



Capability Development in Support of Comprehensive Approaches

Transforming International Civil-Military Interactions

Edited by Derrick J. Neal
and Linton Wells II

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Center for Technology and National Security Policy
Institute for National Strategic Studies
National Defense University
December 2011

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First printing, December 2011

This book was published by the Center for Technology and National Security Policy (CTNSP), Institute for National Strategic Studies, National Defense University, Washington, DC. CTNSP publications are available online at <www.ndu.edu/ctnsp/index.cfm>.

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Foreword

This book includes papers presented at the Second International Transformation (ITX2) Conference, held in Rome, Italy, at the NATO Defense College (NDC) June 21–23, 2011, as well as a summary of the conference discussions. Co-hosted by NDC, Allied Command Transformation (ACT), and the International Transformation (ITX) Chairs Network, the conference brought together academics, policymakers, and practitioners from 13 nations to discuss the topic of “Capability Development in Support of Comprehensive Approaches: Transforming International Civil-Military Interactions.”

The growing importance of the Comprehensive Approach in NATO, and complex operations in individual nations, shaped the conference agenda and associated papers. The meeting’s focus on capability development provided a tangible complement to the conceptual discussions of the Comprehensive Approach that have taken place at senior policy levels. The effort leveraged the first International Transformation Conference, which was held in Stockholm, Sweden, in 2009. The resulting publication, *Crosscutting Issues in International Transformation: Interactions and Innovations among People, Organizations, Processes, and Technology*, is being used in U.S. Professional Military Education institutions as well as to support ACT’s national “Chiefs of Transformation” activities. We welcomed the chance for ACT, NDC, and ITX Chairs Network to partner on the ITX2 conference and address these issues.

Fifteen of the chapters published in this volume were presented in Rome. The 16th was submitted afterward. The views are those of the individual authors. Based on the themes developed during the conference, the chapters are grouped in five categories associated with the Comprehensive Approach: (1) Concepts, Policy, and Organization; (2) Technology; (3) Leadership, Management, Education, and Training; (4) Integrated Approaches; and (5) Case Studies.

We hope that you will find this volume useful, and we welcome feedback.

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Learning*
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Acknowledgments

In 2008, the North Atlantic Treaty Organization (NATO) agreed to develop and implement a Comprehensive Approach (CA) to address international security challenges involving civil and military actors. The importance of a CA was identified in the 2010 Strategic Concept. In today's reality of declining defense budgets, efficiency within the Alliance is key. Allied Command Transformation (ACT) is the Alliance's leading instrument for change and has recently stood up a Comprehensive Approach Team, charged with integrating CA into the Alliance. ACT is making sure that there are requirements for the CA, developing training standards, and providing them to the NATO international staff. The command is building partnerships and working to improve member capabilities. One of the key recommendations from the ACT 2010 Chiefs of Transformation Conference was for the command to "endeavour to align nations, NATO, and International Organizations' understanding of what the Comprehensive Approach is, identify how to best integrate civilian actors into planning processes and exercises and enhance collaboration with the [European Union] and the [United Nations] through common training."

To assist ACT in this endeavor, the International Transformation (ITX) Chairs Network researched ways for the Alliance to develop capability to support the Comprehensive Approach. Drawing on the strength of the network, papers were written along the themes of technology, people, processes, and organization. The ensuing conference provided valuable insights into how to organize capabilities in support of CA situations, and it is hoped that this book will help the Alliance as it moves forward in an increasingly complex environment.

This volume is not only the product of the work done by the authors, to whom the editors are grateful for their intellect and commitment to the project, but also other individuals who made this project a reality.

For his support and co-sponsorship of the Second International Transformation Conference, we gratefully acknowledge General Stéphane Abrial, Supreme Allied Commander Transformation. Vice Admiral Robert G. Cooling, Chief of Staff of ACT, instilled into the Chairs the importance of the Comprehensive Approach to ACT and NATO. Vice Admiral Carol M. Pottenger, Deputy Chief of Staff, Capability Development, ACT, has been supportive throughout in creating linkages between the Chairs and ACT. We also thank Mr. Robert Napiorkowski in helping to set the agenda and inviting the NATO Centres of Excellence as well as other ACT constituencies.

Also for his support, co-sponsorship, and participation in the ITX2 Conference, we thank Lieutenant General Wolf-Dieter Loeser, Commandant of the NATO Defense College (NDC). We appreciate that he was able to sit in and participate in the panel discussions. We thank Dean Richard Hooker of the NDC for his support of the Chairs Network. The conference would not have been a success without Colonel Sandy Guptil, Director of the NATO Regional Cooperation Course at NDC, and the hard work of his staff: Ms. Mary Lou Farah, Lieutenant Colonel Andy Moyer, Commander Charles Malone, and Colonel Eric Cain. We also thank Dr. Florence Gaub of NDC for serving as moderator for the Education panel.

Much appreciation goes to Dr. Hans Binnendijk, Vice President for Research and Applied Learning at National Defense University for his support. We thank Jerry Faber, Director of the Center for Strategic Conferencing, at the Institute for National Strategic Studies for his assistance. For her organization of the conference, we thank Gina Cordero. Henry Rust, Brett Young, and John Zacur provided editorial support for this book. We are also in debt to NDU Press for their work in bringing this to publication.

The International Transformation Chairs Network

The International Transformation (ITX) Chairs Network has its origins in U.S. professional military education (PME) but has become international, adding representatives from Australia, Singapore, Sweden, the United Kingdom, the North Atlantic Treaty Organization (NATO) Allied Command Transformation (ACT), and the Civil-Military Cooperation Centre of Excellence. The network's mission is to "provide a forum to challenge thinking, leverage shared knowledge and inform the debate about the national and international security implications of global transformation." The vision is to "assist national security leaders and decision-makers in preparing for a future filled with complexity, chaos, and surprise." The network approaches transformation as a process that shapes the changing nature of competition and cooperation through concept development and innovation management across people, processes, organization, and technology. Research by the network includes crosscutting interactions among those areas.

The goals for the network are to:

- ♦ inform ongoing debate with forward-thinking concepts on major transformational issues
- ♦ conduct research that identifies crosscutting issues, opens new vistas, and validates (or challenges) current initiatives
- ♦ serve as a resource in support of national and international leaders in realizing the transformational potential of Comprehensive Approach capabilities
- ♦ shape and share curricula to help educate and prepare future leaders and decision makers.

The network has contributed directly to changes in the U.S. military education policy, published monographs, and supported a variety of U.S. Department of Defense international activities.

In 2009, together with the Swedish Defence Research Agency, the network co-sponsored the first International Transformation Conference in Stockholm. The resulting publication, *Crosscutting Issues in International Transformation: Interactions and Innovations among People, Organizations, Processes, and Technology*, is in its second

printing and used in U.S. PME institutions as well as to support ACT's national "Chiefs of Transformation" activities.

In 2010, the network, in support of ACT, began to research ways to develop capability in support of the Comprehensive Approach. This work reinforced the natural synergy between the two organizations, both of which are catalysts for change and seek to bring together diverse audiences to promote learning and the development of solutions. As preparations for the ITX2 conference developed, the network invited both internal and external papers and worked closely with U.S., NATO, and international institutions to refine the agenda.

Current objectives for the ITX Chairs Network are to:

- ♦ help develop and educate leaders for a future filled with complexity, chaos, and surprise
- ♦ forge ties to ACT and the Civil-Military Cooperation Centre of Excellence to further the development of Comprehensive Approach capabilities
- ♦ contribute to the development of Joint Learning Concepts in support of capabilities development and curriculum change
- ♦ begin plans for a third International Transformation Conference in 2013 focused on leadership education.

Part 1

**Concepts, Policy, and Organization
for the Comprehensive Approach**

In 2008, the North Atlantic Treaty Organization (NATO) agreed to develop and implement the Comprehensive Approach (CA) concept to address international security challenges involving civil and military actors. The commitment to CA was reaffirmed at Lisbon in the Alliance's 2010 Strategic Concept. Motivations included both the need for effectiveness in an increasingly complex international environment, and efficiency in an era of declining defense resources.

However, implementation of the CA and its structures has to be grounded in the political realities surrounding any major operation, whether in response to a manmade crisis or a natural disaster. Not only will political imperatives drive the structure, scope and timing of any CA, but they also have a tendency to change rapidly as part of either the domestic issues of the day or the response from the international community.

Partly as a result, the Alliance has not yet agreed on a precise definition of the CA. But this should not be a cause for inactivity. All agree that CA refers to the integration, in some manner, of military and civilian activities, including nongovernmental organizations (NGOs). The Dutch Foreign Ministry recommendation that the approach be "as civilian as possible, and as military as necessary" seems correct.

As the papers point out, under any CA definition, NATO will need an effective change management process to prepare for operations in complex, civil-military environments. Developing such increased agility, in itself, can be valuable asset for facing a future that is likely to be filled with chaos, complexity and surprise. Moreover, many of the capabilities that can be applied in different civil-military contingencies can be developed at relatively low cost by leveraging private sector developments.

It became evident during the conference discussions, and in reading the submitted papers, that there are at least four different concepts associated with CA. These are:

- ✦ An externally-driven CA, led by an international political entity like the UN or the European Community, which NATO supports. This view, that there is not a "NATO Comprehensive Approach," but rather "NATO's contribution to a CA by the whole of the international community" was articulated by NATO Deputy Secretary General Claudio Bisogniero (Bisogniero, 2008).
- ✦ An Alliance-wide CA focused on NATO-led military operations that are "multi-organizational/multi-national and of a complex nature," and throughout the Hallett and Thorngren chapter. This will require better civil-military coordination among Alliance members and by nations themselves.

- ♦ National-level activities requiring “whole-of-government” (in the United States) or “cross government (in the United Kingdom) approaches. Ambassador Herbst discusses this at length in describing United States preparations for “complex operations,” as does Professor Neal in relation to “adoption of CA at a national level.”
- ♦ Sub-Alliance-wide activities, such as the “application of a CA in a 3-star operational headquarters” suggested by Julian Lindley-French [Hallett 14] or the need for forces at all levels to link to local stakeholders [see Wells, Pudas, McNitt in Section 4].

The terms capability and capacity often are confused. Julian Lindley-French has explained: “Capability is the military means required to be effective in robust environments over distance and under threat. Capacity is having sufficient numbers of forces to be effective in such environments over time and in the face of any threat. Capability is focused on immediate effect and thus emphasizes impact, whereas capacity is about longer term effect and thus reflects mass” (Lindley-French, 2006: 262).

Professor Derrick Neal sets the stage for the book with an overview of evolving CA-related concepts and policies, as well as efforts to gain acceptance for the approach. He then describes the change management and organizational dimensions of CA, noting that activities must be co-evolved in several dimensions (mindset, processes and practices, understanding, etc.) if true change is to occur. He is concerned that some of the drivers of successful change (such as a sense of urgency, or a guiding coalition) may not be present now, recognizing that a majority of change initiatives do NOT succeed. He recommends starting with small-scale efforts, coupled with focused communications, to achieve early, recognized, successes.

Ambassador John Herbst examines the recent evolution of United States thinking, policy and organizational development for complex civil-military operations to deal with failed and failing states. He notes the way the United States has increased its civilian capabilities for operating in such environments, and discusses the application of these principles to NATO and the Comprehensive Approach.

CDR Michael Hallett and Mr. Oke Thorngren explore the conceptual boundaries of the CA and offer a working definition. They consider CA as a structured design process to generate effects through systematic interactions and the co-evolution of capabilities. They propose an approach that downplays the importance of materiel solutions and emphasizes interoperability and training to facilitate interactions that add value to the lives of local populations. This reinforces the point made by the House of Commons Defence Committee (cited by Professor Neal): “the point of war is not just to win, but to make a better peace” (HCDC 2010).

Dr. Christopher Schnaubelt examines ways by which strategy can be developed for the Comprehensive Approach which involves civilian organizations. He proposes a process to link ends + ways + means to produce clear guidance, often through non-linear, iterative steps. The chapter concludes with four characteristics to avoid that often relate to “bad strategy.”

Chapter 1

The Comprehensive Approach: Lessons for Its Adoption from a Change Management Perspective

DERRICK J. NEAL

Abstract

The concept of a Comprehensive Approach (CA) is considered from the perspective of the UK Ministry of Defence and NATO highlighting the initiatives and challenges that are being confronted. The implementation of the CA can be seen as a change management process and hence the chapter considers a number of change models, the drivers and resistors to change, and then positions this against the efforts to operationalize the CA. In particular the key elements of change involve establishing a real sense of urgency for change, the role of the change agent, and change leadership combined with recognition of the importance of the cultural dimension of change. The chapter concludes that the scope for developing early wins in order to gain a degree of momentum has a great deal of merit and that this can be best achieved through its application on a small scale at the less complex end of the spectrum. It also concludes that a reasonable case can be made for NATO to have some civil capability that could be deployed as an interim measure in a complex crisis scenario. The key to success in this activity is the provision of joint exercises and training such that confidence in the CA can be developed and used as a basis for implementing it more fully.

Introduction

Although the concept of the CA is relatively simple to understand and the merits of its adoption are both clear and obvious, it remains a particularly difficult concept to bring to bear within multinational and multiagency complex scenarios. The academic literature on strategic management, (Johnson & Scholes 2002; Mintzberg, Lampel & Alhstrand, 2002; Hamel & Prahalad, 2000), has explained the importance of this concept when they talk about stakeholder engagement and the need to include stakeholder expectations in the strategy creation process. The merits of a CA are so obvious that one might be excused for modifying the term slightly and making reference to a “common sense approach” in light of the fact that within any organisation there is a need to work in a cooperative and collaborative manner if processes and tasks

are to be completed efficiently and effectively. However, it is not possible to achieve this without engaging in dialogue with stakeholders, to understand their expectations and the value sets and propositions upon which their expectations are founded. It is also necessary to be able to establish ways and means to find the “common ground” such that the organisations can agree on a mode of operation that respects the aims, aspirations, values and behaviours of all parties. There are of course, aspects of group decisionmaking that need to recognise that some stakeholders are either more influential than others and that not everyone sitting around the table should necessarily have an equal voice. It is often necessary to recognise that for a given situation some skills and resources are more important than others and that it is only through an open and honest dialogue that the value of the range of contributions can be recognised. The notion of cooperation and collaboration can be difficult enough to implement within a single organisation. However, the challenges escalate an order of magnitude when organisations are dealing with multiagency bodies that may well also involve organisations from a range of different nations. Such situations often have the additional dimension of being time limited in terms of having to find an effective way to work together. A commonly-quoted scenario is that of the delivery of humanitarian assistance due to either a man-made or natural disaster. Neal & Fitzgerald (2002) made particular mention of this in their paper that explored the challenges faced by nongovernmental organisations (NGOs) working in a crisis situation where multiagency actors were involved in the delivery of aid.

Another aspect that makes the adoption of the CA particularly difficult is in time-bounded situations and events where various levels of military intervention are required. The environment itself can be extremely dynamic and as such the actor/agency (or organisation) that is in the best place to lead on a particular activity can change both rapidly and frequently. It is often held that the key skills that are necessary in such a dynamic situation are those of planning, command and control, plus the ability to pull together a range of capabilities at short notice and deploy them on an as required basis. For right or wrong, this skill set is often seen as residing in the military and as such they are seen as the default organisation to take the lead and act in the best interests of the array of stakeholders. Quite understandably this has led to a number of situations where the outcome has not been the desired state and was captured most effectively by LaRose-Edwards (2008) with his phrase “the fog of peacekeeping.”

The Journey to Realising the CA

It may well be the case that the UK was one of the first, if not the first, to produce a definitive statement as to what they understood by the term *Comprehensive Approach*, and this is encapsulated in Joint Discussion Note 4/05 (MOD, 2006). In simple terms the CA was defined as; “Commonly understood principles and collaborative processes that enhance the likelihood of favourable and enduring outcomes within a particular situation” (MOD, 2006: 5).

The language of the day also linked the notion of the CA to the military idea of the Effects-Based Approach¹ and that this needed to be seen within the context of the complexity, duration and nature of the situation and the potential benefits of collaborative action.

The document highlights that there are four guiding principles of the CA conceptual framework, namely:

- ✦ a proactive cross-Whitehall approach
- ✦ shared understanding
- ✦ outcome-based thinking
- ✦ collaborative working.

The document then makes a statement about enabling the CA:

the principles underlying the CA need to be at the heart of routine crisis management machinery in order to support the processes which could be put into place when assessment staffs identify that a crisis is of sufficient gravity, urgency or complexity. An invigorated process of pooling individual Department's assessments of indicators and warnings would ensure that a common and early understanding of a crisis is achieved (MOD, 2006: 7).

Although it is the intention of the document to set the over-arching approach, it then moves the debate more specifically towards the implications for the military. In particular it highlights how a military might adopt the CA and some of the specific advantages that can be gained through the adoption of the CA and some of the challenges that need to be faced for the CA to be accepted and adopted.

Although the UK Ministry of Defence has taken a position on the issue of the CA, other nations and other organisations have also put a "stake in the ground" in terms of what CA means to them and how they interpret the implications. There is not a great deal of evidence of alignment between key actors in this regard and whilst they may agree on some aspects, they take a different view on other aspects of the CA and as a consequence this has contributed to the difficulty in moving the agenda forward in a coherent way.

However, given the significance of the challenges being faced by the UK government in general and the UK MOD in particular, the House of Commons Defence Committee (HCDC) conducted a review of progress on the topic in 2009 and produced a report in 2010 under the heading; "The Comprehensive Approach: the point of war is not just to win but to make a better peace" (HCDC, 2010).

This is a large document that has been produced following extensive interviews from many subject matter experts from within and beyond government. A number of recommendations are made that are logical extensions of the challenges and issues that need to be addressed for the CA to be delivered successfully. Many of these are simply common sense and are concerned with ensuring joint training for a range of actors both within the UK and international partners. It was particularly interesting

to note the input from one SME, Professor Theo Farrell, concerning the lack of cross-government doctrine on the CA and pointed out:

we do not have a cross-government doctrine on the CA. The doctrine that we have was developed by the Doctrine Command, DCDC, in January 2006. Note that it was a Joint Discussion Note (JDN), that is very important. They used the word “discussion” because they wanted to indicate to the other government departments that this was not a Joint Doctrine Note, it was for discussion and they were going to engage them, but, of course, they immediately rubbed up against the other government departments because they feel this is military led, which it was at the time, and they do not understand why they should buy into a military concept. As yet we still do not have one (Interagency doctrine) whereas the Americans are developing a joint doctrine. The State Department has a project which is led by a British Colonel (HCDC, 2010: para 22).

The CA is also covered by the British Defence Doctrine (BDD) in document JDP 0-01 which was published in 2008. In particular, under the heading of Crisis Management the topic of the CA is explored with particular reference being where it states:

Above all, a CA requires those dealing with a crisis to be predisposed to cooperation and structured to develop a shared understanding of a situation and its dynamics. This approach should aid the formulation of an agreed collective intent and output-focused objectives, leading in turn to the implementation of mutually supporting activities. Where it is not possible to coordinate or regulate all participants, actions and effects, then steps should be taken to achieve de-confliction at least (MOD, 2008: para 138).

The UK has now merged the issues of Security and Defence and the publication of the National Security Strategy (NSS) and the subsequent completion of the Strategic Defence and Security Review (SDSR) bring together all of the key issues that need to be addressed in a structured and coherent manner. Figure 1 highlights the emphasis that is placed on each of the elements and it should be noted that NATO implications feature to a greater or lesser extent within each of the elements within the figure.

The NSS has a number of Fact Sheets that sit behind the document and of particular relevance is Fact Sheet 21: Coordinating Our National Security Approach (NSS 2010, Fact Sheet 21). This document highlights how complex the response systems were in the UK when having to confront a threat. Under the new approach a much more simplified structure will be used in the future and it recognises the need for a much more “joined up” approach across all of Government and in particular the need for cross-cutting structures.

Although these statements make it clear that the UK Government is openly embracing the concept of the CA, it does not actually use the words but simply presents its strategic intent. Interestingly, the document then goes on to make the point that irrespective of all of the new structures and responsibilities, what is really being

described here is the need for a change in culture such that coordination and cooperation is embraced in a positive way, ensuring resources are being used and deployed in an efficient and effective way.

Figure 1. The Relationship between NSS and SDSR

The focus of the NSS	[Strategic context]	The context within which we operate
	[Ends]	What we are seeking to achieve
The focus of the SDSR	[Ways]	How we seek to achieve these ends
	[Means]	The resources we can devote to achieving them

Source: NSS (2010), Fact Sheet 1.

NATO has, as well, made good progress at understanding and trying to define the issues associated with the CA and much has been written about NATO operations and the challenges that they have to confront almost daily. Lindley-French (2006) presents a rather compelling argument that considers the Capability-Capacity crunch that NATO is having to address where he explains that the crunch occurs when there is a “.... gap between what *needs* to be done to manage crises effectively and to achieve a peaceful solution and what *can* be done.” The paper then explains that, “capability is the military means required to be effective in robust environments over distance and under threat. Capacity is having sufficient numbers of forces to be effective in such environments over time and in the face of any threat. Capability is focused on immediate effect and thus emphasises impact, whereas capacity is about longer term effect and thus reflects mass” (262).

This description is particularly important as it sets the scene for the argument that is developed in the remainder of the paper and in particular issues associated with challenges faced by NATO Europe. For example and paraphrasing, “there is a split between those members who are militarily capable and those that are militarily challenged and the difficulties many are facing transitioning from main defence forces to an advanced expeditionary role” (Lindley-French, 2006: 264). The case is also made that some of NATO’s European members are not well structured and will continue to find it difficult to make the necessary commitment of capability to operations at a level that the U.S. military would expect of them. To this end, some nations have to make decisions about which elements of a 3-block war² they will engage in and those where they cannot commit levels of capability or capacity. Such situations can only compound the challenges and issues that need to be addressed in order to operate within the CA concept.

Of course, as the nature of the operations themselves become more complex and actors are operating on a stage that simultaneously involves high-intensity conflict,

insurgency, peacekeeping and re-construction, the concept of the CA becomes more difficult to apply. One also has to remember that although the issues of Capability and Capacity have been at the front of the stage governments and the military themselves recognize that other instruments of influence also have a role. For example, the use of soft power such as Diplomacy and Economic measures has a role to play. For NATO this is particularly challenging as it find itself in situation where it needs to be working with UN agencies, NGOs and private sector organisations in non- or semi-permissive situations. This has generated a debate as to whether NATO should also have a non-military arm and resources that it can deploy. It is unfair to charge NATO with having been slow adopting the CA. There have been a number of initiatives to try to move the agenda forward and there have been a number of summits that have been held considering the CA challenges. In particular the Riga Initiative in 2004 introduced the concept under the heading of Concerted Planning Action (CPA). This was followed by the Riga Summit in 2006 where the CA was formally put on the agenda. The progression and issues were well presented and discussed by Petersen & Binnendijk (2007) and they noted that during NATO's involvement in three broad operational phases: military (Kosovo, Afghanistan), postconflict stability operations (Bosnia, Kosovo, Afghanistan) and reconstruction operations (Bosnia, Kosovo, Afghanistan, Iraq), they have performed well in terms of organisation for the military component. What they believe is missing is any organised deployable civil-military capacity to address either stabilization or reconstruction operations. They suggest that "the solution may not be a standing force but should be at least a pre-planned menu of capabilities organized and exercised together periodically that constitutes a viable set of civilian skills and military resources to provide immediate triage to destabilized populations in conflict or crisis (Petersen & Binnendijk 2007: 3).

At the GLOBSEC in January 2008, the NATO Deputy Secretary-General, Claudio Bisogniero, made a speech entitled "Assisting Afghanistan: The importance of a Comprehensive Approach." Although the speech covered a number of areas, it also highlighted the issue of there not being a single view of what the CA entails. Bisogniero said the following:

We all know that military force is not enough on its own to safeguard and promote security. Lasting progress in Afghanistan will only come if security improvements are accompanied by improvements in other fields, such as job opportunities, medical facilities, education services, power supply and transport infrastructure... [L]asting progress also requires more visible in-country ownership—by which I mean Afghan ownership. Without this, outside agencies may eventually even be regarded as "occupiers" and the indigenous government will be perceived as weak and ineffective... [D]elivering this overarching international strategy, with the necessary in-country ownership, is what NATO means by the term "Comprehensive Approach." This CA, this overarching international strategy, means first of all the effective coordination of military and civilian elements. But it also means the effective coordination of the international actors and the Government of Afghanistan."

He then went on to say that “First of all let me make it clear that we are not talking just about ‘NATO’s Comprehensive Approach,’ but about NATO’s contribution to a CA by the whole of the international community” (Bisogniero, 2008).

Jakobsen (2008) produced a report for the Danish Institute for International Studies (DIIS) concerning the progress being made within NATO on the implementation of the CA and although the report is quite extensive, there were several key issues highlighted that are pertinent to this paper. They identified the four requirements that are necessary to realise CA in its ideal form as being:

- ♦ shared understanding of the problems at hand and agreement on the political-strategic aims and objectives that international involvement in a given conflict should seek to achieve
- ♦ doctrine and institutional procedures facilitating the formulation of common operational objectives and strategies, as well as joint planning, implementation and evaluation with other actors in all phases of an operation (pre-deployment, deployment, post-deployment)
- ♦ a culture of cooperation and mutual understanding providing the different actors involved with the mindset required to think and act in a comprehensive manner
- ♦ economic, civilian and military capacities required to implement CA in the field (Jakobsen, 2008: 9).

In addition, the report notes that as a result of problems experienced in Kosovo, Afghanistan and Iraq, most NATO members have realised that armies engaged in stabilisation and peacebuilding operations also have to fill gaps and conduct civilian tasks in a transitional period if no civilian actors are present. Part of this response relates to most militaries having a “can do culture” and when they see that a task needs to be completed they, more often than not, simply get on with it. However, it is clear that most militaries would much prefer to have appropriate civilian actors performing this role as the military does not, as a matter of course, prepare and train itself to conduct such civilian functions. Equally, the civilian capacity building remains in its infancy and so responses tend to be more ad hoc than structured and given that militaries are “doing the job” there is even less incentive for civilian actors to get involved until such time as an enduring peaceful environment exists. This sort of gap filling has proved to be counter productive in terms of embedding the CA. The Dutch Ministry of Foreign Affairs made the recommendation that the approach should be, “as civilian as possible and as military as necessary” (Jakobsen, 2008: 15).

While not agreeing on a definition of a comprehensive approach at the Bucharest summit Heads of State and Government did state that:

Experiences in Afghanistan and the Balkans demonstrate that the international community needs to work more closely together and take a comprehensive approach to address successfully the security challenges of today and tomorrow.

Effective implementation of a comprehensive approach requires the cooperation and contribution of all major actors, including that of Non-Governmental Organisations and relevant local bodies. To this end, it is essential for all major international actors to act in a coordinated way, and to apply a wide spectrum of civil and military instruments in a concerted effort that takes into account their respective strengths and mandates. Summit declaration paragraph 11. NATO (2008).

It was also agreed that the CA should have its place in the New Strategic Concept that was to be produced at the NATO Lisbon summit in November 2010. In December 2009 Supreme Allied Commander Transformation (SACT) outlined a proactive, tangible role for Allied Command Transformation (ACT) to play in supporting NATO's overall contribution to a comprehensive approach.

However, it is interesting to note that within the new NATO strategic concept document there is actually only one mention of the CA:

The lessons learned from NATO operations, in particular in Afghanistan and the Western Balkans, make it clear that a comprehensive political, civilian and military approach is necessary for effective crisis management. The Alliance will engage actively with other international actors before, during and after crises to encourage collaborative analysis, planning and conduct of activities on the ground, in order to maximise coherence and effectiveness of the overall international effort (NATO Strategic Concept 2010: para 21).

The challenge of working in a CA with NGOs was highlighted by Neal & Fitzgerald (2002) and even in their paper they highlighted that often differences in priorities between the various aid organisations can be problematic even when the military are not involved. In some cases it is not even a political decision that causes friction as was found in the case of floods in Mozambique in 2000 when the key capability needed was helicopters. The UK response was to send military helicopters and even as they were being loaded onto the transport aircraft, a debate raged between the MOD and DFID as to who should pay for this. As a consequence, the deployment of the helicopters was delayed by many days and lives were lost that could have been saved.

The Change Management Dimension

So far this chapter has outlined the efforts that have been made in order to gain acceptance of the CA and has touched on a number of issues and challenges that need to be addressed and overcome if serious progress is to be made. In effect the whole topic is really one about bringing about change in a number of respects, such as:

- ✦ mindset
- ✦ processes and practices
- ✦ understanding
- ✦ attitude

- ✦ accountability
- ✦ governance
- ✦ stakeholder management.

The list above is by no means exhaustive and might even be considered simplistic; however, the evidence to date is that we (the international community) have not attacked even the basic issues of bringing about change. Equally, it would be naive to expect that the application of change management theory will be sufficient to address all of the issues. In some cases there simply are not solutions to the problems because even with a comprehensive approach one person's (organisation's) solution is another person's (organisation's) problem. Within this scenario it is easy to find situations where it is "one step forward and two steps backwards" and unfortunately in many crisis situations, the international community does not have the luxury of time to go run decisionmaking processes multiple times to ensure that consensus is achieved.

Having put the caveat on the topic it is still useful to consider some of the basic premises of change management in order to see where the theory might be able to help even if it cannot solve all of the problems. For example, within the scope of the paper and the delivery of the CA, it is fundamentally about people and how they work together, the beliefs that they hold, the red lines that they want to maintain, the way that their systems and structures shape that influence their behaviours. Given that the starting point within change management theory is there must be a need to change, commonly referred to as the "burning platform" and that the need has been clearly and effectively communicated. Until this has happened there is little scope, if any, for the change to have any hope of taking place.

There are many models that can be considered from the point of view of delivering change including several three-step models such as:

- ✦ Lewin (1951) (unfreeze—change—refreeze)
- ✦ Tichy & Devanna (1986) (awakening—mobilizing—reinforcing)
- ✦ Nadler & Tushman (1990) (energizing—envisioning—enabling)
- ✦ Egan (1998) model (diagnosis—future vision—the strategy).

Similarly, there are a number of multi-step approaches such as those developed by Kanter, Stein & Jick (1992) and Kotter (1996). Within the context of this paper the author contends that the Kotter 8-step approach is as useful as any of the models to help explore the issues associated in delivering the CA.

The model requires a number of key areas to be given robust consideration and it should be noted that it is not a linear process and that it is necessary to iterate backwards and forwards between each of the steps. The specific steps are:

- ✦ establish a sense of urgency
- ✦ form a powerful guiding coalition

- ♦ create a vision
- ♦ communicate the vision
- ♦ empower other to act on the vision
- ♦ plan for and create short-term wins
- ♦ consolidate improvements and produce still more change
- ♦ institutionalise new approaches (Kotter, 1996).

Much has been written about our understanding (or perceived understanding) of the subject of change management and yet, as reported by Balogun & Hope-Hailey (2004), we still see a failure rate in the region of 70% of all change programmes initiated. Indeed, Burnes (2004) suggests that this may indicate a fundamental lack of a valid framework of how to implement and manage organisational change as what is currently available to academics and practitioners is a wide range of contradictory and confusing theories and approaches. This has led some academics, such as By (2005), to review the current thinking on organisational change management with a view to trying to identify the similarities and differences present within the academic and practitioner communities in order to establish a new framework that might have greater utility. Whilst a clear way forward is not presented, it does highlight the challenges that must be confronted and unsurprisingly it is also made clear that there is not a one-size-fits-all solution. This aspect is captured in the paper in the following excerpt:

Even though it is difficult to identify any consensus regarding a framework for organisational change management, there seems to be an agreement on two important issues. Firstly, it is agreed that the pace of change has never been greater than in the current business environment (Balogun & Hope-Hailey, 2004; Burnes, 2004; Carnall, 2003; Kotter, 1996; Luecke, 2003; Moran & Brightman, 2001; Okumus & Hemmington, 1998; Paton & McCalman, 2000; Senior, 2002). Secondly, there is a consensus that change, being triggered by internal or external factors, comes in all shapes, forms and sizes (Balogun & Hope-Hailey, 2004; Burnes, 2004; Carnall, 2003; Kotter, 1996; Luecke, 2003) (By, 2005: 370).

Given that the mechanics of organisational change management is in itself a challenge and that no simple framework exists that can be applied to a change scenario with confidence, the issue becomes even more challenging when other factors of a more qualitative nature are also taken into account. For example, a great deal has been written about the influence of stakeholder management and the issue of communication, the role of leadership in change, the impact of dispersed change agents, and of particular significance, the influence of culture on the delivery of change.

There are many examples of organisations having used management concepts of the day, such as TQM or BPR, as a vehicle to bring about change within their organisation. It can be argued that they saw this as a way to provide the increased flexibility and commitment they perceived as being necessary to help them adapt and transform in dynamic and uncertain change environments. The work of Doyle (2001)

considered the issues and implications of dispersing change agency in high-velocity change organisations. His paper highlighted that there are two core issues that can result from such an approach:

Firstly, when individuals and teams exercise change agency on behalf of the organisation (with or without its approval or sanction) they do so for a variety of complex and interrelated motives and these have to be considered and managed as an integral part of the overall organisational change strategy. For example, it cannot be assumed that when individuals are motivated to accept or take change agency they will automatically exercise that responsibility in a way that directly contributes to and furthers the goals of the organisation. In certain situations they may, for example, seek to innovate and manage change in a way that meets their personal or political goals to a greater or lesser extent, and in some situations even subvert the goals of the organisation. Second, in seeking to disperse change agency across the organisation to motivate and encourage teams and individuals, the findings confirm that organisations may face a paradox of control as they seek to balance the empowering benefits of dispersing change agency with the need to maintain the necessary and required degree of leadership and control that enables effective management within light resource limits and constraints. Too much control and managers and employees become inhibited by the bureaucracy and performance monitoring. Too little control and the organisation is faced with the change initiatives that lack strategic fit and the potential for overlap and duplication of effort (Doyle 2001: 321–322).

However, when this qualitative aspect is considered within the context of the change models and frameworks it can be seen as being consistent with the second step of the Kotter model, namely the creation of a guiding coalition such that commitment and ownership of the change programme is embedded throughout the organisation.

The issue of culture is particularly important and employees' resistance to change has been recognised as a main source of failure of change initiatives (Waddell & Sohal 1998; Danisman, 2010; Dent & Goldberg, 1999; Kotter & Schlesinger 1979). As Danisman (2010) points out:

But is it widely acknowledged that change in any aspect of an organisational system is inextricably linked with the cultural context (Baba, 1989; Manring, 2003; Schein, 1992). Cultural values and beliefs have a significant impact on the success and failure of change efforts (Kotter, 1995; Schein, 1992). However, empirically little is known about to what extent resistance to change is related to culture (Danisman 2010: 201).

The final dimension to be raised in this paper concerns the issue of change and change leadership and a key paper informing this debate entitled "From Change Management to Change Leadership" by Karp & Helgø (2008) posits the case that Public Service organisations operate in fragmented and complex environments and as such have a number of sector specific issues to deal with.

They argue that in view of the complexity involved and the nature of social systems, we need a new approach to the issue of leading change. They also contend that it is necessary to address the way people talk and the nature of the organisational conversations that take place. However, under crisis scenarios individuals and organisations often do not have the time to develop such conversations in order to develop shared understanding. One can draw a parallel with the evolution of a relationship between a couple and the concept of speed dating, in other words the establishment of a viable working relationship may well need some form of shorthand in terms of communication. Their paper concludes by suggesting that leading change has to deal with developing people's ability to solve tasks in new ways, by changing the way people talk in the organisation. This leadership approach is one of influencing the patterns of people's interaction and avoiding design-oriented managerial interventions. One consequence of this is that leaders may also have to live with the paradox of being in control and not in control simultaneously.

Putting This into the CA Context

Having explored the challenges associated with the CA and a brief review of some of the current thinking in the area of change management, the next stage is to apply the latter to the current position with the CA to see whether there are lessons that can be applied to help our thinking in the implementation of the CA.

In the same way that an agreed definition of the CA is difficult to find it is also the case that there are a large number of scenarios where it is thought that a CA would be beneficial to the outcome. On the one hand one might have a scenario where relatively few organisations are involved and where they are dealing with a situation that is long term, such as the development of education within a country. At the other end of the spectrum one may be dealing with many organisations from different nations dealing with a high-intensity emergency that in itself has multiple strands progressing at different speeds. It is for this reason that a "one size fits all" solution is not going to be found.

A starting point for a significant change programme is the need for a sense of urgency, or a burning platform. One could argue that until about 15 years ago the international community has been reasonably successful in delivering a 70–80 percent solution in dealing with man-made or natural crises. Under such circumstances, it is quite difficult to develop a sense of urgency that will galvanise people and/or organisations to accept the need to work in fundamentally new ways. Of course, within said period there have been examples of significant failures to respond in a coordinated way and droughts, famine and ruthless activities of dictators and civil unrest easily come to mind.

The key point here is that military operations, often effectively led by NATO, have become far more complex. It could be argued that slowly but surely our ability to deliver solutions has degraded to a level of, perhaps, 50–60 percent. Many would argue that the experiences of Kosovo, Iraq and Afghanistan support this point of view and that this is where the CA has a key role to play.

The adoption of a CA at a national level is challenging but has a reasonable chance of success because the government of the day can generate the burning platform and ultimately there exists a leader (either a President or Prime Minister) that can direct and deploy resources. On a military front, multinational operations can be effective as NATO has a clear Command and Control (C2) structure, the key stakeholders conducting the operations can share a common language and often a common military culture and are usually backed by authority through the likes of a United Nations Security Council resolution.

Current (and likely future) operations are going to be multi-organisational/multinational and of a complex nature. As long as the international community feels that it is delivering viable solutions to crises there will not be sufficient impetus (burning platform) to force organisations to make the fundamental changes to the way they operate that will be required for the CA to be meaningfully operationalised.

One of the key barriers to being able to develop a clear vision and in being able to establish an empowered guiding coalition is the fact that it will need to be different for each of the scenarios or crises that arise and even the language that is used to communicate the vision is likely to need to be different for some or all of the stakeholders. Thus, achieving a unity of effort becomes a real barrier to being able to extract the benefits of the CA and this is compounded by the cultural dimension that has been discussed earlier in this chapter. In as much as most militaries are able to find a common language and culture that facilitates their working together, other key players may well struggle to find very much (if any at all) common ground either between themselves or with the military.

As highlighted earlier, the role of leadership is key to any change programme and again for complex operations with multiple stakeholders, this can become a major stumbling block to the application of the CA. More often than not, this tends to fall to the military. There is of course, some logic to this as the military (either a single nation or a coalition of nations or formally under NATO) do have well proven planning structures and a clear C2 structure. In addition, when it comes to humanitarian crises the military has access to other key resources such as the equipment to enable an efficient logistics chain to be established and has experience moving large quantities of materiel and personnel at short notice. However, the mere fact that the military may take the lead in a given situation may in itself preclude some other organisations feeling that they can/want to be part of the proposed solution.

Conclusions

This chapter has highlighted that a significant amount of excellent work has been undertaken in an effort to realise the potential benefits of the CA and although there has been support and well-intentioned efforts at the highest levels within governments and organisations such as NATO, it has not yet percolated down to the tactical and operational levels in the ways one had hoped.

The reasons for this are both legion and complex and an exploration of the literature on change management, highlighted organisations tend to fail in their delivery of change through underestimating the resistance to change that is associated with the human elements. There needs to be a real need for change that establishes a sense of urgency, it has to be communicated in a language that all can understand and has a vision for the change itself. Above all, the role and nature of change leadership is such that it generates a paradox between dispersing the change agency power and the need to retain control in order to keep things on track. This aspect links directly to the issues associated with understanding how to bring about change within multiple organisations when cultural values (organisational and national) need to be factored in to the change programme.

Therefore, a reality check on the scope to apply the CA at the large scale end of the spectrum (multiagency, multinational, complex enduring operations) is not likely to be successful in terms of the change drivers that are commonly accepted within the change management literature. In some ways this has been recognised in the debate about NATO possibly spreading its sphere of influence by having a standing capability that functions in the non-military space and that such a force would be used as an intermediary as the environment moves from a dangerous footing to one that is at least semi-permissive. Trying to apply the CA in large-scale complex, dynamic situations is rather like trying to eat the whole elephant and the real challenges are not about C2 issues but rather the organisational cultural issues and the capacity/commitment issues associated with a given situation.

The author contends that a way forward on this agenda is to have, as a starting point, the notion of doing things in a small way in the first instance (attack a leg) in order to build experience of how things can function more effectively through the CA. One can argue that a good starting point for this is to show the benefits at a national level where the government of the day can use its influence to engender a spirit of co-operation and then to publicise the benefits of this approach. There is little evidence in the literature of organisations and governments being proactive in their willingness to publicise successes, rather reporters and opposition politicians are all too keen to highlight the failures in the press.

The second dimension to this would involve the international community being prepared to allow NATO to develop a limited civilian capability by way of a coalition of the willing (in organisational terms) such that this capability can be deployed in a structured and systematic manner. Again the benefits of a coordinated approach need to be publicised such that it becomes easier to enlarge the coalition of the willing. However, in the latter case it would be most helpful to the cause of the CA to follow the observation from the Dutch Ministry of Foreign Affairs, "as civilian as possible and as military as necessary" (Jakobsen, 2008: 15).

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Notes

1. The EBA is defined as “the way of thinking and specific processes that, together, enable the integration and effectiveness of the military contribution within a Comprehensive Approach.”
2. 3-block war: soldiers may be required to conduct full scale military action, peace-keeping operations and humanitarian aid within the space of three contiguous city blocks.

Chapter 2

Complex Operations and the Comprehensive Approach

JOHN E. HERBST

Abstract

The growing integration of the global economy and global society, the appearance of more potent technology, and, widely distributed centrifugal political tendencies, have created a world with a growing number of ungoverned spaces. Some ungoverned spaces half a world away can pose a threat. In response to this development the United States and NATO, like some other countries and organizations, have begun to develop a capacity to conduct operations integrating military and civilian power. In the U.S. this has taken place principally through the creation [at the State Department] of the Office of the Coordinator for Reconstruction and Stabilization (S/CRS), which was tasked to create a system for organizing the civilian agencies for stability operations and to create a civilian surge capability. The U.S. has managed to develop a modest surge capacity in the form of the Civilian Response Corps. But it has not yet institutionalized a process for managing complex crises. NATO has responded to the same challenge by developing the concept of the Comprehensive Approach. Prior to 2020, within the Alliance, the Comprehensive Approach proceeded slowly because some members of the Alliance have not been sure that NATO should retain the civilian capacity needed for the Comprehensive Approach. NATO has now endorsed the Comprehensive Approach, at both the Bucharest (2008) Lisbon (2010) Summits. NATO's decision to intervene in Libya underscores the need for NATO to develop its civilian capacity in order to take full advantage of the Comprehensive Approach.

Introduction

National security doctrine and institutions develop to meet the challenges that nations face as the international system evolves. The National Security Council in the U.S. Government and NATO itself were created in response to the dangers presented by an aggressive Soviet Union and the Cold War.

The post–Cold War world brought new challenges to the fore, challenges that we were slow to grasp. While Cold War rivalries no longer provided fuel to otherwise local conflicts, such conflicts themselves began to attract the attention of the global

community. In some cases this attention was too late, for instance in the Rwanda genocide of 1994. But gradually the international community came to see a growing interest in limiting local conflicts, if not preventing them altogether. This is evident in the sharp increase in peacekeeping missions in the past 20 years. Since 1948, the UN has conducted 64 peacekeeping operations. According to the United Nations, of these 46 have been undertaken since 1991 (United Nations, 2011).

The danger represented by failed states or ungoverned spaces became evident with Al Qaeda's attack on the United States on September 11, 2001. Ungoverned spaces are nothing new in history. There have always been places in which no formal government ruled, of places of disorder which threatened neighbors. That is, for example, how Chinese civilization looked at the steppes of eastern Eurasia and the nomads who lived there; and how Byzantine civilization looked at the Pontic steppes north of the Black Sea.

September 11, however, suggested something new was afoot. The attack launched from a remote location in Afghanistan suggested that failed or failing states could pose a danger to distant states and regions. It was in response to this danger that the United States began its operation in Afghanistan in 2001. The problems that the United States encountered there and later in Iraq led it to develop the concept of stability operations¹, and to create additional institutions needed for such operations. Similar factors encouraged NATO to develop the Comprehensive Approach.

The Roots of Global Disorder

A number of global trends have produced this disorderly world in which ungoverned spaces half a world away can pose a threat. One component is the interconnectedness of global society in economics, transportation and communication. The creation of the Eurozone and free trade areas is facilitating the movement of goods, services, capital and labor from country to country and region to region. An important consequence of this has been the growth of world trade and of trade as a percentage of global production.² This means that economic developments in any one region are far more likely to have a global impact today. On the macro level, the American housing bubble of 2008 had an immediate impact on global markets, producing the worst global economic downturn since the Great Depression. On the micro-level, we have seen how an earthquake, tsunami and nuclear meltdown in Japan earlier this year affected the global availability of automobile parts and the resultant dramatic fall in reported profits for a number of Japanese automotive companies (Valdes-Dapens, 2011).

Of equal importance is the ongoing information revolution, which links even the remotest places with the rest of the world. Cell phone use has exploded in Africa and elsewhere. So has satellite television and, of course, the Internet. Now villages in Southern Sudan can learn immediately about major developments in Beijing or Brasilia.

Yet just as technology links the global society and economy, it also provides the means to undermine state authority. Seventy years ago the worry was that technology was providing the means for totalitarian states to control completely the lives of their

citizens. “Brave New World” and “1984” provided literary visions of such domination. The behavior of Hitler’s Germany and Stalin’s Russia and Mao’s China made this seem all too true. Technology enabled government to monitor and control the activity of its citizens.

But the information revolution of the past 30 years pushed history in a different direction. Societies that tried to control everything from above could not compete against societies that gave their citizens the freedom to act, network and organize. This was a point made by market-minded economists like Friedrich Hayek at the height of the Cold War; but it became even more instructive as the information revolution kicked in during the last decades of the 20th century.³

The Cold War ended because one side—the Soviet Union—could not compete with the West and had leadership with the wisdom to realize it. China, the other great Communist power, began to leave at least Marxist economics behind in the late 1970s, as it instituted reforms that provided incentives for individuals to work hard and to innovate. Those reforms have made China the world’s second largest economy, and largest exporter (CIA, 2011).

The Political Impact of the Information Revolution

By facilitating people-to-people contact, satellite TV, cellphones, the Internet, Facebook, Twitter (and related approaches) have made it far harder for would-be totalitarians to control information. The consequence is that just as global society and the global economy are becoming more connected, political entities are being subjected to centrifugal forces and in some cases are being pulled apart. The Soviet Union imploded and was replaced by 15 new states. Yugoslavia became seven new countries. South Sudan voted in January, 2011 to secede from Sudan.

While the European Union (EU) has expanded since the end of the Cold War, its deeper integration has faced a series of setbacks in the past decade. European elites confident of the future of the EU were stunned when the Dutch and even the French voted down referenda on the EU constitution in 2005. The recent debt crises in Greece, Ireland, Italy and Spain are placing strains on the union whose consequences are still unclear, but certainly negative.

The information revolution and social media were necessary preconditions for the Arab Spring, which has already led to major change in Tunisia and Egypt. Events are still unfolding in Libya, Syria and Yemen and, to a lesser extent in Bahrain.

The furious growth of the global society and economy has also facilitated the rise of Thomas Friedman’s super empowered organizations and individuals (Friedman, 2000). These groups and individuals have found a way to tap into the international economy or international society in a way that gives them outsized influence and power for good or bad. Such organizations include multinational corporations, nongovernmental organizations, terrorist bands, and international criminal syndicates. Such individuals include the people who control these organizations: for example, businessmen and philanthropists

like Bill Gates; international terrorists like Ayman Zawahiri; international criminals like Joaquin Guzman, the head of Mexico's Sinoalo cartel.

Failed and Failing States

The interconnectedness of the global economy, combined with these centrifugal forces in political life, is creating the problem of failed/failing states or ungoverned spaces.

It is worth noting that some people fuss about the term *ungoverned spaces* because, they correctly point out, no space is truly ungoverned. If there is no formal government in a country, there will be informal arrangements. So, perhaps we should speak of unofficially or informally governed spaces.

Whatever term we use, thanks to the trends outlined above, the current world is awash in failed or failing states. Just consult the "Failed States Index" put out by the Fund for Peace and *Foreign Policy*. The most recent list puts 20 countries in the "Critical" category and another 19 on the "In Danger" Category (Fund for Peace, 2011).

To repeat, the world has always known ungoverned or informally governed spaces; and such spaces have always proved dangerous to its neighbors. But in today's interconnected world, with the destructive power of modern technology, ungoverned spaces a half a world away could prove dangerous. Ungoverned spaces can provide havens for drug traffickers, terrorists, or pirates. September 11 showed that terrorists can launch strikes that kill thousands from distant ungoverned spaces. Add in weapons of mass destruction and that number could be millions.

Moreover, in this increasingly interconnected world, multifunctional illicit networks are growing. In ungoverned spaces in Central Asia, East Africa, the Balkans, the tri-border area in South America, terrorists and drug traffickers are making common cause. Drug operations from South America to Europe are setting up shop in West Africa and destabilizing governments.

The Continuing Relevance of the Comprehensive Approach

This does not mean that all or most failed states require the focused engagement of the United States or NATO. The sheer number of poorly governed states makes that impossible. American and NATO interests are not everywhere at risk. But dangerous threats are likely to emerge in some of these areas. That is why we must continue to develop what NATO calls "the Comprehensive Approach" or what the U.S. Government calls "complex operations" or "stability operations." The two are essentially similar responses to the problem of failed states.

There is growing talk in NATO circles of a need to return to conventional threat analysis or rising power analysis—to move away from the current focus on failed states. There is weariness in the United States as more and increasingly influential voices are calling for the United States to expedite its departure from Iraq and Afghanistan and to give up "nation-building."

As the analysis above suggests, that would be a mistake. Even if the United States decides that it would like to avoid Afghanistan-like operations in the future, there are other crises associated with ungoverned spaces that it will still have to address. For instance, last year the United States again saw that it does not have the civilian experts and systems to manage the crises that erupt periodically in Haiti. In addition, the past several years have witnessed a growing danger to the United States coming from the ungoverned city streets of northern Mexico. However tired it may be of “nation building,” the United States will need civilian capacity to address the danger of chaos-induced refugee flows from Haiti or drug flows and drug-fuelled violence from Mexico.

As for NATO, even as there is increasing talk in Brussels about focusing on great or rising powers, the Alliance has taken over a mission in Libya which, if it is fully successful will likely need a strong peacebuilding component. Developments earlier this year in the Ivory Coast are another reminder that failed states continue to attract European attention.

The Development of Complex Operations in the United States

The problems evident by the fall of 2003 in the American intervention in Iraq provided the impetus for Washington to develop a more rigorous approach to stability operations. The Bush Administration decided at that time that its approach in Iraq had serious liabilities, and in the future it needed to do a much better job running stability operations. All elements of the Iraq operation were supervised by the Pentagon and the coordination of civilian and military activities was weak. To organize the United States better for future complex operations, the Office of the Coordinator for Reconstruction and Stabilization (S/CRS) was established at the State Department in 2004.

National Security Presidential Directive 44, which outlined the scope of the Office of the Coordinator for Reconstruction and Development, was issued in December of 2005 (NSPD 2005). To ensure proper support for this mission, the Department of Defense issued Directive 3000.05 in November of 2005 (Department of Defense, 2005).

The S/CRS had two tasks: to build a civilian surge capacity for use in stability operations and to organize all civilian efforts across the U.S. Government and to coordinate with the military in such operations (Smith, 2010). Like any new bureaucratic structure, S/CRS faced major birthing pains. Many parts of the interagency bureaucracy tried to limit its role. This was true of U.S. Agency for International Development (USAID), the Justice Department and some of the regional bureaus at the State Department.

But by January of 2007, the Office of the Coordinator won interagency agreement on both objectives: 1) to build a surge capacity in the form of a Civilian Response Corps (CRC) of 4250 people, and 2) to create something called the Interagency Management System to coordinate operations (Smith, 2010).

By June of 2008, the Office of the Coordinator had received funding in the Iraq-Afghan supplemental budget to start building a 600-person CRC. By March of 2009, S/CRS had regular budget funding to build a CRC of over 1,000.

The Civilian Response Corps

As of December, 2010, the size of the CRC approached 1,200 and there was a budget to build it up to 2,200 (Department of State, 2011). The CRC is composed of people having the functional skills to handle all basic functions of governance. It includes those involved in the rule of law (police, attorneys, judges, corrections officials). It includes economists, public administrators, engineers, city planners. The CRC is made up of personnel from eight agencies of the U.S. Government (USG).

It is divided into two parts: an Active component of approximately 150 personnel who do nothing but respond to crises abroad. They can be deployed within 2 or 3 days of a decision. This number will grow to 200. The second part is the Standby component, which currently has over 1,000 members and which will grow to 2,000. They are people whose regular work for the USG does not include stability operations, but who train to be available for larger missions. These people can deploy within one or two months of a decision.

The Corps is designed to deploy people with functional skills in teams that include area experts and linguists. The purpose is to adapt the functional skills to the needs of the country or region in crisis. In a crisis, with a Corps of 1,200, the U.S. could deploy as many as 250 continuously. When the Corps has 2,200 members, it would be able to deploy up to 600 continuously.

Growing deployments have accompanied a growing CRC. In 2010, the Corps deployed 292 civilians to 28 locations (Department of State, 2011). In the short history of the Office of the Coordinator and the CRC, over 200 people have been deployed to over a dozen countries. Most of these deployments have been in small groups for limited purposes—whether running stabilization projects in Port Au Prince or helping assess the prospects for conflict in Liberia. But it has also put as many as 40 experts on the ground in Afghanistan to help establish inter alia rigorous civilian-military planning in all-American Provincial Reconstruction Teams, at Regional Commands East and South, and at the Embassy in Kabul. In South Sudan, the Office of the Coordinator has been working on a signature operation since March of 2010. It has developed interagency plans to encourage a peaceful and orderly outcome to the referendum on independence in South Sudan last January. As part of its operation it has deployed over 20 people to the field, many to state capitals in South Sudan which had not seen American officials. This is a good example of the civilian expeditionary capacity that the United States is developing.

Coordination and Planning

While the CRC is making clear progress, efforts to integrate U.S. Government activities in stability operations have been less successful. The Interagency Management

System (IMS) was designed to provide a loose command and control structure for operations. It would have knit together the State Department, USAID, the military and other relevant agencies into a single structure for managing a crisis. It would have also ensured liaison with military commands in the field. The IMS was approved at a high level in the Bush Administration. It was exercised a number of times, including at Southern Command and European Command, but it was never used intentionally in a real world crisis.

The Quadrennial Diplomacy and Development Review (QDDR)—initiated by Secretary Hillary Rodham Clinton initiated in 2009—devoted a great deal of attention to the Office of the Coordinator. The completed QDDR was made public in December of 2010. While it validated much of the Office's work, it dropped the IMS. Still recognizing the need for coordination, it substituted something called the International Operational Response Framework (IORF). This could be the institutionalization of something like the IMS, but this concept has little substance at present and, if the substance is developed, it will still need to be implemented in a largely hostile bureaucracy. (It is worth noting here that the QDDR also recommended that the S/CRS should become a bureau—which would strengthen its role in the State bureaucracy—and its acronym should henceforth be CRS.)

An important question is whether Secretary Clinton implements the QDDR's recommendations concerning the S/CRS. The QDDR was issued in December of 2010, but as of mid-September of 2011, no steps have been taken toward implementation. This reflects the deliberate decisionmaking style of the Obama administration and the Clinton State Department (Department of State, 2010).

If the QDDR's changes are not put into place in the next few months, it is quite possible that the Office of the Coordinator and the CRC will face the next Presidential term in an uncertain status. Secretary Clinton has already expressed her intention to step down as Secretary of State at the end of President Obama's current term, even if he wins re-election. The next Secretary of State will have no vested interest in the QDDR. So if Secretary Clinton's State Department does not enact the proposed changes, enhancing the Office of the Coordinator's position within the Department and interagency, it is not clear that those changes will be made.

Yet even if the QDDR is implemented, it is likely that the USG will continue to have problems truly integrating interagency efforts. American political culture appears to favor ad hoc organization. When a crisis hits, different high level officials make a bid to take responsibility for some part of the action. Decisions are made off the cuff. They reflect the political and bureaucratic balance of power at that moment rather than an orderly use of American assets.

A third part of American efforts to run stability operations is the development of a serious planning capacity. The Office of the Coordinator (CRS) has a large planning division with a handful of first-rate planners. It is sending its staff to the Army Staff College to take its Masters course in planning. These graduates are world-class planners. So the planning capacity in CRS will only get stronger. It has also developed

two planning courses for every member of the CRC. The purpose is to ensure that all CRC members are at least rudimentary planners. CRS has developed sophisticated plans for USG operations in Haiti, Afghanistan and South Sudan.

As the State Department has developed the Office of the Coordinator and the CRC, the Department of Defense has launched the Civilian Expeditionary Workforce. Established in 2008, this program encourages Pentagon civilians to sign up for deployments abroad in support of American troops. Civilians in this program have been deployed to Iraq and Afghanistan in direct support of American troops, but in some instances also providing expertise to local governments. The development of the Civilian Expeditionary Workforce gives the Department of Defense additional civilian capacity for stability operations in case the Civilian Response Corps does not grow beyond the current projected number of 2,200 members.

Whole of Global Society

The U.S. Government recognizes the need for as broad a partnership as possible to deal with the problem of failed and failing states. This starts of course with whole of government: all relevant parts of the government should contribute to stability operations. But it moves from there to partnership with the private sector—NGOs, businesses—and with other countries and international and regional organizations.

There are more than a dozen countries with explicit capacities for dealing with ungoverned space. The U.S. Government is in touch with all of them. The United States also is in regular communication with the UN, the European Union, the World Bank, NATO, the African Union (AU), the Organization of American States (OAS), and the Organization for Security Cooperation in Europe (OSCE) regarding possible cooperation in this field. The United States, Canada and Great Britain launched something called the International Stabilization and Peacebuilding Initiative (ISPI) in the fall of 2009. ISPI is an informal, working-level network of governments and international organizations that have joined together in their commitment to enhancing civilian capacity globally and increasing interoperability among international actors. It is currently comprised of 15 national governments and 6 international organizations. The second ISPI meeting took place at the OSCE in May of 2011.

The Comprehensive Approach

The Comprehensive Approach (CA), NATO's answer to the problem of failed and failing states, shares the same essential insights as the U.S. Government concept of complex operations. It recognizes that we live in an era of ungoverned spaces. It recognizes that some ungoverned spaces will pose security dangers for NATO nations. It recognizes that the answer to ungoverned spaces requires a strong civilian surge capacity and the ability to coordinate civilian and military action. It recognizes the importance of planning. It recognizes the need for partnership with other countries and with the private sector.

Of course, NATO's CA is not identical to the U.S. Government's work on stability operations. NATO is a multilateral organization that operates on consensus. The relationship between NATO and the EU had exerted and will continue to exert substantial influence on NATO activities in this area. NATO nations that advocate a strong and growing national security role for the EU are reluctant to permit NATO to develop the civilian capacity necessary for stability operations.

But what is striking is the steady progress the alliance has made over the past 4 years in developing the CA. Former U.S. Joint Forces Command and Allied Command Transformation was been developing the concept for years, but within the Alliance, it was initially controversial.

At the Riga Summit in November of 2006, NATO Heads of State and Government agreed that "Experience in Afghanistan and Kosovo demonstrates that today's challenges require a comprehensive approach by the international community involving a wide spectrum of civil and military instruments (NATO, 2010). This decision was reaffirmed at the Heads of States and Governments at the April 2008 NATO Summit in Bucharest (Windsor-Smith, 2008).

Despite these statements from the top, actual steps within NATO to begin considering the development of capacity for a CA came slowly. (This was also true in Washington; it took over 15 months from the issuance of National Security Presidential Directive to get the interagency to agree on the lead role for S/CRS in the development of capacity for conducting stability operations). S/CRS proposed to hold a workshop in Brussels in the summer of 2008 to discuss the Civilian Response Corps and building capacity for dealing with failed states. This proposal was initially controversial and only approved after the Office of the Coordinator promised that the event would be purely "educational"—that is, it was not meant to persuade NATO to develop such a capacity. Not surprisingly, the workshop generated a great deal of interest.

One year later—July of 2009—representatives of S/CRS were invited to join a full-day session of NATO Ambassadors and senior staff on how NATO might start to develop capacity in this area. At last December's Lisbon Summit, the CA was approved, an historic decision.

Naturally enough, in its current phase of development, the CA looks somewhat different from the American model. In contrast to the U.S. Civilian Response Corps with a standing core of nearly 150 professionals in the active component, and many more on standby status, NATO is talking about developing national capacities that would then be available to the Alliance. Naturally, this would mean a slower response in a crisis.

NATO also must determine when it would be appropriate to use these capacities—not just in what countries or crises, but also when it would how it would fit with possible EU action. This is a political matter that must be addressed directly within NATO and perhaps with the EU. Unless guidelines are set for appropriate NATO

civilian activities, the issue of whether it is NATO or the EU that provide the civilians could further slow down decisions and deployments in any crisis.

The real world continues to press upon NATO the need to further develop this still latent capacity. This is no surprise. The global factors promoting instability are still potent. The global economic woes of the past three years are reminders of how we are all linked economically. The role of social media and Al Jazeera in the development and spread of the Arab Spring from Tunisia throughout the Arab world underscores not just how quickly information spreads, but its potential impact on political events. The American strike against Osama bin Laden was not just a great victory in the struggle against terrorism, but, as the contents of his communications become public, a reminder that “super-empowered” Al Qaeda is still developing plans to target the United States and Europe. Al Shabaab’s denial of food deliveries in famine stricken Somalia is a caution that political disorder exacerbates human suffering on a grand scale.

Not all crises or most crises require a NATO response; but some do. Civil disturbances in Libya and the prospect of Muammar Qadhafi unleashing his army against the civilian population of Libya prompted NATO action. Led by French President Nicolas Sarkozy and British Prime Minister David Cameron, NATO responded to UN Security Council Resolution 1973 approving a “no-fly” zone over Libya and authorizing all necessary measures to protect civilians in that country. NATO officials have stated repeatedly that their military operations in Libya are only to achieve the two goals set down by the Security Council. As these lines are being written, Libyan opposition forces have entered Tripoli and Qadhafi’s regime is on the ropes. If in post-Qadhafi Libya, the Transition National Council is unable to establish order, a dangerous power vacuum would develop, with, perhaps, only NATO on the scene. While NATO certainly would prefer to hand off responsibility to a more suitable actor—the UN, the African Union, the Arab League or the EU—there may be no takers. NATO may find itself the only actor able to move if things fall apart.

However Libya turns out, a similar scenario of widespread public disorder could recur in other locations, from the Balkans, to South Sudan to the Caucasus. To be prepared, NATO needs to develop the civilian capacity required by the Comprehensive Approach; and the United States needs to build further the Civilian Response Corps and institutionalize a system for its use.

Conclusions

For NATO, this means that clear decisions are needed on the creation of a civilian capacity and its use. For starters, there needs to be a nucleus of civilian experts at NATO Headquarters devoted to this full time. They need the authorities to develop an authoritative roster of experts from all NATO members. NATO members must develop rosters of active professionals who would be willing to deploy in a crisis. Procedures need to be developed to ensure that they are available in a timely way once decisions are taken to engage. To support this NATO must develop the right training to ensure that nationals from different countries are able to work as a team.

All of this is a tall order; but the single most important element is political will. If NATO leadership wants the tools necessary to deal with the types of crises it will be facing, the decision to develop this civilian capacity will follow. And once it does, NATO need not start from scratch in establishing this capacity. Many NATO members—the United States, the United Kingdom, the Netherlands, Germany, Norway and others—have taken long strides to develop such capacity. Some of this capacity would naturally help establish NATO's own group of civilian experts. But these countries have also developed training programs and logistical capabilities that NATO could use as it builds up its own capacity.

We have already seen NATO evolve from an organization focusing on the Soviet threat to one meeting the out-of-area challenges of the post–Cold War world. Taking the political decisions to develop the capacity to implement the Comprehensive Approach would be the next step in NATO's evolution as the premier security organization on the planet.

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Notes

1. Stability operations represent one category of complex operations. The definition of *complex operations* has changed over time—sometimes including combat, sometimes excluding it, sometimes encompassing disaster relief, sometimes not, and usually focusing only on missions overseas. For example, the Center for Complex Operations web site (<http://ccoportal.org/>) states that "stability operations, counterinsurgency and irregular warfare [are] collectively called 'complex operations.'" Other papers adopt a more expansive definition that includes humanitarian assistance and disaster relief, at home and abroad. This definition has been adapted from *Civilian Surge: Key to Complex Operations* (Binnendijk and Cronin, 2009).

2. Global trade (the sum of exports and imports) as a percentage of global GDP has risen steadily since 1968, when it was approximately 25 percent until 2008, when it was over 55 percent. See "Trade (percent of GDP) in World" at Trading Economics. Available at www.tradingeconomics.com/world/trade-percent-of-gdp-wb-data-html. Accessed July 13, 2011.

3. However, governments also are learning how to make us of these technologies, and some of the power that initially accrued to citizens is being redressed.

Chapter 3

Attempting a Comprehensive Approach Definition and Its Implications for Reconceptualizing Capability Development

MICHAEL HALLETT AND OKE THORNGREN

Abstract

This chapter sets the conceptual boundaries and offers a working definition of the Comprehensive Approach (CA). This definition becomes useful in helping guide an organization's actions by ensuring that, while they may not be able to say precisely what kind of thing the CA is, they understand where it belongs in the broad set of planning and operating approaches. This edge mapping ensures that actors are working with a sufficiently common concept so that somewhere down the road there is not the sudden realization that actors engaged together were using the same words but with important variations in meaning that will have generated a wide set of unintended consequences.

While recognizing there are many different existing understandings of the CA, for the purposes of this chapter the term *the CA* has been adopted. The first part of this chapter articulates a definition of the CA as a design process. The second demonstrates the utility of the definition by applying it to a reexamination of the capability development paradigm, and the article concludes with a description of the advantages of using the CA for complex crisis response.

Introduction

A precise consensus on the meaning of the Comprehensive Approach (CA) has not yet been developed. According to Alzuyeta, Chossiere, Escorcia & Williams (2011), NATO views its CA as primarily concerned with crisis response. In their study on *National Approaches to the Comprehensive Approach*, they trace the development of CA thinking in NATO from the Riga Summit in 2006, through the Bucharest Summit in 2008 and the Lisbon Summit in 2010. This study also provides a survey of national approaches to the CA, with a focus on the various models for civilian expert utilization. The NATO Defense College published a series of papers entitled *Operationalizing a Comprehensive Approach in Semi-Permissive Environments* that provides an excellent

survey of potential meanings of the CA from a NATO perspective and what the implications of those meanings might be. Lindley-French (2010) argues for a specific form of application of a CA in a 3-star operational headquarters.

Although the definition of the CA is still not settled, this need not hinder efforts to operate more effectively with a wide range of actors in complex environments. Conceptual ambiguity provides leeway for decisionmakers to act in the absence of detailed agreements and most know what is meant by the CA when engaged in it, even if it is not easily captured in words.

However, even though the CA may not require explicit, highly granular definition before it can be used, this article attempts to set the conceptual boundaries and offer a working definition of the CA. This definition can be useful in helping guide actions by providing an understanding of where the CA belongs in the broad set of planning and operating approaches. This edge mapping can help ensure that organizations are working with a sufficiently common concept so that down the road they do not suddenly realize they were using the same words but with important variations in meaning that are now generating a wide set of unintended consequences.

This chapter argues for a specific understanding of the CA at the highest level of abstraction. Therefore, while recognizing there are many different existing understandings of the CA, for the purposes of this chapter the author will speak in terms of *the* CA. The first part of this chapter articulates a definition of the CA as a *design process*. The second demonstrates the utility of the definition by applying it to a reexamination of the capability development paradigm. The chapter concludes by highlighting the advantages of using the CA for complex crisis response.

Edge Assumptions

Before defining the CA, it is necessary to describe the assumptions grounding its use. Using the CA in complex operations assumes a level of commitment, and will, to work together based on a belief that doing so will further the organizational objectives of the participants. This benefit to organizations comes not least from increases in efficiency and effectiveness of resource use/expenditure, that is, the CA enables a reduction of wasted effort and increases the generation of the desired effects.

This can be further divided into two major assumptions:

First, that the self-interest of organizations is facilitated by cooperative interaction. This does not entail perfect unity of purpose, and certainly not unity of command, but sufficient congruence of intent so that the advantages of interaction clearly outweigh the transaction costs. We can thus say that the CA aims not for unity of command, but congruence of purpose.

Second, the CA assumes larger-scale operations and so the resources required to generate the desired effects are large enough that efficiency gains from cooperation are possible. Larger organizations, with more diffuse sets of complex activities will benefit from CA informed interaction with other organizations, not least because it improves the efficiency of their searching for solutions to the wicked problems with which they

typically are dealing.¹ Smaller organizations with fewer resources can find niches to plug into within the overall CA framework.

Approaching a CA Definition

The CA, as presented here, does not try to build a strong, centralized authority to deal with wicked problems and increase local resilience. Rather, the CA focuses on enabling local solution formation through the provision of intellectual and financial capital to fill gaps that have developed as a result of natural disaster or conflict. Therefore, the aim of the CA is to make resources available to individual actors and the organizations they form (like businesses and community organizations) to meet their wants and needs, not to develop a national government, or central international authority, with the capacity to provide services with resources provided by the international community.

This line of argument suggests the following preliminary definition of the CA:

The Comprehensive Approach is a design process to align incentives among international and local actors to increase local resilience in the engagement space while reducing the transaction costs associated with multiple actor interaction in complex operations.

CA as a Design Process

De Bono(1993), in his *Serious Creativity*, captures the applicable meaning of design when he states:

It is perfectly true that in some situations there are a limited number of alternatives... But most situations are open and there is no fixed number of alternatives. The alternatives we see are only limited by our imagination in designing them... Too often we think only of "analysis" in finding alternatives. Design suggests that we make an effort to create new alternatives. This can be done by shifting the boundaries of the situation; by introducing new factors; by changing the value; by involving others (De Bono 1993: 122).

To operate in accordance with the CA means to employ a certain type of design methodology. This includes discovering what it is that should be done, planning on how to do it, actually doing (implementing the plan) and an assessment, analysis and evaluation process to ensure that feedback continuously informs discovery of new tasks and new ways of doing old tasks. This approach to strategic and operational design increases the intervention efficiency and effectiveness.

The chapter now discusses in more detail how the effectiveness and efficiency of each organization, and its ability to achieve its own particular mission alongside coalition or Alliance objectives can be increased via the CA.

Interactions Prioritized

The CA is distinguished from previous approaches to complex operations by its starting assumption that interaction with others is an essential precondition, not

something “nice to have,” for effective action. Within the CA accomplishment of one’s own organizational objectives is inextricably linked to the ability of other organizations to accomplish theirs in the service of local capability development. Of course, there are some activities that do not require a CA—but responding to complex crisis, like civil war, major natural disasters or state building are not among them. Facilitating structured interaction horizontally (among international actors) as well as vertically (with local actors, including private sector personnel, local civilian organizations, local and national government officials and agencies, etc.) is a key purpose of the CA design methodology for increasing efficiency and effectiveness in complex crisis response. While the CA aspires to unity of effort, it accepts that given the difficulties posed by the high coordination costs of multiple actor interaction, such unity will not always be achievable, and that the intellectual and organizational energy to achieve it is better spent in service to local actors, not intra international community management. Therefore, the articulation of a common vision to serve as a framework, or the pole star toward which to head, is more important than establishing an organizational structure to coordinate activities—congruence of effort, not harmonization of organizational and political will, is the goal.

Coordination emerges based on the wants and needs articulated by local people—their demand signal, not the external inputs available, structures resource flows.² The first priority in the CA is thus to enhance organizational capability to interact with others, not as an end in itself, but to increase congruence of effort as external actors help local actors improve their resilience in fragile or postconflict situations.³

Aligning Incentives

It is crucial to align incentives, geographically, temporally and in terms of process, to improve the interaction effectiveness of the various activities and actors. Aligning incentives improves the overall effectiveness of the activities in the engagement space by helping ensure that the efforts of one organization do not generate countervailing incentives that hinder the activities of other organizations in pursuit of the same overall goal of increasing local resilience.

But it is not only unintended effects that hinder goal achievement—sometimes the intended effects of an activity can generate negative impacts on the actions of other actors. When incentives are not aligned, the activities can contribute less, or fail to contribute at all, to increasing local resilience and the ability of the state to perform its core functions. The absence of CA incentives often inspires countervailing capacity development that will move in different directions, some toward enhancing state or local organizational capability and in others incentivizing spoilers and other negative actors.

CA effectiveness requires that activities reinforce one another because the increasing effect is cumulative. Therefore, the CA as a design methodology looks across the entire environment to see how sets of activities are positively and negatively interfering. Positive interference refers to instances where the activities of one actor or sets of actors working in the same geographic, temporal or functional area reinforce one another’s

efforts. For example, an actor providing business start up training recommends that the students, upon graduation, attend the workshop given by the NGO on how to bid for police supply contracts. This workshop has been scheduled in cooperation with the international agency mentoring the police logistics organizations so that it takes place a week before the bids are due.

Negative interference refers to instances where the activities of one organization run directly counter to the overall objectives of the mission. For example, counter narcotics activities that take the form of crop eradication can create incentives for both corruption (the large crop growers bribe the eradication teams to eradicate the crops of the small, poorer farmers) and the insurgency because the small farmers support insurgents to attack the eradication teams. Using a CA to align incentives in the area of counter narcotics could take the following form: legalizing the crop production would align incentives toward supporting the emerging security architecture by moving farmers from the illicit to licit economy, while removing the risk premium from the crops and thus reducing their value. This reduction in value would make other crops more economically attractive. Positive interference could then take place as the alternative livelihood teams move in with alternative crops to plant (which now offer the same or greater income potential as the illegal ones did, since the market has collapsed due to the now legal oversupply) in conjunction with new micro-credit facilities, underwritten by the national government agricultural development bank which is in turn funded by the money previously dedicated to eradication but is now available for agricultural loans, training, fertilizer, and the construction of storage facilities.

Transaction Costs

The CA improves the ability of the international community to add value to fragile or postconflict regions and states primarily by reducing the transaction costs associated with local actors gaining access to venture capital (in intellectual, financial and human forms) to expand the local capabilities or “tool set.”

What are these transaction costs? Utilizing Ronald Coase’s coinage of the term in his essay *The Problem of Social Cost*, Carl Dahlman defines them as “search and information costs, bargaining and decision costs, policing and enforcement costs” (Dahlman 1979: 148). These transaction costs must be taken into account when attempting to generate effects, especially in complex engagement spaces. Intervening actors regularly ignore these costs, assuming that all difficulties with generating effects (in terms of, for example, improving health outcomes, education, access to clean water and sanitation and economic growth) will be overcome through the beneficent magic of legitimacy emanating from elections. Too often, as in the *Agreement on Provisional Arrangements in Afghanistan Pending the Re-Establishment of Permanent Government Institutions* (or Bonn Agreement) on Afghanistan, the international community focuses primarily on the political domain, and acts as though elections will resolve the tensions that caused the conflict. This is due, in part, to the relative ease of holding elections compared to the preparatory work of enhancing, through education and training, the

local human capital. Inculcating habits of resolving conflict that result in a sustainable reduction in the level of violence, based on well functioning institutions is difficult. Indeed, transaction costs generate a recurring multitude of friction points not removed by elections. Due to this friction attempts to generate a national-level organization, without the intermediary subsidiary organizations operating effectively to reduce the transaction costs associated with individual and local, provincial and national government intermediation, often fails.

Intellectual Transaction Cost Reduction Methods

How does the CA reduce these intellectual, financial and organizational transaction costs? Intellectually, members of organizations deployed serve as a human supplement to the Internet, performing the searches, packaging the information appropriately, ensuring valid comparisons and providing training on how to apply the knowledge in the specific circumstances, not just of the host nation as a whole, but in a particular village. This knowledge is derived not only from activities in other similar regions (for example, watershed management techniques from a similar climatic zone) but also from the history of the local area. Understanding this historical knowledge base may have been degraded or lost due to warfare. Life-denying cultural forms, such as those justified by extreme interpretations of religious texts, under the stresses of the conflict, may have become prominent in ways that do not reflect the fullness of the culture and cause damage to or eradication of traditional practices. Unscrupulous politicians can exploit this impoverished cultural understanding for their own ends. Academics and expatriate communities serve as means to access this lost knowledge and help local actors grow their culture in life-enhancing ways.

Transaction costs are also reduced by sharing knowledge about good and best practices, plus lessons identified and lessons learned in the various functional domains.

Financial Transaction Cost Reduction

Often there is a tension between providing funding to the government (in order to build government capability) and spending money directly on various projects. The CA as a design methodology provides a means to manage this tension better and enable the direction of external resources to the highest leverage points. For example, money can go to the central government in the few areas in which the central government has the lead (for example, in rule of law development programs, military and national police training and equipping programs) or to sub-national government institution development, while the bulk of the funding can be directed toward more effective and efficient private sector actors. Indeed, one of the major potential advantages of the CA is that it provides a conceptual framework within which to provide financial capital to actors with the greatest capacity to act as economic growth force multipliers, providing services and creating jobs—local entrepreneurs. Thus, the financial component of the CA can involve micro-credit, foreign direct investment, and venture capital provision for entrepreneurs, all bundled together with training (such as business development

training, how to win military and external actor government contracts for projects, etc.) to utilize the funding.

Organizational Transaction Costs Reduction through Training

The limiting factor in many postconflict situations is the availability of local personnel with the skill sets required to get things done in more effective and efficient ways. The international community has generally responded to this situation by hiring those with the highest skill level to work in their own organizations, alongside large numbers of expatriate workers. Some external organizations even pride themselves on their high number of local hires. This is of course commendable if those local hires are being trained to perform the service currently provided by the external organization. It is far less commendable when the external agency is acting like a human resource vampire, removing experts from the local (for example, medical) talent pool.

Therefore, the third way the CA can reduce transaction costs associated with developing more effective and efficient organizations is by providing training and, most importantly, developing the capability of local actors to provide training themselves. Training, even more than actual service provision, should therefore be seen as a core task of the external actors within a CA. For example, the measure of effectiveness of international community medical organizations should be based not on providing medical services, but training local actors to provide medical services; not drilling wells, but training local actors on water management based on sustainable technologies and rooted in local cultural practices.

Capability Development through the Comprehensive Approach Prism

Organizations, if they are to survive and thrive must respond to changes in the complex environment in which we all live. A large part of this response is reflected in the modification of existing capabilities or the creation of new ones in order to perform emergent tasks or persistent tasks in innovative ways.

This capability development does not take place in a vacuum. Instead, it is governed by mental models or paradigms. Seeing capabilities in terms of Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities and Interoperability (DOTMLPFI) constitutes one such paradigm. NATO uses the DOTMLPFI paradigm to guide its capability development activities including the concept development and experimentation (CD&E) process as well as the other capabilities development activities undertaken by organizations like NATO's Allied Command Transformation and the NATO member, partner, and troop-contributing nations.⁴ How does it do this? The DOTMLPFI paradigm helps guide capability development by providing a framework within which to articulate each element of a new capability. It surfaces the full dimensions of a capability so that people are not seduced, under the pressure of resource constraints, into thinking that changing one element, like writing a new doctrine, will result in the generation of the desired operational effects. Not only may

a new doctrine (or subsidiary textual guidance) be necessary, but the organizations may need to be changed, and additional personnel required to perform new functions. These personnel must not only be trained, they may also need new equipment (materiel) to use and new buildings (facilities) in which to use them. NATO added the Interoperability I to DOTMLPFI (some nations use only DOTMLPF) because as an Alliance the ability of the various nations to work together is at the forefront of all NATO activities. Enhanced effectiveness of the Alliance demands easy “plug and play” compatibility among national capabilities, just as within Nations the various elements of national power must be able to seamlessly work together in order to most efficiently and effectively generate the desired effects.

Capability Development within the Comprehensive Approach

The prism provided by the CA as a design process refracts the view of the DOTMLPFI paradigm, so that the priority of effort among the capability elements shifts. The view of the paradigm from the CA (interagency, multi-actor, complex engagement space) perspective reveals the paradigm not as *DOTMLPFI* but *ITOPFLDm*, *with Interoperability and Training being very important, and dedicated, new types of materiel being much less so*. This section will describe each of the capability elements from this CA perspective, using the reordered acronym as a way to focus on the specific character of capability development (based on interactivity and consensus, not direction from a central authority) within the CA.

Interoperability

A major advantage of undertaking complex operations using a CA design methodology is that the CA brings to the forefront the tremendous improvements in operational efficiency and effectiveness generated by intimate interaction with a broad set of organizations and actors. Interoperability is not an afterthought but is included, from the very beginning, of both the capability development and mission planning processes. Thus interoperability from the CA perspective refers to thick and frequent interaction among the organizations and individuals involved in complex engagement spaces as they engage in planning, decisionmaking, and operations. Developing the means for facilitating this interoperability constitutes the main content of this primary enabling capability element within the CA. Without this interoperability effort the remaining elements are unable to combine constructively to align incentives and reduce transaction costs.

Training

CA-specific training is focused on improving interactions between organizations to align incentives and reduce transaction costs to achieve congruence of effect. At the highest level, the CA provides a holistic (or comprehensive) view of the engagement space, a view enriched by the blending of multiple perspectives from a widely diverse set of actors. Therefore, the highest level CA training should include instruction on

regional and state assessment methodologies, frameworks for increasing local resilience, principles for engagement with local and international actors, negotiation and mediation techniques for complex engagement spaces and familiarity with various other “toolkits” focused on multidimensional interactions.

The operational-level CA training takes place along two axes— the horizontal, to improve mutual understanding between international actors (the various national agencies, organizations, international organizations, military organizations, private sector businesses, nongovernmental organizations, etc.) and the vertical—between the international and local actors to enhance local capabilities.

This two dimensional training on aligning incentives must provide an enriched understanding of how to execute one’s own organizational mission in accordance with the mandate and financial requirements while supporting, or at least not negatively interfering with, the activities of other organizations in the same area. This instruction therefore consists of mutual awareness training on capabilities and cross training in areas of functional expertise.

Mutual awareness training is designed to enable improved understanding of organizational specializations, capabilities, funding processes, operational practices and existing interagency/interorganizational planning processes. Cross training refers to allowing members of other organizations to attend one’s own training courses. Both types of training enable staffs to better contribute to the overall effort by encouraging multiple actors to act in cumulatively beneficial effect generating ways. By making planners aware of the additional capability availability in other organizations, mutual awareness training in conjunction with cross training that provides an understanding of the processes the other organizations need to follow in order to act, will enable the required coordination.

This does not mean that CA training must cover the full range of Stabilization and Reconstruction (S&R) functional area training. The CA specific training is training on supporting interaction to enhance operations across a broad range of fields—not the specific expertise enhanced by the interaction. CA S&R-related training is therefore a sort of meta-training: training not on specific task performance, but training on how to interact with organizations which have the required training and operational capabilities.

Organization

Looking through the CA prism, organization is concerned primarily with asking the right questions about enhancing interoperability, not at defining the sort of organization each actor should adopt within a CA. Organization thus refers to questions more than answers at this point in development of CA. A key question may be: Who’s going to lead the overall Comprehensive Approach that NATO can support? Other questions include: How to organize to facilitate interaction in complex engagement spaces among different organizations? What sort of coordination is required? What sort of organization should be established to facilitate decisionmaking (concerning

the priority of aircraft landing in the aftermath of a natural disaster for example) among many organizations responding to a crisis? Does better coordination require new command and control structures, or should the focus be on adjusting elements of existing organizations to facilitate self-synchronization among the wide variety of organizations? Many lessons identified exist, like those associated with the positive effects of dual civilian and military leadership structures in Provincial Reconstruction Teams, and organizational capability element development within a CA will rely heavily on these as it matures.

Personnel

In addition to the cultivation of a broad set of personnel who can contribute to missions within a CA through training, “Personnel” in the CA context refers to institutionalizing the success derived from the good will and hard work of people engaged in the complex engagement spaces. This includes the creation of a set of people with the experience and capability to serve as Senior Representatives and engage in focused interaction with local actors. This means providing people with opportunities to expand their skill sets by serving in a broad range of jobs, including those outside the “fast track” of their own organizations, and ensuring that these experiences do not negatively impact their career advancement. It may even be necessary for organizations to develop career paths for experts in CA so that the specific expertise, developed at great cost through participation in complex operations, is not lost between major crisis responses.

Personnel also refers to the development of the human resource management techniques to deploy experts on short notice, and to loan people to other organizations. Perhaps most importantly, it must cover the development of protocols for pay and benefits when people are serving outside their original organization. Supporting our people as they flexibly undertake the complex activities required by the CA (which often means operating outside of organizational comfort zones) is essential for generating sustainable effects.

Leadership

Leadership in the CA thus makes greater demands on the practical wisdom of leaders than that required in so called “normal operations” when the well ingrained habits of the organization can be relied upon to provide guidance on dealing with commonly encountered problems. Within the CA, not only is increased flexibility required by leaders, but the judgment to know when the flexibility is appropriate and when flexibility would violate organizational rules designed with the very good intention of, for example, serving as a responsible steward of taxpayer resources or protecting valuable information. The CA also places greater demands on leader-to-leader interaction. This is necessary for two reasons. First, to develop ever increasing effectiveness and efficiency in performing core functions, and second, to expand organizational boundaries and operational scope when necessary to undertake new tasks. In some cases an organization must stretch its capabilities to contribute to a process that may only be

tangentially related to its primary mission but that has significant importance for the undertaking as a whole. Strong leadership is required to inspire these extra efforts.

Facilities

There is a need to explore, as part of CA design, questions concerning the arrangement of personnel to facilitate interaction. For example, are the interagency partners sitting in cubicles next to the military logisticians, or are they in a different building across town? Should we hold a meeting in a government compound or at a downtown hotel? Is there a meeting space at the Provincial Reconstruction Team accessible to the full range of local actors? Do separate meeting spaces need to be provided for women? Are simple video-conference systems required to facilitate interaction (for example, a video cable from one tent to another so that people 100 yards away can also see what is going on in the main meeting)? In short, the main question in facilities related CA capability development is “Do our facilities make interaction easier, or create additional barriers to interaction?”

Doctrine

In DOTMLPFI, doctrine has a very specific definition—it is the highest-level textual guidance for how organizations must perform their functions. As NATO’s AAP 6 defines it, Doctrine is “fundamental principles by which the military forces guide their actions in support of objectives. It is authoritative but requires judgment in application.” (NATO 2010) Within a CA, doctrine in the formal sense is not yet developed and therefore within the Doctrine category of the ITOPFLDm paradigm, Doctrine has a broader meaning. It refers to the textual guidance for acting including the organizational policies, standard operating procedures, and guidance (written and verbal) generated to accomplish the mission. Indeed, Doctrine is in the case of the CA, a lagging capability element—it follows behind the advances made in the field. This is not to say that it is unimportant—if we are to sustain the increases in our organizational effectiveness created by the pressures of operating in the field, capturing those improvements and incorporating them into doctrinal texts is essential. Why? Because if we do not officially capture them in texts the new processes and procedures will remain personnel dependent—that is, they will remain tacit knowledge in the minds of the people involved, not explicit knowledge accessible by the organization. The negative effect on knowledge base development, and thus operations, of rapid short-term deployments to theatre is all too evident in recent complex international operations in failed or fragile states and regions. For example, while face-to-face discussions are essential ways to transmit knowledge, if the knowledge is not captured and training programs changed to consistently transmit it, the effectiveness of the knowledge will degrade rapidly. This failure to shift from tacit to explicit will hinder the institutionalization of the new capability. Clear doctrine can help mitigate these effects.

Materiel

The important issue here is to resist the temptation to develop specific *materiel*. Within the CA Materiel should not refer to the equipment or “kit” needed to execute operations in accordance with a Comprehensive Approach. Indeed, the CA will be enabled by the effective utilization of commercial and crowd-sourced technologies (smart phone applications, open-source Geospatial Information System (GIS) tools, renewable energy, etc.) not, for example, the creation of specialized intergovernmental communication systems. Hence the *m* in ITOPLFD_m is lower case. However, within a CA, sharing lessons learned and best practices concerning appropriate technologies and processes would be very useful, and is an area in which a low investment in intellectual energy to gather, analyze and disseminate insights on especially effective materiel technologies could provide an extremely high return on investment. For example, sharing good practices to address the question of “What are effective techniques for constructing cold storage facilities in Afghanistan so the farmers can move up the agricultural value added chain instead of having to ship their produce out of the country for cold storage only to buy the same produce back at a higher price later?” is an example of materiel-related activity within a CA.

Advantages of the CA

Within the context of this chapter it is important to address the key question “so what?” Why spend the time/effort and financial resources to work within the CA? What added value to complex operations and the capability development process does utilization of a CA provide? The chapter examines the advantages in three broad categories: enhanced organizational interaction, improved understanding, and more effective and efficient partnership development. All three categories affect planning, operations and assessment in complex crises.

Enhanced organizational interaction. The CA is organically interactive—it is based on the insight that helping other organizations reach their goals in service to local actors helps us achieve ours. Thus the CA provides a multidimensional, interactive framework that enables the team-based development of new means of influencing (seducing some, coercing others) actors to, in turn, shape the environment. Importantly, its influence can be exerted most effectively in preventing conflict, not only responding to it. The CA is a way to develop a system-of-system of effectors and influence within which coordination takes the form of self-synchronization enabled by a decrease in transaction costs. It is not primarily a way to harmonize efforts through a central plan, or broader or more collaborative command and control structures, but is a way to empower local actors to create outcomes that can improve their lives.

Improved engagement space understanding. Within the CA, the accumulation of multiple perspectives of the diverse groups, most importantly the local actors with their superior local knowledge, generate improved understanding of the engagement space informing planning, operations and assessment. The improved understanding results from the discourses that emerge from the blending of the mental models of

the various actors. As Boyd said, in his *Strategic Game of ? and ?* “We must be able to examine the world from a number of perspectives so that we can generate mental images or impressions that correspond to that world” (Boyd, *Strategic Game of ? and ?* (Boyd 1991). Acting within a CA provides a structure for accessing these perspectives and thereby generating new ideas concerning what needs to be done to improve the situation while simultaneously increasing understanding of the means available.

More effective and efficient partnership development. Their blending not only enriches the mental models of each individual actor, but also affects the frame within which actors approach their individual activities in the engagement space. In other words, the blending of mental models enables both improved individual organizational understanding and organizational learning by all the actors in the engagement space. Blending makes it possible not just to look at, but also to see the deep structure of the environment, the nature of the actors within the environment (international and local) and the intended and unintended feedback and feed forward effects of their activities. The CA thus transforms the multiplicity of actors from a problem into an opportunity for improved efficiency and effectiveness by providing a design methodology for multilateral, understanding-enriched activity.

Improved Division of Labor

Within the CA the goal is not to find or create the optimal organization to execute the activity, but to link with organizations that are good enough to get the work done. The CA facilitates this because increased partnership opportunities are a natural positive externality of improved interaction. Therefore, the CA enables satisfying, not optimizing, task accomplishment by diverse participants. Partnership, facilitated by the CA design methodology, can increase the speed of delivery as seen by local people. For example, an organization with a large footprint in theater, but which lacks a specific capability, can acquire the required capability through partnership, trading access to their support infrastructure in the engagement space for functional expertise.

To illustrate, an indigenous power plant builder and operator might be the ideal candidates to build and operate a power plant, if they were available. However, in the absence of such a local actor, the CA facilitates creation of an organization built around military experts to deliver and perform maintenance on the generators, logistic professionals to arrange for fuel, a local trucking company to deliver it, and a joint international/local pipeline operator to start pipeline construction. This, combined with a NGO specializing in powerplant operation training who form a collaborative training program with the local university, gets the job done and establishes the foundation for sustainable operations.

Base Camp Metaphor

The incentive alignment and transaction cost reduction provided by the CA as a design process can be compared in their effects to the implicit protocols governing life at a base camp of a major climb, for example, Mt. Everest. Many different organizations are

present at the base camp, each with the goal of summiting the peak. Diverse individuals and organizations have gathered to accomplish a goal. They are unwilling to coordinate in a formal sense but recognize the benefits to all of enhancing their interaction and sharing resources in functions like weather forecasting, sanitation, and emergency response. In this model, the camp is like a complex engagement space, with many actors attempting to support common goals, but unwilling to subordinate their activities or yield donor funding to other organizations. The CA is a design process that facilitates interaction among these groups. When cooperation reduces the costs for everyone, like in shared weather forecasting, it will easily take place. In situations where give and take are necessary, like sequencing summit attempts, sometimes coordination will take place and other times not, but the CA at least makes explicit where the friction points will most likely occur and provides a way to better manage them.

Conclusion

The CA is the structured design process through which people attempt to generate effects, using organizations as tools, within the systems of interaction that are created (such as by a UN resolution or North Atlantic Council decision) or emerge in the effort to deal with a complex crisis. By reducing friction in the interaction process the CA aims not at conventional command and control and the articulation of superior and subordinate relationships, but at enabling self-synchronization among actors working in the various functional areas. The CA is thus a design approach used by groups in a network of interactions, or system of systems, focused on contributing to local actor efforts to increase their resilience in the aftermath of a complex crisis. The CA provides a design methodology for enhancing both the efficiency and effectiveness of these interactions, adding value for all involved actors.

Capability development in the CA is a complex, not merely complicated process, involving a broad set of constantly shifting actors, each with their own special organizational expertise, decisionmaking processes and objectives. Nations therefore have three main options for CA-related capability development: one, they can develop the expertise within their own militaries, investing the resources necessary to develop the professionals to engage in the full range of tasks required for effective intervention, including, for example, Stabilization and Reconstruction (S&R) competencies; two, they can develop that expertise in other government organizations (which also requires significant resource investment) or three: they can contract with private organizations to acquire the capabilities required. A fourth option is to recognize that some CA-related capabilities will have to be provided by others outside the nation and to develop interoperability as appropriate. In practice, Nations will likely use a combination of all the methods based on their specific existing capabilities, resources, and political will. Membership in Alliances, like NATO, adds additional capability development possibilities—such as common funding of capabilities for the Alliance as a whole and national specialization in niche capabilities.

The ITOPFLDm paradigm can help all actors engaged in the CA think through the capability development process so that it facilitates interaction. The aim of the CA is to ensure that external involvement in complex engagements adds significant value to the lives of the local people as they work to increase their resilience (preferably) prior to or in the aftermath of a major crisis. A capability development paradigm shift focused on the CA is essential if we are to achieve this aim.

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Notes

1. For a definition of *wicked problems* see Rittel and Webber Rittel, H.W.J. and M.M. Webber (1973). "Dilemmas in a General Theory of Planning." *Policy Sciences* 4: 155–169.

2. How does the CA relate to stabilization and reconstruction? S&R activities create incentives. The CA aligns incentives and reduces transaction costs—we thus use a CA to more effectively and efficiently accomplish S&R activities. A full description of how CA supports the creation of incentives through stabilization and reconstruction activities is beyond the scope of this paper.

3. Organizational culture of course has a strong influence on the potential forms, intensity and effectiveness of the interaction. Importantly, these cultural differences should not be understood primarily in terms of distinctions between civilian and military cultures. The culture of military organizations generate intra-military interaction challenges no less significant than those between civilian and military organizations, just as civilian organizations have a wide set of different cultures. Cultural diversity is far richer than the categories of military or civilian can contain. For a further discussion of the implications of this point, see *Capabilities-not clothes*, Hallett, M. (2011). "Capabilities—Not Clothes." *Armed Forces Journal* (July 2011): 28, 30, 32.

4. See Hallett 2009 for a description of the NATO Lessons capability in terms of DOTMLPFI.

Chapter 4

Strategy and the Comprehensive Approach

CHRISTOPHER M. SCHNAUBELT

Abstract

Successful execution of a Comprehensive Approach is often hampered because civilian and military practitioners lack a common approach for developing strategy. Most military organizations have a standard methodology for writing plans and strategies, yet there are no widely agreed upon processes used by civilian organizations. This chapter attempts to bridge that gap by proposing a framework for developing civil-military strategies using the formula: Strategy = Ends + Ways + Means, wherein ends are the objectives or the “what” the strategy intends to accomplish; ways are the strategic concepts/courses of action or the “how” that describes the methods of applying the means to attain the ends; and means are the resources, typically elements of power such as military, political, economic, and diplomatic assets, used to attain the ends.

This chapter is intended to help build the capacity of civilian organizations to participate in a CA by filling the need for a relatively brief overview of strategy and providing a generic template for its development. It attempts to establish a common baseline to assist teams of civilians and military personnel working collaboratively to develop a strategy. The thoughts and concepts presented here do not present original thinking but are instead a distillation of many books, articles, and presentations on the subject.

Introduction

The Comprehensive Approach is a term of art that refers to activities where military and civilian organizations must work together to achieve common and/or interrelated goals, usually in relation to crisis management. Typical examples include counterinsurgency and stability operations where the military is needed to provide security for civilian organizations to improve governance, economic development, rule of law, etc., while progress in these areas reinforces security gains and over time should eliminate the need for military intervention. Furthermore, in many cases military units must perform what would normally be considered “civilian” activities due to a shortage of civilian expertise and a high level of threat to civilian personnel (Stavridis, 2011).

One of the factors that make implementation of a CA so challenging is lack of universal argot, planning techniques, and processes for developing strategy. Because they lean heavily on a body of guidance called “doctrine,” military leaders have a great deal of commonality in these areas. Military organizations typically have standardized routines for developing plans and strategies. NATO, for example, has publications that delineate agreed upon terms and definitions and describe how to plan, execute, and provide logistic support to allied joint operations (NATO, 2011).¹ Although it is common to speak of things categorically as “civilian” versus “military,” there is no single “civilian” mode of planning or developing strategy that is nearly as systemic, homogeneous and coherent as that of the “military.”²

Of course, one cannot expect to become an expert or even a moderately successful practitioner from reading this one short paper. For those truly interested in the subject of strategy, and those whose job will be to develop it, this paper will at best present an *amuse bouche*. A thorough education regarding strategy requires extensive study.³

The intended audience for the courses taught at Yale by Professor Gaddis, et al, are students at one of America’s most elite universities, some of whom will presumably go on to be influential civilian government officials and policy makers. Indeed, civilians who understand strategy may become increasingly in demand if the goals of U.S. Secretary of State Hillary Rodham Clinton, as evinced in the first Quadrennial Diplomacy and Development Review (QDDR), come to be realized. The 2010 QDDR presents a vision of “Leading through Civilian Power” with Chiefs of Mission performing as “CEOs of a multiagency effort.” The QDDR notes that one of the key steps that must be accomplished in order to realize its goals is to: “develop a high-level strategic planning process, strategies for regional and functional bureaus, and Integrated Country Strategies that bring together all country-level planning for diplomacy, development, and broader foreign assistance into a single, overarching strategy” (U.S. Department of State, 2010: xviii).

What Is Strategy?

There are numerous definitions of strategy, as well as a surprisingly large number of works on strategy that do not provide an explicit definition but either expect readers to infer its meaning from the discussion or assume they are already familiar with the term. There is also considerable debate in the literature on levels of strategy; some authors identify distinctions between related concepts such as “strategy,” “theater strategy,” “national strategy,” and “grand strategy.” The question is not merely semantic, but for purposes of this chapter it is sufficient to treat “strategy” and “grand strategy” as synonymous and to provide a handful of definitions as examples.

The Merriam-Webster (2011) online dictionary defines *strategy* as “the science and art of employing the political, economic, psychological, and military forces of a nation or group of nations to afford the maximum support to adopted policies in peace or war.” According to business professors Gerry Johnson and Kevan Scholes, “strategy is the *direction and scope* of an organisation over the *long-term*; which achieves

advantage for the organisation through its configuration of *resources* within a challenging *environment*, to meet the needs of *markets* and to fulfill *stakeholder* expectations” (Johnson & Scholes, 2006: 10).

One of the most succinct definitions is offered by Bartholomees, Jr. (2010c: 15), who calls it “simply a problem-solving process.” Somewhat more expansive, according to Brimley (2008–09: 28): “strategy is the art of connecting aspirations with prudent plans and finite resources.” One of the most brilliant strategists of the Cold War era, Brodie (1973: 452), wrote that “strategy is ‘how to do it’ study, a guide to accomplishing something and doing it efficiently.”

Along similar lines, Gaddis (2009) tells us that “grand strategy is the calculated relationship of means to large ends.” Expanding upon this concept, he writes:

It’s about how one uses whatever one has to get wherever it is one wants to go. Our knowledge of it derives chiefly from the realm of war and statecraft, because the fighting of wars and the management of states have demanded the calculation of relationships between means and ends for a longer stretch of time than any other documented areas of collective human activity.... But grand strategy need not apply only to war and statecraft: it’s potentially applicable to any endeavor in which means must be deployed in pursuit of important ends. (Gaddis, 2009: 7)

Each of the preceding definitions has both value and limitations. Nonetheless, the author proposes the following working definition based upon the model developed by Arthur Lykke (Yarger, 2010): “strategy is a statement that unambiguously defines the ends that are to be achieved, the means that will be employed to achieve those ends, and the ways in which those means will be used.”⁴

This can also be expressed as a formula: Strategy = Ends + Ways + Means, wherein ends are the objectives or the “what” the strategy intends to accomplish; ways are the strategic concepts/courses of action or the “how” that describes the methods of applying the means to attain the ends; and means are the resources, typically elements of power such as military, political, economic, and diplomatic assets, used to attain the ends (Jablonsky, 2010).

Developing strategy is an intellectual process that primarily entails art rather than science.⁵ This characteristic obtains because the conditions that produced the need for a strategy will always be dynamic and reciprocal. As Collins (1973) has put it, “[strategy] is not a game that states can play by themselves” (cited in Gray, 2009: 2).

This holds true even if the situation is not competitive. In a security context, the requirement for strategy is generated by a thinking, adaptive enemy or adversary who will react and change its own strategy according to the progress of a war or largely peaceful conflict. Yet the same dynamic nature applies in highly cooperative situations such as those involving domestic populations whose behavior a government intends to influence through public policy. To provide just a few examples, people will often change their behavior in an unexpected manner as a reaction to tax policy, urban planning regulations, gas taxes, or health care laws promulgated by a government they

perceive to be entirely legitimate—implementing a peaceful, domestic political or governmental strategy also involves reaction as well as action. Simply put, human beings will respond to changes in their situation in ways that are often difficult to anticipate. A good strategy must take into consideration this dynamic.

Understanding the motivations, culture, and beliefs of individuals and groups will reduce the risk of unintended consequences, but human behavior is frequently unpredictable. As an example, U.S. Secretary of Defense Robert McNamara's failure to dissuade North Vietnam from attacking South Vietnam through a quasi-scientific and formulaic application of graduated military force (calculated by his subordinates consisting of the "Best and the Brightest" from America's top universities) seems to illustrate this assertion. How else to explain America's defeat by a nation that possessed only a tiny fraction of U.S. military and economic power?

For this reason, it is critical that developers of a strategy consider the second- and third-order effects (that is, the action-reaction cycle of thinking human beings) that their implementation of ways and means will produce. It may be trite, but it is nonetheless true that in armed conflict "the enemy gets a vote." Equally true in terms of domestic policy, citizens will react to strategies that intend to raise revenue or shape behavior with changes to their work habits as well as voting at the ballot box and/or "with their feet" by moving to another jurisdiction.

As will be described further in the model below, developing strategy is usually an iterative process. Very rarely, if ever, can a strategy in pursuit of important ends be developed, tasked for implementation, and then forgotten. Yet, there is a tension between the need for a strategy to be forward looking and far reaching and the requirement to track its implementation and make adjustments when needed.

On the one hand, a good strategy is usually big, bold, and at a high conceptual level so that it does not require constant tweaking and reformulation. A typical time frame will encompass years rather than days. Creating the means may take a long time before they can be employed, especially when they entail recruiting, training and educating personnel; creating doctrine; or building aircraft, ships, and missile systems or other resources that require long lead times to produce. Advanced technological tools may give a nation a great advantage, but as MacGregor Knox (1994: 641) has written, "... machines need an inordinate time for their development, tend by their nature towards specialization, and require time-consuming adjustment to fit into integrated 'weapons systems' needed to crush or counter the 'systems' of potential enemies." Thus, a good strategy will usually have an enduring quality.

But on the other hand, the situations that require a CA will often be "wicked problems" that experience systemic shifts in unpredictable ways due to the inputs that flow from execution of the strategy.⁶

Table 1 depicts the characteristics of various problems categorized according the complexity of their structure:

Table 1. Types of Problems and Solution Strategies

	Well-structured “Puzzle”	Medium-structured “structurally Complex Problem”	Ill-Structured “Wicked Problem”
Problem Structuring	The problem is self-evident. Structuring is trivial.	Professionals easily agree on its structure.	Professionals will have difficulty agreeing on problem structure and will have to agree on a shared starting hypothesis.
Solution Development	There is only one right solution. It may be difficult to find.	There may be more than one “right” answer. Professionals may disagree on the best solution. Desired end state can be agreed.	Professionals will disagree on: · How the problem can be solved. · The most desirable end state. · Whether it can be attained.
Execution of Solution	Success requires learning to perfect technique.	Success requires learning to perfect technique and adjust solution.	Success requires learning to perfect technique, adjust solution, and refine problem framing.
Adaptive Iteration	No adaptive iteration required.	Adaptive iteration is required to find the best solution.	Adaptive iteration is required both to refine problem structure and to find the best solution.

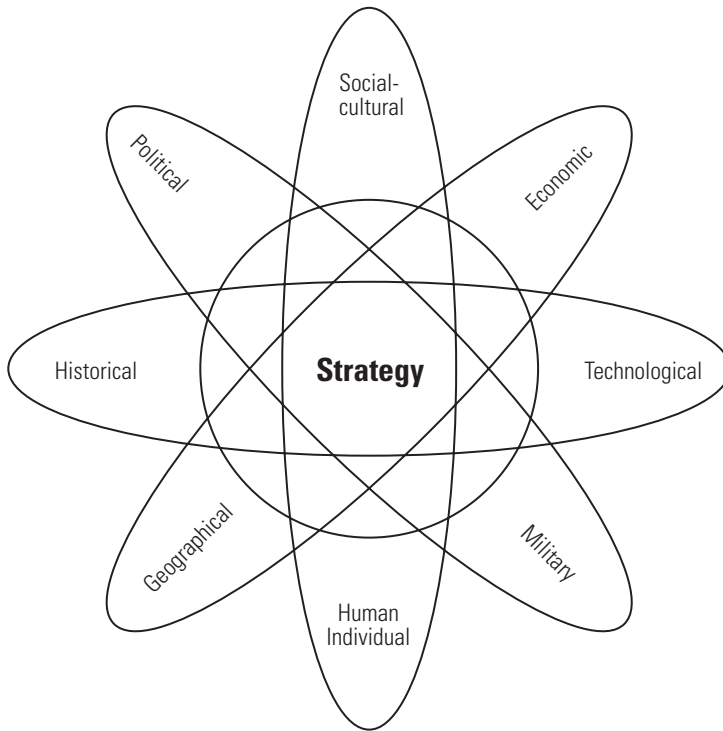
Source: U.S. Army TRADOC (2008: 9)

As the problem, situation, or threat evolves or reacts, the means necessary and/or ways they are employed will usually need to be adjusted to fit these changes. Additionally, as the costs of executing the strategy become clearer, the desired ends might be reconceived.

During the Korean War, for example, the United States and its United Nations Command allies shifted the desired end several times as the perceived costs of achieving it shifted. Initially, the goal was to merely restore the *status quo ante bellum* and restore the independence of the Republic of Korea (South Korea). In the wake of MacArthur’s spectacular advance to the Yalu River, the goal changed to the utter defeat of the Democratic People’s Republic of Korea (North Korea). However, following the Chinese intervention and the rout of MacArthur’s over-extended forces, the desired end shifted back to maintaining the independence of South Korea and restoration of the *status quo ante bellum*. Arguably, this is an example of shifting the ends in the face

of unanticipated costs—in other words, bringing the ends into balance with the ways + means—whereas the defeat in the Vietnam War was due to a failure to align the ends with ways and a level of means that would be acceptable to the American public.

As Gray (2010: 38–39) argues, strategy is developed within a context of “political, social-cultural, economic, technological, military, geographical (geopolitical and geostrategic), and historical” factors. This is illustrated by the chart below, to which the author has added human individuals as a significant factor.



This set of contexts impacts the development of strategy in multiple aspects. It will determine who is chosen to develop the strategy in question, determine the stakeholders the strategists must report to, and define the problem set—to include existing and potential influences upon the behavior of the actor(s) the strategy is going to target. Identifying the nature of these contexts and how they interact with each other is a key aspect of developing “understanding” of the situation.

A Process for Developing Strategy

The conditions a strategy is expected to address and the context in which it is developed will vary widely. The following is a generic process for developing a strategy. Other approaches may be more useful in certain contexts. For example, if the developers have very clear, specific guidance and fit within a well established hierarchy

(such as a military headquarters), a linear deductive process such as the Guidelines for Strategy Formulation in Appendix I of *The U.S. Army War College Guide to National Security Issues, Volume II: National Security Policy and Strategy* (Bartholomees, 2010b: 397–402) may be more useful. However, in cases where the ends must be established largely from scratch without clear direction from a higher echelon (for example, teams of collaborative planners without a single common higher headquarters), the following approach may be more useful.

(Note: The following process is not necessarily linear. Strategists might vary the order in which they address the various components and perform some of them several times, thus moving “back and forth” through the process. Furthermore, it is usually iterative.)

Estimate the Development Timeline

Determine the deadlines for completing development of the strategy. When a strategy team is tasked by a higher echelon, it will usually be given a “due date” for completion. However, when the team is at the highest echelon or when a specific deadline has otherwise not been externally established, it should establish its own deadlines and decide how much time to apportion various parts of the development process. In a crisis situation, such as the NATO operations in Libya that were ongoing when this chapter was written, there will be a limited amount of time available before action must begin and this will limit how much of it can be devoted to various elements of the process. Otherwise, some parts—such as developing understanding—could take virtually forever.

Develop Understanding

Gather information and relate it to conditions and actors. This element of the process attempts “to explain the qualitative relationships embedded within complex problems, including their history, dynamics, propensity, and trends [but nonetheless] recognizes that complete knowledge is not achievable, and therefore constantly questions the limits of existing knowledge and prevailing public myths or paradigms” (U.S. Army TRADOC, 2008: 15). It requires more than the simple collation of facts or assumptions. The contexts identified above provide a starting point to list the key situational aspects that must be analyzed. At the most basic level, any strategy is about changing the behavior of an actor or actors. This places a premium on knowledge about the key stakeholders, their points of view, capabilities, and interactions. A good starting point might be to ask: “What can we *not* control?” This leads to other useful questions such as: What can we control? What can we influence? What conditions are more susceptible to our influence?

Be as explicit as possible regarding the degree of uncertainty, for example, what is the level of confidence in estimates, information, and predictions? What do we strongly believe that we “know” versus what is an “educated guess” that is necessary to proceed in an absence of knowledge?

Frame the Problem(s) and Opportunities

Determine what is the question or problem to be solved. This closely relates to developing understanding and there will probably be a back and forth between these components of the process—framing the problem will usually expose shortfalls in understanding. Strive to capture the nature of problem realistically rather than let wishful thinking about it dictate the approaches used to address it.

Questions to consider include:

- ✦ The external problem context⁷
 - ✦ What is the history of the problem? What is its genesis?
 - ✦ Who are the parties interested in the problem and what are the implications of likely outcomes?
 - ✦ What caused the problem to come to the fore?
- ✦ The internal context for the strategy development process
 - ✦ Who is directing the creation of the strategy (a higher echelon or group of stakeholders)?
 - ✦ What are their expectations?
 - ✦ What, if any, policy guidance should shape the strategy?
 - ✦ Can the ends be deduced or must they be inferred?

Draft Proposed Ends

Envision what is to be accomplished. In other words, describe the outcome that is expected to result from implementation of the strategy. This element of the process establishes the scope of the strategy and gives it focus. However, as the strategy is developed the originally proposed ends may need to be adjusted as the ways and means are explored and the likely costs of achieving the initially desired ends become recognized. It may turn out that the projected costs of the means necessary to achieve the ends will exceed the perceived value of those ends.

Determine the Ways and Means

Compare the contemporary problem frame with the vision of what should be achieved. How can we proceed from here to there? What resources are available? How can they best be used? What are the options? How do they compare in terms of cost and effectiveness?

One approach to evaluating a potential strategy is by applying the standards of feasibility, acceptability, and suitability. These characteristics should be considered as potential combinations are developed. Are the means realistically available? Are the ways legal and the means worth the cost? Is it likely the strategy will actually achieve its ends?

Consider Risk

Assess whether the end, ways, and means are in sustainable balance. A corollary to our formula for strategy is that: $\text{Ends} = \text{Ways} + \text{Means} + \text{Risk}$. Risk is the probability that our strategy will fail to accomplish its ends. The nature of complex problems is such that there will always be uncertainty and thus some level of risk is always present. However, it should be recognized that there is an interdependent relationship between ends and the ways and means such that if the means are reduced, while the ends and ways are held constant, there is an increase in risk.⁸

Reframe the Problem

Consider the likely evolution of the situation in light of proposed actions. This element of the process should be conducted frequently, if not continuously. In a sense, all strategy is prediction in the form of an “if-then” statement: if we do *x*, the object of our strategy will do *y* in response. Nonetheless, strategists should be wary of making predictions, and especially about relying on them, but consider how the enemy may react (or in cases other than armed conflict, how the situation may change) in response to implementation of the strategy. What might be the second- and third-order effects that result from implementation of the policy? Even after the strategy has been promulgated and resulting actions have begun, reframing of the problem must continue in order to assess the effects of the strategy and the need for revision.

Finalize the Statement of Ends, Ways, and Means

Write the strategy. There is no “school solution” to the challenge of writing a strategy. There are too many possible variations in requirements, contexts, detail, and degree of complexity to suggest a specific format or outline. Examples of current and historical national security strategies, military strategies, and business strategies abound on the web. Length is not necessarily indicative of quality or likelihood that a strategy will be successful. In some cases a succinct, one-page statement will be best. One of the most critical characteristics is that the strategy must be clearly understood by the organizations and individuals who will implement it. How to effectively convey the desired ends and the ways and means to achieve them, again, entails more art than science.

Monitor Strategy Implementation and Effect; Revise as Necessary

Determine whether the strategy is being properly implemented, is producing the expected effects, and progressing adequately towards the desired ends. If not, revise the strategy or the plans and/or activities that implement the strategy. It would be difficult to overemphasize the dynamic, interactive nature of strategy. A good strategy will include mechanisms to see whether it is generating the desired effects and to make adjustments if the object of the strategy is not behaving as desired.

Some Concluding Thoughts

Developing good strategy is extremely difficult. Because of its dynamic nature, providing a simple template or “one size fits all” process is impossible. In an adversarial or competitive situation, however, there may be some comfort in recognizing that one’s opponents are faced with similar challenges (Gray, 2010). Ironically, it is often easier to identify approaches that do not work than best practices.

Rumelt (2010) identified four characteristics that usually equate to “bad strategy.” The following may provide some useful tips regarding things to *avoid* when creating a strategy:

Failure to face the problem. If strategy is simply viewed as a problem-solving process, clearly identifying the problem to be solved is an essential requirement. A strategy that fails to define the correct problem(s) is highly unlikely to achieve the desired outcomes.

Mistaking goals for strategy. Some leaders believe it is sufficient to simply establish extremely high goals and then to push organizations to achieve them without providing a logical plan that identifies the necessary resources related to useful methods for employing them. Evoking the great offensives during World War I, Rumelt writes: “A leader may justly ask for ‘one last push,’ but the leader’s job is more than that. The job of the leader—the strategist—is to also create the conditions that will make the push effective, to have a strategy worthy of the effort called upon.”

Bad strategic objectives. There are two aspects of this error: “a scrambled mess” (fuzzy objectives) that is “just a list of things to do,” and “a simple restatement of the desired state of affairs or of the challenge” (blue sky objectives) that “skips over the annoying fact that no one has a clue as to how to get there.” As the Ends = Ways + Means + Risk formula so nicely illustrates, a good strategy must not only define what to accomplish but also *how* to accomplish it and *with what* resources.

Fluff. Rumelt writes that the “final hallmark of mediocrity and bad strategy is superficial abstraction—a flurry of fluff—designed to mask the absence of thought.” The readers of this chapter can no doubt think of numerous political or organizational pronouncements that relied on the use of buzzwords rather than logic and clearly expressed concepts. If the fluff is removed or replaced with simple and easy to define terms, does the strategy still make sense?

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Notes

1. Among the most important in the context of this article, Allied Administrative Publication-6 is the NATO Glossary of Terms and Definitions while Allied Joint Publication-01(D) provides the keystone doctrine for planning and conducting NATO operations.

2. Civilian organizations often use the terms “strategy” and “planning” interchangeably. In military terminology, however, development of strategy is a qualitatively different activity that takes place at the highest echelons while planning is conducted at the operational and tactical levels. For an analysis of the differences at the operational level, see Schnaubelt (2009).

3. The 2010 reading list for students at the U.S. Army War College, for example, included two volumes of collected articles on “Theory of War and Strategy” (Bartholomees, 2010a) and “National Security Policy” (Bartholomees, 2010b) that exceed 600 pages. The 2009 syllabus for the two-semester course at Yale University on Grand Strategy taught by Professors John Lewis Gaddis, Charles Hill, Paul Kennedy, Walter Russell Mead, and Paul Solman requires a summer research project with international travel as well as dozens of books with thousands of pages of readings in the Spring semester alone. Even with this reading load, Gaddis states that the students are only “superficially” exposed to classic works such as those by Thucydides, Sun Tzu, and Machiavelli (Gaddis, 2009). This is not meant to suggest that either the U.S. Army or Yale programs are the ideal models for teaching strategy, but to give an idea of the amount of study that certain programs feel are required to become thoroughly familiar with the topic.

4. There may be cases where an ambiguous statement of the desired ends may be useful for rhetorical purposes or as a negotiating tactic, but it is difficult to identify cases where this has been successful in the context of a democracy or in an alliance of democratic states such as NATO. Perhaps there is no theoretical reason a strategy must be written. Luttwak (1979) infers ancient Roman strategy from their behavior rather than anything they wrote as such, but in our era it is necessary for practical reasons.

5. For this reason an emerging view holds that strategy should be “designed” rather than “developed” or “planned,” but there is no need to debate this interesting question within this particular paper.

6. The Australian Public Service Commission (2007) provides a good overview on wicked problems.

7. U.S. Army TRADOC (2008) provides the following: “Context: the set of circumstances or facts that surround a particular event, situation, etc. Context as described by Mao Tse Tung: Thus the different laws for directing different wars are determined by the different circumstances of those wars—differences in their time, place, and nature. As regards the time factor, both war and its laws develop; each historical stage has its

special characteristics, and hence the laws of war in each historical stage have their special characteristics and cannot be mechanically applied in another stage. As for the nature of war, since revolutionary war and counterrevolutionary war both have their special characteristics, the laws governing them also have their own characteristics, and those applying to one cannot be mechanically transferred to the other. As for the factor of place, since each country or nation, especially a large country or nation, has its own characteristics, the laws of war for each country or nation also have their own characteristics, and here, too, those applying to one cannot be mechanically transferred to the other. *In studying the laws for directing wars that occur at different historical stages, that differ in nature and that are waged in different places and by different nations, we must fix our attention on the characteristics and development of each, and must oppose a mechanical approach to the problem of war.*" (23)

8. Strategy is far more art than science; but even in the fine arts, an understanding of balance and proportion is usually required for a piece to be successful.

Part 2

**Technology and the
Comprehensive Approach**

Technology impacts lives at all levels, from the individual to the organization and even to the nation. It can provide many benefits to a society, but it also can have negative effects, either inadvertently or deliberately. Technology can help us do current activities more efficiently and effectively, and enable things that we previously could not do at all. There are six great scientific revolutions of our time: (1) information technology, (2) biotechnology, (3) nanotechnology, (4) robotics, (5) alternatives to hydro-carbons, and (6) socio-cognitive research. A key policy question is how “info-bio-nano-robo-hydro-cogno” will interact in ways that affect security. In each of these areas, technology is developing exceptionally fast. In information technology alone, in 15 years one can expect more than 100,000 percent change in computing power per unit time.¹ Biotech is changing even faster.

Technology is not without its risks, as evidenced when Financial Market traders employed an automated trading system. The system was designed to streamline trading, but actually put the entire market at risk. In the end, the system had to be shut down to avoid a cataclysmic international financial meltdown.

Hardware- and software-driven systems are only one part of an effective technology capability. Just as in the previous chapter, the full range of DOTMLPFI (or ITOPLFDm) must be co-evolved to achieve success. Often, the human element is the weakest link. In the case of Network Enabled Capability (NEC in the United Kingdom) or Network Centric Operations (NCO in the United States), the full value of very large investments has yet to be realized due to human behavioural issues.

However, the basic premise of “power to the edge” remains valid. When organizational and procedural constraints are reduced and those in a network are able to self-synchronize their actions based on shared situational awareness, exceptional results can be delivered. The growth of social networking that has been enabled through the development of communications technologies has been a key player in responses to crises and has been evident in the uprisings that form the Arab Transition. All these concepts require that key actors to have a shared understanding of the issues being confronted. It is necessary to be able to coordinate efforts and resources appropriately, irrespective of whether the actors are dealing with a man-made or natural crisis.

From the standpoint of implementing the Comprehensive Approach in a constrained resource environment, these commercially-based technologies can bring benefits to the Alliance for the fraction of the cost of developmental systems. For the moment, this primarily is true of information technology but, in the future, it will apply to the other technologies as well, as well as extraordinary new opportunities such as additive manufacturing (3-D printing).

This part includes three chapters that explore the role of technology from a number of perspectives in the delivery of the Comprehensive Approach:

Col (Dr.) John Geis, Col (R) Ted Hailes, and Dr. Grant Hammond introduce a concept called the Emergency Data and Transfer System (EDATS), built on the distributed sharing of data that remains controlled by its diverse owners. The goal is to allow both governmental and non-governmental participants to share according to their own rules.

Dr. Velizar Shalamanov outlines a model for the cooperative development of capabilities among NATO and partner nations for crisis management in support of the Comprehensive Approach. The focus is on “Comprehensive C4ISR” (Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance) Approach through the NC3A (NATO Consultation, Command and Control Agency). Although centrally coordinated, these are intended as “bottom up” approaches responding to user needs, incorporating disparate funding mechanisms, and involving industry.

Ted Rybeck outlines an innovative approach to mobilize public-private capabilities for crisis logistics by leveraging a wide variety of social media. It is based on an open architecture called “Knowledge Banking” that lets data owners maintain control over the content of their information and its access privileges. This promotes post-disaster supply chain management at very low cost.

Note

1. One interpretation of Moore’s Law postulates that the amount of computing power per unit cost doubles about every 18 months. In this case, 15 years would allow for 10 doublings. 2^{10} is 1,024, or more than a 100,000 percent increase.

Chapter 5

Technology and the Comprehensive Approach: Part Problem, Part Solution

JOHN GEIS, TED HAILES, AND GRANT HAMMOND

Abstract

Technology which has facilitated rapid globalization has also magnified the impact of crises: man-made or natural. The problems created by crises have become so diverse, complex and severe, that the solution often exceeds the capability of any one organization, nation or alliance to accomplish independently. While many agree on the nature of this challenge and accept the need for cooperative action, most find the solutions too hard to execute. Competing political, military, economic or humanitarian interests create a complex environment where participants stumble over details such as: a) Who is in charge? b) Which interests are preeminent? c) Who has the capability? and d) Who can be trusted? This chapter examines the use of technology to create a framework that makes it easier to provide answers to the above questions. The creation of this framework, through which all actors can be linked, can provide data, knowledge, goods/services and cyber security to all participants. By not assuming control, but rather providing support, this framework can ameliorate the principal issues faced by participants. Technology alone is not a complete solution, but such a system can make worthwhile contributions.

Introduction

The issue at hand is how to manage disasters, natural or man-made, that exceed the scope of unitary action. These disasters have always been daunting, but for thousands of years most people really did not plan for such events, since they did not have the information to work with or the ability to effect real change. In today's and certainly in tomorrow's world, we watch these events unfold in often grisly detail, with the attendant result that we do care for both practical and humanitarian reasons, and more to the point, we now have the capacity to make a difference.

Yet the breadth and depth of such disasters often exceed the capability of any one individual, group or even nation to truly effect meaningful change, relieve suffering or find solutions. While it is intellectually simple for nations, groups and individuals to work together to fix things, it becomes very hard to implement solutions in a world

with thousands of actors torn by conflicting interests, separate agendas, a lack of trust, and very real political sensitivities.

This chapter argues that the very technologies that have made us aware of the scope of these problems can also assist in solving them. It proposes a system that deals with the reality of distrust, while taking advantage of areas of mutual interest and understanding, creating a framework enabling collective action. The solution revolves around a simple set of concepts: remove some of the human element, avoid sensitivities that surround differing actors and their agendas, and focus on enabling the relatively free movement of knowledge. To this end, a constructed Emergency Data and Transfer System (EDATS) is introduced.

The EDATS program is designed to overcome challenges facing any system that tries to resolve many of the basic challenges of bringing together disparate groups within "The Comprehensive Approach" framework. Among these challenges are answering pivotal questions such as: Who is in charge? Who controls the flow of information? How is information attributed? Can it be trusted?

At least a partial solution to these problems can be realized by implementing a system that is largely self-nominating in participation, decentralized in organization and based on a community of mutually overlapping self interests. In EDATS, participation and contributions are focused on accomplishing a set of common goals based on shared information. No one individual or organization is in charge. Everyone is empowered with the ability to push information into the system, or pull information from EDATS. In this system, the users have control over what they submit, whether its origins are displayed, how the data is interpreted and what actions they should accomplish. Trust is developed by the user through assessment of the data in hand, not from confidence (or lack thereof) of other parties involved. As such, trust and verification of the data is an evolutionary process enabled by the EDATS system.

The essence of the program is its ability to gather vast amount of information from open sources throughout the world. It does not require anything from anyone other than a common interest in addressing the problems at hand. If concerns exist, one need not contribute or share. But to the degree that they do add their input to the vast data base, the capabilities are enhanced, both individually and collectively. This is the essence of a comprehensive approach built on a foundation of mutually overlapping self-interest through shared information. Required trust for effective crisis response is moved from the organizations to the information system. EDATS acts as a buffer between actors, accumulating and distributing critical information while giving each participant the degree of anonymity they desire to best complete their own mission. The remainder of this chapter illustrates the attributes of EDATS (as shown in table 1), details its mechanics, provides examples of the system in action in both natural and man-made crisis and ends by demonstrating the application of EDATS and its added value to the concept of Comprehensive Approach.

Attributes

For EDATS to be successful, it must aggregate input from a diverse collection of people, organizations, and nations. Dealing with crisis management is always hard. Having a mixture of participants, all with varying agendas, conflicting interests, and often a visceral dislike for each other, can make the difficult become impossible. For EDATS to be effective in this taxing environment, it must be palatable to a large and constantly changing audience. It must alleviate or bypass the tensions between military organizations and other groups. These include governmental agencies, nongovernmental organizations (NGOs) whose reputation requires staying clear of government affiliations, charitable groups that require independent and often clandestine action and indigenous elements that may seek to exert control over parts of the operation.

Table 1. Attributes of EDATS

EDATS Does Not	EDATS Does
Does not direct or control	Does provide information
Does not judge	Does provide detail actions
Does not fund or execute	Does not need attribution

There have already been international efforts to begin to share, in a more systematic way, information on different aid programs, their cost and sponsorship. The systems approach includes a standardized data format that is available to other aid participants as well as the communities they serve. One example is the International Aid Transparency Initiative (IATI), launched in Paris in 2005. Its aim is “to bring together donors, partner countries, and civil society to enhance aid effectiveness by improving transparency.” (www.aidtransparency.net/about, 2011) IATI has established standards for sharing information among donors and stakeholders which specify what will be published, how detailed the information will be, what electronic format will be used, along with a code of conduct for doing so. The partnership includes donor and recipient governments, multilateral aid agencies, private organizations and NGOs. They use a common aid language to assist in data aggregation and geo-coding of the information provided. They have also produced a “Development Loop” which is a web-based application that allows practitioners and local stakeholders to provide feedback on the aid projects. While obviously not designed for comprehensive approach purposes, the IATI reporting standards prove that coordination and information sharing among disparate entities in aid projects are possible. The EDATS takes this several steps further.

Another program already underway is the very useful and transformative work done by the U.S. research program STAR-TIDES: Sharing to Accelerate Research-Transformative Innovation for Development and Emergency Support. STAR-TIDES seeks to share knowledge about sustainable support to populations under stress (post war, post-disaster, and impoverished). It provides reach back “knowledge on demand” to decisionmakers and those working with the affected populations in the field. In

doing so, it seeks to catalyze the panoply of players involved in such assistance efforts—public-private, whole of government, and transnational organizations—to encourage unity of action where there is no unity of command. It maintains a website (Star-tides.net) where anyone in the network can publish their research on such problems for feedback, critique and implementation, and conduct quality field experimentation. STAR-TIDES thus provides research, results, and field experience with regard to the tools to assist in such circumstances.

These types of efforts provide important contributions in the effort to construct and implement a Comprehensive Approach. But we need to move beyond them to create a system for planning, reporting, and reacting as events unfold to help the disparate players involved coordinate their activities for maximum effect. These examples illustrate a strong trend towards digital assistance in crisis management allowing disparate groups to work towards a common objective. EDATS will capture this momentum; stabilize the approach and speed access by being a “system in place.”

As table 1 delineates, what EDATS does not do is as important to many as what it can accomplish. To be accepted, the system cannot control or direct action, neither can it judge or restrict information, nor be responsible for funding or executing operations. Conversely it must add value by providing vast, relevant and constantly updated information, a summary of programs in place or on the books, and keep attribution to the minimum and only to the level agreed on by the participants. In many instances, the identity of the provider of material, medical support, and security operations can be stripped from the information flow so participants can know what is being accomplished but not necessarily by whom.

Mechanics

EDATS builds on the other systems to create a technologically-enabled system that removes much of the baggage associated with the human element and human motives, while presenting timely and accurate information for all to use in facilitating the management of complex crises. EDATS accomplishes this by drawing readily available technologies that are active today, and builds on them. Programs such as Google’s search engine and Microsoft’s Photosynth programs are but two of the capabilities this system will incorporate.

Software that can fuse and geo-tag billions of photographs is already freely available on the Internet. These pictures can be geographically and geospatially fused together to provide a three-dimensional view of any frequently photographed location. These algorithms have been developed and three-dimensional walkthroughs of various locations are now resident on the Internet. (Snively, 2009) (Szeliski, 2006) These three-dimensional renderings can be compiled using keyword-based searches, and can use images capturing motion as well as still pictures.

Computer algorithms have been developed which compensate for panoramic warping and other distortions caused by various camera lens types. Further, such images can be developed to provide up to a 360-degree image. Among the challenges

is that as objects move through photographed space, computer algorithms had to be developed to either ignore, or to track the moving objects.

While seemingly trivial, when spread across billions of Internet photographs,¹ these types of pictures have the potential to paint a three-dimensional picture of any location on the planet (Geambasu, Gribble, and Levy, 2009). With the ubiquitous nature of cell phones with cameras, we already have seen a massive infusion of photos as crises unfold such as in Egypt during their revolution or Japan as it suffered a 9.0 earthquake.

As each day passes, millions of pictures are added to the network from every corner of the world creating a data base that expands exponentially. It is inherent in human behavior that as crises emerge, people feel compelled to document them with words and pictures creating an instant "army" of intelligence gatherers. The algorithms to fuse this data in real time across the "cloud" of computing have existed for years. This fusion is being accelerated by three key technological factors: "a faster and cheaper network fabric, a common storage infrastructure, and a potential for a richer than ever runtime environment (Geambasu et al, 2009)." Within this emerging cloud-computing environment, multiple data fusion tools have been freely made available to the public. Flickr (Flickr, 2011) allows free photo-sharing with an inventory of over three billion photos²; Microsoft's Photosynth program creates 3-dimensional composition of geographic space from photos, and ALIPR automatically tags photos using image recognition (Li and Wang, 2008).

Photosynth, a free service by Microsoft, will store up to 20 GB of photos. Of those objects or regions where multiple pictures are taken, the synth algorithms will in seconds automatically produce a three dimensional view of that region and place it on the Internet. (Microsoft Corporation, 2011) The option exists to make the Photosynth product private, but anyone who knows the URL can view it. Private merely means it will not turn up in the search engine. This software would allow, in emergency situations, for NGOs, governmental agencies, or private citizens, to provide three-dimensional views of any location, in real-time, to all other coordinating relief efforts.

This type of data is readily available in many parts of the world. The city of Chicago, for example, operates a network of over 10,000 cameras, which also include audio recordings. The system is able to differentiate the sound of breaking glass or gunshots and direct first responders to locations where the event is occurring. (Pasquale, 2009) (Tareen, 2011) One result of these systems has been both a reduction in 911 calls since responders are on the move and preventing situations from becoming emergencies. Mayor Richard Daley has stated that the system has been directly responsible for the arrest of over 4,000 people whose criminal activities were able to be tracked by the systems. (Tareen, 2011). This type of technology can obviously be used effectively for multiple purposes, and crisis management certainly is one.

In addition to the video and pictorial information on the Internet, the data resident in other media is vast. As of mid-February 2011, Google had catalogued more than 25.7 billion web sites, each of which contains a repository of data. (Google, 2011)

(Website 101, 2009) This data, however, is meaningless if it cannot be sorted and analyzed. Recent computational algorithms have managed to make such knowledge possible, as the analytical capabilities of computers are increasing rapidly.

The ultimate measurement of knowledge or data fusion is the Turing Test. (Turing 1950) Proposed by Alan Turing in 1950, this test suggested that if a computer could, in a blind test with multiple judges, defy identification after a 5-minute interview on any subject the interviewer chose, then the computer could be said to think. This test is now administered annually in a competition known as the Loebner Prize. In 2008 the leading computer entrant missed by only one vote. (Ellis, 2011) In 2010, the threshold was surpassed as “suzette,” a computer from California State University, was voted by two-thirds of the panel as being one of the human entrants, and one of the human entrants was selected by two-thirds of the panel as being the computer. (Loebner Prize Foundation, 2010). Since then, computer data fusion has become even more sophisticated.

On February 17, 2011, in prime-time television, a computer pitted itself against two human competitors in a game of making sense of questions written in some of the most obscure semantics known, in the most complex language on the planet. The contest was a game show called *Jeopardy* where the clues are often filled with cryptic references to double entendres and where the participants must respond, not with the answer, but rather the question to which the clue is the answer. In this most complex of linguistic and cognitive sorting situations, a computer named “Watson” outperformed the two top contestants in the history of the game show, each of whom had a record of besting more than 50 consecutive opponents earlier in the game’s history. (Ferrucci, et al 2010) Watson had proven itself capable of making sense out of data presented in convoluted text, with deliberately hidden meanings, and searching its database for the appropriate question, formulating that question in appropriate English, and doing so markedly faster than the most accomplished humans (in this context) on the planet. The computer not only had a performance of roughly the equivalent of its human opponents, it bested each of them by a margin of greater than three-to-one. (*Huffington Post*, 2011)

Computers are already approaching the skill level in analysis of doctoral degree holding radiologists in diagnosing fractures from X-Rays, and have algorithms that will soon rival experienced lawyers at finding deep complexities within the legal code of Western States. (Ford, 2011: a). Martin Ford expands on this problem, arguing that the days are soon coming, when artificial intelligence algorithms may exceed human capability across a wide spectrum of fields. (Ford, 2009: b) In short, computers are fusing data at ever increasing speeds, and this fusion of data is already at levels useful to those involved in complex operations.

From a systems design standpoint, it is important to realize that today, in 2011, we already have the ability to fuse pictorial information and track in four dimensions (spatially and chronologically) activities in any area within the coverage of a smart phone or a camera device. We have the ability to fuse data from the Internet or encyclopedic

databases with error rates equal to or below that of humans, but do this at machine speeds. We have the ability to disseminate these data in a way that intuitively communicates to the humans who need to make decisions rapidly in a whole of government operation. The key question is how such a system should be designed.

In 2010, the Air Force Center for Strategy and Technology was asked a question which required researching this answer. In examining how to deter actors who seek to employ novel weapons of mass destruction or disruption, the Center found that an environment of greater awareness would serve as a deterrent to such attacks, by denying an actor the chance to succeed, and denying him the chance to remain anonymous. (Geis, Hailes, Foster and Hammond, 2011) Such a system would have to be able to fuse data across space and time, to enable finding a person through various media to determine his or her intent before an attack occurs. In short, the system should be able to conduct global intelligence, reconnaissance, and surveillance (ISR) and be assessed and filtered to produce a list of targets and/or things of interest. Such systems are already in the works.

To assist their personnel both in planning for and responding to complex operations, the country of Singapore has developed and fielded a system which uses its resident databases to provide decisionmakers data on current situations and trends and to facilitate reactions to imminent problems. Called the Risk Assessment and Horizon Scanning (RAHS) program, this system, like "Watson," ingests huge amounts of data and is able to respond to queries in a manner humans can readily understand. (Centre, 2009) The purpose for creating RAHS was to help Singapore conduct comprehensive and issue-specific scenario exercises to facilitate cross-agency planning for crises. (Zorn, 2010) In short, RAHS was developed to help Singapore to better its way of implementing the "comprehensive approach." As Habegger points out, its existence may well have helped Singapore weather the recent financial crises better than other South-east Asian counterparts. (Habegger, 2009)

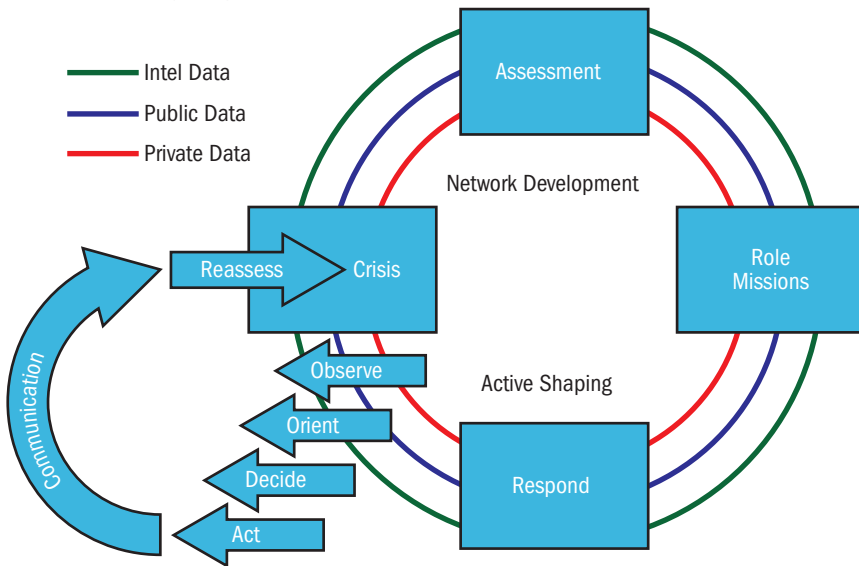
The Risk Assessment and Horizon Scanning tool is able to ingest data in real time using multiple methods from virtually anywhere, to include automatic ingestion of data available on the Internet. (Centre, 2009) The RAHS system uses a variety of display mechanisms to assist analysts in understanding vast quantities of data in a variety of types of tables, graphs and charts. This speeds the ability to discern and discover irregularities in patterns, including quantitative and geospatial data sets. These tools allow rapid quantitative and qualitative analysis of data as well as using a variety of modeling tools to formalize strategy development. RAHS 2.0 includes network, hierarchy and factor-based models, which can assist in testing theories. Based on these theories, analysts can trigger the system to warn if new data of specific interest becomes available. As the system is capable of "time-slice" analysis, the system is able not only able to detect these changes in patterns, but display them in a variety of different modes which are selectable based on the preferences of the operator or the nature of the situation. In short, by speeding research and analysis, perspective sharing among analysts, and via modeling, the RAHS system provides Singapore with a

robust ability to plan for and respond to crises, and enhance its ability to participate in Comprehensive Approach events. (Centre, 2011)

The system designed by Singapore provides a template that can guide the development of EDATS, which is specifically designed to meet the need for collaborative efforts in a crisis situation. Due to the challenges some NGOs have with working directly alongside governmental, and especially military organizations, the challenge for disaster relief operations is the need to modify this system in a manner which enables organizations to reach into EDATS to gain access to data to help them perform their traditional missions, without being tainted by working for or allying themselves with a particular organization or government.

Figure 1. Crisis Management Cycle

Source: Geis, et al (2011)



To enable and support the diverse needs of all participants, this chapter proposes a system similar to RAHS but with a couple of key differences. The ability to “plug in” to this system anonymously to extract data is one modification. Like the Internet itself, once such an information backbone is built, a variety of organizations can come together to leverage their respective talents to bring a crisis to an end. What is clear is that the ability to fuse both pictorial and data-intense information on the Internet now exists. Singapore has shown the world that this data can be fused to run exercises across the whole of government based on potential scenarios, to include disaster response.

This data fusion has also been demonstrated in an ad hoc manner. Shortly after the 7.0 magnitude earthquake that struck Haiti at 4:53 PM on January 12, 2010 (U.S. Geological Survey Earthquake Information Center, 2011), numerous responders

prepared to provide relief. To assist in helping residents locate relief centers, reach aid, and reconnect with loved ones, the Thomson Reuters Foundation launched a free disaster information service to the people of Haiti. Haitians needed only text their name and location to an SMS shortcode, and the system would direct them to the nearest shelter. To locate loved ones, one merely registered their phone number and that of family members, and the system would automatically provide updates on family members' status and location inside Haiti. (Brough and Gilbert, 2010) This communication proved crucial, as many humanitarian aid facilities were destroyed in the quake, as were the air and seaports and the public telephone system. (News.com.au, 2010) (Fraser, 2010)

In addition, an international network of technologists under a humanitarian initiative funded by Harvard began to use technology to map ongoing efforts within crises. Using low-flying remotely piloted aircraft, CrisisMappers can map terrain with 100–1000 times better resolution than can Google or other satellite data distributors. (Sutter, 2010) InSTEDD (Innovative Support to Emergencies Diseases and Disasters) brought GeoChat to Haiti. An open-source communications tool that can use SMS, email, and Twitter, helped fuse the communications and the mapping technologies to create a visual picture. (InSTEDD, n.d.) The fusing of the communication with the mapping technology was able to speed humanitarian agency responses from time-lines that normally would have taken weeks, down to only a few hours. While the dynamics are not yet fully understood, the combination of mapping, communication, and crisis response teams from communities and humanitarian operations literally around the world, showed a strong potential in facilitating and speeding the response. (Meier, 2010).

In addition, the combination of low-bandwidth communication, and the mapping and ground pictures capabilities provided by CrisisMappers, allowed for family members overseas to more quickly discover the status of their relatives in Haiti.

Simultaneously, the rapid spread of the video feeds allowed news agencies to quickly report on the scope of the disaster. These systems, all of which came together in an ad hoc manner, sped up not only the internal relief efforts, but also had a major impact on the speed and scope of the international response to the earthquake. (Rasmussen, 2010)

Rasmussen describes an informal, yet highly effective system similar in nature to the proposed EDATS approach. Where EDATS differs from the ad hoc approach above, is in the breadth of resources it will draw from, and its extant processes that dramatically reduce the time for preparation and coordination and the inclusion of all resources from nations, groups and individuals. The strength and value of EDATS is in the formal and pre-scripted algorithms that accumulate, fuse and organize information through such programs illustrated by Photosynth, the RAHS system from Singapore, mapping software, and the contributions of multiple interested groups with highly specialized talents. In EDATS, this is all ready for use before disaster strikes.

Cases to Consider

It is worthwhile to remember the types of situations that would require the EDATS system. The ranges of crises, whether natural or man-made, are unlimited but their notable attributes are that they are big, important and must be dealt with rapidly. So, two examples are briefly covered to put context to theory.

At some point in the future, Italy, NATO, the European Union (EU), North Africa and the Eastern Mediterranean, if not the rest of the planet, will be confronted with the consequences of a major volcanic eruption: Mt. Vesuvius near Naples, Italy. This is not a question of “if” such an event will occur; it is only a question of “when” it will happen. A major eruption will likely cause panic in the local population, create chaos in efforts at evacuation, cause significant damage to habitats and infrastructure, kill tens of thousands (or more) people, and have extended climatological effects.

Vesuvius is a stratovolcano at the junction between the European and African tectonic plates, with a history of catastrophic Plinian eruptions. It is supplied by one of the largest magma chambers in the world, with approximately 400 cubic kilometers of molten rock beneath its core. (Pappalardo and Mastrolorenzo, 2010) The most dangerous type of volcano, Vesuvius gave name to the worst type of eruption when Pliny the Younger wrote the only surviving full account of the eruption of A.D. 79, when Vesuvius buried Pompeii and nearby Herculaneum. Thus, the phrase Plinian was coined.

Vesuvius has had major eruptions roughly every 2,000 years, with less catastrophic ones averaging 500 years apart. Today, 700,000 people live in the “Red Zone” for evacuation—a region with narrow roads that would take several days to clear. Yet, the “Red Zone” does not include the three million person city of Naples, which recent research has discovered had been buried in ten feet of ash from previous pyroclastic flows. (Fraser, 2007). It has now been 2,000 years since Vesuvius’ last cataclysmic eruption, and neither Italy nor Naples is ready for another.

Vesuvius’ next Plinian eruption will spew hot gases, toxic fumes, and pyroclastic flows at speeds of 160 km per hour. For those in the immediate vicinity, instant death and destruction would likely be caused by the thermal shock wave of gases whose temperature would approach 500° Celsius or nearly 900° Fahrenheit. (Zanella, Guroli, Parechi and Lanza, 2007) These gasses would cause massive fires and kill everything in their path.

Such a catastrophe would be more than Italy could handle and would require assistance from NATO, the EU and the rest of the world. Infrastructure within the blast zone, which could extend to all of Naples, would most probably be destroyed and volcanic ash would short out communications, computers, and mobile devices at distances up to 1000 kilometers, especially downwind of the eruption.³ (U.S. Geological Survey, 2010) Dealing with the scale of these problems and providing for basic communications, the reporting of damage and needs assessments, the distribution of water, food, fuel, makeshift shelters, medical care, mortuary services and the like would require the extensive use of NATO military forces, EU assets, UN agencies, the

intervention of other international governmental groups as well as non-governmental, private and voluntary organizations. Coordinating these disparate efforts would be a massive undertaking lasting weeks, if not months or years.

Like nature, man can also cause changes which can have sudden and dramatic effects. As the recent events in North Africa and the Middle East reveal, the likelihood of mass migrations of refugees of all sorts—dissident citizens and protesters who fear retribution, foreign nationals caught in the country, migrant foreign workers, defecting police and military members, average citizens trying to escape the battle zone, former mercenaries who have changed sides, members of the ruling family and their supporters all fleeing to neighboring countries—is a reality. First, Tunisia, then Egypt, then Libya suffered uprisings which occasioned refugees who feared for their lives as a result of the chaos that ensued. They fled by whatever means available—small boats, ships, planes, cars, trucks, buses and on foot—and headed for wherever they could to escape. The countries on either side of Libya had just experienced their own revolutionary changes in regimes and were ill equipped to handle the massive influx of refugees from the Libyan conflict. European countries, Malta Italy, and Greece in particular, continued to be swamped by the influx of those seeking refuge and in some cases asylum.

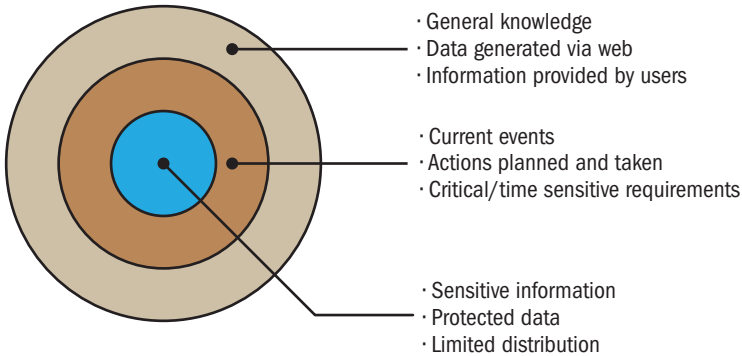
Estimates are that as of February 28, 100,000 migrant workers, most from Tunisia and Egypt, tried to flee From Libya and return home. Early in the Libyan struggle, Malta had received some 8,000 refugees from 89 different countries, including 1,800 workers from China, Pakistan, Thailand and Vietnam. The Chinese have evacuated nearly 20,000 Chinese workers from the Libyan construction and oil industries by a variety of means to a number of different countries. Greece received over 7,000 foreign nationals from Libya on board three Greek ferries. The Russian government was trying to evacuate nearly 1,200 Russian nationals by ship and plane. It is estimated that some 15,000 Turks (out of 30,000 in Libya), and 1,400 Italian nationals have been evacuated as of the first of March. Many of these people, particularly those on the borders of Libya and the multiple nationalities on various ferries, would have to be screened, separated, housed, fed, guarded, and sustained for an indefinite time while governmental organizations decided how to handle them. Legal issues regarding asylum and immigration, Schengen visas, deportation, as well as the provision of emergency medical services, routine health care, and provision of food, water, clothing and shelter are essential. Coping effectively would require the services of the UN, the EU, numerous international groups and their effective coordination. (Hui, 2011) (Singapore Press, 2011)

Mechanics

How could a comprehensive approach for planning for such events diminish the suffering that would ensue? How could the necessary services be provided quickly for such sudden events? The tools to do so exist and with proper pre-planning these events can be managed. But having the system of technologies in place and making people and organizations aware of the process to utilize them effectively requires strategic thinking

in a comprehensive approach. Using a system such as EDATS speeds up that process, establishes the necessary linkages and begins immediately both the planning process and its implementation and is one way to begin.

Figure 2. Emergency Data & Transfer System (EDATS)



The EDATS has a three-layered system resident in cyberspace. A very small amount of sensitive data will reside in its central core and will be accessible only to those organizations that can be trusted and have chosen to fully cooperate with the governmental agencies in the field. What is important to realize, however, is that a lack of access to this central core will not hinder actors, whether NGOs, IGOs, community or private voluntary organizations from coordinating and rendering assistance as needed. The outer two layers contain the preponderance of data that will be accessible by all. Actors can input into and pull from the information at will.

Furthermore, actors can input with attribution, or anonymously. As stated above, this is crucial for those actors who cannot risk being seen working in concert with military or official organizations and who have as part of their mission a need for impartiality.

In the Vesuvius scenario above, the Italian government can push to EDATS all known information on the names, addresses, locations, map data, etc., of all persons in the affected disaster area. To the extent possible, the Italian and regional governments would also publish data on known locations where survivors are trapped or require rescue. If sensitive government facilities were affected, this data may be reserved for the central core, but all other data would be in the outer layers. As humanitarian assistance and other countries' assistance groups arrive, or plug in virtually, each can search the database for where relief operations or specialized services are needed. As they select areas to begin their operations, they can post this data to the system so follow-on organizations can use their assets where they are most needed, avoiding duplication. Further, they can post this data along with their identification or, if they need to remain

truly neutral in a situation, do so anonymously. In addition, the populace, via Twitter and SMS text messages, can post data and pictures that EDATS can access, which can be fused with the necessary algorithms to provide pictorial, three-dimensional, real-time situational awareness for the relief agencies. In short, EDATS enables decentralized execution of a relief operation, without the burdens that centralized control places, especially on those organizations that must be seen to be independent. It enables a whole-of-government and whole-of-world approach to a crisis, without creating a bureaucracy that would drain assets from the immediate relief operations, cause tensions among participants and avoid the “who’s in charge” debate.

In order to be prepared in advance for crises like those mentioned above, EDATS will need to have the capacity to gather and focus data rapidly from around the world, creating a vast repository of information covering all aspects of the crises. As a side note, EDATS can be brought online for exercises as well by mapping real or exercise scenarios and allowing participants to practice the exploitation of and confidence in the EDATS program.

The information drawn into EDATS will come from many sources. The largest source by far will be the data mining that will pull open source information emanating from social networks, large data bases, and general knowledge. As the crisis unfolds, the most timely and valuable information will come from victims in the field and participants working to mitigate the crisis. The last inner circle, which alters in size moment to moment depending very much on the political sensitivity of the crisis, will be controlled information available only upon subscription and approval. In most cases then, getting access to the vast majority of information is relatively easy and open to all interested parties.

The assessment, validation and extraction of information will be totally decentralized and at the discretion of the individual users. Since EDATS principal mission is to collect information and develop a vast and rapidly changing data base, the ability to sort, prioritize and organize the data into valuable knowledge is a vital task. It will use a system of selectable common “intelligent agents” to provide the users a choice of applications they can use within EDATS that will sort, graph and fuse the most common types of information needed. EDATS will also have a user friendly “tool kit” to enable organizations to build their own specific applications, should they prefer data to be displayed or organized in a format more to their liking. This approach allows all participants to use the system to pull the information they need to perform their part of the crisis relief operations, and allows users to remain anonymous if political circumstances require.

The degree of anonymity is flexible. For some organizations, such as Doctors without Borders, it may be mission essential for them to not be seen as associated with government entities, yet their efforts can be made much more efficient using the information collected. For other organization such as the Red Cross, whose role can be openly discussed, anonymity may be far less important. The EDATS approach can deal with either set of requirements.

Conclusion

The proliferation of information technology has enabled the world to understand better when our fellow citizens are in need from natural disasters or political conflict. As such, it has been the catalyst for an increasing number and increasing size of humanitarian and crisis response operations in recent years. The natures of these crises are such that they can readily exceed the ability or capacity of any group to solve and some form of collaborative action is mandated. But this ability to respond does not solve the real problems created by diverse groups with conflicting objectives and varying political associations. As table 2 indicates, a system needs to be in place that does not dictate answers nor control distribution or filter information but does provide timely accurate information to allow for effective planning. EDATS is an enabler that fuses data for interested parties, enabling a comprehensive approach to solving wicked problems.

Table 2. EDATS Operating Concept

Challenges	EDATS Solutions
Who is in charge? Trust?	No one—Admin only
Who controls distribution?	Only controlled in “Sensitive” area
Who filters/censors/deletes?	No one—user responsibility to assess value
Is there attribution?	User choice

By using technology to catalogue and fuse data, and output that data in a format that governmental and nongovernmental agencies alike can use, a comprehensive, yet decentralized approach to crisis relief operations can be developed. This chapter argues that a system that has as its primary features a database that can be updated in real time—into which all organizations can push and pull data free from attribution, judgment, or outside control—is a system best suited to enable the cooperation of the widest array of potential contributors. Modeled in part after systems like Singapore’s RAHS, and the system now in place by CrisisMappers, technology represented by EDATS can remove the human limitations that have impeded earlier attempts at cooperative action and have a viable system in place to meet crisis management challenges.

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Notes

1. As of the writing of this chapter, at least 6.672 billion pictures were verified to be available for searching, stitching and fusing via searches limited to the English language. To conduct this verification, the author used a Boolean algorithm to search across the indexed photographs in English, using simple articles or phrases. By excluding previous search results from subsequent searches, the author was able to locate nearly 6.7 billion separate images in less than 30 minutes. Other credible estimates suggest over 13 billion may be available.

2. Flickr's own web site at 4:33 AM UTC on February 20, 2011 (a Sunday) had recorded 4,826 pictures posted to its site in that minute, with over 3.7 million images geotagged so far in February. Assuming these numbers are representative, Flickr catalogues over 289,000 images per hour, over 6.949 million images per day, and over 2.5 billion per year. Google lists a total of over 110 sites that catalogue images in addition to Flickr.

3. Volcanic ash has accumulated from Vesuvius' previous eruptions at these distances.

Chapter 6

Comprehensive C4ISR Approach: Bringing Nations, NATO, and the EU Together from Development to Operations

VELIZAR SHALAMANOV

Abstract

The study outlines a model for cooperative capability development among NATO and Partner Nations in support of the Comprehensive Approach for crisis management. It draws on the experience and corporate knowledge of the NATO Consultation Command and Control Agency (NC3A) as one way to address emerging security challenges. The paper posits that developing a “Comprehensive C4ISR Approach” (Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance) through NC3A could be a useful instrument, not only for operationalizing the Comprehensive Approach for crisis management, but also for change management across all of NATO. Key elements include: addressing the requirements of the Integrated Security Sector as a whole (more than just Defence Ministries); providing coordinated support throughout the full life cycle of C4ISR capabilities; and combining diverse funding streams. This approach is supported by several newly available tools and venues for coordination. These could help match top-down requirements with “bottom-up” solutions to strengthen interoperability in secure environments for many players—NATO, Partner Nations, and other international organizations, including those associated with the European Union (EU) or the UN. In turn, this approach could lead to a Network of Excellence in support of the Comprehensive Approach, although full realization of the network will require significant organizational innovation and change management.

Introduction

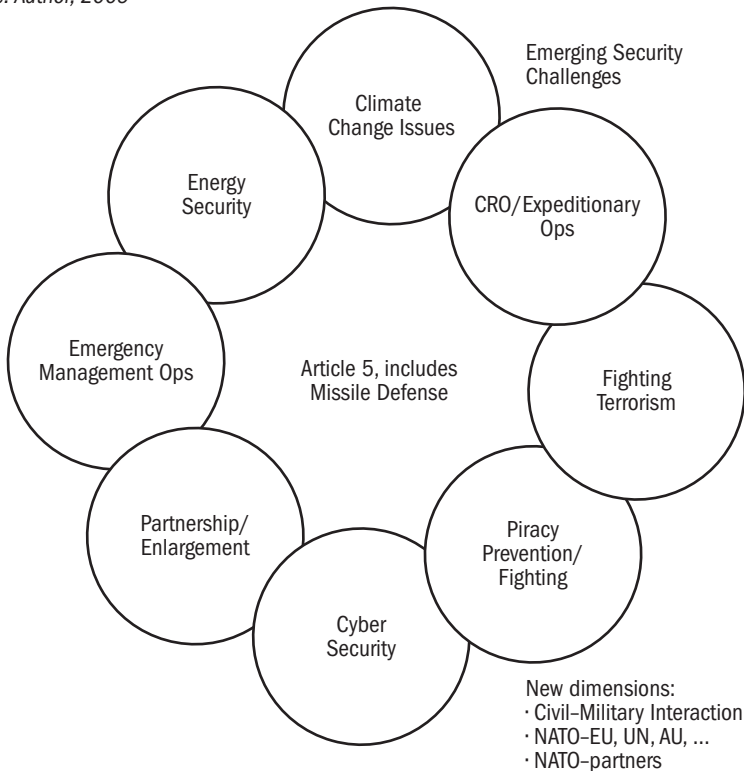
In April 2008, NATO agreed to develop and implement a Comprehensive Approach to address new kinds of complex security challenges. In 2010, a new division on Emerging Security Challenges (ESC) was established within the NATO International Staff. This period also has seen an increase in the speed and scope of change, uncertainty

and complexity in the security environment, influenced by the global economic crisis, among other things. These were reflected in NATO's new Strategic Concept, adopted at the Lisbon Summit in 2010.

These challenges can be addressed in several ways: through improved strategic assessments, more use of dynamic planning and appropriately focused exercises, developing more joint capabilities through "bottom-up" engagement, better coordination of efforts among NATO bodies and Member Nations and outreach to Partner Nations and organizations (especially the EU and the UN). Collectively, these would go a long way towards adoption of a "smart Defence" approach (NATO, 2011).

Figure 1. NATO & Nations Security and Defense Environment: Realignment with the New Strategic Concept and National Strategies

Source: Author, 2009



More and more, individual nations and the Alliance as a whole will look to combine military approaches with "whole of government" and "whole of issue" engagement as shown in figure 1. This will strengthen the vision for applying a Comprehensive Approach to all emerging security challenges, outside of the Article 5, Collective Defence. Military and civilian bodies need to be provided with Civil-Military Network

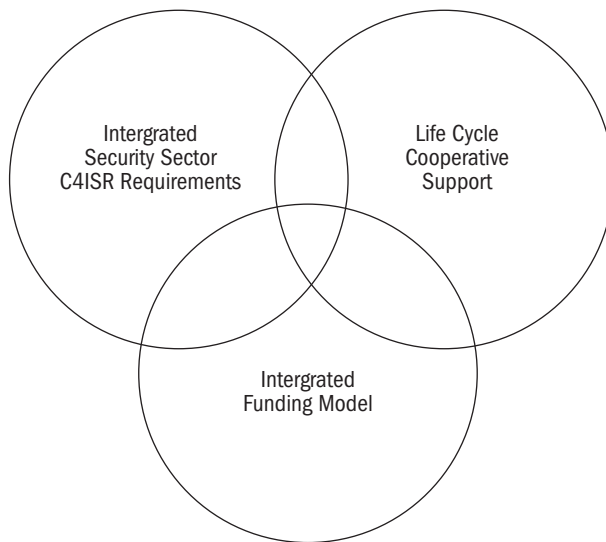
Enabled Capabilities (NEC) that are genuinely effective. This will have implications for the new NATO Defence Planning Process, Operations Planning and Command & Control (C2). With the shift to an “incident management” model, intelligence, surveillance and reconnaissance (ISR) capabilities include more and more joint and interagency components. More exercises and experiments are needed to gain a better understanding of the Comprehensive Approach, and how to operationalise it.

The Comprehensive Approach requires effective interaction and information sharing between civil and military organizations. Such interactions can occur in many functional areas such as:

- ✦ Civil-Military Cooperation and Coordination (CIMIC/CMCO) activities performed before, during and after a crisis;
- ✦ Analysis, monitoring and control functions that routinely are performed jointly, for example, for criminal/terrorist investigations or border control, as well as during responses to civil and humanitarian emergencies and the management of their consequences;
- ✦ Protection of high visibility events (for example, G8 meetings, Olympic Games) and security of critical infrastructure (for example, for energy or food production).

Figure 2. Evolving the Comprehensive C4ISR Approach in NATO

Source: Author, 2009



The need for this sharing has been shown across a range of recent events: disaster relief operations, complex emergencies and crises. Such civil-military interactions vary in intensity and quality, ranging from cooperation to coordination to coexistence.

In the context of these emerging security challenges, this chapter suggests that the development of a Comprehensive C4ISR (C2, Communications, Computing, ISR) Approach in the NATO Consultation, Command and Control Agency (NC3A), and execution in cooperation with other agencies, can be a powerful instrument for change management in NATO. This approach can improve civil-military interactions, which are key elements in operationalising the Comprehensive Approach for crisis management. It does this by (a) inserting transformational concepts into the Integrated Security Sector¹ (which includes multiple ministries and agencies, as well as industry and relations with civil society), (b) promoting cooperative support across the life cycle of C4ISR systems, and (c) integrating funding from multiple sources. Given the aspiration for NATO to take a broader role simply highlights the more specific challenges in being able to operationalise the concepts against the backdrop of constraints that exist within the governance structures of some of the NATO members.

Figure 2 summarizes the Comprehensive C4ISR Approach, which was initiated in 2009 by NC3A, through the NATO Consultation, Command and Control Board (NC3B). On implementation, it would provide C4ISR support to NATO and nations in the evolving, complex security and defence environment that now has been included in the New Strategic Concept from Lisbon, 2010.

The three main pillars (main circles as seen in figure 2) of the Comprehensive C4ISR Approach were explained by NC3A in 2009 (NC3A, November 2009). They are:

- ✦ support to requirements from all elements of the integrated security sector on national, regional and NATO levels
- ✦ cooperative support from across NATO over the whole life cycle of C4ISR capabilities
- ✦ integration of all possible funding mechanisms in support of the “smart Defence” concept.

Implementation of the Comprehensive C4ISR Approach will require a large effort by both NATO and nations. But NC3A, with a team made up of representatives from both NATO sponsoring accounts and participating Nations, decided to emphasize a “bottom up” approach to capability development related to the initiation of several critical bilateral and multinational projects (in the areas of C-IED, Cyber Defence, Defence Support to Civilian Authorities and the NATO Exercise Toolbox, for example). These efforts need to be paralleled by common funded capabilities to achieve greater interoperability for complex operations more quickly and at less cost.

This combination of top-down and bottom-up approaches to capability development, and integration of common, joint, multinational and national funding, could allow NC3A to help strengthen interoperability in secure environments for many players—NATO and Partner Nations, as well as other international organizations, such as those associated with the EU or the UN.

Instead of establishing a stand-alone CoE (Centre of Excellence) for Comprehensive Approach, operationalising the concept in this way could let the

Alliance realize its first truly distributed Network of Excellence. C4ISR would play a critical role in such a network and NC3A could be a hub where many interrelated efforts could be maintained through virtualization.

Capability Development Challenges and the Evolving Comprehensive C4ISR Approach

As noted above, the Comprehensive C4ISR Approach rests on three pillars:

- ✦ increased levels of coordination among security sector organizations, other governmental entities and nongovernmental organizations
- ✦ interagency and international cooperation across the whole life cycle of C4ISR systems and capabilities
- ✦ more integrated efforts within the security sector and alignment of associated funding streams to develop and operate new crisis management capabilities, including C4ISR.

The first pillar reflects the concept of integrated security sector and “whole of government” approach to security and, by including industry and nongovernmental organizations as well as other players, moves the state to embrace the “whole of the issue” approach in addressing the emerging security challenges.

The second aspect is related to the requirement to have seamless capability management throughout all the phases of the life cycle—“from cradle to grave.” This is extremely important because inefficiencies and unexpected costs appear when we fail to plan holistically and delays appear during the transfer of authority as we move from phase to phase.

The last pillar is providing best use of all funding mechanisms and it is of critical importance because of the eligibility aspects of budgeting projects as well as providing maximum flexibility in times of financial constraints. A customer-funded regime for NATO and national agencies is the base for using these multiple funding mechanisms with high degree of transparency, accountability and integrity of the process.

These three pillars are considered as a base for the Agency’s reform in NATO as outlined recently during the summit in Lisbon, 2010.

Several kinds of cross-cutting changes will be needed if these pillars are to be integrated into effective operational capabilities:

- ✦ doctrine, organizational arrangements and tools must reflect the Comprehensive Approach in addressing emerging security challenges and crisis management
- ✦ strategic assessments and scenario-based planning need to consider the diverse problems and approaches, particularly comprehensive C4ISR capabilities
- ✦ governance of ICT (Information and Communications Technology) must support development of comprehensive C4ISR capabilities, including models

for multinational cooperation among Allies, Partner Nations and even non-governmental entities.

All this will require closer cooperation between operational, transformational and implementation authorities in the framework of the political guidance provided by the North Atlantic Council, when it comes to NATO capability development process.

Serious study is also required on the application of advanced ICT to support the implementation of the Comprehensive Approach, as well as the development of capabilities based on technologies such as:

- ♦ smart sensors, particularly for identification of unconventional threats, including improvised explosive device (IED) scanners and sniffers
- ♦ situational awareness and Civil-Military User-Defined Operational Pictures (UDOP), rather than just singular Common Operational Pictures (COP), including information sharing and knowledge management in complex environments
- ♦ collaborative/coalition decisionmaking and C2 tools, particularly tools supporting incident management
- ♦ core services and network management for seamless secure communication in diverse environments, including cloud computing and grid technology
- ♦ distributed modeling and simulation, training, advanced distance learning, etc.
- ♦ most of these technology areas are covered in the NC3A catalogue of expertise, but through closer cooperation with industry and national agencies it is possible to extend the base for supporting capabilities development for the Comprehensive Approach in a more innovative way.

The three pillars of the Comprehensive C4ISR Approach are supported by several instruments. One is the NC3A Catalogue of C4ISR expertise, developed for the first time in 2010. It covers areas of support to the capability development process that are provided by the Agency (NC3A, May 2010). Two interrelated models of cooperation (bilateral and multinational) can be developed, based on the content of the Catalogue. They draw on the corporate knowledge and tools of the Agency to support capability development for both nations and organizations. The model of bilateral cooperation is supported by the framework C4ISR Memorandum of Understanding between a Nation and NC3A. The multinational cooperation development model (NC3A, October 2010) is based on operational activities, with more than 10 projects on-going and about same number just started, or soon to be so. In both models the Agency is a facilitator within the NATO environment and provides technical support as an executive agent for Nations to develop and acquire required critical C4ISR capabilities, involving academia and industry as well as government sources.

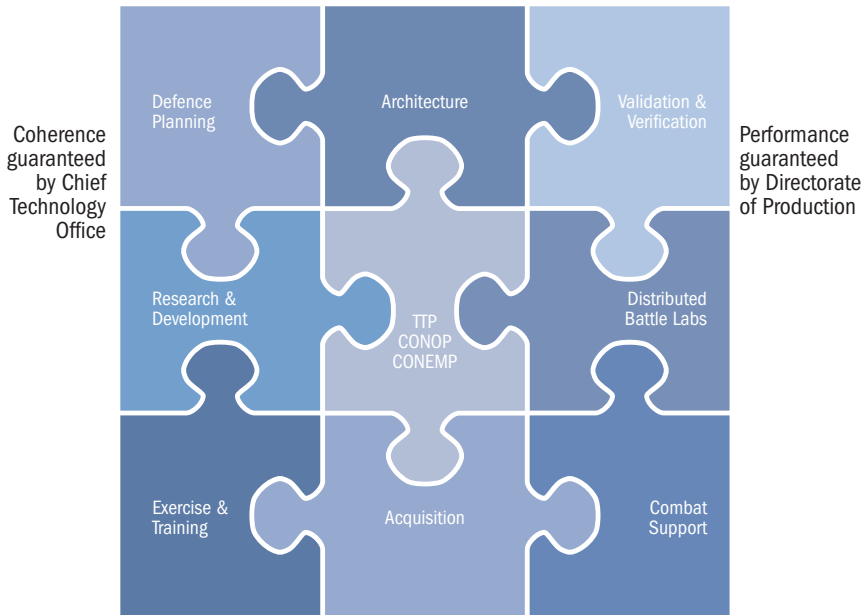
Such approaches require a genuinely adaptive organization which is sensitive to the customer environment (Moreland & Jasper, 2009). To improve its agility, NC3A initiated an annual Chief Information Officers (CIO) conference in 2010 which complements existing annual industry conferences that take place in the Autumn and Spring. The latter involves partnering with AFCEA (formerly the Armed Forces Communications-Electronics Association) and the U.S. National Defense University's information resource-focused iCollege. Recognising that many NATO nations have excellent staff colleges for the development of senior officers it would be an appropriate aspiration to have them accept the need for the inclusion of significant coverage of the Comprehensive Approach within their curricula. Whilst it is acknowledged that adding material to current curricula is a major challenge, one option going forward might be that the NATO Defense College (NDC) in Rome and the George C. Marshall Center in Garmisch-Partenkirchen position themselves as delivering courses that have the Comprehensive Approach as a cornerstone within the curriculum and that attendance at these establishments is deemed to be a pre-requisite for key NATO positions. For some NATO and Partner Nations these two establishments would be viewed very positively and this approach may also help persuade other staff colleges to embrace the Comprehensive Approach more fully within their curricula. Both the CIO and Industry conferences are supported by legal instruments—Basic Ordering Agreements (BOA) for industry and framework Memoranda of Understanding with Nations—to enhance information sharing, longer term planning and also quick reaction in emergencies. Thus, the three pillars of the Comprehensive C4ISR Approach are supported by models of bilateral and multinational cooperation, with the Catalogue to explain available capabilities and twinned conferences to link the NC3A better with both customers and Industry.

From Capability Development to Operations

The NC3A is a NATO agency that shares the legal personality of NATO. Its charter was approved by the North Atlantic Council (NAC). The agency is 100 percent funded by its customers. NC3A is part of the NATO C3 Organization, along with the NATO C3 Board and NATO Communication and Information Systems (CIS) Services Agency (NCSA).

Figure 3. Scope of Expertise and Support for the Comprehensive C4ISR Approach in NC3A

Source: NC3A, 2010



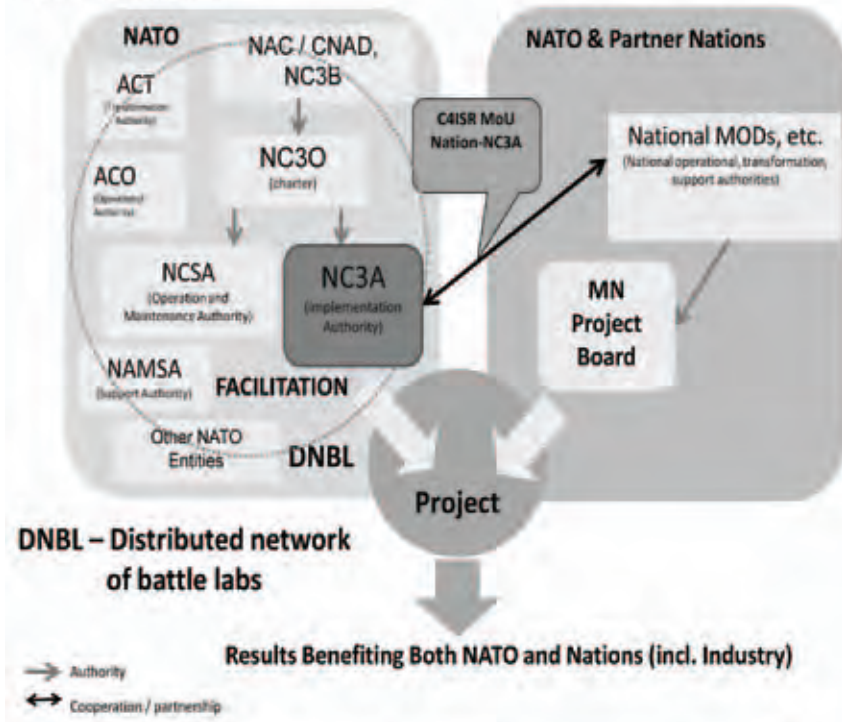
NC3A's mission is to be an enabler to NATO's success through the unbiased provision of comprehensive C4ISR capabilities. This mission is achieved within the framework of the strategic plan, the current version of which is available online (NC3A, July 2010). Each plan is approved by the NC3 Board.

NC3A has significant expertise in the Comprehensive C4ISR Approach, ranging from defence planning to combat support as shown in figure 3. Coherence and interoperability are overseen by a strong Chief Technology Office, while the principal limit to implementation lies in the capacity of the Directorate of Production. All areas of expertise are covered in the NC3A Catalogue. The first edition was distributed in 2010 and the next version is being developed in close coordination with Partner Nations.

This diverse C4ISR expertise, together with competence in program, project and financial management, as well as excellent relations with stakeholders in the NATO environment, positions the Agency well to propose solutions to nations on a bilateral basis, or to facilitate multinational projects. This is shown in figure 4 (NC3A, October 2010). A comprehensive, multinational C4ISR roadmap is being prepared for presentation in the May-June 2011 timeframe to the NATO Task Force on Multinational Approaches to Capability Development.

Figure 4. Processes to Facilitate the Start of Bilateral or Multinational Projects in NATO

(Source: NC3A, 2010)



New projects are initiated based either on requirements defined by NATO HQ and Strategic Commands or on requests from nations and other organizations.² To support these, based on unique corporate C4ISR knowledge, NC3A can plan and offer to nations either the use of NATO-off-the-shelf (NOTS) tools on a bilateral basis or the development of cooperative capabilities through new multinational projects. These can either be based on NOTS or NOTS' customization, according to the customer's requirements. NC3A's Annual Report for 2010 shows more than 500 diverse projects under development or implementation (NC3A, March 2011).

These bottom-up approaches provide opportunities to use existing tools and Research & Development results, which are available under the common funded, top-down capability development process, to inform nations (including industry) about "low hanging fruit" that can be implemented on either national or multinational approaches.

The CIO and Industry conferences, mentioned earlier, are used to inform the user community and companies about these opportunities and to facilitate exploitation of these solutions for delivering critical capabilities effectively.

Smart Defence will require a new generation of organizational innovation in NATO, the EU and nations (government, academia, industry) to be able to benefit from such opportunities. This is a serious change management challenge that will influence the culture of the organizations involved (Neal & Carver, 2009), but it is necessary if the Alliance is really committed to developing network enabled capabilities for the Comprehensive Approach.

From the capabilities perspective, the next challenge is to transition Expert Domain Tools (toolboxes) to Mission-Oriented Suites (figure 5). The best recent example is the operationally-driven Afghanistan Mission Network (AMN). In the past, the Bi-Strategic Commands Automated Information System (Bi-SC AIS) served as a good example on which to base lessons learned. Efforts to achieve an Integrated Air Defence System, and now to add Theatre Ballistic Missile Defence capabilities, are other examples of mission-oriented approaches to integrating C2 systems. With the transition to the Comprehensive Approach, a new goal is to define suites of capabilities for Civil-Military complex operations. This not only includes understanding how to use civilian capabilities in support of military operations. It also means redefining the toolbox for Defence Support to Civilian Authorities missions in Crisis Operations, as well as for support to transition operations. This can be a vehicle for closer cooperation between NATO and the European Union (EU), as well with the UN.

There is much to learn from national experiences (Wells & Christman, 2009), but NATO and its Agencies also must engage to support this part of the capability development process if the Comprehensive Approach is to be implemented successfully at an international level. This is a management challenge of a different magnitude.

**Figure 5. Evolving Domain Specific Tools to Federation
in Service Oriented Architecture for Mission Oriented Suites**

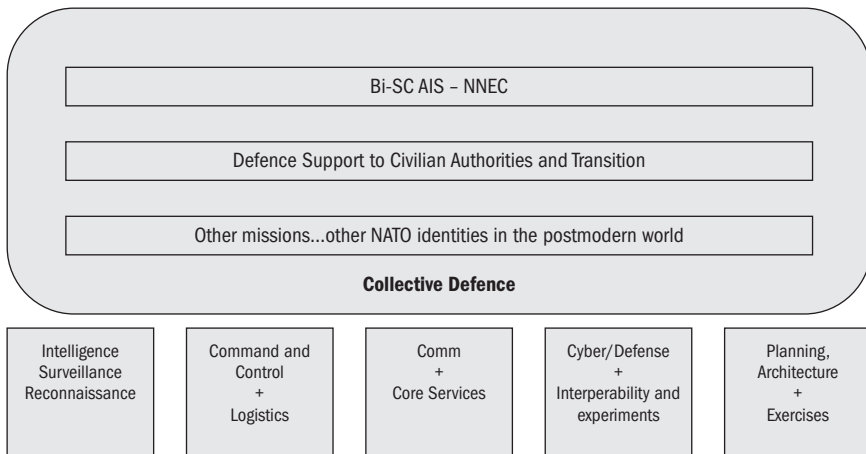
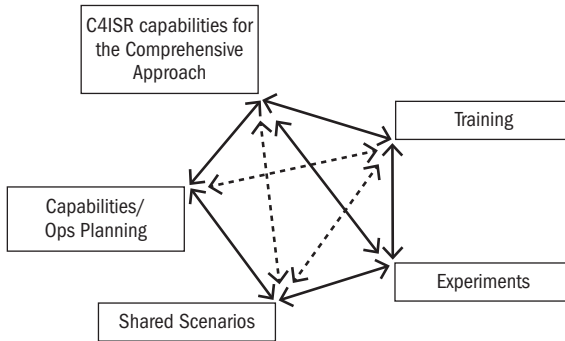


Figure 6. Process of Capability Development, Supported by Planning, Exercises, Experiments Using Same Shared Scenarios



Complex operations are, as a rule, coalition based with the involvement of many diverse international organizations, so pure national approaches are not enough. Success in such operations must be built on a process of capability development, where cooperation on technical and industrial levels paves the way to operational excellence.

As shown in figure 5, in addition to developing more technical capabilities, there is a growing need to cooperate in the areas of Planning, Architectures and Exercises. Therefore, the Comprehensive C4ISR Approach focuses on capabilities that enhance the environment for interagency and multinational planning, using the architectural approach and support exercises to train with the new capabilities, new concepts and plans in integrated scenarios. This approach to capability development in support to Comprehensive Approach is presented in figure 6. In practice we have CWIX as experimental exercise, CMX as crisis management exercise, new NATO Defence Planning Process to include crisis management capabilities and new scenarios, derived from the New NATO Strategic Concept as a base for this approach.

Defence Support to Civilian Authorities/Transition Support Capabilities for the Comprehensive Approach in a NATO–EU Context

NC3A's role in complex crisis management is diverse and really focuses on integrated capability development and service provision. The Agency works with Allied Commands Operations and Transformation (ACO and ACT) to identify requirements and maintains close coordination with CIMIC-related entities (CIMIC Fusion Centre—CFC, CIMIC Centre of Excellence—CCoE and CIMIC Groups) and ensures coherence with national programmes on Civil-Military Interoperability (CMI), including cooperation with industry in Research and Technology Organization (RTO) and NATO Industrial Advisory Group (NIAG) formats. C4ISR capabilities and expertise are generally provided to NATO-relevant bodies (Euro-Atlantic

Disaster Response Coordination Centre—EADRCC, NATO Crisis Response System—NCRS, NATO Intelligence Warning System—NIWS and NATO Situation Centre) in support of Complex Crisis Scenarios. The Multi-National Civil-Military Interoperability (MN CMI) initiative enables direct NC3A support to nations and organizations that agree to join the project. NC3A also liaises on technological issues, in coordination with NATO HQ, to non-NATO bodies, such as:

- ✦ UN Office of Coordination of Humanitarian Affairs (OCHA), High Commissioner for Refugees (UNHCR) and World Food Program (WFP)
- ✦ EU Humanitarian Aid and Civil Protection (ECHO), European External Action Service (EEAS), Monitoring and Information Centre (MIC) and Common Emergency Communication and Information System (CECIS).

The MN CMI initiative, supported by NC3A, is intended to complement the efforts of NATO, National and International Organizations (for example, Strategic Commands, CCOE and others) in the DOTMLPF (Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities) by providing a full NEC/Web 2.0 capability architecture (DOTMLPF + Interoperability) addressing the principles of federations and service-oriented architecture (SOA). Experiences from maritime environments (Wells & Christman, 2009) could be extended to expand the toolbox in support of the Comprehensive Approach. Such expansion is a goal of the MN CMI project.

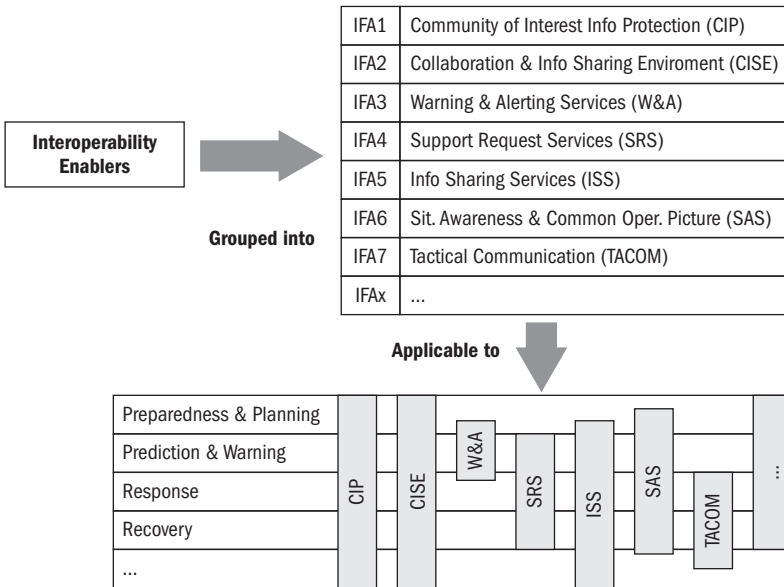
The MN CMI Project is designed to improve Civil-Military Interaction and provide comprehensive solutions to nations by establishing a collaborative forum where critical civil-military problems are identified and analyzed, and technical solutions are explored, specified and validated. NC3A has extensive experience in supporting NATO efforts in Crisis Response Operations and complex C4ISR interoperability endeavours that could be used by nations, which may decide to contribute to such initiatives on their own.

Interoperability is addressed at three levels:

- ✦ operational, including the development and demonstration of concepts of employment and the Standard Operating Procedures (SOP) required for the operational implementation of the technical solutions
- ✦ architectural/system, including the design of patterns for the implementation of the technical solutions with the participating systems in various employment scenarios
- ✦ technical, including the specification of interfaces and profiles for services, protocols and data to be used by each of the participating systems, as much as possible by adopting, tailoring and completing (if required) available international or de facto standards.

Figure 7. Interoperability Focus Areas (IFAs)

Source: NC3A, 2011



Interoperability Focus Areas (IFA), based on specific Interoperability Enablers, are identified in figure 7 and selected to support the core stages (in bold) of the crisis/emergency management phases: Vulnerability Analysis, Mitigation and Prevention, Preparedness and Planning, Prediction and Warning, Response, Recovery and Stabilization.

The MN CMI project's target participants are national and international entities, including civil and military commands, units or agencies, national industries, responsible for:

- ✦ Military Crisis Management
- ✦ Emergency Monitoring and Response Coordination and Management
- ✦ Support to Emergency Response and Consequence Management operations, including Critical Infrastructure Protection
- ✦ Civil-Military Coordination and Information Management
- ✦ Incident Management
- ✦ Counter-terrorism Operations
- ✦ Border Security and other perimeter security operations
- ✦ Law Enforcement (during crises or in routine operations).

Some specific capabilities for operationalising the Comprehensive Approach are under development through separate multinational projects, such as the ones started in the area of C-IED, Cyber Defence, the Computer-Aided Exercise (CAX) toolbox, and even Integrated C2 and Maritime Information Services.

The C-IED multinational project demonstrates the important role that NC3A plays in support to NATO efforts, from clearinghouse analysis to direct implementation of agreed national and multinational projects (figure 8). This area is a model for the transfer of operational lessons learned from Afghanistan into the development of critical capabilities that were identified during the Lisbon summit.

C-IED is one example of the innovative use of JISR (Joint ISR) technologies to address emerging challenges related to terrorism. It is an example of capabilities that are required not only by the military, but also by other security sector organizations. The multinational project known as MAJIIC (Multi-sensor Aerospace-Ground Joint Intelligence Surveillance and Reconnaissance Interoperability Coalition) is considered a model for the power of cooperatively developing capabilities with the direct involvement of national industries within flexible frameworks. This will enable adaptation and allow deployment of these capabilities to support scenarios for the Comprehensive Approach to Crisis Management.

Another multinational initiative—Cyber Defence—is providing an example of the use of ACT-funded research in establishing the foundation, not only for common funded critical capability as NCIRC (NATO Cyber Incident Response Capability)—one of the top priorities from the Lisbon Summit—but also for effective bilateral and multinational projects between NC3A and nations in support of larger efforts to protect cyber space. Cyber Defence, being a new area, shows how important it is to have an agreed technical framework and a maturity model as a base for coordinated efforts in a multinational environment.

Ongoing preparation of a multinational project on the NATO EXercise Toolbox (NEXT), with special focus on Comprehensive Approach-type scenarios, will use the above lessons to contribute to the critical capabilities for experimentation and training—so important to support any transformational/change management process.

Successful multinational, integrated C2 projects, and existing tools such as JPECT (Joint Planning Execution and Control Tool), as well as the implementation of network and core service experiences from the Afghanistan Mission Network (AMN), form the basis for transferring information to other elements of the C4ISR suite tailored the Comprehensive Approach. When it comes to the Civil-Military C2 domain, we could refer to Multinational Maritime Information Services (MIS—a joint ACT-NC3A initiative to support Civil-Military cooperation at sea) and NATO-Russia Council Cooperative Airspace Initiative (NRC CAI—a system for NATO-Russia cooperation in air security/safety). In this area, Sweden's initiative on Crisis NEC as an extension of a joint NATO-Swedish experiment in 2008, where NC3A will have an opportunity to work with the European Defence Agency (EDA) under the leadership

of NC3B/Sweden, is another good model for the development of capabilities in support of the Comprehensive Approach.

Figure 8. NC3A's Role, in Cooperation with CoE C-IED and NAMSA, in the Framework of NATO C-IED Effort with Possible Relations with EU

Source: Author, (2011)



Operations such as those in Kosovo and Afghanistan (and sooner or later for any other NATO operation) eventually will face the Transition phase, which includes the transfer of authority to national/regional powers. This phase creates specific requirements for capability development for the national/regional authorities and the transfer of some of the expeditionary capabilities to these organizations. Several projects, such as support to the NATO Training Mission in Afghanistan (NTM-A), providing Internet access to Afghan universities (SILK–Afghanistan), consultations to support the development of a management information system for the Ministry of Kosovo Security Forces, and many others, are examples of the diversity of follow-on support efforts needed to operationalise the Comprehensive Approach.

The challenge of operationalising the Comprehensive Approach from the capability development point of view is focused mostly on interactions among many different capabilities from a variety of organizations (civil and military), as well as the transition from expeditionary capabilities to local capabilities.

A short review of possible C4ISR-related areas in support of the Comprehensive Approach shows that the main challenge is, and will be, less in the area of technology and even architectures than in the governance, financing and management of such projects, programs, portfolios in a genuinely international environment. This must involve the members and partners of NATO, in cooperation with industry, academia and even nongovernmental organisations.

Conclusions

NC3A's experiences so far, especially in the development and implementation of the Comprehensive C4ISR Approach, show that it is possible to provide bottom up/ capability-driven ways to operationalise emerging security and defence strategies. Bottom-up capability development, service provision and overall life cycle support for NATO, nations and partner organizations, using different funding mechanisms and involving industry, is practically the only way to support the Comprehensive Approach effectively. It is worth noting that good cooperation in capability development probably also will facilitate cooperation in planning and operations for crisis management.

There are limits in top-down solutions for implementing the Comprehensive Approach, simply because of the very dynamic decisionmaking environment at those levels. Bearing in mind that NC3A addresses the first "C"—the Consultations among Nations—the Agency is well positioned to integrate bottom-up developed capabilities in ways that could support top-down consultations and decisionmaking before the activation of an ad-hoc "coalition of the willing" of nations and organizations to address the problem through the Comprehensive Approach. Real success could be achieved when C4ISR arrangements in such coalitions are able to support effective implementation of political and resource decisions. In this sense, development and implementation of the NATO Comprehensive C4ISR Approach, initiated by NC3A, is of significant importance in making it possible to operationalise the Comprehensive Approach to Crisis Management.

NC3A is only one element of the greater Network of Excellence required to implement the Comprehensive Approach, but it is a critical one for the development of the required capabilities. With Agency reform within NATO and potential cooperation between NATO and the EU in capability planning/development, maintaining an adequate mandate will be very important for the future Communications and Information construct. The construct must cover the full range of C4ISR expertise required by an integrated security sector both through the integration of life-cycle support to C4ISR capabilities and also through customer funding. The goal is to develop the comprehensive management of a program of work for NATO, nations, groups of nations and other organizations (including the UN and EU).

For the development of Comprehensive Approach capabilities, it will be especially useful to investigate the modalities of the NATO C4ISR Integration Fund (NCIF), initially proposed by NC3A as a model to support partners and transition countries when NATO nations have clear interests in developing their capabilities for the

future joint operations (NC3A, June 2010). The NCIF is just a construct to provide an environment to use the NC3A expertise and corporate knowledge to serve the interests and goals of contributing nations. Adopting of the NCIF model in a truly comprehensive way—outside the limitations of eligibility and consensus—is important for crisis management scenarios and the development of new partnerships. Of course it will not compromise the essence of Article 5 support that the Agency provides under common funding projects, and on all key decisions nations will consult at the North Atlantic Council level before engaging the Agency as an executive body for any project outside the purely NATO environment.

Agency reform is focused on savings, but first of all its priority is on finding effective and efficient ways to deliver NEC-related outcomes. It recognises the importance of organizational innovation and required cultural change (Neal & Carver, 2009). The development of capabilities for the Comprehensive Approach could help make the future Communications and Information Agency into a genuinely adaptive organization (Moreland & Jasper, 2009), but they also could become a driving force for transformation across NATO and nations by encouraging the combination of efforts for collective defence, crisis management and partnership as key missions of the Alliance.

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Notes

1. In some NATO countries, it is the case that the constitution (or other governing documents) draws formalized boundaries between governmental and private security organizations, thus making a fully integrated approach extremely challenging.
2. An important dimension of this is the need for interoperability for all actors involved in an operation. The STANAGs, which in theory are designed to standardize equipment, systems and procedures, have never been really successful. A lack of interoperable tools caused serious communications difficulties in the Balkan conflicts.

Chapter 7

Bridging the Gap Between Enterprise Apps and Community-led Social Media

TED RYBECK

Abstract

This chapter focuses on one approach to community-led mobile social media in support of NATO's Comprehensive Approach (Wells, Pudas & McNitt, 2011), an open source-based architecture called Knowledge Banking which is a simple, secure application to let the world collaborate. The system emerged from nonprofit, public, and private sector leaders working together after Hurricane Katrina in 2005 and the Haiti earthquake in 2010. The goal was to develop a way for the public to engage with official systems more effectively during a crisis. The result is Knowledge Banking Private Groups that enable members to add their own enterprise or personal content to an access-controlled collaboration environment. Given that bandwidth will vary across Comprehensive Approach environments, Knowledge Banking always takes into account that even SMS (Short Message Service) texting may not be available in extreme circumstances. In that context, Private Groups intelligently combine SMS texting with emergency response applications (for example, Ushahidi), and with relevant social media (for example, Wikipedia, Facebook, Twitter, YouTube, Flickr, news, blogs, etc.). Knowledge Banking Private Groups will soon be released publicly, but have already been used successfully in beta release with nonprofit, government, and corporate pilots.

Knowledge Banking differs from traditional collaboration software because it will be offered as a free resource and includes Wikipedia and other social media as a reference within each Private Group. Unlike Wikipedia, each Private Group's members can maintain the integrity of their own content and access privileges. The result is a knowledge-based social network that combines the collaboration capabilities with relationship-based social network capabilities.

Introduction

Mobile social media now reaches across all channels as a standard part of our way to find information and to be heard. In less than a generation, phones have gone from representing a "place" with a land line to representing a person who carries their own

mobile device. Today, mobile phones also represent a global community node that can reach and be reached by unlimited numbers of people worldwide with only one tagged message. Witness SMS texting from Haiti or Tahrir Square. If Hurricane Katrina were to take place now, the grassroots response would be unprecedented and one way or another, the public-private mobilization would be dramatically different.

Around the world, public and secure forms of social media already enable volunteers and professional teams to be reached more effectively. In many crises, social media offer straightforward benefits for senders and receivers compared to one-to-one voice and email communications. Most importantly, one-to-one voice or email contacts can fail based on any single point. For example, the individual caller or emailer may lack the right contact number or email address to reach out to the exact person they need. Conversely, the individual receiver, for whatever reason, may not pick up the phone or email in time. Even if that individual does pick up, they may be the wrong person, and the “passing the buck” process begins which for everyone involved is expensive, inefficient, and annoying at best, and life-threatening at worst.

For a variety of emergency services, social media can target public requests and updates to all the interested professionals and volunteers from the public and private sectors. In many cases, the volunteers will be the ones in the right place, at the right time, with the right skills and resources to help. For those cases when only a professional can do the job, social media can make it possible for the entire professional team as opposed to one individual to get the message even when they cannot access their special-purpose professional networks. Moreover, those professional teams can almost always use volunteer community help in one way or another, if only to take on more off-loadable tasks. The February 13, 2011, crowd in Cairo embodied this point by volunteering to clean the streets after their own revolution.

Despite the mobile revolution, people still cannot connect from their social media to most government systems. The bridging of community-based social media to official enterprise systems will become a burning platform issue for every part of the public sector from constituent services to emergency response. To introduce a JFK 2.0 paraphrasing of U.S. President John F. Kennedy’s famous words, “Ask not what your community can do for you. Ask what you can do with your community.”

Traditionally, the public has been discounted as a resource because of the disconnect between volunteer goodwill and the tasks at hand. Today’s social media-based volunteer management systems fix many of these disconnects through real-time mapping of the current needs against the skills and resources offered by the community. For many of today’s project management or emergency response requirements, social media-based networks now outstrip the quick response capabilities of the official government or enterprise resource management (Wikipedia, 2011:b) applications.

Many of these community-based systems are open source volunteer efforts, but private sector companies are actively engaging the public as well. For example, in any given month, Amazon’s Mechanical Turk (Wikipedia, 2011:c) has over 100,000 individuals taking on what Amazon calls “Human Intelligence Tasks.”

This new reality is why Craig Fugate, U.S. Federal Emergency Management Agency (FEMA) Administrator, makes a top priority of engaging the public (FEMA, 2010) as a resource. Worsening budget crises across virtually every jurisdiction will make Administrator Fugate's approach a standard operating procedure for many government authorities at the local, state, national, and international levels.

Meanwhile, individual expectations for government services will continue to rise along with customer experience improvements offered by private sector service providers. In response, government-led reengineering projects are making improvements to bridge official systems into community social media. However, efforts to engage more directly with the public through social media find themselves hindered by unresolved issues of privacy, work rules, liability, and scope.

Solving the Right Problem via the Drivers, Strategies, Enablers, and Technologies Methodology

Given the challenge to develop a way for the public to engage with official systems more effectively during a crisis, an innovative way forward has resulted in an approach known as Knowledge Banking Private Groups in that it enables members to add their own enterprise or personal content to an access-controlled collaboration environment.

Knowledge Banking differs from traditional collaboration software because it will be offered as a free resource and includes Wikipedia and other social media as a reference within each Private Group. Unlike Wikipedia, each Private Group's members can maintain the integrity of their own content and access privileges. The result is a knowledge-based social network that combines the collaboration capabilities with relationship-based social network capabilities.

Because of the Wikipedia look and feel, new Private Group users are immediately familiar with Knowledge Banking's user interface. That means they avoid the time and cost of specialized training normally needed for getting started with proprietary collaboration systems. Knowledge Banking also uses the standard application programming interfaces (APIs) of MediaWiki and other social media apps, so that Google Apps and Microsoft's SharePoint, Excel, and Word can more easily import and export to the Private Groups.

For individuals, nonprofits, government, and business, Knowledge Banking Private Groups will offer a way to bridge the gap between enterprise applications behind the firewall and community applications on social media (Wikipedia, 2011:a). The test is to enable anyone or any enterprise to be a stronger catalyst in their community, however those communities are defined. The range of potential personal or enterprise uses of the Private Groups is only constrained by the barring of any illegal activities. Initial pilots focused primarily on emergency and customer service applications with nonprofits, governments, and business. However, commercial or non-commercial enterprises can immediately apply Private Groups across every activity of an organization and its partners (for example, Customer/Member Services, Administrative & Finance, Sales & Marketing, Supplier Management, Production

& Operations, Research & Development). The adoption of Knowledge Banking for these everyday applications will prepare contributors to serve during a crisis.

Knowledge Banking grew out of an effort after Hurricane Katrina where Benchmarking Partners, a Cambridge, Massachusetts, software and strategy firm brought together the leadership of the public-private organizations representing the whole of community (government, private sector, nonprofit, and citizens) to figure out how community-led systems could be integrated into official efforts more effectively. Knowledge Banking then integrated experiences from over two hundred large and small organizations internationally based on a common-sense but rigorous methodology developed by Benchmarking Partners called DSET (pronounced Dee-Set). DSET has been used by over 30,000 organizations worldwide. For example, in the mid-1990s, Walmart used DSET with Benchmarking Partners to get agreement among its thousands of suppliers on Walmart's first collaborative forecasting and replenishment system over the Internet. Benchmarking then used DSET with retailers and suppliers globally as part of the successful effort to create a Collaborative Planning, Forecasting, and Replenishment (CPFR) standard. DSET has also been used at Harvard Business School, Wharton, MIT, University of Chicago, and other strong training grounds for business and government around the world.

DSET contextualizes the external forces on an organization's success (that is, the "Drivers"), the "strategies" an organization should take to address those Drivers, the "Enablers" or capabilities needed to achieve those Strategies, and the strengths and weaknesses of the various "Technologies" needed to support those enabling capabilities. Typically, organizations start with Technologies and mistakenly work from right to left (that is, T-E-S-D) because plenty of vendors have Technologies to sell that address some of the Drives that organizations face and the CIO can then be blamed if the leadership team never aligned on an understanding of the Drivers. By starting with the entire CEO team to identify the full set of Drivers and moving from left to right (that is, DSET), the CEO gets executive leadership and constituents aligned on the full set of Strategies before deciding which Enablers and Technologies need to be deployed.

The resulting DSET-based alignment, risk/reward analysis, and shared priorities can dramatically accelerate an organization's effective mobilization with its partners on the new social media and collaboration platforms. DSET would also apply to NATO support to Comprehensive Approach environments. The DSET approach also offers enough detail from the highest strategy level to the functional and technical levels that development and implementation will be far more affordable and successful than typical large scale initiatives. The results help governments and private sector enterprises focus less on each location's departmental organization charts and more on what everyone wants: the situation-specific, effective delivery of information and services across all jurisdictions during a crisis.

Knowledge Banking's DSET

For example, one of the primary DSETs for public-private mobilization that guided Knowledge Banking was developed between January–April, 2010 in response to the 2010 Haiti Earthquake. However, the techniques clearly could be applied to the kinds of humanitarian assistance, stabilization, or capacity building operations where NATO and its partners might be involved. The authors were CEOs and their teams were from federal, state, military, relief, and corporate enterprises. Each organization first created their individual DSET based on their particular interests as the basis for a collaborative business case represented in their joint DSET shown below.

Drivers (External forces beyond our control):

1. Countries are not as prepared as they should be for disaster prevention, response, or recovery.
2. The resources for effective disaster management exist among independent organizations and individuals though they lack integration among themselves let alone as a joint force.
3. News coverage will increasingly focus on missteps as part of the competition for ratings.
4. Widespread Internet and cell phone use opens up multiway communication that TV and radio did not, but it is difficult to manage the abundance of information and filter out the bad information.
5. Constituents (for example, customers, citizens, donors) demand more visibility into how resources are allocated and costs are managed.
6. Legal and regulatory frameworks can constrain responsiveness.

Strategies (How we will respond to the Drivers):

1. Determine how to use grassroots new media (for example, SMS, Wikipedia, Facebook, YouTube, Twitter, etc.) so that the governments and the public work together in a multiway communication.
2. Collaborate with the private sector on their needs and capacities (for example, Where is power out? What does everyone have to offer?).
3. Build metrics on spending in the disaster management lifecycle so constituents appreciate the Return-on-Investment from prevention, mitigation, and preparedness through recovery.
4. Develop disaster technology solutions that enhance the volunteer experience and are intuitive and simple to use. Establish systems and processes that enhance the volunteer experience and passion rather than frustrate the user.

Enablers (Capabilities needed to achieve the Strategies):

1. Enterprise integration with free, simple, every-day social networks for information sharing, collaboration, and commerce at the local, community, state, regional, national, and international levels.
2. Enterprise, local, state, regional, national, and international engagement of the people and infrastructure capacities for each community in conjunction with their social networks.
3. Integration of the community networks to the official disaster management systems and security systems at the enterprise, local, state, regional, national, and international levels.
4. Shared disaster management plans at the enterprise, community, state, regional, national, and international levels in response to the demographic and infrastructure realities of the most vulnerable areas.
5. Enterprise, local, state, regional, national, and international drills to ensure that the best equipped individuals and communities are ready to take care of themselves, and the least equipped get the added support they need.
6. Real-time metrics on the results of spending in the disaster management lifecycle, generated as a natural by-product of system usage rather than a separate and expensive administrative process.

Technologies (Tools to implement the Enablers):

1. Integration of existing enterprise systems into easy to use cell phone and Internet based systems using open, industry standard protocols.
2. Open mashups of popular and specialized social media (for example, Wikipedia, Facebook, YouTube, Twitter, etc.) with anti-spam filters that enable grassroots reference hubs with private and public spokes.
3. Enhancement of our Enterprise Resource Planning (Wikipedia, 2011:d) systems with our community ecosystem to enable Real-time Operational Optimization and Transparency (ROOT).

Knowledge Banking's DSET-based Technology

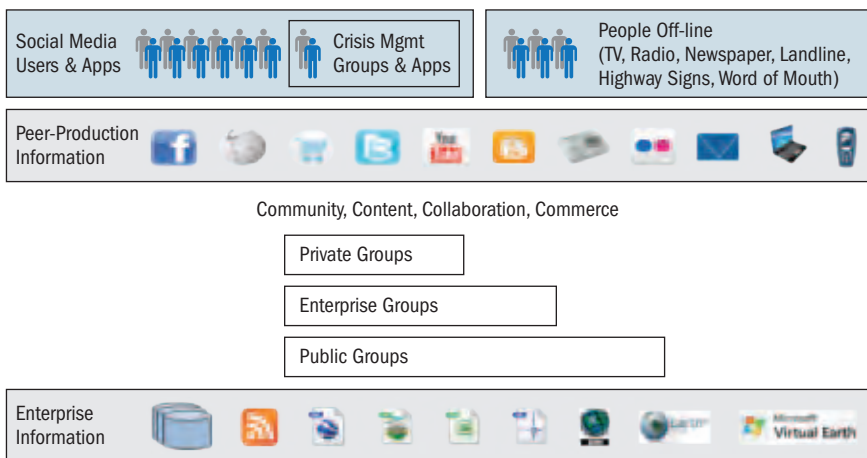
As shown above, in a generalized architecture, Knowledge Banking integrates the range of social media into a knowledge-based social network for collaboration among individuals and enterprises. A Knowledge Banking Private Group on top of the public group enables individuals or enterprises to create a reference hub for collaboration restricted to the members they choose. Knowledge Banking Private Groups have the same social media aggregation capabilities as the public group, but they add proprietary extensions for security across sources. Every individual who logs in starts with a "personal space" Private Group for themselves, but they can create others as needed.

Individuals might create a Private Group just for their family members or other private networks for whatever purpose. For enterprises, the Private Groups can be used for whatever kind of collaboration they want restricted to their employees or partners.

Knowledge Banking Private Groups provide for four levels of membership: Observer, Peer, Leader, and Chair. A member designated as an Observer can see the Private Group content, but cannot edit it. A member designated as a Peer can edit the Private Group fully. A member designated as a Leader can manage the various functions of the Private Group including the ability to invite or remove members. The originator of the Private Group is called the Owner and Chair. A Chair has the added ability to close down the entire Private Group and can also designate other Chairs. There is no limit to the number of Chairs or Leaders in a Private Group.

Figure 1. Integrating Social Media & Enterprise Info thru Open & De Facto Standards

Source: Benchmarking Partners (2011)



Secure Private Groups for community, content, collaboration, and commerce can be demanded by virtually any personal or professional scenario. For example, an international relief organization and an international retailer have both worked with Knowledge Banking to create Private Groups that could be used with internal systems at the international, national, regional, and local levels to engage communities with social media to improve emergency response. Use begins at the individual level because each person within the respective ecosystem can create a personal space for themselves as secure storage of their professional data (for example, user profiles, passwords, skills, certifications, etc.). This array of Personal Spaces, Private Groups, as well as Public Groups on the open Internet, enables the entities to respond more effectively during an emergency because the user experience would be the same whether someone is using the platform for their needs at work or their personal needs outside

of work. Likewise, training becomes more efficient since most young people start their careers already knowing how to use the popular social media tools that make up the Knowledge Banking user interface. Ideas for process innovation multiply because of the platform's every day/all day use. For any particular Comprehensive Approach environment, innovation and integration will take place in the context of the specific proprietary and international standards that apply.

Enterprise Information Icon Key

Databases (for example, Enterprise Resource Planning, etc.) consist of organized collections of data for one or more uses, typically in digital form.

- ✦ RSS (most commonly expanded as Really Simple Syndication) is a family of web feed formats used to publish frequently updated works—such as blog entries, news headlines, audio, and video—in a standardized format.
- ✦ Keyhole Markup Language (*KML*) is an XML-based language schema for expressing geographic annotation and visualization on Internet-based, two-dimensional maps and three-dimensional Earth browsers. KML was developed for use with Google Earth, which was originally named EarthViewer 3D.
- ✦ ESRI *Shapefiles* or simply a *shapefile* is a popular geospatial vector data format for geographic information systems software. It is developed and regulated by ESRI as a (mostly) open specification for data interoperability among ESRI and other software products. ESRI is a software development and services company providing Geographic Information System (GIS) software and geodatabase management applications.
- ✦ Google Earth is a virtual globe, map, and geographic information program that was originally called EarthViewer 3D, and was created by Keyhole, Inc., a company acquired by Google in 2004. It maps the Earth by the superimposition of images obtained from satellite imagery, aerial photography, and GIS 3D globe.
- ✦ Bing *Maps Platform* (previously *Microsoft Virtual Earth*) is a geospatial mapping platform produced by Microsoft. It allows developers to create applications that layer location-relevant data on top of licensed map imagery. The imagery includes samples taken by satellite sensors, aerial cameras (including 45-degree oblique “bird’s eye” aerial imagery licensed from Pictometry), Streetside imagery, 3D city models, and terrain.

Open Source Innovation with Proprietary Security Extensions

Knowledge Banking's open source (Wikipedia, 2011:e) methodology enables anyone to “wikify” (Wikipedia, 2011:f) their specific content along with Wikipedia to create a secure referenced model that provides a private Internet reference page for any topic.

By expanding on MediaWiki, the underlying open software for Wikipedia, Knowledge Banking enables users to build on a de facto standard in content management software. The expansion of MediaWiki makes each of these data sources available to authorized members on the system. However, a combination of open source and proprietary security extensions to MediaWiki secure Wikipedia and any other social media or data sources so that they never bleed from one to another.

Further expansion of MediaWiki allows live data feeds to be “semantically wikified” (Wikipedia, 2011:g) which converts data into wikitext documents with parameter driven properties. The result transforms any static text document into a database “form” with parameters set by the enterprise and its partners according to their specific needs. The wikified forms enable these automated or manual data feeds to populate metrics dashboards from the real-time execution data in the field. These metrics dashboards can be applied across a portfolio of interdependent data feeds, providing transparency, responsiveness, and accountability that spurs innovation among any group members.

Benefits of expanding MediaWiki and its extensions:

- ✦ open source, platform neutral
- ✦ massively scalable as demonstrated by Wikipedia
- ✦ simple integration with legacy systems, enterprise systems, and data feeds from any source
- ✦ simple integration to open source extensions for commerce
- ✦ simple application programming interfaces (Wikipedia, 2011:h) to personal and professional social networks
- ✦ support for automated and user-generated content and links
- ✦ support for automated and user-generated analytics and ad hoc queries
- ✦ ubiquitously accessible through any browser
- ✦ ability to add WYSIWYG (What You See Is What You Get) editing
- ✦ computer security at whatever level necessary.

Helping the Web Evolve

Beyond the contribution Knowledge Banking can make during emergencies, this effort is part of a larger movement to expand the societal impact of MediaWiki, Wikipedia, and other open source technology. Wikipedia and its underlying open source infrastructure, MediaWiki, already stand as an unrivaled de facto standard for global encyclopedic reference and content management. The underlying MediaWiki software is scalable enough that its largest enterprise user after Wikipedia itself is the U.S. Intelligence Community’s Intellipedia (Wikipedia, 2011:i) for government-wide information sharing and collaboration. This community transformation to a very

low-budget MediaWiki approach had to get past huge resistance from the entrenched budget owners and software vendors in the Washington, DC, area who were used to comparatively high-budget spending. The Wikipedia/MediaWiki duo won out because they offered unprecedented advantages: they are free, ubiquitous, massively scalable, used by over 400 million users in over 200 languages, and build on software that is maintained and extended every day by thousands of open source programmers around the world.

Figure 2. Wikipedia's Go to Market Based on 1911 Britannica

Source: Benchmarking Partners (2011)

- Founded 2001 with 1911 Encyclopedia Britannica as open source seed content.
- Controlled by the non-profit, Wikimedia Foundation.
- Approximately 3.5 million+ articles in English and over 14 million articles in 200+ other languages.
- Roughly equal accuracy to Britannica's 120,000+ articles but errors can easily be fixed.
- 400 million people use Wikipedia and its sister sites every month - almost a third of the Internet-connected world.
- 5th most popular Web site on the Internet (up to 65,000 hits/second); Ave. 5 page views per visit.
- 3X traffic of all ad-supported reference information sites combined.
- Access to some English-language articles and all of the Chinese-language is barred in China.
- Proven Governance for dispute resolution and culture development.
- Lead user of MediaWiki, developed by 1000s of programmers with new releases weekly.



As a whole, however, the private and public sectors typically underestimate Wikipedia and MediaWiki as nothing more than a nonprofit *Encyclopedia Britannica*. The underestimation comes easily since Wikipedia defines itself as an online encyclopedia as shown in figure 2 above; and that definition led Wikipedia to become the fifth busiest site in the world based on Internet traffic. Moreover, media attention tends to “follow the money,” and Wikipedia/MediaWiki are maintained by volunteers and owned by the nonprofit Wikimedia Foundation (Wikipedia, 2011:j) which precludes itself from commercial involvement. (The Wikipedia content itself is made available under the GNU Free Documentation License [Wikipedia, 2011:k] which allows for redistribution for any purpose as long as certain conditions are met. For example, derivative works must also support the GNU Free Documentation License and sources must receive attribution.)

Nevertheless, the notion that Wikipedia/MediaWiki are merely an encyclopedia infrastructure is misguided in the same way that conventional wisdom once saw the automobile and its combustion engine as a horseless carriage. Wikipedia and MediaWiki

would be more accurately characterized as two of the most important advances in open source computing after the World Wide Web itself.

World Wide Web and Wikipedia as the Watershed Moments in Open Source

Several noteworthy advances in open source occurred over the years since the creation of the World Wide Web, from Mosaic to Linux to OpenOffice. But in each case their contribution has either been quickly eclipsed by a proprietary alternative as in the case of Mosaic and Netscape; or more commonly, the open source contribution itself was a copy of something that was already entrenched from a proprietary vendor (for example, Linux desktops and OpenOffice as they relate to Microsoft Windows and Office).

None of these facts take away from these other open source contributions. However, Wikipedia breaks out of that open source mould. Although it began in 2001 leveraging the latest available, out-of-copyright version of the *Encyclopedia Britannica*, any connection to *Britannica* is long gone. For example, *Britannica* is less than one tenth the size, considered off-limits to users who might want to edit, correct, or add to *Britannica* articles, and missing any notion of the user-generated links that are the basis of MediaWiki and Wikipedia. Moreover, even the highly respected scientific publication, *Nature*, found the quality of Wikipedia and *Britannica* nearly equal.

Today, Wikipedia is in a class of its own. So far, there is no “other Wikipedia” that has anything like Wikipedia’s unprecedented worldwide adoption, participation, depth, or continual improvement. Likewise, there has never been a collaborative infrastructure like Wikipedia’s MediaWiki as measured by its simplicity, ubiquity, and massive scalability.

Yahoo and Google Roles vis-à-vis Wikipedia and MediaWiki

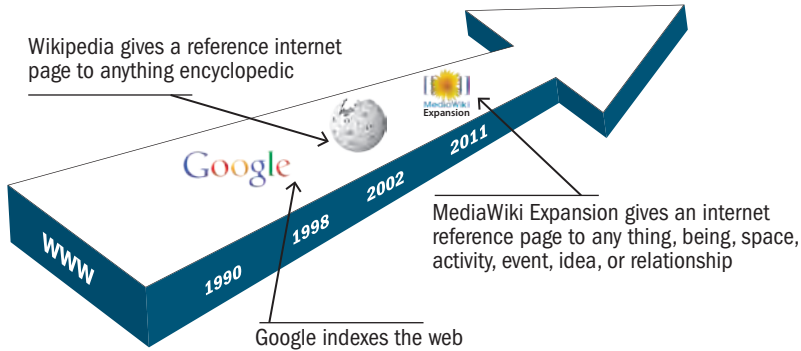
Historically, two of the approaches for organizing information on the Internet have been categorization into directories and search using algorithms and natural-language processing. Yahoo’s late 1990s effort to hire a team that manually categorized the web into common sense web directories made Yahoo a Wall Street darling. But Yahoo’s current troubles and the rise of Google came from the fact that no top-down categorization of the web will ever suffice when the web’s knowledge universe is so big and interrelated.

Google seized on the structural failure of top-down taxonomies by indexing the web and then letting search happen from the bottom up. Google gave searchers the most relevant locations that might answer a query by ranking each page on the Internet using Google’s secret, link-based PageRank algorithm that the founders developed at Stanford and license from Stanford back to the company. Rather than invite the community to categorize the web, Google mainly invites individuals to ask any question and then the secret algorithm returns a prioritized list of the relevant locations where the individual can find the answer. The upside has been tremendous, making Google an everyday part of the Internet for most users. For common queries, the downside

is that millions of answers tend to come back for an individual to cull through for the context-specific information wanted (for example, John Deere the person vs. John Deere the tractor) from unconnected and often unfamiliar and unreliable sources.

Figure 3. Wikipedia & MediaWiki Expansion's Role in the Evolution of the Internet

Source: Benchmarking Partners (2011)



Enter Wikipedia. As shown in figure 3, the explosion of user-generated reference through Wikipedia allowed for a third approach for organizing information on the Internet. Wikipedia's position as the world's reference, and the resulting collection of incoming links, causes its articles to be returned in the first page on the majority of Google searches. Moreover, many people begin navigating through Wikipedia when they want to understand all the *meaningful information* linked to some topic, as opposed to going to Google when they want to see all the *sites* with information related to that topic.

Today, Wikipedia's cultural and technical combination gives an Internet reference page to anything encyclopedic. This contribution of Wikipedia is a watershed moment in open source, arguably unequaled since the introduction of the World Wide Web by Tim Berners-Lee (Wikipedia, 2011:l). Ultimately, the expansion of Wikipedia/Media Wiki could provide an Internet reference page to any thing, being, space, activity, event, idea, or relationship. In this solar system, search increasingly acts as an essential service that orbits around an expanding sun-like reference model of user-generated, meaning-based links.

Google will be an important partner in this expansion as it and other search engines continually evolve to combine the best of machine-based algorithms with context that can best be added by peers who understand the nuance of which meaning they want. For example, "civil war" in a particular use is a concept of civil war vs. the "civil war in the U.S. from 1861–1865" vs. the "civil war in England from 1642–1651" or any other examples of each "civil war" throughout history around the world. In each case, it suffices to write "civil war" as long as the expression is backed up by a peer-produced, meaning-based link that connects to the appropriate meaning in that context. Each individual who creates that link knows the context and can link it accordingly using a common social and technical protocol.

How are Wikipedia and MediaWiki expanding to meet this demand? An increasing flow of extensions to the open source content and software of Wikipedia and MediaWiki are meeting the demand for integrated, secure, global social networking described above. Specifically, these extensions expand Wikipedia to compensate for Wikipedia's restrictions against non-encyclopedic and organization-specific content, ratings and rankings of all content and contributors, secure permissions management, commerce capabilities, and a standard word processing editor. The result, which Knowledge Banking aims to accelerate (see table 1), will be a global, multi-language, bottom-up, open source-based, Private Group infrastructure that broadens the community already brought together by Wikipedia, Google, Facebook, Twitter, and the range of social media.

Table 1. Customer Priorities for Expanding Wikipedia

Requirements		
Original Content	No	Yes
Mandatory log-in by contributors for accountability	No	Yes
Secure Permissions and Identity Verification	No	Yes
Secure public and private collaboration	No	Yes
Commerce	No	Yes
Removal of slander from the history pages	No	Yes
Ratings & rankings for each contributor	No	Yes
Commercial Content	No	Yes
Product/services ratings & rankings	No	Yes
Biographic or organizational profiles judged not to be globally notable	No	Yes
Contributions by parties related to the content even if identified; non-neutral point of view	No	Yes
Easy-to-use, multi-source integration of social networks, micro-blogs, video, web news & photo sharing, chat, & other apps	No	Yes
Advertising	No	Yes

Source: Benchmarking Partners (2011)

Enabling Secure Mashups

At a technical level, expanding Wikipedia and MediaWiki combined with Google, Facebook, Twitter, YouTube, and all the other social media will create the ultimate mashup of the entire Internet for every conceivable use from global and local research to emergency delivery of goods and services. To guard against the inevitable misuse of these mashups, additional MediaWiki extensions and social protocols can create secure mashups like those enabled by Knowledge Banking and others. Secure mashups reinforce privacy and civil liberties protection for individuals and organizations to allow

for everyday safe and ad hoc conglomeration of various data sources and applications without taking away each person's control over how their sensitive information may be used by others.

Pragmatically Addressing the Semantic Web

In 1999, according to Wikipedia,

Tim Berners-Lee originally expressed the vision of the Semantic web as follows: "I have a dream for the Web [in which computers] become capable of analyzing all the data on the Web—the content, links, and transactions between people and computers. A 'semantic Web' which should make this possible, has yet to emerge, but when it does, the day-to-day mechanisms of trade, bureaucracy and our daily lives will be handled by machines talking to machines. The 'intelligent' agents" people have touted for ages will finally materialize." (Wikipedia, 2011:m)

Wikipedia and MediaWiki help make a pragmatic realization of that vision possible by adding in the human element of peer produced, meaning-based linking that goes beyond what machines could have done on their own. The Wikipedia and MediaWiki platform does not offer the elegant object-oriented methodology that underlies Tim Berners-Lee's theory of the semantic web. But in the "keep it simple" spirit, meaning-based linking is strongest when each individual around the world has the chance to contribute their creative force. For better or worse, worldwide involvement demands a much simpler model than the complex theoretical structures that make up most predictions for the advent of the semantic web. Wikipedia and MediaWiki offer that simplicity and provide the "primordial ooze" (Wikipedia, 2011:n) out of which the world could progress much faster toward Tim Berners-Lee's goal than he may have ever imagined.

Conclusion

Official systems and community systems need a way to come together in Comprehensive Approach environments. Supply chain systems share this need with every other application area. Knowledge Banking brings together social media with specific emergency response applications such as Ushahidi to bridge the gap by supporting Private Groups that are secure and separate, but can exchange information with each other and with public hubs as appropriate. Approaches like Knowledge Banking will continue to evolve in the field. However that progress develops, the catalyst for success will be finding ways to engage the world's collective resources of individuals, nonprofits, governments, and businesses who can help. Practicing this "everyday" multi-sector engagement will be a critical enabler to support Comprehensive Approach environments.

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Part 3

**Leadership, Management,
Education, and Training and the
Comprehensive Approach**

All organizations need to be led and managed. It is relatively easy to identify those that are exemplars of good or bad practice, as reflected in their performance, but the majority of organizations live in a twilight zone of getting by, not realizing their potential for doing better. This reinforces the importance of educating and training, for both the leaders and staff, and of exercises to reinforce the education and training to change actual behaviors.

There are many schools/theories of leadership, ranging from the “great man theory” to “situational leadership theory” to “contingency theory” to “participative theory” to “behavioral theory,” to name but a few. Each theory includes a range of models and concepts that have been studied, taught, and applied. No single style or approach to leadership works for everyone and no single style or approach works for every situation. The real skill in leadership is the ability to be able to flex in response to the situation and hence to operate on multiple levels, which requires an innate sense of what is required at any given point in time. Theories and approaches to leadership doubtless will continue to develop in light of the ever-changing nature of the environment within which organizations have to operate.

A recurring theme in change theory is that true transformation needs to incorporate changes across a mix of people, process, organization, and technology. Organizations (business, government and civil society) are under enormous pressures, driven by globalization, technology, demographics, changes in social norms, and so on. As a consequence, the way organizations actually conduct business has changed dramatically during the last 20 years. This requires new or different management systems and processes which, in turn, may well require new approaches to leadership. For example, the explosion in communications technology has spawned a need for distributed leadership, which some organizations have been able to implement well while others have not.

Leaders and managers need to be able to lead change and also to manage a change process within their organizations. Despite many studies, theories, and courses, the evidence to date is that organizations are still not very good at delivering change effectively. Three elements need to work together for an organization to maintain its competitive position in a commercial setting, or to be able to demonstrate that it is operating efficiently and effectively in a public sector setting. First, it must be able to develop appropriate and robust strategies. Second, it needs a depth and breadth of leadership skills. Finally, it must have the skills and competencies necessary to implement the change(s) associated with the strategy.

All too often the focus of a change program is on the systems, structures, and strategies while the softer issues associated with the human dimension of change are treated almost as an after-thought. Too often it is assumed that such matters will happen without leadership or effort on the part of the organization.¹ These tools and techniques of change management that are commonly portrayed in the text books need to be broadened to encompass the human dimension of change. As Professor Neal pointed out in his chapter in section 1, a case can be made that we are dealing with:

Managing change = change management + transition management.

This is not a simple case of playing with words. The fact is that the tools and techniques associated with change management can make it sound like a simple management process that can be precisely controlled. However, transition management is about taking people on an emotional journey. This is where real leadership skills are needed to identify where people are in their emotional journey (not everyone progresses at the same speed in such matters) and to respond and support (lead) in an appropriate manner to help them over doubts and obstacles.

Education and training need to be an inherent part of the leadership and management strategy. Tendencies to cut these areas when under financial pressure should be resisted. The importance of training and education is not lost on the military. When it comes to operations under life and death conditions, it is only through rigorous training and exercises that the Service personnel can ensure that they know what to do, how to do it, and have a clear understanding of why they need to take particular actions and when they need to act. The U.S. Professional Military Education (PME) establishments and the equivalent Defense Academies and similar institutions in other countries have a key role to play in ensuring that a nation's military has the necessary skills, structures, capabilities, and culture to deliver what is demanded of it on either the national or international stage.

The Comprehensive Approach requires both training and education at multiple levels within organizations and between them. Joint Service organizations have particularly important roles to play to gain traction with the Comprehensive Approach concept as they bring together actors from a number of Services and provide a framework to facilitate shared understanding.

With this in mind, the chapters in this section cover leadership and change management, as well as education and training based on the challenge of delivering the Comprehensive Approach within a nation's military or a broader framework such as NATO. A particular focus is on the need for civilian as well as military knowledge transfer, with all the cultural and budgetary issues that entails. The ultimate goal is to change behavior. Until behavior is changed, lessons cannot be said to have been learned, only "observed."

Dr. Richard L. Hughes and his colleagues address "Boundary Spanning Across Leadership Cultures," which demands very different skills from those typically found within most large, hierarchical, or government organizations. At the same

time, boundary-spanning approaches are particularly well suited to Comprehensive Approach environments.

MG (Ret) Ralph Doughty and Col (Ret) Jon Stull examine the role of education in promoting the acceptance of change and revising institutional values. They also look at the joint, interagency, and Comprehensive Approach environments.

Wing Commander Neville Gregory and Commodore Richard Menhinick introduce an Australian perspective to multiagency, joint, and transnational education. Australia has the advantage of integrated oversight of military education and training. They also make the important link to emergency management, which has many elements in common with Comprehensive Approaches.

CDR (Ret) Elizabeth Lape looks at the particular case of the education, training, exercises, and cultural change needed to implement UN Security Council Resolution 1325, which calls for the “full and equal participation of women from early conflict prevention to postconflict reconstruction, peace and security.” A particular feature, applicable to coalition operations and the Comprehensive Approach, is a study of the resolution’s implementation (often not effectively) in Provincial Reconstruction Teams (PRTs) in Afghanistan. Greater integration of women should be seen as part of the need to bring “greater capacity” to bear in a variety of crisis situations.

Note

1. The Chief Financial Officer of Google, during the Fortune BRAINSTORM TECH conference in July, 2011, made a compelling case that Human Resources is an essential part of the “people-technology convergence” process that’s going on in the business world today. For example, Google considers the 300 commuter bus routes/day it provides as great investments—the company gets an hour each way of wifi engagement from employees, with less parking and less gridlock (but bus contractors must bring costs down every 6 months). Free food helps keep employees healthy. Google raised salaries by 10 percent last year to signal that they are *the* workplace of choice. They had 600,000 applicants last year (total company size is about 20,000).

Chapter 8

Boundary Spanning Across Leadership Cultures: A Leadership Strategy for the Comprehensive Approach

RICHARD L. HUGHES, CHARLES J. PALUS,
CHRIS ERNST, GEORGE G. HOUSTON, AND JOHN B. MCGUIRE

Abstract

One obvious, challenging and defining quality of the comprehensive approach is the sheer number and diverse nature of organizations engaged in collective effort. Effectively leading a collective effort *across* such a myriad of organizational interfaces requires very different approaches to leadership than those typically practiced *within* large, hierarchical organizations like the military. Thus, a different approach to leadership is called for by the Comprehensive Approach (CA), one that might be called *boundary spanning across leadership cultures*. In fact, boundary spanning leadership can be thought of as the ideal leadership strategy for the Comprehensive Approach. Notably, it represents the approach taken by senior Department of Defense (DOD) and State Department leaders in Iraq in seeking ways to build needed capabilities in their teams. This chapter will describe the concept of leadership strategy, the nature of boundary spanning leadership, and the kinds of leadership development activities designed to develop it.

Introduction

Army General David Petraeus used an oddly anachronistic painting in speaking with the troops whom he was soon to take command of in what became widely known as “the surge” in Iraq. The painting was *The Stampede*, painted by Western artist Frederic Remington in 1908. It depicts a cowboy in the 1800s riding desperately to survive a stampeding herd of cattle panicked by a thunderstorm. As Thomas Ricks tells the story in *The Gamble*, an account of the surge, Petraeus used the painting to convey to his subordinates his notion of command: “I don’t need to be hierarchical,” he explained. “I want to flatten organizations. I’m comfortable with a slightly chaotic environment. I know that it’s okay if some of you get out ahead of us. Some of the cattle will get out ahead and we will catch up with them. And some will fall behind and we

will circle back and we won't leave them behind.... We're just trying to get the cattle to Cheyenne" (Ricks, 2009, p.154).

Across Leadership Cultures

The Center for Creative Leadership (CCL) was invited to Iraq in 2010 by the Commander of U.S. Forces-Iraq and the U.S. Ambassador in Iraq to facilitate a combined vision development seminar, and to mentor and teach boundary spanning techniques. These techniques were in service of implementing effective interdependent practices between two proven but culturally different organizations in order to achieve a common goal for the United States and Iraq. In the intervening months, CCL has continued to receive positive feedback regarding the seminar and its impact.

Non-disclosure and confidentiality prevent us from describing the specific processes and outcomes of the Iraq U.S. Forces and U.S. Ambassador boundary spanning case. Given the nature of CCL's work, we often hold confidentiality agreements with our clients. As such, the comments in this chapter are a general view of the relevant theory, research, and some typical practices, and *not a specific commentary on the Iraq case*. In our research and applied practice, we have developed a number of insights and questions regarding boundary spanning across cultures within an interdependent world. In this article, we discuss the theory of boundary spanning and the importance and role of developing a leadership strategy for spanning different organizational and institutional cultures.

Leadership Challenges in a Comprehensive Approach

The chaos of a stampede is an apt metaphor for the challenging environments facing many organizations, and certainly for NATO leaders collectively trying to implement a comprehensive approach to global security challenges, including conflict resolution and stability operations. A *Comprehensive Approach* to global security challenges attempts to align the work of the relevant actors across a complex set of boundaries. Petersen and Binnendijk made this case for a CA in 2007:

Experience has shown that conflict resolution requires the application of all elements of national and international power—political, diplomatic, economic, financial, informational, social, and commercial, as well as military. To resolve conflicts or crises, the North Atlantic Treaty Organization (NATO) should adopt a Comprehensive Approach that would enable the collaborative engagement of all requisite civil and military elements of international power to end hostilities, restore order, commence reconstruction, and begin to address a conflict's root causes. NATO can provide the military element for a comprehensive approach. Many other national, international, and nongovernmental actors can provide the civilian elements. (Petersen & Binnendijk, 2007:1)

The leadership challenges inherent in a CA become apparent even in a cursory look at the kinds of interactions among diverse parties inherent in the approach. One

way to understand the distinctive nature and challenge of a comprehensive approach to stability operations is to conceptualize it as the outermost ring in a set of concentric circles representing increasingly complex and heterogeneous sets of organizational actors. For example, while proficiency in joint operations is itself a notable DOD achievement, more recent efforts to take a whole-of-government approach integrating the work of *all* departments and agencies (that is, not just military) have taken that challenge to a new level. Further extending the set of organizational actors to include civilian and military agencies from other governments, not to mention other private sector and nongovernmental organizations, complicates the process almost seemingly beyond the realm of feasibility.

Needless to say, the leadership challenges inherent in a comprehensive approach are daunting. What's more, the challenges are not only daunting in and of themselves, but likely even more so since they demand perspectives, skills, and practices previously not deemed essential to leadership in a large, hierarchical, and traditional organization like the U.S. Army, for instance. And since they were *not* essential—not “core competencies”—such perspectives, skills, and practices generally would not have been needed, encouraged, or practiced. But just as with other large, formal, hierarchical, and tradition-laden organizations in government (for example, the U.S. Post Office) and in the private sector (for example, automobile manufacturing companies) whose culture and practices may have been well-adapted to competitive environments that were relatively stable and predictable, those same cultures and practices are *not* optimally suited for environments that are highly volatile, uncertain, complex, and ambiguous (VUCA).

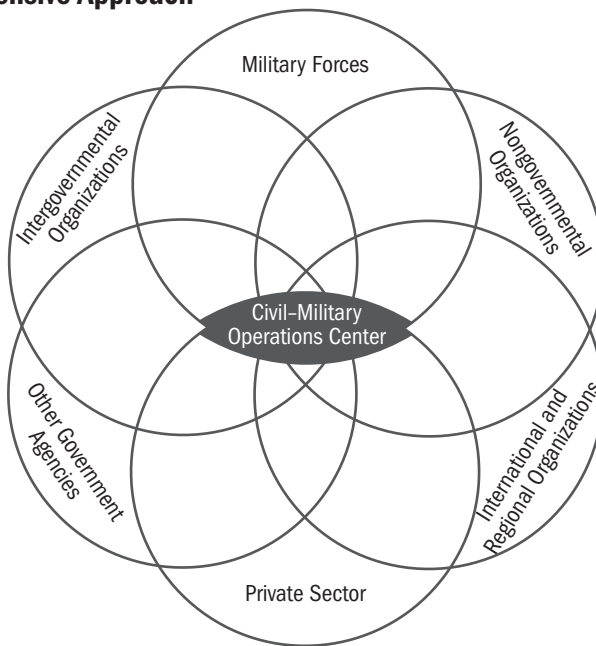
Take the practice of collaboration as a case in point. Collaboration in some form or other is practiced in virtually all organizations, but the phrase “some form or other” proves to be the catch. It turns out that what collaboration means in some settings may be quite different than what it means in other settings.¹ A critical distinction should be made between what has been called simple collaboration and complex collaboration. The distinctions are highlighted in table 1 (Mankin, Cohen, & Fitzgerald, 2004; Hughes & Palus, 2005).

With simple collaboration, tasks are routine and well defined. They are predictable and manageable, and the procedures for addressing them are well understood. On the other hand, complex collaboration is characterized by tasks that are non-routine and highly uncertain. The simplest form of collaboration is between just two people, and it becomes more complex when multiple people are involved. Furthermore, it is not just the number of people that impacts the nature of collaboration. Greater diversity among parties also increases its complexity, whether it's diversity across points of view, personalities, values, loyalties, or other differences. Differences in goals and objectives significantly increase the complexity of collaborative efforts, and it is simpler and easier (relatively speaking) when the parties can meet face to face. Collaboration is also obviously more challenging when the very conditions in which the parties are trying to work are themselves in flux.

Table 1: Simple and Complex Collaboration

Simple Collaboration	Complex Collaboration
Well-defined task	High task uncertainty
Two people	Multiple people
With much in common	Diverse
Common goals	Different goals and agendas
Face to face	Virtual interaction
Stable conditions	Dynamic conditions

In the case of a Comprehensive Approach, collaboration becomes even more complex because of the sizable number of different *agencies* (not just “multiple people”) having diverse agendas, interests, constraints, and perspectives. That added complexity may be better conveyed with the diagram in figure 1 than with words (adapted from FM 3–07, *Stability Operations*, October 2008: A-14).

Figure 1. A Schematic Representation of the Comprehensive Approach

Furthermore, the very nature of the Comprehensive Approach represents rather extreme conditions of all dimensions of VUCA as well. Amid such challenging conditions, there fortunately are fundamental and well-accepted strategic principles

that point diverse parties in a desired direction (Guiding Principles, 2009). While developed to serve as strategic doctrine for civilians engaged in peacekeeping missions, these fundamental principles are consistent with official guidance documents on international stabilisation and reconstruction missions, and constitute a kind of strategic intent for a comprehensive approach. The principles include:

- ♦ Interdependence, or the idea that “everything is connected to everything else.” The desired end states for a comprehensive approach are part of an interlocking “systems of systems.” For example, maintaining the rule of law requires assuring a safe and secure environment; that, in turn, requires a sustainable economy, which depends upon having stable governance, which itself is dependent upon overall social well-being and rule of law, and so on.
- ♦ Cooperation, the idea that different actors can have somewhat different agendas yet still share a common strategic vision and work together toward the same goal.
- ♦ Prioritization, because in most societies emerging from conflict there are competing demands that exceed available resources. While priorities must be established, they also must remain flexible.
- ♦ Nesting, in which short-term objectives are nested in longer term goals. For example, the need to establish order may require the early engagement of international police, but this should be nested in longer term objectives for law enforcement ultimately to be the province of local rather than international police.
- ♦ Flexibility of Sequencing and Timing that is dependent upon context and changing conditions. Constant learning and calibration of strategies are required because the circumstances in any particular country will always be dynamic.
- ♦ Measurement of Progress, using a system of metrics that helps to translate lofty goals into measurable outcomes.

As noted, these fundamental principles give parties to a Comprehensive Approach a kind of strategy for their shared work. On the other hand, they provide relatively little helpful direction about *how* these parties should work together in ways that foster collective progress in this shared strategic direction. To put it differently, what does it “look like” when people truly behave interdependently across the boundaries of their different agencies, interests, and perspectives? And what kind of leadership does it take to encourage and enable such diverse parties to behave that way? These questions make it useful for us now to examine the differences between what has been called business strategy and leadership strategy.

Business Strategy and Leadership Strategy

Let us be clear at the outset that what we mean by the term *business strategy* applies to all organizations, not just those in the private or corporate sector. In that sense, all organizations have a business strategy (not necessarily a good one), including government agencies, military organizations, churches, charities, etc. When most people talk about their organization's strategy, what they have in mind is what we are calling the organization's business strategy. Thus, while it is easy enough to understand that General Motors and General Electric have business strategies, we are also saying that so does the Red Cross, the Central Intelligence Agency, and NATO. The general applicability of the term may be easier to appreciate when we define it more precisely: "*Business strategy is the pattern of choices an organization makes to achieve sustainable competitive advantage*" (Hughes & Beatty, 2005: 28). In *all* organizations, whatever the sector, strategy involves a pattern of choices reflected in different parts of the overall operation. In the business sector, for example, if being a high-quality provider is a critical element of an organization's strategy, then investments related to quality would be apparent wherever you look. Product design would include high-end features; customer service would be fully staffed with highly capable and knowledgeable workers; the sales force would assure a personal touch with customers, and so on. As we have indicated, it is useful to distinguish the idea of a leadership strategy from that of a business strategy. We will shortly explain why the distinction is so important, but first let us define more precisely what we mean by the term *leadership strategy*. "*Leadership strategy describes the organizational and human capabilities needed to enact the business strategy effectively*" (Hughes & Beatty, 2005: 28). More fully:

Leadership strategy represents an organization's strategic intent about leadership, including its philosophy, values, and general approach to leadership and leadership development. Leadership strategy encompasses matters of organizational values and culture as well as the role of systems in facilitating leadership and leadership development throughout the organization. It also includes the organization's strategy for developing the effectiveness of individual leaders and strategic leadership teams. (Hughes & Beatty, 2005: 35; see also Pasmore & Lafferty, 2008)

With this background on *what* a leadership strategy is, we now are in a better position to tackle the question of *why* the distinction between business strategy and leadership strategy is so important. Some of the most dramatic evidence concerning the importance of having a clear leadership strategy comes from those cases where it was absent. On many occasions this was the primary cause of failure in organizational transformation efforts.

The record of successful organizational transformations over the past several decades is fairly dismal—only about one in four is successful (Beer & Nohria, 2000a, 2000b; Hirschorn, 2000; Roberto & Levesque, 2005). An examination of many of these attempted transformations indicates that most involve either exclusive or primary emphasis upon changes in organizational structure, systems, or processes. Typically

there is insufficient attention (if any at all) to the leadership and cultural dimensions of transformation (McGuire & Rhodes, 2009). In the corporate sector, for example, such inattention is considered to be the most common reason for the relatively small proportion of mergers and acquisitions which actually performed at levels commensurate with original expectations.

In the business strategies called for in the Comprehensive Approach, this kind of inattention to leadership and cultural dimensions is also typical. In our experience, it is specifically the *leadership cultures* of the organizations and institutions (communities, etc.) that must be recognized and compared for fit and function to the business strategy. The leadership culture is the web of shared beliefs and practices for producing effective leadership in a collective of any kind. In a sense this is the “operating system” for leadership; it is the “logic in action” for producing shared direction, alignment, and commitment. Leadership culture tends to be stable over time, as culture tends to be. Leadership cultures vary widely between collectives, and they vary within organizations as subcultures of shared leadership beliefs and practices. When organizations with very different leadership cultures attempt to work together, the result can be conflict and dysfunction, as the operating systems refuse to synch, and the underlying logics disagree.

We believe leadership strategies suited to the Comprehensive Approach must address this variability in leadership cultures. Such a leadership strategy must necessarily include a greater capability for recognizing and spanning the boundaries of leadership cultures.

Let us look more closely at the three kinds of culture that are inevitably involved. There is a hierarchy of leadership cultures from Dependent, to Independent, to Interdependent (figures 2 and 3). Each successive culture is more capable of dealing with greater volatility, uncertainty, complexity, and ambiguity.

It is usually a mistake to reduce an entire organization into a single type of culture. Typically there are many subcultures, representing different leadership logics. For example, even within a dependent leadership culture the typical subcultures range from autocratic to diplomatic to specialist-expert leadership subcultures (McGuire & Rhodes, 2009; Rooke & Torbert, 2005).

Figure 2. Three Levels of Leadership Culture



Leadership is a **collective** activity



Leadership emerges out of **individual knowledge and expertise**



People in authority are responsible for leadership

Figure 3. Three Levels of Leadership Culture and the Production of Direction, Alignment, and Commitment

	Direction	Alignment	Commitment
	How will we decide on a shared direction?	How will we coordinate our work, so that it fits together?	How will we maintain commitment to the collective?
 Interdependent	Agreement on direction is the result of shared exploration and the emergence of new perspectives.	Alignment results from ongoing mutual adjustment among system-responsible people.	Commitment results from engagement in a developing community.
 Independent	Agreement on direction is the result of discussion, mutual influence, and compromise	Alignment results from negotiation among self-responsible people.	Commitment results from evaluation of the benefits for self while benefiting the larger community.
 Dependent	Agreement on direction is the result of willing compliance with an authority.	Alignment results from fitting into the expectations of the larger system.	Commitment results from loyalty to the source of authority or to the community itself.

We often do a simple series of exercises as part of the discovery phase of setting leadership strategy. Using the model in figure 3, we ask: *Where is your organization overall? (And, where are you personally?) Where does the leadership culture need to be to support the business challenge? How do you (will you) produce shared direction, alignment, and commitment? What are the leadership cultures of the organizations or institutions with whom you must collaborate? How will differences in leadership culture affect the collaboration? How will you span those boundaries?* These questions are, of course, all about leadership and leadership development within a nascent leadership strategy.

As the forms, types, and size of leadership cultures expand within a CA, boundary spanning practices become increasingly critical for strategy implementation.

Boundary Spanning Across Leadership Cultures

Boundary Spanning: Art and Theory

Boundary spanning is an approach developing more interdependent organizations and networks of organizations based in a long-term research project at the Center for Creative Leadership (Ernst & Chrobot-Mason, 2010). Its premise is that while technology has enabled a truly interconnected world and effectively removed *physical* boundaries as a barrier to effective interaction, our *social* boundaries remain as formidable as ever. The social boundaries by which people naturally separate themselves

into groups of “us” and “them” thwart finding effective solutions to problems that can only be solved by groups working collaboratively together.

For example, it has become nearly axiomatic in organizations today that it is important to “break down silos.” In a recent survey, 86 percent of senior executives said that it is extremely important for them to work across boundaries yet only 7 percent believe they are very effective at doing so (Yip, Ernst & Campbell, 2009). Building more interdependent organizations and societies requires that boundary spanning be practiced both within and across organizations. A useful starting place for doing so is to recognize that there are two different meanings of the word *boundary*:

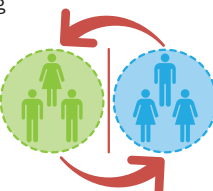
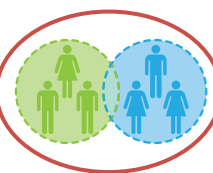
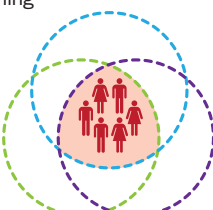
1. Something that indicates bounds or limits; a *border*.
2. Also called *frontier*. The location of the most advanced activity in an area. (*Random House Dictionary*, 2009)

The second definition is the more useful one for fostering greater interdependence in organizations. Boundary spanning leadership can be taught when boundaries are viewed as frontiers and areas of advanced activity. Recent research shows that effective boundary spanning leadership is possible with the right frameworks, strategies, practices, and tactics. There are five kinds of social boundaries to consider (Ernst & Chrobot-Mason, 2010):

- *Vertical*: rank, class, seniority, authority, power, structural.
- *Horizontal*: expertise, role, function, peers, competitors.
- *Stakeholder*: partners, sponsors, constituencies, value chain, communities.
- *Demographic*: gender, religion, age, ethnicity, nationality, culture, ideology.
- *Geographic*: location, region, markets, distance, language.

Effective boundary spanning is accomplished through six social practices within a sequence of three strategies (table 2). The objective, in leadership terms, is the creation of direction, alignment, and commitment across boundaries in service of a larger vision or goal.

Table 2. Boundary Spanning Strategies and Practices

Strategy	Practices	Definition (with outcomes in <i>italics</i>)
1. Managing Boundaries Taps into the power of differentiation and the need for distinctiveness, divergence, and uniqueness within groups	Buffering 	Monitor and protect the flow of information and resources across groups to <i>define boundaries and create safety</i>
	Reflecting 	Represent distinct perspectives and facilitate knowledge-exchange across groups to <i>understand boundaries and foster respect</i>
2. Forging Common Ground Taps into the power of integration and the need for unity, convergence, and belonging across groups	Connecting 	Link people and bridge divided groups to <i>suspend boundaries and build trust</i>
	Mobilizing 	Craft common purpose and shared identity across groups to <i>reframe boundaries and develop community</i>
3. Discovering New Frontiers Taps into the power of simultaneous differentiation and the power of adaptation and transformation	Weaving 	Draw out and integrate group differences within a larger whole to <i>interlace boundaries and advance interdependence</i>
	Transforming 	Bring multiple groups together in emergent, new directions to <i>cross-cut boundaries and enable reinvention</i>

Boundary Spanning Across Leadership Cultures: Examples

Each group, whether interorganization or cross-organization, has its own particular form of leadership culture that achieves outcomes of direction, alignment, and commitment (DAC) (Drath, McCauley, Palus, Van Velsor, O'Connor & McGuire, 2008). Methods and logics of achieving DAC vary across leadership cultures, forming social boundaries of differing beliefs and practices that can block collaborative work.

As a practical matter, we offer two illustrations that feature culture, the five boundaries, and the strategies and practices of boundary spanning across leadership cultures:

(1) In law enforcement when borders of jurisdiction are crossed by multiple agencies, buffering is triggered. For example, after a murder has been committed in a Native American nation, federal interests collide with local and state police as well as with multiple federal agencies—all parties experience vertical, stakeholder, and geographic boundary conflicts. As a first step in spanning boundaries, all stakeholders can begin by independently practicing buffering, reflecting, and exploring their own vertical hierarchies before connecting and mobilizing. In this illustration, the strategies of managing boundaries and then forging common ground are significantly enhanced where leadership cultures are both *self* aware and *other* aware as they move through the process.

(2) In a post-merger where the process re-engineering of enterprise-wide systems occurs, the primary boundary issues will be horizontal and appear as separate silos of activity. Organizations whose leadership cultures look first to hierarchies for direction will struggle. While the other four social boundaries will likely play a role, without the art of horizontal boundary spanning, these subcultures across the enterprise will resist and sabotage effective collaboration.

Boundary Spanning Across Leadership Cultures: Intervention

In our work at the Center for Creative Leadership (CCL), we are frequently asked to bring groups together to help them identify, explore, and span their relevant boundaries. We will describe here a generic yet still best-practice design for a boundary spanning workshop in which senior leaders from different organizations are engaged. Such a workshop would be customized extensively in any particular situation, but the basic design that follows is a good example of the theory in practice.

The purpose of the workshop design is to enable two fundamentally different leadership cultures to collaborate on some kind of joint objective. Typical objectives in such workshops include:

- ♦ understanding interdependent leadership culture and boundary spanning concepts
- ♦ applying these concepts to develop a shared vision, common language, and unified set of goals and metrics
- ♦ accelerating the development of an interdependent environment between our organizations.

This one- or two-day workshop design typically follows the three-part strategy for boundary spanning, with *Managing Boundaries* in session one, *Forging Common Ground* in session two, and *Discovering New Frontiers* in session three.

Prior to the day of the session, there is typically a period of *discovery* that includes interviews and conversations individually and in groups with participants in order to clarify the history, present state, and future desired states and outcomes. An important part of the discovery process is to identify specific difficulties and challenges in crossing boundaries between one leadership culture and another.

In session one, the design focuses on *differentiating* boundaries between the two organizations. The two organizational groups meet in separate breakout rooms. The instructions are the same for both groups: “*Today we begin by meeting in each organization separately in order to clarify and explore your unique organizational needs, cultures, and environments.*” A brief time is spent putting the idea of boundary spanning leadership in a broader set of concepts including organizational transformation, strategic leadership, change management, and types of organizational culture (more specifically, dependent, independent, and interdependent cultures).

The first activity involves creating a shared vision of achievement within each group. Each participant writes a headline of an article they would like to see twelve months in the future highlighting the positive results of their work together. The article could appear in any publication of their choice. The headlines and themes are shared and discussed. Later, when the groups come together in the afternoon, the headlines are posted for all to see.

The next activity further defines (“buffers”) each group. We use the Leadership Metaphor Explorer™ (LME) tool to explore the leadership culture each group currently has, and what culture is needed in the future to achieve mission objectives. LME is a deck of 83 cards, each one containing a unique metaphor for leadership consisting of a drawing and a label (several illustrative cards are depicted in figure 4). The cards are laid out on a table in the back of the room. Each person is asked to browse the cards and choose two that best represent their thoughts on two different questions:

First card: *What is your leadership culture like now?*

Second card: *What will your leadership culture need to be to achieve success?*

Figure 4. Illustrative Leadership Metaphor Explorer Cards

Groups members share and discuss their “Now” cards, then their “Future” cards. Facilitators then typically create a PowerPoint collage of the thematic card images. Often, the pattern of card selections reflects a desired shift toward more interdependent and collaborative leadership cultures.

Another activity in the managing boundaries session uses a tool from CCL called the Boundary Explorer™. This tool is used to illustrate the concepts, strategies, and practices for working successfully across organizational boundaries. Boundary Explorer is a deck of 21 cards that actively engages participants in understanding and experiencing the boundary spanning leadership model—the five types of boundaries and the strategies and practices shown in table 2. Participants self-assess their own group’s effectiveness in working across different kinds of boundaries. More specifically, they identified which boundaries they work across *Best*—that is, vertical, horizontal, stakeholders, demographic, or geographic—as well as those they work across the *Worst*.

Next is the practice of *reflecting*—to understand the intergroup boundary by sharing cross-organizational perspectives. “*Now that we have met within the respective groups, it is time to begin knowledge-exchange and perspective-sharing across groups.*” For this, we often use the technique of fishbowl dialogue. In this technique, the top leader of each group sits in the middle of the room along with a facilitator/interviewer. The focus of their dialogue is on key insights from the morning sessions: *How does each group view themselves and their leadership challenges?* All the others, from both of the groups, sit in an outside circle or semi-circle and practice active listening. After about twenty minutes, the two top leaders finish their dialogue and become listeners, as the dialogue shifts to all those who had been listening. The group talks about what they just heard from their top leaders, how they see themselves, and how each group now sees the other. It is often quite insightful to debrief the experience of the fishbowl itself: *What was it like for subordinates to talk about what they heard from their bosses, in front of their bosses? What was it like to discuss your own group in front of the other group?*

The next activity deals with the practice of *connecting*—suspending boundaries by building cross-organizational relationships. With the goal of sharing leadership commitments and building relationships, each participant is asked to take out the “Future” Leadership Metaphor card they had selected earlier and “*identify a leadership trait that represents your personal commitment to creating the future leadership culture. What is the type of leadership you will model for others?*” A session of “speed networking” follows in which participants use their card and trait as a way of introducing themselves to ten or so people from the counterpart organization in just ten minutes.

Next is the practice of *mobilizing*—reframing boundaries by crafting a shared vision. Explicit instructions are given to assure that members from the two organizations intermix in where they sit. Each blended table then creates a vision statement about their collaborative work that encompasses the themes and patterns identified from both morning sessions. For reference, the news headlines from the morning are posted around room. Each table group then writes a single headline representing their vision and three metrics of how they would measure success in accomplishing the headline. Table representatives then provide brief reports to the others about their headlines/metrics.

The concluding activity of the session on forging common ground is introduced this way: “*Given your shared headline, what are the challenges that might get in your way? What obstacles are you facing to creating an effective Team of Teams? Write all your challenges on the blank butcher paper (posted on walls)—everything that could potentially get in the way of realizing your headlines. Use direction, alignment, and commitment as a frame for the challenges.*” Once the challenges are posted, each participant votes (using sticky dots) for the “top three” challenges he or she views as most important. The six challenges receiving the most votes overall become the focus of the next session (the number of challenges and subsequent table groups may be fewer or greater depending on the size of the groups and the nature of the challenges).

The strategy for the final session is discovering new frontiers, and the practice of focus for that session is *weaving*—interlacing boundaries by combining unique experience and expertise in service of solving a joint challenge. The session is introduced with these instructions: “*In this next section, we want you to bring the maximum diversity of your experience and expertise to bear on developing innovative solutions in service of your key challenges.*” In this activity, the top six challenges are posted next to six tables. Participants move to the table that poses the challenge that interests them the most, while also maintaining mixed representation at each table. They write down ideas and innovative approaches to the challenge. In 10-minute rotations, participants “table hop” to build upon and add to the posted ideas—retaining one convener at each table. When time is up, everyone votes on the best near-term and long-term solutions for each challenge and the groups report the results.

The final practice is *transforming*—spanning boundaries by reinventing external stakeholder relationships. External stakeholders may include, for example, specific customers, suppliers, governmental agencies, nongovernmental organizations (NGOs),

or partners in a value chain. The senior leaders of each group first get together and identify six (or so) specific external stakeholders on which they want to focus. This activity repeats the previous table-hopping technique, but this time with each table focused on one particular external stakeholder (who are typically not in the room, but, depending on the design, they could be). It begins with these instructions: “As a ‘Team of Teams’ what are your challenges in spanning boundaries with these external stakeholders? How could these challenges be transformed into new solutions? Move to a table with the particular external stakeholder that interests you the most.” Facilitated to ensure mixed groups at each table, participants identify as many challenges as possible that are specific to that stakeholder group. They also identify as many solutions as possible, and a representative from each provides a brief report to all others on their favorite solution.

Conclusion

The CA calls for groups representing different departments of the U.S. Government, allied governments, NGOs, international and regional organizations, as well as from the private sector to work together collaboratively and interdependently. It would be no small thing to work collaboratively and interdependently across the boundaries of multiple organizations that are fundamentally alike in their forms of leadership culture. The challenge of working effectively across organizational boundaries when their respective leadership cultures are markedly different from each other can seem insurmountable.

The theory and methodology described in this chapter appear to be a viable and effective approach for helping foster more interdependent and collaborative interactions among representatives from organizations with quite different leadership cultures. The numerous and complex boundary spanning challenges inherent in the comprehensive approach suggest that boundary spanning across leadership cultures is a promising leadership strategy for the CA.

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Note

1. We use the term collaboration to mean the *shared work of different parties to achieve a common and challenging goal*. The authors also recognize that a quite different definition of collaboration is to *cooperate treasonably with an enemy occupying one's country*. Because "collaborators" in WWII helped the occupying Nazis, the term has quite negative connotations to many in Europe. We hope readers will understand that the way the term is used here has nothing in common with the behavior of Nazi "collaborators."

Chapter 9

The Role of Education in the Comprehensive Approach

RALPH DOUGHTY AND JON STULL

Abstract

Education is essential if we are to grow, develop, and transmit knowledge to those following behind us. This means that education for the Comprehensive Approach (CA) must change to include all organizations involved. But innovations in technology, organizations, and processes do not last unless the people in the organizations are educated to accept change and revise their institutional values. This attribute of large-scale bureaucratic change has been consistently evident as the U.S. military increasingly began to value “jointness” for the more than two decades after passage of the 1986 Defense Reorganization Act. The success of the military’s development of “jointness” is due in great measure to joint education requirements and execution. The challenge to educate and train jointly is particularly true in today’s efforts to develop an understanding for performance in the CA. Education enables interagency partners to better understand (1) the capabilities and constraints of other agencies, (2) organizational and process knowledge needed to develop new capabilities, (3) technologies used and bridges between organizations to enable all organizations to interoperate with each other, and (4) the impact of organizational culture on the ability to develop competencies and capabilities for a CA. Methods for achieving the education necessary to successfully implement the Comprehensive Approach must include all the interagency partners in a combination of short-, mid-, and long-term courses that address both operational and cultural issues covering the full spectrum of all the partners. This is true not only for different agencies within a single country, but even more so in various agencies representing different countries (that is, in the NATO Alliance). This chapter compares the role of education in the joint military environment with the needs of the CA, and makes the case for interagency education programs that follow the tenets of joint military education to ensure that education for the CA reaches all the partners in a format they can understand and implement effectively.

Introduction

The Goldwater-Nichols Department of Defense Reorganization Act of 1986 was passed by the U.S. Congress in an effort to rectify a lack of integrated performance by U.S. Armed Forces when applying the military aspect of national power. This was a result of the United States experiencing a number of operations that did not fulfill expected standards. The outcomes and the limited degree of integration and coordination among the military Services demonstrated during operations in Vietnam (1965–72), *Mayaguez* Incident (1972), Grenada, and the Beirut Bombing (1983) were not to the level desired by either the military or the people they served (Locher, 2002). Despite frequent suggestions by Congress for military leadership to take initiatives to improve interoperability, integration, and effectiveness, few in the military believed that major change was needed and that the corrections necessary could be effected within the current system.

With little improvement experienced after congressional concern was repeatedly expressed, Congress, based on its Constitutional authority, drafted and passed appropriate legislation that would force the Services to work more jointly. The result of this concern was the enactment of what is commonly referred to as the Goldwater-Nichols Act (DOD Reorganization Act 1986). This legislation transformed command and control as well as processes so that the Services would operate jointly (two or more Services from different military departments). In order to ensure compliance and acceptance of these new processes in the long term, the legislation also required that the culture of the people be changed through mandatory education in “*joint matters*” (U.S. Congress House Committee on Armed Services, 1989, 105). Now, some 25 years after the passage of the Goldwater-Nichols Act, many claim that the U.S. Armed Forces are in fact *joint* (Murray & Scales, 2003).

The challenge now, as set forth by the Secretary of Defense in the National Military Strategy 2008, and echoed more recently in the 2010 Quadrennial Defense Review and the National Military Strategy of 2011, is to engage in an effort to build “*new jointness*” that includes other agencies, international partners, and nongovernmental organizations so that a “whole-of-government,” if not a “whole-of-nation,” approach is formed that integrates all the elements of national capacity, and can be used in implementing policy (Chairman of the Joint Chiefs of Staff, National Military Strategy, 2011, 16).

Why this call for “new jointness” (National Defense Strategy, 2008, 17) once the military had achieved jointness? Similar to the string of military operations that resulted in mediocre performance that led to the Goldwater-Nichols Act, the nation has experienced and endured prolonged operations in Panama, Somalia, Haiti, and currently Afghanistan and Iraq which clearly demonstrate that major challenges exist in coordinating across departments and agencies in order to achieve national goals and objectives. To mitigate the challenges experienced, many initiatives have been taken to bolster interagency coordination and increasingly build a whole-of-government approach to solving complex contingencies. This call to create a “new jointness” and

to coordinate national capacity across military and civilian communities has been further emphasized in the President's 2010 National Security Strategy as he calls for the nation to "update, balance, and integrate all the tools of American power and work with our allies and partners to do the same" (National Security Strategy, 2010, 14). In order to do this, the United States must adopt more than a "whole-of-government approach" to solving the complex problems that confront the United States and the global community today by extending the "whole-of-government" participants to include nongovernmental organizations (NGOs) and multinational partners, thereby creating a Comprehensive Approach (CA) that includes all appropriate partners and participants.

Effective transformation of large bureaucratic organizations actually changes not only processes and organizations, but also the behaviors and values of the people as well. Changing the behavior or the culture of an organization requires a "new" thinking or perspective. These qualities cannot be decreed but must be taught and experienced in order for them to be fully inculcated in an organization. Thus education and training are essential in the transformation of large organizations. As many studies have shown, innovations in technology, organizations, and processes do not last unless the people in the organizations are educated to accept change and revise their institutional values. This attribute of large-scale bureaucratic change has been consistently evident as the U.S. military increasingly began to value "jointness" for more than two decades after passage of the 1986 Defense Reorganization Act. The success of the military's development of "jointness" is due in great measure to joint education requirements and execution.

This challenge to educate and train jointly is also particularly true in today's efforts to develop an understanding of how to maximize performance in the CA. Education enables the players (people) in different agencies to better understand (1) the capabilities and constraints of other agencies, (2) organizational and process knowledge needed to develop new capabilities, (3) technologies used and bridges between organizations to enable all organizations to interoperate with each other, and (4) the impact of organizational culture on the ability to develop competencies and capabilities for a CA. Methods for achieving the education necessary to successfully implement the CA must include all the partners (civilian and military) in a combination of short-, mid- and long-term courses that address the issues involved from a variety of perspectives covering the full spectrum of all the partners. This multi-axis approach to education through a combination of educational offerings is necessary not only for different agencies within a single country, but even more so in various agencies representing different countries (that is, in the NATO Alliance).

To support the assertion that a multi-axis educational approach is needed to enable today's military and civilian leaders to better understand and participate in a CA, this chapter reviews the nature of transformation and how the above transformation model frames the challenges we face today. This is followed by an examination of the role played by education in the wake of passage of the DOD Reorganization Act of

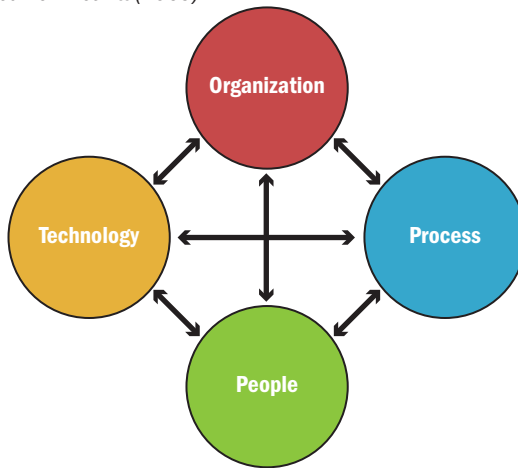
1986 enabling the U.S. Armed Forces to become fully integrated. The success achieved through the education of the Services about “jointness,” as well as the identification of inefficiencies to be avoided, is instructive in preparing participants for challenges to be encountered in developing a similar educational program necessary to successfully implement the CA. After reviewing the requirements for a CA, the authors then propose a transformational approach to education that might better enable the development and acceptance of the CA.

Transformation Basics

For more than a decade the military has been dealing with the definition and nature of large-scale transformation. During the early days of President George W. Bush's administration, Secretary of Defense Donald Rumsfeld energized this investigation into transformation by establishing a DOD Office of Force Transformation and publishing *Transformation Planning Guidance* in April 2003. This guidance presented the case for the need for Force Transformation, defining the scope of this effort to transform in three broad areas: how we do business, how we work with others, and how we fight. Much of this concept of the nature of transformation was based on the earlier works of several researchers in the 1960s as they examined large institutional change. Among them was the work of H.J. Leavitt whose discussion concerning organizational change identified four linked variables of task, technology, structure and actors (Leavitt, 1965). A study of Leavitt's model combined with research of organizational change conducted in the 1990s by the Sloan School of Management at the Massachusetts Institute of Technology (MIT) concerning leveraging information technology for competitive advantage led to John Garstka's adaptation of the model to reflect a revised four-element model for transformation currently used by the International Transformation Chairs Network (ITCN). This model identifies Technology, Process, Organization, and People as fundamental entities of large-scale change (Garstka, 2009), and this four-element model of transformation has been explored by the ITCN and used as a basis for their research and depicted in figure 1 (Neal, Friman, Doughty and Wells, 2009).

Figure 1. Transformation Four Element Model Source

Source: Adapted from Leavitt (1965)



Transformation or large-scale institutional change is not a new phenomenon. Militaries, large corporations, and industry, having either anticipated or been caught in the midst of a changing operating environment, have experienced the challenge of *transforming* the organization. The initiation of large-scale change usually is a result of major innovation within one of the elements in the four-element model. If the elements of any organization are well linked, then the innovation in one area will spread to others until all elements have changed significantly, thus perhaps transforming the organization. Although innovation can be experienced in any element of the model, increasingly, with the rise of the Information Age, technological innovation has led the way. Regardless of the impact of any specific element's innovation, the organization is not transformed until each of the other elements (process, organization, and people) has embraced the innovation as well. New technologies surround us daily, processes routinely change to complement the innovative technologies, and often the organizational template is changed to reflect the changing process; however, until the people and their attendant culture, values, and attitudes change, transformation is not complete. It is this last element (the people or culture) and their reluctance to accept change that keeps many entities from truly transforming.

For many organizations, the key to rapid transformation or assimilation of change is dependent on the receptivity of its people. Attitudes, habits, and values once held are difficult to change as highlighted by the often-used quote of Liddell Hart, "The only thing harder than getting a new idea into the military mind is to get an old one out" (Liddell Hart, 1944). Despite the abundance of technological and process innovation, unless the culture of an institution changes, unless the values of the people of an institution change, true transformation will not be made. As mentioned by Grant Hammond in his introductory essay for *Crosscutting Issues in International Transformation*:

transformation is a process to change an organizational culture. Culture is ultimately shorthand for people and changing how people think and behave. Culture implies intellect, mindsets, tastes, and manners, and the refinement of these by education and training. If we fail to transform how we think and act, we will not have transformed ourselves, our organizations, or our processes. (Hammond, 2009, 18).

Secretary Rumsfeld's Transformation Planning Guidance echoed the sentiment above by stating that "[j]oint education is fundamental to creating a culture that supports transformation" (Transformation Planning Guidance, 2003, 21). Education is essential if the culture of an organization is expected to change.

Developing "Jointness"

An earlier demonstration of the importance of the role of education for transformation is the development of joint education in support of the Goldwater-Nichols Act. In the wake of the Vietnam experience, there occurred a succession of military operations in which there were demonstrated failures of the military Services working together. Despite significant urgings by Congress, the military leadership did little to alleviate internal friction generated by the Services when they had to work together. Starting with an unsatisfying conclusion to the Vietnam War, friction and inter-Service rivalries continued to be evident in the operations that followed: the evacuations of Phnom Penh and Saigon, and the seizure of the SS *Mayaguez* by the Khmer Rouge in 1975; the failed rescue attempt of American hostages held in Tehran in 1980; and then the tragic bombing of the Marine Barracks in Beirut which killed 214 sailors and Marines, followed 2 days later by Operation *Urgent Fury*, a "joint" operation that revealed costly flaws in inter-Service coordination and execution in the successful effort to assure the safety of 600 American medical students in 1983. Finally, after more than 4 years of congressional inquiry, testimony from key military leaders, and intense negotiations, Congress passed the DOD Reorganization Act of 1986. The United States military was required by the Congress to transform itself from a collection of Services that were highly capable in their own right but performed marginally, if at all, when asked to operate jointly (more than two military Services from separate Departments) (Locher, 2002). This was a clear example of change driven from "the top," but was it to be transformational?

James Locher, in *Victory on the Potomac*, highlighted nine basic purposes that Congress identified for the new legislation (Locher, 2002). Most of the purposes dealt with authorities, command and control, and organization. One, joint officer management, started to address the military culture and specifically opened the door for more aggressive oversight by Congress of both professional military education (PME) and joint PME or JPME. The focus of this oversight was to ensure that officers who were to serve for unified commanders or for the Joint Staff were prepared mentally and had been *acculturated* (U.S. Congress House Committee on Armed Services, 1989) to be able and willing to promote and or defend joint operational considerations over the interests of their own Service. In order to accomplish this, joint assignments were

identified with the intent that officers who had received joint education would be assigned to them. To become qualified for a joint billet, an officer was to complete not just appropriate Service PME but JPME as well. JPME was broken into two distinct phases. Phase I was presentation of joint knowledge at and by the various intermediate Service colleges. JPME Phase II however, was to be provided only by the National Defense University, through participation in the National War College, the Industrial College of the Armed Forces, and/or the Joint Forces Staff College (OPMEP, 2009, A-A-6). Congress, being fully appreciative of the Services' reluctance to send their best to joint schools or to joint positions, established stipulations for promotion to senior grades that Services could not passively ignore. Even with these stringent conditions, it still took 20 years or more to change the culture, so that the "people" element did in fact change their values. As the U.S. strives to exercise "smart power" (Armitage & Nye, 2007) and recognizes it must transform both civilian and military officers to more effectively engage in whole-of-government coordination and be able to execute a comprehensive approach in solving complex problems, a method to address inter-agency education similar to that constructed for the military to become joint should be mandatory.

Comprehensive Approach

So what exactly is this "Comprehensive Approach" that requires a focused educational structure dedicated to its teaching? Although the term *comprehensive approach* is relatively new, beginning to be widely used about 6–7 years ago, the desire to operate effectively across military Services, government departments and agencies, and among international partners has been a goal for decades. In 1967, during the height of the counterinsurgency efforts in the Vietnam War, the U.S. Government established an organization that would unify the efforts of the State Department, the military, and the Intelligence Community, as well as developmental aid. This organization was called Civil Operations for Revolutionary Development, or simply CORDS. Although in the long run the strategic end state of a stable and secure Republic of South Vietnam was lost in 1975 as a result of conventional operations, there is wide-spread agreement that the efforts unified through the CORDS program were instrumental in turning the tide against the Viet Cong insurgency (Bullington, 2008). In the wake of the Vietnam War, not only did the crisis for which CORDS was established disappear but the resulting budget contraction forced many agencies to reduce in size and focus primarily on their core functions rather than continue to coordinate across agencies.

The year 1989 ushered in the "fall of the wall" and the promise of a "new world order." Instead, the result was "new world disorder" with increasing requirements to establish coordinated efforts across agencies in order to effectively stabilize communities in the wake of natural disasters, major military conflict, or a general breakdown of civil authority. A review of the lessons learned in After Action Reports of operations in Panama, Somalia, Haiti, Afghanistan, and Iraq creates a resounding chorus identifying

the need to establish organization and process capabilities for what is generally called interagency coordination.

As a result of successes and disappointments after the intervention in Haiti to restore Jean-Bertrand Aristide in September 1994, the Clinton administration published an executive directive establishing policy on how to manage complex contingency operations (PDD-56 1997). In addition to providing overall guidance in generating a coordinated political-military response when addressing complex contingencies, it also created an outline of a generic political-military approach. This initial attempt at defining interagency coordination was later revised by the Bush administration when they published National Security Policy Directive 44 establishing, within the Department of State, the Office of the Coordinator for Reconstruction and Stabilization (S/CRS) (NSPD 44, 2005).

This effort to create a government structure in order to coordinate across government departments and agencies has persisted into the Obama administration. The President has stated that, "To succeed, we must update, balance, and integrate all of the tools of American power and work with our allies and partners to do the same." This integration of tools he calls the "Whole of Government Approach" (National Security Strategy, 2010, 14). However, even though tighter coordination among government agencies is always desirable, that still leaves a significant sector of activity that is beyond any single government. The attempt to cooperate among all players and their capacity to have constructive impact in a contingency would be considered a comprehensive approach. Where the military from several military Services and perhaps nations would strive to ensure *unity of command* and the various departments and agencies within a government would seek *unity of effort*, cooperation among the intergovernmental and nongovernmental participants beyond that would be a *Comprehensive Approach*. Although for many the definition of CA is very generic and all encompassing, the U.S. Army in their *Stability Operations* Field Manual (FM 3-07) defined Comprehensive Approach as "an approach that integrates the cooperative efforts of the departments and agencies of the United States Government, intergovernmental and nongovernmental organizations, multinational partners and private sector entities to achieve unity of effort toward a shared goal" (FM 3-07, 2008, 1-4). Even in the most demanding of current operations in Afghanistan, the Supreme Allied Commander, Europe has identified the importance of this concept:

The Comprehensive Approach is not a new idea. Counterinsurgency has always required a holistic approach. With the arrival of new actors on the national and international stage, we need a new concept of how to integrate the efforts of the old and new actors. The Comprehensive Approach gives us that way of looking at things, of coordinating planning, and of aligning efforts and mobilizing the resources that the local, national and global communities have to offer (Stavridis, 2011, 65).

Acceptance of the CA is in its infancy, similar to the level of acceptance of "jointness" by the U.S. armed forces in the 1980s. Just as JPME assisted in transforming the

military culture into becoming joint, so too can a robust education architecture lead the way toward acceptance of the CA.

Education for the Comprehensive Approach

The success of education in the U.S. military services stands as a stark reminder of what is possible when various government departments work together in a coordinated way to identify needed joint education requirements and then set about making it happen. In the U.S. military, the Chairman of the Joint Chiefs of Staff coordinates and approves joint education programs through his J7 on the Joint Staff. The J7 is responsible for Operational Plans and Joint Force Development through a Joint Education and Doctrine Division. It is through this organization that military professionals are educated and trained to perform joint operations with all the other services in the U.S. military. Key elements of this include definition of educational courses and specific content in those courses that joint Servicemembers must comprehend in order to function effectively as part of a joint force.

In addition to taking and passing the required educational courses, Joint Service Officers (now Joint Fully Qualified) in the United States are assigned to billets in other Services to train jointly, which is where they put their joint education into practice to ensure all participants have learned their lessons and can perform the required coordination and tasks in concert with each of their counterparts in the joint Services. This ability to educate together and train together was enabled by legislation written into the Goldwater-Nichols Act of 1986. While there have been several attempts recently in the U.S. Congress to codify a “new jointness” for interagency operations, there is currently no such legislation defining how the military should educate and train with all their interagency partners. It has been assumed by many that a way could be found for all the government departments and agencies, and all the nongovernmental organizations (NGOs) and multinational partners, to willingly cooperate with each other to achieve the same results that the military Services have achieved. After many years of attempting this voluntary cooperation, the vast disparities in manpower, money, processes, and procedures in the various agencies have resulted in limited progress at best. It is therefore clear that a major transformation is needed to develop a “new jointness” in which all governmental and nongovernmental departments and agencies in a given country work in concert with each other to achieve national goals and objectives in the most expeditious and cost-effective manner. Secretary Robert Gates emphasized this necessity for a “new jointness” in the U.S. National Defense Strategy 2008, when referring to “*Integrate and unify our efforts: A new Jointness*” (National Defense Strategy 2008, 17). This is re-iterated in the 2010 QDR Defense Strategy when the Secretary of Defense states that to “Prevent and Deter Conflict . . . requires use of diplomacy, development, and defense. . . . Such an approach also requires working closely with our allies and partners to leverage existing alliances and create conditions to advance common interests” (Quadrennial Defense Review, 2010, v).

The solution to the above problem may be for the legislative bodies of each country to pass laws that require cooperative education and training of all departments/agencies with their military departments. An example of what could be considered is a recently drafted U.S. House of Representatives Resolution (HR) 6249 (INSPEAD, 2010) that establishes requirements for both education and operational experience in other than one's own department in order to be promoted to the Senior Executive Service, much as the Goldwater-Nichols Act did in order to get the U.S. military to become joint. While this legislation is a huge undertaking in itself and not progressing in the current Congress, suppose that such legislation could be passed promptly in all the countries in NATO, including the United States as a NATO partner. In this event, the logical questions become (1) "How would each NATO partner implement such an education and training program in their own country?" followed quickly with (2) "How would NATO organize and coordinate these new-found opportunities to achieve the benefits and cost effectiveness promised by the addition of these vast resources?" Such is the promise and challenge of the CA in which all the above resources would become available to meet NATO-level challenges and contingencies.

The transformation of current education and training processes in each country would require that standards and requirements be developed for the "new jointness" program. Ideally, it would be helpful if the criteria and requirements of each NATO country could be standardized as much as possible before moving forward toward a NATO solution to minimize confusion and changes as the individual plans for each country are integrated into a NATO plan. This would be intended to prevent inter-agency partners from learning different standards that would then have to be folded into the NATO standards. So it is clear that the overall planning and implementation of the CA is not a trivial effort. It requires significant initial coordination and planning before a nation or an alliance like NATO launches pursuit of a CA program.

For purposes of this chapter, the focus is on education for the CA. Therefore, training-specific issues will be addressed only peripherally as needed. One of the first tasks that must be addressed is the creation of an organization that can make decisions on behalf of all the departments and agencies involved in the CA. This may require a small independent "Interagency Staff" that would have a mix of personnel from the various departments/agencies to ensure that proper representation is provided for all the "new joint" participants. This was attempted in the United States with the establishment of the National Security Professional Development Integration Office (NSPD-IO), whose purpose it was to integrate the progression of education and training opportunities across departments and agencies to promote logical development of national security professionals. Due to the lack of a central authority that was willing and capable of requiring all departments and agencies to cooperate in a "joint effort" to identify and coordinate educational requirements for all the agencies, this NSPD effort has proved to be only marginally successful. The challenge will be to establish cross-agency authorities in this integrating body, authorities which presently do not exist. If established, then this "Interagency Staff," like the Joint Staff, would need to

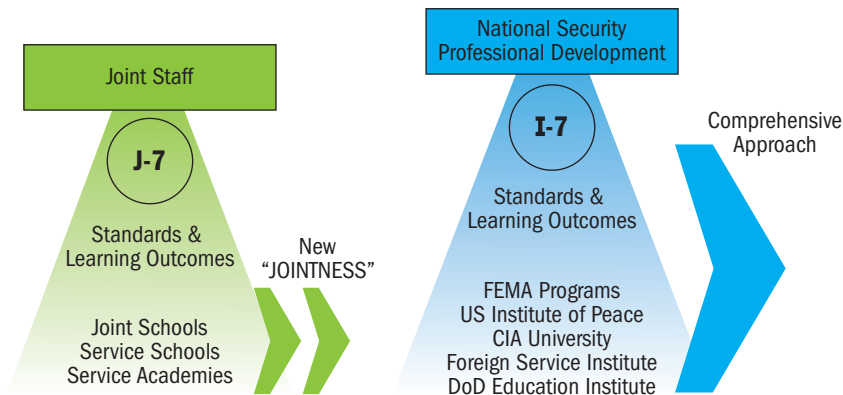
create the equivalent of a J7 (perhaps an "I-7") so that doctrine and education could be synthesized at the interagency level to guide the educational courses needed by the Interagency Staff in the CA. Decisions would be made regarding curriculum content and who from the various departments and agencies would attend the "new jointness" educational programs. This would lead to planning for how to implement the new educational programs.

In the U.S. joint intermediate-level educational programs, most learning occurs in schools operated by a single Service but with students from all the other Services comprising the overall joint force. For military schools, this currently includes only a very few students from non-military departments and agencies, and this number would have to increase dramatically to implement a CA comprising all government departments/agencies, NGOs, and multinational military and civilian participants. This is especially true when it is recognized that schools operated by other departments and agencies, that is, Department of State, Department of Homeland Security, etc., should have some military students in their courses to enhance the interagency learning and coordination processes. Each major military Service has its own Joint educational system that is governed by the J7 and the Chairman of the Joint Chiefs of Staff. So when this structure is expanded to include all the civilian departments and agencies, it is clear that the governing organization will have to be streamlined to enable effective coordination and prompt decisions. This is not a trivial problem, particularly when each department/agency in a single country has its own budget, leaders, staff, processes, procedures, and culture that must be reckoned with in order to reach a "new joint" interoperability that is lean but decisive in getting things accomplished effectively.

Individual curricula would be needed for each school in a given educational institution. This is a challenge in itself, given the breadth of knowledge and capabilities needed in an organization comprised of Army, Air Force, Navy, Marine Corps, Coast Guard, diplomatic departments such as the U.S. State Department, economic development departments such as the Department of Agriculture and the U.S. Agency for International Development, and so on and so on. What has been done in the United States is to have each Service or department lead their own schools which focus primarily on their own needs and capabilities (that is, a U.S. Army school which focuses on how the Army should operate in a joint military environment). This must now be expanded to include a "new jointness" focus on how to operate in a Comprehensive Approach involving all the military Services, government departments/agencies, multinational assets, and NGOs. Clearly, attendees from all the other non-military departments/agencies would be required in each student seminar group to inject the perspectives of the joint military Services and the interagency partners into the learning process. This process is currently being used on a limited scale at the U.S. Army Command and General Staff College in which Army, Air Force, and the Sea Services (Navy, Marines, or Coast Guard) comprise the U.S. military students. Also included in these courses are International Military Students (115 students from 52 different countries), and U.S. Interagency students (approximately 25 students

from 12 different departments/agencies). These students are blended together in 16-person Staff Groups with a joint military, civilian, and interagency faculty that leads the discussions for the various topics covered in the lessons. This lends itself to an “experiential learning” process in which students share their own experiences with their classmates, each learning from the others what has been shown to work or not work in different military or civilian environments. The problem is that the number of interagency students is currently far too small to enable meaningful experiences of the interagency students to be exchanged with over 1,000 military officers in the class with them. This learning process is illustrated in figure 2 in which the agreed Standards and Learning Outcomes are incorporated into the Educational Requirements that would ultimately be defined by the “I-7” so that all educational institutions in all departments and agencies are coordinated and working toward the same standards and learning outcomes needed in the “new joint” CA.

Figure 2: Establishing Standards for Education in the Comprehensive Approach Education



In addition to the differences in numbers of students, every learning experience is predicated on the culture of the students in the seminar group. Students from the Army come from a culture that is totally different from the diplomatic or economic development departments. The diplomatic and economic development departments are totally different from the law enforcement and intelligence departments. So they view experiences in different ways depending on the culture they have come to know and understand. This is both good and not so good. It is good from the standpoint that one learns by experiencing or learning about other cultures that address the same problem from different perspectives. On the other hand, it can be bad when an individual knows so little about the other cultures that he or she cannot comprehend why solutions were developed by other students as they were.

In a paper published in 2008, a young doctoral candidate at Oxford University concluded that a major challenge in integrating civilian and military efforts in Stabilization and Reconstruction operations is the clash of cultures between the participating organizations (Baumann, 2008, 70). She noted that “despite widespread consensus over the need for a holistic approach in theory, the implementation of comprehensive or whole-of-government strategies has given rise to debate, controversy and concern in practice.” This is due in large part to the complexities mentioned thus far in this chapter. She also noted that the “success in recent military interventions depends upon the right combination of hard and soft power,” and

the reason why Western nations intervening in Afghanistan have struggled to develop an effective information campaign is likely to be the lack of a shared narrative, rather than the absence of a “lead department” for communication within their institutional architectures. The current focus on the design of interagency mechanisms and cross-departmental structures may convey the impression that the integration of civilian and military efforts is mainly a matter of overcoming bureaucratic resistance and inertia. Yet, the questions that need to be addressed in order for joint arrangements to become institutional reality, rather than the brainchild of a few committed individuals, are inherently political.

Politics are a cultural phenomenon. As was noted earlier, cultures are not changed overnight. Nor are political leanings and fundamental beliefs about a political culture that have been developed over many years. This means that setting up and implementing a CA must also take place over an extended period to be successful. It will be an evolutionary process that will experience many different models before settling into a structure in which all partners feel comfortable.

So it is evident that many organizations and nations are believers in the CA, but most agree that the task of implementing it successfully is enormous. Until the cultural divide is narrowed between the various players (departments, agencies, and nations), and additional resources are made available for people and process reforms, the task ahead is difficult. It is clear, however, that education is at the forefront of all other elements in standing up an effective CA.

For education to be successful in addressing the doctrinal and operational elements of a CA, it is necessary to have a combination of short, medium, and long-term educational programs. Many organizations have short-courses of several days, as demonstrated by the Foreign Service Institute’s significant array of courses. Some institutions will conduct seminars of one or two weeks. The plethora of courses available is recorded in the U.S. Government Accountability Office (GAO) Report to Congressional Committees, *Overview of Professional Development Activities Intended to Improve Interagency Collaboration* of November 2010 (U.S. GAO Report, 2010). These options allow increased participation across agencies. Many organizations will consider sending someone to attend a course less than a week, but would not consider their absence out of the office for more than a week. While these courses are desirable

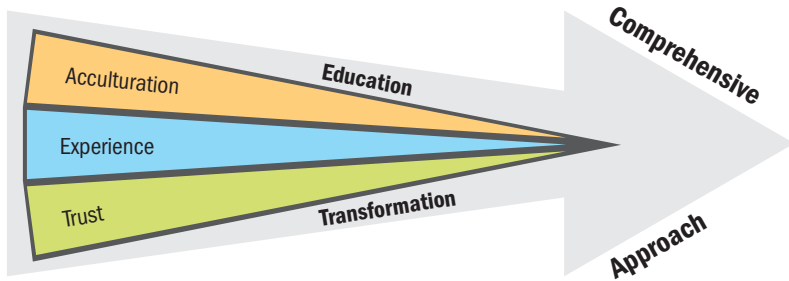
from a supervisor's perspective, a one-week course, while it may be useful in providing an overview of how certain problems may be approached and some potential solutions that have worked in the past, is of little value in creating understandings of various cultures and for building relationships that will endure and lead to re-evaluation of attitudes toward cultural change.

Medium-length courses (several months) are much better for learning about other cultures and comparing their values with one's own values. Studies by the Skelton Panel concerning JPME identified 3 months as the minimum necessary time to achieve a sense of acculturation or culture change (U.S. Congress House Committee on Armed Services 1989). If long-term educational experiences (10–12 months or more) are not possible, then a medium-length course is certainly desirable for getting a better grounding in the educational aspects of the problems addressed, but it still does not give a person a solid grounding in the cultural aspects of various organizations and people who operate in that organization. The longer individuals are exposed to other people of different backgrounds and agencies, and have the opportunity to work various problems together, the deeper the acculturation and embedding of principles needed in the CA.

For the best appreciation of other cultures and how they might be applicable to values needed for a CA, a period of 10–12 months or more is highly desirable. People learn by experience and associating with personnel from the various departments and agencies. They learn their counterparts' values, whether they can be trusted or not (or more accurately, under what circumstances they can be trusted), and as a result begin to understand how the two or more organizations can be enabled to function together in a CA. Until this is accomplished, politics and lack of trust will invariably sink the effort.

So the real focus of education in the CA is three-fold. First, it presents an opportunity for people from different organizations and cultures to meet each other in a neutral environment and gain a basic orientation and overview of challenges that surround integrated approaches to operating together in the "new jointness" environment. Second, education of greater length provides factual information and experiential knowledge of how departments and agencies should work together with the military in a CA. Third, and most importantly, it provides a platform for various departments and agencies to really get to know and trust each other. Once this is accomplished, the chances of creating a successful Comprehensive Approach are increased significantly, many times by as much as an order of magnitude or more. Finally, as illustrated in figure 3, this combination of coordinated Standards and Learning Outcomes is then used as the nucleus of an Educational Transformation in which Acculturation, Experience, and Trust are merged together to form the point of the spear in an operational Comprehensive Approach.

Figure 3: Transforming Education for the Comprehensive Approach



It is with these cultural and political changes that partnerships can begin to grow and mature. And with continued education as leaders grow in rank and responsibility, the relationships and the sense of trust will reach the point where the CA is a partnership of equals doing their respective jobs as part of the same team. Every successful team must have a playbook (based on solid educational values), followed by a series of valuable training sessions in which they practice together what they have learned in the educational trenches together. It is only when all the players in the CA have internalized the playbook through education, practiced it together during the training drills, and decided that they are in fact a single team with shared cultural and political values that the CA can become a reality.

Conclusions

This chapter has asserted that effective transformation to military “jointness” was made possible through a rigorous revision of military education. Effective transformation is only achieved once the culture of the organizations involved has grown to accept and value the change. In order to change cultural attitudes and values, the people within that culture must be educated. In this case, a dedicated and robust pursuit of “joint education” paid significant dividends in dramatically improving “joint” operational performance in the U.S. armed forces, as well as in many partner nations.

Based on the exemplary results of the United States and other nations’ military joint education programs over the past quarter-century, an important early initiative in the long-term creation of a realistic CA capability has been reached. Now that military “jointness” has been achieved, the creation and implementation of a “new jointness” that includes all key government departments and agencies in the United States, NATO, and other partner nations must be pursued. Development of robust education programs for the CA should follow a path similar to the military’s drive toward military “jointness.”

This planning and execution must include coordinated efforts to educate rising officers and civilian leaders and to create aggressive cross-government and cross-department exchanges for the purpose of having common languages, compatible planning

systems, and a thorough understanding of other department/agency cultures. A non-threatening educational basis for learning how other departments/agencies work and developing an understanding of their capabilities, constraints, and concerns for their role in the CA is critical. When all elements of contributing nations are educated in the more integrated approach within their own national perspectives, then effective integration can be considered in forming an international team for coordinated efforts in the CA. Until partner nations/ departments/agencies reach an appreciation for the CA within their individual countries, they will likely be neither willing nor capable of cooperating as members of an effective international team.

The first step in this solution is to begin the “new jointness” in education in each individual country by incorporating members from all appropriate departments/agencies in the educational programs of other departments/agencies in that country. This must be done in a way that does not threaten the “rice bowls” (funding/personnel levels) of other departments/agencies involved. Once each country has developed an ability to make the “new jointness” work in that country, it can then be expanded to a “new NATO jointness” to finally implement a functioning Comprehensive Approach within NATO.

Since there are no nations that are now leading the way with an effective Comprehensive Approach, it should not be a surprise to find that this transition to a Comprehensive Approach throughout NATO will not happen overnight. But with the leverage of a proven method of reaching the “new jointness” through the use of joint education and educational exchanges to develop common understandings and appreciation of the cultures of other partners, we will at least be moving along the right path to finally reach our destination.

As all readers will quickly realize, this movement to a true CA will not happen without the approval and support of national and NATO leaders. It is the hope of the authors that this chapter will assist in getting the word out to appropriate leaders so they can weigh-in and push the process down the path toward success.

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Chapter 10

Educating and Training for a Comprehensive Approach: An Australian Perspective

RICHARD T. MENHINICK AND NEVILLE R. GREGORY

Abstract

The Australian Government applies a whole-of-government(s) approach in responses to domestic disaster and international crises to enable efficient and effective management of a comprehensive range of capabilities. For domestic disasters, the States have jurisdiction for emergency management, but clear mechanisms exist for Federal assistance should the disaster exceed State capabilities. State and Federal domestic arrangements promote effective cooperation across Australian State and Federal Government agencies and nongovernment organisations (NGOs).

Internationally, the Australian Government stands ready to respond to requests for assistance from other nations in times of conflict and disaster. Australian national security policy accepts an important interdependence between security and broader political, humanitarian, economic and development goals (Rudd, 2008), (DOD, 2009).

The education and training provided at Australian Defence College (ADC) establishments employ numerous mechanisms to provide opportunities for the Australian Defence Force (ADF) to train alongside civilian Government agency and NGO counterparts. The ADC works with other Government and multiagency training and coordination institutions. They deliver courses and exercises that realistically and effectively utilize the Comprehensive Approach (CA) to conflict prevention and management. This chapter outlines the key elements of Australia's CA and focuses on the ADC's education and training contribution to ensure ADF graduates can operate effectively in an integrated land or maritime based operational environment.

The message is that training and education must be as comprehensive as the approach itself. The theme is that to be effective in multiagency operations you need first to train and educate that approach—in effect to “Walk the Talk.” If training and education for CA is not fully integrated throughout curriculums, then the approach itself by its very nature will be an after-thought or a “tack-on” to operations. It is only by training and educating in a comprehensive way that operations will actually be reflective of this and be truly effective.

Introduction

In any country's adoption of the Comprehensive Approach (CA) education/training is a factor of its geographic, security, governmental and population reality. Australia's geopolitical environment has resulted in Australia employing a multiagency approach to disasters and conflict for a significant time. Australia is the world's largest island nation¹, neighboured by South-East Asia and a number of Pacific Island nations. For both humanitarian and strategic reasons, Australia has an enduring interest in helping to build stability and prosperity in the region. Australia operates under a federal system which divides power and responsibility between two levels of government, the Commonwealth and the states and territories. Despite Australia's vast size, the population is small at 22.5 million, and the Australian Defence Force (ADF) consists of only 55,000 permanent military personnel. Under Australia's system of governance, civilian agencies lead emergency response or "aid to the civil power" as it is known. The ADF operates in support. Support to emergency management situations, both domestic and regional, can be drawn from:

- ♦ Federal agencies such as the ADF, Department of Foreign Affairs and Trade (DFAT), the Australian Federal Police (AFP), the Australian Agency for International Development (AusAID) and the National Security Capability Development Division
- ♦ State agencies such as the State Emergency, Police and Fire Services
- ♦ Nongovernment organizations (NGOs) such as the Australian Council for International Development (ACFID), Red Cross, International Committee of Red Cross (ICRC), Salvation Army, and Vision Australia
- ♦ Volunteer groups such as Rotary and spontaneous volunteers who may arrive in significant numbers to assist with the recovery as was demonstrated in the response to the recent major floods in Queensland, Northern Australia.

The business community also has a significant interest as companies require business continuity, often operate in multiple states and territories and have infrastructure such as transport distribution points across the country which can enable them to react quickly to a situation.

Given the small numbers in each participating organisation and agency, no single agency is capable of dealing with the recovery effort alone, and a coordinated approach to management of the groups is employed.²

A prime example of Australia's need to apply a multiagency approach is the Australian Government's Border Protection Command³ (BPC). Australia has a coastline length of 35,876 km (22,292 mi) with an additional 23,859 km (14,825 mi) of island coastlines. Australia claims an Exclusive Economic Zone of 8,148,250 sq km (3,146,057 sq mi), and this does not include the Australian Antarctic Territory. Australia has the largest area of ocean jurisdiction of any country on earth, being 52.8 million sq km. Combining the resources and expertise of the Australian Customs and

Border Protection Service and the ADF, and working with officers from the Australian Fisheries Management Authority, the Australian Quarantine and Inspection Service, and other Commonwealth, State and Territory agencies,⁴ the BPC delivers a coordinated national approach to Australia's offshore maritime security. The Command is constituted by elements of the Australian Customs Service and the ADF, and is headquartered in Canberra. The BPC delivers a coordinated national approach to offshore protection by operating as a single maritime surveillance, response and interception agency. It detects and deters a wide range of illegal activities using a combination of Customs, Defence and civilian-contracted aircraft and vessels. BPC activities take place under a variety of legislation covering areas such as customs, fisheries, quarantine, immigration, environment and law enforcement.⁵ They also work in cooperation with Indonesia on a wide range of international issues including people smuggling and illegal fishing.

History and Progress in a Multiagency Approach

Australia's experience in leading complex overseas multidimensional operations dates back to efforts in Cambodia in the 1990s and since then Australia has led significant regional peace and stabilisation operations in Bougainville, East Timor and Solomon Islands. Australia's important contributions to international coalition efforts further abroad in Iraq and Afghanistan have confirmed the lessons learned closer to home; that effective and coordinated civil-military capabilities are essential for building any long-term foundation for peace.

The Australian-led operations in Solomon Islands and East Timor have been described as outstanding successes. Indeed, the Organization for Economic Cooperation and Development (OECD) selected the Regional Assistance Mission Solomon Islands (RAMSI) as a case study as part of a pilot study of principles for good international engagement in fragile states (OECD, 2005). There are many notable features of RAMSI, including that it always had a civilian leader, the RAMSI Special Coordinator; was police-led; deployed significant numbers of police and civilian advisors in the first wave; and had unity of command.

As such RAMSI is distinctive in three ways:

- ♦ It was Australia's first true "whole of government" intervention in a foreign country because it involved not just the ADF, AFP, DFAT and AusAID but other Australian Government departments as well, including Treasury and Finance. Participating departments and agencies engaged in intensive pre-deployment planning to facilitate coordination in the field.
- ♦ RAMSI has the legitimacy that comes from being a regional mission, not just an Australian mission. It is a partnership between Solomon Islands and 15 Pacific countries, including Australia, and it has the backing of the Pacific Islands Forum.

- ♦ RAMSI changes in response to changing circumstances. The 2006 riots in Honiara re-emphasised the importance of security as Australian soldiers returned in large numbers. The 2009 Partnership Framework between RAMSI and Solomon Islands prepares the way for RAMSI's eventual withdrawal and aligns its priorities with those of the government. (Abigail, 2011)

Importantly, despite its success, RAMSI highlighted many institutional shortcomings that triggered a bureaucratic restructure for the Australian Government including the formation of the Australian Civilian Corps (ACC) and the Australian Federal Police International Deployment Group (Wainright, 2005: 7). DFAT now leads a weekly Interdepartmental Committee Meeting in Canberra with all Australian agencies involved in RAMSI, and they invite other country involvement, specifically New Zealand, when necessary. This demonstrates the important employment of a CA at the strategic level, through policy and education, and not just relying on the members "on-the-ground" to work cohesively together in country.

The AFP has been successful in the establishment of the Jakarta Centre for Law Enforcement Cooperation (JCLEC) located within the Indonesian National Police Academy, announced by the Indonesian and Australian Governments in February 2004. JCLEC is intended as a resource for the South East Asian region in the fight against trans-national crime, and will coordinate and facilitate a range of training programs, including seminars and workshops which will enhance cooperation and cultural understanding. JCLEC will strengthen the capacity of foreign governments and law enforcement personnel to develop and attain complex security objectives in the region.

Underpinning CA is policy at the strategic level. The absence of such strategic policy for CA will hinder education and training severely as resources will not be available. Australian strategic policy, as articulated in the National Security Statement (Rudd, 2008) and the 2009 Defense White Paper (DOD, 2009), acknowledges that there is an important interdependence between security and broader political, humanitarian, economic and development goals. The 2009 Defence White Paper clearly establishes the requirement for civilian capabilities to complement and build upon any military effort: "the ADF's capacity to deploy rapidly and establish a basic level of security at the outset of a crisis situation will often be an essential element of any comprehensive approach—but it will, in nearly all cases, not be a sufficient response in itself" (DOD, 2009: 23). As a reflection of this reality over the past decade, Australia has been progressively strengthening its multiagency approach and capabilities for conflict and disaster management offshore. This has resulted in new capabilities, including the:

- ♦ appointment of Australia's first National Security Adviser in the Department of Prime Minister and Cabinet (PM&C)
- ♦ enabling of Interdepartmental Emergency Task Forces (IDETF) by DFAT
- ♦ establishment of the International Deployment Group (IDG) within the AFP

- ♦ creation of the Asia Pacific Civil-Military Centre of Excellence (APCMCOE)
- ♦ construction of a new Joint Operations Command Headquarters by the ADF
- ♦ establishment of an Australian Civilian Corps (ACC) within AusAID
- ♦ creation of a National Security College
- ♦ repositioning of the Australian Emergency Management Institute (AEMI) as a centre of excellence for national emergency management with a focus on education, training, research, development and outreach programs.

This acknowledgment of centrality of interagency issues in responding to any conflict or disaster led to the Government accepting the recommendation of the 2008 Report of the Review of the Homeland and Border Security⁶ that the option of achieving greater cooperation across our overall national security arrangements by creating a large Department of Homeland Security was less preferable to promoting a cohesive national security community culture. This culture would be achieved through education and training, the secondment of people between organisations and the creation of joint units. The Government also highlighted the importance of the partnerships between industry, governments and the community that have evolved since 2001 to any future national security policy. (Rudd, 2008: 13) The relatively recent memoranda of understanding between the ADF and the AFP, and with AusAID, is an example of how agencies can lay foundations for coordinating their international engagement including during crises. (Floyd, 2010: 8) The sharing of the lead for operations is demonstrated in that the AFP led the RAMSI, but AusAID led the Australian assistance with recent cyclone relief in Papua New Guinea, both with the ADF in support. (Floyd, 2010: 10)

The ACC is particularly challenging to establish, but its value is inestimable. The ACC will deploy civilian specialists to countries experiencing or emerging from natural disaster or conflict. The ACC complements work facilitated by AusAID in the areas of emergency response and humanitarian aid. The ACC is aimed at supporting stabilisation, recovery and development planning, working with and within host governments to rebuild state functions, the rule of law and essential services. The ACC will comprise a register of 500 pre-screened and pre-trained civilian specialists ready to respond to requests for assistance. The deployments will be typically 3 to 12 months to countries recovering from natural disaster or conflict. Defence is taking a very CA line on this and is encouraging Reservists (of whom we have around 25,000 who are active) to be on the ACC register.

Another example of recent initiatives is the APCMCOE which is an Australian Government initiative to improve Australia's effectiveness in civil-military engagement for conflict and disaster management overseas. Opened on November 27 2008, APCMCOE supports government departments and agencies and engages with NGOs and international partners, including the United Nations, on civil-military

issues to achieve focused outcomes for the region and globally. The centre is staffed by officials of relevant Australian Government departments and agencies, and from the New Zealand Government, as well as an NGO Engagement Coordinator from the ACFID, Australia's peak NGO body for aid and development overseas. APCMCOE has delivered a conceptual framework for Australian Government civil-military collaboration in conflict and disasters overseas, called "strengthening Australia's Conflict and Disaster Management Overseas."

In accordance with its responsibilities and priorities, APCMCOE delivers relevant and practical programs in the civil-military components of six key areas: multiagency collaboration; training, education and doctrine; research and lessons learned; conflict management and prevention; governance and rule of law; and humanitarian, recovery and disaster management.

Australia's Interpretation of Comprehensive Approach

The term CA is used by numerous Australian and overseas governmental and private sector organisations. However, there is a variance in interpretation between many of these and to some it is seen as a military term. Within policy in Australia the term CA is often interchanged with Whole of Government (WoGA), Whole of Nation or Integrated Approach. As an example, a report commissioned by the Australian Emergency Management Committee in 2009 included Principle 4: "Where appropriate consider an integrated approach to planning, program development and research." (EMA, 2009: 2)

However, the Australian Emergency Management Institute in the 2010 Emergency Management Seminar referred to the CA, and stated, "The comprehensive approach is really about mainstreaming emergency management so that it is never just up to a single agency to respond in isolation to an event." (NSCDD, 2010: 30)

Peter Rogers⁷ highlights the CA as one of the four key approaches to Emergency Management at the heart of the Australian context, but describes it this way: "The *comprehensive approach* is in and of itself the longest standing of these four in Australian practice and itself is made up of four key areas of operation. These are (1) Preparing for Emergencies, (2) Preventing Emergencies, (3) Responding to Emergencies, (4) Recovering from Emergencies, when combined referred to as PPRR." (Rogers, 2010: 55)

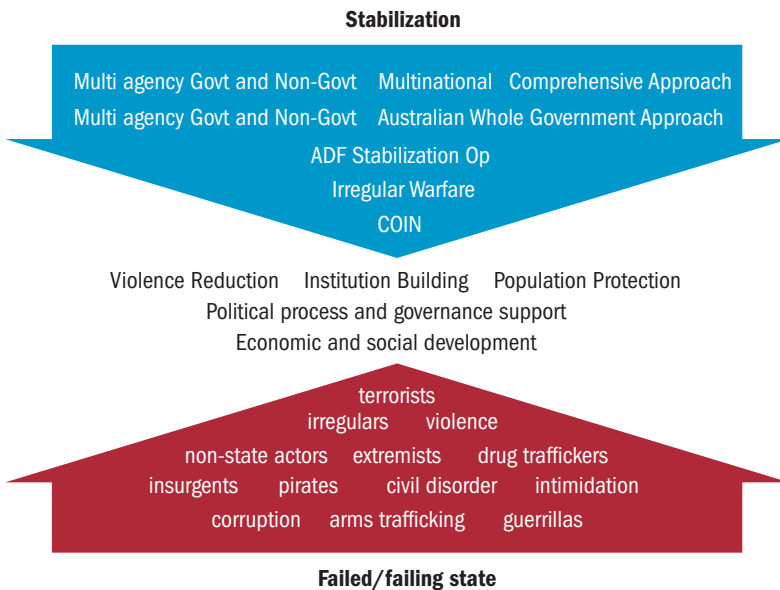
From a Defence viewpoint, in an effort to ensure common terminology in coalition operations, the ADF is adopting the definitions of our allies. The current version of the draft Joint Doctrine Notes 1–11 (JDN 1–11) glossary defines CA as:

1. Commonly understood principles and collaborative processes that enhance the likelihood of favourable and enduring outcomes within a particular situation. UK British Defence Doctrine (BDD).
2. An approach that responds effectively to complex crises by orchestrating, coordinating and de-conflicting the activities of the military, other government departments and, where possible, international organisations and

non-governmental organisations. NZDF JDN 1/10 Guidelines for the Military Contribution to Stabilisation. (DOD, 2011: 1–3)

In discussing stabilisation, the draft JDN 1–11 states that stabilisation is conducted using a comprehensive approach involving various government, nongovernment and other actors, and provides a diagram, as shown in figure 1, to distinguish between CA and WoGA. It further clarifies that the Australian whole of government contribution may include the ADF conducting stabilisation operations, but stabilisation can be conducted without the use of military forces. (DOD 2011: 1–3)

Figure 1. Stabilization (DOD 2011: 1–2)



As a member nation of the Multinational Interoperability Council (MIC)⁸, Australia, via the ADF, is contributing to a draft paper on the topic of the CA. Based on preliminary products at the working group level, the Principals of the seven MIC nations originally mandated the development of a document covering the topic of “Comprehensive Approach” at their annual meeting June 15–19 2009 in Australia. The paper is primarily designed for use by prospective Coalition Commanders and their staffs to describe principles of how current military operations are usually embedded in a larger context of civil-military interaction. At the same time, it also informs potential civilian partners on the vision and views of the militaries organised within the MIC, describing the application of a CA as both a mindset and a method to crisis prevention, crisis management and postconflict activities. This document therefore aims at establishing a certain commonality in CA understanding and terminology in

order to support further work between military and civilian partners in the context of coalition operations. The central idea is to demonstrate the possibilities, but also the limitations, of forming civil-military partnerships at home and in a region or a country in need of an international engagement by creating and operationalising the spirit of a true team effort. (CATT MIC, 2011: 1) However, even the current version of this document highlights that there probably never will be one single definition of CA and even WoGA, but rather, a flexible amalgam of different approaches—a way of thinking or a method, rather than a mechanical process. (CATT MIC, 2011: 4)

Several members involved in the review have raised some criticism that this conceptual paper appears to be developing the doctrine around a military lead in conflict prevention or crisis. This is despite the paper stating that each situation requires analysis as to the most appropriate organisation to lead. Thus it can be ascertained that there is a degree of sensitivity in Australia as to just how dominant or imposing Defence is in this area. This sensitivity is a major issue. In attempts to alleviate these concerns, and to provide a better understanding of the broadness of Defence's abilities and approach, liaison officers to Defence for AusAID and AFP have been placed in the ADF's Headquarters Joint Operations Command to assist with a more CA to planning for operations and exercises.

Education and Training for a CA

Culture is key to an effective CA. The culture underpinning an effective CA can only be generated through education and training and the secondment of personnel between organizations, which creates trust, friendship and openness between people, the creation of joint units and the importance of partnerships between industry, government and community. This includes shared terminology and multiagency institutions.

Thus learning is fundamental to systematic modernisation. Interoperability requires close and ongoing training, liaison and exchanges. Shared learning and education delivers much of this. (Floyd, 2009: 11) The roots of a CA system that has real operational benefits is to combine education and training with personnel assignments and a national accreditation framework that creates a body of national security professionals who understand and can function well in a range of critical interagency activities. Being a Western nation in a region of Asian and Pacific Island nations, Australia also recognises the importance of understanding and integrating other cultures, both organisational and those of other national cultures.

The National Security College (NSC), Australian Emergency Management Institute (AEMI), Australian Institute of Police Management (AIPM) and the Australian Defence College (ADC) are the major organisations which provide training related to a multiagency approach. These institutions recognise the need to conduct courses and provide accreditation that cuts across all levels of government and any other agencies to teach skills such as interagency planning. They have recently arranged to work in partnership and senior staff meet three to four times per year in a collaborative planning forum to discuss a more joint approach to training development and

delivery. Known as a Collaborative Planning meeting it drives and develops education and training relationships between like-minded agencies. This collaborative planning has been very successful and at the most recent meeting in June 2011 it was determined that the Asia-Pacific Civil-Military Centre of Excellence (APCMCOE) should be invited to participate as they also are critical in this area, especially in international situations. These are the major Australian organisations that provide training related to a multiagency approach. Commandant Australian Command and Staff College (ACSC) participates as a member of management and advisory boards for AIPM and course members and directing staff are now attending modules or courses at each institution. This approach enhances understanding and the use of common terminology by the organisations.

Current examples of the partnership are NSC's invitation to ADC, AEMI and AIPM to participate in the "Collaborative Leadership within Australia's National Security Community" Project, and the joint development of a Graduate Certificate in Emergency Management for the Asia-Pacific region by AEMI and ADC. The research project will provide a comprehensive account of the degree to which the concept of collaborative leadership is understood and practiced through the combination of a literature review and interview program. The result of the project will be a report outlining the state of knowledge and practice of collaborative leadership within Australia's national security senior management, and advice for those responsible for educating their future senior managers at Australia's senior national security training institutions about options to incorporate collaborative leadership into relevant programs.

The importance of education and training in improving the multiagency approach in Australia was particularly demonstrated through the establishment of the NSC. This is a joint venture between the Federal Government and the Australian National University, and one of its aims is to enhance the functioning of the national security community. The College aims to develop graduates with an improved capacity to lead or contribute to collaborative strategy development within government, and to build networks of cooperation with areas of national security expertise outside government. Course participants represent most national security agencies at both Federal and State level. However, given that the first Director was only appointed in December 2009, the current focus is on Australian participants in order to improve Australia's ability in this area, and there is limited international involvement in the training. As an early example of cooperation between agencies, ADC facilities were used to develop and conduct the pilot course.

AEMI is part of the Commonwealth Attorney-General's Department, and is a centre of excellence for knowledge and skills in the emergency management sector. The Institute conducts a range of education activities that include accredited courses and professional development for those working in emergency management across all government, non-government and volunteer sectors. AEMI conducts a 2-week long Emergency Management Seminar for international participants that aims to introduce members to the Australian concept of emergency management as an activity

that engages a “whole of nation” approach to managing disasters and emergencies. International participants are predominantly from the Asia-Pacific region, but the numbers and breadth of countries attending has expanded in recent times. Sessions are provided by members from organisations such as St John Ambulance and ICRC. Defence personnel in relevant positions will shortly commence attending these courses as part of joint operational training, sponsored by ADC.

The AIPM has been in existence for over 50 years, and has responsibility to provide leadership development programs to senior police and emergency services officers from Australia and the region. Over the last decade, the AIPM has revamped all its programs to have a greater focus on multiagency and whole of government responsibilities. Defence, emergency services and other academic members have been included on their Board of Studies since 2004. In addition to ensuring greater integration of police and emergency services personnel on all programs, the AIPM has also developed a new suite of programs for senior officers to enhance collaboration and ensure a “CA.” This is probably best demonstrated through three key programs developed by the AIPM over the last decade: Leadership in Counterterrorism (LinCT), “Acacia” (a senior police executive leadership program), and the Regional Executive Leadership Program (RELP). Defence personnel have now commenced programs at AIPM such as the national Executive leadership Program (ELP).

The AIPM is part of a worldwide “LinCT” consortium including the Royal Canadian Mounted Police, the U.S. Federal Bureau of Investigation, the Police Service of Northern Ireland, and the Scottish Police College. The LinCT program is designed to ensure a CA amongst partnered international and national law enforcement agencies to the development of responses to the counterterrorism threat. The RELP, with the overall aim of improving cooperation and a CA within the region, is delivered on behalf of the AFP by the AIPM to senior ASEAN⁹ police officers each year. The Acacia program included senior police from every Australian police jurisdiction and selected international jurisdictions, as well as a variety of senior personnel from Commonwealth government agencies. The inaugural program last year was the first industry-sponsored development program for one-star police officers.

The AIPM is very conscious of the need to foster a CA to law enforcement and emergency services challenges amongst its many stakeholders. Both before and since the delivery of the Prime Minister’s National Security Statement, the AIPM has continued to change the focus of its programs so that participants examine broader issues of cooperation and policy development in a multiagency framework, rather than just focusing on their own jurisdiction and local issues.

Within the ADF, noting that the Australian Government has outlined its intent for a “Whole of Government/Comprehensive” approach in the last two White Papers, the Australia’s Deployable Joint Force Headquarters (Headquarters 1st Division (HQ 1 Div)) has actively fostered a flexible amalgam of different approaches within its annual suite of Command Post training activities. HQ 1 Div has targeted this as an area for development in line with its role as the deployable joint HQ. Over the past 18

months, HQ 1 Div has had representation from AusAID, AFP and DFAT on each of its planning activities and Command Post Exercises. These Command Post Exercises were two tiered with HQ 1 Div hosting representation from the Other Government Agencies (OGA), with each subordinate Brigade also hosting OGA representation. This enabled wide military exposure to the OGA capabilities and their agency drivers.

With greater participation from non-Defence areas, scenario material has been adjusted to enable other agencies to meet some training objectives, rather than just be utilized by Defence as a training aid. This is a key aspect in moving training and education to a truly comprehensive footing. In conjunction with Australian OGA, HQ 1 Div has fostered relationships with ICRC and other international organisations and large non-government agencies, which saw ICRC and others deploy on a training exercise and provide feedback to HQ 1 Div on issues such as detention policies. This was then followed by a visit to the field detention facilities.

In addition, as a greater number of Australian Government agencies are working together within Afghanistan, Defence is placing more emphasis on greater interaction by other agencies during force preparation activities. Prior to 2010, interaction was limited to OGA attendance on a 2-day force preparation course which only instructed on force protection measures and did not enable OGA to interact with the personnel they would be working with on tour. During 2010, greater effort by both ADF and OGA saw OGA participate in Mission Specific Training serials planning serials for activities in country, and also in the field based mission rehearsal activities. Again, participation in planning serials not only gave a greater appreciation to both sides of capabilities specific to agency requirements, but it also enabled those who would work together in country to develop those working relationships in a training scenario before having to do so in the delicate and dangerous environment of Afghanistan itself. Participation in the field based activity particularly facilitated OGA integration with patrol routines.

These training activities were not solely ADF delivered. AusAID facilitated a 3-day “safe and Effective Development in Conflict” with a civilian/ military training audience. This was conducted prior to an integrated (military/OGA) planning activity and the participant feedback was extremely positive. Comments indicated that it improved Defence’s understanding of the longer-term national development framework, and identified areas where negotiation was required between longer-term development and short-term counterinsurgency strategies.

Australian Defence College

Given its history, current operational deployments and Defence having the best capability in Australia to plan and conduct operations, the greatest international focus of any Australian institution on training for a CA¹⁰ is arguably the ADC. The ADC delivers courses, doctrine, exercises, and programs of study to prepare Australian and overseas Defence Force personnel, government officials and national security practitioners for strategic roles within joint and combined operating environments.

The ADC fosters networks across Services, agencies and nations. Amongst other elements, ADC includes the:

- ♦ Centre for Defence and Strategic Studies (CDSS)
- ♦ Australian Command and Staff College (ACSC)
- ♦ Joint Warfare Doctrine and Training Centre (JWDTC).

The Centre for Defence and Strategic Studies

The CDSS is the senior educational institution of the ADF. CDSS delivers quality programs in strategic defense policy and planning, leadership and management, and security issues of global, regional and national importance. CDSS is responsible for providing Australian and overseas participants with the knowledge and skills required to operate at the strategic level in a complex and modern security environment.

The course is conducted at the post-graduate level and most participants are military O6–O7 (colonel–brigadier equivalent) or Australian Public Service (APS) Executive Level 2. CDSS staff are drawn from senior levels of the ADF, the APS and the New Zealand Defence Force, and CDSS engages a visiting faculty of over 300 presenters, combining practitioners from the military, public and private sector with academics from Australian and overseas tertiary institutions and think-tanks. The learning opportunities provided on the course are focused at the strategic level and emphasize joint, multiagency and international responses.

Each course is attended by some 50 course members, both military and civilian officers, but interagency attendees for specific blocks of study are welcome. The 2010 course panel consisted of 23 Australians, including an AFP and DFAT member and 6 Defence Civilians, and 22 international members. The overseas course members represented 17 countries from the Asia-Pacific region, Europe, North America and the Middle East, which added an important dimension to the consideration of the complex international issues that face decisionmakers in the strategic, defence and security spheres. The opportunity to develop an empathetic understanding of the points-of-view of the other course members creates networks between the future leaders which will assist cooperation and understanding in future operations.

The CDSS conducts a range of activities in pursuit of Australia's interests in international partnerships and relations, and also conducts bilateral dialogue and exchanges of views with counterpart organizations and senior visiting delegations. Course members participate in international dialogue during these events, as well as during overseas study tours.

The Australian Command and Staff College

The ACSC offers courses designed to prepare selected career officers for command and staff appointments (lieutenant colonel equivalent), and to develop selected APS and professionals working in roles in single service, joint and integrated environments. With officers from the Australian Regular and Reserve military forces, the APS, and

this year from 21 allied and partner countries (43 overseas course members in 2011) represented at ACSC,¹¹ course members are exposed to a challenging diversity of perspectives and given an invaluable opportunity to establish firm professional and personal relationships with the future leaders of Australian, allied and partner forces.

The Australian Command and Staff Course (Joint) (ACSC(J)) is a full-time, 46-week course conducted from mid-January to early December. It is preceded by an orientation week for the overseas course members. Each course is attended by a maximum of 180 full-time students at (major equivalent) level. Members from six other nations are included on staff, and can be given responsibility for managing course modules.

Although not new to any military staff course, the benefits brought to ACSC(J) from the participation of overseas course members and overseas staff members are profound. The broad range of ideas and different perspectives exposed by having so many different nations represented in the main theatre cannot be replicated by any amount of reading or study. Of particular importance for ACSC is the attendance by course members from the ASEAN Regional Forum nations, which is the focus of Australia's strategic area. To emphasize the importance of the human interaction the Vice Chief of the ADF, LTGEN Hurley, (now Chief of Defence Force—GEN Hurley) in his address to the 2011 course, stated that if any graduate does not form a solid and enduring friendship with at least one overseas member by the end of the course, then they have effectively failed in his estimation, despite what their final grade might indicate. The ability to "phone a friend" in any future crisis or emergency and offer to help or to dispel a concern cannot be overstated in importance. Without doubt, ACSC(J) gains its greatest strategic strength from the inclusion of overseas course members. Australian course members not only learn from their overseas peers, but also learn from the different perspectives brought to the course by the participation of "outsiders" in certain modules and exercises, especially in syndicate discussions. For the past 3 years, senior enlisted non-commissioned officers at the Warrant Officer rank have joined the Single Service component of the course. In addition, during the Stability Operations unit, various government and non-government agency representatives are invited to participate in the exercises and throughout the year, the opportunity is taken to exchange syndicate groups from New Zealand, Singapore and the United States.

Feedback from course members over the years indicated that significant student learning occurs within syndicate discussion periods. ACSC(J) syndicates have always included representatives from each of the three Services and an overseas course member, and are now likely to also include an APS member and a Warrant Officer from any of the three services. Additionally, there has also been a noticeable increase in the level of recent operational experience arriving with course members. It can no longer be assumed that the Directing Staff (DS) have a level of experience in recent operations that surpasses that of their students. With this expanding knowledge and experience base resident within each syndicate, it is now imperative that DS draw from syndicate group members rather than rely on their own knowledge. Thus the principal role of

DS within ACSC is not to deliver from their own experience, but to create a learning environment where each member of a syndicate has the confidence and support to freely express their opinion and discuss the opinions of others. It is this emphasis on facilitation, rather than the traditional approach to teaching, that appears to best meet the educational aims of ACSC(J).

ACSC has taken a blended learning approach to Professional Military Education. This powerful solution combines the more traditional approach of lectures and syndicate discussion with e-Learning, simulation and role-plays. The secret is choosing the right mix of delivery methods for the intended learning outcome. For example, ACSC(J) attempts to develop student command, staff and communications skills by immersing students in large scenario based simulation exercises. These exercises include planning sessions with military and non-military specialists, multiple other real world civilian players and partners who would be significantly involved before, during, and after military phases of future operations. During all phases within the exercises, course members role play staff in various Headquarters and are forced to address simulated operational problems and related issues inherent in joint, combined and civilian cooperation and interagency interaction. Other examples include the use of video conferencing to expose students to the best minds in the world within a particular field of study and the use of computer simulation to enhance the learning experience by delivering real-time outcomes from complex planning scenarios.

The ACSC(J) curriculum includes a 2-week element within the Joint Operations module dedicated to the theory and application of the CA. The module is designed to provide an interactive and engaging environment between course members and a wide range of external practitioners, academics and leaders who have experience working within a stabilisation operations environment. Representatives from Defence, other Australian Government agencies, NGOs and international organisations from the humanitarian community deliver presentations to promote discussion and understanding of the challenges and dynamics inherent in these types of operations. The module culminates with an exercise week where course members work in consultation with contributing stakeholders through challenging vignettes to understand the planning, conduct and coordination required in postconflict and humanitarian relief stabilisation operations.

Complex Planning and Operations (CP&O) is one of four military electives conducted during the course. CP&O participants are volunteers who may include military (both Australian and overseas) and civilian personnel. In 2010, in recognition of the importance of a whole of government and multiagency approach in contemporary operations, invitations to attend the elective were sent to a number of Defence and other government departments. As a result, an APS member from International Policy Division (IPDiv) participated, adding a unique perspective that proved invaluable to the group activities. Similar invitations to join the elective will be distributed in 2011.

The aim of CP&O is to develop a cadre of officers and, in recognition of the importance of the CA, officials capable of tackling the myriad of problems inherent

in contemporary operations. The elective aims to equip participants with enhanced problem solving and decisionmaking skills that are relevant to the planning and conduct of operations in an interagency, coalition and joint battle space. Its overarching theme is a systematic reflection on the demands of Complex War as part of a joint, whole of government and interagency approach. As such, it tackles complex problem solving and decisionmaking across the spectrum of conflict rather than simply the development of specific military planning skills.

To ensure that the CP&O elective adequately addressed the necessity of the CA, a number of Defence and other government departments were consulted throughout its planning. These included IPDiv, AusAID, AFP IDG, the APCMCOE and the UN Office for the Coordination of Humanitarian Affairs. In addition to consultation on the development of the elective curriculum, a number of these organisations provided, along with academic institutions such as ANU School of International, Political and Strategic Studies, visiting lecturers throughout the elective.

The members also undertake an Overseas Study Tour which builds a greater understanding of Australia's regional neighbours and allies. Course member groups visit and research different countries, and present their findings to the other course members on their return to Australia. ACSC(J) also has significant links with overseas colleges such as those in the United States, United Kingdom, Canada, New Zealand, Pakistan, Singapore, Malaysia and Japan. This is being expanded across all countries within the ASEAN Regional Forum via Higher Defence University meetings.

The Joint Warfare, Doctrine and Training Centre

The JWDTTC is part of a broader joint education and training environment that values the lessons and experiences of the past, yet at the same time has the courage and the spirit to apply personal expertise and opinion to the lessons and experience. JWDTTC has been tasked to be increasingly focused on meeting the operational training requirements of the 2009 Defence White Paper, again a necessary linking of practical training to national strategic policy. JWDTTC encourages staff and students to question traditional thought, blend individual service professionalism into the joint environment, innovate new ideas, search the world for the ideas of others, and test ideas and concepts against the emerging environment. JWDTTC aims to maximise the learning and training experience for everyone influenced by JWDTTC activities.

The JWDTTC role is to enhance ADF Joint and Combined operational capability through the review and development of joint doctrine; development and delivery of joint individual training (including peace operations training); and provision of simulation support to selected stakeholders in the wider ADO. Specifically, the role of the ADF Peace Operations Training Centre, which is part of JWDTTC, is to act in the interests of the ADF and Australia to enhance regional and global security and stability, via engagement with other government, nongovernment, and military organisations, both domestic and international.

Two of JWDTC's key outputs are to develop and conduct individual joint training for ADO and other government personnel to enhance their effectiveness in a Joint/Combined operational environment and to conduct Peace Operations training and international engagement.

JWDTC's 2-week Civil Military Cooperation (CIMIC) course is the most relevant to educating for the CA. The course aim is to familiarize students with the conduct of CIMIC operations planning within the ADF and by the ADF with other agencies in a Whole of Government context as well as with coalition partners. Presenters are drawn from the ADF and other Australian Government departments and agencies involved in joint operational planning, such as AusAID, APCMCOE, DFAT and the AFP as well as the ICRC. The U.S. Army Pacific present on U.S. Civil Affairs. Syndicates consolidate learning through discussion and participation in tactical level planning exercises. Analysis is conducted in syndicates and is supported by trainers and assessors with experience in CIMIC. JWDTC staff also instruct on the NATO CIMIC course.

Conclusion

Although CA is not a term readily understood and used by all Australian organisations, there has been significant progress in enhancing Australia's employment of this methodology. Although the Federal Government is normally keen to involve the ADF in disaster and conflict management to be seen as proactive, to utilize the military planning processes and resources, and to boost the morale of "victims" in the crisis, there is recognition that the ADF may not always be the most appropriate organisation to lead and plan the recovery process. The Government has taken steps to promote a cohesive national security community culture, including through education and training, secondments and the formation of joint units. Employment of the CA at the strategic level is reinforcing and empowering the tactical implementation. Closer liaison between the government and NGOs and experience gained from involvement in international assistance are enhancing the collaboration.

Learning is fundamental to systematic modernisation and shared learning and education delivers much of this. Government initiatives such as the establishment of the NSC and the multiagency education and training focus for the other national security organisations demonstrate the recognition of the important role played by education in training to improve the CA between Australian organisations. The partnership being developed between the major security training institutions is playing a major role in promoting the CA both in Australia and in the region.

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Notes

1. Australia is the 6th largest country in the world with a total area of 7,686,850 sq km (2,967,909 sq mi), making it slightly smaller than the contiguous 48 states of the United States and 31.5 times larger than the United Kingdom.
2. In the response to the recent Cyclone Yasi in Queensland, Defence was one of almost 20 Federal Government agencies that responded to the crisis. The commander of the Joint Task Force said the first priority was very strong and wide liaison by pushing people out to get involved with all government and non-government agencies, collect information and confirm priorities. (Weaver M, McKenzie H (2011), p21)
3. Established in 2005, the BPC was originally named Joint Offshore Protection Command but was renamed in October 2006.
4. These agencies include: Attorney-General's Dept, Australian Antarctic Division, Australian Communications and Media Authority, AFP, Australian Fisheries Management Authority, Australian Maritime Safety Authority, Australian Quarantine and Inspection Service, Dept of Agriculture, Fisheries and Forestry, Dept of Environment and Water Resources, DFAT, Dept of Immigration & Citizenship, Dept of Industry Tourism and Resources, Dept of the Prime Minister and Cabinet, Dept of Transport and Regional Services, Emergency Management Australia, Great Barrier Reef Marine Park Authority
5. The BPC is responsible for coordinating and controlling operations to protect Australia's national interests against the following maritime security threats: Illegal exploitation of natural resources, Illegal activity in protected areas, Unauthorised maritime arrivals, Prohibited imports/exports, Maritime terrorism, Piracy, Compromise to bio-security, Marine pollution.
6. Undertaken by Ric Smith AO PSM and presented to the Australian Government on June 27, 2008.
7. Peter Rogers is Director of Social Science and a Lecturer in the Sociology of Law at Macquarie University in Sydney. He is active in researching resilience and emergency management, with a focus on strategic policy at national and international levels and urban development, multiagency cooperation and community engagement at local levels.
8. MIC is a seven nation forum that identifies and addresses strategic and high-level operational interoperability issues, challenges and gaps. This forum has existed since 1996 and consists of representatives from the Ministries/Departments of Defence of Australia, Canada, France, Germany, Italy, the United Kingdom and the United States.

9. The Association of Southeast Asian Nations (ASEAN) consists of Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei Darussalam, Vietnam, Lao PDR, Myanmar and Cambodia.

10. ADC defines CA as per the draft JDN 1–11: “An approach that responds effectively to complex crises by orchestrating, coordinating and de-conflicting the activities of the military, other government departments and, where possible, international organisations and non-governmental organisations.”

11. Members from Brunei, Cambodia, Canada, China, India, Indonesia, Japan, Malaysia, New Zealand, Pakistan, Papua New Guinea, Philippines, Saudi Arabia, Singapore, Sri Lanka, Thailand, Tonga, United Arab Emirates, United Kingdom, United States of America, Vietnam. CDSS also has a member from Qatar.

Chapter 11

Comprehensive Approach on UNSCR 1325: Why the U.S. and Others Should Follow

ELIZABETH LAPE

The empowerment of woman in unstable countries benefits not only them, but all of us. It is a crucial component of a comprehensive approach to the security challenges of the 21st century.

—NATO SECRETARY GENERAL ANDERS FOGH RASMUSSEN

Abstract

NATO and its partners are taking action to implement United Nations Security Council Resolution (UNSCR) 1325 adopted in October 2000. This resolution recognizes the disproportionate impact war and conflicts have on women and children, and highlights that women have been left out of the peace process and stabilization efforts. It calls for full and equal participation of women from early conflict prevention to postconflict reconstruction, peace and security. A key achievement is the appointment of gender advisers both in the field and at several Allied commands.

A group of nations undertook a study on the implementation of UNSCR 1325 in the Provincial Reconstruction teams (PRTs) in Afghanistan. The May 2009 study results emphasized the need for a comprehensive strategy and the active support of both political and military leadership in promoting and taking responsibility for integrating Resolution 1325. The Strategic Allied Commander (SAC) Europe and Strategic Allied Commander Transformation (SACT) signed up to a Bi-Strategic Command Directive in September 2009 which states that an education, training and exercise program will improve awareness of women's perspectives and advance gender mainstreaming in NATO's military organizations. (NATO, 2009)

During the November 2010 Lisbon Summit, a new strategic concept was adopted. The Heads of State and Governments endorsed an action plan to mainstream

UNSCR 1325 into NATO-led operations and missions. Education and training of the staff is essential to raise awareness, and to contribute to the effectiveness of operations and missions.

At the anniversary of UNSCR 1325, Secretary of State Clinton announced the United States was developing a national action plan. Future operations will be alongside coalition partners. As our nation's action plan is developed, we need to understand and support this concept. This chapter will review the resolution requirements, and consider requirements to educate our forces on gender perspectives so we can respond to crisis management situations. Not only will the coalition partners be included in the planning process, but we must take a comprehensive approach to include all military, government and private sector personnel to ensure the security of both genders.

Introduction

The Department of Defense's recent report to the Congressional Defense Committees stated the number of reported sexual assaults at the U.S. military academies rose 64 percent in the academic year 2009–2010 compared to last year's figures. The increase could be a result of more people reporting the incidents rather than just a significant increase in the number of actual assaults, as there have been recommendations in recent reports that the academies need to take steps to bring more victims forward to report. It stated there were 41 reports of sexual assaults that occurred within the walls of the three main service academies: U.S. Naval Academy, West Point and the Air Force Academy. This report estimates that these numbers represented only 10 percent of the numbers actually occurring. (DOD, 2010: a)

To make such a statement 30 years after women were admitted into the service academies in 1976 is abysmal. Many of the issues regarding sexual assault and sexual harassment are still occurring after years of being fully integrated with the men. Beachum stated "the level of male violence against women in this society is out of control. Despite decades of feminist activism, boys and girls are still sexually abusing, battering, raping, and murdering girls and women at alarming rates. While this violence has no single cause, the dehumanization and objectification of women in the media is surely one of the contributing factors. Consider the pervasiveness of sexual harassment that women suffer from men in school, the workplace, on the street. Men aren't biologically programmed to harass women." (Beachum, 2008: 48)

Biases against women are still prevalent in today's armed forces. Even with the many years of sexual harassment training required by the different services, there still appears to be a "deaf ear" on the situation. Sexism, which is described as discrimination based on gender, in most cases results in a disadvantage to women (Beachum, 2008). Sexism is often accompanied by negative beliefs regarding the abilities of gender and misogyny. Misogyny is defined as the distrust or hatred of women which, unfortunately, appears to still be a characteristic of the American masculine culture and a part of the American landscape. We must learn from history and try not to repeat

the same social injustices from the past, and remember them when making forward progress (Blount, 2008).

The women who have been oppressed all these years must take a call to action and educate those in leadership positions on what steps can be taken in an action plan to overcome these injustices. There has also been a long history in the education field of not recognizing social injustice regarding the exclusion of women, minorities, and persons with different sexual orientations (Bogotch & Jansen, 2008). Social justice theory can assist in intervening in all circumstances around the world, though culturally some will be more difficult to overcome. Unfortunately, to date that has not been enough to overcome the issues, many times due to tribal customs or poverty levels. We as educators in whatever specialty we have must be aware of the politics locally and of the world so that we can be more active socially in alerting others to the concerns when trying to overcome these injustices. The author believes that women should be allowed to interact as members of society without fear of retribution based upon their gender.

Women's oppression is not only based upon the fact that women are unequal in power, wealth, and status from men, but also because women typically tend to work for men and nurture them. Gender socialization of women tends to make them better at providing empathy and support for people's feelings and at smoothing over interactive tensions. Both men and women look to women to be the nurturers (Young, 2007). Many books have been written about the differences men and women have in communication styles and approaches to different situations. Gray (1992: 2) noted that "Men mistakenly expect women to think, communicate, and react the way men do, women mistakenly expect men to feel, communicate, and respond the way women do." "Women's intuition" is discussed in Pease (2000: 19) noting that it "is mostly a woman's acute ability to notice small details and changes in the appearance or behavior of others." Just like people from cultures around the world behave differently we have to understand these differences, and that frictions can arise between men and women because "...boys and girls grow up in what are essentially different cultures, so talk between women and men is cross-cultural conversation." (Tannen, 1990: 18) Finally, Gilligan (1993) writes on the differences between men and women and how they "arise in a social context where factors of social status and power combine with reproductive biology to shape the experiences of males and females and the relations between the sexes" Gilligan (1993: 2). We as "public intellectuals" (Dantley & Tillman, 2008) need to view the social and cultural background of the situation to try and understand the reasoning behind why the social injustice is occurring. As leaders in education, we must view the cultural reality that led to the injustice and develop an education plan that strives to work diplomatically within reality to achieve the proper endstate, in this case a better awareness of gender to ensure women are safe in their environment, along with the proper consideration of women's issues when planning operations.

The purpose of this chapter is to discuss the security of women in the military from a social justice perspective and to describe how the militaries in other countries are not only working to solve the violence concerns, but also how they are using the

gender in beneficial ways during the planning of operations. The chapter will provide background information on the subject of violence against women, followed by an introduction to resolutions by the United Nations Security Council that address the vulnerability of women and children to violence, and the role women can play in resolving violence. It will review what other countries' military organizations have instituted to try and combat these issues during military operations. It will also discuss what they have done to further educate and train their military on the overall use of gender as a planning factor in a military organization.

Background

Rape crisis networks estimate that more than one-third of all American women have been exposed to a rape or attempted assault. Members of a group who have systemically been exposed to violent behaviors know they must fear random, unprovoked attacks on their persons or property only because there is some other group out there that wishes to impose and carry out their actions in order to humiliate, damage or destroy the person (Young, 2000). This type of violent behavior towards a particular group is usually associated with women, but there have been instances when it was the male gender that was at risk of violent harm to their person.

The genocidal assault launched against Kosovo's civilian population in 1998–1999 is one example. From a gender perspective, there was certainly a strong trend towards sexual assault of younger Kosovar women, but there was also the systematic targeting of "battle-age" men for mass execution, detention, and torture (Case Study: Kosovo). Beginning on March 19, 1999, and then escalating with the beginning of the NATO airstrikes on Yugoslavia on March 24, the Serbs implemented an "ethnic cleansing" campaign focusing on expulsion of most of the population, and violence towards the groups noted above. These young women and battle-age men had become trapped as they were unable to escape to the hills or surrounding countryside. The gendercidal massacres continued throughout the war, including the largest known mass killing at Meja on April 27. It was estimated that there were almost 500 men who may have been killed at that location. As a result of support from their Russian allies, along with the significant damage being done to the Yugoslavian infrastructure by NATO bombings, Slobodan Milošević's regime ended the mass murder and expulsions in June 1999 (Case Study: Kosovo).

Violence against both genders is an unfortunate consequence of war. There are also more noted instances of violence against women during times of turmoil and times of peace, among their peers as well as their enemies. In order for units to properly accomplish their missions, consideration must be given for protection and security of all of their members, as well as innocent civilians.

United Nations Security Council Resolutions (UNSCRs)

A little more than a year after the end of the gendercidal atrocities, the United Nations adopted United Nations Security Council Resolution (UNSCR) 1325.

This resolution was in response to concerns that civilians, in particular women and children, accounted for the majority of the persons and refugees who were internally displaced as a result of combat action (UNSC, 2000). International humanitarian and human rights laws needed to be implemented that would protect women and children during and after conflicts. All parties in armed conflict were called upon to take special measures to protect women and girls from gender-based violence, particularly from rape and other forms of sexual abuse. This resolution particularly emphasized the responsibilities of all countries to put an end to the impunity and to prosecute those responsible for genocide crimes against humanity and for war crimes including those relating to sexual and other violence against women and girls.

Furthermore, UNSCR 1325 took steps to reaffirm the important role of women in the prevention and resolution of conflicts and in peacebuilding (UNSC, 2000). This resolution stressed the importance of their equal participation and full involvement in all efforts for the maintenance and promotion of peace and security, and the need to increase their role in decision-making with regard to conflict prevention and resolution.

NATO and its partners are taking action to implement this resolution (UNSC, 2010: a). They recognize the disproportionate impact war and conflicts have on women and children, and highlight that women have been left out of peace process and stabilization efforts. They are calling for full and equal participation of women from early conflict prevention to postconflict reconstruction, peace and security. A key achievement is the appointment of gender advisers both in the field and at several Allied commands.

Since 2000, the UN has adopted four other resolutions further emphasizing the concerns noted in 1325, and added additional elements to consider. UNSCR 1820, adopted in June 2008, was drafted to add to 1325 by focusing on the prevention and response to sexual violence in situations of armed and post conflict. UNSCR 1888 was adopted in 2009 to reinforce 1820 by appointing a UN Special Representative to advocate for the end of sexual violence in armed conflict. UNSCR 1889 was adopted to balance the original 1325 by improving and monitoring the reporting component and highlighting the importance of resource allocation (UNSC, 2010: a).

A group of nations undertook a study on the implementation of UNSCR 1325 in the Provincial Reconstruction Teams (PRTs) in Afghanistan. PRTs were designed to help improve stability in Afghanistan and Iraq by: (a) increasing the host nation's capacity to govern; (b) enhancing economic viability; and (c) strengthening local governments' ability to deliver public services, such as security and health care. PRTs consist of a few military members from several nations, but more importantly, they also include members from various interagency organizations. They complemented the military members with their capacity to coordinate interagency diplomatic, economic, reconstruction, and counterinsurgency efforts among various U.S. agencies in Afghanistan and Iraq. PRTs were originally created as an interim measure to be only for security and reconstruction by helping the government extend its authority to the provinces. Later the mission was expanded to include strengthening local governance

and community development. To accomplish their missions, PRTs engaged in and funded a variety of activities, such as developing the capacity of local governments through engagement with local stakeholders; promoting budget execution, business development, agriculture, public health initiatives, and governance; and supporting the delivery of basic social services (Christoff, 2008).

An independent study was conducted in 2009 to review the effectiveness of UNSCR 1325 as it pertained to the PRTs. The Supreme Allied Commander, Europe and Supreme Allied Commander, Transformation BI.SC Directive 40–1 dated September 2009 states an education, training and exercise program will improve awareness of women's perspectives and advance gender mainstreaming in NATO's military organizations (NATO, 2009).

The results of this study indicated that gender integration was not only sparse, but sometimes nonexistent (NATO, 2009). The May 2009 study results emphasized the need for a comprehensive strategy and the active support of both political and military leadership in promoting and taking responsibility for integrating UNSCR 1325. Support for this resolution requires a comprehensive approach that allows for communication between men and women on the ground to see a better picture of what is actually occurring in the area. This approach can also extend to ensuring more protection of the civilian population against any violence.

As a means of a communication strategy, the International Security Assistance Force (ISAF) was able to use the local radio stations to organize a meeting between female members of parliament, business women, women's groups and military personnel. This type of inclusion gave women in that community a say in the outcome of any decisionmaking process. The results were much better for PRTs that were led by a country that had a National Action Plan already addressing the support for UNSCR 1325 (NATO, 2010: a). Another example given is the discussions between the women of the military units and the women of the local village, which uncovered information regarding a wedding that would be occurring the next weekend. As a result of this discovery, the logistics train that had been scheduled to transit that area during that time was rerouted, thereby saving a potential volatile situation from occurring.

Political and military leadership play an important role in ensuring integration of gender perspectives into operations. Typically this type of leadership style is developed in a culture that relies upon the hierarchical structure of a chain of command, one that is often more authoritarian. But in first accepting, and then supporting a social justice issue that can be controversial, these leaders must be "Transformational Leaders" who can develop long-term relationships with their followers because they produce significant change in the issue, and also raise other leaders and followers to higher levels of motivation and morality (Strike, 2007).

In order to provide guidance to the military and political leadership, UNSCR 1960 was adopted in December 2010. This resolution focused on "the need for civilian and military leaders, consistent with the principle of command responsibility, to demonstrate commitment and political will to prevent sexual violence and to combat impunity

and enforce accountability, and that inaction can send a message that the incidence of sexual violence in conflicts is tolerated” (UNSC, 2010: b: 1). Additionally, as captured in UNSCR 1960, it must ensure that the countries are all aware that they must “end impunity and to persecute those responsible for genocide, crimes against humanity, war crimes, and other egregious crimes perpetrated against civilians and, in this regard, noting with concern that only limited numbers of perpetrators of sexual violence have been brought to justice, which recognizes that in conflict and in postconflict situations national justice systems may be weakened” (UNSC, 2010: b: 1).

The adoption of UN Security Council resolutions 1325, 1820, 1888, 1890 and most recently 1960, highlights the increasing attention to and support of the prevention of violence against women and girls, their effective protection and the promotion of a more equal participation of women on any level of decisionmaking, especially in the field of security.

Overall these resolutions call upon the countries to:

- ✦ Include gender issues in national pre-deployments training programs for military and civilian police personnel
- ✦ Take steps to prevent sexual exploitation and abuse and ensure accountability for any such conduct that does occur
- ✦ Institute measures to deploy more women as peacekeepers and to other operational positions
- ✦ Support the participation of local women in all steps of conflict resolution.

Though the original UNSCR 1325 was adopted in 2000, serious discussions on how to implement this resolution in NATO did not occur until several years later.

The UN/NATO Comprehensive Approach to Gender Awareness

The United Nations (UN) Program for Reform began in 1997. The goal of this plan was for the organizations within the UN to include human rights in their activities and programs where possible. In order for all the organizations to fully understand what was required in this implementation, the UN developed a “statement of Common Understanding” that describes the human rights-based approach in the development of UN agencies cooperation goals. This statement is as follows:

“Common Understanding”

1. All programmes of development co-operation, policies and technical assistance should further the realization of human rights as laid down in the Universal Declaration of Human Rights and other international human rights instruments.
2. Human rights standards contained in, and principles derived from, the Universal Declaration of Human Rights and other international human rights instruments guide all development cooperation and programming in all sectors and in all phases of the programming process.

3. Development cooperation contributes to the development of the capacities of “duty-bearers” to meet their obligations and/or of “rights-holders” to claim their rights.” (Anderson, 2005: 1)

The Organization for Security and Co-operation in Europe (OSCE) is a unit of the UN that acts as the world’s largest regional security organization since it contains 56 States from Europe, Central Asia and North America (OSCE, 2010). The OSCE Secretary General, Marc Perrin de Brichambaut, told the UN Counter-Terrorism Committee in a recent press release that “We promote co-operation based on shared commitments and a comprehensive approach, which regards the protection of human rights as an integral element of security” (OSCE, 2010: 1). Within their work on security among the 56 states, they endeavor to include all governments, the civil society and the private sector. Their intent is that this organization will work together to share information, lessons learned, and policies in an attempt to achieve this purpose, all parts of a comprehensive approach (OSCE, 2010).

The United Nations Development Fund (UNDP) and United Nations Fund for Women (UNIFEM) have resources and prestige within the international development community that can assist in the developing world. The intent is to protect women and girls from forced and under-age marriages and violence in Afghanistan. There is concern that women will only be considered victims of events that occurred in the past, and not as active members in the present community. In the end this may prevent these women from empowering themselves through UN services and resources (Long, 2007). In a comprehensive approach to adjudicate this situation, policymakers and development workers need to work together to ensure Afghan women are not more vulnerable, especially in a highly insecure environment like Afghanistan.

The North Atlantic Treaty Organization (NATO) realizes the military organizations of any country cannot ensure the success of a crisis management situation. Today’s security concerns require civil and military entities working together to provide a coordinated effort among various organizations, whether they are military, government, or from the private sector. It requires a comprehensive approach by the entire international community (NATO, 2010: c). In fact, the new Strategic Concept released at the Lisbon Summit in November 2010 stated: “NATO must work with other actors to contribute to a comprehensive approach that effectively combines political, civilian and military crisis management instruments. Its effective implementation requires all actors to contribute in a concerted effort, based on a shared sense of responsibility, openness and determination, and taking into account their respective strengths, mandates and roles, as well as their decisionmaking autonomy” (NATO, 2010: b: 3).

Though more formalized during the summit, this concept was not new to NATO. In 2007, the development of the NATO/Euro-Atlantic Partnership Council was initiated. This group consisted of representatives from about 20 NATO and Partnership for Peace (PfP) nations. Implementation discussions of a new policy began at the Euro-Atlantic Partnership Council when it met in December 2007. Upon the conclusion of the meeting, they had approved the NATO/EAPC policy implementation.

These discussions were developed in concert with the PfP nations who were also in attendance.

During the following summer, the North Atlantic Council tasked the NATO Strategic Commands to provide guidelines on the implementation of the resolution. This resulted in the Bi-Strategic Command guidelines to be complemented by further political-military work, to be taken forward by the NATO civil and military authorities with NATO and PfP nations (UNSC, 2010: a). Since then, other directives were developed to include the BI-SC Directive 40–1 which discussed integrating UNSCR 1325 and Gender perspectives in the NATO command structure (NATO, 2009).

Part of the implementation guidelines was to develop national action plans within the countries to plan, educate/train, and implement these plans within the NATO and PfP countries. The following chart lists those NATO and PfP members who have developed these national mandates:

Table 1: Countries with National Action Plans for 1325 (Torres, 2010: 10)

PfP Members	NATO Members
Austria	Canada
Bosnia & Herzegovina	Denmark
Finland	Netherlands
Ireland	Norway
Sweden	Portugal
Switzerland	Spain
	United Kingdom
	Estonia
	Denmark

Of the countries noted in table 1, the number of women who are employed in their countries, security forces varies between 3% and 18% (NATO, 2010: a). Notably absent from this list is the United States. As for comparison, the number for women employed in the U.S. military as of 30 September 2010 is 208,271/1,430,985, or 14.5 percent. These numbers are further broken out as follows:

- ♦ Total number of women officers = 38,671/234,000 (16%)
 - ♦ Total number of women enlisted = 166,964/1,183,200 (14%)
 - ♦ Total number of women cadets/midshipmen = 2,636/13,785 (19%).
- (Dept of Defense, 2010: b)

These numbers correlate with numbers noted of the countries with mandated national action plans, yet the United States has not implemented one yet. The U.S. Marines have realized there is utility in employing women in their units. As an example, in the Garmsir district of Afghanistan, the 2^d Marine Battalion was interacting with the key leaders and locals in the region. They were finding it difficult to interact

with the females in the villages until they sent in female marines to learn what medical care and humanitarian assistance were needed for them. The women in the villages were not allowed to talk to men, but were allowed to speak to the other female marines who went into the village with a head scarf instead of a helmet in consideration of the culture. According to one of the female officers, they hear a lot of things from the women that they would not have heard from the men, or that would have been said in a different way (Henderson, 2009). These units have been institutionalized as standard practice within the U.S. Marine Corps, and are under consideration for use by the U.S. Army.

Additionally, the U.S. units responsible for training the Afghan Police Forces made a concerted effort to ensure there were many additional billets for Afghan women as they also realized the benefits of women on the force interacting with female citizens. They were able to obtain the billets requested, and were more successful in filling the positions conducting border patrols as they were the ones most likely to culturally interact with other women (Nikodym, 2010).

Education and Training

Applying a comprehensive approach to all situations means changing the minds of those who are involved in the management of the situation, particularly in the planning arenas. NATO, to include the United States, has been emphasizing more joint training of civilian and military personnel. Each organization has their own lessons learned from various situations they can include during the planning process. Working together in the development of a plan brings a sense of ownership to the participants that in the end helps build trust and confidence among all participating militaries, governments, and other international and local organizations. This should result in an end state of better cooperation that encourages better coordination (NATO, 2010: c).

A critical part in ensuring all are aware of UNSCR 1325 and the reasons why it needs to be considered is the coordinated effort to educate and train all personnel. The Supreme Allied Commander Europe and Supreme Allied Commander Transformation B.L.S.C Directive 40–1 dated September 2009 states “an education, training, exercise and evaluation programme will improve awareness of women’s perspectives and advance gender mainstreaming in NATO’s military organizations” (NATO, 2009: 1–4). This must be accomplished at all levels, and any current courses must be reviewed during normal course reviews to include the latest related information and trends. This directive strongly encouraged that all NATO pre-deployment training education and training programs include a section on respect to international law regarding the rights and protection of women and girls, especially civilians (NATO 2009).

An immediate step is to address what is needed in order to meet the requirements noted above. There must be tangible steps identified to further streamline current training and education within NATO organizations, and by individual members in partner countries. An assessment must be made of available courses to determine

the knowledge base, and to discover if there is a shortfall in any particular area. Only through training and education can these gaps be filled so the awareness level of gender security concerns can be raised among military and civilians. That way, women can contribute to the effectiveness of military operations. Education of the member NATO nations and PfP partners regarding UNSCR 1325 will assist in changing the mindsets of personnel who may not realize the full impact of supporting this resolution. The additional requirement to adjust the curricula within each of the institutions should be minimal, but the long lasting results should be monumental.

NATO has already looked internally to some of its own institutions by adding information into the curriculum of the NATO Defense College in Rome and the NATO School in Oberammergau, in addition to training for NATO Headquarters personnel. (UNSC, 2010: a) The Swedish Armed Forces is one military leaning forward in providing education and training in this area. They conduct a Gender Field Advisor Course at the Swedish Armed Forces International Centre, and sponsored a seminar titled “Gender and defense transformation: Transforming national structures, sustaining international operations” in conjunction with the Partnership for Peace Consortium Security and Stability Reform Working Group of the Defence Academies and Security Studies Institutes. The Geneva Centre for the Democratic Control of the Armed Forces (DCAF) has developed an extensive and easy to use “Gender and Security Sector Reform Toolkit” that organizations can review and use to train personnel within their groups to further understand the background, the laws and the applicability of the concept within their organizations.

DCAF recently reviewed and then provided substantial input to the Generic Professional Military Education curriculum currently being developed by the Education Working Group of the PfP Consortium. Along with sections on comprehensive approach, cultural awareness, and Rule of Law among others, an entire section on Gender Awareness was included. This section was added to ensure students have a practical understanding of how to incorporate gender awareness in mission planning and operations. During this section, objectives were developed to assist students in exploring the concept of “gender” and related concepts of equality, and to consider the different impacts of armed conflict on men, women, boys and girls. The various policies and resolutions concerning women, peace and security will be reviewed. Students will learn to apply gender analysis to an area of operations, and to incorporate gender issues into mission planning. The importance of gender balance in forces will be considered in relation to capacity to address gender in operations. Students will consider how violations of standards of behavior concerning sexual exploitation and abuse impact mission success. Through this level of support to this program and others, NATO has provided a positive impact on the way ahead in the implementation of UNSCR 1325.

However, one of the largest countries within NATO has not taken similar steps in raising the awareness level of gender security among its personnel. The United States is currently not a member of the groups of nations that have an existing national action plan in place. Steps have begun as there has been an initial shortfall analysis conducted

of what is currently available in online training, in the training schoolhouses, and in the professional military education institutions. The results showed minimal attention currently being addressed to this topic. This is a country with many opportunities available to enhance the education and training process, though it is also a country where it will be difficult to provide robust support behind raising the awareness of gender security as a concern. The United States will most likely never again conduct an operation on its own, and therefore will be conducting operations next to countries that may have already instituted education and training programs regarding UNSCR 1325 and would expect similar support and understanding from other contributing nations.

The Future

Political and military leadership play an important role in ensuring integration of gender perspectives into operations. The ability to change a leader's perspective on an issue can oftentimes be difficult, particularly if the issue is a sensitive one, or will possibly shine unwanted attention on the individual based upon how uncomfortable the situation is to the person. There are often barriers to the leader accepting the issue as needing to be changed. These can be time, resources, skills, community values, policies, and lack of a desire (Cameron-McCabe, 2008). In addition to those factors just listed, the ability of the leader to have the resolution required to make the changes is very important, but is oftentimes very difficult. In order to change this social injustice, the relevancy to them will need to be proven.

Just like in the school systems, the issue of gender inequality is one the military has acknowledged is still an issue. Acknowledgment of a social injustice issue by the leadership is a critical first step in the ability to get any changes made. But also important is the requirement to hold these leaders accountable for their actions in the carrying out of the requirements to change the injustice. Sometimes these requirements are only implied, but the UN Security Council Resolutions have mandated these changes to gender security and awareness occur for the safety of all.

At the anniversary of UNSCR 1325 in October 2010, U.S. Secretary of State Clinton announced the United States was developing a national action plan supporting this resolution. With the appearance of growing support for UNSCR 1325 among many of the NATO organizations, the institutionalization of this concept among the defense organizations would be the easiest approach since they usually work together for the benefit of a coalition operation. It would not be prudent to raise the number of women in these organizations, but instead to raise the awareness among the personnel, and to include gender field advisors in each of the operational units as the concern for security can be applied to both genders. Future conflicts are only going to become more complex and will have to face difficult human challenges within the security environment. During the November 2010 Lisbon Summit, a new strategic concept was adopted. The Heads of State and Governments endorsed an action plan to mainstream UNSCR 1325 into current and future operational planning, into Alliance training and doctrine, and into all aspects of the Alliance's tasks. Education and training of the staff

is essential to raise awareness, and to contribute to the effectiveness of operations and missions (NATO, 2010: b).

With this endorsement shortly following the 10-year anniversary of the original passage of the resolution, it is evident that high level commitment of support is present, and that additional guidance now needs to be provided and implemented throughout NATO and supporting PfP countries. While NATO has begun the slow process of changing tough mindsets and behaviors by introducing gender perspective throughout its operations, it now needs to include more women in key positions within key countries to help protect those on the ground.

The Political and Partnership Committee of NATO has taken an active role in mainstreaming UNSCR 1325 into alliance activities. As noted previously with the curriculum additions to the Generic PME curriculum, they will also continue to work to train PfP countries by sharing advice. The Public Diplomacy division is working to increase awareness of these issues among the general public. Allied Command Operations (ACO) is promoting the role of Gender Advisors within the command structure of NATO led operations and Gender Field advisors on the ground in tactical operations (NATO, 2010: a). This will enable personnel at all levels of the organizations and mission to have an awareness and appreciation of the positive role women can add in the protection of women and children, which will in the end assist future conflicts in peace building.

The commanders on the ground instead of the commanders at the headquarters will most likely be the most difficult leaders to convince there is a concern. A recent brief by a commander of one of the PRT's indicated that even he was a little skeptical at first of the changes required (Tistam, 2011). But he had an assertive Gender Field Advisor who was insistent on showing him the gender awareness that was required when working within his own organization, but more importantly in working within his role in the civilian community. COL Tristan said that it was critical that the leadership understood the concerns and stood behind the needs as that made the injustice easier for others to understand, and to be more receptive to any changes.

Education and training of the staff is essential to raise awareness and to contribute to the effectiveness of operations and missions. The Female Engagement Team (FET) concept has proven to be very effective. Unfortunately, a secondary effect is that now other organizations are setting up similar FETs, but without the required training of the women in the FETs, or their leaders who are planning for how they should be used because they are seeing the benefits. Therefore, they are quickly assembling similar groups hastily (K. Young, Personal Communication, 20 April 2011). This will be dangerous if these teams do not understand the culture and importance of making time as required. These women will not only go into the situation unprepared themselves, they will most likely endanger the women they meet within the community.

A training and education program must be implemented immediately before these women go into harm's way. Start with the commanders at the top, the gender advisers for the headquarters commands, the leaders in the field, the gender field advisors,

and most importantly the women in the FETs. There are already a good number of materials available to support this new demand, both online and in residence. So the ability to get the student to the training would be the next requirement.

Therefore, our political and military leadership need to consider these mandates when developing our national action plan, implementing the requirements within operations by developing a separate annex of their operations plan, and within the planning and execution of training exercises. The strategic level of implementation needs to consider this as a ‘special area of emphasis’ that the professional military education organizations must consider within their curriculum.

Conclusion

The United Kingdom Equal Opportunities Commission (now part of the Equality and Human Rights Commission) was the independent public body designated to work towards the elimination of discrimination and to promote equal opportunity for women and men. Its members instituted a Cabinet Minister for Women and the Parliamentary Secretary for Women and Equality in the Department for Communities and Local Government. After a series of several sexual harassment cases, the Commission wrote to the Ministry of Defence expressing concerns about the frequency and persistence of sexual harassment cases against women serving in the armed forces. Based upon the information provided, the Commission decided the armed forces had not taken enough action to prevent sexual harassment.

Originally, the Commission was going to conduct a formal investigation, but it was convinced not to do so once the military decided to develop an action plan to counter the issue. They were given 4 years to gather data by conducting a sexual harassment survey, interviewing program managers, and implementing/monitoring the plan. (NATO, 2010: a)

The United States has implemented the Sexual Assault Prevention and Response (SAPR) program to establish a culture free of sexual assault. Overall the indications are that the numbers of assaults in the military has decreased from 6.8 percent in 2006, to 4.4 percent 2010. (DOD, 2010: c) Though the Service Academies numbers did rise this past year as noted earlier, there is question as to whether it is due to more instances being reported. But even if this was the case, the trend should be towards zero sexual assaults even being conducted.

These are all excellent steps in ensuring gender security at home, but it would be beneficial to take the extra steps needed to ensure that gender security in a combat situation is at the forefront of planning efforts. It is also critical culturally to include women in the planning of interactions with the local community. Leaders need to ensure they put learning at the center of the effort when they are seeking ways to correct an issue. It will not be easy, but issues that are usually considered behind the scenes are the ones that will result in the effects needed at the end. Transforming a social justice issue is hard as it usually involves a subject that is deeply woven into human relationships. It

requires open lines of communication to solve it, and involves confronting our own biased assumptions, presumptions and actions (Beachum, 2008).

Today's conflicts not only call for military responses, but need "greater capacity" to bring all necessary resources to bear in crisis situations. Only an organization that respects and fully embraces the diversity of backgrounds, skills and experience of its members can operate effectively in a complex security environment. The complementary skills of both male and female personnel are essential to the effectiveness of operations, especially in light of the increasing complexity of civil-military interaction, public relations and intelligence gathering (NATO, 2009). NATO's operational effectiveness includes making contributions to sustainable and lasting peace, within which gender equality is a key factor. Future operations will be alongside coalition partners. As our nation's action plan is developed, we need to take a comprehensive approach to understanding and supporting this concept.

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Part 4

Integrated Approaches to Complex Operations

“Population-centric” strategies are becoming more and more common in civil-military operations, and require effective engagement with local populations if they are to succeed. To achieve the political, social and economic goals for which military forces have been committed in these situations, coalition partners *must* be able to communicate, collaborate, translate and engage with the people they are trying to influence.

Information and Communication strategies, and their related Information and Communication Technology (ICT) infrastructures, can enable such engagement, enhance situational awareness and promote transparency. However all NATO levels will need to be engaged: senior leadership, support staff and outside stakeholders, keeping in mind the always-uneasy balance between transparency and security. These are issues for policy makers, ambassadors and commanders. They cannot be considered “nice-to-have” adjuncts to the “kinetic” phase of an operation.

In Comprehensive Approach (CA) environments, Alliance organizations, military and civilian, will never have enough resources to accomplish their missions alone. Local governments, businesses and civil societies need to be empowered. Long-term solutions need to be sustainable with indigenous resources. International organizations (IOs), nongovernmental organizations (NGOs), private volunteer organizations (PVOs), etc. will play important roles, and it will be important to learn how to work with them. IOs and NGOs have resources readily available and experience in deploying them quickly—for example, the World Food Program has a large warehouse in Dubai full of supplies packed in airline checkable luggage. There are cultural differences, to be sure, and reservations on all sides about working together, but isolation is not an option if anyone is to achieve their goals in Comprehensive Approach environments.

Modern complex civil-military operations have moved away from a linear progression of operational phases (peace-to-crisis-to-combat-to-postwar stabilization, etc.) to the case where multiple phases often are present simultaneously. In the so-called “3-block war,” intense fighting may be taking place near political demonstrations and also close to reconstruction activities. In some cases the military may be building partner nation capacity in non-permissive environments where NGOs and contractors are not willing to operate. In some cases it costs more, in terms of resources, to have the military provide protection to NGOs and contractors than for soldiers to do the supporting job themselves. On the other hand, NGOs or contractors may feel that operating near the military actually makes them targets and endangers their people. This sort of dynamic makes it hard for CA to be effective without wide ranging and continuous consultations. It requires a clear, shared understanding to be able to operate jointly and hence deliver the necessary services.

Even if the combat element is removed, as in disaster relief scenarios, the challenge remains that NGOs and other organizations still have to overcome major cultural and procedural differences to work effectively together.

Dr. Linton Wells, Mr. Terry Pudas and Mr. Bryce McNitt examine ways that military and civilian organizations can engage with local actors in Comprehensive Approach environments, including information sharing, tailoring capabilities to local needs, providing effective operating procedures, allocating adequate resources, and training with partners from broad coalitions. It also outlines an integrated engagement framework known as the “Crowd, Bridge, Transaction, Feedback” model that could help organizations engage better with local partners by making better use of “crowdsourced” information and dealing with the velocity and volume of information generated by 24–7 news cycle and social media.

During the Cold War, Sweden’s leading national defense strategy was called “Total Defence (TD),” which emphasized close coordination of civil-military planning and operations at every societal level. “Total Defence” was an example of a successful Comprehensive Approach, and many of the thought processes now are being applied to international peacekeeping missions, as well as S&R in Afghanistan. However, the consensus over the Cold War approach, as well as the close coordination of military and civil resources, is waning. Professor Torsten Björkman and Dr. Henrik Friman analyze some of the difficulties in implementing Comprehensive Approach in this environment, including the need to engage with NGOs, many of which feel that Comprehensive Approach would compromise their safety, and perhaps even their organizations’ effectiveness. Since 1999, Sweden has conducted a series of valuable multinational and multifunctional exercises known as “Viking,” which are among the most prominent efforts to exercise Comprehensive Approach scenarios. They conclude by offering a taxonomy of four types of Comprehensive Approach: All Military, Military-Civil, Civil-Military, and All “local” (exit strategy), which can be applied to many scenarios.

Dr. David Moore and Mr. Peter Antill point out that humanitarian logistics can be a unifying force in Comprehensive Approach environments. Not only does it provide essential services—transactions that make a difference to people on the ground—but it also lends itself to systematic thinking and structured analysis that can help to bridge cultural divisions. Their paper considers the development of logistics into the broader field of supply chain management. Supply Chain Management in commercial, military and humanitarian contexts is identified as a means of developing an integrated, holistic approach towards the elimination of waste and of bringing a focus on value-adding activities and processes. The paper presents several research proposals to improve cooperation and make actions more effective in response to disaster situations.

Chapter 12

Linking NATO Capacity to Local Stakeholders

LINTON WELLS II, TERRY J. PUDAS, AND BRYCE MCNITT

Abstract

NATO militaries must engage effectively with local populations in areas where their organizations have been tasked with social, political, and economic goals (as opposed to purely military ones). The changing nature of conflicts that both NATO and U.S. militaries have encountered in the past two decades has led to a shift to strategic concepts that emphasize engagement with local populations. This chapter examines ways that military and civilian organizations can improve such engagements in Comprehensive Approach environments, including information sharing, tailoring capabilities to local needs, providing effective operating procedures, allocating adequate resources, and training with partners from broad coalitions. It also outlines an integrated engagement framework known as the “Crowd, Bridge, Transaction, Feedback” model.

Introduction

In environments that demand Comprehensive Approaches, NATO and its coalition partners *cannot* achieve the social, political, and economic goals for which their military forces have been committed unless they can engage effectively with the populations they are trying to influence.¹ Such populations include local governments, businesses, and members of civil society (Gerencser, Lee, Napolitano, & Kelly 2008). This paper focuses on local stakeholders and how the Alliance (or other civil-military coalitions) can develop capabilities to interact effectively with them. Such capabilities can be developed more quickly, and with less cost than often is imagined.

To build broad coalitions of stakeholders in complex contingencies (1) the military must be trained and enabled to interact more effectively with civilian populations, and (2) civilian participants must be empowered to operate more effectively in environments that include the military (U.S. Joint Chiefs of Staff, 2011). In practice, military commanders and support personnel will focus more on the needs of the joint or combined force than on the civilian participants in an operation. Nevertheless, an effective coalition will require external links and trust relationships with non-military stakeholders. Such relationships demand that unclassified (or non-classified)² information

be shared in both directions (Joint Chiefs of Staff, 2011). This kind of information sharing is harder than it seems. All components of the Alliance, coalition, and their constituent nations need to make this a priority, especially in stressed environments. Information sharing will be a key component of any successful intervention.

As always, the devil is in the details. Senior-level policy intentions are fine, but information sharing (and protection as necessary) must occur *on the ground* with a wide range of participants if Comprehensive Approaches are to succeed. Yet years of experience in stabilization operations, domestic and foreign disaster relief, and in building the capabilities of partner nations show that such sharing will *not* happen without sustained high-level attention. Senior decisionmakers need to emphasize consistently the importance of information sharing and developing information and communications technology (ICT) capabilities, including the role of ICT as an engine for stability and economic growth. These questions cannot be left to “techies” or security specialists alone. They are issues for policymakers, ambassadors, and commanders.

Engage Local Stakeholders Seriously

Background

NATO high-level guidance has changed significantly in recent years in ways that promote engagement with local stakeholders. For instance, the NATO Strategic Concept (2010) states that “lessons learned from NATO operations, in particular in Afghanistan and the Western Balkans, make it clear that a comprehensive political, civilian and military approach is necessary for effective crisis management” (5–9). Part of this approach has been to build trust across networks of local stakeholders and NATO forces through the use of both social skills and technology. This is paralleled by changes in U.S. policy and national security organization (Bush, 2005; U.S. Department of Defense, 2005; U.S. Department of the Navy, 2007; U.S. Department of Defense, 2008; U.S. Department of the Army, 2008; U.S. Department of Defense, 2009).

These efforts focus on building tools that instill confidence in civilians that the military can be trusted and will respect civilian interests (LaRose-Edwards, 2008). Such awareness is not limited to Euro-Atlantic nations. Both Singapore and Australia stress the importance of engaging with local stakeholders. The Singapore Navy has emphasized “develop[ing] new capabilities, structures and processes to meet the broadened range of new and existing operational demands” (Tan: 2008, 6). Collectively, these reflect significant policy and doctrine changes for the security organizations of many nations; increasing emphasis on preconflict “building partner capacity” (BPC), peace operations when required, and postwar stabilization and reconstruction (S&R), as well as humanitarian assistance and disaster relief (HA/DR).

The implications of these new strategic initiatives are still evolving. New guidance recognizes that solutions to the problems that generate Comprehensive Approaches cannot be solved by military means alone. An important corollary, however, is that high-level policy and doctrine must be converted into the implementing concepts and

doctrine to guide the way people interact on the ground. For the militaries, this means that field operating procedures (so-called tactics, techniques and procedures or TTP) need to prepare troops to engage with unfamiliar participants. Until this guidance is in place, there will be missteps and disconnects in the field while military personnel feel they have to refer issues back to higher authority. Ideally, these changes will come to be reflected the operating instructions used by local stakeholders when they interoperate with NATO and other external contributors.

To promote more effective engagement, the Center for Technology and National Security Policy at the National Defense University has been coordinating a broad, international research effort called TIDES (T ransformative Innovation for Development and Emergency Support), which focuses on sustainable support to populations under stress—post-war, post-disaster, or impoverished (STAR-TIDES, 2011). TIDES emphasizes “unity of action” in situations when there is no “unity of control.” In particular, it looks to facilitate unity of action by:

- ♦ Leveraging a global network of talent (www.star-tides.net)
- ♦ Promoting integrated approaches across diverse capabilities
- ♦ Sustaining efforts through the private sector.

This research can help develop capabilities in support of the Comprehensive Approach as well.

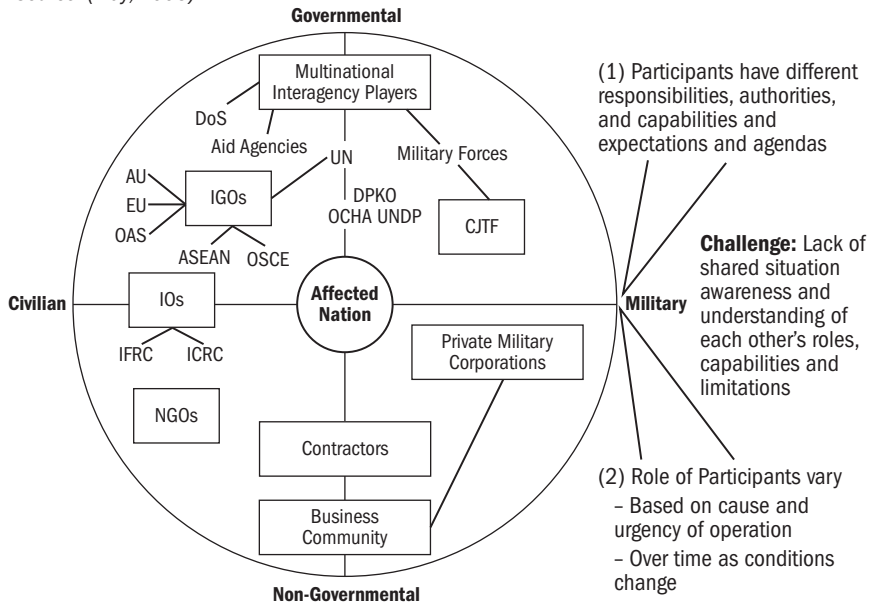
Who Are the Local Stakeholders?

Figure 1 summarizes most of the players engaged in complex contingencies. The local actors who are the focus of this chapter include representatives of the “Affected Nation” in the center of the graphic, typically involving multiple stakeholders from business, government, and civil society. Examples could be: host government officials, local non-government organizations (NGOs), indigenous security services, local businesses, national subsets of international businesses, academia, private citizens, etc. In Haiti, local stakeholders included remaining functional parts of the Government of Haiti, indigenous businesses, and local NGOs (Wentz, 2006; Perito, 2007; Wentz, Kramer, & Starr, 2008; Wentz, 2010). In cases like Libya, choices need to be made between government and rebel entities, many of which may have little or no capability to deliver services.

As with the international players, most of the local participants will have distinct organizational cultures—often unwritten sets of rules, regulations, viewpoints, perspectives, and operating procedures—that are based on the unique history, mission, structure, and leadership of their organizations. The stakeholders bring with them different agendas, operating principles, experience, capabilities, sensitivities, expectations, accountability mechanisms, and lines of authority (Department of Army, 2008). Although civilian organizations may not have as structured a sequence as Policy-to-Docctrine-to-TTP, they usually have their own procedures for field operations (U.S. Agency for International Development, 2008; United Nations, 2008).

Figure 1. Comprehensive Approach Environments

Source: (Lidy, 2005)



It is important to remember that all these entities—local government, local business, NGOs (domestic or international), and private citizens—are subject to the laws of the nation in which they are operating. Private entities may support governmental entities through contracts or grants, but otherwise they typically have no formal authority and tend to act independently. NGOs are, however, responsible to their boards of directors, and accountable to their private contributors. Although they may take money from one or more government sources, NGOs are not instruments of their governments and do not usually take policy direction from institutional donors.

Both civil and military participants engaged in these environments must understand these differences with respect to guidance, emphasis, and accountability and pursue a framework that facilitates unity of action. This is best done in advance of a crisis through established, structured consultation and social networking.

The adage that “Local knowledge is key” applies. To benefit from such knowledge, governments usually need to reach out beyond typical intelligence and military-to-military sources and embrace such communities as indigenous and international businesses. The business community has extensive information about employment, investment, and economic growth in much of the world, maintains significant resources that could be useful in foreign humanitarian relief and development operations, and provides the skills to manage them. Local companies offer local knowledge and technical expertise, especially if they are elements of larger international firms. Often, to show

good will, they are willing to donate products, or contribute financially to humanitarian response organizations.

The affected nation's government and public security elements must be engaged actively as well. Recognizing that security and rule of law are *sine qua non* for progress in any sector, priority must be given to: (1) mentoring for national, provincial, district, and local governance,³ (2) enhancements to security (police and security forces), (3) reconstruction and development of infrastructure (roads, power, water, and telecommunications), (4) economic recovery and job creation, and (5) social wellbeing (healthcare, education) actions. The goal is to build capacity in ways that improve quality of life.

How Can Engagement Be Done Most Effectively?

Experiences from the Balkans to Afghanistan to Katrina to the recent Japanese earthquake suggest that integrated approaches along six coordinated paths can increase the likelihood of successful engagement. Specifically, protagonists (government and non-government) need to:

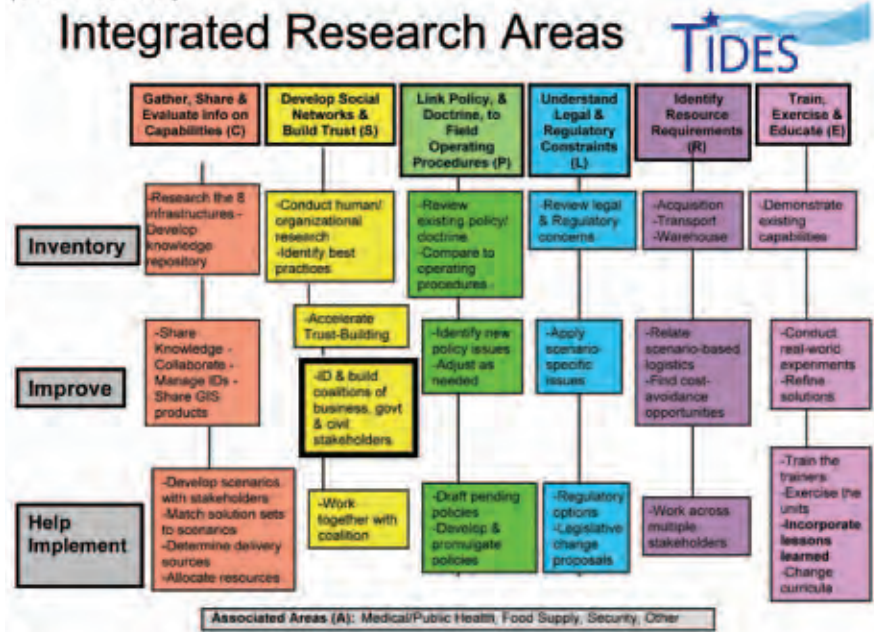
1. Build capabilities that are useful in specific scenarios and find ways to deliver them rapidly to those who will have to operate, sustain, and live with them.
2. Weave social networks to build the trust that can facilitate effective responses in these contingencies and engage the range of stakeholders needed to get the job done.
3. Promulgate policy, doctrine, and operating procedures to empower people on the ground to execute non-traditional missions without having to ask higher authority for permission.
4. Address legal and regulatory restrictions (for example, export control regimes, customs clearance procedures, and constraints on transferring alliance/national equipment to others when the military withdraws).
5. Provide resources for rapid responses with phasing to long-term sustainment.
6. Develop a robust program of exercises and training involving the whole range of potential coalitions focused on rapid and effective responses should an intervention be required. Test proposed solutions often, incorporating lessons learned and examining innovative approaches through experiments. Adapt educational curricula. Remember that lessons are not really learned until behaviors change.

These activities are summarized in figure 2. The chart does not represent a “turn the crank” model to produce effective results, but the scope suggests how much up-front effort needs to go into planning and capability development for Comprehensive Approaches.

Each of the categories above raises unique challenges and opportunities. Each is necessary, but not sufficient. Collectively, however, progress in these areas can help

achieve “Unity of Action” (U.S. Joint Chiefs of Staff, 2009) among diverse organizations when there cannot be “Unity of Control” (Christianson, 2008).

Figure 2. Steps to Promote Engagement with Local Stakeholders
(STAR-TIDES 2011)



Build and Deliver Capabilities

Capabilities can be grouped into (1) information sharing, collaboration (or cooperation),⁴ and sensemaking, (2) information and communications technologies (ICT), and (3) other kinds of low cost infrastructures such as shelter, water, power, etc. The effectiveness of the solutions may vary by scenario, and it is important to match them to field conditions in ways that are useful to end users (not just to suppliers), with costs reduced by making the best use of the various supply chain options. Particular emphasis should be placed on local materials, labor, and support.

Information Sharing, Collaboration and Sensemaking

Military organizations have been developing Network-Enabled Capabilities (NEC) for years. Both NATO and the U.S. military have developed their own NEC, which supports network-centric military operations. The basic premise of NEC is to empower people at all echelons by (1) sharing information, which allows participants to (2) develop shared situational awareness which, together with (3) their understanding of command intent, allows them to (4) self-synchronize their actions in order to (5) accomplish missions faster and at lower cost (Alberts, Garstka, & Stein, 1999). Other

innovative militaries such as Singapore and Sweden are also focusing on knowledge-based activities (Singapore Ministry of Defence, 2010) and network-based defense (Drejhammar, Ghodsi, Klinskog, Rissanen, & Sadighi, 2006).

Network-enabled capabilities can extend beyond the military to facilitate interactions with civilian agencies. For example, in the United States, in the area of Maritime Domain Awareness, the Department of Homeland Security, U.S. Coast Guard, and the Navy routinely are sharing information about situations off the U.S. coasts. Moreover, maritime security issues are becoming globalized in ways that could provide examples for civil-military engagements with local stakeholders.⁵

NATO's adaption of NEC (NNEC) should encourage information sharing and collaboration at all echelons, from international headquarters to people on the ground.⁶ It is important that the training and understanding of NEC be emphasized to all participants in operations. Policies must be developed and enterprise architectures put in place to ensure information is shared.

However, NATO must improve its ability to share unclassified and non-classified information⁷ and to plan and execute Comprehensive Approaches effectively. These are not issues for only the military or the Intelligence Community. To increase civilian capabilities in such roles, all NATO entities need to develop a "bias to share" and be able to implement such sharing in ways that are useful to other participants. Given the structure of the Alliance, much of this improvement will rest with nations, but organizations like the Civil-Military Cooperation (CIMIC) Centre of Excellence (CCOE) can provide expertise. The CCOE's Handbook on Civil-Military Cooperation (2010) is a very valuable resource.

In most cases, social, structural, cultural, and policy issues are more important than technical questions in achieving interoperability. Questions include:

- ✦ Will civilian partners be able, or willing, to interoperate with NATO concepts and technologies?
- ✦ Which NGOs are restricted from engaging with the military, either by their charters or by fear of putting their people at risk?
- ✦ Will the NATO and national agencies be willing to interoperate and share with non-NATO participants?

Formal information sharing agreements may be able to help. Some of these issues are addressed below under trust-building.

"Unity of command" is a basic tenet of military organizations, but it is a source of friction in complex environments. Military Command and Control (C2) does not extend to non-NATO partners, such as the myriad NGO, International Organizations (IOs), International Government Organizations (IGOs), and local participants⁸ who will be present in a Comprehensive Approach. Yet, achieving some kind of unity of effort is essential (Christianson, 2008). In this paper, "unity of effort" and "unity of action" are used interchangeably.

Three functions will be needed in any contingency: someone must *focus* on a problem (for example, provide commander's intent in a military context), the organization must be *agile* enough to meet the demands placed on it, and there must be mechanisms to *converge* the resources to get the job done. A fourth function is that a "well formed outcome" must be defined to transform behaviors (Alberts, 2007). This combination of functions sometimes is rearranged as *fact* (focus, agility, convergence, transformation). Research in these areas is evolving, but it needs to be encouraged, resourced, and increasingly incorporate more non-military partners.

"Sensemaking" is a key component of success in a network-enabled environment. This involves an awareness of key elements (who, what, when, where, and why), an understanding of their meaning within the operational context, and making decisions to reach a desired outcome (Garstka & Alberts, 2004). Personal and cultural differences are very important here, since different individuals can derive very different interpretations from the same data. New methods of communications must be incorporated that will break down the barriers of "(mis)interpretations of the same data" and cut across cultural barriers. Sensemaking has matured as a discipline and become an important area of research in non-military decisionmaking and the cognitive sciences.

Despite best efforts at sensemaking however, some issues will fall into the category of "wicked problems," where there is no agreement on either the definition of a problem or its solution (Rittel & Webber, 1973). There is a rich literature around the "wicked problems" area. While this is not the place to explore it in detail, approaches to such problems fall into three categories: (1) Authoritarian (2) Competitive, and (3) Cooperative (or Collaborative). This chapter focuses on cooperative approaches.

Cooperative mechanisms can help people work together better in networked situations, especially if they are physically dispersed. Part of the cooperative capability is technical—which software tool set to use? But part is also social and cultural. The Megacommunities work describes the complex and subtle ways of building collaborative solutions among stakeholders in business, government, and civil society (Gerencser et al, 2008). Leadership education must also include the skill sets necessary to implement these approaches in crises.

In the Haiti disaster response in 2010, social media played a prominent role in information sharing and sensemaking. These techniques both broke significant new ground and identified new problems. Real-time information was gathered and shared from the Internet and SMS text message sources. Locations of interest were then mapped based on submitted information using a crowd-sourcing software called Ushahidi (Wells & Welborn, 2010). Other military and IOs created unclassified (or non-classified) information sharing portals. However, the proliferation of multiple portals actually decreased some aspects of coordination. USSOUTHCOM adapted the All Partners Access Network (APAN), the UN used UN OCHA's OneResponse, an NGO site ReliefWeb was also widely used, while NATO used the Allied Command Transformation's (ACT's) CIMICWEB (Wentz, 2010). Few organizations actually exchanged information across portals, thereby creating additional stovepipes.

More recently an even wider array of social media tools played prominent roles in the uprisings in Tunisia, Egypt, and Libya (Hamid, 2011). The ICT4Peace Foundation, an NGO dedicated to bringing ICT capabilities to bear in crisis and peace-building situations, launched a ground breaking wiki on the Libyan uprising that integrated many sources of information into one Web page, and provided historical context (ICT4Peace, 2011). The need to deal with the volume and velocity of information generated by social media and the 24x7 news cycle has been highlighted by the British journalist Nik Gowing (Gowing, 2010), with the warning that no organization, military, civilian, business, etc., is well organized today to deal with them. Rectifying these deficiencies needs to be part of NATO's strategy to support the Comprehensive Approach.

Information and Communications Technologies (ICT)

Telecommunications networks and collaboration tools underpin the information sharing and sensemaking described above. They provide transport mechanisms and connect dispersed workplaces. Yet ICT rarely are treated either as critical infrastructures or as providers of essential services. Whether by Internet, radio, phone, flashing light, or messenger, all stakeholders in stressed environments require some form of communications to coordinate responses. The military will bring the communications and C2 capabilities it needs for its own purposes. These capabilities once were superior to those of civilian participants. But the explosion of commercial ICT now provides even small NGOs and commercial firms ways to have an effective communications presence. Government entities can benefit enormously from information held by other players, if they are wise enough to encourage two-way information flows, and offer to share useful information themselves.

Nearly all international participants use the Internet and commercial ICT where and when possible to support crisis response communications and information sharing. Access options run the gamut from commercial satellite communications (SATCOM) to point-to-point microwave links, fiber-optic cables, wireless clouds, and Internet cafes, when available. As a result, the Internet has become the "default" network for civil-military collaboration and information sharing, at least from a deploying participant point of view. However, these expectations may collide with actual communications conditions for local stakeholders on the ground.

The effectiveness of these new ICT capabilities depends largely on bandwidth availability, which can vary widely. It is important that operators be trained to adapt to whatever bandwidth can be used (Wells, Welborn, & Wilkinson, 2011). Some parties (many first responders, for example) prefer voice radios rather than computers. In some cases, players (often local stakeholders) may have no effective modern technology at all.

As a result, initial coordination is likely to be disjointed. The following comment by an observer of ICT support to Myanmar relief after Cyclone Nargis is instructive:

As we began our research, an integrated picture of players, information sharing arrangements, and ICT deployments did not exist. Research from afar suggested the ICT deployments and information sharing initiatives were independent and to some extent ad hoc and there did not appear to be an ICT advocate per se, nor did there seem to be a shared and agreed civil-military information and ICT strategy and plan for supporting relief activities in Myanmar. Furthermore, there did not appear to be any pre-agreed effort among the civil-military responders to collectively employ information and ICT as the core means to achieve “unity of effort” across the civil-military boundaries. There were also perceptions of sensitivities of NGOs dealing with the U.S. military that could be harmful to their working—perceptions of lack of independence and transparency by the Myanmar government (Wentz, 2008).

Myanmar was a special situation because of the political impediments to information sharing, although some such limitations have been common to all disasters. For example, the importance of establishing POC lists early and having an ICT advocate shows up in situation after situation. Sustained, structured interactions prior to crises can help. One good example is a multinational annual exercise in Central America and the Caribbean called FA-HUM (Fuerzas Aliadas Humanitarias).⁹ The exercise showed significant coordination and advanced planning. Customs clearance procedures, transnational resource sharing, and even theater-wide incident management software had been worked out through prior consultation. This reconfirms that regional coordination centers and the ICT backbones for stressed environments can be put in place and kept at least “warm” with advanced planning and follow-through.

Even if political agreements are in place, many technical issues need to be solved before communications will be reliable. Is there power available? Are there local infrastructures to rely on? Does the terrain allow for connectivity? Are people trained to use the equipment in place? Is there “bridging equipment” (such as VOIP [Voice Over Internet Protocol] patching devices) to link deploying communications equipment with indigenous capabilities?

To achieve an effective combination of sensemaking and information transport, several pre-cursor steps are essential:

1. Policymakers need to acknowledge that unclassified/non-classified information sharing is important. Traditionally, they have not.
2. Rapidly deployable, integrated, easy-to-use equipment kits and situational awareness software need to be identified and made available quickly to those in the field. These can come from any source. The PEAK (Pre-positioned Expeditionary Assistance Kits) Joint Capabilities Technology Demonstration (JCTD) is one such project that is designed to be used in partnership with other countries.¹⁰
3. Whatever solutions are chosen, they need to be able to reach across the borders between the many disparate organizations which may be involved in a particular

operation. The origin is less important than the interoperability. In some cases military units may have components suited to NGO use within their deployable systems. In other cases, it may be better for all parties to fall in on recognized civilian systems, such as the UN's ReliefWeb, Humanitarian Information Centers (HIC), and the Emergency Telecommunications Cluster (ETC).¹¹

4. Pre-established social network and trust-building can greatly facilitate responses. These are addressed below.

Low Cost Infrastructures, Matched to Scenarios

When DOD units support operations such as BSC, S&R, or HA/DR, they typically have to use deployable systems of record that are (1) expensive, (2) already committed to operational plans, and (3) signed for on custody cards. As part of "whole of nation," civilian-empowering approaches, ways should be examined to provide alternative solution sets, that is, not necessarily through military, or even government, channels.

One of the purposes of the TIDES research effort, mentioned earlier, is to empower civilian planners and service providers, both to improve the quality of service to affected populations and to reduce the burden on security forces, where appropriate. In addition to developing social networks, building trust, sharing information, and promoting sensemaking, TIDES focuses on eight categories of "transportable" infrastructures (as opposed to "deployable" military equipment, or the fixed infrastructures of the developed world). These are: shelter, water, power, integrated combustion and solar cooking, cooling/heating, lighting, sanitation, and ICT. For instance, the infrastructure directory on the STAR-TIDES website has identified some 75 different types of shelters that generally are less expensive than military tents.¹²

A key aspect of effective engagement with local actors is to address problems of interest to their "engaged stakeholders," who may be abroad or at home. By analyzing the range of candidate infrastructures, such "stakeholders" can be offered potential "solution sets" (mixes of shelter, water, power, etc.) and services suited to their needs. Very few solutions will be suitable for all contingencies. Solutions to support survivors of a winter earthquake would be different from those for tropical typhoon victims, just as infrastructures to build security capacity would not be the same in sub-Saharan Africa as in Andean Ridge nations. Similarly, the average stay in a refugee camp is over 7 years, so the approaches there need to be very different from the first 60 days after a disaster. One size does *not* fit all.

Develop Social Networks and Build Trust

Building trust and productive relationships among participating individuals and organizations share common characteristics in any environment. Trust is built around a more informed understanding of the roles, relationships, customs, traditions, capabilities, and motivations of the participants, as well as their information culture and information-sharing needs (Wells & Hauss, 2008). It is also vital to manage expectations and to ensure that actions support expectations.

Understanding the human interoperability dimension is essential. As one observer has noted: “Interoperability is a human behavior issue as much as a technology innovation and integration issue” (Brown-VanHoozer, 2011). Thus, refinement of infrastructure solution sets must be paralleled by the development of effective, sustainable, and trusted social networks. Ideally, when we “hit the ground” we want to understand those with whom we are engaging well enough to move the effort forward and reduce the on-site learning curve.

A seminal series of civil-military demonstrations between 2000 and 2006 called STRONG ANGEL outlined a number of bedrock principles for civil-military collaboration and information sharing (STRONG ANGEL, 2006). Lessons include:

- ♦ A common culture of trust in information networks and communications is needed between civilian governments, military organizations, and other participants.
- ♦ Communications must flow in all directions, almost all the time.
- ♦ Information structures need to be flexible (but not completely ad hoc).

There is ample evidence from real-world experiences (tsunami, Katrina, and global relief operations; stability and reconstruction in Iraq and Afghanistan; development efforts around the world) to reinforce these points. Conventional wisdom holds that social networks cannot be developed quickly. The Maritime Strategy, referenced earlier, asserts that “Trust and cooperation cannot be surged,” (U.S. Department of Navy, 2007) and the Army’s Field Manual 3–0 makes similar points (U.S. Department of Army, 2008). This is especially true in settings like Afghanistan, where experience has found that a bottom up, long term, relationship-building process is needed (Gant, 2009).

Clearly, the onset of a crisis is not the ideal time to begin building social contacts. But work in human interoperability suggests that trust-building can be accelerated (Meyerson, Weick, and Kramer, 1996).¹³ Al Santoli, of the Asia-America Initiative, notes the importance of having a model for developing “rapid trust,” based on years of experience in the Muslim areas of the Southern Philippines (Santoli, 2010). Multi-stakeholder engagement models like those outlined in the book *Megacommunities* offer insights into ways to increase the likelihood of success in complex contingencies, or complex operations.

The choice of the individual representative is critical. The mountain-climbing, Spanish-speaking neuroscientist who would be indispensable in an Andean earthquake may not be nearly so useful in Banda Aceh. Since tailored specialists may not always be available, this reinforces the need for training and education across the range of providers, civil and military, and the importance of developing as broad an array of social networks as possible. Selected engagement can also help. Many of the larger NGOs have security coordination units and the security professionals in these positions often have military experience. If the military can provide them with useful information that

can help keep their people safe, some of the barriers between the overall organizations could be reduced over time.

Finally, engagement plans need to be clear, easily understood, and consistent with the objectives and priorities of the affected nation. Properly written, they can enable sector reconstruction and development and promote self-sustaining capacity to help reduce corruption and enhance transparency in governance. This offers opportunities to influence positively the attitudes of the leadership at all levels and the population in general.

In sum, information sharing, trust-building, and cooperative activities can have decisive impacts in the Comprehensive Approach, but *they need to be treated as a core part of each nation's overall strategy and not just as "nice to have" adjuncts to more traditional phases of operations.*

Link Policy and Doctrine to Field Operating Procedures

As discussed earlier, the most effective ideas will not make any difference unless they are conveyed in ways that people at all levels can understand and apply. For the military in the field, this means providing unambiguous guidance to troops on the ground about information sharing, leave-behind capabilities, etc. Clearly there is a high-level policy in NATO to support Comprehensive Approaches, but despite the best of intentions in high-level policy documents, repeated evidence shows that whatever is promulgated will be interpreted differently at different levels, usually resulting in a stifling of innovation and a perpetuation of the status quo. The lack of a definition of the Comprehensive Approach only enhances the likelihood of confusion.

A non-military example shows how clear guidance on the ground can make a difference. Wal-Mart used a very simple policy to great effect after Hurricane Katrina. The stores told employees they did not need to check with their chain of command before releasing inventory, but only needed to do what had to be done in order to help people through the disaster. The guidance was clear and Wal-Mart employees acted on it, and found ways to get water, medicine, and other key items to the victims (Horwitz, 2009).

There is a caveat: the devolution of power clearly can have positive results, but it also can increase the risk of corruption. There is no free lunch but, on balance, empowering "the edge" does better than keeping everything at the center. It remains essential to spend the time to understand each other's ways of doing things, and then document procedures that actually can work under real-world conditions. This reinforces the importance of engaging before a crisis develops.

Address Legal and Regulatory Restrictions

Transferring equipment across civil-military boundaries raises complicated legal issues. For example, it took 2 years of negotiations in 2005–2007 between the Office of the Secretary of Defense and Capitol Hill before Congress would allow U.S. combatant commanders to provide host nations with ICT "as necessary to provide basic

information and communications services” in the course of “rudimentary construction and repair of public facilities....” (such as wiring hospitals for Internet access when rebuilding them after natural disasters).¹⁴

This ICT experience is indicative of the issues that must be addressed when transferring military equipment to civilian control. Congress guards jealously the fact that funds (so-called Title 10) are appropriated to DOD to fight and win the nation’s wars, while different funds are appropriated for development and foreign aid. This must be kept in mind as DOD missions expand into areas such as building the security capacity of partner nations. It reinforces the importance of empowering civilian components to improve their own resilience and the value of using commercial and NGO/IO supply chains. These options should be pursued aggressively.

Progress has been made at the policy level to facilitate the sharing of DOD radio frequency bandwidth with civil-military mission partners (U.S. Department of Defense, 2009) and the sharing of unclassified imagery with participants in disaster relief operations,¹⁵ although knowledge of this has been slow to filter down to operators.

The Tampere Convention provides a legal framework for the deployment and the use of telecommunications in international humanitarian assistance. For nations that have ratified the convention, certain regulatory barriers are waved for telecommunications to be used in disasters (International Telecommunications Union, 2011). The United States has signed the convention, but not ratified it.

National restrictions may limit the employment, transfer, or positioning of various capabilities, even though there may be a political commitment to engage. This could take the form of export controls, customs restrictions, “national caveats,” or a host of other restrictions. It is important that these be understood at all phases of an engagement.

Identify Resource Requirements

The sections above on “Low Cost Capabilities Matched to Scenarios” and “Delivery Mechanisms” outline ways to work with stakeholders to parse the delivery sources to provide the capabilities needed in complex contingencies. There are four broad options for resourcing the capabilities:

- ✦ Some might be stockpiled by governments.
- ✦ Some might be provided through non-government channels (NGOs, UN, IOs, etc.—recognizing that these are very different entities).
- ✦ Others could best be provided by commercial supply chains, both indigenous and international.
- ✦ In some cases, the best approach might be to empower citizens to become more resilient themselves and reduce their need for outside assistance.

Turning these different delivery options into effective plans offers high payoff. Speed of response is essential to influencing conditions on the ground during the

critical first hours after a crisis. It can improve the quality of support across a wide range of contingencies through integrated capabilities, reduced costs, and empowered local individuals.

Such decisions are not likely to be taken quickly, or without contention. But the multi-stakeholder approach offers ways to increase civilian capabilities and reduce military costs. Done properly, it should be a “win-win.”

Whatever long-term decisions are made about long-term solutions, some funding needs to be available on short notice (hours to days) to provide rapid response capabilities (typically related to communications, lift, and power) in emergency situations.

Train, Exercise, and Educate

However well plans and analyses have been done, they will not be effective when needed if they have not been exercised. The July 2008 Operation *Golden Phoenix* public safety exercise in the San Diego area involved over 150 different entities and reinforced the value of bringing business and civil society members (NGOs, citizens’ groups, etc.) into the planning process early and having them as part of the exercise regime for any complex contingency (Ganyard, 2009). Such training also should include non-traditional infrastructures and information sharing approaches as identified through projects such as TIDES, recognizing that there are intersections between technology, culture, and leadership that often are not exercised well. Lessons learned also need to be institutionalized and exercised, lest they be relegated to a recurring set of “lessons observed,” but never learned. Lessons are not learned until behavior changes.

Whenever possible, field events should experiment with new concepts and equipment, and testing should be done, and documented, at every opportunity. Two recent activities, termed *Exercise 24 (X24) Southern California* and *X24 Europe*, built on the inclusive approach of *Golden Phoenix* to engage thousands of participants around the world in innovative disaster relief scenarios (Bressler, 2011).

A growing body of experience points to the value of “shadow operations”—activities not on the critical path of the formally scheduled training or exercise that can be used to try new ideas. For example, during *Golden Phoenix* Project K.I.D. tested procedures to safeguard and identify children after disasters (Project K.I.D., 2011). This “shadow operation” took advantage of the proximity of the military and civilian first responders, but did not interfere with their training events.

Government research and development should be combined with an active scanning of available commercial research to highlight potential upgrades. At the same time, independent testing and experimentation should be pursued to provide unbiased evaluations of the real capabilities of proposed solutions. This would be an ideal role for a civilian “Underwriters Laboratory”-type of institution.

The demands of Comprehensive Approaches and complex civil-military contingencies also need to be addressed in the education process, at both civilian and military institutions. Leaders need to be prepared for a world full of complexity, chaos, and surprise (Transformation Chairs Network, 2010). Though this may seem evident,

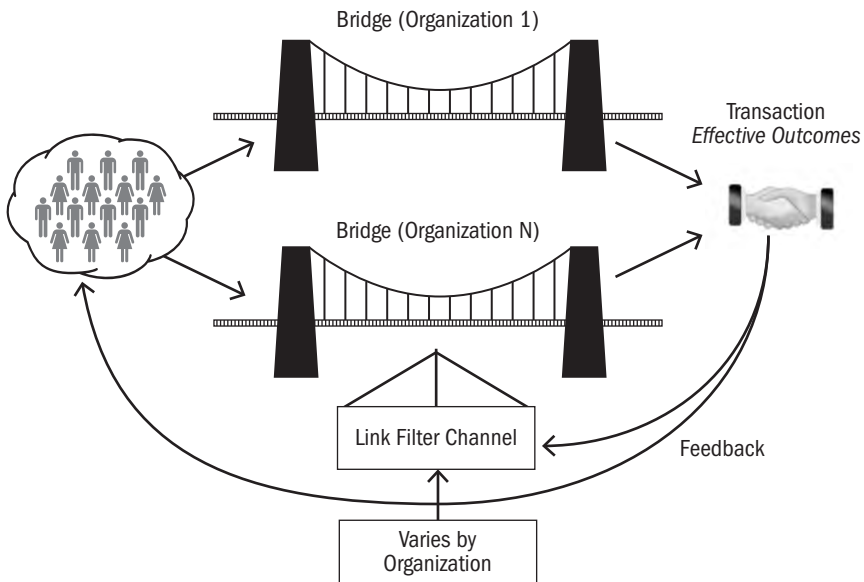
changing academic curricula is harder than often realized and needs sustained, dedicated attention.

The “Crowd, Bridge, Transaction, Feedback” Model

This chapter has repeatedly pointed to the importance of sharing information in Comprehensive Approach environments. The model shown in figure 3 offers a framework by which decisionmakers can take advantage of “crowd-sourced” information in a variety of security situations (Wells and Welborn, 2010).

Figure 3. The Crowd, Bridge, Transaction, Feedback Model

(Wells & Welborn, 2010)



- ✦ The “Crowd” will make information available from many sources and through many methods—NGOs working the field, news organizations, crisis-mappers, text-message feeds, other social media sources, etc. It will generate information whether government officials, or others, use it or not. In Haiti, much of this was done by the “crisis mapping” community, for example, crisismappers@googlegroups.com. However, in any case, it is important to make it easy for people to find what they need.
- ✦ To take advantage of it, NATO must build a “Bridge” between the Crowd and the decisionmakers. Each Bridge needs to be uniquely designed for each organization. The Bridge incorporates elements such as:

- ✦ A Link, where “Open Source Teams” pull information they want to monitor from the crowd—blogs, wikis, structured Geospatial Information System (GIS) products with metadata, collaboration tools, text-messages, etc.
- ✦ A Filter, where information is vetted and validated. Depending on the security environment this can be a relatively light review (Haiti), while in other cases (Afghanistan) the open source information will have to go through rigorous scrutiny. Filters also will have to keep decisionmakers from being overwhelmed with the volume of information likely to be generated.
- ✦ A Channel, through which filtered information is passed to decisionmakers of whatever stripe.

Ideally the Bridge will lead to improved situational awareness and decisionmaking. This will be unique for each organization—national military commands will differ from alliance headquarters, NGOs will differ from governments, etc. The key point is to recognize the importance of crowdsourced information and build a bridge of some kind to it.

- ✦ The “Transaction” represents an outcome effectively achieved; something valuable that has occurred on the ground (people rescued, supplies delivered, contracts fulfilled, etc.). Without the completed transaction, “Crowd” and “Bridge” just generate interesting exchanges of information. Logisticians need to be tied to the “Bridge” to complete Transactions.
- ✦ “Feedback” loops connect the “Transaction” to the “Bridge” and the “Crowd.” Feedback is essential not only to know which Transactions have been effective, but also to identify those that have not. Besides being able to affect individual organizations, broadly directed feedback can be part of a strategic communication campaign or can produce pressure that can change the environment in which decisions are made (through embarrassment via the “Crowd,” for example) to improve the likelihood of successful Transactions.

The framework is simple, but taking advantage of the enormous (and growing) amount of useful information “from the crowd” (much of which can be from local actors) requires that leaders recognize its potential value, assign points of contact, develop a structure to take advantage of it, encourage two-way information flows, and improve decisionmaking based on it. Include logisticians and others in the link to promote completed transactions, and fold the process into communication plans.

NATO’s adoption of such an approach, within International Security Assistance Force (ISAF), within Europe for disaster relief or exercises, in far flung maritime environments, or elsewhere, could be a “quick win” for the Alliance, at virtually no cost. It also aligns with the Secretary General’s challenge of “Managing Security in a Globalised World.”¹⁶ The “Crowd, Bridge, Transaction, Feedback” model could be

used by disparate organizations (operational headquarters, national actors, civilian partners, etc.), and tailored to their needs. This must be presented so that NATO is not seen as trying to control the “crowd,” only to draw value from the “self-organizing” system that is already there. European privacy concerns also must be considered. Properly done, however, this could (1) enhance cooperation with external actors; (2) improve planning and coordination; and (3) facilitate the collection of lessons learned and their incorporation into training, exercises, and education. It also could be an important public messaging tool—USSOUTHCOM got excellent press out of their actions in Haiti.

Similarly, in response to terrorist incidents, energy security issues, or even cyber attacks, the ability to leverage Social Software could be an important source of understanding for the Alliance (consider the use of Twitter in the Mumbai attacks, or Facebook in the counter-FARC campaign in Colombia), recognizing that Europe’s privacy laws and cultural concerns have to be taken into account. This is not an area where the Alliance is likely to be comfortable, but proficiency could be valuable.¹⁷ Enhancing NATO’s use of social software may be a useful experiment for ACT. The following publication may be of interest: *Social Software and National Security: An Initial Assessment*.¹⁸

The Civil-Military Cooperation Center of Excellence has been working with the International Transformation (ITX) Chairs network to develop innovative Comprehensive Approach initiatives. This should be leveraged.

Summary

The importance of local stakeholders in Comprehensive Approach environments cannot be overemphasized, and their cooperation cannot be assumed. Prospects for success are improved by sustained and systematic consultation and planning, ideally before a crisis erupts. Paying more attention to information and ICT can significantly increase the likelihood of success in Comprehensive Approach activities such as humanitarian assistance, building partner capacity, and disaster preparedness. It is essential that the power of Information and ICT be understood, and used, by senior leaders, not just technical support staffs. Multi-sector stakeholders must be engaged as part of an overall strategy that coordinates whole-of-nation actions and, as appropriate, outside actors such as IOs, NGOs, international businesses, and other civil-military parties. The focus needs to be on generating effective results for the host people or affected nation—to enable them to be successful in ways that are sustainable with resources they are likely to have available.

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Notes

1. The participants in Comprehensive Approach situations are not clearly defined, just as they are not in "complex civil-military operations" conducted by the U.S. military. However, for the purposes of this paper, Comprehensive Approach situations for NATO require capabilities that are comparable to those needed in U.S. complex operations. The U.S. military often refers to civil-military mission partners or *stakeholders*. For example, the April 2008 U.S. "Guidance for Development of the Force" defines *mission partners* as "those entities not under the commanders' direct authority that are participating in the mission." In the NATO context, examples include, but are not limited to, non-military agencies of Alliance governments; international organizations; nongovernmental organizations (NGOs); indigenous security services; and others (including commercial firms and individuals as appropriate) who are directly contributing

to the ongoing mission. However, many NGOs object to being considered “partners” with the military, so stakeholders is usually a better word.

2. Unclassified implies that information has been reviewed by official classification authorities and deemed to be unclassified. Non-classified refers to information that has never been reviewed by classification authorities, such as information exchanged among nongovernmental organizations, private citizens, etc.

3. It is worth noting that mentoring takes on different meanings in different contexts. One person’s mentoring is another person’s instruction. Thus roles and cultural context and similar aspects need to be taken into account.

4. The term “collaboration” may have negative connotations in Europe, so “cooperation,” or “consultation” are often used instead.

5. See, *inter alia*, the Sixth Globalization and Maritime Security Conference held in Washington, DC in July 2008, the July 2008 meeting of the ASEAN Regional Forum, July 2008 (http://www.41amm.sg/amm/index.php/web/info_for_delegates/statements/chairman_s_statement_15th_asean_regional_forum_24_july_2008_singapore), and the Global Maritime Situational/Domain Awareness (MSA/MDA) Conference, December 3–5, 2008, in Vina del Mar, Chile.

6. Many foreign forces, including close allies, have expressed concern that the U.S. military is developing NEC so fast that they will not be able to keep up, or to interoperate effectively. The possibility of mismatched capabilities is always a concern, but data sharing, metadata tagging strategies, and Web 2.0 (bi-directional dialogue) approaches can mitigate many concerns by emphasizing collaboration and helping to bypass the thorny issues of who “owns” the data.

7. The military and intelligence communities are excellent at sharing classified and unclassified information within the .mil and .gov domains, and to some extent with coalition government partners, but there has been much less emphasis on sharing across the boundaries of the joint force with civil-sector entities. To be useful, such information almost always must be not only unclassified, but also uncaveated, that is, without restrictions like the former “For Official Use Only” markings.

8. NGO refers to Nongovernmental Organizations such as Save the Children, IO to International Organizations such as the International Committee of the Red Cross, and IGO to International Governmental Organizations such as the UN and World Bank.

9. FA-HUM is a multinational exercise sponsored by the U.S. Southern Command that concentrates on improving how civilian, government, and military agencies from the United States, the Caribbean and Central America respond to natural disasters in the region. It has been conducted since at least the 1990s.

10. The objective of the PEAK JCTD is to demonstrate and transition an array of capabilities for field distributed essential services including potable water, hybrid renewable power, communications, and situational awareness that can be deployed quickly after a crisis. The PEAK kits will provide effective low-cost and sustainable crisis response services that support and build key capacities in partner nations to promote security and stability in theatre.

11. The Emergency Telecom Cluster (ETC) is responsible for providing stopgap ICT in a disaster area until other UN elements can set up operations and NGOs and others are able to engage the affected nation. The cluster is composed of OCHA (coordinator), WFP (provider of voice services), and UNICEF (provider of data services). Either WFP or UNICEF can be the lead for a disaster, depending on the situation.

12. STAR-TIDES does not claim to address all problems in these contingencies. For example, due to funding limits and staff expertise, it considers security and medical support as “Associated Areas” and defers to others on these subjects.

13. A symposium was held in late September 2008 on “Human Interoperability and Building Partnerships: Rapid Rapport in Hastily Formed Human Networks.”

14. Prior to November 2006 the Defense Department directive on Humanitarian Civic Assistance Activities (DODD 2205.2,) was interpreted to preclude the provision of ICT capacity during SSTR or HA/DR operations. The intent was to keep DOD from using its funds for what was felt by Congress to have been for foreign aid purposes. After two years of negotiations between the Office of the Secretary of Defense and the Hill, Congress provided language in the conference report of the 2007 Defense authorization bill that clarified the issue as follows: “Rudimentary construction and repair of public facilities, under section 401(e)(4) of title 10, United States Code, includes information and communications technology as necessary to provide basic information and communications services.”

15. Commercial satellite imagery firms provide geospatial information data and products to the U.S. Government, but the contracts often require that the imagery be handled as FOR OFFICIAL USE ONLY, or some comparably restrictive caveat. However, this effectively makes the imagery unusable by most civil-military mission partners, such as NGOs. Recently, the National Geospatial Intelligence Agency (NGA) has worked with the commercial firms to encourage the release of geospatial products without caveats to those working on disaster relief and issues of national importance like Afghanistan.

16. SecGen speech at Lisbon on 2 July 2010, <http://www.nato.int/cps/en/natolive/opinions_64814.htm>.

17. Nik Gowing, in *“Skyful of Lies” and Black Swans* (Oxford: Reuters Institute for the Study of Journalism, 2009) discusses “the new tyranny of shifting information power in

crises” and the need for government organizations to use social software to gain much better situational awareness, and to respond more quickly under stress.

18. Wells, Linton, and Drapeau, Mark, Defense & Technology Paper #61, “Social Software and National Security: An Initial Assessment,” Washington, DC: CTNSP Press, April 2009.

Chapter 13

Comprehensive Approach: The Swedish Case

TORSTEN BJÖRKMAN AND HENRIK FRIMAN

Abstract

During the Cold War the leading strategy for Swedish national defence was called “Total Defence (TD).” Mobilization would create armed forces close to a million with a very large air force in particular. The aim of TD was to enable national perseverance, even in a war with an eastern superpower. The methodology of TD was close civil-military coordination of planning and operation at every societal level. “Total Defence” was an example of a successful Comprehensive Approach. That old and proven methodology lives on in the multinational and multifunctional “Viking Exercises.” Six such exercises have so far been organized by Sweden since 1999.

The Comprehensive Approach is still an ideal for Swedish defence and has now migrated to include international missions such as International Security Assistance Force (ISAF) in Afghanistan in particular. But there is a new gap between the ideal and reality. The consensus of the Cold War is wanting as well as the close coordination of military and civil resources. We analyze these implementation difficulties. One of great importance is a belief, in many of our NGOs (nongovernmental organizations), that Comprehensive Approach would compromise them. Some even think that a close cooperation with our military would jeopardize what they are trying to achieve. We discuss the validity of this “touch terror” and how to overcome it. We use “The Swedish Committee for Afghanistan, SAC” as one of our illustrations. How do you convince NGOs as well as Governmental Agencies that Comprehensive Approach is the best approach?

Introduction

The “Comprehensive Approach” is a relatively new military concept in relation to international counterinsurgency operations like ISAF in Afghanistan (Nilsson, Hull, Derblom & Egnell, 2008). The United Kingdom was arguably the first nation with a Comprehensive Approach doctrine (Ministry of Defence, 2006). In NATO the concept was first strongly promoted as recently as at the Summit in Bucharest in April 2008. A quote from the official communiqué from that Summit is illustrative:

"NATO agreed on the need to implement a comprehensive approach to international security challenges. In this context, development of closer relations with the United Nations and the European Union was stressed." (NATO/OTAN Websites, Summit 0804-Bucharest.)

In other contexts, like medical treatment, the Comprehensive Approach has been used for decades, meaning it is a truly effective treatment, since it is taking every factor of importance into account; surgery, medication, diet, living conditions, lifestyle, etc. (Many organization concepts are borrowed from the health sector, "lean," "agile," "fit" and so forth.)

Although the concept is relatively new in a military context, the phenomenon it is trying to characterize is not. Military operations have been combined with various "civilian" activities since the very beginning of human history. The first "scholarly" historical work ever, Thucydides' *The Peloponnesian War*, is full of observations of Civil-Military interactions and a holistic evaluation of the relative merits of Sparta and Athens as societies, not only as military powers. For a modern re-analysis of Thucydides' way of portraying Athens, Sparta and a number of the other Greek city-states, Hanson's study (2007) is highly recommended.

European colonialism gives a vivid variety of combinations of military and civilian interventions. The more long-lived colonial empires, like the British, had a broader civilian approach and made heavier civilian investments than those empires that soon crumbled, for instance as with the Belgian Congo. The colonial era is verification and vindication of the superiority of a Comprehensive Approach versus a simplistic use of force and exploitation (Toynbee, 1972).

A very successful Comprehensive Approach operation was the American occupation of Japan in the years 1945–1952 giving Japan a new constitution, extended suffrage, a transformed status for women, and a huge transfer of industrial know-how, as well as encouraging the development of an export-driven economy. An excellent narrative of this period was published quite recently, in Harvey (2006).

For the moment omitting the interesting Cold War years, the authors conclude that after the Cold War, in the 1990s, the favored doctrine was almost the opposite of Comprehensive Approach. Minimalism was à la mode. Referring to the (first) Gulf War in 1991, warfare was supposed to be "clinical," and utilized a down-sized military force relative to its size during the Cold War. This process of downsizing continued up to the second Gulf War in 2003, a campaign that resulted in a crushing victory after only 3 weeks, although the force used against Saddam's army was less than 50 percent of the one used in 1991. The war plan was called *Cobra II*, alluding to Patton's "blitzkrieg" offensive in Normandy 1944. But in spite of the stunning military victory after 3 weeks of fighting, the mission was *not* accomplished. Victory was gained but not the peace. The second Gulf War was followed by an insurgency. Gordon and Trainor (2007) demonstrated in their well-documented book that there did not exist any serious plan for the period after a victory. They present unequivocal evidence of the lack of foresight at the highest levels of the George W. Bush administration.

An early and authoritative statement of this new pattern of stunning victories followed by long-lasting insurgencies was made by Rupert Smith in his provocative book *The Utility of Force—The Art of War in the Modern World*. Smith calls the new kind of wars, “wars amongst the people” and he claims that they “tend to be timeless,” Smith (2005). Filkins (2008) applies a similar logic when he describes such wars as “forever wars.” Smith (2005) applies his thesis in an analysis of what has happened in Iraq 2003–2005.

However, it is necessary to understand that in many of the circumstances into which we now deploy, our forces as a military force will not be effective. The coalition forces in Iraq were a classic example of this situation: their effectiveness as a military force ended once the fighting between military forces was completed in May 2003. And though they then went on to score a series of victories in local skirmishes, they had greatly diminished—if any—effect as an occupation and reconstruction force, which had become their main mandate. They were neither trained nor equipped for the task, and therefore could not fulfill it. To use the parlance of this book, there was little utility to the force. (Smith 2005, 10).

During 2005–2006 disillusionment with the minimalist and clinical approach of Counterterrorism (with killing terrorists as the prime objective) became widespread in professional military circles in most Western countries. The clinical-military approach had failed, and insurgencies in both Iraq and Afghanistan gained ground and momentum.

This resulted in “...calls for a fundamental reassessment of the Iraq strategy,” according to Donald Rumsfeld (2011, 701). A number of American flag officers asked for Secretary of Defense Donald Rumsfeld’s resignation. “A small group of retired generals called for me to step down,” according to Rumsfeld in his recent memoir (Rumsfeld, 2011, 704). The search for an alternative to the Counterterrorism doctrine gained momentum.

After the Republican losses in the November election of 2006, Rumsfeld did resign and was succeeded by Robert Gates. But instead of a pull-out from Iraq, something many Democrats argued for, the Bush administration opted for a force increase of some 30,000, later to be called “The Surge.”

With the work headed by General David Petraeus resulting in a new Field Manual for Counterinsurgency (Petraeus and Amos, 2006), the change in doctrine from Counterterrorism was almost paradigmatic. John Nagl, on David Petraeus’ field manual team, argued convincingly for a revival of Sir Gerard Templer’s old slogan from the Malayan “Emergency” (“emergency” being a typical euphemism of that era, Bayly, 2007) in the early 1950s: “The answer [to the uprising] lies not in pouring more troops into the jungle, but in the hearts and minds of the people.” Nagl (2005) makes a detailed comparison between the counterinsurgency strategies applied in Malaya and Vietnam respectively, claiming the one being applied in the Malayan emergency was more successful due to its heavier reliance on Civil-Military cooperation. The new doctrine was applied in Iraq during the “surge-years” with some success. In Ricks’ (2009) analysis he argues in short that the Surge had its intended military effect of “turning the tide”

of the insurgency, but that the gains in the security situation were squandered by the political passivity of the Maliki administration. A window of opportunity was opened at great cost, but no one used it and then the window closed again.

The application of the same doctrine in Afghanistan during 2010 was dwarfed by the cost involved. The protection of the civil population in all of Afghanistan's 34 provinces from Taliban terrorism would require a force at least half a million strong with costs during a 10 year period approaching a trillion dollars, and "spending that much is not in the national interest," according to President Barack Obama. According to Woodward (2010), the projected cost was given to the President in a memo by his budget director Peter Orszag. The present strategy, with the provisional label "counter-terrorism +," has more limited objectives. Now the mark is in degrading not defeating the Taliban and giving the civilian population protection only in some of the provinces. Mobilizing Pakistan in the offensive against the Taliban is a prime objective and Pakistan, with two-thirds of the total Pashtun population, is the prime base of recruitment for the Taliban.

In this context the Comprehensive Approach does look like one of very few viable options. In Afghanistan one of its applications is the Provincial Reconstruction Teams (PRT). From a humble beginning in 2003 with four PRT teams it is now the case that the vast majority (27) of the 34 provinces in Afghanistan have PRTs. To a large extent the teams deal with reconstruction; they are trying to restore a secure everyday life, reintroduce police work and restart a judicial system. But the challenges are greater; many provinces have never had paved roads, a literate population or girls in schools. Afghanistan is one of the world's poorest countries, and many of its farmers are tempted to grow poppies and join the lucrative drug trade. Many PRTs are underfinanced, their civilian programs only getting fractions of the cost of the Military. The local administration is more often corrupt than incorruptible. Still some PRTs are success stories. McNerney (2006) is particularly positive about the PRTs run by the British and their ability to handle "nation-building." He also writes positively about the Turkish PRT which was engaged in being responsible for an enlarged territory.

The PRT in Uruzgan-province (sometimes also spelled Oruzgan) in the middle of southern Afghanistan (bordering Helmand province), was from 2006 to 2010 led by a civilian, the Dutch Ambassador Michel Rentenaar. The development of this once Taliban-infested province was a true turn-around story during Rentenaar's years of leadership. Radio Netherlands Worldwide has a lot of material, including films and reports, on the years with Rentenaar leading the PRT in Uruzgan. However, this is now a matter of history due to the fact that the Netherlands left Afghanistan altogether after a heavy domestic media campaign against the Dutch participation in ISAF.

The U.S. PRT in Pansjir Valley is another success as well as the New Zealand team in Bamyan Province, which has been captured in a report by Tracey (2010) and was drawn to the attention of the authors by Col. Hans Ilis-Alm, a leading Swedish expert on Afghanistan.

In 2006, Sweden inherited the PRT in Mazar-e-Sharif from the UK and runs it together with Finnish military and civilians. A similarity in the evaluations of the Nordic and NZ PRTs is the highlighting of soldiers' attitudes, in both cases praised for being flexible, unprejudiced and empathetic. Recently many have observed that the Turkish PRT is functioning quite well, especially in agricultural development. Important Turkish assets include shared religious beliefs with the local population, but also a long history of bilateral cooperation since the days of Kemal Atatürk and King Amanullah Khan and Queen Soraya Tarzi in the 1920s. In societal reform and reconstruction, Turkey has long been an important role model for many progressive groups in Afghanistan.

The Leading CA-Docctrine in Sweden during the Cold War: "Total Defence"

Sweden is one of the few European countries that never had any colonies (the exceptions being a short-lived Swedish colony in Delaware, New Sweden (1638–1655) and the ownership of one island in the West Indies, Saint Barthélemy (1784–1878)). During that part of Swedish history, when Sweden was considered an important player in European power politics (from the reign of Gustavus Adolphus (1611–1632) to that of Carolus XII (1697–1718)) most of the additional territories, later lost; Finland, the Baltic States, parts of northern Germany, were considered to be extensions of Sweden proper, not colonies. In short, Sweden lacks the colonial experience of coordinating Civil-Military initiatives. But during the Cold War (1949–1989) then neutral and non-aligned Sweden mobilised its Military *and* Civilian resources in a policy that was called "Total Defence" (TD). At a national, regional and local level there was thorough coordination and planning of how to use Civil and Military organizations and competences in defending Sweden, without any help from abroad. How Finland succeeded to do just that during the Winter War (November 1939–March 1940) was a great inspiration. "Total Defence" is in Sweden regarded as a benchmark for successful Civil-Military cooperation.

The experience of WW II contained many potential lessons for the need for close Civil-Military cooperation, especially during its final stages. The bombing wars against Germany and Japan, especially the one against Japan, left those countries in ruins. In Japan it was literally true of the 60 major cities, the temple city Kobe being the only exception. Without petroleum, mechanized warfare comes to a standstill. Four thousand Kamikaze pilots survived the war as a lack of aviation fuel prevented them from becoming airborne. The lessons that Sweden has drawn from its history include the following:

- ♦ *Lesson I:* A nation is in desperate need of "in-advance" emergency planning and stockpiling "strategic" resources that are imported in times of peace. The lesson was not lost on Swedish emergency planners, a lesson repeated during the oil crises during the 1970s.

- ♦ *Lesson II:* A nation must be self-sufficient with agricultural products or its population will starve in times of blockade. In Sweden the farmers were heavily subsidized during the Cold War and the sector produced a huge surplus (Magnusson, 1996).
- ♦ *Lesson III:* Quantity is a necessary but not sufficient criterion for military survival. Make your armed forces as big as possible. The mobilized Swedish armed forces totaled almost a million, an impressive number given that the Swedish population during the Cold War never exceeded eight million. Conscription was mandatory between 18–47 years of age for every male “capable of bearing arms.” In TD, women might be called to service in civil defence, with the percentage varying from one year to another.
- ♦ *Lesson IV:* A strong Air Force was given the primary task of sinking an invasion fleet out at sea before it ever reached Sweden’s shores. Sweden invested in what during a few years was the fourth largest air force in the world, supported by a sophisticated Swedish aircraft industry producing some quite competitive fighters and strikers in large numbers (for instance “Flygande Tunnan,” “Lansen,” “Draken,” “Viggen” and “Gripen,” the latter two being “multi-function” and “multi-role” aircraft).
- ♦ *Lesson V:* All services got their platforms, weapons and ammunition from Swedish arms producers like Bofors, Hägglunds, Kockums, Saab, Scania, Volvo and so on. But Sweden was too small a market for these companies to prosper or even survive. They needed successful export products and were successful with products such as fighters, anti-aircraft guns, the Carl Gustaf recoilless rifle, combat vehicle 90, and submarines. However, this also generated difficult issues in the realms of domestic political controversies associated with arms trading.
- ♦ *Lesson VI:* Regional defence was made very tough and resilient by close cooperation between the Military and the Civilian administrations. Every county governor had a military role in homeland defence as well. Every major utility, plant, railway line, etc. had its own defence force. The Home Guard was a huge organization (as in all the Scandinavian countries) and there were dozens of voluntary organizations within TD.
- ♦ *Lesson VII:* The whole media community was prepared for a scenario of a full-scale attack on Sweden by our eastern neighbour, the Soviet Union. The basic rule for the media community was simple: “Every message saying that we do not defend ourselves any longer is a false one. We will never surrender.” For more complicated scenarios journalists were trained in wargaming exercises with key decisionmakers from the Swedish elite. From a CA perspective TD managed to mobilize the media, a rare phenomenon in CA in general. Psychological warfare became almost a service in its own

right during these years, but it was plagued by many spies and spy rings giving our potential adversary, the Soviet Union, valuable information. The worst traitor ever in Swedish spy history was a Colonel in the Swedish Air Force, Stig Wennerström, who was discontent with not getting further promotion. The Russians shrewdly promoted him to general in their secret service. Wennerström, a Russian spy between 1948 and 1963, gave away the whole Swedish system of air defence in the 1960s and to build a new one cost billions.

In summary the Swedish “Total Defence” system of the Cold War era met very demanding criteria for Comprehensive Approach. For Comprehensive Approach to be truly successful you need societal consensus on a strategic policy level, but you also need to plan and exercise Civil-Military coordination in great detail, on both operational and tactical levels.

The Viking Exercises: Revival of the Tradition from Total Defence

In 1999 Sweden contributed with *Exercise Viking* during the NATO 50th year celebrations in Washington. *Viking* is a revival and further development of skills acquired during the “Total Defence” era. The *Viking 11* (April 04–15, 2011), a distributed Command Component Exercise, was the 6th in a series of major joint Civil-Military-Police exercises organized by Sweden with 2,000 participating individuals from 30 countries. A principal objective of the exercise was to provide the opportunity to acquire hands-on practical skills and knowledge of Civil-Military-Police coordination and cooperation before deployment in multifunctional and multinational UN mandated Peace Operations. The ambition is improved Civil-Military-Police relations within the different crisis management functions in Peace Operations. The *Viking* exercises are an example of how a small nation like Sweden, with new technology can bring together a large number of countries and actors in the CA exercises. Each country can, through this exercise, choose the ambition and effort with which it wants to participate. Simultaneously, the *Viking* provides each participant with opportunities to get into a larger context better resembling the challenges they will face in real CA situations. *Viking's* cultural, linguistic, organizational, etc., challenges can be seen and handled regularly during the various elements of the exercises. Tacit knowledge of Civil-Military-Police cooperation is crucial to the success of CA but it is not enough. It is above all the mindset of all parties that makes a mission successful.

Sweden and UN Peacekeeping

Sweden was a neutral country during the Cold War, but with a strong commitment to the UN. When Secretary-General Dag Hammarskjöld together with the then foreign minister of Canada, Lester Pearson, invented “peace-keeping” troops as a new tool in conflict resolution and gave them the role of buffer between the combatants in

the Suez crisis in 1956, Sweden rapidly participated with troops. Since then providing support to the UN has been a cornerstone in Swedish foreign policy. In the days of the Suez crisis, decolonization was high on the agenda at the UN. France, UK and Israel were seen as the “villains,” guilty of starting a war of aggression. A UN resolution ordered France, UK and Israel to withdraw from Egypt and the Suez Canal. Even President Dwight Eisenhower was one of their critics and, for instance, the British Prime Minister, Anthony Eden, had to resign after this failed attempt to police the Nasser regime in Egypt.

During the Congo crisis in the beginning of the 1960s, peacekeeping became more muscular. “Peace-enforcement” troops were tried by the UN for the first time against the seceding state of Katanga and their Belgian backers and Sweden contributed with a fighter wing to that mission. In 1961, the very middle of the Congo crisis, Secretary-General Dag Hammarskjöld died in a plane crash in Ndola, Zambia. Whether the crash was an accident or sabotage is still debated today.

In more than 60 UN-led peacekeeping operations that have followed after Suez 1956, Sweden has generally sent troops. But until the 1990s these missions were seldom as demanding as the one to Congo in the early 1960s (Sitkowski, 2006). The framework for the operations was as a rule some kind of ceasefire, and the combatants had regular disciplined armies. For example, this was the case in operations in Cyprus (one of the longest UN missions, 1964–93, with 28,000 Swedish soldiers involved), Kashmir, Gaza and Lebanon. In the 1990s the operations met tougher odds. The combatants were often militias, licentious soldiery, terrorists and outright criminals like those that met the UN troops in Bosnia, Somalia, Congo, and Rwanda and later Iraq and Afghanistan. The combatants looted, raped and murdered indiscriminately and financed their operations by drug dealing and smuggling. International law and human rights seemed to be completely unknown entities. The warlords, the militias, the insurgents, the terrorists, the Taliban and so forth operated without rules of engagement, never wearing uniforms and seldom respected any treaties or settlements. Peacekeeping was brought to a crossroads. There was no peace to keep, but there was a desperate need for a community governed by law, not by guns in the hands of perpetrators and other criminals.

Peacekeeping in these failed states certainly has to become more “muscular” but also more comprehensive. To kill all the insurgents and terrorists is seldom a realistic option, especially when they, like the Taliban in Afghanistan, have a neighbouring country, Pakistan, with a huge Pashtun population in which they can hide (Fergusson, 2011). “There is a hole in the bucket” and that makes any strategy of containment more or less meaningless as long as Pakistan is not wholly committed. How committed is a question that has a new and grave dimension after the killing of Osama bin Laden in Abbottabad deep inside Pakistan in May 2011, proving that bin Laden had been hiding in Pakistan for years. But to turn the tables in this case is far beyond the powers of any small country like Sweden; it is challenging even for the United States.

From a Swedish perspective, Comprehensive Approach and the theses of the Counterinsurgency Field Manual (Petraeus and Amos, 2006) are far more relevant and attractive points of departure for peacebuilding in accord with UN, EU (GUSP), OSSE and NATO initiatives than traditional Counterterrorism. Acting on behalf of UN resolutions is still the number one priority of Swedish foreign policy.

Development and “Aid” Organizations, Governmental (GOs) and Non-Governmental (NGOs)

In parallel with the military peacekeeping operations, Sweden became increasingly engaged in international development aid. In 1965 SIDA (The Swedish International Development Agency, later modified to the Swedish International Development Cooperation Agency) was formed and in 1968 the policy was confirmed in the Swedish parliament that one percent of GNP was earmarked for international aid, making SIDA a powerful agency (reporting to the Ministry of Foreign Affairs). The governmental appropriation to SIDA is roughly of the same size as the one to the Swedish Armed Forces, but SIDA has only a staff of some 1,000. Recipient countries have been numerous over the years, many of them part of Africa. The present focused strategy will bring down the number to 30. One country-category where SIDA is engaged with development aid is countries in a postconflict phase of their development. SIDA, for example, is present in Bosnia and Afghanistan, but in the majority of the recipient countries there is no Swedish military presence and no need for a Comprehensive Approach mixing military and civilian personnel.

Another important Swedish agency with a potential of being a partner in CA is MSB (Swedish Civil Contingencies Agency). It is a rather recent merger of many agencies, the most important one being the former Swedish Rescue Services Agency. The agency has a long history of disaster relief, sending out mobile hospitals, running refugee camps, installing water purification, building infrastructure and so on and so forth.

Sweden has a huge NGO sector. Some of these organizations are primarily focused on Sweden, for instance medical research, such as the Cancer Fund, Children's Cancer Fund, and so forth. But most of them are international and active internationally, like the Red Cross, Save the Children, UNICEF, Médecins sans Frontières, SOS Children Villages, Rotary, Amnesty, and Greenpeace. There are also more than a hundred purely Swedish NGOs active internationally such as the Swedish Church, Diakonia, the Swedish Organization for Individual Relief, Radiohjälpen, the Victoria Fund and the Swedish Committee for Afghanistan (SAC, in Swedish SAK). A special problem is that a number of NGOs are hardly serious; some are almost criminal organizations, since they keep too much of the collected contributions for other purposes than the ones officially stated. In Sweden NGOs are supervised by special authorities, their finances must be verified by a public auditor, and at least 75 percent of the collected money must be spent on the predefined charitable purposes. But some irresponsible NGOs succeed in collecting money fraudulently in spite of these control mechanisms.

The strength of many of the organizations mentioned is their often long experience of working in far away countries. Some are also, like SIDA and MSB, quite resourceful. SAK has been active in Afghanistan since 1979, since it was formed in opposition to the Soviet occupation of Afghanistan. SAK has a local staff of more than 5,000 in Afghanistan and the Committee supports more than 400 schools educating more than 100,000 pupils, girls in particular. SAK is primarily active in the northern provinces of Afghanistan (where the Taliban do not pose such a great problem as in the southern and eastern provinces). SIDA is financing (with taxpayers' money) close to 90 percent of what SAK is doing in Afghanistan, so in principle the Swedish government might reduce their funding if they do not want to comply and support a Swedish CA in Afghanistan.

Conclusions

In a conversation with Field Marshal Alan Brooke in April, 1945 Prime Minister Winston Churchill observed, *"There is only one thing worse than fighting with Allies: that is fighting without them."* The same applies to cooperation between military and civilian components. So which lessons are identified, documented, observed and hopefully learned and implemented?

Some lessons can be learned about CA in general. Churchill was referring to his lifelong experience of coalitions and alliances, "The Triple Entente" in WWI and "The Allies" of WWII in particular. It was a cumbersome and challenging task to make the coordination and cooperation between these war-fighting nations work. The same is true of an alliance like ISAF in Afghanistan, but not only on the national level but also within the contributing nations. There are different "tribes of peacekeepers" within each contributing nation, as the saying goes. The two most easily identified "tribes" are of course the Military and the Civilians. But when we look closer at the Civilians in particular we find at least four "sub-tribes" of civilians:

- ✦ OGD = Other Governmental Departments and their professional and vocational employees, like diplomats, police, legal expertise, experts from international aid and relief agencies, medical expertise, teachers and school administrators, auditors and other financial expertise.
- ✦ NGO = Nongovernmental organizations like Save the Children, Médecins Sans Frontières, The Red Cross/Crescent, Caritas, Diakonia, Societas Socialis (SOS) Kinderdorf International, Swedish Committee for Afghanistan (SAC) and so on and so forth. There are thousands of NGOs, some worthy of great respect, others more or less cheating and criminal in using fundraising for other purposes than the ones declared.
- ✦ Business = Corporations, enterprises, firms and all other commercial organizations, partnerships and associations, big and small.
- ✦ Media = Journalists, on the permanent staff of different media companies or freelance. Media have often proved decisive in winning or losing the "hearts

and minds” of the domestic opinion in contributing countries. The media reporting might become the centre of gravity in international missions and strongly influence the longevity of any international mission.

The Comprehensive Approach generates many frustrations. If we take the PRTs in Afghanistan as an example we find that almost every country engaged works to its own agenda and with its own organizational structures and solutions. The evaluations by each respective country have a strong patriotic bias, they all think that their way of doing it is the best way (Sweden is no exception), and that the others would be wise to follow suit. A second frustration is the Civil-Military cooperation. There are frictions already when the required cooperation is confined to that between the Military and people from OGD, even when they are as similar to the Military as the Police or the Diplomats. Business is often hard to convince to participate with really big resources. They find any investment in a country with an insurgency by definition a “too risky” business. In a country like Afghanistan you have to add the fact that the country gets a third of its GNP from the criminal drug trade and that their population is one of the poorest in the world. For Business the insurgency is the major problem dampening their interest to invest. In contrast to Business, for NGOs the Military is often seen as a bigger problem than the insurgency. To make the Military and the NGO “tribes” cooperate is often the toughest “internal” challenge in CA.

For NGOs to cooperate with the Military is sometimes against their core values of neutrality and non-partisanship. But it is also threatening in many ways, for instance that they thereby might lose a unique sales proposal in fundraising. Most charitable organizations live in a competitive world, where a gift to one organization often means a gift lost for all the other charities. That makes them reluctant to cooperate. Another concern deals with the dangers involved in being seen with the Military, in short becoming a target. The NGOs are positioned differently in relation to CA initiatives. The most negative favour noncoexistence or maybe coexistence, but the meaning is that they want total independence. Some are willing to comply with coordination but nothing more. To sum it up; trustful cooperation and collaboration between the Military and the NGOs are rare phenomena.

In Sweden there is a strong belief that military peacekeeping is a Swedish-Canadian invention (by Dag Hammarskjöld and Lester Pearson). To support international peacekeeping missions, in particular those initiated by the UN, is seen politically as an imperative duty. Benevolent and optimistic peacekeeping borders ideologically on Civil-Military cooperation. CA is seen as the most legitimate approach. That attitude is strengthened by “realities on the ground.” With dramatically downsized armed forces, Sweden is totally dependent on working in cooperation with other nations in international military missions. But it is also important that the Military will benefit from the rather impressive Swedish resources for international development cooperation, rescue services and civil contingencies (the combined budget for these civil governmental agencies, these OGD, is bigger than the budget for the armed forces). The present situation is not ideal, because there is still some friction in the coordination between

the armed forces and some of the OGD, but progress is being made, and there is a high likelihood that the governmental “house” will be put in order.

The remaining challenge in Sweden is the cooperation between the Military and the NGOs, as for so many other countries. Sweden has more than its share of NGOs. Many of these NGOs are internationally very experienced and well functioning, and so the CA-potential is great. But in quite a number of Swedish NGOs there is a widespread opinion that the “situation” in for instance Afghanistan can be solved without the military or irrespective of what the military is doing (coexistence at best). That is also true for the Swedish Committee for Afghanistan (SAC), making a closer cooperation with the military unlikely (but SAC is getting some 90 percent of their funds from OGD and less than 10 percent from collecting money from the Swedish public, so their claims for independence might be called in question). Judging from other “theatres” for international missions (like the one in Congo), the opinion might change quickly though, if the insurgents/terrorists attack members of the Swedish NGOs. If such a scenario becomes reality, but only then, a closer cooperation or even collaboration between NGOs and the Swedish military is a likely occurrence in the short perspective. In the long run, there is a slow change of opinion in the Swedish NGOs, a change in favour of applying CA in our international missions.

We conclude with the following CA taxonomy:

1. All-Military CA. This is an ambitious COIN strategy when focus has shifted from elimination of insurgents and force protection to protection of the civilian population and winning their hearts and minds. This requires that the military can offer a number of more civilian competencies like medical services, water purification, information operations and engineering for a better infrastructure, and so forth. Even very resourceful armed forces cannot meet but fractions of all the civilian needs of the local population. A COIN strategy is always limited in both scale and scope.
2. Military-Civil CA. In a more mature CA, civilian participation is a must. You need them for policework, you need them for improving the functionality of the administration of a “failed” state. If priority, for instance, is given to an enlargement of the “local” school system, you need teachers or teachers of teachers. Of course you recruit them from your own educational system back home. In short, you need OGD people. The relationship to the NGOs is often problematic at this stage of CA. Some of the NGOs have the potential of doing a lot of good but they often want to decide independently where and when. In short, it is hard to convince them to become an integral part of CA, to get them from a policy of coexistence to coordination, not to speak of coordination and collaboration.
3. Civil-Military CA. If a CA is successful, a natural development would be for some civilian actor to take the lead, for instance one with reconstruction expertise. In a full-blown CA, even Business takes part in the endeavours

and not only in the limited sense of living off the mission, building camps and fortifications, furnishing bodyguards, etc., but also in taking part in the reconstruction of a whole national economy; building infrastructure, starting growth industries and successful corporations, etc. Even at this stage of development the cooperation from the NGOs is far from guaranteed.

4. All "Local" CA. The normal exit strategy in an international mission is to hand over responsibility to the country plagued by an insurgency. Ideally that would mean that the hand-over takes place when the insurgency is eliminated or seriously degraded. In that case the "local" CA would be a further development of the CA of type 3, transforming it into "normal" Comprehensive nation building. Unfortunately, the realities on the ground often make such further developments an elusive ideal. The "local" CA often means different or renewed combinations of stages 1, 2 and 3. If the country is still plagued by ongoing insurgency or insurgencies, it is very essential that the "local" Military will be strong enough, or all other CA activities will be in vain. The most critical lesson is that preparation is paramount. Already the Romans knew this: "si vis pacem—para bellum." These words of wisdom read in translation: "If you want peace, you must be prepared for war."

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Chapter 14

The Comprehensive Approach to Humanitarian Logistics: An Opportunity to Enhance Professional Performance?

DAVID M. MOORE AND PETER D. ANTILL

“To act ‘comprehensively,’ or according to the comprehensive approach, is a doctrinal mantra for any military officer that has attended Staff College and any diplomat wanting to work in the world’s hotspots. Even Department for International Development (DfID) personnel, once known for being allergic to closer civil-military co-operation—for fear that the principle of humanitarian neutrality would be compromised—have embraced the concept” (Korski, 2009, 14).

Abstract

This chapter considers the development of logistics into supply chain management—which can be seen as a move analogous to the direction that the comprehensive approach seeks to achieve. Supply chain management in commercial, military and humanitarian contexts is identified as a means of developing an integrated, holistic approach towards the elimination of waste and to bring a focus upon value adding activities and processes. The way that the military has adapted commercial practices in its application of supply chain management could be taken further—into the humanitarian environment—especially in the immediate response to a disaster or crisis (natural or man made). The chapter then highlights that such a move toward a coherent approach in these contexts is built upon knowledge, not merely information or data, but base of specialist knowledge that will enable systemic thinking and action so as to optimise decisionmaking (recognising all stakeholders in an operational context such as one where NATO may be involved). This is briefly taken further in that to genuinely move forward with a comprehensive approach then the issue of professionalising the environment, built upon a relevant body of knowledge, may mean a more knowledgeable basis for decisionmaking, thus emphasising that the comprehensive approach can bring performance (however defined) improvements. However, the chapter recognises that this will not be easily achieved and proposes professionalisation, built

upon sound knowledge, as a direction to be taken, with an ultimate goal that would allow professional judgement to be exercised. As a final element a research proposal is presented that would allow further evidence-based research that could identify potential action towards a comprehensive approach to humanitarian logistics relief involving all stakeholders in the immediate response to a disaster situation.

Introduction and Background

For many organisations, both national and international, an approach that brings together all the elements of military planning and capability, along with other government departments and commercial organisations to enable effective operations to be undertaken could be seen as logical or even common sense. However, for many years, military organisations have worked in “stovepipes” that echo or protect their vested interests. During the Cold War, for many countries, such as the United Kingdom or United States, this may have been possible as materiel was maintained “Just-In-Case” it was needed. This whole concept of “Just-In-Case” permeated thinking to the extent that large stocks of whatever was required were procured, held in storage and maintained on the basis that they might, at some stage, be required.

This is no different to the approach that Western commercial organisations undertook their operations in the 1970s and even into the 1980s. However, the growing spread of Japanese-inspired inventory management approaches such as “Just-In-Time” meant that many such commercial organisations had to change their *modus operandi* to meet their market demand. In short, if they did not adopt “leaner” approaches to the management of inventory, they would go out of business. This changing approach towards inventory management was concurrently being undertaken in the broader strategies by commercial organisations. Approaches such as “Total Quality Management” and “Business Process Reengineering” echoed and complemented inventory management strategies. Models from companies such as Toyota spread worldwide and, coupled with advanced technology, the marketplace shrunk so that the global market is now easily accessible to all (Christopher, 1992).

Inherent in the thinking behind these approaches is the realisation that “stovepiping” or functional compartmentalisation sub-optimises what is required to be delivered in a market-driven, operational environment. So successful have these approaches been in enabling the most forward-looking entrepreneurially focused organisations to prosper that even nonprofit-making organisations have looked to, and adapted (if not actually adopted) these approaches. This can be seen in, for example, the United Kingdom Public Sector organisations that have adopted “lean” approaches to service provision.

This is not the usual consideration of the comprehensive approach. However, in many organisations, such an approach is assumed to include all the stakeholders in the business process. This is analogous to the emergence of all of the above strategies or approaches, in the recognition that the supply chain, for whatever product or service

is required, takes an integrated, holistic all-embracing approach to ensuring that the best value for the ultimate customer or user is achieved.

Arguably, one of the last bastions of sub-optimised activity has been the military. For the UK Armed Forces, the withdrawal from Empire had led to a concentration on their role within NATO, being trained and equipped to fight a high-intensity war (and having logistics to match) against a well-trained and equipped opponent, a situation that had only previously been encountered during the two World Wars (McInnes, 1996). The end of the Cold War, coupled with expectations of a “peace dividend,” was seen as an ideal opportunity to change the manner of working, particularly in respect of inventory and the management processes that accompany it. In due course, the move towards enhanced performance meant that “lean” approaches, not just to inventory, but to processes across a wide range of activities were introduced, in particular in relation to the use of contractors. The outsourcing of activities that were previously undertaken by military personnel, to those that could be undertaken by the Private Sector, gained considerable momentum (Moore & Antill, 2000: a).

This has been notably applicable for the UK Ministry of Defence (MoD) where there has been considerable pressure for financial performance improvements. In this respect, outsourcing has been taken to extremes, whereby whole activities have been contracted out to other organisations, mainly in the guise of Public-Private Partnerships (PPP) or Private Finance Initiatives (PFI). While this has initially been seen to bring success in terms of its financial impact, it has become extremely challenging in an operational sense. This is because, since the end of the Cold War (in common with many other NATO countries), there has been an increase in the operational commitments undertaken, more so than at any other time since the UK’s withdrawal from Empire during the 1960s. Hence, there has been a need to balance financial and operational imperatives and to a large extent this has been achieved through thinking holistically in an integrated, coordinated manner, which could be seen as a comprehensive approach.

Context

If the UK military can utilise “best-practice” approaches from the commercial environment, then arguably, such approaches as adapted to military applications could similarly be applied to humanitarian aid organisations, especially in the context of immediate humanitarian aid relief in response to a disaster. If the idea of a comprehensive approach could be seen as common sense (after all, this is just a coordinated or holistic approach to achieving a required end state), then such a simplistic view would be adopted and utilised by all. The reality, of course, is that the context makes bringing together all the relevant stakeholders and plans, in what may be a hostile or challenging environment, so difficult. If indeed the comprehensive approach is common sense, then its application, in context, may be complex, challenging or constrained by realities in an operational theatre. There are considerable complexities, challenges and constraints to developing a comprehensive approach within NATO itself—and

that is just the military organisation, let alone the supporting commercial and Public Sector organisations that may have to be taken into account when seeking a successful end state. This is further exacerbated when considering nongovernmental organisations (NGOs), such as those involved in humanitarian aid.

A fundamental feature of the context of a comprehensive approach with NATO military organisations, commercial organisations, Public Sector bodies and NGOs working together is that of *cultural dissonance*. In this sense, one could argue that military organisations are generally utilised to conduct warfighting activities, while commercial organisations seek to make profit, Public Sector bodies seek to operate in a bureaucratic, process-led manner and that NGOs seek to raise funds to relieve suffering and save lives. The point of this, of course, is that they are not necessarily in alignment regarding motives, means and methods: “mechanisms and structures aimed at improving co-operation between military and civilian organisations tasked with the implementation of a comprehensive response are unlikely to succeed if they merely brush over the fundamental cultural differences that exist between these organisations” (Baumann, 2008, 73).

To emphasise this, it has, in a practical context, been recognised that: “The comprehensive approach can be seen as having two basic components: first, it is based on a recognition that security cannot be ensured without equal attention to governance and development (substantive component); and, second, it is focused on enhancing cooperation between key civilian and military actors in Afghanistan (operational component)” (Kuovo, 2009, 36).

It is this latter point that is especially pertinent for this chapter (albeit in no specific operational theatre).

In order to further consider the comprehensive approach in the context of NATO and the military organisations therein working together with humanitarian aid organisations, the chapter will now examine the changes necessary for, and the requirements of, a comprehensive approach in respect of immediate aid relief (that is, the first few days) following a man-made or natural disaster.

The Changing Nature of Commercial Logistics

Lean and agile philosophies have been utilised by commercial organisations since the 1980s (based upon the successes of Japanese companies) to gain an advantage over their competitors. These required organisations to focus upon those activities which added value to their output; if any activity did not add value then management action would be centred on its elimination. By definition, virtually everything that did not add value was to be considered waste. Further, commercial organisations recognised that the whole of the supply chain, that is, the linking of processes across organisational boundaries, had to be considered when seeking to eliminate such waste. For optimal effectiveness, processes and activities from the point of origin (for example, raw material procurement or manufacturing) through to the end users (for example, the consumer) had to be taken into account. Such considerations are the basis for an

integrated approach to supply chain management, which can be seen, in this sense, as an extension of logistics. Supply chain management encompasses the activities, both internal and external to an organisation, that cover the previously discrete functions of specification of requirement, procurement, contracting, manufacture, distribution (including stock management), warehousing and transport plus all the systems required to coordinate and control the smooth flow of goods and services from their point-of-origin to the end user (Schonberger, 1982; Poirier & Reiter, 1996).

Fundamental to this holistic concept is the fact that logistics is not a “stand-alone” activity, nor is it the traditionally long-held perception of a low-level, reactive activity that concerns stores and trucks. Through the application of supply chain management, as a developmental extension of logistics, which manages coordination and control of the integrated flow of materials, services and information, commercial organisations have in recent years reduced their cost base—(elimination or considerable reduction of waste) and have been able to compete more and more in the global marketplace. In short, they were able to become efficient and effective (or they went out of business). This can now be seen as the norm in most commercial organisations, but it has developed over a period of time (Christopher, 2005).

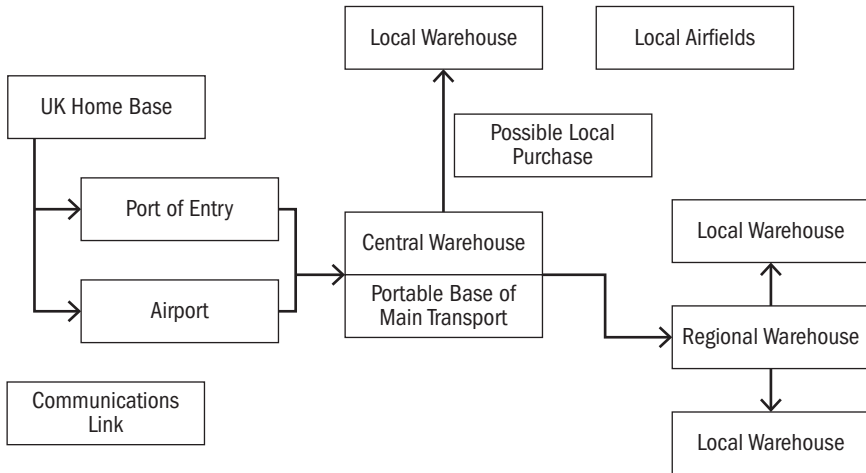
The Changing Nature of Military Logistics

Military organisations, such as those of the United Kingdom, have recognised the beneficial effects of supply chain management as a developmental extension of logistic activity and have worked hard to emulate the best practices of commercial organisations. Increasingly, *lean* and *agile* philosophies are being utilised successfully in improving military logistics performance.

In the military sense logistics can be defined as “. . . the science of planning and carrying out the movement and maintenance of forces. Logistics provides the resources of combat power, positions those resources on the battlefield, and sustains them throughout the execution of operations. Logistics encompasses a wide range of actions and the relationships among those actions, as well as the resources that make those actions possible” (Department of the Navy, 1997, 3). The tenets of supply chain management apply particularly well in such a “total process” perspective but commercial best practices have not been *adopted* without question within the armed forces; rather they have been *adapted* and amended to suit the military contextual setting. Indeed, in order to be successful in this adaptation considerable change in respect of military culture, structure and management ethos has been necessary.

Figure 1. An overview of the military approach to logistics/supply chain management

Source: Moore & Antill (2000: b)



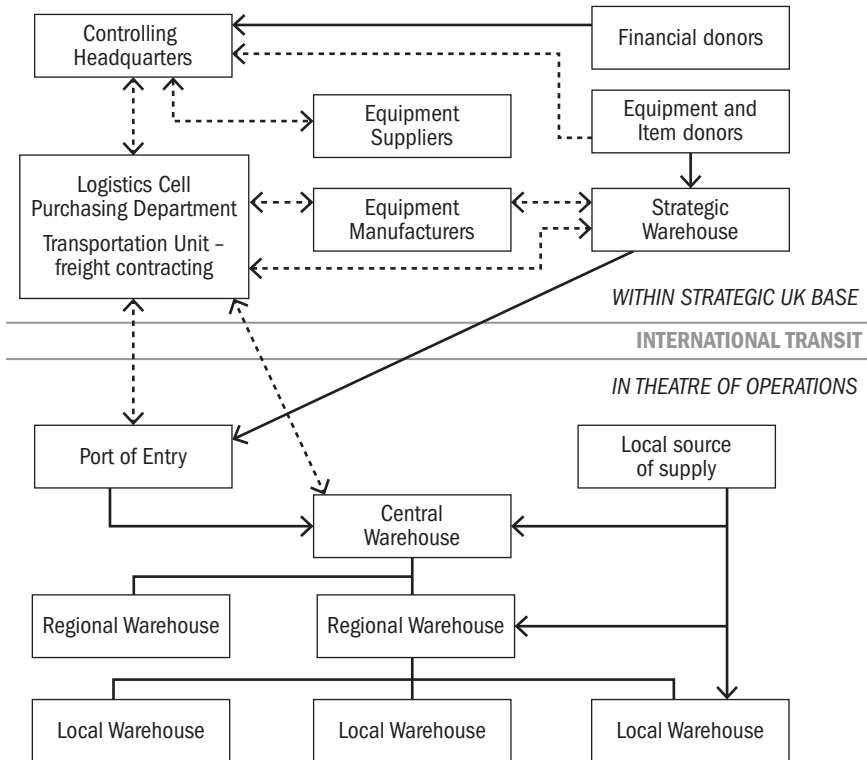
This is particularly important, for just as commercial organisations have utilised logistics developments in the form of supply chain management, so too has the military. Military organisations undertake a role that requires them to work as part of multinational, multidiscipline operations that have to be conducted at great range from their home base. The notion of essential links that exist between manufacturers and end users is conceptually akin to commercial organisations although, importantly, the contextual setting is different. Nevertheless, just as with commercial organisations, for success in military supply chain management, there is a need to integrate across organisational boundaries and eliminate (or considerably reduce) waste. This has required a holistic or fully integrated perspective to be utilised.

Furthermore, military organisations have a supply chain that, conceptually, has considerable resonance with humanitarian aid organisations (see figure 1). Military organisations require a Port of Embarkation in the home base and a Port of Disembarkation in the operational arena, with subsequent distribution through central, regional and local warehouses. The link between the home base and operational arena is known as the “coupling bridge.”

For humanitarian logistics operations the concept is very similar, although “international transit” is typical of the terminology that could be utilised instead of “coupling bridge” (see figure 2). Semantics apart, there is conceptual complementarity between the two supply chains. Of course, it is frequently seen that military logistic assets, be they human or physical, are deployed to assist in humanitarian operations. Whilst there is cultural dissonance between military and humanitarian organisations, there is an increasing imperative for them to work more closely together in order to improve the overall performance of supply chain activities, particularly in the early phases of disaster response.

Figure 2. An overview of the humanitarian aid approach to logistics/supply chain management

Source: Moore & Antill (2000: b)



The Comprehensive Approach and Humanitarian Logistics

Arguably, in the same way that military organisations have adapted best practices from commercial supply chain management in order to improve efficiency and gain effective performance, so humanitarian organisations could follow a similar approach (Moore & Taylor, 2011). Indeed, the supply chain for humanitarian aid is very similar to that of military organisations. Just as military organisations must prepare for operations (such as warfighting or peacekeeping), so too must humanitarian aid organisations prepare for disaster relief operations. Most civilian agencies recognise the need for a system that coordinates, through a local and sequential process, all of the aspects related to logistics or supply chain management; that is, specification, purchasing, transport, maintenance, stocktaking and integration of the flow of materials, equipment and information. This in itself could be seen as comprehensive—albeit within a limited (organisational) context. However, the organisational environment of humanitarian aid is particularly challenging with many players, a mix of complex cultures, political influences, differing interests, structures, systems, procedures and activities. To this, needs to be added the

context and culture of military organisations—especially complex if such an organisation as NATO, with its differing military membership, is involved.

If the *adaptation* of supply chain management as the evolutionary development of logistics is to be considered in the humanitarian context, another, further aspect needs to be borne in mind. To be effectively coordinated, that is, to reduce waste across functional and organisational boundaries, there needs to be overall strategy and direction if duplication and confusion are to be avoided. Whilst this strategic level is essential, there is also a need for clarity of direction at both tactical and operational levels. At tactical level, effective performance is paramount, whilst at operational level much will depend upon the skills and talents of individuals “on the ground” undertaking the minutiae that bring logistics success (Moore & Taylor, 2011).

Challenges of, and for, Humanitarian Logistics

There is a wide variety of challenges in the development of more efficient approaches to humanitarian logistics and supply chain management including strategic, operational, organisational, cultural and change management issues.

In any disaster or crisis environment (whether man made, for example, as a result of operational activity such as in Libya 2011 or natural such as the earthquake and tsunami in Japan 2011), conventional systems may be unreliable or break down completely. The “immediate response” humanitarian aid logistic systems of organisations need to be robust enough to bridge any gap between existing logistics systems and the devastated areas’ infrastructure. This can be achieved by local contracts, co-operation, ingenuity and a flexible approach. Yet in order to enhance efficiency and gain optimum effectiveness in respect of donor financial and material contributions, not only should this happen but also coordination and integration across the organisational boundaries of aid agencies and military organisations must be undertaken.

As stated earlier, supply chain management has a wide scope, spanning not only different organisations along the chain but also many different functions within any one organisation. In a sense, therefore, logistics is everyone’s business rather than the domain of a “chosen few,” which in turn requires at least some education and understanding of people across an organisation as to the roles, functions and objectives of logistics. This is the case in commercial organisations, but is exacerbated in humanitarian agencies which are often geographically dispersed, culturally diverse and dealing with supply chains that are temporary. Adding a layer of military organisations (even if under one umbrella such as NATO) adds to the cultural complexity and mix of hierarchical, bureaucratic and ad hoc nature of the differing organisations involved. Above all, cultural dissonance may well be the greatest challenge to the comprehensive approach being effective.

Whilst a comprehensive approach might enhance performance in a humanitarian context, it will depend upon a proper understanding of the scope and importance of logistics and supply chain management at all levels within the aid community.

From the perspective of logistics professionals (in whatever environment), it seems obvious that logistics and supply chain operations are central activities of most aid operations. In disaster response, sourcing products and delivering them in an efficient and timely manner to beneficiaries is not only critical, but a major focus. Even in less time-critical on-going development scenarios, sourcing and distributing products is often an essential activity. Added to this, recent research (Tomasini & Van Wassenhove, 2009; Whiting, 2010) has indicated that logistics/supply chain costs can account for anywhere between 40 percent and 80 percent of the aid spend. Yet we still have a situation where “the powers that be” in the aid community do not appear to fully recognise the importance of logistics and supply chain management. It can be seen that many aid agencies do not have a full-time logistics or supply chain director. They may not have board-level status and thus find it hard to gain a logistics/supply chain input into the top level strategy. Alternatively, in some agencies they are only able to act in an advisory capacity to Programme Managers who have the ultimate responsibility for achieving aid distribution (Moore & Taylor, 2011). At the operational end of the management spectrum, many of the people who are responsible for logistics have no formal logistics training and/or may only be assigned to logistics positions on a temporary basis. In respect of the recognition and importance of logistics, there is a further challenge beyond the aid agencies themselves. Major donors, particularly national or transnational government organizations, do not appear to understand the centrality of logistics to the aid efforts they support. In consequence there is little evidence that rigorous analysis and reporting of logistics performance is a critical element in the evaluation of funding effectiveness. Furthermore, donors are reluctant to provide funds for the improvement of logistics and supply chain management as monies are normally only allocated to specific events or programs. Having said this, logistics professionals in the defence environment are generally recognised and appreciated, although this may not be the case when they have to work jointly on disaster relief operations when the differing perceptions of NGO, and military, logistic personnel may be pronounced.

These points are not put forward as criticism but to present a perspective on the current situation. In fact the situation where there is a lack of appreciation of the importance and potential benefits of better logistics and supply chain management is not at all unique to the humanitarian sector. It must not be forgotten that in reality, appreciation of the benefits of logistics and supply chain management as key elements of business strategy is still relatively new, stretching back only some thirty years or so.

So what is the impetus for individual organisations or indeed whole sectors to take a more proactive and comprehensive approach to supply chain improvement? Reflection on the development of best practices in supply chain management across different sectors suggests there have been a number of different triggers. For most, this has been a result of commercial competition. In other sectors, governments have taken the initiative and developed programmes for improved supply chain management in order to improve the competitiveness of sectors of industry which they consider to be of national importance. However, in sectors such as healthcare and defence, which are funded by public finances,

the pressure from governments to reduce costs and improve service has provided the impetus for managers to rigorously analyse and monitor supply chain performance.

Globalisation of markets has led to the development of long, complex international supply chains in many commercial sectors. Such global chains were often developed around lowest cost manufacturing locations, but firms soon realized that unless the whole supply chain was carefully managed, there was significant potential for failures in customer service as well as increased overall costs. This quickly led management to first of all measure overall supply chain performance and then to focus on its systematic improvement (Moore & Taylor, 2011).

Although humanitarian supply chains may have generally been transnational, there does not appear to have been strong pressure to improve performance as in the commercial world. Some will argue that humanitarian operations cannot afford to worry about cost when human lives are at stake; whilst on the other hand, there is no real mechanism to evaluate how effective the aid operations have been in terms of the number of lives saved or, perhaps more pertinently, the number of lives lost through inefficient aid provision.

In the military environment a similar approach pertains for the UK, where in non-operational situations (such as training in Canada), the emphasis is upon efficiency—that is, financial cost performance, but in a hostile operational environment such as Afghanistan, the emphasis is upon effectiveness of operational performance and to a large extent financial imperatives are secondary to the success of the mission.

So what might trigger the elevation and improvement of supply chain management performance in the context of humanitarian aid? It can be seen that there are a number of factors which seem to mitigate against the development of such triggers; there is no direct competitive imperative arbitrated by consumer choice as in the commercial world. Competition between agencies does exist; it is focused on obtaining funding, rather than operational performance. Typically, as humanitarian activity is transnational, individual national governments have neither the incentive nor the influence to instigate initiatives to improve supply chain practice. The United Nations has started attempts to improve logistics performance in the sector. Such initiatives have been hampered because the UN has no mandate to control or command (act comprehensively?). It therefore attempts to influence and persuade—actions which are difficult with the proliferation of aid agencies around the globe.

Rather, it can seek, in the absence of compelling external pressures, to improve humanitarian logistics performance, improvements that may well have to come from within the humanitarian logistics and relevant military communities themselves. Could it be possible that the small but expanding band of personnel involved in the comprehensive approach to humanitarian logistics create a revolution, or at least a transformation from within? It may be that by improving professional performance, they could develop a more compelling argument for an integrated, holistic, comprehensive approach to logistics. If professionalising the comprehensive approach to

humanitarian logistics is to provide such an improvement in the performance of the humanitarian aid supply chain, then what does professionalisation mean and entail?

Professionalisation

In respect of the concept of “profession,” “... even the way in which it is theorised is contested” (Freidson, 1994, 14). However, the concepts of what is a “profession” and that of being “professional” are highly valued in modern society. Many claim to be professional; it indicates status and grants distinction as to how an individual is perceived. It is clear that “the professions have become essential to the very functioning of our society ... we look to professionals for the definition and solution of our problems and it is through them that we strive for social progress” (Schon, 1987, 3). It is this essence of function and being able both to identify and to solve specialist problems, as well as seeking progress, that indicate “professionalisation.”

Inevitably, there are semantic issues in respect of the word profession and its various derivatives, such as “professional” and “professionalism.” In addition, the same word could be perceived as having different meanings. Professional could be seen as a noun; that is, belonging to a profession; alternatively, it could mean the manner of undertaking a task, function or activity in a particular way; that is, used as an adjective or adverb in a denotative or connotative application (Moore, 2004).

However, it is possible to discern a number of pertinent characteristics (or traits) broadly based upon service delivery, itself based upon skill and knowledge. Other prominent characteristics include autonomy and responsibility. Included within these characteristics or traits is the need to draw upon a systematic body of knowledge. This typically required a lengthy period of higher education, coupled with further training and application over several years.

To understand the concept of profession is important, as it is the desired end state—the ideal of professionalisation. Hoyle (1980) identifies functionalist approaches to enhancing performance through “professionalisation” and notes certain social functions of the professions which are vital to the well-being of society. These include:

- ♦ A profession is an occupation that performs a crucial social function.
- ♦ To exercise this function requires a considerable degree of skill and the application of this skill can be performed in situations which are not routine and where new problems and situations may arise.
- ♦ A period of socialisation into a set of “professional” values is required.
- ♦ The practitioners must draw upon a systematic body of knowledge.
- ♦ A period of education is needed to acquire this knowledge.
- ♦ As knowledge-based practice is specialised, there is a need for the exercise of “professional” judgement in respect of appropriate action.

Although it can be seen that there is debate over the nature of the theorising of “profession,” and whilst “profession” can be seen as an essentially contested concept,

there is substantial agreement about the general dimensions of “profession” (Hoyle & John, 1995).

Arguably, consideration of “profession” in a modern context, that is, complex, interdisciplinary applications, should be grounded in a theory of occupations, because a “profession” is generically an occupation. Hoyle identifies that the functionalist view is predicated upon the attainment of specialist knowledge and its application, allowing a “professional judgement” to be made.

At this point it is useful to consider that a wider view of humanitarianism as a whole has its roots in private charity and politically motivated relief. What comes from these traditions is a relationship between the providers and receivers of aid, especially in respect of immediate disaster relief (Walker, 2009). However, this in itself cannot be seen as professionalising the word “humanitarianism” as a noun: it might, however, be accepted as an adjective or adverb; that is, describing the manner in which aid was received, if the provision of immediate relief (that is, logistics) was undertaken efficiently and effectively. However, there is much evidence that this is not always the case with initial response to providing disaster relief exhibiting duplication, typically including incorrect stocks, poor communication and not developing good relationships between providers. This is not to criticise intentions. There is no lack of evidence of moral and ethical commitment to assisting those in need. Indeed it is enshrined in international law. But moral and ethical commitment and best intentions are not the nature of professionalism (Moore & Taylor, 2011). Performance is the essence of professionalism. A comprehensive approach to humanitarian aid relief (especially in the immediate aftermath of disaster or crisis) could bring performance improvement and this could be as a *result* of professionalisation—or it could *result* in professionalisation.

A particular challenge is that the very creation of professionals (as a noun), especially the now prevalent occupational professionals, means a degree of exclusion. Bluntly, one is either in a profession or not. If there is to be a comprehensive approach to humanitarian logistics performance, then there must be recognition of all the players that are encompassed in that environment. At an organisational level these can be many and varied, as the essence of supply chain management (and best practice within the construct) is predicated upon a “total process” perspective that includes many relevant players.

Professionalisation in the Comprehensive Approach to Logistics

Having outlined a contextual and conceptual setting, it is necessary to bring these together and consider whether professionalisation is present or what needs to be undertaken to enable such accreditation to logistics activities involved in providing immediate humanitarian relief.

Whilst professionalism and hence professionalisation is essentially a contested topic there are generally accepted tenets that can be applied. Hoyle’s fundamentalist view of the end state was highlighted as being vital to the well being of any

professionalisation initiatives. His tenets applied in respect of humanitarian logistics and the background and context discussed here are particularly apt.

- ♦ Social function—There can be no doubt that the humanitarian logistician performs a crucial social function.
- ♦ Judgement in the application of skill—Similarly, Hoyle's view that "to exercise this function requires a considerable degree of skill and the application of this skill can be performed in situations which are not routine and where new problems and situations may arise," is entirely pertinent.
- ♦ Socialisation into a set of professional values—Regarding the third tenet, this comes, in respect of humanitarianism generally, with the very nature of wanting to provide relief and assistance to those in need and by learning from others already involved in humanitarian activities. Whilst there is no doubting the commitment of such people nor the community within which they operate, it may be seen that much of the immediate aid provision in the event of a disaster is not always performed well (examples are numerous but include New Orleans after Hurricane Katrina, the tsunami in SE Asia, the floods in Pakistan, etc.) In part this is due to the complexities of trying to develop coordinated and coherent management of all the activities within the concepts of logistics, within the difficult contextual setting of humanitarian disasters. However, unless there is some change in the socialisation process and inculcation of values that are geared towards elimination of waste and optimisation of value, this aspect of performance is likely to persist. The socialisation element of professionalisation will thus require change in behaviours and the development of a culture that sees efficiency and effectiveness as key performance aspects of humanitarian logistics. This in turn requires the necessary knowledge to enable cultural change.

The remaining tenets of Hoyle's model cover in one form or another the key issue of "knowledge" and are areas where attention must be focused if "professionalisation" is to be undertaken:

- ♦ A systematic Body of Knowledge—To date, there would not have been a systematic body of knowledge upon which humanitarian logistics practitioners can draw upon.
- ♦ A period of education in order to acquire the knowledge, followed by knowledge-based practice exercised with professional judgment.

In many ways, these tenets bring together all aspects of professionalisation. Knowledge is the key to professionalism and there can be no doubt that all professions are built on a period (often lengthy) of time spent learning and acquiring this knowledge.

Gaining Knowledge: The Basis of Performance Improvement for a Comprehensive Approach to Humanitarian Logistics Relief

Consideration of “profession” as a noun—that is, a collective body with self-regulation—is not yet a reality for those in humanitarian logistics and certainly not for those seeking to utilise the comprehensive approach involving all the stakeholders and players as a way forward. However, the journey towards such a status has commenced and is indicated by the increasing number of initiatives that are being introduced by institutions and organisations around the world. This can only be applauded as the aim will be to enable enhanced performance in respect of disaster response. Nevertheless, a fundamental element of this journey must be that “professionalism,” in the sense of an adjective or an adverb, is introduced and developed. In other words, the manner in which those involved in a comprehensive approach to humanitarian logistics undertake their role and activities must become more efficient and effective, that is, professional. This must be accompanied by greater understanding of what needs to be undertaken, how it should be undertaken, and why in differing situations differing approaches need to be applied. Further, it requires standardisation of processes, clear communication, uniformity of terminology, interdisciplinary thinking, global best practice concepts and application. Importantly, it also requires mechanisms and approaches to systematically measure and evaluate humanitarian logistics activity. In short, this understanding requires knowledge.

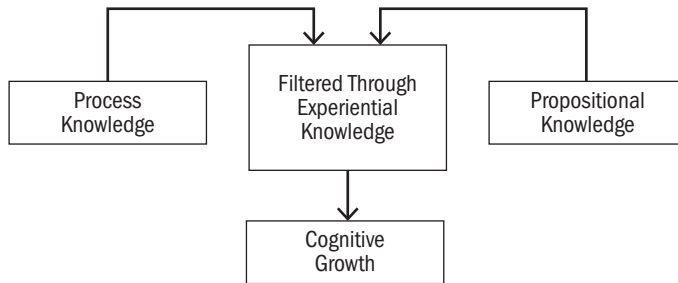
In the short term this can be brought about by a process of “professionalisation” (and therefore a move towards improving performance), and it may in the longer term bring the concept of a comprehensive approach to this logistic environment. Either way, knowledge underpins the professionalisation journey.

Such knowledge can be gained in a number of ways and to ensure that optimal benefit is gained, there is a need for a careful balance of training, education and experience. Training can provide those involved with the “how” to do things, providing processes and procedures necessary for activities to be undertaken in the most suitably efficient manner are present; it is the basis of skill development and can be delivered in a number of pertinent ways. Education will provide the opportunity to understand why things may or may not happen; it is about critical analysis of theories and concepts applied in particular contexts. However, neither training nor education on their own will produce the professionalism that will deliver enhanced performance, nor is there an exact balance between the two. The knowledge that will enable professionalism comes from education and training, which are balanced by the recognition and utilisation of experience.

This can be shown diagrammatically (figure 3). In order to gain cognitive growth in a comprehensive approach to humanitarian logistics performance, knowledge needs to be developed and recorded in the three afore mentioned areas. Theories and concepts, or *propositional knowledge*, which will come from education, need to be developed and balanced with how to do things, or *process knowledge*. Put together through a perspective that could be seen as filtering what is relevant and applicable in a range of contingent situations will enable growth and development of knowledge.

Figure 3. Knowledge as the basis of cognitive growth

Source: Moore (2004)



It is, however, often the case that humanitarian logistics knowledge or, rather, information and data, are available but not necessarily taken advantage of. Frequent turnover of personnel at an operating level is one of the reasons that this can occur. Every time humanitarian aid is provided, learning takes place. Sometimes the learning is in people's heads, and is lost as they subsequently move to other roles or organisations (especially given the periodic nature of some humanitarian logistics positions or military logistics appointments); on other occasions it may be recorded in, for example, documents or local operating procedures. However, it is unusual if all of this information or data is readily available to all of the players within the humanitarian environment or, indeed, if it is recorded in a critically analytical way that can be made available for the creation of more learning opportunities that could lead to the development of greater knowledge. Again, there is no comprehensive approach! As an example, the International Federation of Red Cross (IFRC) recognised this in its decision.

... to include knowledge management in its preparedness strategy, it was acknowledging that further competencies and value could be created from the lessons learned from previous disasters. The IFRC acknowledged that its supply chain would dramatically improve if it could capitalise on the knowledge possessed by the staff of the Red Cross movement globally (Tomasini & Van Wassenhove, 2009, 115).

Whilst information management in this sense can include communications generally (for example, with the media), it has primarily been in bringing logistics information together in a coordinated manner so that data collection and analysis can be undertaken and disseminated in a way so as to assist decisionmaking. This is a crucial activity and can be the basis of future growth of knowledge, but it is still limited in its overall effectiveness and requires considerable commitment from all players within the humanitarian logistics arena.

The key element is in understanding what is likely to be required in the immediate response to a disaster. Whilst each disaster is different there are many logistical aspects that are recurring, although the extent and application may vary. Similarly, there have been many situations where information requirements, at least in respect

of broad logistics/supply chain concept, can be determined. Data at all levels has to be collected; this can include facts from past performance, cost movements, availability of transport, trained personnel, etc. It can be at the operational, tactical or strategic level. For greatest professional impact, it should be comprehensive. This data has to be analysed in accord with the requirements for information and has to be considered on one hand on a generic basis, so that general principles can be developed and determined in respect of information, yet on the other hand it must be flexible enough to allow for the contingent situation to be assessed and processes and experience to come into play to seek the right balance to ensure knowledge creation and dissemination. Too often information is available and data can be provided, but this in itself is not knowledge—it is rather facts or figures which if utilised carefully, can be turned into knowledge. This is the basis of professionalism but it will not be relevant unless it is used to exercise professional judgement, for it is the use and application of that knowledge by logisticians (of whatever hue) that will bring performance improvements.

Summary

Whilst the introduction of a Comprehensive Approach may appear as common sense, it is very difficult to implement in reality. It would be challenging enough if there was a uniform, harmonious approach to military operations, but in the real world, there are a number of socio-economic and political considerations to take into account, as well as the differing operational approaches and cultures of national armed forces, not to mention aid agencies and international organisations.

Nevertheless, the concept of the Comprehensive Approach is one that has a sound basis. Somewhat similar to the all-embracing, holistic methods of effective supply chain management, there is an emphasis on seeking to add value (and eliminating waste) to an organisation's internal processes while recognising that supply chains can cross national, international and organisational boundaries.

The changing nature of both commercial and military logistics has been noted as having resonance. There is also potential to consider humanitarian logistics in a similar manner. It certainly brings about an opportunity to advance the process of change in a way that utilises both the military approach to logistics and the concept of the holistic management of the disparate activities that take place within any supply chain.

It can be seen that for all of this to be effective, there is a need for an understanding of all the issues and challenges involved. This can be recognised as specialised knowledge that has application across a variety of national, trans-national, agency and organisational boundaries. This knowledge can, if correctly applied, enable enhanced decisionmaking and thereby improve performance. This could be in respect of finance, operations, human resource management, funding, capital equipment purchases, etc. However, knowledge by itself is insufficient to bring about such changes and improvements. It has to be carefully applied, in context. To fully enable better decisionmaking in a holistic manner, such as the comprehensive approach, it could mean a move towards "professionalisation." "Professionalisation" as such does not mean the

creation of a stand-alone profession; rather, it could be seen as a mechanism for an organisation to move increasingly towards the application of knowledge through the lens of professional judgement.

It is unlikely that “professionalisation” will by itself create the necessary conditions to bring about the adoption of a comprehensive approach. Neither will the comprehensive approach necessarily lead to increased “professionalisation.” What it could mean, however, is the commencement of a systemic, holistic way of thinking, underpinned by specialist knowledge that through “professionalisation” could lead to better judgement-based decisionmaking.

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Part 5

**Implementation of the
Comprehensive Approach:
Haiti as a Case Study**

The final chapter of the book looks at a particular Comprehensive Approach example, the international relief efforts following the 2010 Earthquake in Haiti. Although not a NATO operation, the papers explore the successes and failures of a very large-scale “civil-military response.” Many crises of every stripe will call for civil and military engagement, and the lessons from Haiti can help illuminate important issues.

COL Hans Kasselmann’s chapter argues that prompt and efficient cooperation among civilian and military entities becomes of overriding importance when human lives are at stake. It highlights the serious shortcomings that have been demonstrated in delivering disaster relief in a cross-institutional context, particularly with regard to assessments, operational planning and information sharing. In particular, NATO has well-established principles for Civil-Military Cooperation (CIMIC) and Civil Military Integration (CMI). Mindset is very important, and the Comprehensive Approach demands changes in both attitude and behavior among civilian and military entities if they are to work together effectively. So far these changes have not taken place.

Ms. Rosa Akbari is in the process of documenting humanitarian processes in varying contexts. In this context, her chapter examines single agency process flows during crisis response, in particular, the World Food Program (WFP) and its emergency operation in Haiti after the January 12, 2010, earthquake. Her study is primarily concerned with operational aspects of humanitarian assistance during a complex and sudden onset crisis. It attempts to provide a common framework for discussing humanitarian operations by focusing on the logistics behind food delivery and distributions, following the relief supply chain from start to finish. The author assumes that logistics are a universally understood language across disparate sectors. If humanitarian assistance is examined in logistical terms, operations research methodologies traditionally applied to the private sector can then be used to analyze operations. Rather than raising questions regarding operational effectiveness or prescribing shifts in humanitarian policy, her study serves as an initial communicative reference for civilian and military actors to discuss these comprehensive approaches in the future.

For those interested in Haiti, there are a number of other excellent studies that amplify the points in this chapter. See, for example, Larry Wentz,¹ the United Nations Foundation,² and the ICT4Peace Foundation.³ Mr. Wentz’s chapter includes his observations on the role of Information and Communication in Haiti, and the impact of damage to the underlying Information and Communications Technology (ICT) infrastructure and efforts to restore it. The UN Foundation

report, *Disaster Relief 2.0*, outlines the impact of new volunteer and technical communities in disaster relief. The ICT4P study, *Peacebuilding in the Information Age, Sifting Hype from Reality*, takes a clear-headed look at the impact of innovative approaches to information sharing.

Notes

1. <<http://star-tides.net/node/1267>>.
2. <http://reliefweb.int/sites/reliefweb.int/files/resources/4686CA7489E8DA068525786100554127-Full_report.pdf>.
3. <<http://ict4peace.org/updates/peacebuilding-in-the-information-age-sifting-hype-from-reality>>.

Change of Attitude, Change of Conduct: Achieving Effectiveness in Implementing the Comprehensive Approach

HANS-JÜRGEN KASSELMANN

Abstract

Prompt and efficient cooperation among civilian and military entities attains overwhelming importance when human lives and well-being are at stake. This article discusses the required capability developments in support of a comprehensive approach to crisis management by analyzing the disaster relief effort of the international community after the 2010 Haiti earthquake. This event testified to the serious shortcomings that exist in delivering disaster relief in a cross-institutional context, particularly with regard to making assessments, operational planning, and information sharing. A comprehensive approach demands changes in attitude and behavior within the civilian and military entities. So far these changes have not taken place.

Introduction

Capability development is a means by which military forces are able to meet challenges in answer to new questions that arise from a changing environment or a change in tasking from the political leadership.

The NATO alliance aspires to new approaches in its cooperation with civil partners, with the aim of greater effectiveness, reduced costs, and improved responsiveness—in short, a more comprehensive approach at every level.

A “gap analysis” will help NATO establish the difference between what it has and what it needs in order to achieve its aim. However, it is likely that closing the gap may require changes in mindset, materiel, and performance.

An outstanding source of lessons for civil-military cooperation (even though it was not a NATO CA) is the commitment of military forces in the aid campaign for the earthquake-shaken nation of Haiti in 2010. This is especially true when compared to other multinational efforts such as the Balkans in the 1990s and the stabilization, security, transition, and recovery (SSTR) operations in Afghanistan beginning in 2001. The Haiti example provides evidence of shortfalls and failures as well as successes. Although military forces have cooperated with civil entities before, more complex

scenarios put more lives at risk, and time and resources are scarcer. The military has to improve its performance to meet the demands of these greater challenges.

Because military forces have shown that they can cooperate with civil partners, it appears that the instruments for success are already in place: they just demand more efficient application to generate the desired effects. This article aims to analyze the Haiti example to develop suggestions to achieve the output needed to support a Comprehensive Approach in the future. The instruments for success exist, but are they used in the right way and by the right people? The answer can be found in an examination of the main civil-military operations tool for the military, which at the moment is CIMIC.

Civil-Military Cooperation and Civil-Military Integration

CIMIC (NATO, 2003) is a concept that enables the Alliance, at all its levels of responsibility, to cooperate with civil partners. It pre-dates the Alliance's adoption of Comprehensive Approach in 2008. CIMIC consists of mechanisms of consultation at the political and strategic levels to permit high level coordination with international and supranational organizations. These follow the principles of civil-military interaction (CMI) to achieve basic agreement on how to cooperate, and to what degree. At the operational and tactical level, NATO has specifically trained personnel to facilitate the liaison and coordination necessary to de-conflict and harmonize its actions in the area of operation. Different options for coherent, concerted planning help the Alliance minimize mutual interference with civil partners in the first stages of an operation—long before any kind of deployment. The aim is to focus the military contribution on the overall support, provided by all entities committed to a common desired end-state. Duplications of effort are avoided, mutual information sharing is ensured, synergies are identified, and friction is reduced.

Preconditions for such action are trust and an agreed desired end-state; however, a key challenge is the identification of who is best suited to deliver each element in the desired end-state. This problem is further complicated when the military is forced to fulfill functions for which it is less well suited than civilian entities, either because the civilian entities are not yet available or because considerations like security and logistics prevent their participation.

All of these efforts require close communication and consultation within a transparent framework, covering all levels of responsibility, both within the Alliance and with civil entities. It remains important to achieve consent from NATO partners about preparations and staging of force well before any kind of deployment. It also requires the will to accept each others' differences in terms of agendas and capacities. The more familiar participants are with one another the simpler the process of mutual accommodation can be.

Military personnel assigned to CIMIC and CMI functions have been trained and educated to ensure a maximum output throughout all stages and phases of any

cooperation. The governing aim is comparable to the aim of the civil partners: ensure an optimum provision of support while doing the least harm possible.

The Comprehensive Approach¹

The Comprehensive Approach is a concept, rather than a well-defined process. A number of definitions, each interpreted differently by different organizations, have been documented with the intention of articulating the aspirations of the approach (MOD, 2006; MOD, 2008; NATO, 2008; NATO, 2010). This mindset can help facilitate the harmonization of efforts addressing complex emergencies.

The Comprehensive Approach is probably best understood as the synergy of actions by all entities of the international community through the coordination of political, development and security capabilities in order to face the challenges of today and the future. It is an umbrella term for describing the purpose of civil-military interaction, a long-term effort of the international community to align and harmonize their efforts through coordination and cooperation. It takes place not only across the boundaries of government agencies, but across public-private and international divisions as well. Ideally, it combines short-term crisis response and stabilization with long-term assistance and reconstruction. It should effectively coordinate the overarching process of civilian and military actors engaging at various levels covering the whole spectrum of crisis response. The comprehensive approach is not only about delivering SSTR efforts but also about raising awareness among the various participants, for bringing capabilities to bear for other missions.

Analysis of a Military-Civil Cooperation

Civil-military cooperation takes on an overwhelming importance whenever human lives and wellbeing depend on the prompt and effective interaction of military formations and civil entities. This may arise in cases of serious disasters or at the different stages of the use of military power for other purposes, such as SSTR and building partner capacity (BPC).

The application of military power to gain control over an area, for the purpose of defeating opposing forces or pacification, requires that the force applied be proportionate to the demands of the particular situation. This military ground truth is also to be found in the military's relations with civil entities linked to the mandate of the military in humanitarian assistance and disaster response, be they inside or outside the area of operation. Civil emergencies demanding military equipment for relief may include natural disasters (for example, earthquakes, tsunamis), large-scale technical catastrophes (dam breaks, major nuclear accidents) or other incidents demanding immediate and cohesive action to avoid severe consequences for humans in that specific area.

The need for meaningful interaction with civil entities is clear in situations of disaster relief support and when the military finds it necessary to apply force against a hostile enemy. In the latter case the coordination and cooperation with civil entities decreases the more intense the conflict. However, when operations have to be conducted

in urban environments coordination and cooperation need to take place to minimize the potential for fratricide and collateral damage. Nevertheless, the protection of vital interests of populations in these areas of conflict remains the focus of both the military and the civil entities, as damage to the infrastructure can also be detrimental to the indigenous population. Military forces alone have never been best suited to ensuring the well-being of societies when force is involved. The Alliance has implemented a comprehensive interaction scheme to ensure that the military remains focused on saving as many lives as possible and limiting collateral damage.

An outstanding example of civil-military interaction in cases other than war was the military and civil support to the people of Haiti after the earthquake of January 12, 2010, mainly in the most densely populated area of the country (OCHA 2010).

Severe damage to all kinds of vital installations demanded immediate action from the international community. To derive lessons, we have to take a much closer look at the behavior of the military forces and the civil entities in the area, and their attempts to get there.

Preparations to deploy to the area were immediate. Each entity successfully analyzed what resources would be needed, but, in the overwhelming majority of cases, this process took place in isolation from one another. Few of the military commanders tasked by their respective governments contacted the cluster leaders, or vice versa. Little de-confliction of planning or deploying material and personnel took place, whereas ideally all such action should have been cohesive right from the start.

These difficulties were exacerbated by egocentric behavior from many contributors throughout the period of time where help was provided. Too often, it became a race of one-upmanship, rather than focusing on providing full, prompt and effective help. Haitians who could have been saved may have died because of unnecessary fights between military and civil helpers.

This experience underscores the requirement not only to improve but, in some cases, to re-establish interactions between military and civilian entities.

By contrast, the Dayton Accord that ended the civil war in Bosnia helped define an international consensus as to priorities and roles of different participants in SSSTR. Similarly, United Nations Security Council Resolution (UNSCR) 1244 laid out roles and missions for postconflict Kosovo, including NATO's Kosovo Force (KFOR). It included an overlap between the roles of NATO and the UN so as to avoid the gaps in security coverage that had occasionally emerged in Bosnia. These frameworks can help establish the pre-conditions for effective action.

Analysis of Military Performance

In Haiti, military forces already in the area (Argentine military medical personnel) immediately provided first aid and assessed the situation. Their report was addressed to their national high command as well as their chain of command within MINUSTAH.² The assessment was supported by the Haitian government, which stated the urgent need for medical supplies and personnel as well as security forces ensuring a safe

environment for civil relief personnel to work in. The military assessed that medical supplies and security forces would have to be provided as fast as possible. The expectation, also the foundation of the needs assessment, was that all infrastructures were unusable and all vital personnel were unable to perform their duties.

These assumptions led the deployed military forces³ to start the relief work in the fashion of an “unopposed invasion operation,” which demands the provision of all functions needed for deploying and supporting troops. All essential posts like air traffic control, traffic control, supply chain management, and governmental lead functions in all areas were manned with military personnel to reduce friction at the start of deployment, the reception, staging and onward movement of forces, as well as the contingency of relief support.

Four main shortfalls raised manifold problems for the overall effort of all contributors.

Underestimation of Need: The military had underestimated the scope of help needed. The first calculations, on which the deployment plans had been based, estimated 15,000 to 20,000 total casualties in need of medical attention. The actual estimate was between 200,000 and 300,000.

Lack of Clarity and Focus in Coordination: The intermilitary coordination⁴ lacked clarity and focus. Duplications of effort and mutual interference were the direct result and could not be resolved until the end of the operation. There was neither unity of military command nor unity of effort.

Excessive Military Focus on Security: The military simply took over all regulating functions and prioritized its own transports and efforts above all others. Added to that, the predominant will to provide “security first” led to a wrong deployment sequence.⁵

Lack of Adequate Specialists: Besides military doctrine the real military specialists to facilitate the entire spectrum of civil-military coordination were not brought into the theatre at first or even left in the garrisons, leaving it all to the military operational generalists.⁶

Clearly the lead time available to prepare for these complex operations is a central determinant of success. Over a decade earlier in Bosnia, NATO had time to establish the 60,000-soldier Implementation Force (IFOR) to effect the provisions of the Dayton Accord. IFOR divided Bosnia into three regional sectors, each assigned to a multinational division headed by a lead nation. IFOR included Russia and several other former Warsaw Pact nations among its members. The operation ran relatively smoothly, even though it was the first ground operation conducted outside NATO's borders. When IFOR's mandate expired after a year, it was succeeded by a similarly constructed Stabilization Force (SFOR), of indefinite duration. The IFOR experience prompted NATO to prepare in advance for its military role in Kosovo with forces prepositioned in Macedonia. Responsibilities for security were flexible and clearly defined.

In Afghanistan, on the other hand, U.S. military action followed almost immediately in the wake of the 9/11 attacks, so there was little time to prepare for international

arrangements. The United States was initially reluctant to take on large-scale SSTR efforts in Afghanistan. In late 2001 international assistance to Afghanistan was organized under UNSCR 1386, which included the International Security Assistance Force (ISAF) in a peacekeeping role.

Analysis of Civil Entities Performance

The news of the disaster in Haiti was answered by a multitude of international, supranational, governmental, intergovernmental and nongovernmental organizations (NGOs). All of them had the best intentions to provide as much help as possible, with many entities having specific areas of expertise.

This situation demanded a large scale and synchronized harmonization and de-confliction, with a deployment plan designed to ensure the provision of the most vital goods first. In theory this could have taken place if the UN-developed system of the cluster approach had been used. The UN⁷ made every effort to meet this challenge by using UNOCHA, UNHCR and a multitude of other organizations. These attempts were unsuccessful since many organizations were reluctant to coordinate with the UN bodies. The reason was unwillingness to accept the deviation of the organizations' own priorities from those of the international or supranational organizations. The main idea was to follow the agenda "We can provide best what is needed there now," which is completely understandable as the situation was deteriorating by the minute. Nevertheless, this lack of coordination and planning led to poor execution, with numerous duplications of effort as well as shortfalls in providing the complete set of needed functions and goods. Effectiveness was never achieved in the relief work conducted.

Another critical shortfall was transport coordination, which was not expected to be problematic. At this stage coordination with the military personnel controlling the transport infrastructure was paramount. An alternative would have been the control of all actors by the UN, which neither the NGOs nor governmental organizations were willing to accept.

Such difficulties are endemic to multinational operations involving intergovernmental organizations (IGOs) and NGOs. In Afghanistan, ISAF has been plagued by the concerns of IGOs and NGOs that too close an association with security forces or the national government might compromise their independence or political non-alignment. Relief organizations even complained to the U.S. Government about U.S. Servicemembers doing relief work in civilian clothes, for fear that civilian relief workers might be confused with military members and hence endangered.

Analysis of Requirements to Provide Full, Prompt and Effective Support

An estimated figure of three million people were directly affected by the Haitian earthquake. As many as 316,000 people were killed (other sources cite lower figures); over 300,000 sustained severe injuries demanding highly skilled and intense medical attention, with another 450,000 suffering from lesser injuries. Another 1.8 million lost

shelter and all 3 million people affected had very limited access to vital life support. A quarter of a million structures were damaged, including 30,000 assets of critical infrastructure.

To provide rapid support for such a large scale emergency demanded vast airlift as well as ground-based infrastructure capacities either in Haiti or in neighboring countries like the Dominican Republic. In theory, these were available. However, the theoretical demand (not exhaustive) would have required the transport of 150 tons of medical supplies per day, as well as 1 million tents with a weight of 20 kilograms each, equaling 20,000 tons. The provision of food was calculated at 800 grams per person, adding up to 2,400 tons per day. Water requirements, even limited to the absolute minimum of 4 liters per person per day, totaled 12,000 tons per day. The total sum of vital transport needs was 24,550 tons per day, not counting tents, vehicles, water purification systems, or medical installations.

Large transport aircraft can lift 118 tons per flight. At that rate the amount of sorties needed would have been at least 209 per day, with a very optimistic turnaround time of 30 minutes.⁸ This feat would have been manageable only if the requisite air transport and airfields had been available. Distribution at the ground is not analyzed here, as these theoretical figures were never met.

Gap Identification between Required Action and Real Performance

The lessons identified above underscore some crucial gaps of performance in the attempts to provide full, prompt and effective help to the people of Haiti. The theory of how civil-military cooperation was designed to tackle challenges on the scale of the Haiti earthquake—the “whole of nation” approach—is firm and sound; but clearly a drastic gap exists between theory and practice. So far not all theory already developed is generating the necessary output.

To understand how those performance gaps, costing an unidentified number of lives, were possible, we need to look into the material and doctrinal questions as well as the mind-set and institutional links of all participants.

A comparison of the performances presented in the preceding sections with the requirements to minimize the impact in Haiti, measured against the tools available (CIMIC/CMI and the Comprehensive Approach), shows that the main gaps fall into four specific areas.

Resource questions. Sufficient transport and logistics assets were available to support a quick impact in Haiti. The military assigned large numbers of aircraft, equipment and personnel. Critical shortfalls stemmed from an overly optimistic casualty assessment, initial prioritization of security personnel and equipment over medical and relief supplies and poor cooperation between military forces (and civilian assets) of different nations. There was little coordination or de-confliction regarding who would provide which technical equipment and when it would be shipped in. An overall general and agreed plan about material needed was missing completely. An overview was never established of what material was still usable in Haiti, which material was on its way

to Haiti, and what material would be shipped at which point in time, to be used by whom.⁹ There was no overall coordinating authority focusing and fine-tuning the efforts, either on the military side or on the civil side.

Doctrinal questions. Military forces, as well as civil entities, had operational doctrines available for this kind of situation. Were they adhered to in this case? Even though this was not a NATO-led operation, Alliance nations could have employed all CIMIC and CMI functions supported by these overarching existing concepts. However, since the forces were deployed directly from their nations under national command, CIMIC and CMI functions were not included. Even had NATO coordination authority been present, it could not have de-conflicted, harmonized and prioritized their individual actions, as they remained under national command at all times.

Civil entities, including all international, supranational, governmental, intergovernmental and nongovernmental organizations, were solely focused on providing a maximum of help in the shortest period of time. The UN cluster system (such as the Emergency Telecommunications Cluster, led by the World Food Program) was neglected by most of them, with the UN entities trying with all their force to coordinate and de-conflict right from the beginning of the support operations. The vast numbers of organizations deploying to Haiti was beyond the ability of the UN personnel to handle. Yet these organizations ignored even the simplest principles of communications and information. Transparency was lost, and with it the focus of the overall effort.

Military forces took over vital functions to ensure the rapid deployment of their assets, as well as the fastest support of people in need. By doing so they intended to facilitate staging and onward movement, but as they refrained from accepting command authority by UN offices over their actions, they violated fundamental principles of civil-military interaction as well as principles of the Alliance. At the same time the Alliance would have had no means of improving the overall situation, since nations retained command authority over their troops.

Mindset. Quickly realizing the dimensions of this catastrophe, every single person tasked to provide support was highly motivated. In every single entity committed to assist, all assets were freed and assigned to generate quantifiable results as fast as possible to save as many lives as possible. Yet this very positive disposition created a most critical shortfall. All these people started considering their own efforts to be the only important ones, no longer thinking about interdependencies, synergies or coordination. The massive challenge of the work in front of them made them forget that other entities were in need of information about their efforts in planning and conduct. Cooperation and harmonization, highly favored functions in the military as well as in civil entities, were forgotten. All efforts went into doing as much good as possible by getting their own support moving, in place and operational.

This mindset itself, as well as the extremely high level of motivation, is not to be criticized. It was a precondition for success. Nevertheless all the training and education in the needs of cooperation, de-confliction and harmonization, like using the

cluster approach and close cooperation with the cluster leaders in the respective areas of expertise, was neglected on the civilian side.

On the military side the mindset was focused in absolutely the same way as in the civil entities: provide as much help as possible as fast as possible with maximum safety. Remaining under national command appeared to be favorable, as it ensured access to national means of transport and supply as well as personnel. This one advantage produced simultaneously the largest disadvantage in military operations: operating without a full awareness of the situation. This led to less than optimum performance in Haiti. Attempts to adjust the output to ensure sufficient help reduced the set of actions by the military to stereotypical military behavior: trying to do everything by themselves and guaranteeing total control for themselves.

This conflict of mindsets within the military and the civil entities, as well as among each other, produced an almost unsolvable situation of mutual interference, with each player trying to gain dominance in the area to solve those issues in the only way imaginable: the individual organization's "own" way.

Institutional issues. Although there are already a multitude of organizations in place, a discussion about another de-conflicting entity with the ability to harmonize and the power to enforce its decisions took place after the events in Haiti. UN institutions have not yet proven able to manage an operation on the kind of scale that would have been necessary to provide adequate help for three million people in most urgent need of relief.

Required Changes of Attitude and Behavior

To avoid such critical situations in the future—some journalists named this “the catastrophe that followed the earthquake”—we all have to aim for performance change. The performance itself will only change if we all adapt our attitude and behavior.

The main areas for change are easily identified by looking at the lessons from Haiti. Comparison of the findings above with the available tools described in the previous sections indicate clearly the need for change in six vital areas.

Concerted planning. Planning has to take place before any clear and present catastrophe emerges. Even if it is not in overall lead, the Alliance has to take all efforts to establish a high-level platform for communication and coordination at the decision levels of as many civil entities and relief organizations as possible. This forum has to agree on action plans to be carried out whenever necessary. These plans have to cover materiel assets as well as personnel to be deployed to joint advisory panels taking charge of the management in such crises. These panels also need the mantle of authority from all sides to perform their necessary duties.

As much as this high-level planning needs to be generic, it is also highly recommended that expert groups be formed below this decision level, manned with functional experts designing detailed plans to counter all imaginable disasters. These detailed plans need to be reviewed regularly to adapt and reflect changes in organizations as well as capabilities.¹⁰

At the logical next stage these plans have to be transformed into detailed guidance for the respective field level, both military and civil.

Transparency. Achieving mutual trust, a prerequisite for effective cooperation, demands a large amount of transparency. Most civil entities are already highly transparent, so as to make the use of their donors' money visible. In this respect the military has to accommodate change and win the trust of civil partners. Secrecy or "need-to-know" policies may be imposed for security reasons, but those doing so need to understand the impact of reducing transparency.

In civil-military engagement there should be a preference to share even sensitive information like the disposition of forces or the order of battle of specific forces such as engineers, transport aircraft, command ships and many other platforms on the military side as well as the civil. Without this transparency all planning, and therefore all execution, is likely to fail.

Cooperation. Working together in the face of disaster will not generate sufficient output if not practiced in advance. Here both sides have to adapt and start to think creatively. Despite what some civilians seem to think, military force is not inherently evil. Many functions needed in situations like post-earthquake Haiti after the earthquake will only be available within the military set of capabilities, whether the military or the civil side appreciates it or not. So as to be able to perform as necessary, military and civil entities have to be trained to execute interoperable procedures. This should not be limited to field levels, but should extend throughout the overall structure of the organizations involved.

Mindset. The most significant changes need to be in the mindsets of personnel, in both military and civil entities, if the comprehensive approach is to be adopted successfully. Flexibility and creativity will be needed throughout the complete cycle of cooperation, at all stages of planning as well as all phases of execution.

All actors must open their minds and enlarge their horizons to accommodate these necessary changes. The identification of who is best suited and equipped to deal with which challenge is only the beginning. It is vital that all actors accept and welcome an overall environment that promotes coordination; by free will and voluntary choice. Without that attitude there can be no prioritization or delegation across organizational boundaries.

Comprehensiveness. The Comprehensive Approach, the concept of choice of the Alliance to generate better results together with civil partners, is very well suited to enable all actors, military as well as civil, to prepare for likely and unlikely events well in advance of any catastrophe or disaster. The required functionalities range from the top of the organizations to the bottom. CIMIC will play an important role as the concept that will enable the Alliance's forces to interact efficiently with all kinds of civil actors, under a wide range of circumstances. This comprehensive effort needs to be embraced by all participating entities. It cannot work if anyone taking part tries to dominate. These spaces need to be filled by common interest, mutual respect, and a focus on providing the best possible assistance.

The Alliance has to promote comprehensiveness as much as possible to avoid poor performances in future. Any self-centeredness or focus on maximizing the individual output is very likely to produce the same or comparable shortfalls as those observed in Haiti. The world community would be well advised to adjust its mindset fast to a comprehensive approach in disaster relief, as every lapse in preparedness comes at the price of human life—as it did in Haiti.

Consent. It is unrealistic to expect all entities taking part in international disaster relief to practice, prepare and conduct their operations in exactly the same manner. Such unanimity would be helpful indeed, but it is not strictly necessary if consent about the desired end state is achieved early on. It is also advisable to find consensus about activities to be undertaken as well as a general line of operations to be followed. By doing so, mutual interference can be reduced and overall performance enhanced. Aiming for consent is the beginning, but achieving it the end. Consent in what to do, when to do it, to what degree, and in what sequence will enable maximum synergy.

The final result will be highly efficient disaster relief operations, with fewer organizational shortfalls, fewer personnel, fewer resources, fewer financial assets, less duplications of effort, faster help and fewer casualties. The only precondition for this optimization is agreement on common goals.

Conclusions

The Haiti relief effort has shown at a high price that cooperation in disaster relief has to improve in many areas to answer effectively the demands generated by large-scale catastrophes. Too often, predictions of the largest conceivable natural disaster have proved to under estimate the events taking place “on the ground.” The reasons for not closely cooperating, not developing common plans, and not establishing common procedures are to be found in self-centered focus on individual abilities of single organizations. This is not acceptable where human lives are at risk.

Progress appears to have been inconsistent in the comprehensive approach to the crises in Bosnia, Kosovo, Afghanistan, and the Haiti earthquake, with Haiti being especially disappointing.

Experience with HA/DR, SSTR, and BPC over the years confirmed that where no governance exists, it must be established—and governance is impossible without a modicum of security. Where no common vision of an end state binds participants to common goals, it must be agreed upon. And when methods of coordination and cooperation are uncertain, they must be rehearsed.

Comprehensive action is the way ahead that can avoid any critical lack of performance in future. Just one more life saved by using the Comprehensive Approach to solve those crises and catastrophes justifies all efforts. It is evident that changing our ways to accommodate comprehensiveness will be neither easy nor comfortable. The challenges in doing so are not so much questions of organization forms or structures. It is our minds that need to be transformed—from a perspective of “We are the best” to “Together we are the best in saving lives.”

Effectiveness in accommodating the comprehensive approach is very possible. The technical means are there and they can be used without violation of any principles, whether they are those of the military or of the civil partners, or a combination. The only thing that remains to be changed is our attitude which, in turn, will lead to improved performance.

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Notes

1. For details see <http://www.nato.int/docu/stanag/ajp1/AJP-01-D.pdf>, chapter 2, paragraphs 227 to 232.
2. United Nations Stabilization Mission in Haiti (MINUSTAH), <<http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N10/494/00/PDF/N1049400.pdf?OpenElement>>.
3. The main forces deployed consisted of troops from the United States of America, Canada, the Republic of France and a multitude of other Nations.
4. Intermilitary coordination is harmonizing activity between troops of different Nations which are not subordinate to the same or “a” headquarters.
5. Infantry were in the first waves of troops landing in Haiti. For details see Final Report, OCHA (2010), 29, 64.
6. For example, the U.S. Army Reserve, with the bulk of the Civil Affairs and Medical units were put on alert, but were never deployed.
7. The UN-entities in Haiti have also suffered severely from the earthquake, thus limiting its performance.

8. More realistic figures would be between 75 and 120 minutes per flight.
9. These actions are generally summarized by the term “tracking.”
10. This contingency planning has been used in NATO for operations so far, but is not in use with civil partners.

Communicating Through Logistics: Tracing World Food Programme Process Flow in Post-Earthquake Haiti

ROSA AKBARI

Abstract

As part of a greater study documenting humanitarian processes in varying contexts, this chapter examines single agency process flows found during crisis response. For this particular study, the World Food Programme (WFP) and its emergency operation in Haiti after the January 12, 2010, earthquake is the informing case. This study is primarily concerned with depicting the operational aspects of humanitarian assistance during a complex and sudden onset crisis. This chapter also attempts to provide a common framework for discussing humanitarian operations. More specifically, emphasis is placed on the logistics behind food delivery and distributions, following the relief supply chain from start to finish. In order to detail this vertical process properly, data is gathered from a variety of organizational entities, including both civilian and military groups. The author assumes that logistics are a universally understood language across disparate sectors. If humanitarian assistance is examined in logistical terms, operations research methodologies traditionally applied to the private sector can then be used to analyze operations. Rather than raise questions regarding operational effectiveness or prescribe shifts in humanitarian policy, this study serves as an initial communicative reference for civilian and military actors to discuss these comprehensive approaches in the future.

Introduction

As public attention on natural and man-made crises increases, so does interest in their associated humanitarian responses. Even after cursory consideration, one quickly notes that well-planned logistics serve as the lynchpin to coordinating an effective response, though the operational aspects of humanitarian affairs are difficult to study. Data collection is sporadic and institutional memory lies within experiential accounts and disparate primary source documents from the field. Humanitarian logistics is a burgeoning field of academic study, however, affording practitioners prime opportunity to catalog recent humanitarian crises and academics a chance to analyze their subsequent responses.

The basic hypothesis proposed is if humanitarian operations are analyzed systematically, the comprehensive logistics required to execute them are also better understood. One way to organize this analysis is by pinpointing individual humanitarian processes, such as relevant supply chains and coordination mechanisms, in order to distinguish reoccurring process flows in a variety of implementing contexts. By cataloging the operational variables of a single process like food distribution or medical patient transfers, the vertical relief chain naturally surfaces. Basic inputs and outputs are identified, thereby uncovering the logistical planning of the relief chain as a result. This allows stakeholders across various sectors to contribute insight, comprehensively framing an operation from multiple perspectives. One is thus able to itemize actionable steps required to engineer an operation as well as the subsequent resources it necessitates.

In the following study, a single humanitarian operation is presented from start to finish—field to headquarters and back again. The chosen case reflects upon a post-natural disaster situation—the complex emergency response to the January 12, 2010, Haitian earthquake. As such, World Food Programme’s (WFP) food distribution process is of particular interest as it succinctly demonstrates a replicable humanitarian process flow found during sudden onset crisis response. Field research and experiential data are coupled with commercial process analysis literature to formulate a comprehensive overview of emergency food distribution during a large-scale disaster response.

Behind the Logistics

Process Analysis

Commercial process management involves three steps: *process evaluation*, *process analysis*, and *process improvement*. This chapter focuses on the process analysis piece, a practice commonly used in the private sector. In order to apply process analysis to the humanitarian context, certain terms must be redefined. A traditional *process* is defined as “a logical series of related transactions that converts *inputs* to results, or *outputs*” (Anderson, 1999). The process in this case is a humanitarian relief chain, specifically looking at WFP food delivery operations and their “chain of logical, connected, repetitive activities” (Anderson, 1999). The WFP relief chain is comprised of a series of inputs and outputs. Endogenous inputs refer to WFP’s internal logistical capacity in terms of infrastructure and available labor; modifications to prepositioned food stockpiles, methods of transportation, information and communication technology (ICT), implementing logistics, and contributing levels of human expertise are initiated by WFP when deemed necessary. Output is dependent on organizational resources used to attain a “specified and measurable result” for all relevant actors (Handfield, 2002). Success in humanitarian output is thus a function of an agency’s ability to counter obstacles in way of delivering sufficient aid in a timely manner. WFP final output occurs at the end of the delivery process, once food items reach the hands of beneficiaries.

In the private sector, quantities and quality of output are reliant on internal capacity (among a variety of other variables). Manufacturers can readily manipulate inputs necessary to ensure the timely production of quality output. Spikes in production costs and equipment failures are easily mitigated by quickly redistributing prepositioned resources [inputs] to fulfill demands, avoiding consumer discontent. The humanitarian sector is not able to act as deftly in face of similar issues. Responders' logistical capabilities are only as effective as independent environmental factors allow. In the case of WFP, the delivery of food aid is heavily constrained by factors such as funding, the availability of human capital, or of capacity. Despite the organization's exceptional logistics capability and knowledge, WFP can only do so much to counter unforeseen circumstances like economic crises or unoccupied positions.

The relative success of a humanitarian operation relies on more factors than currency-based cost-benefit analysis. Consequently, related *costs* cannot be viewed solely through monetary terms. Rather when drafting humanitarian implementation plans or negotiating outsourced contracts, costs are measured by a form of burden sharing and speculation. Considerations of organizational accountability and reliability thus come into account as costs reflect operational risks rather than just financial ones. In addition, operational budgets are measured against their relative and absolute added value, looking to contextual indicators that take humanitarian standards and beneficiaries' satisfaction into account. These assessments naturally elucidate issues regarding the *quality* of an operation, intimating how well a humanitarian agency meets overwhelming demands in face of seemingly insurmountable crises. The timeliness of aid delivery (and subsequently, the overall quality of an operation) heavily depends on fluctuating internal capacity; *bottlenecks* in the relief chain are thus inevitable given the volatile nature of humanitarian crises (and donor communities). This requires WFP to maintain a level of operational *flexibility* that accounts for pipeline breaks, avoiding additional deprivation for beneficiaries. For all intents and purposes, WFP works to ensure that once aid is in its possession, logistical hiccups are avoided.

Process Flow

The first step in process analysis is to create a *process flowchart*. This requires the chronological mapping of the mechanics of an operation, identifying procedural steps, information transactions, and resource flows (Handfield, 2002). The resulting process flow can then be viewed against operational benchmarks in order to determine what variables affect output the most; questions regarding capacity utilization, production quality, and process flexibility are inherently addressed. Once analysis is complete, implementing partners can better visualize the layers of informational and material flow involved in aid procurement and distribution. Information and resource flows obviously vary from operation to operation, but by outlining the same processes in a variety of contexts, one is able to note reoccurring procedural issues as they form an organization's standard operating procedure.

WFP Organizational Capacity

WFP provides temporary emergency food rations to victims of “war, civil conflict, and natural disasters” (WFP, 2010: a). As part of the official United Nations (UN) bureaucratic structure, the agency is mandated to assist with food and food aid programs in any emergency, regardless of cause as reflected in the Joint Assessment Mission (JAM) Guidelines (UNHCR/WFP, 2008). According to its 2010 Overview of Operations, WFP planned to distribute over 5 million tons (mt) of food aid (valued at U.S.\$5.36 billion) to approximately 92.8 million people as shown in Table 1 (WFP, 2010: b). WFP categorizes its operations into four major types: Emergency Operations (EMOP) provide immediate assistance during the first 24-months after an emergency; Relief and Rehabilitation Operations (PRRO) replace EMOPs and are renewed every 3 years; Development Operations (DEV) improve communities’ long-term food security; Special Operations create specific infrastructure needed for EMOP (WFP, 2010: c). While these distinctions are important for budgetary planning purposes, the humanitarian community pays little attention to the distinctions made. Availability of tangible resources and operational efficiency remain the most important factors to non-governmental implementers.

Table 1: WFP Programme of Work 2010

Programme Type Needs (US\$)	Beneficiaries	Beneficiary Needs (mt*)	Beneficiary
EMOP	53,426,848	1,748,990	1,870,785,588
PRRO	20,918,429	2,890,256	2,854,884,687
Special Operation	-	-	222,603,591
Development	18,431,439	491,809	413,226,187
Grand Total	92,766,716	5,131,054	5,360,500,053

Source: (WFP, 2010:b)

It is important to note that WFP is not the last hand to distribute food; the responsibility of physical distribution falls solely on partner organizations (that is, local and international NGOs). WFP instead serves as the overseeing organization responsible for maintaining food security in times of crisis. This includes procuring and mobilizing mass quantities of food from five global warehouses, leading the development of a comprehensive operational plan in the meantime. The organization is also the sectoral lead for food operations within interagency contexts, delegating strategic tasks to implementing partners on the ground. From a basic level, this means fulfilling the minimum humanitarian standard of 2,100 calories per day in rations. Quantitative data such as population counts, distribution confirmation, and calculated malnutrition rates are used to substantiate whether an operation reaches this benchmark. WFP is ultimately held accountable for food-related issues uncovered by independent evaluations during and after a disaster. In practice, however, third-party implementing

organizations serve as the real accountability measure. NGOs and beneficiaries witness WFP's qualitative capacity firsthand, affording opportunity to candidly assess the organization's ability to deliver on promises of food shipments and transportation needs. This grassroots network inherently keeps WFP operations in check, qualifying the appropriateness and effectiveness of a response by filtering opinions through internal humanitarian networks, media, and otherwise.

The Case: Haiti

Disaster Preparedness

Even prior to the quake, Haiti embodied most notions of a fragile State. For one, little-to-no public infrastructure existed; there was also minimal confidence in the national government to provide it. Although the UN established MINUSTAH on 1 June 2004, the stabilization mission did little to placate the tenuous political situation in country. Geographic dispersion was also quite uneven, with over 2.8 million people residing in Port-au-Prince (PaP) alone (OCHA 2010:a). Poverty-driven migration to urban areas increased population density of the capital to over 28,000 per km² (73,000 per mi²), multiplying the potential effects of any event in or near the city.

While most external agencies had disaster contingency plans already in place, they addressed natural phenomena such as hurricanes and mudslides—not earthquakes. Even more, populations had adapted their homes to withstand common meteorological occurrences, building compounds with stalwart materials able to sustain high winds and excessive rain. These heavier building materials were built on loose foundations unable to withstand ground movement, rendering them quite useless and in fact most dangerous during an earthquake. This choice in architecture was the cause of many of the casualties, crushing people inside buildings as the earth shook. Simply put, the small island-state's natural disaster preparedness did not adequately anticipate earthquake scenarios.

The Earthquake

At 1623 hrs local time on January 12, 2010, Haiti shook. A 7.0 magnitude earthquake struck 17 km (10 mi) southwest of Port-au-Prince, leveling the capital and the surrounding neighborhoods of Léogâne, Carrefour, Delmas, and Jacmel. First hand assessments quickly percolated from the ground, indicating a rising death toll as well as the deaths of numerous government officials and UN personnel. Millions of survivors stayed in the streets, camping under salvaged linens as they feared reoccurring aftershocks as well as the thought of leaving property unguarded (no matter how irrecoverable). Bodies remained pinned under rubble for days as response organizations had minimal lift capacity to remove debris; any heavy machinery that did exist was immobile due to impassible routes. The Ministry of Justice, Ministry of Finance, and Presidential Palace lay in shambles all within one square block. Visible destruction to these national institutions was only compounded by the absence of any tangible

response from the Government of Haiti. The quake wreaked havoc on indigenous, non-government relief capacity as well, leaving many victims to lie in the streets begging for assistance. “We do not even have hydrogen peroxide,” remarked a U.S. tourist-turned-aid provider (Goodman, 2010). Injured Haitians overwhelmed what few health facilities that still stood; field hospitals sprouted in lieu of structurally sound medical buildings. As stated by Adophe Reynald, top aide to the mayor of Port-Au-Prince, “for the moment, [it was] anarchy” (Jan 15 2010).

The Aftermath

As devastating reports arrived from Port-au-Prince, the international community snapped to attention. Many countries sent urban search and rescue (SAR) squads, with medical teams and equipment to follow. Médecins Sans Frontières (MSF) and the International Committee of the Red Cross (ICRC) scaled up some of their organizations’ largest responses to date. Emergency assessment teams gathered initial surveys of damage, displacement, injuries, and deaths, providing developing coordination cells with crucial situational awareness. In terms of financial resources, institutional donors noted Haiti’s heavy reliance on external assistance even before the quake. The UN Central Emergency Response Fund (CERF) allocated U.S.\$10 million the day after the quake to jumpstart immediate relief efforts. Within 3 days of the initial earthquake, the Office for Coordination of Humanitarian Affairs (OCHA) announced a flash appeal for U.S.\$575 million, U.S.\$236 million of which was strictly for food aid; CERF also allocated an additional U.S.\$15 million to the response. Another U.S.\$33.5 million was allocated for logistics (OCHA 2010:b).

On the ground, surviving UN troops and personnel transitioned MINUSTAH’s existing logistics base (located near the international airport) into the central humanitarian coordination hub. The Base became the frenetic nervous center for the overall response, housing civilian NGOs, government officials, peacekeepers, and UN personnel that comprised various UN groups and joint coordination mechanisms. The humanitarian community used this platform to collaborate and develop initial strategic implementation plans for various sectors of the response. Despite suffering extensive damage, the Toussaint L’Ouverture International Airport in Port-au-Prince served as the second natural junction for coordination. The U.S. military assumed air traffic control duties within 24 hours of the quake, setting up a field hospital adjacent to the runway soon after. By January 15, over 180 tons of relief supplies lay on the tarmac with no proper machinery to offload and distribute cargo (OCHA 2010:c). Fuel supply was also starved, forcing ground control to dissuade pilots to land unless they were entirely self-sufficient (otherwise risk being grounded until more fuel arrived). The coordination of air traffic and aid distribution is traditionally a function of frequent, accurate communication between relevant players—air traffic control, supply managers, transporters, and recipient organizations. In Haiti, however, frayed telecommunication lines inhibited coordination efforts while obliterated road networks and local transit capacity further exacerbated any ability to respond or distribute aid. Transportation

within Port-au-Prince was equally difficult unless one had local knowledge of existing routes in order to navigate the unmarked, barely recognizable streets. In addition, only those organizations with abundant financial means were able to contract fleets of vehicles and drivers in spite of inflated costs.

Taking note of past humanitarian efforts in fragile situations, many within the community braced for a rapid decline in security. The UN mandated a “Phase III” security situation for all emergency operations in Haiti, requiring additional planning between civilian and military actors to ensure safe and secure aid distribution. Roughly 3,000 troops and police remained in and around Port-au-Prince to “help maintain order and assist in relief efforts” (OCHA, 2010:d). Although many questioned the actual necessity of heightened precautions once on the ground, initial security requirements forced a complex operating environment for all sectors involved: humanitarian, military, media, and otherwise.

WFP Response: EMOP 200110—Haiti

WFP completed a rapid situational assessment within 48 hours of the disaster; an estimated 3 million were affected by the quake, 2 million of which required immediate food assistance (WFP 2010:d). On January 15, 2010, WFP issued Emergency Operation (EMOP) 200110 in Haiti. The emergency food assistance package called for 104,360 metric tons (mt) of food to be distributed to 2 million beneficiaries over the course of six months (WFP, 2010:e). 86mt of high energy biscuits (HEB) were immediately dispatched from a WFP satellite hub located in El Salvador, intended to sustain 30,000 people for seven days (OCHA, 2010:e).

The initial plan was to unfold the EMOP in three logistical phases. The first consisted of general food distributions (via NGOs) to all affected populations for a period of two months. Ready-to-eat meals and HEB were distributed at mobile distribution points; rations were given to those who could still cook (WFP, 2010:d). Initial food distribution efforts left many still waiting for food, often devolving the distribution effort into a “bloodsport” of sorts (WFP, 2010:d). After 2 weeks of initial distribution, a coupon-based system was instituted (Cave 2010). Each coupon was dated and signed, with elected local representatives shuffling between households to hand out individual vouchers to each family (Cave, 2010). The operation included 2 million beneficiaries from January to June 2010, reducing to one million thereafter. In phase II, distributions targeted the most vulnerable populations, including handicapped, women, children, and the elderly. Outlying populations in surrounding rural areas were included as well (WFP 2010:f). The third phase supported WFP Strategic Objective 3 to “restore and rebuild lives and livelihoods in post disaster or transition situations,” replacing General Food Distribution (GFD) with Food for Work (FFW) and Cash for Work (CFW) programs by March 2010 (WFP, 2010:f).

Food Basket

Emergency humanitarian daily rations consisted of 15,400 mt of stock—7 days worth of high energy biscuits (HEB) and meals-ready-to-eat (MRE). The next 60 days scaled the general food distributions (GFD) to require 51,760 mt of food. An additional 22,800 mt was allocated for the 500,000 most vulnerable beneficiaries while another 14,400 mt were deemed part of Food for Work (FFW) initiatives, also targeting 500,000 beneficiaries. The standard daily ration included cereals, pulses, vegetable oil, corn soya blend, and salt; rice and beans were added to distributed rations by February 4 2010. The statistics presented heavily rely on information collected during the first two months of the operation, though current statistics supplement the data.

Budget

The initial cost of food amounted to U.S.\$176 million; total operational costs were initially estimated at U.S.\$71 million. A budget revision was adopted on 19 February 2010 in order to support the extension of the operation until 31 December 2010. An additional 171.5 mt of food was requested, valued at U.S.\$71 million (WFP, 2010:g). Another U.S.\$158 million was delineated for support costs, bringing the total revised budget of WFP EMOP 200110 to over U.S.\$475 million. Given the nature of crisis, various organizations' emergency funding mechanisms kicked in to provide immediate resources to aid providers. This helped sustain the immediacy and fluidity in response until formal operating budgets were allocated. International visibility and concern over the disaster essentially negated budgetary constraints (WFP, 2010:g). Simply put, the availability of funds was "immediate and massive" (WFP, 2010:h).

Implementing Partners and Beneficiaries

The earthquake launched a multipronged, multinational relief effort. The Government of Haiti was largely absent the first days after the quake. As documented in the technological community's situational reports from the field, surviving government officials had minimal access to communication technology, naturally limiting their ability to properly govern (Beckman, 2010).

Officials who were able to quickly relocate did so and many of them who left the island entirely did so to attend various donor conferences and flash funding appeals, held at UN Headquarters in New York City and Montréal. As such, the community-based organizations (CBOs) that still stood in country were a first line of response hours after the quake despite suffering severe damage to their capacities. Numerous expatriate organizations soon followed in country as part of the initial surge of relief provided during the month following the quake, providing search & rescue, trauma care, and emergency medical expertise to those most in need. Many countries also sent their military resources in a show of international solidarity. Though WFP was in charge of several main aspect of the response, the complexity of the disaster required the organization to work closely in conjunction with other UN organizations in order to properly coordinate efforts. Below is a sample of organizations included in the response.

World Food Programme. WFP had conducted operations in Haiti since 1969. Prior to the quake, the organization had sub-offices and warehouses in Cap Haïtien, Gonaïves, Les Cayes, Jacmel and Port-au-Prince, with an additional 19 mobile storage units in PaP and another 13 spread throughout the country. Given the region's natural proclivity for hurricanes, WFP operations built in components to bolster individual countries' emergency response and disaster mitigation capacities. Its operations in Haiti directly supplement these priorities as recently as 2008. That season, four hurricanes—Fay, Gustav, Hanna, and Ike—battered the deforested countryside where nearly 1 million people resided. WFP initiated an emergency operation to provide food assistance to 800,000 people (nearly 8 percent of the population) affected by subsequent flooding in the north (WFP, 2010:i). Though the relief chain for the 2008 EMOP was considerably smaller and less complex, it offered valuable experience to those organizing the response. A follow-on operation began in 2009, focussing WFP's emergency operations into recovery and development efforts (WFP 2010:j). It was the emergency preparedness and relief component of this PRRO that was able to immediately provide operational funds once the 2010 earthquake struck, falling under the mandates to provide “flexible and adequate” relief to “populations affected by natural disasters and civil unrest” (WFP, 2010:k).

A total of 446 people staffed WFP operations between Haiti and the Dominican Republic, where the organization's physical presence following the earthquake was seen as a cornerstone for the entire humanitarian relief effort. All food distribution plans were finalized with the Government of Haiti, local mayors, NGO partners, and WFP headquarters in Rome, Italy (WFP, 2010:d). In addition to organizing food distributions, WFP headed two other major UN clusters: logistics, and telecommunications. These clusters' contributions included (but were certainly not limited to): emergency telecommunications services; cargo consolidation and preparation; customs information and expertise; coordination of common transport and storage; liaising with the Government of Haiti (civil police) and various military actors; and, information management to support logistical decisionmaking for a variety of implementing partners (UN 2010).

Other UN Agencies. The UN was deemed de facto leader of the response, specifically the Organization for Coordination for Humanitarian Affairs (OCHA) and designated representatives of the UN Secretary General.¹ As such, the vital role OCHA played in coordinating the complex humanitarian response should not be understated. The UN first served as a broker organization, filtering contributions from the international community to appropriate recipients, often via third parties. On the ground, MINUSTAH peacekeeping troops were some of the first responders on the scene. Their initial relief efforts were bolstered by the UN's existing presence stationed in Haiti. Years of operational familiarity facilitated a relatively quick response in country despite devastating personnel losses. More importantly, UN Agencies' breadth and depth of experience in crises helped develop an organizational framework for the entire humanitarian response. As WFP tailored its response to population distribution and demographics, it relied on the International Organization for Migration (IOM) for current information on

internally displaced persons (IDPs) clusters and camps. In addition, the UN Children's Fund (UNICEF) and Population Fund (UNFPA) provided valuable information on neglected beneficiaries as well as updates on nutritional health. MINUSTAH's former Logistics Base (located near the Port-au-Prince airport) was converted into the UN's On-site Operations Coordination Center (OSOCC), serving as the launching point for multiagency information sharing, operational coordination, and collaboration. OSOCC is where Humanitarian Clusters met, each being led by a UN agency according to its sectoral expertise. Individuals from all levels of the response attended daily Cluster meetings. Although ad hoc by nature, some clusters established an inherent hierarchy in information dissemination. WFP, for example, established a paper-based and online food request system for organizations. During Food Cluster meetings, WFP gathered field reports from implementing partners, including missionaries, NGOs, peacekeepers, and UN officials. An informal set of best practices for distribution were subsequently developed and communicated to relevant parties.

Nongovernmental organizations. At the time of the quake, many international NGOs already had substantial operations on the ground. Consequently, the UN-designated NGOs most familiar with the implementing environment to manage seven different geographic regions. Eventually, seven organizations—World Vision International, Samaritan's Purse, Save the Children, GOAL, Agency for Technical Cooperation and Development (ACTED), International Federation of the Red Cross (IFRC), and Viva Rio—partnered together under the auspices of the UN in order to oversee and coordinate activities in their designated areas of responsibility. WFP specifically partnered directly with two NGOs, Handicap International and Atlas Logistique, for logistics and technical support. In addition to multinational NGOs, relief efforts tapped into the existing network of non-secular and/or indigenous organizations. One spillover effect of Christian missionaries' longstanding ties to modern Haiti includes the sponsorship of various grassroots nonprofit initiatives. Many secular organizations (UN included) came to heavily rely on domestic missionaries and other faith-based community organizations. As in all humanitarian crises, secular and non-secular CBOs played a crucial role in effectively connecting international organizations to affected populations. Without their guidance, it is unlikely that expatriates organizations could have executed their operations as swiftly and efficiently as they did.

United States Government. Upon hearing of the magnitude of the disaster, U.S. President Barack Obama dispatched an initial force of 3,500 soldiers to the region. A Joint Task Force (JTF) was stood up almost immediately, bringing all branches of U.S. military and civilian agencies under the leadership of the U.S. Agency for International Development (USAID) and tangentially, Special Operations Command (SOCOM) based out of Miami, FL. *Operation Unified Response* was augmented by the USS *Carl Vinson* aircraft carrier and the USNS *Comfort*, a 1,000-bed hospital ship based out of Baltimore, Maryland; both ships anchored just off the Port-au-Prince coast due to a badly damaged port infrastructure. By February 1 2010, JTF-Haiti had 22,000 Servicemembers, 58 aircrafts, and 23 ships involved with the operation. Notable

contributions from the five-month long deployment include assuming air traffic control despite having no power to service the control tower or nighttime operations, providing security during food distribution, and supplementing telecommunication capabilities (Pan-American Health Organization 2010).

Beneficiaries. The earthquake obviously affected all demographics in Haiti—expatriates and citizens alike. Responders also had to account for the neglected beneficiaries (that is, women, children, and the mentally and/or physically handicapped), whose needs often become secondary concerns during moments of crises. While local capacity of all forms had to overcome myriad personal and communal challenges, the resilience and initial optimism of the Haitian population (despite the circumstances it faced) is an important factor to note. Local markets and private services did not skip a beat, providing a small sense of psychosocial and economic stability in a situation that was deteriorating otherwise. Some relief organizations also provided employment opportunities for locals, hiring survivors to help “restore a sense of pride” with “Haitians helping Haitians” (Fethiere, 2010).

Process Flow: Food Relief Supply Chain

Phase I—Procurement and Prepositioning

Haiti’s humanitarian process flow breaks down into two phases. The first traces goods from their international point of origin to Haiti proper. The second phase focuses on the last mile, detailing how food is distributed from the warehouse to the beneficiary. In order to mitigate sudden shocks to humanitarian relief chains, a diverse set of resources must be mobilized. This naturally requires multiple donors from many parts of the world to send cargo. In previous experience, Port-au-Prince served as WFP major staging area for these shipments. Most warehouses in the capital were deemed structurally unsound after the quake, leaving thousands of tons of food irretrievable. Furthermore, the airport was overwhelmed with cargo. Although Haiti normally had infrastructure to absorb ocean freight for imports, both ports in Port-au-Prince and Cape Haïtien were left completely inoperable.

Given Haiti’s crippled state of affairs, the majority of incoming aid was thus diverted to the Dominican Republic (DR) where the government there played a crucial role in coordinating the comprehensive response. In addition, WFP officially partnered with two NGOs, Handicap International and Atlas Logistique, for logistics and technical support. The Las Americas International Airport in Santo Domingo in the DR was designated as the primary point of entry by air for humanitarian goods. Santo Domingo thus became the international staging area for relief efforts. Santo de Barahona (183km west of Santo Domingo) served as an additional hub for passenger and cargo. Most of Barahona’s imports were directly flown to secure storage spaces outside Port-au-Prince, including WFP warehouses in Jacmel and Les Cayes. The remainder followed the same path as incoming goods from Santo Domingo.

WFP worked in conjunction with the Dominican Republic's Department of Civil Protection (DCP) to gather proper customs documentation in an effort to streamline customs procedures both in Santo Domingo and Haiti. The DCP eventually required all incoming cargo to have necessary documentation from Haiti upfront in order to affirm the prioritization of shipments. Once imports were processed, offloaded, and repackaged, they were forwarded from Santo Domingo along an interagency fleet of trucks provided by DR and managed by a team of logisticians from Handicap International/Atlas Logistique (Handicap International 2010); these 85 trucks (including approximately 50 off-road lorries) were the only ones designated to caravan from Santo Domingo to Port-au-Prince to deliver humanitarian aid. The cargo's next stop was Jimani, DR, a border town 265 km west of Santo Domingo. Traffic averaged 8 to 9 hours on the road, double the time it normally takes to travel the route. Located just 60 km outside PaP, Jimani immediately became the main artery into Haiti. Goods originating in Santo Domingo and Baharona arrived by land and air, where they were re-prioritized according to new demands from the field. MINUSTAH stationed a coordinator at the Jimani border crossing to help organize overland traffic. Once administrative and logistical details were settled, convoys traveled onward to PaP. Although traveling a short distance, convoys expected daily transit delays of nearly ten hours in weeks following the earthquake. U.S. military and MINUSTAH peace-keeping troops flanked traveling convoys, providing necessary security. The security requirement did add delivery delays. Upon eventual arrival to Port-au-Prince, goods were either directly forwarded to beneficiaries or transported to storage. Goods were taken to one of few secure drop-off points—a main warehouse, mobile storage units (MSU), or the airport. The main warehouse complex consisted of over 40 warehouses stocked with food and non-food items. MSUs were positioned near impromptu settlements throughout the city. Finally, the airport served as the major staging area for food deliveries. As road transport within town was nearly impenetrable, many raised concerns believing that slow moving delivery trucks would be prime targets for looting. In an effort to ensure the security of cargo in transit, additional security was sought from various countries' militaries to flank incoming caravans.

Phase II—Last Mile Distribution

WFP worked in conjunction with NGOs, the U.S. military, MINUSTAH, and local manpower to coordinate the last mile of food distribution. The thought was once a demand from the field was confirmed, goods would be transported from one of three storage points onto smaller, more maneuverable trucks provided by partnered NGOs. NGOs would then go to one of 16 secure food delivery points set up within the immediate urban response area and distribute rations. At each distribution point, GFD were provided as a family ration for five members to eligible families living their communities or still in shelters (WFP, 2010:e).

WFP relied on NGOs to distribute food. The standing relationship NGOs had with affected populations helped ensure a smooth distribution process. This last mile

of delivery often came to a standstill, however, as distribution security became a nearly crippling concern (although in retrospect, many debate the necessity of these concerns). Basic security measures called for all emergency operations to be completed during daylight hours; this is standard for emergency humanitarian response. The UN's heightened security mandate, however, dictated the need for additional security during all distribution efforts. While WFP had an advantage in that it could directly dispatch MINUSTAH troops to accompany distribution efforts, they were already stretched thin. The next source for security came from individual country's military contingents. Formally requesting these resources did not result in their immediate availability, however, each country's engagement of troops was contingent on gaining clearance from respective chains of command. This approval takes time to gain, as military standard operating procedure does not allow troops to participate on missions until adequate force protection is in place. The delays incurred while waiting for confirmation thus affected the entire supply chain. Even more, some militaries had little to no experience in humanitarian contexts. This left many NGOs at a crossroads: wait for potentially unseasoned military to receive go-ahead while people suffered or take a risk and continue distribution operations without "proper security"? (This decision point in the process flow is important to note as it is a critical topic to address in any discussions regarding civil-military relations during humanitarian response.) The experience of two groups, the Florida-based Pathfinders and the German Agency for Technical Cooperation (GTZ), help depict this last mile of distribution to beneficiaries.

After being tasked by WFP Deputy Country Director, Benoit Thiry, Pathfinders embarked on their first mass feeding operation in the densely populated IDP areas of Carrefour, followed by the Delmas 2 camps, Kenscoff, Petionville, and the Presidential Palace. Beginning January 21, 2010, the 8 person Pathfinder team coordinated over 200 Haitians and 20 small dump trucks to distribute a total of 2,429,200 meal rations (483 tons) in 8 days; the team distributed an average of 300,000 meal rations per day. Despite having a large "logistics/distribution team," the first phase of delivery was tense. The first day, it took Pathfinders over 4 hours at the WFP warehouses to load a fleet of trucks holding 70 tons of bulk food. For nearly 2 hours, the group, flanked by a personal team of 20 armed Haitian security personnel, distributed food to approximately 12,000 people. Local gangs quickly organized, however, inciting the crowd and overrunning the distribution base with gunfire erupting. Two armored UN Personnel Carriers plus a Haitian SWAT team were needed to evacuate the distribution team. Next, the U.S. military joined the Pathfinders for a joint distribution of AM radios and food. However, Pathfinders' food supply ran out quicker than the radios leaving thousands still hungry and the Pathfinders with nothing to give.

Every daily distribution effort faced its own challenges, ending each time with a final five minutes of "organized chaos." Distributions improved incrementally, however, with "Lessons Learned" reviewed every evening. Another massive distribution was pre-planned in conjunction with the U.S. military. The single, million meal ration distribution coordinated with the U.S. military "caused the only major failure" during

Pathfinders' deployment (Lewis, 2011). This led the group to rejoin with UN Security forces, prompting a second phase of operations where Pathfinders were able to distribute food successfully to 12,000 people in two different IDP locations in under forty minutes. After the faulty distribution with the U.S. military, the group operationally revised tactics, enacting the *termination model*, which "avoid[ed] last minute food rushes as supplies dwindled" by organizing controlled, yet quick exits with the help of a large security team consisting of a UN Jordanian military platoon and ten Haitian National Policemen (PTF 2010). Pathfinders' distribution crew required three people per truck on the feeding side with remaining crews channeling flow away from trucks, using strategically placed strands of barbwire for force protection. The team's last model was mapped out in advance with planning assistance from a U.S. Air Force Colonel on special leave to assist Pathfinders. The successful distribution has since served as the team's model for teaching purposes to emergency management groups throughout the United States.

An example of effective food delivery within the camps comes from GTZ, where the organization was operating in Léogane, Haiti—a town located 35km outside of PaP and largely neglected during the initial aftermath of the quake. By 22 January 2010, the GTZ had an effort in place that included local administration, UN agencies, MINUSTAH troops, and Canadian military forces supporting emergency food distribution. GTZ worked with the WFP-led food cluster to direct its team to various locales, using emergency committees to determine best practices regarding distribution; it was quickly determined that women were the most reliable population group for food to be transferred as they would ensure the most effective and egalitarian distribution amongst family and surrounding neighbors. The month long effort involved the distribution of 135,860 reusable cardboard boxes that contained ten-days worth of rations apiece. Each ration contained 2,890-kcal which was one-third over WFP's daily suggested amount of 2,100 calories. The total operation amounted to nearly 1,000 tons of total food distributed, and over 100,000 assisted. GTZ was able to expedite its deployment as it already had an unrelated Haitian operation in place [GTZ-DETA] as well as offices in Dominican Republic. GTZ-DETA quickly transferred its staff (and their intellectual capital) to distribution efforts while GTZ offices in DR were used to procure and preposition assets (Metz, 2010).

Fundamentally, the operation exhibited effective communication, coordination, and interagency cooperation. Furthermore, GTZ had the added assets of immediately available human capital that had local familiarity with the operating environment, making logistical planning and distribution efforts much easier. Last, like the Pathfinders group, GTZ exhibited general awareness and responsiveness to changing priorities. In both cases, flexible staffs serve as the foundation for successful distribution efforts in the field.

Analysis

Inconsistent coordination and infrastructure left many victims (and the onlooking international community) questioning the relief effort's actual effectiveness. Affected populations outside urban centers remained untended for weeks after the quake, for

example, leaving the majority of victims needs outside Port-au-Prince severely unmet. Many outside the operating environment blamed the UN Cluster System, stating it was incapable of properly coordinating and managing such a massive operation. As Sir John Holmes, head of UN OCHA, noted, an “uneven response in the month following the devastating January 12 earthquake [undercut] confidence in the UN’s ability to delivery vital assistance” (Lynch, 2010). Holmes specifically noted the “sluggish implementation of the ‘cluster strategy,’” an approach initially developed to mitigate conflicts between competing organizations (Lynch, 2010). The main point of concern lay with unequipped Global Cluster Lead Agencies, including lead coordinators who “struggled without the capacity required to coordinate efficiently the large number of partners involved in the operation” (Lynch, 2010).

As witnessed on the ground, the breadth of information flowing throughout the OSOCC was vast, while vertical communication from UN Cluster leads to the field (and all partners in between) was sometimes muddled and inconsistent. As previously noted, however, certain Clusters fared better than others. For the purposes of this study, focus will remain on the documented single humanitarian process flow of WFP rather than the overall response. From this analysis, however, a few obvious conclusions can be drawn that are relevant to the greater issues found during comprehensive approaches to humanitarian operations. This analysis should not be considered a definitive assessment of the Haitian disaster response, but rather as an impetus for future quantitative and qualitative analysis regarding humanitarian process flows.

Pipeline Breaks

The length of the supply chain in Haiti was long and complex. There were multiple points of entry for aid commodities, snarled transportation logistics, and a large yet disparate population of beneficiaries. Implementing partners each had their own logistical hindrances as well. Thus, bottlenecks occurred both in and out of country. Out of country, donors scrambled to prioritize funds and resources being sent to the small island nation. In country, ports were overrun, the airport overloaded, and roads nearly impassable. The airport, for example, became a major bottleneck in the initial humanitarian supply chain, forcing organizations to explore alternative ports of entry within the region. Initial delivery of aid was thus quite complicated, forcing the relief chain to rely on terrestrial routes originating in the Dominican Republic. While WFP had existing warehouses and emergency distribution points in Port-au-Prince, they were also badly damaged. In order to cope with inaccessible food stocks, the frequency of deliveries originating from Mobile Storage Units (MSUs) was increased, draining personnel and resources at an exponential rate. NGOs, those dedicated to the last mile of distribution, were also stretched dangerously thin. Limited situational awareness coupled with lack of transportation and communication capabilities made for extremely difficult coordination throughout, slowing down the process on the whole. Rapid ingenuity and adaptability were key to maintaining composure and keeping the operation afloat despite seemingly insurmountable challenges.

Capacity

Initial operations benefited from enormous pledged budgets and a flood of human resources. On the ground, there was little implementation gap as creative accounting methods allowed organizations to quickly manipulate existing operational budgets to release emergency funds. Capacity was lacking in the execution of operations. For one, language barriers made initial situational assessments and coordination difficult. UN Cluster meetings were held in English, with no guarantee for drafted documents to be translated to French or Creole. In addition, the staffs of indigenous organizations were greatly affected by the quake, leaving a limited number of community-based organizations and experienced personnel available to help. Coincidentally, while some humanitarian crises see little outside intervention to supplement these losses, Haiti was overwhelmed by it. While the amount of expatriate responders may lead some to superficially assume adequate human capacity existed, the sheer number of disparate, inexperienced actors funneling in only complicated matters more. This quickly became a straining point for relief operations. Many arrived in Port-au-Prince without a specific mandate and little idea as to the best way to integrate into the response. Basic hindrances to transit and communication infrastructures also affected all workers, veterans or not. The logistical considerations of “redundant humanitarians” soon became more of a burden than a help. In one instance, a mother, her daughter, and two friends from Spain entered Haiti upon hearing of the quake; they were on journalistic assignment in Santo Domingo prior to the quake. They waited outside U.S. Embassy gates, the designated campsite for all U.S. Government personnel, hoping to find a place to sleep as they “felt unsafe” amongst the thousands of Haitians waiting outside the Embassy for consulate services. Ultimately, a unique exception was made and the independent Spanish contingent was allowed to camp on-site for one night, escaping the very people they came to help. Without a guided plan or purpose, such actors unnecessarily clogged the system, exponentially increasing the signal to noise ratio when attempting to match individual skill sets to need. Emergency operations obviously incur additional considerations and concerns. While in no way perfect, distribution to Internally Displaced Persons (IDPs) incorporated institutional knowledge regarding the safety of women, the maintenance of children’s nutritional standards, and the necessity of extra provisions for those who are mentally and/or physically handicapped fairly quickly into its standard operating procedures.

Case in point, although Haiti had large number of actors on the ground, the projected impact of their work was not indicative of their size. Even more, the percentage of effective capacity dwindled rapidly as opportunities for relief and recovery for humanitarian workers and their implementing partners was often overlooked. The depreciation of experienced personnel soon became one of the largest obstacles organizations came to face in weeks following the initial surge of response. This left organizations like WFP to continually filter their labor inputs, leaving a small number of experienced implementing partners once ineffective variables were weeded out.

Inefficiencies in last mile distribution were more a result of the environmental context they were employed in. Emergency humanitarian response caters most readily to rural or inaccessible contexts as these regions most often do not have local capacity to respond themselves. Haiti was a completely different operating environment; the earthquake hit one of the most densely populated cities in the Western hemisphere. The sheer number of people affected, nearly as many as the 2004 Tsunami, was one obvious obstacle. Haiti's despondent history also fed into a "victim's narrative" that presumed a (false) helplessness among Haitians; this led many organizations to over-compensate their external response without thinking to integrate the preferences or knowledge of local populations. Furthermore, while government sponsored capacity may not have existed, a unique network of private service organizations did, thickening the web of considerations that go behind disruptive humanitarian aid and sustainable humanitarian assistance. Needless to say, the urban context only complicated the coordination efforts of "green" Cluster leads.

Mismanaged Coordination Efforts

In theory, the Humanitarian Cluster System is the UN's attempt to develop a comprehensive approach to humanitarian operations. OCHA organized the system in an effort to bolster grassroots information gathering alongside multi- and interagency coordination at all levels. As previously alluded to, however, its execution often leaves much room for improvement in its ability to fully facilitate an effective, coordinated response. From a basic level, the Haitian iteration of the Cluster System, as shown in table 2, allowed individual organizations to voice opinions in a semi-organized manner while Cluster leads did a fare job utilizing what little resources they had to the best of their ability. While this many-to-one interaction took time to consolidate and decipher, the guaranteed flow of valued information under the Cluster tents helped facilitate in-person cross sector knowledge amongst those who needed it most. Although some believe this type of coordination can better occur through virtual means, in the absence of reliable communication systems person-to-person interaction remained the prevalent method of consistent, communication amongst humanitarian practitioners. The permanency of the Cluster System at UN OSOCC thus served as a physical and figurative point of collaboration for the entire response.

In terms of execution, most clusters gathered at least once a day during the initial weeks following the quake, though often meeting during competing time periods. Many individuals noted it was difficult to attend meetings as they were traveling long distances from different points within PaP, relying on broken roads and little geographical context to get there. In addition, cluster meetings overlapped, disallowing individuals (UN Cluster Leads included) to keep abreast of other relevant relief efforts. The Shelter Cluster lead, for example, could rarely (if ever) attend Food Cluster meetings despite the fact both groups held meetings mere meters apart. This negated numerous opportunities to utilize overlapping resources, especially in regards to storage or transportation. Under the tents, a Cluster meeting's productive output

was merely a function of the personality leading the discussion. This obviously left a great deal of variability between each cluster. Some clusters, were relatively haphazard in organization or poorly attended until restructured. Other clusters, such as the Food [WFP] and Shelter [IOM] Clusters seemed adequately attended and coordinated, but again, limited “intercluster” coordination occurred. Even more worrisome, military personnel rarely integrated into Clusters’ discussions despite housing joint civil-military coordinating offices at the entrance of OSOCC.

Civil-Military Complications

When civilian and military actors are thrown into a high pressure environment, it takes time to normalize all working parts to a single operating pace. This was quite evident in Haiti.

The sheer number of personnel coupled with dissimilar operating procedures made for interesting coordination attempts. Existing organizational rifts between culturally distinct institutions further highlighted the political complexities of multi-national disaster response.

Table 2. Cluster Leads in Haiti

Cluster	Lead Organization
Food*	WFP
Telecommunications	WFP
Logistics	WFP
Information management**	Office for Coordination of Humanitarian Affairs (OCHA)
Camp Coordination/Management	International Organization for Migration (IOM)
Shelter and Non-Food Items (NFI)	IOM (in conjunction with IFRC)
Protection	Office of the High Commissioner on Human Rights (UNCHR)
Children	UN Children’s Fund (UNICEF)
Gender Based Violence	UN Population Fund (UNFPA)
Health	Pan-American Health Org (PAHO)/World Health Org (WHO)
Water, Sanitation, & Hygiene (WASH)	UNICEF
Nutrition	UNICEF
Education	UNICEF
Early Recovery	UN Development Programme (UNDP)
Agriculture*	Food and Agriculture Organization (FAO)

*Food and Agriculture traditionally serve as a single cluster

**Information Management is an additional cluster

Source: OCHA (2010:f)

It is no surprise that issues relating to civil-military relations quickly surfaced in Haiti. The response consisted of multiple militaries, each operating under a distinct set of defense structures and procedures from their home country. Others operated under a “warfighter” mentality, many of whom came to Haiti from battlefields in Iraq or Afghanistan. Understandably, the drastic change in operating environment required proper adjustment time—in a situation where time is a priceless commodity. Groups like the Pathfinders Task Force, for example, readily incorporated local Haitians in their food distribution efforts. For military just returning from conflict zones, the rapid incorporation of local civilian labor was met with suspicion and caution as their previous wartime operating environments taught many to decipher between benign civilian and insurgents. Some militaries were better accustomed to humanitarian response than others, however, appreciating the importance of a forward facing, civilian-led response. This was most often a result of previous experience on peacekeeping missions and other civilian-heavy operations. Each response organization had differing interpretations of threat levels as well. This led to mismatched expectations regarding what “necessary force protection” actually was.

Amongst the chaos, however, the experience spawned myriad doctrinal reviews and basic attempts to better coordinate practices before a disaster strikes. As noted by both civilian and military organizations, the foundation for better coordination relies on building dependable trust between entities prior to an urgent situation. Whether through shared situational experiences or joint academic research, the humanitarian response community will only benefit from sustaining dialogues with all active parts to a comprehensive approach, military included.

Conclusion

Since the response to the Haitian earthquake, the international community has taken note of the myriad hurdles involved with multiagency responses to natural (or manmade) disasters. Practitioners realize the critical importance of well thought-out logistics, realizing that some form of common operational understanding is necessary in order to get multiple actors and agencies onto the same page. This inherently requires the use of a common language that is applicable to all sectors: public or private, civilian or military. By detailing the logistics behind an individual humanitarian process flow, the logistics behind a single humanitarian process like food distribution can be used to elucidate what actually happens on the ground. One is of what actors and resources are required for the response itself. This information can then be expanded upon with further quantitative and qualitative analysis in forms of operations research or humanitarian policy review.

The general format of the presented study serves as an explanatory model to those new to the humanitarian operating environment. If humanitarian operations are broken into manageable pieces or “steps” as done in the private sector, it may assist relatively inexperienced implementing partners, like the U.S. military, in understanding what is actually occurring during a humanitarian operation. The discussion of

humanitarian logistics also opens opportunity for actors to determine appropriate stages for involvement within an existing humanitarian supply chain –procurement, prepositioning, delivery, or last mile distribution. The development of a process flow naturally does this, as the delineation of stakeholders as well as the underlying authorities and responsibilities of each is standard to the process.

The humanitarian community does not readily apply commercial supply chain management to humanitarian supply chains despite similarities in structure and execution. While third-party review and critiques of single organizations are essential to improving individual efficiencies, hopes to improve holistically logistical processes as disparate as those found within the humanitarian system require interdisciplinary analysis of various perspectives. This helps identify operational overlaps between sectors and address comprehensive issues for all involved. At best, this chapter serves as a catalyst for these emerging conversations, seeking to improve the operative aspects of existing and future humanitarian operations.

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Notes

1. Most often referred to as “Special Representatives of the Secretary General,” or SRSGs.

Summary of Conference Discussions and Conclusions

The topic of this conference: “Capability Development in Support of Comprehensive Approaches: Transforming International Civil-Military Interactions,” was chosen very carefully. For nearly a decade, and especially since 2006, NATO leaders have recognized the need to integrate all instruments of civil and military power better to achieve Alliance goals. However, an agreed definition of “Comprehensive Approach” has been elusive, a victim of conflicting visions among member states about the Alliance’s roles. The conference did not address these different interpretations, nor did it try to develop a new CA definition, but rather focused on capability development.

Experiences from many contingencies, from Stabilization and Reconstruction (S&R), to Humanitarian Assistance/Disaster Relief (HA/DR), to Building Partner Capacity (BPC), suggest that some capabilities for each of these missions have much in common, particularly with respect to interoperability and information sharing. These kinds of capabilities for Comprehensive Approach situations can be developed quickly, and at less cost than might be expected, partly because of the explosion of commercial capabilities that can be leveraged.

The diversity of the attendees at NATO Defense College contributed greatly to the richness of the conference and the discussion. There were representatives from 5 of the NATO Centres of Excellence, 11 Alliance nations, and 2 partner nations—Australia and Sweden. Fifteen papers were presented, with a sixteenth provided later.

These conference proceedings are structured in five related categories. (The structure is slightly different from the organization of the discussion panels, based on the results of the conference interactions, and related inputs.) They are:

- ✦ Concepts, Policy, and Organization;
- ✦ Technology;
- ✦ Leadership, Management, Education and Training;
- ✦ Integrated Approaches to Complex Operations; and
- ✦ Implementation of the Comprehensive Approach: Haiti as a Case Study.

These categories are consistent with the observations of the International Transformation (ITX) Chairs Network that real transformation needs to involve co-evolved change among people, processes, organization and technology.

At the end of the conference, several attendees had a chance to visit the Allied Joint Force Command Naples (JFC NP) to understand NATO's Libyan operations better (Operation *Unified Protector*). This visit had a significant impact on their thinking, and is reflected in this summary.

Introduction

The NATO Defense College Commandant, Lieutenant General Wolf-Dieter Loeser, German Army, welcomed the attendees. Brigadier General Jose Manuel Garcia-Fontecha, Portuguese Air Force, Head of the Joint Synchronization Execution Branch at JFC NP delivered the keynote address. He set the tone for the conference by highlighting the need for NATO to organize capabilities for Comprehensive Approach missions and confirmed that a major challenge has been to define what the Comprehensive Approach is, since the application of the concept depends on its definition. NATO needs to organize its capabilities in order to perform its missions, and to be able to work with civilians and partner nations. Political will is essential and the task is harder when support levels differ among Alliance members. He identified four main tasks concerning the implementation of a Comprehensive Approach (CA):

- ✦ Planning and Conduct of Operations;
- ✦ Lessons Learned, Education and Exercises;
- ✦ Enhancing the Cooperation with External Actors;
- ✦ Public Messaging.¹

Concepts, Policy and Organization

Panelists and discussants repeatedly stressed the importance of political leadership, and the need to coordinate civilian and military resources, even as they acknowledged the problems of stovepipes and the lack of a common understanding of the CA within the Alliance. As noted in the opening section, and in various papers, there are at least four concepts associated with CA:

- ✦ An externally driven CA, led by an international political entity
- ✦ An Alliance-wide CA, focused on interoperability
- ✦ National-level activities requiring “whole-of-government” or similar approaches
- ✦ Sub-Alliance-wide activities, such as at operational headquarters.

U.S. experiences over the past decade show why the Comprehensive Approach is important. It became clear in 2003 in Iraq that there was not only a shortage of

inter-agency and international coordination, but also an overwhelming imbalance between military and civilian capabilities. This led to the formation of the Department of State's Coordinator for Reconstruction and Stabilization (S/CRS), and the development (over several years) of a deployable Civilian Response Corps (CRC). However, despite high level policy support, implementing the CRC within the U.S. government has been a challenge.

Britain sees the development of an effective Comprehensive Approach capability as being a long-term interest. This requires that the concepts and doctrine underpinning such cross-government efforts be able to generate resources rapidly and use them efficiently. It also requires political will and strategic patience. To these ends, a United Kingdom definition of CA was offered as:

the generation, provision and application of security, governance and development services, expertise, structures and resources over time and distance most usually in partnership with host nations, host regions, allied and partner governments and partner institutions, both governmental and non-governmental.

The inclusion of the phrase "security, governance and development services" is important, as it goes beyond the narrow definition of Comprehensive Approach as only applying to "security." This broader definition also is consistent with Sweden's Cold War-era view of "Total Defence" as "close civil-military coordination of planning and operations at every societal level" and its current involvement in various forms of peacekeeping. Australia also interprets Comprehensive Approach broadly, including the capabilities needed to respond to natural disasters, conflicts, and to build stability and prosperity in its region.

Irrespective of the definition chosen for Comprehensive Approach, support to integrated approaches is seen as providing benefits since:

- ✦ It is likely to lead to increased efficiency and effectiveness in resource expenditures;
- ✦ The self-interest of organizations is facilitated by cooperative interaction;
- ✦ The benefits of working with others (usually) exceed the costs.

Based on those assumptions, a working definition of CA as a change management process was suggested (emphasis added): The CA is a design process to *align incentives* among international and local actors to increase local resilience in the engagement space while *reducing the transaction costs* associated with multiple actor interactions in complex operations.

Change management is revisited below in the context of Leadership, Management, Education and Training.

In sum, the United States and some other nations have begun taking action to increase deployable civilian capacity, while NATO has not moved beyond inventorying a list of national capacities.

Technology

A recurring theme at the conference was the need to balance today's needs against future demands, recognizing the challenges posed by the rate of accelerating technological change. Technology itself is neutral. It can contribute to disruptive change (instantaneous information, global awareness/accountability, differential adoption rates) as well as to solutions to emergent problems (through transparency and the integration of multiple efforts/capabilities). It can be used by allies and adversaries alike.

Some kinds of technology offer the Alliance a chance to acquire and field capabilities relatively quickly that could be useful for Comprehensive Approaches. For example:

- ♦ Leveraging commercial developments to prepare organizational decisionmaking to adapt to the velocity and volume of information generated by social media, the 24-7 news cycle, and crowdsourced products such as open source Geospatial Information System (GIS) tools. A model called "Crowd, Bridge, Transaction, Feedback" was introduced that could be used by both civil and military organizations.
- ♦ Making use of the NATO Consultation, Command and Control Agency (NC3A) to promote "bottom up" (vice "top down") approaches to achieve interoperability through the capability development process. This includes matching operational scenarios with required interoperability solutions and later supporting them by existing and jointly developed expertise in NC3A.
- ♦ Combining social media with open source information management systems, especially for humanitarian logistics. An example was offered called "Knowledge Banking" which can enable public-private mobilization and supply chain management during a crisis. This approach makes use of systems people already understand (like Facebook and Wikipedia), is low cost, easy to use, and bridges the gap between commercial enterprises and social media.

NATO needs to move away from stand-alone systems toward those that can be used by diverse participants. Interoperability with the EU as well as non-traditional coalition partners is important, and will become more so. But technology alone is not enough. The human element is vital as social networks are developed and trust built. High level policy and doctrine must be converted into effective field operating procedures. Legal and regulatory constraints must be understood, and resource streams developed. Importantly, training, exercises and education must be combined to change behavior to get to true lessons learned. All these are prerequisites if technology is to be an effective enabler

Although the conference focused mainly on information technology, there are five other great technological revolutions underway that also can affect the Alliance: biotechnology, nanotechnology, robotics, alternatives to hydrocarbons, and socio-cognitive science. Alliance leaders need to understand how "info-bio-nano-robo-hydro-cogno" are likely to interact in ways that could impact the Comprehensive Approach. For example, deployable renewable energy, unmanned Intelligence Surveillance

Reconnaissance (ISR) systems, and a better understanding of how the brain makes decisions all could enhance Alliance CA capabilities. But since these were not discussed in depth in Rome, this shall be a topic for another time.

Leadership, Management, Education, and Training

Comprehensive Approaches demand well-organized business and leadership strategies, as well as the management of expectations and a shared understanding of common interests. A problem with transformative environments is that organizational leadership strategies rarely match their business strategies. The absence of an agreed definition compounds the uncertainties in Comprehensive Approach environments. Nonetheless, three leadership strategies were suggested:

- ♦ Boundary Spanning—building cross-organizational approaches to develop more interdependent organizations and networks of organizations to facilitate knowledge-sharing;
- ♦ Forging Common Ground—linking people and bridging groups, as well as crafting common purpose and shared identity;
- ♦ Discovering New Frontiers—bringing multiple groups together in new directions, advancing interdependence.

Beyond leadership, the Comprehensive Approach demands change management, which includes transition management—bringing people along on an emotional journey. It is important to know who the stakeholders are, and what their expectations are, before trying to convince them that change is necessary. A sense of urgency often is important—is there a “burning platform” to drive the need for change? Too often, Comprehensive Approach now happens by serendipity, with the right people being in the right place by chance. How can these personnel assignments and transition management be done more predictably and systematically?

A significant problem is that there are few key performance indicators to measure progress and organizational effectiveness. Moreover, cultural and behavioral changes in military (and civilian) organizations often take longer than the 2- to 3-year lengths of normal leadership tours (some estimated that serious organizational change takes 7-10 years). This is only compounded in the case of coalitions, and the lack of coherent, long term leadership has become an inherent danger that could undermine the Alliance.

Defense academic institutions ought to be able to help build continuity, but their ability to adjust quickly, incorporate lessons learned from recent operations, and avoid acting as stovepipes or cultural filters was questioned. Education and training for Comprehensive Approach environments needs serious attention (taking advantage of new learning concepts and free training events such as *Exercise 24*).

Capability development depends on learning how to operate in each other's environments. Training and education must be as comprehensive as the approach; multiple organizations should be included, gender and cultural awareness need to be embedded, rather than treated as stand-alone issues. A suggestion was made to

embed nongovernmental organizations (NGOs) in the military's training and education (which is being done in the Philippines), and to hold the military accountable for working with them effectively. Opportunities for education exchanges should be increased, recognizing that civilian agencies often are not staffed to support extended, out-of-office schooling.² Planners should be educated to understand not only their own nation's whole-of-government approach, but also how to interface with the other members of Comprehensive Approach coalitions.

A final point concerns "lessons learned." Lessons are not learned until behavior actually is changed. This means that trainers must be trained, units exercised and education adapted to place the lessons in a more strategic context and institutionalize the new thinking. Without these steps, lessons will be observed, and then re-observed, and then re-observed again, for behavior will not have changed.

Integrated Approaches to Complex Operations

Government organizations, military and civilian, will never have enough people or resources to accomplish their missions alone in Comprehensive Approach environments. It is thus imperative that a mix of business, government and civil society be engaged. International Organizations (IOs), NGOs, private voluntary organizations (PVOs), etc. will play important roles (and many can bring significant resources), so it will be important to learn how to work with them. In the Swedish case (but rarely elsewhere), NGOs are considered the "third tribe of peacekeepers" (the military and civilians being the other two) and their leadership has been promoted to public positions by the government. There are cultural differences, and reservations on all sides about working together, but isolation is not an option today if anyone is to achieve their goals in Comprehensive Approach environments.

The importance of information and communication strategies, and the related Information & Communication Technology (ICT) infrastructures, was reemphasized consistently. If the Alliance and its partners are to achieve the political, social and economic goals for which their military forces have been committed, they must be able to communicate, collaborate, translate and engage with the populations they are trying to influence. Local governments need to be empowered along with local organizations, and long term solutions must be sustainable by indigenous people with their resources in ways that are consistent with their cultures. Information and communication can enable such engagement—they enhance situational awareness and transparency. However all levels need to be engaged: senior leadership, support staff, and outside stakeholders, keeping in mind the always-uneasy balance between transparency and security, recognizing that what works in one place (e.g., Afghanistan) may not be applicable elsewhere (e.g., Libya). Furthermore, the kinds of comprehensive engagement demanded by Comprehensive Approaches need to be tied into national and Alliance strategy and need support of political leadership. They cannot be considered "nice-to-have" adjuncts to the "kinetic" phase of an operation.

The potential of humanitarian logistics to serve as a unifying force arose on several occasions. Not only does it provide invaluable services—transactions that make a difference to people on the ground—but logistics also lends itself to systematic thinking and structured analysis that can help bridge cultural divisions.

Haiti as a Case Study

Haiti may seem an unusual choice for case studies in a conference on NATO's Comprehensive Approach, but it actually provided a set of important lessons that can apply to any complex, civil-military environment. The examples re-emphasize the importance of transparency and communication. The value of pre-crisis planning, mutual training and exercising is shown again and again. Long-standing exercises such as Sweden's *Viking* and the U.S. Southern Command's *FAHUM* (Fuerzas Aliadas Humanitarias) can help mitigate many of the natural organizational and cultural frictions in Comprehensive Approach environments.

Haiti shows clearly that all the tasks necessary for crisis management cannot be done by a single entity (i.e., military) and that bringing in other stakeholders is necessary to close that gap. Participants must include local populations, relief workers of all stripes, civilian and military actors from diverse backgrounds. Communication and having the right information to make informed assessments across joint and combined interfaces is key. But Haiti also shows the difficulties of restoration when communications and the very structures of society are profoundly disrupted. Different organizations will apply their own priorities, often without realizing how much they are offending or disrupting those who should be allies in a common cause.

Conclusion

Actions in several areas could lead to “quick wins” for the Alliance at relatively little cost.

Concepts, Policy and Organization

Likely NATO missions, such as HA/DR and peacekeeping will require capabilities that are similar to those needed by missions with more “security-related” functions. It is unlikely that the Comprehensive Approach definition or doctrine questions will be resolved soon, but dual use capabilities can help to bridge real world gaps, and fit within conceptual, policy and doctrinal frameworks. As Chuck Barry has written:

NATO's initial focus in the CA area has been on Stabilization and Reconstruction (S&R), to emphasize civil-military cooperation as it pertains to military-centered operations, especially ISAF-PRTs, NRF [NATO Response Force] planning, etc. There has been a general attitude that maybe the “rest” (HA/DR, BPC, etc.) should come later. However, ... maybe we should consider flipping it—if it's easier to co-operate on HA/DR, maybe that paves the way toward cooperation on the harder operations. The basic CA premise is applicable to any operation: the military alone cannot solve the problem or at least should not be attempting to solve problems that civilian agencies/NGOs are designed and funded to perform.

Technology

Four “quick wins” in technology were discussed:

- ♦ Tapping into the capabilities of the open source/open standards knowledge-sharing community could provide the Alliance a rapid payoff as it did for USSOUTHCOM in Haitian earthquake relief. This could contribute to all four of the key areas above, quickly, and at minimal cost. Some approaches are outlined in a short paper called “From Haiti to Helmand,” which includes a simple engagement model called “Crowd, Bridge, Transaction. Feedback, Channel”³ that could be used by disparate organizations (operational headquarters, national actors, civilian partners, etc.), and tailored to their needs.
- ♦ Expanding the ability of NATO organizations to internalize ways to manage the velocity and volume of information generated by the 24x7 news cycle and social software
- ♦ Taking advantage of technical capabilities within the Alliance, like NC3A, emphasizing the importance of “bottom-up” approaches.
- ♦ Making use of commercial integration.

These need to be complemented by other steps discussed earlier: Developing social networks and building trust, linking policy and doctrine to field operating procedures, understanding legal and regulatory constraints, identifying resource streams, and training, exercises and education.

Leadership, Management, Education and Training

Leaders need to build a sense of urgency around the Comprehensive Approach and pursue some of the boundary-spanning approaches that were discussed. Change management processes need to be included in Comprehensive Approach preparations. Research is needed on metrics. Education and training need to prepare leaders for a future filled with complexity, chaos and surprise. The Alliance should make use of exercises like *Viking* and *X-24*.

Integrated Approaches

Engagement with local actors is important. NATO’s adoption of such approaches, inside ISAF, within Europe for disaster relief or exercises, in far-flung maritime environments, or elsewhere, could be a “quick win” for the Alliance, at virtually no cost. It also would align with the Secretary General’s challenge of “Managing Security in a Globalised World.”⁴

Similarly, in response to terrorist incidents, energy security issues, or even cyber attacks, the ability to leverage Social Software could be an important source of understanding for the Alliance (consider the use of Twitter in the Mumbai attacks, or Facebook in the counter-FARC campaign in Colombia), recognizing that Europe’s privacy laws and cultural concerns have to be taken into account. This is not an area where the Alliance is likely to be comfortable, but proficiency could be valuable.⁵

The Civil-Military Cooperation (CIMIC) Center of Excellence (CCOE) has been working with the International Transformation (ITX) Chairs network to develop innovative Comprehensive Approach initiatives. This should be leveraged.

Other national models, such as UK or Sweden, may be valuable.

Use humanitarian logistics as a unifying principle that takes advantage of ICT.

Comprehensive Approach capability development will not be accomplished quickly, but useful capabilities can be provided faster than many realize. None of the above recommendations is very expensive, and could be implemented while the broader questions are being worked out.

Conference participants were encouraged to continue their discussions after the session ended to define further the problems regarding the Comprehensive Approach, and develop solutions. Attendees have resources that can be leveraged, starting with a bottom-up approach to inform and educate others within own organizations and units. National participants can help incorporate Comprehensive Approach concepts into national planning and inputs to the Alliance.

NATO Libyan Operations and the Comprehensive Approach

Operation *Unified Protector* is being conducted in accordance with United Nations Security Council Resolutions 1970 and 1973. These authorize the maritime embargo, no-fly zone, and protection of civilians, but not any broader operations. NATO authorities are concerned about what kind of CA will be authorized now that combat operations have ended, who will lead it (UN? AU? EU?), and what kind of support NATO will be asked to provide.

Notes

1. Some sources also include Stabilization and Reconstruction under the “main tasks” (see NATO homepage on Comprehensive Approach: http://www.nato.int/cps/en/natolive/topics_51633.htm), but these were not part of NATO’s mandate in Libya under UNSCRs 1970 and 1973, which was JFC NP’s main focus.
2. As someone noted, the military is like a fire department—they spend most of their time in the firehouse, train, rush out, put out fire and return. Civilians are more like the police, constantly deployed or doing their jobs at headquarters. In any case, there’s not much time built into civilian organizations for training.
3. www.star-tides.net/node/641.
4. SecGen speech at Lisbon on July 2, 2010, http://www.nato.int/cps/en/natolive/opinions_64814.htm.
5. Nik Gowing, in *Skyful of Lies* and *Black Swans* (Oxford: Reuters Institute for the Study of Journalism, 2009) discusses “the new tyranny of shifting information power in crises” and the need for government organizations to use social software to gain much better situational awareness, and to respond more quickly under stress.

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CDR Michael Hallett is a staff officer at NATO's Supreme Allied Command Transformation (ACT). His duties include strategic policy, concept and doctrine development, and he is currently focused on comprehensive approach related issues. From 2008-2010 he worked at ACT supporting NATO and partner nations with defense transformation through enhancing military lessons learned capabilities. Previous assignments include tours with the International Security Assistance Force

Headquarters CJ9 in Kabul, with Commander Naval Forces Europe-Commander Sixth Fleet Operational Net Assessment directorate as an Africa and Black Sea region analyst, and with the Civil-Military Interaction core team at Allied Command Transformation. CDR Hallett has diplomas from the U.S. Naval War College and Joint Forces Staff College, in addition to a collaborative MA in International Relations and an MA in Philosophy from the University of Toronto. He is a Ph.D. candidate in philosophy at the University of Toronto. Recent publications include articles in *Armed Forces Journal*, the Joint Warfare Centre's *Three Swords Magazine*, *Small Wars Journal*, U.S. Naval Institute *Proceedings*, *Renewable Energy*, the *Joint Center for Operational Analysis (JCOA) Journal*, *Croatian Military Magazine*, *Bulletin of "Carol I" Romanian National Defence University* and a chapter on concept development in *Transforming Defense Capabilities: New Approaches for International Security*.

Dr. Grant Hammond is Deputy Director, Center for Strategy and Technology, U.S. Air University. He was recently dean of the NATO Defense College in Rome, Italy. With a B.A. degree from Harvard, and a M.A. and a Ph.D. from Johns Hopkins University, he has spent 20 years in professional military education (U.S. Air War College, Center for Strategy and Technology). The author of numerous articles, book chapters, and U.S. Government studies, he has published three books and specializes in the fields of strategy, international security, future conflict, and adaptive learning.

Ambassador John E. Herbst is Director, Center for Complex Operations at the National Defense University. Ambassador Herbst brings over 30 years of career experience in the Foreign Service at the Department of State where he holds the rank of Career Minister. He spent four years as Coordinator for Reconstruction and Stabilization (S/CRS) at the U.S. Department of State. He was instrumental in the launch of the Civilian Response Corps. The Corps, which is now over 1,000 members strong, boasts representatives from an unprecedented number of civilian U.S. government agencies. Ambassador Herbst helped to create the International Stabilization and Peacebuilding Initiative (ISPI) with 14 bilateral and five multilateral partners focused on improving the effectiveness of stabilization and peacebuilding operations through enhancing civilian capability globally. Ambassador Herbst assumed the role of U.S. Ambassador to Ukraine in May 2003. While serving the embassy, he worked to enhance U.S.-Ukrainian relations and to help ensure the implementation of a fair Ukrainian presidential election. He was witness to the Orange Revolution while in Kyiv. Prior to that, Ambassador Herbst was the U.S. Ambassador to Uzbekistan, where he played a critical role in the establishment of an American base to help conduct Operation *Enduring Freedom* in Afghanistan. He also promoted improved U.S.-Uzbek relations, in part by encouraging the government in Tashkent to improve its human rights record. Ambassador Herbst has previously served as U.S. Consul General in Jerusalem; Principal Deputy to the Ambassador at Large for the Newly Independent States; and the Director of the Office of Independent States and Commonwealth

Affairs. He has been presented with both the Presidential Distinguished Service Award and the State Department's Distinguished Honor Award.

Dr. Richard L. Hughes is the transformation chair at the U.S. Air Force Academy. He was head of the academy's Department of Behavioral Sciences and Leadership for 10 years, and before becoming the transformation chair in 2007, he served for 12 years with the Center for Creative Leadership. His research interests include strategic leadership and organizational culture change, and he is senior author of a widely used university textbook on leadership, and coauthor of a book on strategic leadership. He has a Ph.D. in clinical psychology from the University of Wyoming.

Colonel Hans-Jürgen Kasselmann is the Director of the Civil Military Co-operation Centre of Excellence (CCOE) in Enschede, The Netherlands since 18 June 2009. Previous to this assignment he was the Deputy Director and Chief of Staff of the CCOE. From February 2008 until July 2008 he had an assignment in the Regional Command North in Afghanistan working as Branch Chief in the CJ9 CIMIC section. In October 2004 he became the division head of the RSC division within the 1 GE/NL Corps. During the NRF 4 stand-by period of the 1 GE/NL Corps he acted as Commander RSC in the exercise NOBLE JAVELIN on Fuerteventura and in the exercise IRON SWORD in Norway. In these exercises the RSC was responsible for the real live "Reception, Staging and Onward Movement Process" for up to 5,500 soldiers and 2,700 vehicles. On 1 April 2005 he was promoted to Colonel during the exercise NOBLE JAVELIN on Fuerteventura. In July 1972 he joined the Federal Armed Forces as an officer candidate of the supply corps and was subsequently trained as supply officer. In September 1976, he graduated from the Bundeswehr University Hamburg with an academic degree in economics. Following the promotion to First Lieutenant he held various posts in the army supply corps, namely as teacher for officer candidates at the Army Ordinance School in Bremen, as platoon leader in the supply company 130 in Wetzlar and as company commander in the Supply Battalion 10 in Sigmaringen. In September 1986, he graduated from the 27th Command and General staff officer course at the Command and Staff College in Hamburg. General staff assignments as G4 of the 21st Armoured Brigade Augustdorf, G3 Operations of the 7th Armoured Division in Unna and Arms Control Officer at SHAPE in Mons/Belgium followed. In October 1992 he assumed the post of the commander of the Supply Battalion 1 in Hannover and was promoted to Lieutenant Colonel. After two years he took up the position as principal staff officer for movement and transportation of the Federal Armed Forces Staff in the Ministry of Defence in Bonn. This was followed by an assignment as Branch Chief CIMIC at the Multinational Corps Northeast in Szczecin/Poland. Thereafter he was appointed Study Officer in the newly founded Federal Armed Forces Centre for Transformation in Waldbröl, being responsible for the reorganisation of the Federal Armed Forces master planning process.

Ms. Elizabeth Lape serves as the Lead of the Joint Education Coordination branch for DDJ7 JCW. Ms. Lape completed a 23 year career in the United States Navy after serving in a wide variety of shore management and joint billets retiring as a Joint Specialty Officer. Raised in Indiana, she graduated from the Purdue University NROTC program where she earned her Bachelor's Degree in Organizational Supervision and Management. Leadership tours included Assistant Officer in Charge of the Personnel Support Detachment, Naval Station Norfolk; Officer in Charge of the COMSEC Material Issuing Office; and as the Executive Officer for the Navy Recruiting District Ohio. Entering the Civil Service in 2009, Ms. Lape worked in Doctrine and Education Group of the Joint Warfighting Center/JFCOM J7 as the Chief of the Education/Individual Training Branch. Her responsibilities include coordinating Individual Training efforts through the certification of institutional and online course as Joint, and influencing the professional military education community through participation in the Military Education Coordination Council related efforts. She is currently a PhD student in the Higher Education Administration program at Old Dominion University.

Commodore Richard T. Menhinick joined the Royal Australian Navy in January 1976. After graduating in 1980 he undertook practical sea-training culminating in the award of his Bridge Watchkeeping Certificate in 1982. Postings such as Aide-de-Camp to the Governor of Tasmania, Assistant Warfare Officer in HMAS DERWENT and Air Intercept Controller in HMAS PERTH followed. In 1987 he undertook the Principal Warfare Officer's course. He then served on exchange at sea in the Royal Navy for two years in HMS CARDIFF. This posting to the UK included a deployment to the Persian Gulf as part of the "Armilla Patrol" monitoring Iran and Iraq. On return to Australia he served in HMAS BRISBANE in the 1990/91 Gulf War. After this he spent two years as Fleet Direction Officer at Maritime Headquarters in Sydney, prior to being appointed as Executive Officer of the destroyer HMAS HOBART from 1993-1995. On promotion to Commander he was posted firstly as head of the Operational Design Group at the Navy Combat Data System Centre and then as Deputy Director Surface Warfare Development at Australian Defence Headquarters. Commander Menhinick assumed Command of the new Anzac frigate HMAS WARRAMUNGA on 24 January 2000. Following promotion to Captain he became Director of the Sea Power Centre, Australia in February 2002. He then commanded the Anzac frigate HMAS ANZAC from December 2003 to December 2005. After this he served as Chief of Staff to the Vice Chief of the Defence Force and Chief of Joint Operations throughout 2006 before being promoted to Commodore and posted as Director General Military Strategy in Strategic Policy Division in December of that year. In November 2008 he became DG Navy Transformation and Innovation leading the New Generation Navy Initiative. He was appointed Commander of the Combined Task Force 150 in the Middle East Area of Operations from December 2009 to April 2010 and Commandant of the Australian Command and Staff College

in May 2010. He holds a Bachelor of Arts Degree, majoring in International Relations and Strategic Studies, and a Master's Degree in Maritime Studies.

Professor Derrick J. Neal is professor of defence strategic change with Cranfield University at the Defence Academy of the United Kingdom. He has an engineering background with a Ph.D. in fluid mechanics and an M.B.A. from Cranfield University. Professor Neal has 20 years of industrial experience in a variety of roles and has been at Cranfield University since 1998. He teaches, researches, and publishes in the areas of strategic/change management within a defense context.

Mr. Terry J. Pudas is Deputy Director and Senior Research Fellow at the U.S. National Defense University Center for Technology and National Security Policy, where his work is focused on transformation and related national security issues. In September 2001 he was appointed the deputy director of the newly created Secretary of Defense Force Transformation Office. He retired from the U.S. Navy in September 2001 with over 32 years of service after serving as the deputy and executive assistant to the president of the Naval War College in Newport, Rhode Island. He was designated a naval aviator in May 1971 and served in numerous fighter squadrons.

Mr. Ted Rybeck, Chair and CEO of Benchmarking Partners, has led Benchmarking Partners since founding the firm in 1994. Rybeck is best known for spearheading Wal-Mart's successful Internet-based collaboration system with its trading partners—a system that evolved into the first major standard for business-to-business Internet commerce. As part of the Benchmarking Partners team, Rybeck has supported supply and demand chain initiatives for more than 700 multinational manufacturers, distributors, retailers, government organizations, non-profits, utilities, healthcare institutions, financial services firms, and technology providers. Outside of Benchmarking Partners, Rybeck co-created and taught a graduate course on Value Networks and Championship Mobilization at MIT, the University of Pennsylvania's Wharton School, and the University of Chicago. In conjunction with the U.S. Department of Defense and U.S. Department of Homeland Security, he also chairs a Security Best Practices Committee of international leaders from the public and private sector. Rybeck's honors include a Kittredge Award for analysis of the relationship between technology, company organization, and return-on-investment; a Thomas Watson Foundation Fellowship based at IBM-Düsseldorf; and an appointment by the non-partisan U.S. Congressional Office of Technology Assessment to its review panel on electronic commerce and the Internet.

Dr. Velizar Shalamanov assumed the post of Director Sponsor Account–NATO and Nations at the NATO C3 Agency in July 2009, leading the development of C4ISR projects for NATO Nations and Partner countries, Alliance bodies and other international organizations, providing interoperability, coherence and best value for

money in a timely manner. From September 2001 to July 2009, Dr. Shalamanov held various positions in the Bulgarian Academy of Sciences as advisor on National Security and Defence to the Chairman of the Academy, Head of C4 Department and Joint Training Simulation and Analysis Center. In addition he served as a member of the NATO Science Committee's Human Security Dimension Panel, a member of the International Advisory Board of Geneva Center for Democratic Control of Armed Forces and a member of European Security Research and Innovation Forum, Chairman of Integrated Emergency Management and Critical Infrastructure Protection panel of National Civil Protection Scientific Coordination Council. In the period 1998-2001, Dr. Shalamanov was Deputy Minister of Defence for Policy, Planning and Integration, responsible for Defence reform and NATO integration. He was a member of the Interagency NATO Integration Council, Security Council of the Government and Head of the Interagency Situation Center. Previous to that Major Shalamanov served for 14 years in the Armed Forces: C4 Institute, Intelligence and Electronic Warfare Division of the Main HQ of the Land Forces.

Colonel Jon Stull is an Associate Professor of Transformation and Interagency Initiatives with the Joint Forces Staff College (JFSC) of the National Defense University located in Norfolk, Virginia. He is a graduate of Colgate University and holds advanced degrees from Salve Regina College and the United States Naval War College. Professor Stull is a retired Colonel after 30 years in the United States Marine Corps.

Dr. Linton Wells II is the Director of the Center for Technology and National Security Policy (CTNSP) at National Defense University (NDU). He is also a Distinguished Research Professor and serves as the Transformation Chair. Prior to coming to NDU he served in the Office of the Secretary of Defense (OSD) from 1991 to 2007, serving last as the Principal Deputy Assistant Secretary of Defense (Networks and Information Integration). In addition, he served as the Acting Assistant Secretary and DoD Chief Information Officer for nearly two years. His other OSD positions included Principal Deputy Assistant Secretary of Defense (Command, Control, Communications and Intelligence-C3I) and Deputy Under Secretary of Defense (Policy Support) in the Office of the Under Secretary of Defense (Policy).



This book integrates papers and discussions from the Second International Transformation Conference in Rome, Italy, on June 22–23, 2011. The conference was hosted by the North Atlantic Treaty Organization (NATO) Defense College and co-sponsored by Allied Command Transformation and the International Transformation Chairs Network.

In 2008, NATO agreed to develop and implement a Comprehensive Approach to address international security challenges involving civil and military actors. The growing importance of the Comprehensive Approach in NATO, and complex operations in individual nations, shaped the conference agenda and papers. The papers are grouped in five categories associated with the Comprehensive Approach: Concepts, Policy, and Organization; Technology; Leadership, Management, Education, and Training; Integrated Approaches to Capability Development; and Case Studies.

The conference provided valuable insights into how to organize capabilities in support of Comprehensive Approach situations, and it is hoped that this book will help the Alliance as it moves forward in an increasingly complex environment.