey-Bass, 1992); Colin Eden and Fran Ackerman, *Making Strategy: The Journey of Strategic Management* (London: Sage Publications, 1998); and Gerry Johnson and Kevan Scholes, *Exploring Corporate Strategy, Sixth Edition* (Harlow, England: Pearson Education, 2002).

<sup>78</sup> Ronald Mitchell, Bradley Agle and Donna Wood, "Toward a Theory of Stakeholder Identification and Saliency: Defining the Principle of Who and What Really Counts," *Academy of Journal Review* 22, no. 4 (1997): 853-66.

<sup>79</sup> Bryson, "What To Do When Stakeholders Matter," 23.

<sup>80</sup> Robin Grimble, *Socio-Economic Methodologies: Best Practice Guidelines* (Chatham: Natural Resources Institute, 1998), 1-12.

<sup>81</sup> FM 3-07, *Stability Operations*, Lines of Effort link multiple tasks and missions to focus efforts toward establishing the conditions that define the desired end state. At the operational level lines of effort may be aligned with the primary stability tasks.

Task Force (TF) Spartan respectively in Ninewa Province, Iraq discovered these interconnected relationships because of ineffective communication and weak leadership between rural areas and Mosul and between Mosul and Baghdad that required U.S. support to get the Iraqi system to approve projects.<sup>82</sup> As a result, governance spanned economic, agricultural and security programs in the province, and further reinforced the need for stakeholders.

Additionally, Schapiro and Petzold discuss what they called human mapping to find and evaluate all local partners who could develop and ultimately manage economic and governance programs. Essentially, their account is a description of identifying stakeholders through stakeholder analysis. This technique broadened the unit's contact base. Moreover, it sought to resolve economic imbalance and resentment from overreliance of a small group of leaders who had been empowered at the expense of others.<sup>83</sup> As a result, the unit's first order of business was to conduct a full human inventory to determine names and contact information of local NGOs, women's organizations, economic and agricultural associations, media outlets, and local business leaders.<sup>84</sup> In order to engage with stakeholders in a stability environment, it is critical to know who stakeholders are, what their needs are, what their expectations are on a particular issue or policy, how they are likely to react, and what influence or power they bring to bear on the issue.

Military staffs assess civilian considerations using PMESII-PT (Political, Military, Economic, Social, Information, Infrastructure, Physical Environment, and Time) and ASCOPE (Area, Structure, Capabilities, Organization, People, and Event) as evaluation models to assist commanders in developing a better understanding of the operational environment.<sup>85</sup> However, understanding the environment, separate from social context, tells only part of the story. This

---

<sup>82</sup> Mark Schapiro and Stephen Petzold, "Team Ninewa Models Successful Civilian-Military Unity of Effort," *Small Wars Journal* 6, no. 10 (October 21, 2010): 1-5.  
<http://smallwarsjournal.com/blog/2010/10/team-ninewa-models-successful/> (accessed December 20, 2010).

<sup>83</sup> Schapiro and Petzold, "Team Ninewa Models Successful Civilian-Military Unity of Effort."

<sup>84</sup> Schapiro and Petzold, "Team Ninewa Models Successful Civilian-Military Unity of Effort."

<sup>85</sup> U.S. Department of Defense, U.S. Army Field Manual 3-24.2, *Tactics in Counterinsurgency* (Washington, D.C.: U.S. Government Printing Office, April 2009), 1-3 – 1-16.

statement is not to denigrate the utility of PMESSI-PT and ASCOPE, but an acknowledgement that the elements are not universal and must be understood in their cultural context. Robert Axelrod and Michael Cohen in their book, *Harnessing Complexity*, stated that analyzing a complex system or environment "...gives us a grounded basis for inquiring where 'leverage points' and significant trade-offs of a complex system may lie."<sup>86</sup> In stability operations, host nation stakeholders are the fulcrums for leverage in that they must be satisfied with the trade-offs in the system. Moreover, these stakeholders can simplify the complexity in planning and foster a shared understanding of the situation, the problem, and the solution because they are representatives of the social complexity in the environment.<sup>87</sup> Thus, stakeholders provide a basis for improvements within the zone of tolerance based on stakeholder's perspectives.<sup>88</sup>

Understanding stakeholder's perspectives informs the planner's perspective to important cues that help indicate what decisions are required and how stakeholders may react to it.<sup>89</sup> Additionally, stakeholders provide access to information that otherwise might be unavailable; bring local knowledge and practical experience; and can ensure that cultural values are taken into consideration.<sup>90</sup> An example of stakeholder utility is the value of their perspective when attempting to understand the indefinable end state condition of 'social well-being' as part of the strategy for stability operations listed in FM 3-07.<sup>91</sup> Further it states, "Resolving issues of truth and justice are paramount to this process, and systems of compensation and reconciliation are essential," to address long-term issues such as developing education systems, past abuses and

---

<sup>86</sup> Robert Axelrod and Michael D. Cohen, *Harnessing Complexity: Organizational Implications of a Scientific Frontier* (New York: Basic Books, 2001).

<sup>87</sup> FM 3-07, *Stability Operations*, 4-1.

<sup>88</sup> Checkland and Poulter, *Learning for Action*.

<sup>89</sup> Gilmour and Beilin, *Stakeholder Mapping for Effective Risk Assessment and Communication*, 10.

<sup>90</sup> Gilmour and Beilin, *Stakeholder Mapping for Effective Risk Assessment and Communication*, 10.

<sup>91</sup> FM 3-07, *Stability Operations*, 1-16.

promoting coexistence among the host nation population.<sup>92</sup> However, like PMESSI-PT and ASCOPE evaluation models, stakeholder participation is essential to achieving stability operation objectives.

Bas Rietjens, Myriame Bollen, Masoond Khalil and Sayen Fazlullah Wahidi argue in *Parameters*, that reconstruction is a fluid process driven by local actors.<sup>93</sup> Further, within this context, Rietjens et al. provide four areas related to participation, namely: participation as a right to be involved in decision making, participation as autonomous action, participation as a development based on local knowledge, and participation as a transfer of power.<sup>94</sup> Moreover, these elements seem to correspond with the World Bank's definition of participation as "a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them."<sup>95</sup> Thus, stakeholders can provide purposefulness in planning for the military planner.

Jamshid Gharajedaghi in his book, *Systems Thinking*, examines purposefulness as part of five principles that define essential characteristics and assumptions about the behavior of an organization viewed as a purposeful, multi-minded system. Purposefulness seeks to understand why actors do what they do in transactional environments, but is more than intelligence or knowledge. It is understanding why. Further, the essence of purposefulness can be appreciated through understanding three distinctions among three types of systems behavior. The three distinctions are reaction, response, and action that are correlated with state-maintaining, goal-seeking and purposeful system.<sup>96</sup> Therefore, the importance of stakeholders is their understanding

---

<sup>92</sup> FM 3-07, *Stability Operations*, 1-16.

<sup>93</sup> Bas Rietjens, Myriame Bollen, Masoond Khalil and Sayen Fazlullah Wahidi, "Enhancing the Footprint: Stakeholders in Afghan Reconstruction," *Parameters* XXXIX (Spring 2009): 22-139.

<sup>94</sup> Bas Rietjens, et al., "Enhancing the Footprint."

<sup>95</sup> "Stakeholder Analysis," The World Bank Group, <http://www1.worldbank.org/publicsector/anticorrupt/PoliticalEconomy/stakeholderanalysis.htm> (accessed December 20, 2010).

<sup>96</sup> Jamshid Gharajedaghi, *Systems Thinking Platform For Designing Business Architecture: Managing Chaos and Complexity*. 2nd ed. (New York: Elsevier, 2005), 33.

of these distinctions within the system, or using modernist theorists parlance, stakeholders are boundary spanning, or passing needed information to decision makers.<sup>97</sup>

The identification of stakeholders does not guarantee their involvement however. Rietjans et al. identified six motivations, in the context of International Security Assistance Forces (ISAF) reconstruction activities, to explain why stakeholders may participate in their own development. The six motives for stakeholders include: local ownership, capacity building, sustainability, increased security, legitimacy of local authorities, and alignment of local perceptions with those of external drivers. The importance of understanding these motivations in stability operations planning is the ability to effectively combine stability mechanisms to affect stakeholders in order to attain conditions that support establishing a lasting, stable peace.<sup>98</sup> Further, successful inclusion of stakeholders, in line with their motivations, provides a basis to reduce the inherent risks of transitions because the local populace from the onset of planning is participating in the process. As General Petraeus stated, “Do not try to do too much with your own hands.”<sup>99</sup>

Success in stability operations is determined and achieved primarily by stakeholders. Moreover, the end state in stability operations that matters most is not the military end state, but the political one.<sup>100</sup> However, the can-do, coercive, and directive approach to problem solving that enhances effectiveness in combat may be the antithesis to stability operations. Therefore doctrine should provide more than examples of stakeholders, and present the value that stakeholders offer for long-term success based on the people’s perception of problems. Further,

---

<sup>97</sup> Mary Jo Hatch, *Organization Theory: Modern, Symbolic, and Postmodern Perspectives*. 2 ed. (Oxford: Oxford University Press, USA, 2006), 65.

<sup>98</sup> FM 3-07 list four stability mechanisms: compel, control, influence, and support. FM 3-0 defines these mechanisms as the primary methods through which friendly forces affect civilians in order to attain conditions that support establishing a lasting, stable peace.

<sup>99</sup> David H. Petraeus, “Learning Counterinsurgency: Observations from Soldiering in Iraq,” *Military Review*, January-February 2006.

<sup>100</sup> John Kiszely, *Post-Modern Challenges for Modern Warriors* (Shrivenham, U.K.: Defense Academy of the United Kingdom, 2007), 9.

the identification of stakeholders can help identify decisive points, friction points and prioritize lines of effort.

The increased involvement of stakeholders in planning however can be a double-edged sword. Stakeholders can bring new perspectives to ill-structured problems, but also an awareness of new issues, expectations and challenges. However, these challenges can have positive outcomes and could be viewed as part of the evolutionary process of stability operations. Therefore, stakeholder assessment must be a continuous process. Stakeholder positions will change, issues will become more or less contentious, and networks will evolve.<sup>101</sup>

### **Gaining Consensus in Social Context: Delphi Modeling**

Wicked problems and social complexity are conditions of the chronic condition that commanders and staffs seek to address. Once a commander and staff sees and understands the chronic condition a huge compassion emerges for what the organization is up against in the stability environment.<sup>102</sup> The inclusion of stakeholder collaboration in planning can amount to coherence or the shared understanding of the meaning, context, issues and dimensions of the problem and commitment to the process of developing solutions in stability operations. The challenge however, as described by Gharajedaghi is to create a shared understanding in the current context and its undesirable consequences, thus creating a desire for change. Further, the stake, influence, and interest of the relevant stakeholders must be considered.<sup>103</sup> The challenge is further exacerbated not only by the number of stakeholders, but the relationship among stakeholders. Despite these social challenges, consensus should be established to develop a sense of ability and confidence in creating shared understanding and negotiating shared meaning.<sup>104</sup>

---

<sup>101</sup> Gilmour and Beilin, *Stakeholder Mapping for Effective Risk Assessment and Communication*.

<sup>102</sup> Conklin, *Dialogue Mapping*, 17.

<sup>103</sup> Gharajedaghi, *Systems Thinking Platform For Designing Business Architecture*, 140.

<sup>104</sup> Conklin, *Dialogue Mapping*, 15.

The Delphi method is a systematic interactive forecasting method that can be used to understand environments and gain consensus in stability environments.

Norman Dalkey, with the RAND Corporation, developed the Delphi method to improve decision making for the Air Force in the 1960s. The study used a panel of experts as advisors in decision making, in particular areas of broad or long-range policy formulation. For the Air Force, the results bore methods for dealing with a wide spectrum of problems that ranged from long-term threat assessment to forecasts of technological and social development.<sup>105</sup> The implication for Delphi use in stability operations is the rationale that the procedure is used when the problem is one where exact knowledge is not available. Therefore, this technique is a relevant tool in stability operations planning for addressing ill structured problems, and a way to elicit knowledge from stakeholders.

The U.S. military method of talking with the key individuals is the Key Leader Engagement (KLE). This method is not new, and the military has conducted KLEs since the early onset of Afghanistan and Iraq to meet with stakeholders.<sup>106</sup> These engagements establish productive relationships for commanders and diplomats to further their objectives through stakeholders who know understand the complex civil considerations best – the host nation people. Doctrine however, does not address these engagements, and thus does not provide a methodology for developing a framework for the engagement. The inclusion of a technique such as Delphi in doctrine would provide a methodology for eliciting and refining group judgments.<sup>107</sup> The rationale for this procedure is the old adage that “two heads are better than one.”<sup>108</sup> Further, this technique offers a methodology consistent with understanding wicked problems through the lens of multiple, varied stakeholders.

---

<sup>105</sup> Dalkey, “The Delphi Method,” iii.

<sup>106</sup> Jeanne F. Hull, *Iraq: Strategic Reconciliation, Targeting, and Key Leader Engagement* (Carlisle, PA: Strategic Studies Institute, 2009), 1-46.

<sup>107</sup> Dalkey, “The Delphi Method,” v.

<sup>108</sup> Dalkey, “The Delphi Method,” v.



The aim of the original RAND Corporation study was the application of expert opinion, from the Soviet strategic planner's perspective, to develop an optimal U.S. industrial target system to include a corresponding estimate of the number of atomic weapons required to reduce munitions output by a prescribed amount.<sup>109</sup> Generally, the Delphi technique is a process of questionnaires interspersed with controlled opinion feedback to obtain a consensus of opinion among a group of experts. This monograph views host nation stakeholders as experts, and could be expanded to also include PRT members or other vested organizations. Importantly, the outcome of the Delphi sequence is only opinion, and thus only as valid as the experts selected for the panel.<sup>110</sup> From a practical standpoint, the method allows input from a larger number of participants, and is intended to allow access to positive attributes of the interacting participants, while reducing the negative aspects.<sup>111</sup> The benefit of this technique in stability environments is knowledge from a variety of sources, and because of the anonymity of the process a reduction of the negative aspects such as social, political or personal conflicts. Thus, Delphi is suited to situations where human judgmental input is necessary, and model based statistical methods are not practical or possible because of lack of appropriate historical, economic or technical data.<sup>112</sup>

The key features of the Delphi include: anonymity, iteration, controlled feedback, and the statistical aggregation of group response.<sup>113</sup> The use of questionnaires provides anonymity, allowing individuals to express their opinions and judgments privately. This technique prevents the ability of dominant individuals to exert undue social pressures. The obvious concern of the practitioner is the use of questionnaires in an environment where key stakeholders are illiterate. Fortunately, the techniques can be modified. As an example, the Delphi procedure can be

---

<sup>109</sup> Gene Rowe and George Wright, "The Delphi Technique as a Forecasting Tool: Issues and Analysis," *International Journal of Forecasting* 15 (1999): 353-75.

<sup>110</sup> H. Murat Gunaydin, "The Delphi Method," Izmir Institute of Technology, <http://web.iyte.edu.tr/~muratgunaydin/delphi.htm> (accessed December 19, 2010).

<sup>111</sup> Rowe and Wright, "The Delphi Technique as a Forecasting Tool," 354.

<sup>112</sup> Rowe and Wright, "The Delphi Technique as a Forecasting Tool," 354.

<sup>113</sup> Dalkey, "The Delphi Method," v.

modified to a face-to-face engagement and verbal answers submitted. Importantly, however, the procedure administrator must be cognizant of introducing bias into the process, and soliciting desired responses thus acting as a self-fulfilling prophecy.

The second characteristic that defines a Delphi procedure is iteration. The premise of multiple iterations is that more rounds will result in a more accurate consensus of opinions among the group regarding a specific issue.<sup>114</sup> Moreover, with the iterative nature of the process individuals may change their opinions and judgments without facing the scrutiny of others. Generally, three iterations are considered sufficient to determine consensus however, any number of iterations can be conducted in the process.<sup>115</sup>

After each iteration, controlled feedback is provided through which participants are informed of the opinions of other anonymous participants. The feedback is presented as a simple summary of mean or median values, such as the average participant estimate of when an event is forecast to occur.<sup>116</sup> Additionally divergent information can be provided that falls outside the established statistical values. The final step of the process is statistical aggregation and coincides with the iterative characteristic of the method. Collectively these values can provide the basis for narrowing solutions to a few possible choices as posited by Conklin, and establish a transition point from conceptual to detailed planning based on the knowledge of stakeholders.

The four characteristics of the Delphi process are defining attributes, although application may vary depending upon the situation. For instance, while questionnaires are used, in-person or group interviews are also acceptable practices. In-person interviews may be best suited for military application as a work around for illiteracy, but also because of increased participation

---

<sup>114</sup> Hsu and Sandford, “ The Delphi Technique: Making Sense of Consensus,” 2.

<sup>115</sup> Hsu and Sandford, “ The Delphi Technique: Making Sense of Consensus,” 2.

<sup>116</sup> Rowe and Wright, “The Delphi Technique as a Forecasting Tool,” 354.

and investment in the project.<sup>117</sup> Thus, this technique has the potential to structure KLEs, improve stakeholder involvement, and affect understanding of the environment for planning.

Further, the entire process can be modified to achieve different results. Policy Delphi, designed by Murray Turoff, is an example of a modified version of classic Delphi.<sup>118</sup> It is a systematic, intuitive forecasting procedure to develop informed opinion about a particular topic.<sup>119</sup> Where the goal of the classic Delphi was to gain consensus, the policy Delphi method is a decision support method aimed at structuring and describing alternatives to the preferred future.<sup>120</sup> The structure of this technique underscores Conklin's description of a design problem as a problem of resolving the tension between what is needed and what can be done. In the problem frame of design the policy Delphi method could be structured to develop understanding of what the stakeholders perceive as the tension between what is needed, what can be done, and their idea of the preferred future. Additionally, in the solution frame policy Delphi could be used to develop an action to improve or improve the zone of tolerance as described by Checkland and Poulter.<sup>121</sup> While this idea does not change Rittel and Weber's characteristic that solutions are a one-time opportunity it does increase the possibility of meeting the stakeholders idea of the preferred future.

The versatility of Delphi makes the technique usable in both conceptual planning as well as detailed planning. In conceptual planning, Delphi can be used to garner stakeholder opinions in each of the design frames in particular the problem and solution frame. For example, in stability operations planning planners can use the primary stability tasks as a frame of reference to develop questionnaires to query stakeholders about problems within the environment. Further, using the

---

<sup>117</sup> Mary Kay Rayens and Ellen J. Hahn, "Building Consensus Using the Policy Delphi Method," *Policy, Politics and Nursing Practice* 1, no. 4 (November 2000): 308-15.

<sup>118</sup> Harold A. Linstone and Murray Turoff, eds., *Delphi Method: Techniques and Applications* (Reading, Mass.: Addison-Wesley Educational Publishers Inc, 1975), 80-94.

<sup>119</sup> Rayens and Hahn, "Building Consensus Using the Policy Delphi Method," 309.

<sup>120</sup> See Appendix I: Delphi Models for an outline of the Classical Delphi Model and Policy Delphi.

<sup>121</sup> Checkland and Poulter, *Learning for Action*.

Delphi technique achieves some amount of consensus, thus reducing the problem frame based on stakeholder perceptions of the problem. Moreover, the planner has a point of transition to begin detailed planning, and provides commanders and staffs a degree of certainty about which imperatives must be resolved to achieve stability.<sup>122</sup> This technique is also consistent with Conklin's method of dealing with wicked problems by narrowing possible solutions to a few, and allows the planner to depart the mess as attributed to morphological analysis.<sup>123</sup> The same techniques can also be used to determine solutions. Therefore, stakeholders create an understanding of the problem and shared commitment to the outcome.<sup>124</sup>

The nature of ill structured problems inherently creates challenges whereby planners are uncertain about when or how to transition from conceptual to detailed planning. As examined, the Delphi technique is a useful tool for conceptual planning, but is also equally valuable in detailed planning. The Delphi method, as a tool, could have practical applicability in course of action development, war-gaming, and assessment. Further, transition of the plan to host nation stakeholders is potentially less problematic because planning considerations are based on the stakeholder.

FM 5-0 describes a course of action as a broad potential solution to an identified problem.<sup>125</sup> The affect of using a Delphi method is narrowing of the potential solution possibilities based on stakeholder perspectives of the solution, and stakeholder validation of the screening criteria. For instance, planners could develop a Delphi questionnaire specifically to address the feasibility, acceptability and suitability of a course of action through the lens of stakeholders.<sup>126</sup> Thus, the problem is addressed based on stakeholder imperatives as opposed to

---

<sup>122</sup> *Dictionary.com*, s.v. "Imperative," <http://dictionary.reference.com/browse/imperative> (accessed January 3, 2011). Imperatives are absolutely necessary or required for mission success.

<sup>123</sup> Conklin, *Dialogue Mapping*, 17.

<sup>124</sup> Conklin, *Dialogue Mapping*.

<sup>125</sup> FM 5-0, *The Operations Process*, B-14.

<sup>126</sup> FM 5-0, *The Operations Process*, B-14.

priorities established by the United States. This method also provides additional opportunities to generate options during course of action development.<sup>127</sup> Further, incorporation of dissenting opinion, outside of the statistical range of the Delphi aggregation, provides a basis for sequels and flexibility in planning. Moreover, based on dissenting opinion, planners can focus risk assessment activities, and KLEs based on the stability mechanisms.<sup>128</sup> However, commanders and staffs must be critical of their influence to prevent bias input into the Delphi process.

Course of action analysis allows commanders and staffs to think through tentative plans, identify difficulties, coordination problems, and probable consequences of planned actions.<sup>129</sup> Staffs revisit portions of the plans as discrepancies arise. Further, these discrepancies can be utilized in subsequent iterative rounds of the Delphi process to continue planning. The Delphi method can also be used to structure war gaming for inclusion of stakeholder actions and reactions to military operations.

FM 5-0 defines war gaming, “as a disciplined process, with rules and steps that attempt to visualize the flow of the operation, given the force’s strengths and dispositions, enemy’s capabilities and possible COAs, impact and requirements of civilians in the area of operations, and other aspects of the situation.”<sup>130</sup> Notably, war gaming used in civilian business is not a forecasting method, but a method to determine what is plausible.<sup>131</sup> This point is of particular importance when dealing with ill structured problems that by definition cannot be forecast. Thus, the use of the Delphi technique can provide stakeholder input to the plausibility of certain actions occurring.

---

<sup>127</sup> FM 5-0, *The Operations Process*, B16.

<sup>128</sup> FM 3-07, *Stability Operations*, 4-8. The four stability mechanisms are compel, control, influence, and support.

<sup>129</sup> FM 5-0, *The Operations Process*, B-21.

<sup>130</sup> FM 5-0, *The Operations Process*, B-21.

<sup>131</sup> Mark L. Herman and Mark D. Frost, *Wargaming for Leaders: Strategic Decision Making from the Battlefield to the Boardroom* (New York: McGraw-Hill, 2008), 41.

FM 5-0 however, describes an effective war game as analyzing potential civilian reactions to operations and the potential impacts on civil security, civil control, and essential services in the area of operations.<sup>132</sup> These considerations are the premise for conducting a Delphi session. The Delphi sequence questionnaire can be formulated to address these concerns specifically. Moreover, the war game can be structured to have representatives' role play vested stakeholders based on responses from the Delphi session. As a result, actions, reactions and counteractions are derived from plausible outcomes based on participant comments during the session.<sup>133</sup>

The Delphi technique is similar to the Tactical Conflict Assessment and Planning Framework Process (TACPF) used by interagency groups. The TACPF is a two-step process that maintains consistent focus on the local populace following a continuous cycle of see-understand-act-measure.<sup>134</sup> The TACPF includes four distinct, interrelated activities: collection, analysis, design, and evaluation. The first step is most analogous to the Delphi method and is based on four questions to determine the causes of instability in the environment from the local population.<sup>135</sup> The utility of the Delphi method, in conjunction with the already established questions, is to query a broader segment of the population and gain consensus among multiple groups.

The second step involves conducting interviews with key leaders. These interviews, or key leader engagements serve two purposes. First, the interviews serve as a control mechanism in the collection effort by establishing what key stakeholders perspectives about the drivers of instability. Secondly, targeted engagements provide more detail about the causes of instability,

---

<sup>132</sup> FM 5-0, *The Operations Process*, B-33.

<sup>133</sup> FM 5-0, *The Operations Process*, B-21.

<sup>134</sup> FM 3-07, *Stability Operations*, D-10.

<sup>135</sup> FM 3-07, *Stability Operations*, D-10. The TACPF collection uses four questions to draw critical information from the local populace: 1) Has the population changed in the village (being examined) changed in the last twelve months? 2) What are the greatest problems facing the village? 3) Who is trusted to resolve problems? 4) What should be done first to help the village?

how to address those causes, and finally how to assess progress.<sup>136</sup> Thus, understanding stakeholders in conjunction with the Delphi methodology can provide a more effective way of conducting key leader engagements to determine the causes of instability, garner host nation perspectives, and the development of viable plans.

The Delphi methodology can also enhance collaboration and dialog throughout operations. Importantly, doctrine describes collaboration and dialog between commanders, subordinate commanders, staffs and other partners. However, this monograph examines these concepts from the perspective of stakeholders. FM 5-0 describes collaboration and dialog as a way to actively share and question information, perceptions and ideas to better understand situations and make decisions.<sup>137</sup> Doctrine describes collaboration as two or more people or organizations working toward common goals by sharing knowledge and building consensus. Further, dialog is defined as a way to collaborate that involves candid exchange of ideas or opinions among participants that encourages frank discussions in areas of disagreement. The inclusion of Delphi provides a basis to shape collaboration and dialog, and minimizes the probability of conflict in groupthink. Thus, the anonymity of Delphi can enable effective collaboration and dialog in contentious environments.

First Brigade of the 25<sup>th</sup> Infantry Division used a modified Policy Delphi method in Diyala, Iraq in 2009 during the transfer and transition process of Son's of Iraq (SoIZ) to the Iraqi Government.<sup>138</sup> The brigade used its assigned Human Terrain Team (HTT) to develop a questionnaire to query the local population and influential members of the SoIZ to determine the impact of process on the relative stability in the province. The results validated assumptions in a few instances, and negated others. As a result, planners were able to better plan for secondary and

---

<sup>136</sup> FM 3-07, *Stability Operations*, D-11.

<sup>137</sup> FM 5-0, *The Operations Process*, 1-6.

<sup>138</sup> The author was a 1-25 SBCT planner for the Son's of Iraq transfer from October 2008 until May 2009 in Diyala Province, Iraq.

tertiary effects of the transfer on the local populace as well as the government. The anonymity of the process protected participants and led to an understanding about the tensions that existed between the Iraqi Government plan and what the local SoIZ perceived would occur during the process. Therefore, commanders were able to structure key leader engagements to address specific concerns, and affect information operations directed toward the local population's perceptions.

The Delphi technique also provided planners a flexible and adaptable tool to gather and analyze data.<sup>139</sup> The technique enabled commanders to lead adaptive, innovative efforts to leverage collaboration and dialog to identify and solve complex, ill structured problems in the transfer/transition process.<sup>140</sup> Moreover, commanders were able to influence stakeholders because stakeholders provided concerns and perceptions regarding the transfer and transition process through answers provided in the questionnaires. Thus, commanders knew what opinions and attitudes needed to be altered to achieve success and structured information engagements from brigade level to Multi-National Force level to affect the desired results.

The application of the Delphi methodology in the transfer/transition process of the Son's of Iraq negated the potential weaknesses of the technique. As a result of the ample lead-time and careful development of questionnaires the brigade avoided the two primary weaknesses of the Delphi technique: time constraints and molding of opinions.<sup>141</sup> The lead-time in planning allowed the planners enough time to develop a questionnaire and conduct questioning. The questioning was conducted face to face over two weeks, and in various locations to account for differences in problems inherent in different areas. Thus, time constraints were not a factor, because of the

---

<sup>139</sup> Chia-Chien Hsu and Brian Sandford, "The Delphi Technique: Making Sense of Consensus," *Practical Assessment, Research & Evaluation* (2007), [e-journal], <<http://pareonline.net/pdf/v12n10.pdf>> (accessed 5 August 2010).

<sup>140</sup> FM 5-0, *The Operations Process*, 3-7.

<sup>141</sup> Chia-Chien Hsu and Brian Sandford, "The Delphi Technique," 5.



sufficient time to develop a questionnaire and its face-to-face administration.<sup>142</sup> Further, the HTT attempted to develop questions that did not lead participants to a particular opinion. Rather the questions were open ended to determine what the staff believed were honest answers. Additionally, the HTT was careful to not shape participant opinions although some influence was inevitable.<sup>143</sup>

## **Conclusion: Stability Operations Planning**

DoDD 3000.05 established stability operations as a core mission of the United States military. This directive is no surprise given the ongoing conflicts in Afghanistan and Iraq. Nor is it surprising given the United States' military history over the course of the last two centuries. The United States has fought fewer than twelve conventional wars. However, over the same period the U.S. military has undertaken several hundred operations that would today be considered stability operations.<sup>144</sup> The prioritization of stability operations has resulted in addressing stability operations in more detail in doctrine. FM 5-0, *The Operations Process*, included design to secure eight years of lessons learned in Iraq and Afghanistan. The addition of design attempted to codify the conceptual aspects of planning. However, even with the doctrinal review the implementation of directive 3000.05 remains an open-ended question.<sup>145</sup>

The military decision making process alone is not sufficient for stability operations planning and needs to include planning concepts that more efficiently deal with nation building oriented tasks. An examination of history suggests that planners would benefit from determining

---

<sup>142</sup> Hsu and Sandford, "The Delphi Technique," 5. The technique can become time consuming based on number of iterations and how the questionnaire is administered. For instance, questionnaires that are handed out or emailed will require longer response times. The 1-25 SBCT used the face-to-face method as a work around for illiteracy and prevent low response rates.

<sup>143</sup> Hsu and Sandford, "The Delphi Technique," 5. Since translation was required some leading was certainly incurred. However, the number of similar responses to questions provided plausibility to the consensus. The technique proved viable as a tool to understand stakeholder perception.

<sup>144</sup> Lawrence A. Yates, *Op 15. The U.S. Military's Experience in Stability Operations, 1789-2005* (Fort Leavenworth, Kansas: Combat Studies Institute Press, 2006), iii-55.

<sup>145</sup> Yates, *Op 15. The U.S. Military's Experience in Stability Operations, 1789-2005*, 42.

how stakeholders within the host nation population would respond to military actions in response to problems.<sup>146</sup> The inclusion of the characteristics of wicked problems, stakeholder analysis and the Delphi methodology could expand the planner's repertoire to increase understanding of situational, demographic and cultural factors that could affect stability operations.<sup>147</sup>

Wicked problems and social complexity are conditions of the overall condition and not root causes. This assertion by Conklin describes the essence of problems incurred in stability operations.<sup>148</sup> These problems are complex, ever changing societal and organizational problems that are indefinable, unstructured and not solved with much success.<sup>149</sup> Further, these are fundamental in nature in war amongst the people. Where conventional combat typically focuses on the defeat of an enemy force, stability operations focus on the people.<sup>150</sup>

Conflict is fundamentally a human endeavor, complex and inherently unpredictable in nature.<sup>151</sup> FM 3-07 outlines planning in stability operations, but fails to cogently articulate the theoretical basis of ill-structured problems. Further, FM 5-0 provides descriptions similar to Rittel and Weber's characteristics of wicked problems however; it does not include those critical for conceptual understanding about the problematic situations in stability operations. Understanding is fundamental to planning, and establishes the situation's context.<sup>152</sup> However, as noted in FM 3-07 planners will never have complete understanding. The theoretical underpinning for this assertion is the characteristics of wicked problems. The consequence for not acknowledging this idea is planners' fail to transition from conceptual to detailed planning.

Dr. Conklin shares similar ideas to Rittel and Weber's about wicked problems. However, Conklin's six coping techniques for the application of solutions in planning are potentially the

---

<sup>146</sup> Yates, *Op 15. The U.S. Military's Experience in Stability Operations, 1789-2005*, 36.

<sup>147</sup> Yates, *Op 15. The U.S. Military's Experience in Stability Operations, 1789-2005*, 36.

<sup>148</sup> Conklin, *Dialogue Mapping*.

<sup>149</sup> Ritchey, "Wicked Problems," 1.

<sup>150</sup> FM 3-07, *Stability Operations*, 4-6.

<sup>151</sup> FM 3-07, *Stability Operations*, 4-1.

<sup>152</sup> FM 3-07, *Stability Operations*, 4-4.

most important for military planners. The inclusion of these techniques in doctrine provides a likely methodology to transition from conceptual to detailed planning. Planners cannot remain in the mess, and must develop a plan to affect a solution. Further, given the nature of ill structured problems it is likely that a natural transition point will not be apparent, and out of necessity planners will have to define a problem to solve. Additionally, defining a problem focuses planning efforts and provides the opportunity to determine if the solution is feasible, acceptable and suitable during conceptual planning prior to beginning detailed planning.<sup>153</sup>

The inclusion of the characteristics of wicked problems in doctrine describes only part of the conditions innate in stability operations. The other condition is social complexity, and its importance, like ill structured problems, is only somewhat acknowledged in doctrine. DoDD 3000.05 states, “Many stability operations tasks are best performed by indigenous, foreign, or U.S. civilian professionals. ....and, “The long term goal is to help develop indigenous capacity...”<sup>154</sup> Further, General Petraeus, observed in Iraq the importance of stakeholders and the U.S. not doing too much on its own.<sup>155</sup> Stakeholders are vital to success in stability operations.<sup>156</sup>

Doctrine however, only provides examples of stakeholders, and has not expanded the utility of using the host nation populace as a way to understand the environment. Nor, has doctrine offered a definition of stakeholders. The definition is consequential because it affects who and what matters.<sup>157</sup> Failure to attend to the information and concern of stakeholders is a flaw in planning that or action that can lead to poor performance, failure or disaster. Stakeholder

---

<sup>153</sup> FM 5-0, *The Operations Process*, B-14.

<sup>154</sup> Department of Defense (DOD) Directive 3000.05 Military Support for Stability, Security, Transition, and Reconstruction (SSTR) Operations established SSTR as a core military mission during the period of increasing violence in Iraq. The directive was effective 28 November 2008. (Washington, D.C., 2008), 2.

<sup>155</sup> Petraeus, “Learning Counterinsurgency.”

<sup>156</sup> John Kiszely, *Post-Modern Challenges for Modern Warriors* (Shrivenham, U.K.: Defense Academy of the United Kingdom, 2007), 9.

<sup>157</sup> Ronald Mitchell, Bradley Agle and Donna Wood, “Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts,” *Academy of Journal Review* 22, no. 4 (1997): 853-66.

inclusion provides relevant knowledge to the decision-making process, increases the likelihood that decisions will be accepted, even those that do not necessarily reflect individual desired outcomes, and to respond to changing community and expectations.<sup>158</sup> FM 3-07 states that success in stability operations often depends on the commander's ability to identify the tasks essential to mission success.<sup>159</sup> The inclusion of stakeholders in the planning process can reduce the burden upon the commander in particular in the problem frame of design. Stakeholders provide understanding and a view of the operational environment from a systemic perspective and identifying and analyzing centers of gravity.<sup>160</sup>

The identification of stakeholders does not guarantee their involvement. The military uses key leader engagements to talk with key leaders, but does not address these meetings in doctrine. The Delphi technique is a method to frame KLEs, and to elicit and refine group judgments among diverse groups of stakeholders.<sup>161</sup> Further, the method can develop collaboration and dialog to support planning. Additionally, it can gain convergence of opinion within specified topic areas.

The combination of wicked problems, stakeholders and the Delphi technique provide planners tools for conceptual and detailed planning in stability operation. These methods compliment both design and the MDMP to develop plans consistent with the ill structured and social conditions inherent in stability environments. These methods also codify and provide structure to existing military practices such as key leader engagements. Thus, the inclusion of these concepts in doctrine provides principled methodologies for planners to supplement existing planning techniques for stability operations.

---

7. <sup>158</sup> Gilmour and Beilin, *Stakeholder Mapping for Effective Risk Assessment and Communication*,

<sup>159</sup> FM 3-07, *Stability Operations*, 3-1.

<sup>160</sup> FM 3-0, *Operations*, 6-7.

<sup>161</sup> Dalkey, "The Delphi Method," v.

Specifically, FM 5-0, Chapter Two, Planning, requires revisions to include Rittel and Weber's ten characteristics of wicked problems.<sup>162</sup> The current description provides only enough theory as to differentiate ill structured problems from medium and well structured problems but does not provide sufficient theory to articulate the scope and scale inherent in ill structured problems. Further, the chapter requires the addition of coping mechanisms, such as Conklin's, to deal with ill structured problems.<sup>163</sup> The essence of military planning is to direct action however; doctrine does not currently provide a way to connect conceptual and detailed planning. The inclusion of these mechanisms could serve as this connection. Additionally, FM 3-07 requires the addition of characteristics of wicked problems as a theoretical underpinning for the entire manual since stability operations are essentially wicked problems. The inclusion of the characteristics in Chapter Three, Essential Stability Tasks, and Chapter Four, Planning for Stability Operations would provide the practitioner a foundation to develop understanding about the complexity and scale of the problematic situations, interconnected relationships between lines of effort, and potential emergent conditions.<sup>164</sup> Further, the inclusion of the characteristics of wicked problems in FM 3-24, *Counterinsurgency*, provides the same benefits as those in FM 3-07.

Doctrine also needs to be revised to incorporate stakeholders. Subsequently, although not covered in this monograph, doctrine should provide techniques for stakeholder analysis. Notably, FM 5-0, FM 3-07, and FM 3-24 require stakeholder concepts since war is complex because it is inherently human in nature. Specifically, FM 3-07 and FM 3-24 need a stakeholder foundation since stability and counterinsurgency operations require host nation stakeholder consideration for success and transition. This monograph recommends FM 3-07 expand to include a section for stakeholders that provide a basis for examining host nation stakeholders. Further, FM 3-24 should include stakeholders as a part of Appendix B, Social Network Analysis and Other Analytical

---

<sup>162</sup> FM 5-0, *The Operations Process*, 2-1 – 2-18.

<sup>163</sup> Conklin, *Dialogue Mapping*.

<sup>164</sup> FM 3-07, *Stability Operations*, 3-1 – 4-17.

Tools.<sup>165</sup> FM 5-0 requires stakeholder inclusion as part of the MDMP step mission analysis as described in Appendix B, The Military Decision Making Process. An addition to the 2010 version of the MDMP includes developing initial themes and messages.<sup>166</sup> Inherent in this process is determining the audience. However, doctrine does not provide a method for identifying stakeholders; doctrine only provides examples of stakeholders.

Finally, this monograph recommends that the Delphi model be included in future revisions of FM 5-0, FM 3-07, and FM 3-24 concurrent with the addition of stakeholder concepts. The technique is a tool that could be introduced in FM 5-0, Chapter Three, Design, Appendix B or Appendix H: Formal Assessment Plans as a method to facilitate understanding and assess as part of battle command.<sup>167</sup> Further, Delphi modeling has utility in FM 3-24, Chapter Two, Unity of Effort: Integrating Civilian and Military Activities to gain consensus in planning among agencies in an operational environment.<sup>168</sup> This function is also applicable in FM 3-07 in Appendix A: Interagency, Intergovernmental, and Nongovernmental Organizations in Stability Operations.<sup>169</sup> Moreover, the Delphi technique provides a tool to gain consensus among multiple agencies regarding essential stability tasks as discussed in Chapter three, and provides a method to gain consensus about what actions to take among diverse groups of stakeholders.

The addition of the characteristics of wicked problems, stakeholder concepts, and the Delphi technique can augment the MDMP for stability operations planning. These methodologies codify what doctrine already states in part, and what commanders and staffs are intuitively doing in Afghanistan and Iraq. Moreover, the application of these concepts does not denigrate the utility

---

<sup>165</sup> FM 3-24, *Counterinsurgency*, B-1 – B-22.

<sup>166</sup> FM 5-0, *The Operations Process*, B-6.

<sup>167</sup> “Battle command is the art and science of understanding, visualizing, describing, directing, leading, and assessing forces to impose the commander’s will on a hostile, thinking, and adaptive enemy. Battle command applies leadership to translate decisions into actions—by synchronizing forces and warfighting functions in time, space, and purpose—to accomplish missions.” FM 3-0, *Operations*, 5-2.

<sup>168</sup> FM 3-24, *Counterinsurgency*, 2-1 – 2-14.

<sup>169</sup> FM 3-07, *Stability Operations*, A-1 – A-15.

of the MDMP, but rather provides tools to develop understanding, integrate vested host nation stakeholders in the planning process, and provides a technique to structure key leader engagements. The combination of these tools provides a theoretical foundation for what is plausible given the nature of ill structured problems; a means, through stakeholders, to identify what is important; and, a technique to structured engagements to provide consensus among divergent stakeholders.

## Appendix I: Delphi Models

### Features of Classical Delphi Modeling

Purpose: As it was originally introduced, seeks to gain consensus on technical topics among a homogenous group of participants.

1. Anonymity
  - Reduces the effect of dominant individuals
2. Iteration
  - A minimum of three iterations for statistical validity
3. Controlled Feedback
  - After each iteration feedback is provided to all participants to reduce noise (Noise is discussion that is not relevant to problem solving)
4. Statistical Group Response
  - Reduces the pressure of conformity; assures every individual's opinion is represented

Dalkey, "The Delphi Method," v.

### Features of Policy Delphi Modeling

Purpose: A decision support method to describe and structure alternatives for the preferred future.

1. Formulation of the Issues
  - Synonymous with problem identification; and, how it should be stated?
2. Determining Options
  - Given the problem, what are possible solutions?
3. Determine Initial Positions on Issues
  - Which positions are easily agreed upon among the group; which are unimportant and can be discarded?
  - Which issues are the causes of disagreement?
4. Explore and Obtain Reasons for Disagreement
  - What are the underlying facts, assumptions, or views that individuals use to support their respective positions?
5. Evaluate the Underlying Reasons.
  - On a relative basis, how do the arguments compare among the groups?
6. Reevaluate Options
  - Reevaluation based on underlying 'evidence' and the assessment of its relevance to position taken

Linstone and Turoff, *Delphi Method: Techniques and Applications*. 80-94.



## BIBLIOGRAPHY

- Axelrod, Robert, and Michael D. Cohen. *Harnessing Complexity: Organizational Implications of a Scientific Frontier*. New York: Basic Books, 2001.
- Bar-Yam, Yaneeer. *Making Things Work: Solving Complex Problems in a Complex World*. 1ST ed. Massachusetts: Knowledge Press, 2005.
- Beyerchen, Alan D. "Clausewitz, Nonlinearity and the Unpredictability of War." *International Security* 17, no. 3 (Winter 1992): 50-90.
- Brugha, Ruairi, and Zsuzsa Varvasovszky. "Stakeholder Analysis: A Review." *Health Policy and Planning* 15, no. 3 (oxford university press 2000): 239-46.
- Bryson, John M. "What To Do When Stakeholders Matter: A Guide to Stakeholder Identification and Analysis Techniques." Paper presented, National Public Management Research Conference, Washington, D.C., October 9-11, 2003.
- Checkland, Peter, and John Poulter. *Learning For Action: A Short Definitive Account of Soft Systems Methodology, and its use Practitioners, Teachers and Students*. Chichester, UK: Wiley, 2006.
- Conklin, Jeff. *Dialogue Mapping: Building Shared Understanding of Wicked Problems*. Hoboken, NJ: Wiley, 2005.
- Dalkey, Norman C. "The Delphi Method: An Experimental Study of Group Opinion." Santa Monica: RAND 1969.
- Dobbins, James, Seth G. Jones, Keith Crane, and Beth Cole DeGrasse. "The Beginner's Guide to Nation-Building." Santa Monica: RAND 2007.
- Gaddis, John Lewis. *The Landscape of History: How Historians Map the Past*. New York, NY: Oxford University Press, 2004.
- Gharajedaghi, Jamshid. *Systems Thinking Platform For Designing Business Architecture: Managing Chaos and Complexity*. 2nd ed. New York: Elsevier, 2005.
- Gilmour, Jane and Ruth Beilin. "Stakeholder Mapping for Effective Risk Assessment and Communication," Australian Centre of Excellence for Risk Analysis, Project 06/09 (April 2007). <http://www.acera.unimelb.edu.au/materials/publications/gilmour0609.pdf> (assessed August 12, 2010).
- Grimble, Robin. *Socio-economic methodologies: Best Practice Guidelines*. Chatham: Natural Resources Institute, 1998.
- Gunaydin, H. Murat. "The Delphi Method." Izmir Institute of Technology. <http://web.iyte.edu.tr/...muratgunaydin/delphi.htm> (accessed December 19, 2010).
- Hatch, Mary Jo. *Organization Theory: Modern, Symbolic, and Postmodern Perspectives*. 2 ed. Oxford: Oxford University Press, USA, 2006.
- Herman, Mark L., and Mark D. Frost. *Wargaming for Leaders: Strategic Decision Making from the Battlefield to the Boardroom*. New York: McGraw-Hill, 2008.
- Hsu, Chia-Chien, and Brian Sandford. "The Delphi Technique: Making Sense of Consensus." *Practical Assessment, Research and Evaluation* 12, no. 10 (August 2007): 1-8. <http://pareonline.net/pdf/v12n10.pdf> (accessed August 5, 2010).

- Hull, Jeanne F. *Iraq: Strategic Reconciliation, Targeting, and Key Leader Engagement*. Carlisle, PA: Strategic Studies Institute, 2009.
- Kiszely, John. *Post-Modern Challenges for Modern Warriors*. [Shrivenham, England]: Defense Academy of United Kingdom, 2007.
- Lawson, Brian. *How Designers Think: The Design Process Demystified*. 4th ed. New York: Architectural Press, 2007.
- Linstone, Harold A., and Murray Turoff, eds. *Delphi Method: Techniques and Applications*. Reading, Mass.: Addison-Wesley Educational Publishers Inc, 1975.
- Mitchell, Ronald, Bradley Agle, and Donna Wood. "Toward a Theory of Stakeholder Identification and Salience: Defining the Principle of Who and What Really Counts." *Academy of Journal Review* 22, no. 4 (1997): 853-66.
- Nutt, Paul C. *Why Decisions Fail*. San Francisco: Berrett-Koehler Publishers, 2002.
- Peter, Laurence J. *Peter's Almanac*. New York: William Morrow & Co, 1982.
- Petraeus, David H. "Learning Counterinsurgency: Observations from Soldiering in Iraq." *Military Review*, January-February 2006.
- Rayens, Mary Kay, and Ellen J. Hahn. "Building Consensus Using the Policy Delphi Method." *Policy, Politics and Nursing Practice* 1, no. 4 (November 2000): 308-15.
- Rietjens, Bas, Myriame Bollen, Masoond Khalil, and Sayen Fazlullah Wahidi. "Enhancing the Footprint: Stakeholders in Afghan Reconstruction." *Parameters* 39 (Spring 2009): 22-139.
- Ritchey, Tom. "General Morphological Analysis: A General Method for Non-quantified Modeling." Paper presented, 16<sup>th</sup> EURO Conference on Operational Analysis, Brussels, 1998.
- Ritchey, Tom. "Wicked Problems: Structuring Social Messes with Morphological Analysis." *Swedish Morphological Society*. <http://www.swemorph.com/wp.html> (accessed July 9, 2010).
- Rittel, Horst and Weber Melvin. "Dilemmas in a General Theory of Planning," *Policy Sciences* 4. Amsterdam: Elsevier Scientific Publishing Company, 1973.
- Rowe, Gene, and George Wright. "The Delphi Technique as a Forecasting Tool: Issues and Analysis." *International Journal of Forecasting* 15 (1999): 353-75.
- Schapiro, Mark, and Stephen Petzold. "Team Ninewa Models Successful Civilian-Military Unity of Effort." *Small Wars Journal* 6, no. 10 (October 21, 2010): <http://smallwarsjournal.com/blog/2010/10/team-ninewa-models-successful/> (accessed December 20, 2010).
- Smith, Rupert. *The Utility of Force: The Art of War in the Modern World*. New York, NY: Allen Lane, 2005.
- Smith Jr., Edward A. and Mark N. Clemente. "Wicked Problems and Comprehensive Thinking in Irregular Warfare." Paper presented, 14<sup>th</sup> annual International Command and Control Research and Technology Symposium (ICCRTS), Washington D.C., March 24-26 2009.
- Tuchman, Barbara W. *The March of Folly: From Troy to Vietnam*. New York: Ballantine Books, 1985.

- Wass de Czege, Huba. "Winning Complex Contests of Power and Influence Requires Effective Learning and Adapting." *The Azimuth* 7, no. 1 (January 2010): 3-9.
- Wunderle, William D. *Through the Lens of Cultural Awareness: A Primer for US Armed Forces Deploying to Arab and Middle Eastern Countries*. Fort Leavenworth, KS: Dept. of the Army, 2007.
- Yates, Lawrence A. *Op 15. The U.S. Military's Experience in Stability Operations, 1789-2005*. Fort Leavenworth, Kansas: Combat Studies Institute Press, 2006.
- United States Department of Defense. *Department of Defense Directive 3000.05: Military Support for Stability, Security, Transition, and Reconstruction Operations*. Washington, D.C.: Department of Defense, November 28, 2005.
- United States Department of Defense, ed. Joint Publication 3-0: *Joint Operations*. Washington, D.C.: The Government Printing Office, March 22, 2010.
- United States Department of Defense, U.S. Army Field Manual 3-0: *Operations*. Washington, D.C.: The Government Printing Office, February 2008.
- United States Department of Defense, U.S. Army Field Manual 3-24: *Counterinsurgency*. Washington, D.C.: The Government Printing Office, December 2006.
- United States Department of Defense, U.S. Army Field Manual 5-0: *The Operations Process*. Washington, D.C.: The Government Printing Office, March 2010.
- United States Department of Defense, U.S. Army Field Manual 3-07: *Stability Operations*. Washington, D.C.: The Government Printing Office, October 2008.
- United States Department of Defense, U.S. Army Field Manual 3-24.2: *Tactics in Counterinsurgency*. Washington, D.C.: The Government Printing Office, April 2009.
- "Stakeholder Analysis." The World Bank Group.  
<http://www1.worldbank.org/publicsector/anticorrupt/PoliticalEconomy/stakeholderanalysis.htm> (accessed December 20, 2010).